



ESTADO DE SANTA CATARINA  
MUNICÍPIO DE JAGUARUNA  
SECRETARIA DE PLANEJAMENTO

**LOCAL : JAGUARUNA**  
**RODOVIA : EMÍDIO RICARDO**  
**TRECHO : OLHO D'AGUA - POÇOS – JAGUARUNA - SC.**  
**EXTENSÃO : 9,005 Km**

**PROJETO BÁSICO DE ENGENHARIA**

**VOLUME 2: RELATORIO DE TERRAPLANAGEM**

**JANEIRO/2020**



ESTADO DE SANTA CATARINA  
MUNICÍPIO DE JAGUARUNA  
SECRETARIA DE PLANEJAMENTO

**1 - ÍNDICE**



**1 - ÍNDICE**

**2 - APRESENTAÇÃO**

**3 - MAPA DE SITUAÇÃO**

**4 - RELATORIO DE TERRAPLANAGEM**

**4.1 - NOTA DE SERVIÇO DE TERRAPLANAGEM**

**4.2 - COORDENADAS EIXO PROJETADO**

**5 - DISPOSIÇÕES GERAIS**



## 2 - APRESENTAÇÃO

O Presente volume, denominado **Volume 2 - Relatório de terraplanagem**, contem as coordenadas e nota de serviço de terraplanagem referente ao Projeto Final de Engenharia da **RODOVIA EMIDIO RICARDO, Trecho: OLHO D'AGUA – POÇOS, no município de Jaguaruna – SC., com extensão de 9,005 Km** , Localizada no município de Morro da Jaguaruna – SC.



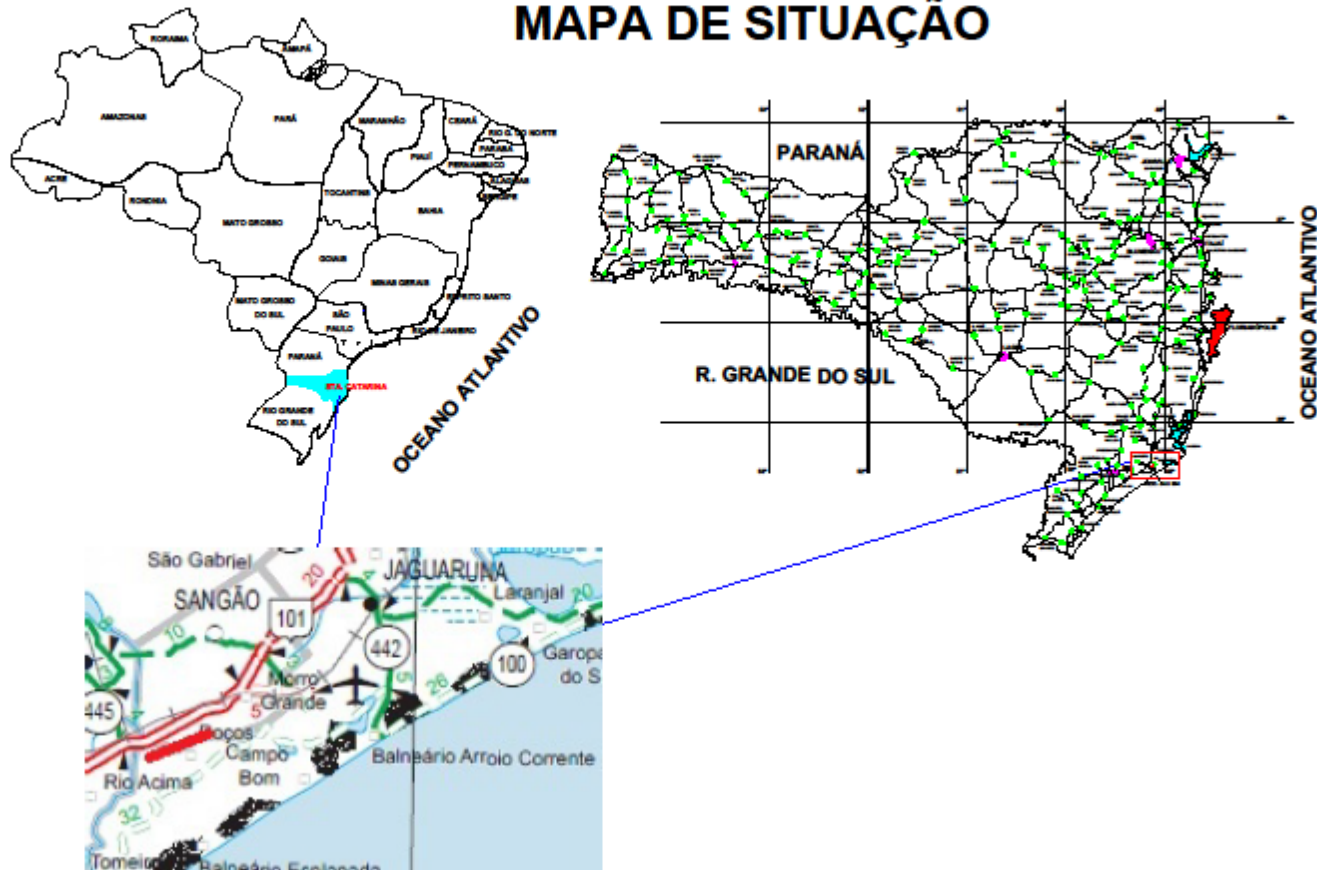
ESTADO DE SANTA CATARINA  
MUNICÍPIO DE JAGUARUNA  
SECRETARIA DE PLANEJAMENTO



### 3 - MAPA DE SITUAÇÃO



## MAPA DE SITUAÇÃO





ESTADO DE SANTA CATARINA  
MUNICÍPIO DE JAGUARUNA  
SECRETARIA DE PLANEJAMENTO



#### **4 – RELATÓRIO DE TERRAPLANAGEM**



ESTADO DE SANTA CATARINA  
MUNICÍPIO DE JAGUARUNA  
SECRETARIA DE PLANEJAMENTO



#### **4.1 – LOCAÇÃO DO EIXO – COORDENADAS SIRGAS 2000**



Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
0	PI-0	0,000	6.820.577,8888	678.456,6504	11,722	323°36'13"
0+0,002	V0	0,002	6.820.577,8900	678.456,6520	11,722	323°36'13"
1	PIV1	20,000	6.820.589,7562	678.472,7490	11,625	323°36'13"
1+9,601	PIV2	29,601	6.820.595,4531	678.480,4771	11,685	323°36'13"
1+9,602	PI1	29,602	6.820.595,4536	678.480,4778	11,685	325°45'57"
2		40,000	6.820.600,9749	678.489,2890	11,649	327°55'42"
2+0,001	PIV3	40,001	6.820.600,9753	678.489,2897	11,649	327°55'42"
2+4,140	PIV4	44,140	6.820.603,1730	678.492,7970	11,634	329°56'20"
2+19,999	PIV5	59,999	6.820.610,6307	678.506,7932	11,687	331°56'59"
3		60,000	6.820.610,6312	678.506,7942	11,687	331°56'59"
3+0,563	PIV6	60,563	6.820.610,8959	678.507,2909	11,689	331°56'59"
3+0,565	PI3	60,565	6.820.610,8970	678.507,2930	11,689	330°49'10"
3+19,998	PIV7	79,998	6.820.620,7046	678.524,0696	11,807	329°41'22"
4		80,000	6.820.620,7055	678.524,0711	11,807	329°41'22"
4+16,989	PIV8	96,989	6.820.629,2798	678.538,7379	11,910	329°41'22"
4+16,992	PI4	96,992	6.820.629,2810	678.538,7400	11,910	329°32'05"
4+19,997	PIV9	99,997	6.820.630,8116	678.541,3260	11,931	329°22'49"
5		100,000	6.820.630,8133	678.541,3289	11,931	329°22'49"
5+19,997	PIV10	119,997	6.820.640,9983	678.558,5373	12,071	329°22'49"
6		120,000	6.820.641,0001	678.558,5402	12,071	329°22'49"
6+6,785	PIV11	126,785	6.820.644,4557	678.564,3788	12,119	329°22'49"
6+6,787	PI5	126,787	6.820.644,4570	678.564,3810	12,119	330°08'30"
6+19,998	PIV12	139,998	6.820.650,8814	678.575,9247	12,189	330°54'11"
7		140,000	6.820.650,8823	678.575,9264	12,189	330°54'11"
7+12,473	PIV13	152,473	6.820.656,9478	678.586,8254	12,256	330°54'11"
7+12,476	PI6	152,476	6.820.656,9494	678.586,8283	12,256	330°39'08"
7+19,997	PIV14	159,997	6.820.660,6642	678.593,3678	12,311	330°24'05"
8		160,000	6.820.660,6655	678.593,3701	12,311	330°24'05"
8+5,784	PIV15	165,784	6.820.663,5225	678.598,3996	12,347	330°24'05"
8+5,786	PI7	165,786	6.820.663,5232	678.598,4008	12,347	331°09'19"
8+19,998	PIV16	179,998	6.820.670,2152	678.610,9386	12,435	331°54'33"
9		180,000	6.820.670,2163	678.610,9406	12,435	331°54'33"
9+8,627	PIV17	188,627	6.820.674,2784	678.618,5511	12,485	331°54'33"
9+8,629	PI8	188,629	6.820.674,2796	678.618,5534	12,486	334°52'22"
9+19,998	PIV18	199,998	6.820.678,5686	678.629,0824	12,556	337°50'12"
10		200,000	6.820.678,5692	678.629,0840	12,556	337°50'12"
10+13,166	PIV19	213,166	6.820.683,5362	678.641,2774	12,634	337°50'12"
10+13,168	PI9	213,168	6.820.683,5370	678.641,2794	12,634	338°29'23"
10+19,998	PIV20	219,998	6.820.685,9687	678.647,6618	12,677	339°08'35"
11		220,000	6.820.685,9693	678.647,6633	12,677	339°08'35"
11+2,978	PIV21	222,978	6.820.687,0297	678.650,4465	12,695	339°08'35"
11+2,980	PI10	222,980	6.820.687,0301	678.650,4478	12,695	340°40'19"
11+19,998	PIV22	239,998	6.820.692,2323	678.666,6512	12,779	342°12'02"
12		240,000	6.820.692,2330	678.666,6533	12,779	342°12'02"
12+9,387	PIV23	249,387	6.820.695,1024	678.675,5907	12,825	342°12'02"
12+9,389	PI11	249,389	6.820.695,1030	678.675,5926	12,825	342°29'53"
12+19,997	PIV24	259,997	6.820.698,2407	678.685,7260	12,902	342°47'43"
13		260,000	6.820.698,2416	678.685,7291	12,902	342°47'43"
13+19,997	PIV25	279,997	6.820.704,1564	678.704,8311	13,046	342°47'43"
14		280,000	6.820.704,1574	678.704,8342	13,046	342°47'43"
14+17,788	PIV26	297,788	6.820.709,4187	678.721,8260	13,165	342°47'43"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
14+17,791	PI12	297,791	6.820.709,4197	678.721,8292	13,165	343°09'33"
14+19,998	PIV27	299,998	6.820.710,0457	678.723,9456	13,179	343°31'22"
15		300,000	6.820.710,0463	678.723,9474	13,179	343°31'22"
15+19,998	PIV28	319,998	6.820.715,7184	678.743,1243	13,289	343°31'22"
16		320,000	6.820.715,7189	678.743,1261	13,289	343°31'22"
17	PIV29	340,000	6.820.721,3915	678.762,3047	13,338	343°31'22"
18	PIV30	360,000	6.820.727,0642	678.781,4834	13,328	343°31'22"
18+19,999	PIV31	379,999	6.820.732,7366	678.800,6612	13,370	343°31'22"
19		380,000	6.820.732,7368	678.800,6621	13,370	343°31'22"
19+19,998	PIV32	399,998	6.820.738,4089	678.819,8389	13,457	343°31'22"
20		400,000	6.820.738,4095	678.819,8407	13,457	343°31'22"
20+18,146	PIV33	418,146	6.820.743,5563	678.837,2416	13,538	343°31'22"
20+18,148	PI13	418,148	6.820.743,5570	678.837,2438	13,538	343°34'29"
20+19,998	PIV34	419,998	6.820.744,0785	678.839,0188	13,545	343°37'36"
21		420,000	6.820.744,0789	678.839,0203	13,545	343°37'36"
21+19,997	PIV35	439,997	6.820.749,7161	678.858,2067	13,645	343°37'36"
22		440,000	6.820.749,7168	678.858,2092	13,645	343°37'36"
22+19,997	PIV36	459,997	6.820.755,3540	678.877,3957	13,797	343°37'36"
23		460,000	6.820.755,3547	678.877,3982	13,797	343°37'36"
23+15,596	PIV37	475,596	6.820.759,7512	678.892,3620	13,897	343°37'36"
23+15,599	PC14	475,599	6.820.759,7519	678.892,3645	13,897	343°37'36"
23+19,997	PIV38	479,997	6.820.760,9679	678.896,5910	13,926	344°16'22"
24		480,000	6.820.760,9687	678.896,5940	13,926	344°16'24"
24+19,996	PIV39	499,996	6.820.765,8929	678.915,9718	14,111	347°12'39"
25		500,000	6.820.765,8938	678.915,9758	14,111	347°12'41"
25+19,996	PIV40	519,996	6.820.769,8183	678.935,5806	14,296	350°08'57"
26		520,000	6.820.769,8190	678.935,5846	14,296	350°08'59"
26+17,025	PIV41	537,025	6.820.772,3645	678.952,4168	14,446	352°39'03"
26+17,028	PT14	537,028	6.820.772,3649	678.952,4196	14,446	352°39'05"
26+19,996	PIV42	539,996	6.820.772,7445	678.955,3632	14,470	352°39'05"
27		540,000	6.820.772,7450	678.955,3674	14,470	352°39'05"
27+19,996	PIV43	559,996	6.820.775,3026	678.975,1990	14,656	352°39'05"
28		560,000	6.820.775,3032	678.975,2031	14,656	352°39'05"
28+19,996	PIV44	579,996	6.820.777,8608	678.995,0347	14,859	352°39'05"
29		580,000	6.820.777,8613	678.995,0389	14,859	352°39'05"
29+5,403	PIV45	585,403	6.820.778,5524	679.000,3973	14,921	352°39'05"
29+5,407	PC15	585,407	6.820.778,5529	679.000,4017	14,921	352°39'05"
29+19,996	PIV46	599,996	6.820.781,0030	679.014,7794	15,045	348°00'27"
30		600,000	6.820.781,0037	679.014,7832	15,045	348°00'23"
30+19,996	PIV47	619,996	6.820.786,2358	679.034,0721	15,243	341°38'29"
31		620,000	6.820.786,2370	679.034,0757	15,243	341°38'24"
31+19,994	PIV48	639,994	6.820.793,5748	679.052,6637	15,439	335°16'33"
32		640,000	6.820.793,5772	679.052,6690	15,439	335°16'26"
32+19,994	PIV49	659,994	6.820.802,9308	679.070,3287	15,812	328°54'34"
33		660,000	6.820.802,9338	679.070,3337	15,812	328°54'28"
33+12,806	PIV50	672,806	6.820.809,9316	679.081,0557	15,963	324°49'53"
33+12,811	PT15	672,811	6.820.809,9340	679.081,0592	15,963	324°49'48"
33+19,996	PIV51	679,996	6.820.814,0726	679.086,9326	16,048	324°49'48"
34		680,000	6.820.814,0752	679.086,9363	16,048	324°49'48"
34+19,995	PIV52	699,995	6.820.825,5921	679.103,2807	16,256	324°49'48"
35		700,000	6.820.825,5953	679.103,2852	16,256	324°49'48"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
35+19,996	PIV53	719,996	6.820.837,1128	679.119,6304	16,519	324°49'48"
36		720,000	6.820.837,1154	679.119,6341	16,519	324°49'48"
36+19,998	PIV54	739,998	6.820.848,6341	679.135,9810	16,626	324°49'48"
37		740,000	6.820.848,6355	679.135,9831	16,626	324°49'48"
37+19,997	PIV55	759,997	6.820.860,1536	679.152,3291	16,693	324°49'48"
38		760,000	6.820.860,1556	679.152,3320	16,693	324°49'48"
38+19,997	PIV56	779,997	6.820.871,6737	679.168,6781	16,950	324°49'48"
39		780,000	6.820.871,6757	679.168,6809	16,950	324°49'48"
39+19,998	PIV57	799,998	6.820.883,1943	679.185,0278	17,035	324°49'48"
40		800,000	6.820.883,1958	679.185,0298	17,035	324°49'48"
40+19,997	PIV58	819,997	6.820.894,7138	679.201,3759	17,154	324°49'48"
41		820,000	6.820.894,7158	679.201,3788	17,154	324°49'48"
41+19,998	PIV59	839,998	6.820.906,2345	679.217,7257	17,326	324°49'48"
42		840,000	6.820.906,2359	679.217,7277	17,326	324°49'48"
42+19,999	PIV60	859,999	6.820.917,7552	679.234,0754	17,397	324°49'48"
43		860,000	6.820.917,7560	679.234,0766	17,397	324°49'48"
43+19,999	PIV61	879,999	6.820.929,2752	679.250,4244	17,467	324°49'48"
44		880,000	6.820.929,2761	679.250,4256	17,467	324°49'48"
44+19,998	PIV62	899,998	6.820.940,7948	679.266,7725	17,546	324°49'48"
45		900,000	6.820.940,7962	679.266,7745	17,546	324°49'48"
46		920,000	6.820.952,3163	679.283,1234	17,625	324°49'48"
46+0,001	PIV63	920,001	6.820.952,3166	679.283,1238	17,625	324°49'48"
47		940,000	6.820.963,8364	679.299,4724	17,460	324°49'48"
47+0,007	PIV64	940,007	6.820.963,8401	679.299,4777	17,460	324°49'48"
47+1,494	PC16	941,494	6.820.964,6971	679.300,6939	17,418	324°49'48"
47+1,497	PIV65	941,497	6.820.964,6989	679.300,6964	17,418	324°49'49"
47+19,995	PIV66	959,995	6.820.975,0597	679.316,0191	17,680	327°02'18"
48		960,000	6.820.975,0622	679.316,0230	17,680	327°02'20"
48+19,998	PIV67	979,998	6.820.985,5901	679.333,0242	17,851	329°25'34"
49		980,000	6.820.985,5909	679.333,0256	17,851	329°25'35"
50	PIV68	1000,000	6.820.995,4022	679.350,4520	17,847	331°48'49"
51		1020,000	6.821.004,4791	679.368,2720	17,808	334°12'03"
51+0,001	PIV69	1020,001	6.821.004,4797	679.368,2733	17,808	334°12'04"
52	PIV70	1040,000	6.821.012,8059	679.386,4546	17,698	336°35'18"
52+13,938	PIV71	1053,938	6.821.018,1576	679.399,3241	17,760	338°15'07"
52+13,940	PT16	1053,940	6.821.018,1581	679.399,3253	17,760	338°15'08"
52+19,998	PIV72	1059,998	6.821.020,4027	679.404,9521	17,785	338°15'08"
53		1060,000	6.821.020,4036	679.404,9543	17,785	338°15'08"
53+19,999	PIV73	1079,999	6.821.027,8135	679.423,5295	17,856	338°15'08"
54		1080,000	6.821.027,8140	679.423,5308	17,856	338°15'08"
54+19,999	PIV74	1099,999	6.821.035,2240	679.442,1060	17,909	338°15'08"
55		1100,000	6.821.035,2245	679.442,1073	17,909	338°15'08"
55+19,998	PIV75	1119,998	6.821.042,6340	679.460,6815	17,971	338°15'08"
56		1120,000	6.821.042,6349	679.460,6837	17,971	338°15'08"
56+19,997	PIV76	1139,997	6.821.050,0441	679.479,2571	18,130	338°15'08"
57		1140,000	6.821.050,0454	679.479,2602	18,130	338°15'08"
57+19,996	PIV77	1159,996	6.821.057,4542	679.497,8326	18,303	338°15'08"
58		1160,000	6.821.057,4558	679.497,8367	18,303	338°15'08"
58+19,995	PIV78	1179,995	6.821.064,8643	679.516,4081	18,508	338°15'08"
59		1180,000	6.821.064,8663	679.516,4132	18,508	338°15'08"
59+19,995	PIV79	1199,995	6.821.072,2747	679.534,9846	18,753	338°15'08"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
60		1200,000	6.821.072,2767	679.534,9896	18,753	338°15'08"
60+19,995	PIV80	1219,995	6.821.079,6852	679.553,5611	19,008	338°15'08"
61		1220,000	6.821.079,6872	679.553,5661	19,008	338°15'08"
61+19,994	PIV81	1239,994	6.821.087,0952	679.572,1366	19,293	338°15'08"
62		1240,000	6.821.087,0976	679.572,1426	19,293	338°15'08"
62+19,994	PIV82	1259,994	6.821.094,5057	679.590,7131	19,622	338°15'08"
63		1260,000	6.821.094,5081	679.590,7190	19,622	338°15'08"
63+19,994	PIV83	1279,994	6.821.101,9161	679.609,2896	19,923	338°15'08"
64		1280,000	6.821.101,9185	679.609,2955	19,923	338°15'08"
64+19,994	PIV84	1299,994	6.821.109,3266	679.627,8660	20,211	338°15'08"
65		1300,000	6.821.109,3290	679.627,8720	20,211	338°15'08"
65+19,995	PIV85	1319,995	6.821.116,7374	679.646,4434	20,473	338°15'08"
66		1320,000	6.821.116,7394	679.646,4485	20,473	338°15'08"
66+19,996	PIV86	1339,996	6.821.124,1482	679.665,0208	20,717	338°15'08"
67		1340,000	6.821.124,1499	679.665,0249	20,718	338°15'08"
67+19,997	PIV87	1359,997	6.821.131,5590	679.683,5982	20,888	338°15'08"
68		1360,000	6.821.131,5603	679.683,6014	20,888	338°15'08"
68+19,998	PIV88	1379,998	6.821.138,9699	679.702,1756	21,008	338°15'08"
69		1380,000	6.821.138,9708	679.702,1779	21,008	338°15'08"
69+19,998	PIV89	1399,998	6.821.146,3803	679.720,7521	21,118	338°15'08"
70		1400,000	6.821.146,3812	679.720,7543	21,118	338°15'08"
70+19,999	PIV90	1419,999	6.821.153,7911	679.739,3295	21,180	338°15'08"
71		1420,000	6.821.153,7916	679.739,3308	21,180	338°15'08"
71+19,999	PIV91	1439,999	6.821.161,2016	679.757,9060	21,248	338°15'08"
72		1440,000	6.821.161,2021	679.757,9073	21,248	338°15'08"
72+19,999	PIV92	1459,999	6.821.168,6120	679.776,4824	21,299	338°15'08"
73		1460,000	6.821.168,6125	679.776,4837	21,299	338°15'08"
73+19,997	PIV93	1479,997	6.821.176,0217	679.795,0571	21,388	338°15'08"
74		1480,000	6.821.176,0230	679.795,0602	21,388	338°15'08"
74+19,999	PIV94	1499,999	6.821.183,4329	679.813,6354	21,571	338°15'08"
75		1500,000	6.821.183,4334	679.813,6367	21,571	338°15'08"
76		1520,000	6.821.190,8439	679.832,2132	21,459	338°15'08"
76+0,004	PIV95	1520,004	6.821.190,8452	679.832,2165	21,459	338°15'08"
77		1540,000	6.821.198,2543	679.850,7896	21,220	338°15'08"
77+0,003	PIV96	1540,003	6.821.198,2553	679.850,7920	21,220	338°15'08"
78		1560,000	6.821.205,6648	679.869,3661	21,157	338°15'08"
78+0,001	PIV97	1560,001	6.821.205,6650	679.869,3667	21,157	338°15'08"
79		1580,000	6.821.213,0752	679.887,9426	21,137	338°15'08"
80		1600,000	6.821.220,4857	679.906,5190	21,137	338°15'08"
81		1620,000	6.821.227,8961	679.925,0955	21,118	338°15'08"
82		1640,000	6.821.235,3066	679.943,6720	21,091	338°15'08"
83		1660,000	6.821.242,7170	679.962,2484	21,072	338°15'08"
83+19,999	PIV103	1679,999	6.821.250,1270	679.980,8236	21,075	338°15'08"
84		1680,000	6.821.250,1275	679.980,8249	21,075	338°15'08"
84+19,999	PIV104	1699,999	6.821.257,5374	679.999,4001	21,179	338°15'08"
85		1700,000	6.821.257,5379	679.999,4014	21,179	338°15'08"
85+19,999	PIV105	1719,999	6.821.264,9479	680.017,9766	21,214	338°15'08"
86		1720,000	6.821.264,9484	680.017,9779	21,214	338°15'08"
87		1740,000	6.821.272,3588	680.036,5543	21,232	338°15'08"
87+0,001	PIV106	1740,001	6.821.272,3590	680.036,5549	21,232	338°15'08"
88		1760,000	6.821.279,7693	680.055,1308	21,144	338°15'08"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
88+0,002	PIV107	1760,002	6.821.279,7699	680.055,1323	21,144	338°15'08"
89		1780,000	6.821.287,1797	680.073,7073	21,033	338°15'08"
89+0,003	PIV108	1780,003	6.821.287,1807	680.073,7097	21,033	338°15'08"
90		1800,000	6.821.294,5902	680.092,2837	20,859	338°15'08"
90+0,003	PIV109	1800,003	6.821.294,5911	680.092,2862	20,859	338°15'08"
91		1820,000	6.821.302,0006	680.110,8602	20,688	338°15'08"
91+0,003	PIV110	1820,003	6.821.302,0016	680.110,8626	20,688	338°15'08"
92		1840,000	6.821.309,4111	680.129,4367	20,557	338°15'08"
92+0,002	PIV111	1840,002	6.821.309,4117	680.129,4382	20,557	338°15'08"
93	PIV112	1860,000	6.821.316,8215	680.148,0132	20,517	338°15'08"
94	PIV113	1880,000	6.821.324,2320	680.166,5896	20,523	338°15'08"
95		1900,000	6.821.331,6424	680.185,1661	20,509	338°15'08"
95+0,001	PIV114	1900,001	6.821.331,6426	680.185,1667	20,509	338°15'08"
96		1920,000	6.821.339,0529	680.203,7426	20,451	338°15'08"
96+0,001	PIV115	1920,001	6.821.339,0531	680.203,7431	20,451	338°15'08"
97		1940,000	6.821.346,4633	680.222,3190	20,378	338°15'08"
97+0,001	PIV116	1940,001	6.821.346,4635	680.222,3196	20,378	338°15'08"
98		1960,000	6.821.353,8738	680.240,8955	20,310	338°15'08"
98+0,001	PIV117	1960,001	6.821.353,8740	680.240,8961	20,310	338°15'08"
99	PIV118	1980,000	6.821.361,2842	680.259,4720	20,310	338°15'08"
100		2000,000	6.821.368,6947	680.278,0484	20,331	338°15'08"
100+0,001	PIV119	2000,001	6.821.368,6949	680.278,0490	20,331	338°15'08"
101		2020,000	6.821.376,1051	680.296,6249	20,230	338°15'08"
101+0,003	PIV120	2020,003	6.821.376,1061	680.296,6273	20,230	338°15'08"
102		2040,000	6.821.383,5156	680.315,2014	20,076	338°15'08"
102+0,001	PIV121	2040,001	6.821.383,5158	680.315,2019	20,076	338°15'08"
102+19,999	PIV122	2059,999	6.821.390,9255	680.333,7766	20,130	338°15'08"
103		2060,000	6.821.390,9260	680.333,7779	20,130	338°15'08"
103+19,999	PIV123	2079,999	6.821.398,3359	680.352,3530	20,168	338°15'08"
104		2080,000	6.821.398,3364	680.352,3543	20,168	338°15'08"
104+19,998	PIV124	2099,998	6.821.405,7460	680.370,9286	20,270	338°15'08"
105		2100,000	6.821.405,7469	680.370,9308	20,270	338°15'08"
105+19,999	PIV125	2119,999	6.821.413,1568	680.389,5060	20,335	338°15'08"
106		2120,000	6.821.413,1573	680.389,5073	20,335	338°15'08"
106+19,999	PIV126	2139,999	6.821.420,5673	680.408,0824	20,385	338°15'08"
107		2140,000	6.821.420,5678	680.408,0837	20,385	338°15'08"
107+19,999	PIV127	2159,999	6.821.427,9777	680.426,6589	20,457	338°15'08"
108		2160,000	6.821.427,9782	680.426,6602	20,457	338°15'08"
108+19,999	PIV128	2179,999	6.821.435,3882	680.445,2354	20,486	338°15'08"
109		2180,000	6.821.435,3887	680.445,2367	20,486	338°15'08"
110	PIV129	2200,000	6.821.442,7991	680.463,8132	20,508	338°15'08"
110+19,999	PIV130	2219,999	6.821.450,2091	680.482,3883	20,530	338°15'08"
111		2220,000	6.821.450,2096	680.482,3896	20,530	338°15'08"
111+19,999	PIV131	2239,999	6.821.457,6195	680.500,9648	20,561	338°15'08"
112		2240,000	6.821.457,6200	680.500,9661	20,561	338°15'08"
113	PIV132	2260,000	6.821.465,0305	680.519,5426	20,619	338°15'08"
114	PIV133	2280,000	6.821.472,4409	680.538,1190	20,584	338°15'08"
115		2300,000	6.821.479,8514	680.556,6955	20,579	338°15'08"
115+0,001	PIV134	2300,001	6.821.479,8516	680.556,6961	20,579	338°15'08"
116		2320,000	6.821.487,2618	680.575,2720	20,513	338°15'08"
116+0,003	PIV135	2320,003	6.821.487,2628	680.575,2744	20,513	338°15'08"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
116+19,419	PC17	2339,419	6.821.494,4568	680.593,3083	20,328	338°15'08"
116+19,424	PIV136	2339,424	6.821.494,4587	680.593,3130	20,328	338°15'07"
117		2340,000	6.821.494,6725	680.593,8484	20,320	338°12'43"
117+0,006	PIV137	2340,006	6.821.494,6745	680.593,8535	20,320	338°12'42"
118		2360,000	6.821.502,3190	680.612,3284	20,016	336°49'53"
118+0,006	PIV138	2360,006	6.821.502,3211	680.612,3335	20,016	336°49'52"
119		2380,000	6.821.510,4085	680.630,6189	19,698	335°27'03"
119+0,006	PIV139	2380,006	6.821.510,4108	680.630,6239	19,698	335°27'01"
120		2400,000	6.821.518,9363	680.648,7091	19,379	334°04'13"
120+0,006	PIV140	2400,006	6.821.518,9387	680.648,7140	19,379	334°04'11"
121		2420,000	6.821.527,8976	680.666,5886	19,133	332°41'22"
121+0,004	PIV141	2420,004	6.821.527,8992	680.666,5917	19,133	332°41'21"
122		2440,000	6.821.537,2870	680.684,2470	18,953	331°18'32"
122+0,004	PIV142	2440,004	6.821.537,2887	680.684,2500	18,953	331°18'31"
123		2460,000	6.821.547,0992	680.701,6740	18,764	329°55'42"
123+0,003	PIV143	2460,003	6.821.547,1005	680.701,6762	18,764	329°55'41"
123+6,437	PT17	2466,437	6.821.550,3461	680.707,2318	18,718	329°29'02"
123+6,439	PIV144	2466,439	6.821.550,3471	680.707,2335	18,718	329°29'02"
124		2480,000	6.821.557,2332	680.718,9163	18,655	329°29'02"
124+0,001	PIV145	2480,001	6.821.557,2336	680.718,9170	18,655	329°29'02"
125	PIV146	2500,000	6.821.567,3888	680.736,1460	18,658	329°29'02"
125+19,999	PIV147	2519,999	6.821.577,5438	680.753,3747	18,668	329°29'02"
126		2520,000	6.821.577,5444	680.753,3758	18,668	329°29'02"
126+19,998	PIV148	2539,998	6.821.587,6989	680.770,6036	18,726	329°29'02"
127		2540,000	6.821.587,7000	680.770,6055	18,726	329°29'02"
127+19,998	PIV149	2559,998	6.821.597,8545	680.787,8334	18,823	329°29'02"
128		2560,000	6.821.597,8556	680.787,8353	18,823	329°29'02"
128+19,998	PIV150	2579,998	6.821.608,0101	680.805,0631	18,893	329°29'02"
129		2580,000	6.821.608,0112	680.805,0650	18,893	329°29'02"
129+19,998	PIV151	2599,998	6.821.618,1657	680.822,2928	18,987	329°29'02"
130		2600,000	6.821.618,1668	680.822,2947	18,987	329°29'02"
130+19,997	PIV152	2619,997	6.821.628,3207	680.839,5217	19,133	329°29'02"
131		2620,000	6.821.628,3224	680.839,5245	19,133	329°29'02"
131+19,996	PIV153	2639,996	6.821.638,4758	680.856,7506	19,332	329°29'02"
132		2640,000	6.821.638,4780	680.856,7542	19,332	329°29'02"
132+19,996	PIV154	2659,996	6.821.648,6314	680.873,9803	19,544	329°29'02"
133		2660,000	6.821.648,6336	680.873,9840	19,544	329°29'02"
133+19,996	PIV155	2679,996	6.821.658,7870	680.891,2101	19,756	329°29'02"
134		2680,000	6.821.658,7891	680.891,2137	19,756	329°29'02"
134+19,997	PIV156	2699,997	6.821.668,9431	680.908,4407	19,926	329°29'02"
135		2700,000	6.821.668,9447	680.908,4434	19,926	329°29'02"
135+19,996	PIV157	2719,996	6.821.679,0982	680.925,6696	20,099	329°29'02"
136		2720,000	6.821.679,1003	680.925,6732	20,099	329°29'02"
136+19,996	PIV158	2739,996	6.821.689,2538	680.942,8993	20,302	329°29'02"
137		2740,000	6.821.689,2559	680.942,9029	20,302	329°29'02"
137+19,997	PIV159	2759,997	6.821.699,4099	680.960,1299	20,507	329°29'02"
138		2760,000	6.821.699,4115	680.960,1327	20,507	329°29'02"
138+19,998	PIV160	2779,998	6.821.709,5660	680.977,3605	20,618	329°29'02"
139		2780,000	6.821.709,5671	680.977,3624	20,618	329°29'02"
139+19,999	PIV161	2799,999	6.821.719,7221	680.994,5911	20,681	329°29'02"
140		2800,000	6.821.719,7227	680.994,5921	20,681	329°29'02"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
141	PIV162	2820,000	6.821.729,8783	681.011,8219	20,689	329°29'02"
142	PIV163	2840,000	6.821.740,0339	681.029,0516	20,717	329°29'02"
143	PIV164	2860,000	6.821.750,1895	681.046,2814	20,737	329°29'02"
144	PIV165	2880,000	6.821.760,3451	681.063,5111	20,763	329°29'02"
145	PIV166	2900,000	6.821.770,5007	681.080,7409	20,762	329°29'02"
146	PIV167	2920,000	6.821.780,6562	681.097,9706	20,782	329°29'02"
147	PIV168	2940,000	6.821.790,8118	681.115,2003	20,802	329°29'02"
148	PIV169	2960,000	6.821.800,9674	681.132,4301	20,820	329°29'02"
149		2980,000	6.821.811,1230	681.149,6598	20,833	329°29'02"
149+0,001	PIV170	2980,001	6.821.811,1234	681.149,6605	20,833	329°29'02"
150		3000,000	6.821.821,2786	681.166,8896	20,674	329°29'02"
150+0,004	PIV171	3000,004	6.821.821,2805	681.166,8928	20,674	329°29'02"
151		3020,000	6.821.831,4342	681.184,1193	20,461	329°29'02"
151+0,002	PIV172	3020,002	6.821.831,4351	681.184,1208	20,461	329°29'02"
152		3040,000	6.821.841,5898	681.201,3490	20,445	329°29'02"
152+0,001	PIV173	3040,001	6.821.841,5902	681.201,3497	20,445	329°29'02"
153		3060,000	6.821.851,7454	681.218,5788	20,381	329°29'02"
153+0,001	PIV174	3060,001	6.821.851,7458	681.218,5795	20,381	329°29'02"
154	PIV175	3080,000	6.821.861,9010	681.235,8085	20,345	329°29'02"
154+19,999	PIV176	3099,999	6.821.872,0560	681.253,0372	20,429	329°29'02"
155		3100,000	6.821.872,0566	681.253,0383	20,429	329°29'02"
156	PIV177	3120,000	6.821.882,2122	681.270,2680	20,415	329°29'02"
156+19,999	PIV178	3139,999	6.821.892,3671	681.287,4967	20,441	329°29'02"
157		3140,000	6.821.892,3678	681.287,4977	20,441	329°29'02"
157+19,996	PIV179	3159,996	6.821.902,5212	681.304,7239	20,558	329°29'02"
158		3160,000	6.821.902,5233	681.304,7275	20,558	329°29'02"
158+19,996	PIV180	3179,996	6.821.912,6768	681.321,9536	20,804	329°29'02"
159		3180,000	6.821.912,6789	681.321,9572	20,804	329°29'02"
159+19,999	PIV181	3199,999	6.821.922,8339	681.339,1859	20,953	329°29'02"
160		3200,000	6.821.922,8345	681.339,1870	20,953	329°29'02"
161		3220,000	6.821.932,9901	681.356,4167	20,872	329°29'02"
161+0,002	PIV182	3220,002	6.821.932,9910	681.356,4182	20,872	329°29'02"
162		3240,000	6.821.943,1457	681.373,6464	20,802	329°29'02"
162+0,002	PIV183	3240,002	6.821.943,1466	681.373,6480	20,802	329°29'02"
163		3260,000	6.821.953,3013	681.390,8762	20,698	329°29'02"
163+0,002	PIV184	3260,002	6.821.953,3022	681.390,8777	20,698	329°29'02"
164		3280,000	6.821.963,4569	681.408,1059	20,585	329°29'02"
164+0,001	PIV185	3280,001	6.821.963,4573	681.408,1066	20,585	329°29'02"
165	PIV186	3300,000	6.821.973,6125	681.425,3357	20,570	329°29'02"
166	PIV187	3320,000	6.821.983,7681	681.442,5654	20,561	329°29'02"
167	PIV188	3340,000	6.821.993,9237	681.459,7951	20,555	329°29'02"
167+19,998	PIV189	3359,998	6.822.004,0781	681.477,0230	20,602	329°29'02"
168		3360,000	6.822.004,0793	681.477,0249	20,602	329°29'02"
168+19,997	PIV190	3379,997	6.822.014,2332	681.494,2519	20,718	329°29'02"
169		3380,000	6.822.014,2349	681.494,2546	20,718	329°29'02"
169+19,997	PIV191	3399,997	6.822.024,3888	681.511,4816	20,864	329°29'02"
170		3400,000	6.822.024,3904	681.511,4844	20,864	329°29'02"
170+19,997	PIV192	3419,997	6.822.034,5444	681.528,7113	21,043	329°29'02"
171		3420,000	6.822.034,5460	681.528,7141	21,043	329°29'02"
171+19,997	PIV193	3439,997	6.822.044,7000	681.545,9411	21,158	329°29'02"
172		3440,000	6.822.044,7016	681.545,9438	21,158	329°29'02"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
172+19,997	PIV194	3459,997	6.822.054,8556	681.563,1708	21,331	329°29'02"
173		3460,000	6.822.054,8572	681.563,1736	21,331	329°29'02"
173+19,997	PIV195	3479,997	6.822.065,0112	681.580,4006	21,494	329°29'02"
174		3480,000	6.822.065,0128	681.580,4033	21,494	329°29'02"
174+19,997	PIV196	3499,997	6.822.075,1668	681.597,6303	21,671	329°29'02"
175		3500,000	6.822.075,1684	681.597,6331	21,671	329°29'02"
175+19,998	PIV197	3519,998	6.822.085,3229	681.614,8609	21,800	329°29'02"
176		3520,000	6.822.085,3240	681.614,8628	21,800	329°29'02"
176+19,998	PIV198	3539,998	6.822.095,4785	681.632,0907	21,909	329°29'02"
177		3540,000	6.822.095,4796	681.632,0925	21,909	329°29'02"
177+19,999	PIV199	3559,999	6.822.105,6346	681.649,3213	21,973	329°29'02"
178		3560,000	6.822.105,6352	681.649,3223	21,973	329°29'02"
178+19,999	PIV200	3579,999	6.822.115,7902	681.666,5510	22,033	329°29'02"
179		3580,000	6.822.115,7908	681.666,5520	22,033	329°29'02"
179+19,999	PIV201	3599,999	6.822.125,9458	681.683,7807	22,064	329°29'02"
180		3600,000	6.822.125,9464	681.683,7818	22,064	329°29'02"
181	PIV202	3620,000	6.822.136,1020	681.701,0115	22,085	329°29'02"
182	PIV203	3640,000	6.822.146,2575	681.718,2412	22,083	329°29'02"
183	PIV204	3660,000	6.822.156,4131	681.735,4710	22,061	329°29'02"
184	PIV205	3680,000	6.822.166,5687	681.752,7007	22,066	329°29'02"
185		3700,000	6.822.176,7243	681.769,9305	22,047	329°29'02"
185+0,001	PIV206	3700,001	6.822.176,7247	681.769,9312	22,047	329°29'02"
186		3720,000	6.822.186,8799	681.787,1602	22,005	329°29'02"
186+0,001	PIV207	3720,001	6.822.186,8803	681.787,1609	22,005	329°29'02"
186+3,854	PC18	3723,854	6.822.188,8368	681.790,4802	21,992	329°29'02"
186+3,855	PIV208	3723,855	6.822.188,8373	681.790,4811	21,992	329°29'02"
187		3740,000	6.822.197,4319	681.804,1459	21,944	326°10'48"
187+0,001	PIV209	3740,001	6.822.197,4324	681.804,1466	21,944	326°10'47"
188	PIV210	3760,000	6.822.209,1473	681.820,3502	21,930	322°05'15"
189		3780,000	6.822.221,9894	681.835,6771	21,943	317°59'42"
189+0,001	PIV211	3780,001	6.822.221,9899	681.835,6777	21,943	317°59'41"
190		3800,000	6.822.235,8925	681.850,0484	21,875	313°54'08"
190+0,001	PIV212	3800,001	6.822.235,8930	681.850,0489	21,875	313°54'08"
190+12,235	PT18	3812,235	6.822.244,8906	681.858,3373	21,832	311°23'55"
190+12,236	PIV213	3812,236	6.822.244,8914	681.858,3379	21,832	311°23'55"
191	PIV214	3820,000	6.822.250,7153	681.863,4722	21,838	311°23'55"
192		3840,000	6.822.265,7179	681.876,6981	21,838	311°23'55"
192+0,001	PIV215	3840,001	6.822.265,7186	681.876,6988	21,838	311°23'55"
193		3860,000	6.822.280,7204	681.889,9240	21,722	311°23'55"
193+0,002	PIV216	3860,002	6.822.280,7219	681.889,9253	21,722	311°23'55"
194		3880,000	6.822.295,7229	681.903,1499	21,648	311°23'55"
194+0,001	PIV217	3880,001	6.822.295,7237	681.903,1506	21,648	311°23'55"
195	PIV218	3900,000	6.822.310,7254	681.916,3758	21,590	311°23'55"
196	PIV219	3920,000	6.822.325,7280	681.929,6017	21,652	311°23'55"
197		3940,000	6.822.340,7305	681.942,8276	21,626	311°23'55"
197+0,001	PIV220	3940,001	6.822.340,7312	681.942,8283	21,626	311°23'55"
198	PIV221	3960,000	6.822.355,7330	681.956,0535	21,578	311°23'55"
198+19,998	PIV222	3979,998	6.822.370,7340	681.969,2781	21,671	311°23'55"
199		3980,000	6.822.370,7355	681.969,2794	21,671	311°23'55"
199+19,999	PIV223	3999,999	6.822.385,7373	681.982,5046	21,738	311°23'55"
200		4000,000	6.822.385,7380	681.982,5053	21,738	311°23'55"



Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
201	PIV224	4020,000	6.822.400,7406	681.995,7312	21,756	311°23'55"
202	PIV225	4040,000	6.822.415,7431	682.008,9571	21,743	311°23'55"
203	PIV226	4060,000	6.822.430,7456	682.022,1830	21,716	311°23'55"
203+19,999	PIV227	4079,999	6.822.445,7474	682.035,4082	21,789	311°23'55"
204		4080,000	6.822.445,7481	682.035,4089	21,789	311°23'55"
205	PIV228	4100,000	6.822.460,7506	682.048,6348	21,829	311°23'55"
206	PIV229	4120,000	6.822.475,7532	682.061,8607	21,823	311°23'55"
206+19,999	PIV230	4139,999	6.822.490,7549	682.075,0859	21,861	311°23'55"
207		4140,000	6.822.490,7557	682.075,0866	21,861	311°23'55"
207+19,999	PIV231	4159,999	6.822.505,7575	682.088,3118	21,914	311°23'55"
208		4160,000	6.822.505,7582	682.088,3125	21,914	311°23'55"
208+19,999	PIV232	4179,999	6.822.520,7600	682.101,5377	21,954	311°23'55"
209		4180,000	6.822.520,7607	682.101,5384	21,954	311°23'55"
209+19,999	PIV233	4199,999	6.822.535,7625	682.114,7636	22,012	311°23'55"
210		4200,000	6.822.535,7633	682.114,7643	22,012	311°23'55"
210+19,999	PIV234	4219,999	6.822.550,7650	682.127,9895	22,043	311°23'55"
211		4220,000	6.822.550,7658	682.127,9902	22,043	311°23'55"
211+19,999	PIV235	4239,999	6.822.565,7675	682.141,2154	22,102	311°23'55"
212		4240,000	6.822.565,7683	682.141,2160	22,102	311°23'55"
212+19,999	PIV236	4259,999	6.822.580,7701	682.154,4413	22,137	311°23'55"
213		4260,000	6.822.580,7708	682.154,4419	22,137	311°23'55"
213+19,999	PIV237	4279,999	6.822.595,7726	682.167,6672	22,164	311°23'55"
214		4280,000	6.822.595,7733	682.167,6678	22,164	311°23'55"
215	PIV238	4300,000	6.822.610,7759	682.180,8937	22,194	311°23'55"
216	PIV239	4320,000	6.822.625,7784	682.194,1196	22,199	311°23'55"
217		4340,000	6.822.640,7809	682.207,3455	22,152	311°23'55"
217+0,001	PIV240	4340,001	6.822.640,7817	682.207,3462	22,152	311°23'55"
218		4360,000	6.822.655,7834	682.220,5714	22,075	311°23'55"
218+0,001	PIV241	4360,001	6.822.655,7842	682.220,5721	22,075	311°23'55"
219	PIV242	4380,000	6.822.670,7859	682.233,7973	22,094	311°23'55"
219+19,999	PIV243	4399,999	6.822.685,7877	682.247,0226	22,112	311°23'55"
220		4400,000	6.822.685,7885	682.247,0232	22,112	311°23'55"
220+19,999	PIV244	4419,999	6.822.700,7902	682.260,2485	22,161	311°23'55"
221		4420,000	6.822.700,7910	682.260,2491	22,161	311°23'55"
222	PIV245	4440,000	6.822.715,7935	682.273,4750	22,185	311°23'55"
223	PIV246	4460,000	6.822.730,7960	682.286,7009	22,156	311°23'55"
223+19,999	PIV247	4479,999	6.822.745,7978	682.299,9262	22,183	311°23'55"
224		4480,000	6.822.745,7986	682.299,9268	22,183	311°23'55"
224+19,999	PIV248	4499,999	6.822.760,8003	682.313,1520	22,251	311°23'55"
225		4500,000	6.822.760,8011	682.313,1527	22,251	311°23'55"
226	PIV249	4520,000	6.822.775,8036	682.326,3786	22,242	311°23'55"
227		4540,000	6.822.790,8061	682.339,6045	22,237	311°23'55"
227+0,001	PIV250	4540,001	6.822.790,8069	682.339,6052	22,237	311°23'55"
228		4560,000	6.822.805,8086	682.352,8304	22,174	311°23'55"
228+0,003	PIV251	4560,003	6.822.805,8109	682.352,8324	22,174	311°23'55"
229		4580,000	6.822.820,8112	682.366,0563	21,962	311°23'55"
229+0,004	PIV252	4580,004	6.822.820,8142	682.366,0589	21,962	311°23'55"
230		4600,000	6.822.835,8137	682.379,2822	21,787	311°23'55"
230+0,003	PIV253	4600,003	6.822.835,8159	682.379,2842	21,787	311°23'55"
231		4620,000	6.822.850,8162	682.392,5081	21,647	311°23'55"
231+0,003	PIV254	4620,003	6.822.850,8185	682.392,5101	21,647	311°23'55"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
232		4640,000	6.822.865,8187	682.405,7340	21,517	311°23'55"
232+0,003	PIV255	4640,003	6.822.865,8210	682.405,7360	21,517	311°23'55"
233		4660,000	6.822.880,8212	682.418,9599	21,347	311°23'55"
233+0,003	PIV256	4660,003	6.822.880,8235	682.418,9619	21,347	311°23'55"
234		4680,000	6.822.895,8238	682.432,1858	21,176	311°23'55"
234+0,003	PIV257	4680,003	6.822.895,8260	682.432,1878	21,176	311°23'55"
235		4700,000	6.822.910,8263	682.445,4117	21,007	311°23'55"
235+0,004	PIV258	4700,004	6.822.910,8293	682.445,4143	21,007	311°23'55"
236		4720,000	6.822.925,8288	682.458,6376	20,793	311°23'55"
236+0,004	PIV259	4720,004	6.822.925,8318	682.458,6402	20,793	311°23'55"
237		4740,000	6.822.940,8313	682.471,8635	20,653	311°23'55"
237+0,003	PIV260	4740,003	6.822.940,8336	682.471,8655	20,653	311°23'55"
238		4760,000	6.822.955,8339	682.485,0894	20,543	311°23'55"
238+0,002	PIV261	4760,002	6.822.955,8354	682.485,0907	20,543	311°23'55"
239		4780,000	6.822.970,8364	682.498,3153	20,409	311°23'55"
239+0,003	PIV262	4780,003	6.822.970,8386	682.498,3173	20,409	311°23'55"
240		4800,000	6.822.985,8389	682.511,5412	20,291	311°23'55"
240+0,002	PIV263	4800,002	6.822.985,8404	682.511,5425	20,291	311°23'55"
241		4820,000	6.823.000,8414	682.524,7671	20,184	311°23'55"
241+0,002	PIV264	4820,002	6.823.000,8429	682.524,7684	20,184	311°23'55"
242		4840,000	6.823.015,8439	682.537,9930	20,140	311°23'55"
242+0,001	PIV265	4840,001	6.823.015,8447	682.537,9936	20,140	311°23'55"
242+0,010	PC19	4840,010	6.823.015,8516	682.537,9997	20,140	311°23'55"
242+0,011	PIV266	4840,011	6.823.015,8523	682.538,0003	20,140	311°23'56"
243		4860,000	6.823.030,5669	682.551,5272	20,078	313°47'05"
243+0,002	PIV267	4860,002	6.823.030,5685	682.551,5287	20,078	313°47'06"
244		4880,000	6.823.044,7133	682.565,6630	19,974	316°10'20"
244+0,002	PIV268	4880,002	6.823.044,7148	682.565,6646	19,974	316°10'21"
245		4900,000	6.823.058,2586	682.580,3758	19,910	318°33'34"
245+0,001	PIV269	4900,001	6.823.058,2594	682.580,3767	19,910	318°33'35"
245+15,014	PIV270	4915,014	6.823.068,0178	682.591,7843	19,912	320°21'06"
246		4920,000	6.823.071,1993	682.595,6236	19,908	320°21'06"
246+0,001	PIV271	4920,001	6.823.071,1998	682.595,6242	19,908	320°21'06"
247		4940,000	6.823.083,9608	682.611,0231	19,867	320°21'06"
247+0,002	PIV272	4940,002	6.823.083,9620	682.611,0244	19,867	320°21'06"
248		4960,000	6.823.096,7223	682.626,4225	19,722	320°21'06"
248+0,002	PIV273	4960,002	6.823.096,7235	682.626,4239	19,722	320°21'06"
249		4980,000	6.823.109,4838	682.641,8220	19,653	320°21'06"
249+0,001	PIV274	4980,001	6.823.109,4843	682.641,8226	19,653	320°21'06"
250		5000,000	6.823.122,2453	682.657,2215	19,577	320°21'06"
250+0,001	PIV275	5000,001	6.823.122,2458	682.657,2221	19,577	320°21'06"
251		5020,000	6.823.135,0068	682.672,6210	19,570	320°21'06"
251+19,999	PIV277	5039,999	6.823.147,7675	682.688,0196	19,565	320°21'06"
252		5040,000	6.823.147,7683	682.688,0205	19,565	320°21'06"
252+19,998	PIV278	5059,998	6.823.160,5284	682.703,4183	19,640	320°21'06"
253		5060,000	6.823.160,5298	682.703,4200	19,640	320°21'06"
253+19,999	PIV279	5079,999	6.823.173,2905	682.718,8186	19,716	320°21'06"
254		5080,000	6.823.173,2913	682.718,8195	19,716	320°21'06"
254+19,998	PIV280	5099,998	6.823.186,0514	682.734,2173	19,730	320°21'06"
255		5100,000	6.823.186,0528	682.734,2190	19,730	320°21'06"
255+19,998	PIV281	5119,998	6.823.198,8129	682.749,6168	19,893	320°21'06"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
256		5120,000	6.823.198,8143	682.749,6185	19,893	320°21'06"
256+19,998	PIV282	5139,998	6.823.211,5744	682.765,0162	19,978	320°21'06"
257		5140,000	6.823.211,5758	682.765,0179	19,978	320°21'06"
257+19,998	PIV283	5159,998	6.823.224,3359	682.780,4157	20,096	320°21'06"
258		5160,000	6.823.224,3373	682.780,4174	20,096	320°21'06"
258+19,998	PIV284	5179,998	6.823.237,0973	682.795,8152	20,211	320°21'06"
259		5180,000	6.823.237,0987	682.795,8169	20,211	320°21'06"
259+19,998	PIV285	5199,998	6.823.249,8588	682.811,2147	20,303	320°21'06"
260		5200,000	6.823.249,8602	682.811,2164	20,303	320°21'06"
260+19,999	PIV286	5219,999	6.823.262,6210	682.826,6150	20,444	320°21'06"
261		5220,000	6.823.262,6217	682.826,6159	20,444	320°21'06"
262		5240,000	6.823.275,3832	682.842,0154	20,388	320°21'06"
262+0,001	PIV287	5240,001	6.823.275,3837	682.842,0160	20,388	320°21'06"
263	PIV288	5260,000	6.823.288,1447	682.857,4149	20,393	320°21'06"
264	PIV289	5280,000	6.823.300,9062	682.872,8144	20,418	320°21'06"
265		5300,000	6.823.313,6677	682.888,2139	20,391	320°21'06"
265+0,001	PIV290	5300,001	6.823.313,6682	682.888,2145	20,391	320°21'06"
266		5320,000	6.823.326,4292	682.903,6133	20,366	320°21'06"
266+0,001	PIV291	5320,001	6.823.326,4297	682.903,6140	20,366	320°21'06"
267	PIV292	5340,000	6.823.339,1907	682.919,0128	20,341	320°21'06"
268	PIV293	5360,000	6.823.351,9522	682.934,4123	20,324	320°21'06"
269		5380,000	6.823.364,7137	682.949,8118	20,294	320°21'06"
269+0,001	PIV294	5380,001	6.823.364,7142	682.949,8124	20,294	320°21'06"
270		5400,000	6.823.377,4752	682.965,2113	20,254	320°21'06"
270+0,001	PIV295	5400,001	6.823.377,4757	682.965,2119	20,254	320°21'06"
271		5420,000	6.823.390,2367	682.980,6108	20,158	320°21'06"
271+0,001	PIV296	5420,001	6.823.390,2372	682.980,6114	20,158	320°21'06"
272	PIV297	5440,000	6.823.402,9982	682.996,0103	20,139	320°21'06"
273	PIV298	5460,000	6.823.415,7597	683.011,4098	20,166	320°21'06"
274		5480,000	6.823.428,5212	683.026,8093	20,116	320°21'06"
274+0,001	PIV299	5480,001	6.823.428,5217	683.026,8099	20,116	320°21'06"
275	PIV300	5500,000	6.823.441,2827	683.042,2087	20,099	320°21'06"
275+19,999	PIV301	5519,999	6.823.454,0434	683.057,6073	20,132	320°21'06"
276		5520,000	6.823.454,0442	683.057,6082	20,132	320°21'06"
276+19,999	PIV302	5539,999	6.823.466,8049	683.073,0068	20,175	320°21'06"
277		5540,000	6.823.466,8057	683.073,0077	20,175	320°21'06"
278	PIV303	5560,000	6.823.479,5671	683.088,4072	20,202	320°21'06"
279		5580,000	6.823.492,3286	683.103,8067	20,159	320°21'06"
279+0,001	PIV304	5580,001	6.823.492,3291	683.103,8073	20,159	320°21'06"
279+19,999	PIV305	5599,999	6.823.505,0894	683.119,2053	20,144	320°21'06"
280		5600,000	6.823.505,0901	683.119,2062	20,144	320°21'06"
280+19,999	PIV306	5619,999	6.823.517,8509	683.134,6048	20,232	320°21'06"
281		5620,000	6.823.517,8516	683.134,6057	20,232	320°21'06"
281+19,999	PIV307	5639,999	6.823.530,6124	683.150,0042	20,289	320°21'06"
282		5640,000	6.823.530,6131	683.150,0052	20,289	320°21'06"
283		5660,000	6.823.543,3746	683.165,4047	20,283	320°21'06"
283+0,001	PIV308	5660,001	6.823.543,3751	683.165,4053	20,283	320°21'06"
284		5680,000	6.823.556,1361	683.180,8041	20,196	320°21'06"
284+0,001	PIV309	5680,001	6.823.556,1366	683.180,8048	20,196	320°21'06"
284+8,499	PIV310	5688,499	6.823.561,5590	683.187,3481	20,189	320°21'06"
285		5700,000	6.823.568,7800	683.196,2994	20,182	321°51'47"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
285+0,001	PIV311	5700,001	6.823.568,7805	683.196,3001	20,182	321°51'47"
286		5720,000	6.823.580,7658	683.212,3079	20,135	324°29'28"
286+0,001	PIV312	5720,001	6.823.580,7663	683.212,3085	20,135	324°29'29"
287		5740,000	6.823.592,0050	683.228,8491	20,087	327°07'10"
287+0,001	PIV313	5740,001	6.823.592,0054	683.228,8498	20,087	327°07'11"
288		5760,000	6.823.602,4738	683.245,8883	20,035	329°44'52"
288+0,001	PIV314	5760,001	6.823.602,4742	683.245,8890	20,035	329°44'52"
289	PIV315	5780,000	6.823.612,1502	683.263,3896	19,994	332°22'34"
289+19,999	PIV316	5799,999	6.823.621,0135	683.281,3151	20,034	335°00'15"
290		5800,000	6.823.621,0140	683.281,3162	20,034	335°00'15"
290+19,997	PIV317	5819,997	6.823.629,0451	683.299,6275	20,081	337°37'55"
291		5820,000	6.823.629,0463	683.299,6305	20,081	337°37'57"
291+0,354	PIV318	5820,354	6.823.629,1808	683.299,9577	20,085	337°40'44"
291+0,358	PT20	5820,358	6.823.629,1825	683.299,9617	20,085	337°40'46"
291+19,999	PIV319	5839,999	6.823.636,6419	683.318,1311	20,260	337°40'46"
292		5840,000	6.823.636,6422	683.318,1318	20,260	337°40'46"
293		5860,000	6.823.644,2379	683.336,6333	20,159	337°40'46"
293+0,002	PIV320	5860,002	6.823.644,2388	683.336,6354	20,159	337°40'46"
294		5880,000	6.823.651,8337	683.355,1348	20,011	337°40'46"
294+0,002	PIV321	5880,002	6.823.651,8345	683.355,1368	20,011	337°40'46"
295	PIV322	5900,000	6.823.659,4294	683.373,6363	19,942	337°40'46"
296	PIV323	5920,000	6.823.667,0251	683.392,1378	19,965	337°40'46"
297	PIV324	5940,000	6.823.674,6208	683.410,6393	19,906	337°40'46"
298	PIV325	5960,000	6.823.682,2166	683.429,1407	19,931	337°40'46"
299	PIV326	5980,000	6.823.689,8123	683.447,6422	19,939	337°40'46"
299+19,999	PIV327	5999,999	6.823.697,4077	683.466,1430	19,940	337°40'46"
300		6000,000	6.823.697,4080	683.466,1437	19,940	337°40'46"
300+19,999	PIV328	6019,999	6.823.705,0035	683.484,6444	20,001	337°40'46"
301		6020,000	6.823.705,0038	683.484,6452	20,001	337°40'46"
302	PIV329	6040,000	6.823.712,5995	683.503,1467	20,006	337°40'46"
303	PIV330	6060,000	6.823.720,1952	683.521,6482	20,031	337°40'46"
303+19,999	PIV331	6079,999	6.823.727,7907	683.540,1489	20,045	337°40'46"
304		6080,000	6.823.727,7910	683.540,1496	20,045	337°40'46"
305		6100,000	6.823.735,3867	683.558,6511	20,092	337°40'46"
305+0,001	PIV332	6100,001	6.823.735,3871	683.558,6522	20,092	337°40'46"
306		6120,000	6.823.742,9824	683.577,1526	19,984	337°40'46"
306+0,001	PIV333	6120,001	6.823.742,9829	683.577,1537	19,984	337°40'46"
307	PIV334	6140,000	6.823.750,5781	683.595,6541	19,990	337°40'46"
308	PIV335	6160,000	6.823.758,1739	683.614,1556	19,953	337°40'46"
309	PIV336	6180,000	6.823.765,7696	683.632,6571	19,986	337°40'46"
310	PIV337	6200,000	6.823.773,3653	683.651,1585	19,986	337°40'46"
311	PIV338	6220,000	6.823.780,9611	683.669,6600	19,950	337°40'46"
311+19,999	PIV339	6239,999	6.823.788,5565	683.688,1608	19,993	337°40'46"
312		6240,000	6.823.788,5568	683.688,1615	19,993	337°40'46"
312+19,999	PIV340	6259,999	6.823.796,1522	683.706,6622	20,044	337°40'46"
313		6260,000	6.823.796,1525	683.706,6630	20,044	337°40'46"
313+19,999	PIV341	6279,999	6.823.803,7480	683.725,1637	20,107	337°40'46"
314		6280,000	6.823.803,7483	683.725,1645	20,107	337°40'46"
314+19,999	PIV342	6299,999	6.823.811,3437	683.743,6652	20,122	337°40'46"
315		6300,000	6.823.811,3440	683.743,6659	20,122	337°40'46"
315+19,998	PIV343	6319,998	6.823.818,9390	683.762,1658	20,189	337°40'46"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
316		6320,000	6.823.818,9397	683.762,1674	20,189	337°40'46"
316+19,999	PIV344	6339,999	6.823.826,5352	683.780,6682	20,303	337°40'46"
317		6340,000	6.823.826,5355	683.780,6689	20,303	337°40'46"
317+19,999	PIV345	6359,999	6.823.834,1309	683.799,1697	20,333	337°40'46"
318		6360,000	6.823.834,1312	683.799,1704	20,333	337°40'46"
318+19,999	PIV346	6379,999	6.823.841,7266	683.817,6711	20,371	337°40'46"
319		6380,000	6.823.841,7269	683.817,6719	20,371	337°40'46"
319+19,998	PIV347	6399,998	6.823.849,3220	683.836,1717	20,434	337°40'46"
320		6400,000	6.823.849,3226	683.836,1734	20,434	337°40'46"
320+7,138	PIV348	6407,138	6.823.852,0336	683.842,7767	20,481	337°40'46"
320+7,140	PC21	6407,140	6.823.852,0344	683.842,7785	20,481	337°40'46"
321	PIV349	6420,000	6.823.856,4028	683.854,8695	20,503	342°35'30"
322	PIV350	6440,000	6.823.861,0983	683.874,2953	20,487	350°13'52"
322+1,153	PIV351	6441,153	6.823.861,2894	683.875,4318	20,487	350°40'17"
322+19,999	PIV352	6459,999	6.823.864,3443	683.894,0286	20,472	350°40'17"
323		6460,000	6.823.864,3446	683.894,0301	20,472	350°40'17"
323+19,997	PIV353	6479,997	6.823.867,5860	683.913,7621	20,627	350°40'17"
324		6480,000	6.823.867,5865	683.913,7656	20,627	350°40'17"
324+19,997	PIV354	6499,997	6.823.870,8279	683.933,4976	20,782	350°40'17"
325		6500,000	6.823.870,8285	683.933,5011	20,782	350°40'17"
325+19,999	PIV355	6519,999	6.823.874,0702	683.953,2351	20,904	350°40'17"
326		6520,000	6.823.874,0704	683.953,2365	20,904	350°40'17"
327	PIV356	6540,000	6.823.877,3124	683.972,9720	20,889	350°40'17"
328	PIV357	6560,000	6.823.880,5544	683.992,7075	20,910	350°40'17"
328+19,999	PIV358	6579,999	6.823.883,7961	684.012,4415	20,915	350°40'17"
329		6580,000	6.823.883,7963	684.012,4430	20,915	350°40'17"
329+19,999	PIV359	6599,999	6.823.887,0380	684.032,1770	20,966	350°40'17"
330		6600,000	6.823.887,0383	684.032,1785	20,966	350°40'17"
330+19,999	PIV360	6619,999	6.823.890,2800	684.051,9125	21,048	350°40'17"
331		6620,000	6.823.890,2802	684.051,9140	21,048	350°40'17"
332	PIV361	6640,000	6.823.893,5222	684.071,6495	21,049	350°40'17"
333	PIV362	6660,000	6.823.896,7641	684.091,3850	21,077	350°40'17"
334		6680,000	6.823.900,0061	684.111,1205	21,026	350°40'17"
334+0,001	PIV363	6680,001	6.823.900,0062	684.111,1210	21,026	350°40'17"
334+19,999	PIV364	6699,999	6.823.903,2478	684.130,8545	21,016	350°40'17"
335		6700,000	6.823.903,2480	684.130,8560	21,016	350°40'17"
335+19,999	PIV365	6719,999	6.823.906,4897	684.150,5900	21,086	350°40'17"
336		6720,000	6.823.906,4900	684.150,5915	21,086	350°40'17"
336+19,999	PIV366	6739,999	6.823.909,7317	684.170,3255	21,155	350°40'17"
337		6740,000	6.823.909,7319	684.170,3270	21,155	350°40'17"
338	PIV367	6760,000	6.823.912,9739	684.190,0625	21,147	350°40'17"
338+19,999	PIV368	6779,999	6.823.916,2156	684.209,7965	21,193	350°40'17"
339		6780,000	6.823.916,2159	684.209,7980	21,193	350°40'17"
340	PIV369	6800,000	6.823.919,4578	684.229,5335	21,233	350°40'17"
341	PIV370	6820,000	6.823.922,6998	684.249,2690	21,223	350°40'17"
342	PIV371	6840,000	6.823.925,9417	684.269,0045	21,210	350°40'17"
342+19,999	PIV372	6859,999	6.823.929,1834	684.288,7385	21,225	350°40'17"
343		6860,000	6.823.929,1837	684.288,7399	21,225	350°40'17"
343+19,999	PIV373	6879,999	6.823.932,4254	684.308,4740	21,260	350°40'17"
344		6880,000	6.823.932,4256	684.308,4754	21,260	350°40'17"
344+19,999	PIV374	6899,999	6.823.935,6673	684.328,2095	21,337	350°40'17"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
345		6900,000	6.823.935,6676	684.328,2109	21,337	350°40'17"
345+19,999	PIV375	6919,999	6.823.938,9093	684.347,9450	21,380	350°40'17"
346		6920,000	6.823.938,9095	684.347,9464	21,380	350°40'17"
346+19,997	PIV376	6939,997	6.823.942,1509	684.367,6785	21,475	350°40'17"
347		6940,000	6.823.942,1515	684.367,6819	21,475	350°40'17"
347+19,999	PIV377	6959,999	6.823.945,3932	684.387,4159	21,661	350°40'17"
348		6960,000	6.823.945,3934	684.387,4174	21,661	350°40'17"
349	PIV378	6980,000	6.823.948,6354	684.407,1529	21,615	350°40'17"
349+19,999	PIV379	6999,999	6.823.951,8771	684.426,8869	21,648	350°40'17"
350		7000,000	6.823.951,8774	684.426,8884	21,648	350°40'17"
350+19,999	PIV380	7019,999	6.823.955,1191	684.446,6224	21,682	350°40'17"
351		7020,000	6.823.955,1193	684.446,6239	21,682	350°40'17"
351+19,999	PIV381	7039,999	6.823.958,3610	684.466,3579	21,770	350°40'17"
352		7040,000	6.823.958,3613	684.466,3594	21,770	350°40'17"
352+19,999	PIV382	7059,999	6.823.961,6030	684.486,0934	21,806	350°40'17"
353		7060,000	6.823.961,6032	684.486,0949	21,806	350°40'17"
353+19,998	PIV383	7079,998	6.823.964,8448	684.505,8279	21,879	350°40'17"
354		7080,000	6.823.964,8452	684.505,8304	21,879	350°40'17"
354+19,998	PIV384	7099,998	6.823.968,0867	684.525,5634	21,979	350°40'17"
355		7100,000	6.823.968,0871	684.525,5659	21,979	350°40'17"
355+19,999	PIV385	7119,999	6.823.971,3288	684.545,2999	22,050	350°40'17"
356		7120,000	6.823.971,3291	684.545,3014	22,050	350°40'17"
356+19,998	PIV386	7139,998	6.823.974,5706	684.565,0344	22,114	350°40'17"
357		7140,000	6.823.974,5710	684.565,0369	22,114	350°40'17"
357+19,997	PIV387	7159,997	6.823.977,8124	684.584,7689	22,233	350°40'17"
358		7160,000	6.823.977,8130	684.584,7724	22,233	350°40'17"
358+19,997	PIV388	7179,997	6.823.981,0544	684.604,5044	22,366	350°40'17"
359		7180,000	6.823.981,0549	684.604,5079	22,367	350°40'17"
359+9,870	PIV389	7189,870	6.823.982,6548	684.614,2468	22,451	350°40'17"
359+9,874	PC22	7189,874	6.823.982,6555	684.614,2514	22,451	350°40'17"
359+19,996	PIV390	7199,996	6.823.984,5762	684.624,1881	22,556	347°26'58"
360		7200,000	6.823.984,5770	684.624,1919	22,557	347°26'53"
360+19,998	PIV391	7219,998	6.823.989,9974	684.643,4308	22,763	341°04'57"
361		7220,000	6.823.989,9979	684.643,4325	22,763	341°04'55"
362	PIV392	7240,000	6.823.997,5189	684.661,9534	22,780	334°42'57"
363		7260,000	6.824.007,0472	684.679,5261	22,773	328°20'59"
363+0,001	PIV393	7260,001	6.824.007,0478	684.679,5271	22,773	328°20'57"
363+9,198	PT22	7269,198	6.824.012,0716	684.687,2294	22,746	325°25'18"
363+9,199	PIV394	7269,199	6.824.012,0722	684.687,2302	22,746	325°25'18"
364	PIV395	7280,000	6.824.018,2021	684.696,1233	22,730	325°25'18"
364+19,999	PIV396	7299,999	6.824.029,5521	684.712,5895	22,763	325°25'18"
365		7300,000	6.824.029,5527	684.712,5903	22,763	325°25'18"
366	PIV397	7320,000	6.824.040,9033	684.729,0573	22,801	325°25'18"
367	PIV398	7340,000	6.824.052,2540	684.745,5244	22,806	325°25'18"
367+19,999	PIV399	7359,999	6.824.063,6040	684.761,9906	22,845	325°25'18"
368		7360,000	6.824.063,6046	684.761,9914	22,845	325°25'18"
368+19,998	PIV400	7379,998	6.824.074,9541	684.778,4568	22,914	325°25'18"
369		7380,000	6.824.074,9552	684.778,4585	22,914	325°25'18"
369+19,998	PIV401	7399,998	6.824.086,3047	684.794,9239	23,028	325°25'18"
370		7400,000	6.824.086,3058	684.794,9255	23,028	325°25'18"
370+19,998	PIV402	7419,998	6.824.097,6553	684.811,3909	23,151	325°25'18"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
371		7420,000	6.824.097,6565	684.811,3925	23,151	325°25'18"
372	PIV403	7440,000	6.824.109,0071	684.827,8596	23,269	325°25'18"
373		7460,000	6.824.120,3577	684.844,3266	23,171	325°25'18"
373+0,002	PIV404	7460,002	6.824.120,3588	684.844,3283	23,171	325°25'18"
374		7480,000	6.824.131,7083	684.860,7936	23,062	325°25'18"
374+0,002	PIV405	7480,002	6.824.131,7095	684.860,7953	23,062	325°25'18"
375		7500,000	6.824.143,0590	684.877,2607	22,968	325°25'18"
375+0,002	PIV406	7500,002	6.824.143,0601	684.877,2623	22,968	325°25'18"
376	PIV407	7520,000	6.824.154,4096	684.893,7277	22,888	325°25'18"
376+19,999	PIV408	7539,999	6.824.165,7596	684.910,1939	22,972	325°25'18"
377		7540,000	6.824.165,7602	684.910,1948	22,972	325°25'18"
378	PIV409	7560,000	6.824.177,1108	684.926,6618	22,979	325°25'18"
378+19,999	PIV410	7579,999	6.824.188,4609	684.943,1280	23,018	325°25'18"
379		7580,000	6.824.188,4614	684.943,1288	23,018	325°25'18"
379+19,999	PIV411	7599,999	6.824.199,8115	684.959,5951	23,080	325°25'18"
380		7600,000	6.824.199,8121	684.959,5959	23,080	325°25'18"
380+19,999	PIV412	7619,999	6.824.211,1621	684.976,0621	23,144	325°25'18"
381		7620,000	6.824.211,1627	684.976,0629	23,144	325°25'18"
381+19,999	PIV413	7639,999	6.824.222,5128	684.992,5291	23,217	325°25'18"
382		7640,000	6.824.222,5133	684.992,5300	23,217	325°25'18"
382+19,999	PIV414	7659,999	6.824.233,8634	685.008,9962	23,289	325°25'18"
383		7660,000	6.824.233,8639	685.008,9970	23,289	325°25'18"
383+19,998	PIV415	7679,998	6.824.245,2134	685.025,4624	23,351	325°25'18"
384		7680,000	6.824.245,2146	685.025,4640	23,351	325°25'18"
384+19,997	PIV416	7699,997	6.824.256,5635	685.041,9286	23,462	325°25'18"
385		7700,000	6.824.256,5652	685.041,9311	23,462	325°25'18"
385+19,997	PIV417	7719,997	6.824.267,9141	685.058,3956	23,626	325°25'18"
386		7720,000	6.824.267,9158	685.058,3981	23,626	325°25'18"
386+19,999	PIV418	7739,999	6.824.279,2659	685.074,8643	23,765	325°25'18"
387		7740,000	6.824.279,2664	685.074,8651	23,765	325°25'18"
388	PIV419	7760,000	6.824.290,6171	685.091,3322	23,753	325°25'18"
388+19,999	PIV420	7779,999	6.824.301,9671	685.107,7984	23,799	325°25'18"
389		7780,000	6.824.301,9677	685.107,7992	23,799	325°25'18"
389+19,999	PIV421	7799,999	6.824.313,3177	685.124,2654	23,868	325°25'18"
390		7800,000	6.824.313,3183	685.124,2663	23,868	325°25'18"
391	PIV422	7820,000	6.824.324,6689	685.140,7333	23,900	325°25'18"
392	PIV423	7840,000	6.824.336,0196	685.157,2003	23,902	325°25'18"
393		7860,000	6.824.347,3702	685.173,6674	23,861	325°25'18"
393+0,001	PIV424	7860,001	6.824.347,3707	685.173,6682	23,861	325°25'18"
394	PIV425	7880,000	6.824.358,7208	685.190,1344	23,809	325°25'18"
395	PIV426	7900,000	6.824.370,0714	685.206,6014	23,836	325°25'18"
396	PIV427	7920,000	6.824.381,4221	685.223,0685	23,839	325°25'18"
396+19,999	PIV428	7939,999	6.824.392,7721	685.239,5347	23,871	325°25'18"
397		7940,000	6.824.392,7727	685.239,5355	23,871	325°25'18"
398	PIV429	7960,000	6.824.404,1233	685.256,0026	23,891	325°25'18"
399	PIV430	7980,000	6.824.415,4739	685.272,4696	23,896	325°25'18"
400		8000,000	6.824.426,8245	685.288,9366	23,890	325°25'18"
400+0,001	PIV431	8000,001	6.824.426,8251	685.288,9375	23,890	325°25'18"
401		8020,000	6.824.438,1752	685.305,4037	23,798	325°25'18"
401+0,001	PIV432	8020,001	6.824.438,1757	685.305,4045	23,798	325°25'18"
402	PIV433	8040,000	6.824.449,5258	685.321,8707	23,770	325°25'18"

Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
403	PIV434	8060,000	6.824.460,8764	685.338,3378	23,761	325°25'18"
404	PIV435	8080,000	6.824.472,2270	685.354,8048	23,755	325°25'18"
405	PIV436	8100,000	6.824.483,5777	685.371,2718	23,761	325°25'18"
405+1,071	PIV437	8101,071	6.824.484,1852	685.372,1532	23,760	325°25'18"
405+19,999	PIV438	8119,999	6.824.495,1581	685.387,5752	23,761	323°42'50"
406		8120,000	6.824.495,1590	685.387,5764	23,761	323°42'50"
406+19,999	PIV439	8139,999	6.824.507,2464	685.403,5076	23,829	321°54'33"
407		8140,000	6.824.507,2473	685.403,5088	23,829	321°54'33"
407+19,999	PIV440	8159,999	6.824.519,8304	685.419,0514	23,876	320°06'17"
408		8160,000	6.824.519,8313	685.419,0526	23,876	320°06'16"
408+19,999	PIV441	8179,999	6.824.532,8976	685.434,1913	23,939	318°18'00"
409		8180,000	6.824.532,8986	685.434,1924	23,939	318°18'00"
409+19,999	PIV442	8199,999	6.824.546,4351	685.448,9121	24,013	316°29'44"
410		8200,000	6.824.546,4361	685.448,9132	24,013	316°29'43"
411	PIV443	8220,000	6.824.560,4306	685.463,2003	24,025	314°41'27"
412	PIV444	8240,000	6.824.574,8679	685.477,0397	23,987	312°53'10"
412+19,998	PIV445	8259,998	6.824.589,7321	685.490,4160	24,011	311°04'55"
413		8260,000	6.824.589,7340	685.490,4176	24,011	311°04'54"
413+19,998	PIV446	8279,998	6.824.605,0120	685.503,3191	24,153	309°16'38"
414		8280,000	6.824.605,0139	685.503,3207	24,153	309°16'37"
415	PIV447	8300,000	6.824.620,6926	685.515,7363	24,200	307°28'21"
415+17,357	PT23	8317,357	6.824.634,6109	685.526,1066	24,128	305°54'23"
415+17,359	PIV448	8317,359	6.824.634,6125	685.526,1077	24,128	305°54'23"
416		8320,000	6.824.636,7513	685.527,6564	24,108	305°54'23"
416+0,002	PIV449	8320,002	6.824.636,7533	685.527,6578	24,108	305°54'23"
417		8340,000	6.824.652,9509	685.539,3856	24,016	305°54'23"
417+0,001	PIV450	8340,001	6.824.652,9520	685.539,3864	24,016	305°54'23"
418		8360,000	6.824.669,1504	685.551,1148	23,980	305°54'23"
418+0,001	PIV451	8360,001	6.824.669,1516	685.551,1156	23,980	305°54'23"
419		8380,000	6.824.685,3500	685.562,8440	23,947	305°54'23"
419+0,001	PIV452	8380,001	6.824.685,3511	685.562,8448	23,947	305°54'23"
420		8400,000	6.824.701,5495	685.574,5732	23,893	305°54'23"
420+0,001	PIV453	8400,001	6.824.701,5507	685.574,5741	23,893	305°54'23"
421		8420,000	6.824.717,7491	685.586,3025	23,866	305°54'23"
421+0,001	PIV454	8420,001	6.824.717,7502	685.586,3033	23,866	305°54'23"
422	PIV455	8440,000	6.824.733,9486	685.598,0317	23,814	305°54'23"
423	PIV456	8460,000	6.824.750,1482	685.609,7609	23,853	305°54'23"
424	PIV457	8480,000	6.824.766,3477	685.621,4901	23,862	305°54'23"
425	PIV458	8500,000	6.824.782,5473	685.633,2194	23,827	305°54'23"
426	PIV459	8520,000	6.824.798,7468	685.644,9486	23,831	305°54'23"
427	PIV460	8540,000	6.824.814,9464	685.656,6778	23,853	305°54'23"
428		8560,000	6.824.831,1459	685.668,4070	23,868	305°54'23"
428+0,001	PIV461	8560,001	6.824.831,1470	685.668,4078	23,868	305°54'23"
429		8580,000	6.824.847,3455	685.680,1362	23,770	305°54'23"
429+0,002	PIV462	8580,002	6.824.847,3474	685.680,1376	23,770	305°54'23"
430		8600,000	6.824.863,5450	685.691,8655	23,671	305°54'23"
430+0,003	PIV463	8600,003	6.824.863,5478	685.691,8675	23,671	305°54'23"
431		8620,000	6.824.879,7445	685.703,5947	23,457	305°54'23"
431+0,004	PIV464	8620,004	6.824.879,7481	685.703,5973	23,457	305°54'23"
432		8640,000	6.824.895,9441	685.715,3239	23,312	305°54'23"
432+0,002	PIV465	8640,002	6.824.895,9460	685.715,3253	23,312	305°54'23"



Estaca	Descrição	Progressiva	Norte	Este	Cota	Azimute
433		8660,000	6.824.912,1436	685.727,0531	23,285	305°54'23"
433+0,001	PIV466	8660,001	6.824.912,1448	685.727,0539	23,285	305°54'23"
434		8680,000	6.824.928,3432	685.738,7823	23,232	305°54'23"
434+0,002	PIV467	8680,002	6.824.928,3451	685.738,7838	23,232	305°54'23"
434+17,939	PI24	8697,939	6.824.942,8733	685.749,3028	23,108	306°46'08"
434+17,940	PIV468	8697,940	6.824.942,8741	685.749,3035	23,108	307°37'54"
435	PIV469	8700,000	6.824.944,5055	685.750,5613	23,108	307°37'54"
435+19,999	PIV470	8719,999	6.824.960,3438	685.762,7723	23,139	307°37'54"
436		8720,000	6.824.960,3446	685.762,7729	23,139	307°37'54"
436+19,999	PIV471	8739,999	6.824.976,1828	685.774,9840	23,234	307°37'54"
437		8740,000	6.824.976,1836	685.774,9846	23,234	307°37'54"
437+19,999	PIV472	8759,999	6.824.992,0218	685.787,1957	23,288	307°37'54"
438		8760,000	6.824.992,0226	685.787,1963	23,288	307°37'54"
438+19,999	PIV473	8779,999	6.825.007,8609	685.799,4074	23,341	307°37'54"
439		8780,000	6.825.007,8616	685.799,4080	23,341	307°37'54"
439+19,998	PIV474	8799,998	6.825.023,6991	685.811,6185	23,435	307°37'54"
440		8800,000	6.825.023,7007	685.811,6197	23,435	307°37'54"
440+19,997	PIV475	8819,997	6.825.039,5373	685.823,8296	23,581	307°37'54"
441		8820,000	6.825.039,5397	685.823,8314	23,581	307°37'54"
441+19,998	PIV476	8839,998	6.825.055,3771	685.836,0418	23,697	307°37'54"
442		8840,000	6.825.055,3787	685.836,0431	23,697	307°37'54"
442+19,998	PIV477	8859,998	6.825.071,2162	685.848,2535	23,763	307°37'54"
443		8860,000	6.825.071,2177	685.848,2548	23,763	307°37'54"
443+19,999	PIV478	8879,999	6.825.087,0560	685.860,4658	23,851	307°37'54"
444		8880,000	6.825.087,0568	685.860,4664	23,851	307°37'54"
444+7,907	PIV479	8887,907	6.825.093,3186	685.865,2942	23,856	305°05'10"
444+19,999	PIV480	8899,999	6.825.103,5122	685.871,7985	23,861	302°32'26"
445		8900,000	6.825.103,5133	685.871,7991	23,861	302°32'26"
445+19,998	PIV481	8919,998	6.825.120,3716	685.882,5559	23,921	302°32'26"
446		8920,000	6.825.120,3735	685.882,5571	23,921	302°32'26"
446+19,996	PIV482	8939,996	6.825.137,2301	685.893,3128	24,106	302°32'26"
447		8940,000	6.825.137,2336	685.893,3150	24,106	302°32'26"
447+1,968	PIV483	8941,968	6.825.138,8925	685.894,3735	24,124	302°32'26"
447+1,973	PI26	8941,973	6.825.138,8967	685.894,3762	24,124	298°57'43"
447+19,993	PIV484	8959,993	6.825.155,1771	685.902,1009	24,383	295°23'00"
448		8960,000	6.825.155,1836	685.902,1040	24,383	295°23'00"
448+5,074	V485	8965,074	6.825.159,7675	685.904,2790	24,488	295°23'00"
448+5,082	PI-27	8965,082	6.825.159,7749	685.904,2825	24,488	295°23'00"



ESTADO DE SANTA CATARINA  
MUNICÍPIO DE JAGUARUNA  
SECRETARIA DE PLANEJAMENTO

## 4.2 – NOTA DE SERVIÇO DE TERRAPLANAGEM



Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
1	4,6470	11,522	-0,098	4,5000	11,620	4,5000	11,620	0,00	11,625	11,620	0,005	4,5000	11,620	0,00	6,5000	11,620	6,7000	11,820	0,200
1+9,602	4,5408	11,721	0,041	4,5000	11,680	4,5000	11,680	0,00	11,685	11,680	0,005	4,5000	11,680	0,00	6,5000	11,680	6,7667	11,947	0,267
2	4,9586	12,099	0,459	4,5000	11,640	4,5000	11,640	0,00	11,649	11,640	0,009	4,5000	11,640	0,00	6,5000	11,640	6,6360	11,776	0,136
2+4,140	5,5207	11,949	-0,681	4,5000	12,630	4,5000	12,630	0,00	11,634	12,630	-0,996	4,5000	12,630	0,00	6,5000	12,630	7,3161	12,086	-0,544
3	4,5346	11,715	0,035	4,5000	11,680	4,5000	11,680	0,00	11,687	11,680	0,007	4,5000	11,680	0,00	6,5000	11,680	8,0469	13,227	1,547
3+0,565	4,5300	11,710	0,030	4,5000	11,680	4,5000	11,680	0,00	11,689	11,680	0,009	4,5000	11,680	0,00	6,5000	11,680	8,0562	13,236	1,556
4	4,5206	11,786	-0,014	4,5000	11,800	4,5000	11,800	0,00	11,807	11,800	0,007	4,5000	11,800	0,00	6,5000	11,800	6,6441	11,704	-0,096
4+16,992	4,5185	11,918	0,018	4,5000	11,900	4,5000	11,900	0,00	11,910	11,900	0,010	4,5000	11,900	0,00	6,5000	11,900	6,5971	11,835	-0,065
5	4,5161	11,946	0,016	4,5000	11,930	4,5000	11,930	0,00	11,931	11,930	0,001	4,5000	11,930	0,00	6,5000	11,930	6,6173	11,852	-0,078
6	4,5003	12,070	0,000	4,5000	12,070	4,5000	12,070	0,00	12,071	12,070	0,001	4,5000	12,070	0,00					
6+6,787	4,5135	12,123	0,013	4,5000	12,110	4,5000	12,110	0,00	12,119	12,110	0,009	4,5000	12,110	0,00					
7	4,5857	12,123	-0,057	4,5000	12,180	4,5000	12,180	0,00	12,189	12,180	0,009	4,5000	12,180	0,00	6,5000	12,180	6,5514	12,231	0,051
7+12,476	4,5951	12,187	-0,063	4,5000	12,250	4,5000	12,250	0,00	12,256	12,250	0,006	4,5000	12,250	0,00	6,5000	12,250	6,5591	12,309	0,059
8	4,5731	12,383	0,073	4,5000	12,310	4,5000	12,310	0,00	12,311	12,310	0,001	4,5000	12,310	0,00	6,5000	12,310	6,5311	12,341	0,031
8+5,786	4,5291	12,369	0,029	4,5000	12,340	4,5000	12,340	0,00	12,347	12,340	0,007	4,5000	12,340	0,00	6,5000	12,340	6,5437	12,384	0,044
9	4,5296	12,410	-0,020	4,5000	12,430	4,5000	12,430	0,00	12,435	12,430	0,005	4,5000	12,430	0,00	6,5000	12,430	6,6778	12,608	0,178
9+8,629	4,5355	12,462	-0,024	4,5000	12,486	4,5000	12,486	0,00	12,486	12,486	0,000	4,5000	12,486	0,00	6,5000	12,486	6,7209	12,707	0,221
10	4,5320	12,588	0,032	4,5000	12,556	4,5000	12,556	0,00	12,556	12,556	0,000	4,5000	12,556	0,00	6,5000	12,556	6,6972	12,753	0,197
10+13,16	4,6490	12,535	-0,099	4,5000	12,634	4,5000	12,634	0,00	12,634	12,634	0,000	4,5000	12,634	0,00	6,5000	12,634	6,5952	12,729	0,095
11	4,5503	12,727	0,050	4,5000	12,677	4,5000	12,677	0,00	12,677	12,677	0,000	4,5000	12,677	0,00	6,5000	12,677	6,5479	12,725	0,048
11+2,980	4,6024	12,797	0,102	4,5000	12,695	4,5000	12,695	0,00	12,695	12,695	0,000	4,5000	12,695	0,00	6,5000	12,695	6,5435	12,738	0,043
12	4,6161	12,996	0,116	4,5000	12,880	4,5000	12,880	0,00	12,779	12,880	-0,101	4,5000	12,880	0,00	6,5000	12,880	6,5739	12,831	-0,049
12+9,389						4,5000	12,825	0,00	12,825	12,825	0,000	4,5000	12,825	0,00	6,5000	12,825	6,5530	12,878	0,053
13	4,7012	13,103	0,201	4,5000	12,902	4,5000	12,902	0,00	12,902	12,902	0,000	4,5000	12,902	0,00	6,5000	12,902	6,5496	12,952	0,050
14	4,6171	13,163	0,117	4,5000	13,046	4,5000	13,046	0,00	13,046	13,046	0,000	4,5000	13,046	0,00	6,5000	13,046	6,7924	13,338	0,292
14+17,79	4,5142	13,156	-0,009	4,5000	13,165	4,5000	13,165	0,00	13,165	13,165	0,000	4,5000	13,165	0,00	6,5000	13,165	6,6372	13,302	0,137
15	4,5194	13,166	-0,013	4,5000	13,179	4,5000	13,179	0,00	13,179	13,179	0,000	4,5000	13,179	0,00	6,5000	13,179	6,6665	13,345	0,166
16	4,7444	13,126	-0,163	4,5000	13,289	4,5000	13,289	0,00	13,289	13,289	0,000	4,5000	13,289	0,00	6,5000	13,289	6,5141	13,303	0,014
17	5,2355	13,248	-0,490	4,5000	13,738	4,5000	13,738	0,00	13,338	13,738	-0,400	4,5000	13,738	0,00	6,5000	13,738	7,2063	13,267	-0,471
18	5,2438	13,232	-0,496	4,5000	13,728	4,5000	13,728	0,00	13,328	13,728	-0,400	4,5000	13,728	0,00	6,5000	13,728	7,0073	13,390	-0,338
19	5,5340	13,081	-0,689	4,5000	13,770	4,5000	13,770	0,00	13,370	13,770	-0,400	4,5000	13,770	0,00	6,5000	13,770	6,9519	13,469	-0,301

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
20	5,0272	13,506	-0,351	4,5000	13,857	4,5000	13,857	0,00	13,457	13,857	-0,400	4,5000	13,857	0,00	6,5000	13,857	6,9467	13,559	-0,298
20+18,14	4,9926	13,610	-0,328	4,5000	13,938	4,5000	13,938	0,00	13,538	13,938	-0,400	4,5000	13,938	0,00	6,5000	13,938	6,8360	13,714	-0,224
21	4,9827	13,623	-0,322	4,5000	13,945	4,5000	13,945	0,00	13,545	13,945	-0,400	4,5000	13,945	0,00	6,5000	13,945	6,8057	13,741	-0,204
22	4,9139	13,770	-0,276	4,5000	14,046	4,5000	14,046	0,00	13,645	14,046	-0,401	4,5000	14,046	0,00	6,5000	14,046	6,5142	14,060	0,014
23	5,0670	13,819	-0,378	4,5000	14,197	4,5000	14,197	0,00	13,797	14,197	-0,400	4,5000	14,197	0,00	6,5000	14,197	6,9645	13,887	-0,310
23+15,59	5,2178	13,818	-0,479	4,5000	14,297	4,5000	14,297	0,00	13,897	14,297	-0,400	4,5000	14,297	0,00	6,5000	14,297	6,8845	14,041	-0,256
24	5,7215	13,812	-0,814	4,5000	14,626	4,5000	14,626	0,00	13,926	14,626	-0,700	4,5000	14,626	0,00	6,5000	14,626	7,3231	14,077	-0,549
25	5,0870	14,120	-0,391	4,5000	14,511	4,5000	14,511	0,00	14,111	14,511	-0,400	4,5000	14,511	0,00	6,5000	14,511	6,6411	14,417	-0,094
26	4,9660	14,385	-0,311	4,5000	14,696	4,5000	14,696	0,00	14,296	14,696	-0,400	4,5000	14,696	0,00	6,5000	14,696	6,8121	14,488	-0,208
26+17,02	4,8077	14,641	-0,205	4,5000	14,846	4,5000	14,846	0,00	14,446	14,846	-0,400	4,5000	14,846	0,00	6,5000	14,846	6,5794	14,925	0,079
27	4,8060	14,666	-0,204	4,5000	14,870	4,5000	14,870	0,00	14,470	14,870	-0,400	4,5000	14,870	0,00	6,5000	14,870	6,6316	15,002	0,132
28	4,7725	14,875	-0,182	4,5000	15,057	4,5000	15,057	0,00	14,656	15,057	-0,401	4,5000	15,057	0,00	6,5000	15,057	6,7319	15,289	0,232
29	4,8130	15,050	-0,209	4,5000	15,259	4,5000	15,259	0,00	14,859	15,259	-0,400	4,5000	15,259	0,00	6,5000	15,259	6,8432	15,602	0,343
29+5,407	4,8586	15,082	-0,239	4,5000	15,321	4,5000	15,321	0,00	14,921	15,321	-0,400	4,5000	15,321	0,00	6,5000	15,321	6,8530	15,674	0,353
30	4,8311	15,224	-0,221	4,5000	15,445	4,5000	15,445	0,00	15,045	15,445	-0,400	4,5000	15,445	0,00	6,5000	15,445	6,8939	15,839	0,394
31	5,1558	15,373	-0,437	4,5000	15,810	4,5000	15,810	0,00	15,243	15,810	-0,567	4,5000	15,810	0,00	6,5000	15,810	6,5590	15,869	0,059
32	4,7380	15,680	-0,159	4,5000	15,839	4,5000	15,839	0,00	15,439	15,839	-0,400	4,5000	15,839	0,00	6,5000	15,839	7,0549	16,394	0,555
33	4,7730	16,030	-0,182	4,5000	16,212	4,5000	16,212	0,00	15,812	16,212	-0,400	4,5000	16,212	0,00	6,5000	16,212	6,7645	16,476	0,264
33+12,81	4,9719	16,048	-0,315	4,5000	16,363	4,5000	16,363	0,00	15,963	16,363	-0,400	4,5000	16,363	0,00	6,5000	16,363	6,6995	16,562	0,199
34	5,1113	16,040	-0,408	4,5000	16,448	4,5000	16,448	0,00	16,048	16,448	-0,400	4,5000	16,448	0,00	6,5000	16,448	6,6560	16,604	0,156
35	5,1668	16,211	-0,445	4,5000	16,656	4,5000	16,656	0,00	16,256	16,656	-0,400	4,5000	16,656	0,00	6,5000	16,656	6,8025	16,454	-0,202
36	5,2129	16,444	-0,475	4,5000	16,919	4,5000	16,919	0,00	16,519	16,919	-0,400	4,5000	16,919	0,00	6,5000	16,919	6,7897	16,726	-0,193
37	5,1973	16,561	-0,465	4,5000	17,026	4,5000	17,026	0,00	16,626	17,026	-0,400	4,5000	17,026	0,00	6,5000	17,026	6,7915	16,832	-0,194
38	5,3519	16,525	-0,568	4,5000	17,093	4,5000	17,093	0,00	16,693	17,093	-0,400	4,5000	17,093	0,00	6,5000	17,093	6,6448	16,996	-0,097
39	5,2050	16,880	-0,470	4,5000	17,350	4,5000	17,350	0,00	16,950	17,350	-0,400	4,5000	17,350	0,00	6,5000	17,350	6,5603	17,310	-0,040
40	5,0820	17,047	-0,388	4,5000	17,435	4,5000	17,435	0,00	17,035	17,435	-0,400	4,5000	17,435	0,00					
41	5,2954	17,024	-0,530	4,5000	17,554	4,5000	17,554	0,00	17,154	17,554	-0,400	4,5000	17,554	0,00					
42	4,9030	17,457	-0,269	4,5000	17,726	4,5000	17,726	0,00	17,326	17,726	-0,400	4,5000	17,726	0,00					
43	5,5269	17,112	-0,685	4,5000	17,797	4,5000	17,797	0,00	17,397	17,797	-0,400	4,5000	17,797	0,00	6,5000	17,797	6,6173	17,719	-0,078
44	5,7432	17,321	-0,829	4,5000	18,150	4,5000	18,150	0,00	17,467	18,150	-0,683	4,5000	18,150	0,00	6,5000	18,150	7,1906	17,690	-0,460
45	5,3451	17,383	-0,563	4,5000	17,946	4,5000	17,946	0,00	17,546	17,946	-0,400	4,5000	17,946	0,00	6,5000	17,946	6,9152	17,669	-0,277

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
46	5,2906	17,498	-0,527	4,5000	18,025	4,5000	18,025	0,00	17,625	18,025	-0,400	4,5000	18,025	0,00	6,5000	18,025	6,8889	17,766	-0,259
47	4,7349	17,703	-0,157	4,5000	17,860	4,5000	17,860	0,00	17,460	17,860	-0,400	4,5000	17,860	0,00	6,5000	17,860	6,6978	17,728	-0,132
47+1,494	4,6067	17,747	-0,071	4,5000	17,818	4,5000	17,818	0,00	17,418	17,818	-0,400	4,5000	17,818	0,00	6,5000	17,818	6,6319	17,730	-0,088
48	4,8347	17,857	-0,223	4,5000	18,080	4,5000	18,080	0,00	17,680	18,080	-0,400	4,5000	18,080	0,00	6,5000	18,080	6,6357	17,990	-0,090
49	5,5048	17,581	-0,670	4,5000	18,251	4,5000	18,251	0,00	17,851	18,251	-0,400	4,5000	18,251	0,00	6,5000	18,251	6,5057	18,257	0,006
50	5,4986	17,581	-0,666	4,5000	18,247	4,5000	18,247	0,00	17,847	18,247	-0,400	4,5000	18,247	0,00	6,5000	18,247	7,2525	17,745	-0,502
51	5,4113	17,600	-0,608	4,5000	18,208	4,5000	18,208	0,00	17,808	18,208	-0,400	4,5000	18,208	0,00	6,5000	18,208	7,2012	17,741	-0,467
52	4,9907	17,771	-0,327	4,5000	18,098	4,5000	18,098	0,00	17,698	18,098	-0,400	4,5000	18,098	0,00	6,5000	18,098	6,9319	17,810	-0,288
52+13,94	5,6099	17,420	-0,740	4,5000	18,160	4,5000	18,160	0,00	17,760	18,160	-0,400	4,5000	18,160	0,00	6,5000	18,160	6,9015	17,892	-0,268
53	5,5208	17,504	-0,681	4,5000	18,185	4,5000	18,185	0,00	17,785	18,185	-0,400	4,5000	18,185	0,00	6,5000	18,185	6,9489	17,886	-0,299
54	5,2093	17,783	-0,473	4,5000	18,256	4,5000	18,256	0,00	17,856	18,256	-0,400	4,5000	18,256	0,00	6,5000	18,256	6,9745	17,939	-0,317
55	5,2958	17,778	-0,531	4,5000	18,309	4,5000	18,309	0,00	17,909	18,309	-0,400	4,5000	18,309	0,00	6,5000	18,309	6,9270	18,024	-0,285
56	5,4413	17,743	-0,628	4,5000	18,371	4,5000	18,371	0,00	17,971	18,371	-0,400	4,5000	18,371	0,00	6,5000	18,371	6,8828	18,116	-0,255
57	5,3226	17,982	-0,548	4,5000	18,530	4,5000	18,530	0,00	18,130	18,530	-0,400	4,5000	18,530	0,00	6,5000	18,530	6,8237	18,314	-0,216
58	5,3023	18,168	-0,535	4,5000	18,703	4,5000	18,703	0,00	18,303	18,703	-0,400	4,5000	18,703	0,00	6,5000	18,703	6,7164	18,559	-0,144
59	5,0384	18,549	-0,359	4,5000	18,908	4,5000	18,908	0,00	18,508	18,908	-0,400	4,5000	18,908	0,00	6,5000	18,908	6,5488	18,875	-0,033
60	5,3862	18,562	-0,591	4,5000	19,153	4,5000	19,153	0,00	18,753	19,153	-0,400	4,5000	19,153	0,00	6,5000	19,153	6,5092	19,147	-0,006
61	5,2686	18,896	-0,512	4,5000	19,408	4,5000	19,408	0,00	19,008	19,408	-0,400	4,5000	19,408	0,00	6,5000	19,408	6,5905	19,499	0,091
62	5,2613	19,185	-0,508	4,5000	19,693	4,5000	19,693	0,00	19,293	19,693	-0,400	4,5000	19,693	0,00	6,5000	19,693	6,7016	19,895	0,202
63	4,7421	19,861	-0,161	4,5000	20,022	4,5000	20,022	0,00	19,622	20,022	-0,400	4,5000	20,022	0,00	6,5000	20,022	6,5871	20,109	0,087
64	5,3851	19,733	-0,590	4,5000	20,323	4,5000	20,323	0,00	19,923	20,323	-0,400	4,5000	20,323	0,00	6,5000	20,323	6,7272	20,172	-0,151
65	5,3984	20,012	-0,599	4,5000	20,611	4,5000	20,611	0,00	20,211	20,611	-0,400	4,5000	20,611	0,00	6,5000	20,611	6,7161	20,467	-0,144
66	4,9625	20,565	-0,308	4,5000	20,873	4,5000	20,873	0,00	20,473	20,873	-0,400	4,5000	20,873	0,00	6,5000	20,873	6,5055	20,879	0,006
67	4,7269	20,967	-0,151	4,5000	21,118	4,5000	21,118	0,00	20,718	21,118	-0,400	4,5000	21,118	0,00	6,5000	21,118	6,8658	20,874	-0,244
68	5,4139	20,679	-0,609	4,5000	21,288	4,5000	21,288	0,00	20,888	21,288	-0,400	4,5000	21,288	0,00	6,5000	21,288	6,9319	21,000	-0,288
69	5,4988	20,742	-0,666	4,5000	21,408	4,5000	21,408	0,00	21,008	21,408	-0,400	4,5000	21,408	0,00	6,5000	21,408	6,6822	21,287	-0,121
70	5,2814	20,997	-0,521	4,5000	21,518	4,5000	21,518	0,00	21,118	21,518	-0,400	4,5000	21,518	0,00	6,5000	21,518	6,8000	21,318	-0,200
71	4,8984	21,314	-0,266	4,5000	21,580	4,5000	21,580	0,00	21,180	21,580	-0,400	4,5000	21,580	0,00	6,5000	21,580	6,7980	21,381	-0,199
72	5,1179	21,236	-0,412	4,5000	21,648	4,5000	21,648	0,00	21,248	21,648	-0,400	4,5000	21,648	0,00	6,5000	21,648	6,8631	21,406	-0,242
73	5,1759	21,248	-0,451	4,5000	21,699	4,5000	21,699	0,00	21,299	21,699	-0,400	4,5000	21,699	0,00	6,5000	21,699	7,0259	21,348	-0,351
74	5,2892	21,262	-0,526	4,5000	21,788	4,5000	21,788	0,00	21,388	21,788	-0,400	4,5000	21,788	0,00	6,5000	21,788	6,8834	21,532	-0,256

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
75	5,3251	21,421	-0,550	4,5000	21,971	4,5000	21,971	0,00	21,571	21,971	-0,400	4,5000	21,971	0,00	6,5000	21,971	6,9264	21,687	-0,284
76	5,1866	21,401	-0,458	4,5000	21,859	4,5000	21,859	0,00	21,459	21,859	-0,400	4,5000	21,859	0,00					
77	5,2611	21,113	-0,507	4,5000	21,620	4,5000	21,620	0,00	21,220	21,620	-0,400	4,5000	21,620	0,00					
78	5,1433	21,128	-0,429	4,5000	21,557	4,5000	21,557	0,00	21,157	21,557	-0,400	4,5000	21,557	0,00	6,5000	21,557	7,2164	21,079	-0,478
79	5,1900	21,077	-0,460	4,5000	21,537	4,5000	21,537	0,00	21,137	21,537	-0,400	4,5000	21,537	0,00	6,5000	21,537	7,2253	21,054	-0,483
80	5,3958	20,940	-0,597	4,5000	21,537	4,5000	21,537	0,00	21,137	21,537	-0,400	4,5000	21,537	0,00	6,5000	21,537	7,4440	20,908	-0,629
81	5,2925	20,990	-0,528	4,5000	21,518	4,5000	21,518	0,00	21,118	21,518	-0,400	4,5000	21,518	0,00	6,5000	21,518	7,5817	20,797	-0,721
82	5,1704	21,044	-0,447	4,5000	21,491	4,5000	21,491	0,00	21,091	21,491	-0,400	4,5000	21,491	0,00	6,5000	21,491	7,2926	20,963	-0,528
83	5,2364	21,309	-0,491	4,5000	21,800	4,5000	21,800	0,00	21,072	21,800	-0,728	4,5000	21,800	0,00	6,5000	21,800	7,5909	21,073	-0,727
84	4,7142	21,332	-0,143	4,5000	21,475	4,5000	21,475	0,00	21,075	21,475	-0,400	4,5000	21,475	0,00					
85	4,9419	21,284	-0,295	4,5000	21,579	4,5000	21,579	0,00	21,179	21,579	-0,400	4,5000	21,579	0,00	6,5000	21,579	7,0580	21,207	-0,372
86	4,9352	21,324	-0,290	4,5000	21,614	4,5000	21,614	0,00	21,215	21,614	-0,399	4,5000	21,614	0,00	6,5000	21,614	7,1105	21,207	-0,407
87	4,8166	21,421	-0,211	4,5000	21,632	4,5000	21,632	0,00	21,232	21,632	-0,400	4,5000	21,632	0,00	6,5000	21,632	7,2513	21,131	-0,501
88	4,8581	21,305	-0,239	4,5000	21,544	4,5000	21,544	0,00	21,144	21,544	-0,400	4,5000	21,544	0,00	6,5000	21,544	7,1192	21,131	-0,413
89	4,5306	21,413	-0,020	4,5000	21,433	4,5000	21,433	0,00	21,033	21,433	-0,400	4,5000	21,433	0,00	6,5000	21,433	7,0275	21,081	-0,352
90	4,5080	21,267	0,008	4,5000	21,259	4,5000	21,259	0,00	20,859	21,259	-0,400	4,5000	21,259	0,00	6,5000	21,259	6,9753	20,942	-0,317
91	4,6537	20,986	-0,102	4,5000	21,088	4,5000	21,088	0,00	20,688	21,088	-0,400	4,5000	21,088	0,00	6,5000	21,088	7,0020	20,753	-0,335
92	4,5815	20,903	-0,054	4,5000	20,957	4,5000	20,957	0,00	20,557	20,957	-0,400	4,5000	20,957	0,00	6,5000	20,957	7,0373	20,599	-0,358
93	4,9455	20,620	-0,297	4,5000	20,917	4,5000	20,917	0,00	20,517	20,917	-0,400	4,5000	20,917	0,00	6,5000	20,917	6,8461	20,686	-0,231
94						4,5000	20,923	0,00	20,523	20,923	-0,400	4,5000	20,923	0,00	6,5000	20,923	7,0365	20,565	-0,358
95	5,3437	20,346	-0,563	4,5000	20,909	4,5000	20,909	0,00	20,509	20,909	-0,400	4,5000	20,909	0,00	6,5000	20,909	7,2271	20,424	-0,485
96	5,2976	20,319	-0,532	4,5000	20,851	4,5000	20,851	0,00	20,451	20,851	-0,400	4,5000	20,851	0,00	6,5000	20,851	7,0974	20,453	-0,398
97	5,2747	20,261	-0,517	4,5000	20,778	4,5000	20,778	0,00	20,378	20,778	-0,400	4,5000	20,778	0,00	6,5000	20,778	7,1190	20,365	-0,413
98	5,0667	20,332	-0,378	4,5000	20,710	4,5000	20,710	0,00	20,310	20,710	-0,400	4,5000	20,710	0,00	6,5000	20,710	7,1788	20,257	-0,453
99	5,1564	20,272	-0,438	4,5000	20,710	4,5000	20,710	0,00	20,310	20,710	-0,400	4,5000	20,710	0,00	6,5000	20,710	7,1669	20,265	-0,445
100	5,3764	20,147	-0,584	4,5000	20,731	4,5000	20,731	0,00	20,331	20,731	-0,400	4,5000	20,731	0,00	6,5000	20,731	7,1679	20,286	-0,445
101	5,4289	20,011	-0,619	4,5000	20,630	4,5000	20,630	0,00	20,230	20,630	-0,400	4,5000	20,630	0,00	6,5000	20,630	7,1135	20,221	-0,409
102	5,2712	19,962	-0,514	4,5000	20,476	4,5000	20,476	0,00	20,076	20,476	-0,400	4,5000	20,476	0,00	6,5000	20,476	6,9315	20,188	-0,288
103	5,0474	20,165	-0,365	4,5000	20,530	4,5000	20,530	0,00	20,130	20,530	-0,400	4,5000	20,530	0,00	6,5000	20,530	6,9079	20,258	-0,272
104	4,9352	20,278	-0,290	4,5000	20,568	4,5000	20,568	0,00	20,168	20,568	-0,400	4,5000	20,568	0,00	6,5000	20,568	6,9776	20,250	-0,318
105	5,1259	20,253	-0,417	4,5000	20,670	4,5000	20,670	0,00	20,270	20,670	-0,400	4,5000	20,670	0,00	6,5000	20,670	7,1741	20,221	-0,449

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
106	5,0262	20,384	-0,351	4,5000	20,735	4,5000	20,735	0,00	20,335	20,735	-0,400	4,5000	20,735	0,00	6,5000	20,735	7,2699	20,222	-0,513
107	5,0309	20,431	-0,354	4,5000	20,785	4,5000	20,785	0,00	20,385	20,785	-0,400	4,5000	20,785	0,00	6,5000	20,785	7,1125	20,377	-0,408
108	5,1165	20,446	-0,411	4,5000	20,857	4,5000	20,857	0,00	20,457	20,857	-0,400	4,5000	20,857	0,00	6,5000	20,857	6,8905	20,597	-0,260
109	5,3300	20,333	-0,553	4,5000	20,886	4,5000	20,886	0,00	20,486	20,886	-0,400	4,5000	20,886	0,00	6,5000	20,886	7,3072	20,348	-0,538
110	5,2165	20,430	-0,478	4,5000	20,908	4,5000	20,908	0,00	20,508	20,908	-0,400	4,5000	20,908	0,00	6,5000	20,908	7,2950	20,378	-0,530
111	5,1399	20,503	-0,427	4,5000	20,930	4,5000	20,930	0,00	20,530	20,930	-0,400	4,5000	20,930	0,00	6,5000	20,930	7,2837	20,408	-0,522
112	5,1412	20,533	-0,428	4,5000	20,961	4,5000	20,961	0,00	20,561	20,961	-0,400	4,5000	20,961	0,00	6,5000	20,961	6,8729	20,712	-0,249
113	5,0712	20,638	-0,381	4,5000	21,019	4,5000	21,019	0,00	20,619	21,019	-0,400	4,5000	21,019	0,00					
114	5,1009	20,583	-0,401	4,5000	20,984	4,5000	20,984	0,00	20,584	20,984	-0,400	4,5000	20,984	0,00	6,5000	20,984	6,9012	20,717	-0,267
115	5,0569	20,608	-0,371	4,5000	20,979	4,5000	20,979	0,00	20,579	20,979	-0,400	4,5000	20,979	0,00	6,5000	20,979	6,9546	20,676	-0,303
116	4,9117	20,639	-0,274	4,5000	20,913	4,5000	20,913	0,00	20,513	20,913	-0,400	4,5000	20,913	0,00	6,5000	20,913	6,8689	20,667	-0,246
116+19,4	5,0468	20,363	-0,365	4,5000	20,728	4,5000	20,728	0,00	20,328	20,728	-0,400	4,5000	20,728	0,00	6,5000	20,728	6,9440	20,432	-0,296
117	5,0777	20,335	-0,385	4,5000	20,720	4,5000	20,720	0,00	20,320	20,720	-0,400	4,5000	20,720	0,00	6,5000	20,720	6,9665	20,409	-0,311
118	5,4122	19,808	-0,608	4,5000	20,416	4,5000	20,416	0,00	20,016	20,416	-0,400	4,5000	20,416	0,00	6,5000	20,416	7,0574	20,044	-0,372
119	5,1730	19,649	-0,449	4,5000	20,098	4,5000	20,098	0,00	19,698	20,098	-0,400	4,5000	20,098	0,00	6,5000	20,098	7,1118	19,690	-0,408
120	4,9171	19,502	-0,278	4,5000	19,780	4,5000	19,780	0,00	19,379	19,780	-0,401	4,5000	19,780	0,00	6,5000	19,780	7,1691	19,334	-0,446
121	5,3181	18,988	-0,545	4,5000	19,533	4,5000	19,533	0,00	19,133	19,533	-0,400	4,5000	19,533	0,00	6,5000	19,533	7,0925	19,138	-0,395
122	5,3168	18,808	-0,545	4,5000	19,353	4,5000	19,353	0,00	18,953	19,353	-0,400	4,5000	19,353	0,00	6,5000	19,353	7,4149	18,743	-0,610
123	5,1873	18,706	-0,458	4,5000	19,164	4,5000	19,164	0,00	18,764	19,164	-0,400	4,5000	19,164	0,00					
123+6,43	5,0442	18,755	-0,363	4,5000	19,118	4,5000	19,118	0,00	18,718	19,118	-0,400	4,5000	19,118	0,00	6,5000	19,118	7,2617	18,610	-0,508
124						4,5000	19,055	0,00	18,655	19,055	-0,400	4,5000	19,055	0,00	6,5000	19,055	7,2853	18,531	-0,524
125						4,5000	19,058	0,00	18,658	19,058	-0,400	4,5000	19,058	0,00	6,5000	19,058	7,0413	18,697	-0,361
126						4,5000	19,068	0,00	18,668	19,068	-0,400	4,5000	19,068	0,00	6,5000	19,068	7,4896	18,408	-0,660
127	5,7698	18,279	-0,847	4,5000	19,126	4,5000	19,126	0,00	18,726	19,126	-0,400	4,5000	19,126	0,00	6,5000	19,126	7,7376	18,301	-0,825
128	5,5221	18,541	-0,682	4,5000	19,223	4,5000	19,223	0,00	18,823	19,223	-0,400	4,5000	19,223	0,00					
129	5,1773	18,841	-0,452	4,5000	19,293	4,5000	19,293	0,00	18,893	19,293	-0,400	4,5000	19,293	0,00	6,5000	19,293	7,9524	18,325	-0,968
130	5,4336	18,764	-0,623	4,5000	19,387	4,5000	19,387	0,00	18,987	19,387	-0,400	4,5000	19,387	0,00	6,5000	19,387	7,8802	18,467	-0,920
131	4,9308	19,246	-0,287	4,5000	19,533	4,5000	19,533	0,00	19,133	19,533	-0,400	4,5000	19,533	0,00	6,5000	19,533	7,2460	19,036	-0,497
132	4,8707	19,485	-0,247	4,5000	19,732	4,5000	19,732	0,00	19,332	19,732	-0,400	4,5000	19,732	0,00	6,5000	19,732	6,8473	19,500	-0,232
133	4,6390	19,851	-0,093	4,5000	19,944	4,5000	19,944	0,00	19,544	19,944	-0,400	4,5000	19,944	0,00	6,5000	19,944	6,9062	19,673	-0,271
134	4,9837	19,834	-0,322	4,5000	20,156	4,5000	20,156	0,00	19,756	20,156	-0,400	4,5000	20,156	0,00	6,5000	20,156	6,9082	19,884	-0,272

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
135	5,2002	19,859	-0,467	4,5000	20,326	4,5000	20,326	0,00	19,926	20,326	-0,400	4,5000	20,326	0,00	6,5000	20,326	6,9553	20,022	-0,304
136	5,2203	20,019	-0,480	4,5000	20,499	4,5000	20,499	0,00	20,099	20,499	-0,400	4,5000	20,499	0,00	6,5000	20,499	7,0780	20,114	-0,385
137	5,2144	20,226	-0,476	4,5000	20,702	4,5000	20,702	0,00	20,302	20,702	-0,400	4,5000	20,702	0,00	6,5000	20,702	7,1376	20,277	-0,425
138	4,8995	20,641	-0,266	4,5000	20,907	4,5000	20,907	0,00	20,507	20,907	-0,400	4,5000	20,907	0,00	6,5000	20,907	7,1560	20,470	-0,437
139	5,1778	20,566	-0,452	4,5000	21,018	4,5000	21,018	0,00	20,618	21,018	-0,400	4,5000	21,018	0,00	6,5000	21,018	6,8730	20,769	-0,249
140	5,5710	20,367	-0,714	4,5000	21,081	4,5000	21,081	0,00	20,681	21,081	-0,400	4,5000	21,081	0,00	6,5000	21,081	7,2402	20,588	-0,493
141	5,4685	20,443	-0,646	4,5000	21,089	4,5000	21,089	0,00	20,689	21,089	-0,400	4,5000	21,089	0,00	6,5000	21,089	7,1439	20,660	-0,429
142	5,4974	20,452	-0,665	4,5000	21,117	4,5000	21,117	0,00	20,717	21,117	-0,400	4,5000	21,117	0,00	6,5000	21,117	7,1675	20,672	-0,445
143	4,8852	20,880	-0,257	4,5000	21,137	4,5000	21,137	0,00	20,737	21,137	-0,400	4,5000	21,137	0,00					
144	4,8198	20,950	-0,213	4,5000	21,163	4,5000	21,163	0,00	20,763	21,163	-0,400	4,5000	21,163	0,00	6,5000	21,163	7,0228	20,814	-0,349
145	4,7097	21,022	-0,140	4,5000	21,162	4,5000	21,162	0,00	20,762	21,162	-0,400	4,5000	21,162	0,00	6,5000	21,162	6,8061	20,958	-0,204
146	5,4765	20,531	-0,651	4,5000	21,182	4,5000	21,182	0,00	20,782	21,182	-0,400	4,5000	21,182	0,00	6,5000	21,182	6,6508	21,081	-0,101
147	5,3543	20,632	-0,570	4,5000	21,202	4,5000	21,202	0,00	20,802	21,202	-0,400	4,5000	21,202	0,00	6,5000	21,202	7,1043	20,799	-0,403
148	5,1056	20,816	-0,404	4,5000	21,220	4,5000	21,220	0,00	20,820	21,220	-0,400	4,5000	21,220	0,00	6,5000	21,220	7,1233	20,804	-0,416
149	5,1570	20,795	-0,438	4,5000	21,233	4,5000	21,233	0,00	20,833	21,233	-0,400	4,5000	21,233	0,00	6,5000	21,233	7,2257	20,749	-0,484
150	4,7990	20,875	-0,199	4,5000	21,074	4,5000	21,074	0,00	20,673	21,074	-0,401	4,5000	21,074	0,00	6,5000	21,074	6,9766	20,756	-0,318
151	5,3556	20,291	-0,570	4,5000	20,861	4,5000	20,861	0,00	20,461	20,861	-0,400	4,5000	20,861	0,00	6,5000	20,861	7,0061	20,524	-0,337
152	4,9775	20,527	-0,318	4,5000	20,845	4,5000	20,845	0,00	20,445	20,845	-0,400	4,5000	20,845	0,00	6,5000	20,845	7,2222	20,364	-0,481
153	5,0492	20,415	-0,366	4,5000	20,781	4,5000	20,781	0,00	20,381	20,781	-0,400	4,5000	20,781	0,00	6,5000	20,781	7,1172	20,370	-0,411
154	5,1450	20,315	-0,430	4,5000	20,745	4,5000	20,745	0,00	20,346	20,745	-0,399	4,5000	20,745	0,00	6,5000	20,745	7,4288	20,126	-0,619
155	6,2367	19,671	-1,158	4,5000	20,829	4,5000	20,829	0,00	20,429	20,829	-0,400	4,5000	20,829	0,00	6,5000	20,829	7,9763	19,845	-0,984
156	5,1403	20,388	-0,427	4,5000	20,815	4,5000	20,815	0,00	20,415	20,815	-0,400	4,5000	20,815	0,00	6,5000	20,815	7,3063	20,277	-0,538
157	5,0577	20,469	-0,372	4,5000	20,841	4,5000	20,841	0,00	20,441	20,841	-0,400	4,5000	20,841	0,00	6,5000	20,841	7,0643	20,465	-0,376
158	5,3046	20,422	-0,536	4,5000	20,958	4,5000	20,958	0,00	20,558	20,958	-0,400	4,5000	20,958	0,00	6,5000	20,958	6,8729	20,709	-0,249
159	5,3861	20,613	-0,591	4,5000	21,204	4,5000	21,204	0,00	20,804	21,204	-0,400	4,5000	21,204	0,00	6,5000	21,204	7,0533	20,835	-0,369
160	5,3671	20,775	-0,578	4,5000	21,353	4,5000	21,353	0,00	20,953	21,353	-0,400	4,5000	21,353	0,00	6,5000	21,353	7,2075	20,881	-0,472
161	5,4042	20,669	-0,603	4,5000	21,272	4,5000	21,272	0,00	20,872	21,272	-0,400	4,5000	21,272	0,00	6,5000	21,272	7,0347	20,916	-0,356
162	5,1947	20,739	-0,463	4,5000	21,202	4,5000	21,202	0,00	20,802	21,202	-0,400	4,5000	21,202	0,00	6,5000	21,202	7,1811	20,748	-0,454
163	5,1728	20,650	-0,448	4,5000	21,098	4,5000	21,098	0,00	20,698	21,098	-0,400	4,5000	21,098	0,00	6,5000	21,098	7,2493	20,598	-0,500
164	5,1340	20,562	-0,423	4,5000	20,985	4,5000	20,985	0,00	20,585	20,985	-0,400	4,5000	20,985	0,00	6,5000	20,985	7,2128	20,510	-0,475
165	5,2658	20,459	-0,511	4,5000	20,970	4,5000	20,970	0,00	20,570	20,970	-0,400	4,5000	20,970	0,00	6,5000	20,970	7,2514	20,469	-0,501



Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
166	5,1321	20,540	-0,421	4,5000	20,961	4,5000	20,961	0,00	20,561	20,961	-0,400	4,5000	20,961	0,00	6,5000	20,961	7,2889	20,435	-0,526
167	5,9104	20,015	-0,940	4,5000	20,955	4,5000	20,955	0,00	20,555	20,955	-0,400	4,5000	20,955	0,00	6,5000	20,955	7,4282	20,336	-0,619
168	5,4470	20,371	-0,631	4,5000	21,002	4,5000	21,002	0,00	20,602	21,002	-0,400	4,5000	21,002	0,00	6,5000	21,002	7,3324	20,447	-0,555
169	5,2835	20,596	-0,522	4,5000	21,118	4,5000	21,118	0,00	20,718	21,118	-0,400	4,5000	21,118	0,00	6,5000	21,118	6,9525	20,816	-0,302
170	5,2842	20,741	-0,523	4,5000	21,264	4,5000	21,264	0,00	20,864	21,264	-0,400	4,5000	21,264	0,00	6,5000	21,264	6,9480	20,965	-0,299
171	5,1513	21,009	-0,434	4,5000	21,443	4,5000	21,443	0,00	21,043	21,443	-0,400	4,5000	21,443	0,00	6,5000	21,443	7,0560	21,072	-0,371
172	5,1884	21,099	-0,459	4,5000	21,558	4,5000	21,558	0,00	21,158	21,558	-0,400	4,5000	21,558	0,00	6,5000	21,558	7,0241	21,209	-0,349
173	5,3596	21,158	-0,573	4,5000	21,731	4,5000	21,731	0,00	21,331	21,731	-0,400	4,5000	21,731	0,00	6,5000	21,731	6,9587	21,425	-0,306
174	5,2439	21,398	-0,496	4,5000	21,894	4,5000	21,894	0,00	21,494	21,894	-0,400	4,5000	21,894	0,00	6,5000	21,894	6,7133	21,752	-0,142
175	4,9751	21,754	-0,317	4,5000	22,071	4,5000	22,071	0,00	21,671	22,071	-0,400	4,5000	22,071	0,00	6,5000	22,071	6,9262	21,787	-0,284
176	5,0932	21,805	-0,395	4,5000	22,200	4,5000	22,200	0,00	21,800	22,200	-0,400	4,5000	22,200	0,00	6,5000	22,200	7,1349	21,777	-0,423
177	5,1866	21,851	-0,458	4,5000	22,309	4,5000	22,309	0,00	21,909	22,309	-0,400	4,5000	22,309	0,00	6,5000	22,309	7,1772	21,858	-0,451
178	5,2067	21,902	-0,471	4,5000	22,373	4,5000	22,373	0,00	21,973	22,373	-0,400	4,5000	22,373	0,00	6,5000	22,373	7,1543	21,937	-0,436
179	5,3856	21,843	-0,590	4,5000	22,433	4,5000	22,433	0,00	22,033	22,433	-0,400	4,5000	22,433	0,00	6,5000	22,433	7,1272	22,015	-0,418
180	5,4294	21,844	-0,620	4,5000	22,464	4,5000	22,464	0,00	22,064	22,464	-0,400	4,5000	22,464	0,00	6,5000	22,464	7,2362	21,973	-0,491
181	5,4517	21,851	-0,634	4,5000	22,485	4,5000	22,485	0,00	22,085	22,485	-0,400	4,5000	22,485	0,00	6,5000	22,485	7,3490	21,919	-0,566
182	5,1688	22,037	-0,446	4,5000	22,483	4,5000	22,483	0,00	22,083	22,483	-0,400	4,5000	22,483	0,00	6,5000	22,483	7,1933	22,021	-0,462
183	5,1961	21,997	-0,464	4,5000	22,461	4,5000	22,461	0,00	22,061	22,461	-0,400	4,5000	22,461	0,00	6,5000	22,461	7,2477	21,962	-0,499
184	4,8740	22,217	-0,249	4,5000	22,466	4,5000	22,466	0,00	22,066	22,466	-0,400	4,5000	22,466	0,00	6,5000	22,466	7,1614	22,025	-0,441
185	5,4281	21,828	-0,619	4,5000	22,447	4,5000	22,447	0,00	22,047	22,447	-0,400	4,5000	22,447	0,00	6,5000	22,447	7,1387	22,021	-0,426
186	5,3020	21,870	-0,535	4,5000	22,405	4,5000	22,405	0,00	22,005	22,405	-0,400	4,5000	22,405	0,00	6,5000	22,405	6,9943	22,075	-0,330
186+3,85	5,2247	21,909	-0,483	4,5000	22,392	4,5000	22,392	0,00	21,992	22,392	-0,400	4,5000	22,392	0,00	6,5000	22,392	7,1593	21,952	-0,440
187	5,3063	21,806	-0,538	4,5000	22,344	4,5000	22,344	0,00	21,944	22,344	-0,400	4,5000	22,344	0,00	6,5000	22,344	6,8832	22,089	-0,255
188	5,4917	21,669	-0,661	4,5000	22,330	4,5000	22,330	0,00	21,930	22,330	-0,400	4,5000	22,330	0,00	6,5000	22,330	6,9471	22,032	-0,298
189	5,3605	21,769	-0,574	4,5000	22,343	4,5000	22,343	0,00	21,943	22,343	-0,400	4,5000	22,343	0,00	6,5000	22,343	7,3059	21,806	-0,537
190	5,3557	21,705	-0,570	4,5000	22,275	4,5000	22,275	0,00	21,875	22,275	-0,400	4,5000	22,275	0,00	6,5000	22,275	7,1799	21,822	-0,453
190+12,2	5,2507	21,732	-0,500	4,5000	22,232	4,5000	22,232	0,00	21,832	22,232	-0,400	4,5000	22,232	0,00	6,5000	22,232	7,1154	21,822	-0,410
191	4,8725	21,990	-0,248	4,5000	22,238	4,5000	22,238	0,00	21,838	22,238	-0,400	4,5000	22,238	0,00	6,5000	22,238	7,1173	21,827	-0,411
192	5,4384	21,612	-0,626	4,5000	22,238	4,5000	22,238	0,00	21,838	22,238	-0,400	4,5000	22,238	0,00	6,5000	22,238	7,1835	21,782	-0,456
193	4,8791	21,869	-0,253	4,5000	22,122	4,5000	22,122	0,00	21,722	22,122	-0,400	4,5000	22,122	0,00	6,5000	22,122	7,0200	21,775	-0,347
194	5,3666	21,470	-0,578	4,5000	22,048	4,5000	22,048	0,00	21,648	22,048	-0,400	4,5000	22,048	0,00	6,5000	22,048	7,1215	21,634	-0,414

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
195	5,3303	21,436	-0,554	4,5000	21,990	4,5000	21,990	0,00	21,590	21,990	-0,400	4,5000	21,990	0,00	6,5000	21,990	7,1622	21,549	-0,441
196	4,9974	21,720	-0,332	4,5000	22,052	4,5000	22,052	0,00	21,652	22,052	-0,400	4,5000	22,052	0,00	6,5000	22,052	7,4648	21,409	-0,643
197	5,6482	21,260	-0,766	4,5000	22,026	4,5000	22,026	0,00	21,626	22,026	-0,400	4,5000	22,026	0,00	6,5000	22,026	7,4896	21,366	-0,660
198	5,3844	21,388	-0,590	4,5000	21,978	4,5000	21,978	0,00	21,578	21,978	-0,400	4,5000	21,978	0,00	6,5000	21,978	7,2354	21,488	-0,490
199	5,1029	21,669	-0,402	4,5000	22,071	4,5000	22,071	0,00	21,671	22,071	-0,400	4,5000	22,071	0,00	6,5000	22,071	7,2737	21,555	-0,516
200	4,8526	21,903	-0,235	4,5000	22,138	4,5000	22,138	0,00	21,738	22,138	-0,400	4,5000	22,138	0,00	6,5000	22,138	7,2572	21,633	-0,505
201	4,8290	21,937	-0,219	4,5000	22,156	4,5000	22,156	0,00	21,756	22,156	-0,400	4,5000	22,156	0,00	6,5000	22,156	7,1919	21,695	-0,461
202	5,4726	21,495	-0,648	4,5000	22,143	4,5000	22,143	0,00	21,743	22,143	-0,400	4,5000	22,143	0,00	6,5000	22,143	7,1336	21,721	-0,422
203	5,3639	21,540	-0,576	4,5000	22,116	4,5000	22,116	0,00	21,716	22,116	-0,400	4,5000	22,116	0,00	6,5000	22,116	7,1309	21,695	-0,421
204	5,3822	21,601	-0,588	4,5000	22,189	4,5000	22,189	0,00	21,789	22,189	-0,400	4,5000	22,189	0,00	6,5000	22,189	7,2065	21,718	-0,471
205	5,3839	21,640	-0,589	4,5000	22,229	4,5000	22,229	0,00	21,829	22,229	-0,400	4,5000	22,229	0,00	6,5000	22,229	7,2200	21,749	-0,480
206	4,8700	21,976	-0,247	4,5000	22,223	4,5000	22,223	0,00	21,823	22,223	-0,400	4,5000	22,223	0,00	6,5000	22,223	7,2008	21,756	-0,467
207	5,1090	21,855	-0,406	4,5000	22,261	4,5000	22,261	0,00	21,861	22,261	-0,400	4,5000	22,261	0,00	6,5000	22,261	7,1809	21,807	-0,454
208	4,8715	22,066	-0,248	4,5000	22,314	4,5000	22,314	0,00	21,914	22,314	-0,400	4,5000	22,314	0,00	6,5000	22,314	7,1776	21,862	-0,452
209	5,0028	22,019	-0,335	4,5000	22,354	4,5000	22,354	0,00	21,954	22,354	-0,400	4,5000	22,354	0,00	6,5000	22,354	7,1333	21,932	-0,422
210	4,8551	22,175	-0,237	4,5000	22,412	4,5000	22,412	0,00	22,012	22,412	-0,400	4,5000	22,412	0,00	6,5000	22,412	7,0802	22,025	-0,387
211	4,7240	22,294	-0,149	4,5000	22,443	4,5000	22,443	0,00	22,043	22,443	-0,400	4,5000	22,443	0,00	6,5000	22,443	7,1507	22,009	-0,434
212	5,1532	22,066	-0,436	4,5000	22,502	4,5000	22,502	0,00	22,102	22,502	-0,400	4,5000	22,502	0,00	6,5000	22,502	7,0245	22,152	-0,350
213	4,8833	22,281	-0,256	4,5000	22,537	4,5000	22,537	0,00	22,137	22,537	-0,400	4,5000	22,537	0,00	6,5000	22,537	7,0514	22,169	-0,368
214	5,3940	21,968	-0,596	4,5000	22,564	4,5000	22,564	0,00	22,164	22,564	-0,400	4,5000	22,564	0,00	6,5000	22,564	7,0904	22,170	-0,394
215	5,0098	22,254	-0,340	4,5000	22,594	4,5000	22,594	0,00	22,194	22,594	-0,400	4,5000	22,594	0,00	6,5000	22,594	7,2287	22,108	-0,486
216	5,4165	21,988	-0,611	4,5000	22,599	4,5000	22,599	0,00	22,199	22,599	-0,400	4,5000	22,599	0,00	6,5000	22,599	7,2716	22,085	-0,514
217	5,1647	22,109	-0,443	4,5000	22,552	4,5000	22,552	0,00	22,152	22,552	-0,400	4,5000	22,552	0,00	6,5000	22,552	6,8741	22,303	-0,249
218	5,0488	22,109	-0,366	4,5000	22,475	4,5000	22,475	0,00	22,075	22,475	-0,400	4,5000	22,475	0,00	6,5000	22,475	6,9028	22,206	-0,269
219	6,0939	21,431	-1,063	4,5000	22,494	4,5000	22,494	0,00	22,094	22,494	-0,400	4,5000	22,494	0,00	6,5000	22,494	7,0088	22,155	-0,339
220	5,1979	22,047	-0,465	4,5000	22,512	4,5000	22,512	0,00	22,112	22,512	-0,400	4,5000	22,512	0,00	6,5000	22,512	7,0104	22,172	-0,340
221	5,4680	21,916	-0,645	4,5000	22,561	4,5000	22,561	0,00	22,161	22,561	-0,400	4,5000	22,561	0,00	6,5000	22,561	6,6869	22,436	-0,125
222	4,9885	22,259	-0,326	4,5000	22,585	4,5000	22,585	0,00	22,185	22,585	-0,400	4,5000	22,585	0,00	6,5000	22,585	6,6115	22,511	-0,074
223	5,4349	21,933	-0,623	4,5000	22,556	4,5000	22,556	0,00	22,156	22,556	-0,400	4,5000	22,556	0,00	6,5000	22,556	6,8664	22,312	-0,244
224	5,2886	22,057	-0,526	4,5000	22,583	4,5000	22,583	0,00	22,183	22,583	-0,400	4,5000	22,583	0,00	6,5000	22,583	7,1413	22,155	-0,428
225	5,0385	22,292	-0,359	4,5000	22,651	4,5000	22,651	0,00	22,251	22,651	-0,400	4,5000	22,651	0,00	6,5000	22,651	7,1808	22,197	-0,454

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
226	5,0775	22,257	-0,385	4,5000	22,642	4,5000	22,642	0,00	22,242	22,642	-0,400	4,5000	22,642	0,00	6,5000	22,642	7,0738	22,260	-0,382
227	5,1219	22,222	-0,415	4,5000	22,637	4,5000	22,637	0,00	22,237	22,637	-0,400	4,5000	22,637	0,00	6,5000	22,637	7,1422	22,209	-0,428
228	5,2837	22,051	-0,523	4,5000	22,574	4,5000	22,574	0,00	22,174	22,574	-0,400	4,5000	22,574	0,00	6,5000	22,574	7,1917	22,113	-0,461
229	5,3481	21,797	-0,565	4,5000	22,362	4,5000	22,362	0,00	21,962	22,362	-0,400	4,5000	22,362	0,00	6,5000	22,362	7,1622	21,921	-0,441
230	5,2856	21,663	-0,524	4,5000	22,187	4,5000	22,187	0,00	21,787	22,187	-0,400	4,5000	22,187	0,00	6,5000	22,187	7,1563	21,749	-0,438
231	5,3249	21,497	-0,550	4,5000	22,047	4,5000	22,047	0,00	21,647	22,047	-0,400	4,5000	22,047	0,00	6,5000	22,047	6,9470	21,749	-0,298
232	5,3586	21,345	-0,572	4,5000	21,917	4,5000	21,917	0,00	21,517	21,917	-0,400	4,5000	21,917	0,00	6,5000	21,917	6,9503	21,617	-0,300
233	5,3399	21,187	-0,560	4,5000	21,747	4,5000	21,747	0,00	21,347	21,747	-0,400	4,5000	21,747	0,00	6,5000	21,747	6,8285	21,528	-0,219
234	4,9788	21,257	-0,319	4,5000	21,576	4,5000	21,576	0,00	21,176	21,576	-0,400	4,5000	21,576	0,00	6,5000	21,576	6,5402	21,549	-0,027
235	5,3441	20,844	-0,563	4,5000	21,407	4,5000	21,407	0,00	21,007	21,407	-0,400	4,5000	21,407	0,00	6,5000	21,407	6,8848	21,150	-0,257
236	5,3057	20,656	-0,537	4,5000	21,193	4,5000	21,193	0,00	20,793	21,193	-0,400	4,5000	21,193	0,00	6,5000	21,193	6,8711	20,946	-0,247
237	4,8766	20,803	-0,251	4,5000	21,054	4,5000	21,054	0,00	20,653	21,054	-0,401	4,5000	21,054	0,00	6,5000	21,054	6,8310	20,833	-0,221
238	5,3438	20,380	-0,563	4,5000	20,943	4,5000	20,943	0,00	20,543	20,943	-0,400	4,5000	20,943	0,00	6,5000	20,943	6,9889	20,617	-0,326
239	5,0254	20,459	-0,350	4,5000	20,809	4,5000	20,809	0,00	20,409	20,809	-0,400	4,5000	20,809	0,00	6,5000	20,809	6,8234	20,593	-0,216
240	5,1625	20,249	-0,442	4,5000	20,691	4,5000	20,691	0,00	20,291	20,691	-0,400	4,5000	20,691	0,00	6,5000	20,691	6,8749	20,441	-0,250
241	5,1380	20,159	-0,425	4,5000	20,584	4,5000	20,584	0,00	20,184	20,584	-0,400	4,5000	20,584	0,00	6,5000	20,584	6,9439	20,288	-0,296
242	5,2908	20,013	-0,527	4,5000	20,540	4,5000	20,540	0,00	20,140	20,540	-0,400	4,5000	20,540	0,00	6,5000	20,540	7,0508	20,173	-0,367
242+0,01	5,2908	20,013	-0,527	4,5000	20,540	4,5000	20,540	0,00	20,140	20,540	-0,400	4,5000	20,540	0,00	6,5000	20,540	7,0506	20,173	-0,367
243	5,2560	19,974	-0,504	4,5000	20,478	4,5000	20,478	0,00	20,078	20,478	-0,400	4,5000	20,478	0,00	6,5000	20,478	6,8523	20,243	-0,235
244	5,1499	19,941	-0,433	4,5000	20,374	4,5000	20,374	0,00	19,974	20,374	-0,400	4,5000	20,374	0,00	6,5000	20,374	6,9173	20,096	-0,278
245	5,3462	19,746	-0,564	4,5000	20,310	4,5000	20,310	0,00	19,910	20,310	-0,400	4,5000	20,310	0,00	6,5000	20,310	6,9854	19,986	-0,324
245+15,0	5,3332	19,757	-0,555	4,5000	20,312	4,5000	20,312	0,00	19,912	20,312	-0,400	4,5000	20,312	0,00	6,5000	20,312	7,0134	19,970	-0,342
246	5,4825	19,653	-0,655	4,5000	20,308	4,5000	20,308	0,00	19,908	20,308	-0,400	4,5000	20,308	0,00	6,5000	20,308	7,0062	19,971	-0,337
247	5,8496	19,367	-0,900	4,5000	20,267	4,5000	20,267	0,00	19,867	20,267	-0,400	4,5000	20,267	0,00	6,5000	20,267	7,0795	19,881	-0,386
248	5,0865	19,731	-0,391	4,5000	20,122	4,5000	20,122	0,00	19,722	20,122	-0,400	4,5000	20,122	0,00	6,5000	20,122	7,0183	19,776	-0,346
249	5,2536	19,551	-0,502	4,5000	20,053	4,5000	20,053	0,00	19,653	20,053	-0,400	4,5000	20,053	0,00	6,5000	20,053	6,8995	19,787	-0,266
250	5,2854	19,453	-0,524	4,5000	19,977	4,5000	19,977	0,00	19,577	19,977	-0,400	4,5000	19,977	0,00	6,5000	19,977	6,7016	19,843	-0,134
251	5,5402	19,277	-0,693	4,5000	19,970	4,5000	19,970	0,00	19,570	19,970	-0,400	4,5000	19,970	0,00	6,5000	19,970	7,0355	19,613	-0,357
252	5,3434	19,403	-0,562	4,5000	19,965	4,5000	19,965	0,00	19,565	19,965	-0,400	4,5000	19,965	0,00	6,5000	19,965	7,0451	19,602	-0,363
253	5,3404	19,480	-0,560	4,5000	20,040	4,5000	20,040	0,00	19,640	20,040	-0,400	4,5000	20,040	0,00	6,5000	20,040	7,1758	19,589	-0,451
254	5,0931	19,721	-0,395	4,5000	20,116	4,5000	20,116	0,00	19,716	20,116	-0,400	4,5000	20,116	0,00	6,5000	20,116	7,0898	19,723	-0,393

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
255	5,1978	19,665	-0,465	4,5000	20,130	4,5000	20,130	0,00	19,730	20,130	-0,400	4,5000	20,130	0,00	6,5000	20,130	7,0145	19,787	-0,343
256	5,4453	19,663	-0,630	4,5000	20,293	4,5000	20,293	0,00	19,893	20,293	-0,400	4,5000	20,293	0,00	6,5000	20,293	6,9402	20,000	-0,293
257	5,3067	19,840	-0,538	4,5000	20,378	4,5000	20,378	0,00	19,978	20,378	-0,400	4,5000	20,378	0,00	6,5000	20,378	7,0004	20,044	-0,334
258	5,4742	19,847	-0,649	4,5000	20,496	4,5000	20,496	0,00	20,096	20,496	-0,400	4,5000	20,496	0,00	6,5000	20,496	7,1859	20,039	-0,457
259	5,1960	20,147	-0,464	4,5000	20,611	4,5000	20,611	0,00	20,211	20,611	-0,400	4,5000	20,611	0,00	6,5000	20,611	7,1400	20,184	-0,427
260	5,5239	20,020	-0,683	4,5000	20,703	4,5000	20,703	0,00	20,303	20,703	-0,400	4,5000	20,703	0,00	6,5000	20,703	7,0198	20,356	-0,347
261	5,1810	20,390	-0,454	4,5000	20,844	4,5000	20,844	0,00	20,444	20,844	-0,400	4,5000	20,844	0,00	6,5000	20,844	7,4012	20,243	-0,601
262	5,3928	20,193	-0,595	4,5000	20,788	4,5000	20,788	0,00	20,388	20,788	-0,400	4,5000	20,788	0,00	6,5000	20,788	7,1979	20,323	-0,465
263	5,2618	20,285	-0,508	4,5000	20,793	4,5000	20,793	0,00	20,393	20,793	-0,400	4,5000	20,793	0,00	6,5000	20,793	7,0983	20,394	-0,399
264	5,3141	20,275	-0,543	4,5000	20,818	4,5000	20,818	0,00	20,418	20,818	-0,400	4,5000	20,818	0,00	6,5000	20,818	7,1698	20,371	-0,447
265	5,4878	20,132	-0,659	4,5000	20,791	4,5000	20,791	0,00	20,391	20,791	-0,400	4,5000	20,791	0,00	6,5000	20,791	7,0423	20,429	-0,362
266	5,4771	20,115	-0,651	4,5000	20,766	4,5000	20,766	0,00	20,366	20,766	-0,400	4,5000	20,766	0,00	6,5000	20,766	7,0084	20,427	-0,339
267	5,5592	20,035	-0,706	4,5000	20,741	4,5000	20,741	0,00	20,341	20,741	-0,400	4,5000	20,741	0,00	6,5000	20,741	7,0200	20,394	-0,347
268	5,2780	20,205	-0,519	4,5000	20,724	4,5000	20,724	0,00	20,324	20,724	-0,400	4,5000	20,724	0,00	6,5000	20,724	6,9387	20,432	-0,292
269	5,3770	20,109	-0,585	4,5000	20,694	4,5000	20,694	0,00	20,294	20,694	-0,400	4,5000	20,694	0,00	6,5000	20,694	6,9651	20,384	-0,310
270	5,3965	20,056	-0,598	4,5000	20,654	4,5000	20,654	0,00	20,254	20,654	-0,400	4,5000	20,654	0,00	6,5000	20,654	7,0490	20,288	-0,366
271	5,0847	20,168	-0,390	4,5000	20,558	4,5000	20,558	0,00	20,158	20,558	-0,400	4,5000	20,558	0,00	6,5000	20,558	7,0524	20,190	-0,368
272	5,1570	20,101	-0,438	4,5000	20,539	4,5000	20,539	0,00	20,139	20,539	-0,400	4,5000	20,539	0,00	6,5000	20,539	7,1700	20,092	-0,447
273	5,3954	19,969	-0,597	4,5000	20,566	4,5000	20,566	0,00	20,167	20,566	-0,399	4,5000	20,566	0,00	6,5000	20,566	7,2871	20,041	-0,525
274	5,3088	19,977	-0,539	4,5000	20,516	4,5000	20,516	0,00	20,116	20,516	-0,400	4,5000	20,516	0,00	6,5000	20,516	7,1831	20,061	-0,455
275	5,6605	19,725	-0,774	4,5000	20,499	4,5000	20,499	0,00	20,099	20,499	-0,400	4,5000	20,499	0,00	6,5000	20,499	7,1407	20,072	-0,427
276	5,5575	19,827	-0,705	4,5000	20,532	4,5000	20,532	0,00	20,132	20,532	-0,400	4,5000	20,532	0,00	6,5000	20,532	7,1945	20,069	-0,463
277	5,2951	20,045	-0,530	4,5000	20,575	4,5000	20,575	0,00	20,175	20,575	-0,400	4,5000	20,575	0,00	6,5000	20,575	7,2736	20,059	-0,516
278	5,5210	19,921	-0,681	4,5000	20,602	4,5000	20,602	0,00	20,202	20,602	-0,400	4,5000	20,602	0,00	6,5000	20,602	7,1218	20,187	-0,415
279	5,2684	20,047	-0,512	4,5000	20,559	4,5000	20,559	0,00	20,159	20,559	-0,400	4,5000	20,559	0,00	6,5000	20,559	7,0240	20,210	-0,349
280	5,3315	19,990	-0,554	4,5000	20,544	4,5000	20,544	0,00	20,144	20,544	-0,400	4,5000	20,544	0,00	6,5000	20,544	7,0425	20,182	-0,362
281	5,3625	20,057	-0,575	4,5000	20,632	4,5000	20,632	0,00	20,232	20,632	-0,400	4,5000	20,632	0,00	6,5000	20,632	6,9788	20,313	-0,319
282	5,3502	20,122	-0,567	4,5000	20,689	4,5000	20,689	0,00	20,289	20,689	-0,400	4,5000	20,689	0,00	6,5000	20,689	6,6480	20,590	-0,099
283	5,1286	20,264	-0,419	4,5000	20,683	4,5000	20,683	0,00	20,283	20,683	-0,400	4,5000	20,683	0,00	6,5000	20,683	6,8198	20,470	-0,213
284	5,4364	19,972	-0,624	4,5000	20,596	4,5000	20,596	0,00	20,196	20,596	-0,400	4,5000	20,596	0,00	6,5000	20,596	6,6485	20,497	-0,099
284+8,49	5,2787	20,070	-0,519	4,5000	20,589	4,5000	20,589	0,00	20,189	20,589	-0,400	4,5000	20,589	0,00	6,5000	20,589	6,7391	20,430	-0,159

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
285	5,2802	20,062	-0,520	4,5000	20,582	4,5000	20,582	0,00	20,182	20,582	-0,400	4,5000	20,582	0,00	6,5000	20,582	6,8848	20,326	-0,256
286	5,2420	20,040	-0,495	4,5000	20,535	4,5000	20,535	0,00	20,135	20,535	-0,400	4,5000	20,535	0,00	6,5000	20,535	7,0797	20,149	-0,386
287	5,5043	19,817	-0,670	4,5000	20,487	4,5000	20,487	0,00	20,087	20,487	-0,400	4,5000	20,487	0,00	6,5000	20,487	7,0559	20,116	-0,371
288	5,2981	19,903	-0,532	4,5000	20,435	4,5000	20,435	0,00	20,035	20,435	-0,400	4,5000	20,435	0,00	6,5000	20,435	6,9405	20,141	-0,294
289	5,4634	19,752	-0,642	4,5000	20,394	4,5000	20,394	0,00	19,994	20,394	-0,400	4,5000	20,394	0,00	6,5000	20,394	7,1895	19,934	-0,460
290	5,4370	19,809	-0,625	4,5000	20,434	4,5000	20,434	0,00	20,034	20,434	-0,400	4,5000	20,434	0,00	6,5000	20,434	7,1846	19,978	-0,456
291	5,6599	19,708	-0,773	4,5000	20,481	4,5000	20,481	0,00	20,081	20,481	-0,400	4,5000	20,481	0,00	6,5000	20,481	7,1817	20,026	-0,455
291+0,35	5,6623	19,710	-0,775	4,5000	20,485	4,5000	20,485	0,00	20,085	20,485	-0,400	4,5000	20,485	0,00	6,5000	20,485	7,1825	20,030	-0,455
292	5,5967	19,929	-0,731	4,5000	20,660	4,5000	20,660	0,00	20,260	20,660	-0,400	4,5000	20,660	0,00	6,5000	20,660	7,2335	20,171	-0,489
293	5,3305	20,005	-0,554	4,5000	20,559	4,5000	20,559	0,00	20,159	20,559	-0,400	4,5000	20,559	0,00	6,5000	20,559	7,1892	20,100	-0,459
294	5,0850	20,021	-0,390	4,5000	20,411	4,5000	20,411	0,00	20,011	20,411	-0,400	4,5000	20,411	0,00	6,5000	20,411	7,0239	20,062	-0,349
295	5,1945	19,879	-0,463	4,5000	20,342	4,5000	20,342	0,00	19,942	20,342	-0,400	4,5000	20,342	0,00	6,5000	20,342	6,7641	20,166	-0,176
296	5,3887	19,773	-0,592	4,5000	20,365	4,5000	20,365	0,00	19,965	20,365	-0,400	4,5000	20,365	0,00	6,5000	20,365	6,9750	20,048	-0,317
297	5,3168	19,761	-0,545	4,5000	20,306	4,5000	20,306	0,00	19,906	20,306	-0,400	4,5000	20,306	0,00	6,5000	20,306	7,0894	19,913	-0,393
298	5,4140	19,722	-0,609	4,5000	20,331	4,5000	20,331	0,00	19,931	20,331	-0,400	4,5000	20,331	0,00	6,5000	20,331	7,1574	19,893	-0,438
299	5,3863	19,748	-0,591	4,5000	20,339	4,5000	20,339	0,00	19,939	20,339	-0,400	4,5000	20,339	0,00	6,5000	20,339	7,0914	19,945	-0,394
300	5,2408	19,846	-0,494	4,5000	20,340	4,5000	20,340	0,00	19,940	20,340	-0,400	4,5000	20,340	0,00	6,5000	20,340	6,9984	20,008	-0,332
301	5,2787	19,882	-0,519	4,5000	20,401	4,5000	20,401	0,00	20,001	20,401	-0,400	4,5000	20,401	0,00	6,5000	20,401	7,1007	20,001	-0,400
302	5,4824	19,751	-0,655	4,5000	20,406	4,5000	20,406	0,00	20,006	20,406	-0,400	4,5000	20,406	0,00	6,5000	20,406	7,0056	20,069	-0,337
303	5,4963	19,767	-0,664	4,5000	20,431	4,5000	20,431	0,00	20,031	20,431	-0,400	4,5000	20,431	0,00	6,5000	20,431	7,1005	20,031	-0,400
304	5,0731	20,063	-0,382	4,5000	20,445	4,5000	20,445	0,00	20,045	20,445	-0,400	4,5000	20,445	0,00	6,5000	20,445	7,0736	20,063	-0,382
305	5,3839	19,903	-0,589	4,5000	20,492	4,5000	20,492	0,00	20,092	20,492	-0,400	4,5000	20,492	0,00	6,5000	20,492	7,3271	19,941	-0,551
306	5,1612	19,943	-0,441	4,5000	20,384	4,5000	20,384	0,00	19,984	20,384	-0,400	4,5000	20,384	0,00	6,5000	20,384	7,1671	19,939	-0,445
307	5,3043	19,854	-0,536	4,5000	20,390	4,5000	20,390	0,00	19,990	20,390	-0,400	4,5000	20,390	0,00	6,5000	20,390	7,0460	20,026	-0,364
308	5,0359	19,996	-0,357	4,5000	20,353	4,5000	20,353	0,00	19,953	20,353	-0,400	4,5000	20,353	0,00	6,5000	20,353	7,0456	19,989	-0,364
309	5,3704	19,806	-0,580	4,5000	20,386	4,5000	20,386	0,00	19,986	20,386	-0,400	4,5000	20,386	0,00	6,5000	20,386	7,2252	19,903	-0,483
310	5,6461	19,622	-0,764	4,5000	20,386	4,5000	20,386	0,00	19,986	20,386	-0,400	4,5000	20,386	0,00	6,5000	20,386	7,2397	19,893	-0,493
311	4,9312	20,063	-0,287	4,5000	20,350	4,5000	20,350	0,00	19,950	20,350	-0,400	4,5000	20,350	0,00	6,5000	20,350	7,1343	19,927	-0,423
312	5,1346	19,970	-0,423	4,5000	20,393	4,5000	20,393	0,00	19,993	20,393	-0,400	4,5000	20,393	0,00					
313	5,2074	19,972	-0,472	4,5000	20,444	4,5000	20,444	0,00	20,044	20,444	-0,400	4,5000	20,444	0,00					
314	5,4516	19,873	-0,634	4,5000	20,507	4,5000	20,507	0,00	20,107	20,507	-0,400	4,5000	20,507	0,00					

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
315	5,2774	20,004	-0,518	4,5000	20,522	4,5000	20,522	0,00	20,122	20,522	-0,400	4,5000	20,522	0,00	6,5000	20,522	7,0283	20,170	-0,352
316	5,3429	20,027	-0,562	4,5000	20,589	4,5000	20,589	0,00	20,189	20,589	-0,400	4,5000	20,589	0,00	6,5000	20,589	6,9659	20,278	-0,311
317	5,3310	20,149	-0,554	4,5000	20,703	4,5000	20,703	0,00	20,303	20,703	-0,400	4,5000	20,703	0,00	6,5000	20,703	7,0243	20,353	-0,350
318	5,2642	20,224	-0,509	4,5000	20,733	4,5000	20,733	0,00	20,333	20,733	-0,400	4,5000	20,733	0,00	6,5000	20,733	6,9882	20,408	-0,325
319	5,2609	20,264	-0,507	4,5000	20,771	4,5000	20,771	0,00	20,371	20,771	-0,400	4,5000	20,771	0,00	6,5000	20,771	7,1505	20,337	-0,434
320	5,3636	20,258	-0,576	4,5000	20,834	4,5000	20,834	0,00	20,434	20,834	-0,400	4,5000	20,834	0,00	6,5000	20,834	7,1291	20,415	-0,419
320+7,14	5,4412	20,253	-0,628	4,5000	20,881	4,5000	20,881	0,00	20,481	20,881	-0,400	4,5000	20,881	0,00	6,5000	20,881	7,0658	20,504	-0,377
321	5,3252	20,353	-0,550	4,5000	20,903	4,5000	20,903	0,00	20,503	20,903	-0,400	4,5000	20,903	0,00	6,5000	20,903	7,1499	20,470	-0,433
322	5,3431	20,325	-0,562	4,5000	20,887	4,5000	20,887	0,00	20,487	20,887	-0,400	4,5000	20,887	0,00	6,5000	20,887	7,0571	20,516	-0,371
322+1,15	5,3742	20,304	-0,583	4,5000	20,887	4,5000	20,887	0,00	20,487	20,887	-0,400	4,5000	20,887	0,00	6,5000	20,887	7,0589	20,514	-0,373
323	5,4159	20,261	-0,611	4,5000	20,872	4,5000	20,872	0,00	20,472	20,872	-0,400	4,5000	20,872	0,00	6,5000	20,872	7,0607	20,498	-0,374
324	4,8638	20,784	-0,243	4,5000	21,027	4,5000	21,027	0,00	20,627	21,027	-0,400	4,5000	21,027	0,00	6,5000	21,027	7,1228	20,612	-0,415
325	5,2259	20,698	-0,484	4,5000	21,182	4,5000	21,182	0,00	20,782	21,182	-0,400	4,5000	21,182	0,00	6,5000	21,182	7,3297	20,629	-0,553
326	5,2162	20,827	-0,477	4,5000	21,304	4,5000	21,304	0,00	20,904	21,304	-0,400	4,5000	21,304	0,00	6,5000	21,304	7,3020	20,769	-0,535
327	5,0798	20,903	-0,386	4,5000	21,289	4,5000	21,289	0,00	20,889	21,289	-0,400	4,5000	21,289	0,00	6,5000	21,289	7,0393	20,930	-0,359
328	5,2362	20,819	-0,491	4,5000	21,310	4,5000	21,310	0,00	20,910	21,310	-0,400	4,5000	21,310	0,00	6,5000	21,310	7,0180	20,965	-0,345
329	5,3919	20,720	-0,595	4,5000	21,315	4,5000	21,315	0,00	20,915	21,315	-0,400	4,5000	21,315	0,00	6,5000	21,315	7,0817	20,927	-0,388
330	5,1650	20,923	-0,443	4,5000	21,366	4,5000	21,366	0,00	20,966	21,366	-0,400	4,5000	21,366	0,00	6,5000	21,366	7,1137	20,957	-0,409
331	5,5496	20,748	-0,700	4,5000	21,448	4,5000	21,448	0,00	21,048	21,448	-0,400	4,5000	21,448	0,00	6,5000	21,448	7,2289	20,962	-0,486
332	5,5500	20,749	-0,700	4,5000	21,449	4,5000	21,449	0,00	21,049	21,449	-0,400	4,5000	21,449	0,00	6,5000	21,449	7,2428	20,954	-0,495
333	5,1889	21,018	-0,459	4,5000	21,477	4,5000	21,477	0,00	21,077	21,477	-0,400	4,5000	21,477	0,00	6,5000	21,477	7,2247	20,994	-0,483
334	5,2556	20,922	-0,504	4,5000	21,426	4,5000	21,426	0,00	21,026	21,426	-0,400	4,5000	21,426	0,00	6,5000	21,426	7,1689	20,980	-0,446
335	5,0125	21,074	-0,342	4,5000	21,416	4,5000	21,416	0,00	21,016	21,416	-0,400	4,5000	21,416	0,00	6,5000	21,416	7,0964	21,018	-0,398
336	5,2055	21,016	-0,470	4,5000	21,486	4,5000	21,486	0,00	21,086	21,486	-0,400	4,5000	21,486	0,00					
337	5,3698	20,975	-0,580	4,5000	21,555	4,5000	21,555	0,00	21,155	21,555	-0,400	4,5000	21,555	0,00					
338	5,1079	21,142	-0,405	4,5000	21,547	4,5000	21,547	0,00	21,147	21,547	-0,400	4,5000	21,547	0,00	6,5000	21,547	7,1104	21,140	-0,407
339	5,2250	21,110	-0,483	4,5000	21,593	4,5000	21,593	0,00	21,193	21,593	-0,400	4,5000	21,593	0,00	6,5000	21,593	7,3481	21,028	-0,565
340	5,5834	20,911	-0,722	4,5000	21,633	4,5000	21,633	0,00	21,233	21,633	-0,400	4,5000	21,633	0,00	6,5000	21,633	7,4559	20,996	-0,637
341	5,5014	20,955	-0,668	4,5000	21,623	4,5000	21,623	0,00	21,223	21,623	-0,400	4,5000	21,623	0,00	6,5000	21,623	7,4155	21,013	-0,610
342	5,1034	21,208	-0,402	4,5000	21,610	4,5000	21,610	0,00	21,210	21,610	-0,400	4,5000	21,610	0,00					
343	4,9271	21,340	-0,285	4,5000	21,625	4,5000	21,625	0,00	21,225	21,625	-0,400	4,5000	21,625	0,00	6,5000	21,625	6,5115	21,617	-0,008

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
344	4,8401	21,433	-0,227	4,5000	21,660	4,5000	21,660	0,00	21,260	21,660	-0,400	4,5000	21,660	0,00	6,5000	21,660	7,0707	21,280	-0,380
345	5,1254	21,320	-0,417	4,5000	21,737	4,5000	21,737	0,00	21,337	21,737	-0,400	4,5000	21,737	0,00	6,5000	21,737	7,1130	21,328	-0,409
346	5,0158	21,436	-0,344	4,5000	21,780	4,5000	21,780	0,00	21,380	21,780	-0,400	4,5000	21,780	0,00	6,5000	21,780	6,7315	21,626	-0,154
347	4,8613	21,634	-0,241	4,5000	21,875	4,5000	21,875	0,00	21,475	21,875	-0,400	4,5000	21,875	0,00	6,5000	21,875	7,0605	21,501	-0,374
348	5,4369	21,437	-0,624	4,5000	22,061	4,5000	22,061	0,00	21,661	22,061	-0,400	4,5000	22,061	0,00	6,5000	22,061	7,1055	21,657	-0,404
349	5,0464	21,651	-0,364	4,5000	22,015	4,5000	22,015	0,00	21,615	22,015	-0,400	4,5000	22,015	0,00					
350	5,0135	21,706	-0,342	4,5000	22,048	4,5000	22,048	0,00	21,649	22,048	-0,399	4,5000	22,048	0,00	6,5000	22,048	7,1979	21,583	-0,465
351	5,3281	21,530	-0,552	4,5000	22,082	4,5000	22,082	0,00	21,682	22,082	-0,400	4,5000	22,082	0,00	6,5000	22,082	7,2030	21,613	-0,469
352	5,4282	21,551	-0,619	4,5000	22,170	4,5000	22,170	0,00	21,770	22,170	-0,400	4,5000	22,170	0,00	6,5000	22,170	7,2506	21,670	-0,500
353	5,0829	21,817	-0,389	4,5000	22,206	4,5000	22,206	0,00	21,806	22,206	-0,400	4,5000	22,206	0,00	6,5000	22,206	7,1755	21,756	-0,450
354	5,4021	21,678	-0,601	4,5000	22,279	4,5000	22,279	0,00	21,879	22,279	-0,400	4,5000	22,279	0,00	6,5000	22,279	7,2060	21,808	-0,471
355	5,4451	21,749	-0,630	4,5000	22,379	4,5000	22,379	0,00	21,979	22,379	-0,400	4,5000	22,379	0,00	6,5000	22,379	7,2882	21,853	-0,526
356	5,0629	22,075	-0,375	4,5000	22,450	4,5000	22,450	0,00	22,050	22,450	-0,400	4,5000	22,450	0,00	6,5000	22,450	6,9670	22,139	-0,311
357	5,1548	22,077	-0,437	4,5000	22,514	4,5000	22,514	0,00	22,114	22,514	-0,400	4,5000	22,514	0,00	6,5000	22,514	7,1249	22,097	-0,417
358	5,0190	22,287	-0,346	4,5000	22,633	4,5000	22,633	0,00	22,233	22,633	-0,400	4,5000	22,633	0,00	6,5000	22,633	6,5523	22,685	0,052
359	5,4412	22,139	-0,628	4,5000	22,767	4,5000	22,767	0,00	22,367	22,767	-0,400	4,5000	22,767	0,00	6,5000	22,767	6,6111	22,693	-0,074
359+9,87	5,4797	22,198	-0,653	4,5000	22,851	4,5000	22,851	0,00	22,451	22,851	-0,400	4,5000	22,851	0,00					
360	5,4860	22,300	-0,657	4,5000	22,957	4,5000	22,957	0,00	22,557	22,957	-0,400	4,5000	22,957	0,00					
361	5,5806	22,443	-0,720	4,5000	23,163	4,5000	23,163	0,00	22,763	23,163	-0,400	4,5000	23,163	0,00					
362	5,3216	22,632	-0,548	4,5000	23,180	4,5000	23,180	0,00	22,780	23,180	-0,400	4,5000	23,180	0,00	6,5000	23,180	6,9770	22,862	-0,318
363	5,3929	22,578	-0,595	4,5000	23,173	4,5000	23,173	0,00	22,773	23,173	-0,400	4,5000	23,173	0,00	6,5000	23,173	6,5761	23,122	-0,051
363+9,19	5,1800	22,693	-0,453	4,5000	23,146	4,5000	23,146	0,00	22,746	23,146	-0,400	4,5000	23,146	0,00	6,5000	23,146	6,6606	23,039	-0,107
364	5,1448	22,700	-0,430	4,5000	23,130	4,5000	23,130	0,00	22,730	23,130	-0,400	4,5000	23,130	0,00	6,5000	23,130	6,8940	22,867	-0,263
365	5,2222	22,682	-0,481	4,5000	23,163	4,5000	23,163	0,00	22,763	23,163	-0,400	4,5000	23,163	0,00	6,5000	23,163	7,1479	22,731	-0,432
366	5,1659	22,757	-0,444	4,5000	23,201	4,5000	23,201	0,00	22,801	23,201	-0,400	4,5000	23,201	0,00	6,5000	23,201	7,0163	22,857	-0,344
367	5,1217	22,791	-0,415	4,5000	23,206	4,5000	23,206	0,00	22,806	23,206	-0,400	4,5000	23,206	0,00	6,5000	23,206	6,8405	22,979	-0,227
368	5,1210	22,831	-0,414	4,5000	23,245	4,5000	23,245	0,00	22,845	23,245	-0,400	4,5000	23,245	0,00	6,5000	23,245	6,6345	23,155	-0,090
369	5,2720	22,799	-0,515	4,5000	23,314	4,5000	23,314	0,00	22,914	23,314	-0,400	4,5000	23,314	0,00	6,5000	23,314	6,5138	23,328	0,014
370	4,9214	23,147	-0,281	4,5000	23,428	4,5000	23,428	0,00	23,028	23,428	-0,400	4,5000	23,428	0,00					
371	5,1963	23,087	-0,464	4,5000	23,551	4,5000	23,551	0,00	23,151	23,551	-0,400	4,5000	23,551	0,00					
372	5,3122	23,128	-0,541	4,5000	23,669	4,5000	23,669	0,00	23,269	23,669	-0,400	4,5000	23,669	0,00					

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
373	5,1137	23,162	-0,409	4,5000	23,571	4,5000	23,571	0,00	23,171	23,571	-0,400	4,5000	23,571	0,00					
374	5,3107	22,922	-0,540	4,5000	23,462	4,5000	23,462	0,00	23,062	23,462	-0,400	4,5000	23,462	0,00					
375	5,5779	22,649	-0,719	4,5000	23,368	4,5000	23,368	0,00	22,968	23,368	-0,400	4,5000	23,368	0,00					
376	5,6119	22,547	-0,741	4,5000	23,288	4,5000	23,288	0,00	22,888	23,288	-0,400	4,5000	23,288	0,00					
377	5,2359	22,881	-0,491	4,5000	23,372	4,5000	23,372	0,00	22,972	23,372	-0,400	4,5000	23,372	0,00					
378	5,1227	22,964	-0,415	4,5000	23,379	4,5000	23,379	0,00	22,979	23,379	-0,400	4,5000	23,379	0,00					
379	5,1402	22,991	-0,427	4,5000	23,418	4,5000	23,418	0,00	23,018	23,418	-0,400	4,5000	23,418	0,00					
380	5,1855	23,023	-0,457	4,5000	23,480	4,5000	23,480	0,00	23,080	23,480	-0,400	4,5000	23,480	0,00					
381	5,1872	23,086	-0,458	4,5000	23,544	4,5000	23,544	0,00	23,144	23,544	-0,400	4,5000	23,544	0,00	6,5000	23,544	7,0522	23,176	-0,368
382	5,4563	22,980	-0,637	4,5000	23,617	4,5000	23,617	0,00	23,217	23,617	-0,400	4,5000	23,617	0,00	6,5000	23,617	7,0948	23,220	-0,397
383	5,3843	23,099	-0,590	4,5000	23,689	4,5000	23,689	0,00	23,289	23,689	-0,400	4,5000	23,689	0,00					
384	4,9222	23,470	-0,281	4,5000	23,751	4,5000	23,751	0,00	23,351	23,751	-0,400	4,5000	23,751	0,00					
385	4,7832	23,673	-0,189	4,5000	23,862	4,5000	23,862	0,00	23,462	23,862	-0,400	4,5000	23,862	0,00					
386	5,2239	23,543	-0,483	4,5000	24,026	4,5000	24,026	0,00	23,626	24,026	-0,400	4,5000	24,026	0,00	6,5000	24,026	6,8472	23,795	-0,231
387	4,9941	23,836	-0,329	4,5000	24,165	4,5000	24,165	0,00	23,765	24,165	-0,400	4,5000	24,165	0,00	6,5000	24,165	7,1793	23,712	-0,453
388	5,0579	23,781	-0,372	4,5000	24,153	4,5000	24,153	0,00	23,753	24,153	-0,400	4,5000	24,153	0,00	6,5000	24,153	6,7590	23,980	-0,173
389	4,9336	23,910	-0,289	4,5000	24,199	4,5000	24,199	0,00	23,799	24,199	-0,400	4,5000	24,199	0,00	6,5000	24,199	6,8383	23,973	-0,226
390	5,1671	23,823	-0,445	4,5000	24,268	4,5000	24,268	0,00	23,868	24,268	-0,400	4,5000	24,268	0,00					
391	5,0226	23,952	-0,348	4,5000	24,300	4,5000	24,300	0,00	23,900	24,300	-0,400	4,5000	24,300	0,00					
392	4,9303	24,015	-0,287	4,5000	24,302	4,5000	24,302	0,00	23,902	24,302	-0,400	4,5000	24,302	0,00					
393	4,7483	24,095	-0,166	4,5000	24,261	4,5000	24,261	0,00	23,861	24,261	-0,400	4,5000	24,261	0,00					
394	5,1327	23,787	-0,422	4,5000	24,209	4,5000	24,209	0,00	23,809	24,209	-0,400	4,5000	24,209	0,00					
395	5,3928	23,641	-0,595	4,5000	24,236	4,5000	24,236	0,00	23,836	24,236	-0,400	4,5000	24,236	0,00	6,5000	24,236	6,5891	24,177	-0,059
396	5,3921	23,644	-0,595	4,5000	24,239	4,5000	24,239	0,00	23,839	24,239	-0,400	4,5000	24,239	0,00	6,5000	24,239	6,5042	24,236	-0,003
397	5,2328	23,782	-0,489	4,5000	24,271	4,5000	24,271	0,00	23,871	24,271	-0,400	4,5000	24,271	0,00					
398	5,3422	23,730	-0,561	4,5000	24,291	4,5000	24,291	0,00	23,891	24,291	-0,400	4,5000	24,291	0,00					
399	5,4315	23,675	-0,621	4,5000	24,296	4,5000	24,296	0,00	23,896	24,296	-0,400	4,5000	24,296	0,00					
400	5,4866	23,632	-0,658	4,5000	24,290	4,5000	24,290	0,00	23,890	24,290	-0,400	4,5000	24,290	0,00					
401	5,3829	23,609	-0,589	4,5000	24,198	4,5000	24,198	0,00	23,798	24,198	-0,400	4,5000	24,198	0,00					
402	5,2121	23,695	-0,475	4,5000	24,170	4,5000	24,170	0,00	23,770	24,170	-0,400	4,5000	24,170	0,00					
403	5,2121	23,686	-0,475	4,5000	24,161	4,5000	24,161	0,00	23,761	24,161	-0,400	4,5000	24,161	0,00					



Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
404	5,2175	23,677	-0,478	4,5000	24,155	4,5000	24,155	0,00	23,755	24,155	-0,400	4,5000	24,155	0,00					
405	5,4949	23,498	-0,663	4,5000	24,161	4,5000	24,161	0,00	23,761	24,161	-0,400	4,5000	24,161	0,00	6,5000	24,161	6,7433	23,999	-0,162
405+1,07	5,5052	23,490	-0,670	4,5000	24,160	4,5000	24,160	0,00	23,760	24,160	-0,400	4,5000	24,160	0,00	6,5000	24,160	6,7628	23,985	-0,175
406	5,3491	23,595	-0,566	4,5000	24,161	4,5000	24,161	0,00	23,761	24,161	-0,400	4,5000	24,161	0,00					
407	5,3663	23,652	-0,577	4,5000	24,229	4,5000	24,229	0,00	23,829	24,229	-0,400	4,5000	24,229	0,00					
408	5,1915	23,815	-0,461	4,5000	24,276	4,5000	24,276	0,00	23,876	24,276	-0,400	4,5000	24,276	0,00					
409	5,2203	23,859	-0,480	4,5000	24,339	4,5000	24,339	0,00	23,939	24,339	-0,400	4,5000	24,339	0,00					
410	5,2065	23,942	-0,471	4,5000	24,413	4,5000	24,413	0,00	24,013	24,413	-0,400	4,5000	24,413	0,00					
411	5,3408	23,864	-0,561	4,5000	24,425	4,5000	24,425	0,00	24,025	24,425	-0,400	4,5000	24,425	0,00	6,5000	24,425	6,9913	24,097	-0,328
412	5,3708	23,807	-0,580	4,5000	24,387	4,5000	24,387	0,00	23,987	24,387	-0,400	4,5000	24,387	0,00	6,5000	24,387	7,1345	23,964	-0,423
413	5,3419	23,850	-0,561	4,5000	24,411	4,5000	24,411	0,00	24,011	24,411	-0,400	4,5000	24,411	0,00	6,5000	24,411	7,2570	23,906	-0,505
414	5,5720	23,838	-0,715	4,5000	24,553	4,5000	24,553	0,00	24,153	24,553	-0,400	4,5000	24,553	0,00	6,5000	24,553	7,4654	23,909	-0,644
415	5,5407	23,906	-0,694	4,5000	24,600	4,5000	24,600	0,00	24,200	24,600	-0,400	4,5000	24,600	0,00	6,5000	24,600	7,2442	24,104	-0,496
415+17,3	5,2495	24,028	-0,500	4,5000	24,528	4,5000	24,528	0,00	24,128	24,528	-0,400	4,5000	24,528	0,00	6,5000	24,528	7,2936	23,999	-0,529
416	5,2131	24,033	-0,475	4,5000	24,508	4,5000	24,508	0,00	24,108	24,508	-0,400	4,5000	24,508	0,00	6,5000	24,508	7,2871	23,983	-0,525
417	5,4058	23,812	-0,604	4,5000	24,416	4,5000	24,416	0,00	24,016	24,416	-0,400	4,5000	24,416	0,00	6,5000	24,416	7,2348	23,926	-0,490
418	5,3572	23,809	-0,571	4,5000	24,380	4,5000	24,380	0,00	23,980	24,380	-0,400	4,5000	24,380	0,00	6,5000	24,380	7,1286	23,961	-0,419
419	5,0175	24,002	-0,345	4,5000	24,347	4,5000	24,347	0,00	23,947	24,347	-0,400	4,5000	24,347	0,00	6,5000	24,347	6,8666	24,103	-0,244
420	5,2032	23,824	-0,469	4,5000	24,293	4,5000	24,293	0,00	23,893	24,293	-0,400	4,5000	24,293	0,00	6,5000	24,293	6,7071	24,155	-0,138
421	4,9855	23,942	-0,324	4,5000	24,266	4,5000	24,266	0,00	23,866	24,266	-0,400	4,5000	24,266	0,00	6,5000	24,266	6,9631	23,957	-0,309
422	5,2463	23,716	-0,498	4,5000	24,214	4,5000	24,214	0,00	23,814	24,214	-0,400	4,5000	24,214	0,00	6,5000	24,214	6,9071	23,943	-0,271
423	5,1751	23,803	-0,450	4,5000	24,253	4,5000	24,253	0,00	23,853	24,253	-0,400	4,5000	24,253	0,00	6,5000	24,253	6,9804	23,933	-0,320
424	5,2440	23,766	-0,496	4,5000	24,262	4,5000	24,262	0,00	23,862	24,262	-0,400	4,5000	24,262	0,00	6,5000	24,262	7,0038	23,926	-0,336
425	5,4240	23,611	-0,616	4,5000	24,227	4,5000	24,227	0,00	23,827	24,227	-0,400	4,5000	24,227	0,00	6,5000	24,227	7,2827	23,705	-0,522
426	5,2133	23,755	-0,476	4,5000	24,231	4,5000	24,231	0,00	23,831	24,231	-0,400	4,5000	24,231	0,00	6,5000	24,231	6,8566	23,993	-0,238
427	5,3244	23,703	-0,550	4,5000	24,253	4,5000	24,253	0,00	23,853	24,253	-0,400	4,5000	24,253	0,00	6,5000	24,253	6,9003	23,986	-0,267
428	5,2391	23,775	-0,493	4,5000	24,268	4,5000	24,268	0,00	23,868	24,268	-0,400	4,5000	24,268	0,00	6,5000	24,268	6,6141	24,192	-0,076
429	5,2943	23,640	-0,530	4,5000	24,170	4,5000	24,170	0,00	23,770	24,170	-0,400	4,5000	24,170	0,00	6,5000	24,170	6,6277	24,085	-0,085
430	5,1478	23,639	-0,432	4,5000	24,071	4,5000	24,071	0,00	23,671	24,071	-0,400	4,5000	24,071	0,00	6,5000	24,071	6,6651	23,961	-0,110
431	5,3158	23,313	-0,544	4,5000	23,857	4,5000	23,857	0,00	23,457	23,857	-0,400	4,5000	23,857	0,00	6,5000	23,857	6,7882	23,665	-0,192
432	5,3860	23,121	-0,591	4,5000	23,712	4,5000	23,712	0,00	23,312	23,712	-0,400	4,5000	23,712	0,00	6,5000	23,712	6,5418	23,684	-0,028

Estaca	Lado Esquerdo								Eixo			Lado Direito							
	Offset			Lateral		Bordo			Cota	Cota	Cota	Bordo			Lateral		Offset		
	Distância	Cota	Altura	Distância	Cota	Distância	Cota	%	Terreno	Projeto	Vermelha	Distância	Cota	%	Distância	Cota	Distância	Cota	Altura
433	5,5399	22,992	-0,693	4,5000	23,685	4,5000	23,685	0,00	23,285	23,685	-0,400	4,5000	23,685	0,00	6,5000	23,685	6,8817	23,431	-0,254
434	5,6999	22,832	-0,800	4,5000	23,632	4,5000	23,632	0,00	23,232	23,632	-0,400	4,5000	23,632	0,00	6,5000	23,632	7,0184	23,286	-0,346
434+17,9	4,6435	23,412	-0,096	4,5000	23,508	4,5000	23,508	0,00	23,108	23,508	-0,400	4,5000	23,508	0,00	6,5000	23,508	6,9283	23,222	-0,286
435	5,0094	23,168	-0,340	4,5000	23,508	4,5000	23,508	0,00	23,108	23,508	-0,400	4,5000	23,508	0,00	6,5000	23,508	6,9521	23,207	-0,301
436	5,3731	22,957	-0,582	4,5000	23,539	4,5000	23,539	0,00	23,139	23,539	-0,400	4,5000	23,539	0,00	6,5000	23,539	7,1427	23,111	-0,428
437	5,5634	22,925	-0,709	4,5000	23,634	4,5000	23,634	0,00	23,234	23,634	-0,400	4,5000	23,634	0,00	6,5000	23,634	6,7750	23,451	-0,183
438	5,1690	23,242	-0,446	4,5000	23,688	4,5000	23,688	0,00	23,288	23,688	-0,400	4,5000	23,688	0,00	6,5000	23,688	6,8072	23,483	-0,205
439	5,0552	23,371	-0,370	4,5000	23,741	4,5000	23,741	0,00	23,341	23,741	-0,400	4,5000	23,741	0,00	6,5000	23,741	6,5834	23,685	-0,056
440	4,5802	23,782	-0,053	4,5000	23,835	4,5000	23,835	0,00	23,435	23,835	-0,400	4,5000	23,835	0,00	6,5000	23,835	6,7112	23,694	-0,141
441	4,5788	24,060	0,079	4,5000	23,981	4,5000	23,981	0,00	23,581	23,981	-0,400	4,5000	23,981	0,00	6,5000	23,981	6,8484	23,749	-0,232
442	5,4411	23,470	-0,627	4,5000	24,097	4,5000	24,097	0,00	23,697	24,097	-0,400	4,5000	24,097	0,00	6,5000	24,097	6,7002	23,964	-0,133
443	5,3748	23,580	-0,583	4,5000	24,163	4,5000	24,163	0,00	23,763	24,163	-0,400	4,5000	24,163	0,00	6,5000	24,163	7,1437	23,734	-0,429
444	5,0665	23,873	-0,378	4,5000	24,251	4,5000	24,251	0,00	23,851	24,251	-0,400	4,5000	24,251	0,00	6,5000	24,251	7,1490	23,818	-0,433
444+7,90	5,0491	23,890	-0,366	4,5000	24,256	4,5000	24,256	0,00	23,856	24,256	-0,400	4,5000	24,256	0,00	6,5000	24,256	7,2236	23,774	-0,482
445	5,0906	23,867	-0,394	4,5000	24,261	4,5000	24,261	0,00	23,861	24,261	-0,400	4,5000	24,261	0,00	6,5000	24,261	7,2309	23,773	-0,488
446	5,3026	23,787	-0,535	4,5000	24,322	4,5000	24,322	0,00	23,921	24,322	-0,401	4,5000	24,322	0,00					
447	5,7155	23,696	-0,810	4,5000	24,506	4,5000	24,506	0,00	24,106	24,506	-0,400	4,5000	24,506	0,00					
447+1,97	5,7561	23,687	-0,837	4,5000	24,524	4,5000	24,524	0,00	24,124	24,524	-0,400	4,5000	24,524	0,00					
448	4,9558	24,479	-0,304	4,5000	24,783	4,5000	24,783	0,00	24,383	24,783	-0,400	4,5000	24,783	0,00	6,5000	24,783	7,6273	24,031	-0,752



ESTADO DE SANTA CATARINA  
MUNICÍPIO DE JAGUARUNA  
SECRETARIA DE PLANEJAMENTO

### 4.3 – PLANILHA VOLUME DE TERRAPLANAGEM



## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
15	0,243	0,601			
			10,000	2,480	16,200
16	0,005	1,019			
			10,000	0,050	71,270
17	0,000	6,108			
			10,000	0,000	117,500
18	0,000	5,642			
			10,000	0,000	113,490
19	0,000	5,707			
			10,000	0,000	110,300
20	0,000	5,323			
			9,074	0,000	94,978
20+18,148	0,000	5,144			
			0,926	0,000	9,455
21	0,000	5,067			
			10,000	0,230	92,780
22	0,023	4,211			
			10,000	0,230	93,980
23	0,000	5,187			
			7,800	0,000	78,876
23+15,599	0,000	4,926			
			2,201	0,000	29,823
24	0,000	8,627			
			10,000	0,000	136,060
25	0,000	4,979			
			10,000	0,000	100,530
26	0,000	5,074			
			8,514	0,766	81,224
26+17,028	0,090	4,466			
			1,486	0,386	13,221
27	0,170	4,431			
			10,000	5,740	86,930
28	0,404	4,262			
			10,000	10,150	84,450
29	0,611	4,183			
			2,704	3,458	22,574
29+5,407	0,668	4,167			
			7,297	10,201	58,620
30	0,730	3,867			
			10,000	7,350	97,430
31	0,005	5,876			
			10,000	3,000	93,650
32	0,295	3,489			
			10,000	8,450	72,950
33	0,550	3,806			
			6,406	6,380	48,041
33+12,811	0,446	3,694			
			3,595	2,775	26,765
34	0,326	3,752			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
34	0,326	3,752			
			10,000	3,260	84,400
35	0,000	4,688			
			10,000	0,000	96,640
36	0,000	4,976			
			10,000	0,000	97,700
37	0,000	4,794			
			10,000	0,000	90,060
38	0,000	4,212			
			10,000	0,000	82,370
39	0,000	4,025			
			10,000	0,000	79,560
40	0,000	3,931			
			10,000	0,000	82,210
41	0,000	4,290			
			10,000	0,000	88,170
42	0,000	4,527			
			10,000	0,000	92,070
43	0,000	4,680			
			10,000	0,000	132,980
44	0,000	8,618			
			10,000	0,000	138,250
45	0,000	5,207			
			10,000	0,000	103,410
46	0,000	5,134			
			10,000	0,000	88,490
47	0,000	3,715			
			0,747	0,000	5,287
47+1,494	0,000	3,362			
			9,253	0,000	73,469
48	0,000	4,578			
			10,000	0,000	97,590
49	0,000	5,181			
			10,000	0,000	113,660
50	0,000	6,185			
			10,000	0,000	120,710
51	0,000	5,886			
			10,000	0,000	106,270
52	0,000	4,741			
			6,970	0,000	72,335
52+13,940	0,000	5,637			
			3,030	0,000	33,933
53	0,000	5,562			
			10,000	0,000	109,450
54	0,000	5,383			
			10,000	0,000	107,400
55	0,000	5,357			
			10,000	0,000	105,360
56	0,000	5,179			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
56	0,000	5,179			
			10,000	0,000	100,070
57	0,000	4,828			
			10,000	0,000	92,220
58	0,000	4,394			
			10,000	0,000	82,250
59	0,000	3,831			
			10,000	0,000	78,810
60	0,000	4,050			
			10,000	0,450	78,750
61	0,045	3,825			
			10,000	2,470	77,600
62	0,202	3,935			
			10,000	2,250	82,020
63	0,023	4,267			
			10,000	0,230	94,140
64	0,000	5,147			
			10,000	0,000	101,660
65	0,000	5,019			
			10,000	0,000	93,450
66	0,000	4,326			
			10,000	0,000	93,700
67	0,000	5,044			
			10,000	0,000	107,020
68	0,000	5,658			
			10,000	0,000	106,790
69	0,000	5,021			
			10,000	0,000	105,690
70	0,000	5,548			
			10,000	0,000	104,490
71	0,000	4,901			
			10,000	0,000	101,980
72	0,000	5,297			
			10,000	0,000	108,260
73	0,000	5,529			
			10,000	0,000	103,720
74	0,000	4,843			
			10,000	0,000	106,570
75	0,000	5,814			
			10,000	0,000	93,500
76	0,000	3,536			
			10,000	0,000	81,450
77	0,000	4,609			
			10,000	0,000	99,170
78	0,000	5,308			
			10,000	0,000	108,800
79	0,000	5,572			
			10,000	0,000	117,660
80	0,000	6,194			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
80	0,000	6,194			
			10,000	0,000	127,280
81	0,000	6,534			
			10,000	0,000	124,900
82	0,000	5,956			
			10,000	0,000	150,820
83	0,000	9,126			
			10,000	0,000	134,900
84	0,000	4,364			
			10,000	0,000	96,070
85	0,000	5,243			
			10,000	0,000	104,830
86	0,000	5,240			
			10,000	0,000	104,530
87	0,000	5,213			
			10,000	0,000	102,440
88	0,000	5,031			
			10,000	0,000	95,460
89	0,000	4,515			
			10,000	0,110	85,530
90	0,011	4,038			
			10,000	0,110	82,720
91	0,000	4,234			
			10,000	0,000	85,550
92	0,000	4,321			
			10,000	0,000	89,600
93	0,000	4,639			
			10,000	0,000	95,610
94	0,000	4,922			
			10,000	0,000	106,000
95	0,000	5,678			
			10,000	0,000	113,010
96	0,000	5,623			
			10,000	0,000	109,590
97	0,000	5,336			
			10,000	0,000	106,840
98	0,000	5,348			
			10,000	0,000	107,270
99	0,000	5,379			
			10,000	0,000	113,240
100	0,000	5,945			
			10,000	0,000	116,430
101	0,000	5,698			
			10,000	0,000	105,130
102	0,000	4,815			
			10,000	0,000	98,540
103	0,000	5,039			
			10,000	0,000	97,460
104	0,000	4,707			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
104	0,000	4,707			
			10,000	0,000	103,310
105	0,000	5,624			
			10,000	0,000	114,860
106	0,000	5,862			
			10,000	0,000	116,640
107	0,000	5,802			
			10,000	0,000	113,380
108	0,000	5,536			
			10,000	0,000	119,380
109	0,000	6,402			
			10,000	0,000	126,470
110	0,000	6,245			
			10,000	0,000	123,780
111	0,000	6,133			
			10,000	0,000	111,610
112	0,000	5,028			
			10,000	0,000	95,030
113	0,000	4,475			
			10,000	0,000	95,270
114	0,000	5,052			
			10,000	0,000	103,710
115	0,000	5,319			
			10,000	0,000	100,050
116	0,000	4,686			
			9,710	0,000	91,910
116+19,419	0,000	4,780			
			0,291	0,000	2,796
117	0,000	4,846			
			10,000	0,000	110,190
118	0,000	6,173			
			10,000	0,000	122,020
119	0,000	6,029			
			10,000	0,000	115,670
120	0,000	5,538			
			10,000	0,000	113,730
121	0,000	5,835			
			10,000	0,000	122,820
122	0,000	6,447			
			10,000	0,000	118,510
123	0,000	5,404			
			3,219	0,000	36,527
123+6,437	0,000	5,945			
			6,782	0,000	79,642
124	0,000	5,799			
			10,000	0,000	111,190
125	0,000	5,320			
			10,000	0,000	120,700
126	0,000	6,750			



## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
126	0,000	6,750			
			10,000	0,000	142,110
127	0,000	7,461			
			10,000	0,000	150,340
128	0,000	7,573			
			10,000	0,000	156,010
129	0,000	8,028			
			10,000	0,000	150,400
130	0,000	7,012			
			10,000	0,000	124,870
131	0,000	5,475			
			10,000	0,000	101,450
132	0,000	4,670			
			10,000	0,000	93,600
133	0,000	4,690			
			10,000	0,000	97,100
134	0,000	5,020			
			10,000	0,000	104,600
135	0,000	5,440			
			10,000	0,000	111,850
136	0,000	5,745			
			10,000	0,000	116,800
137	0,000	5,935			
			10,000	0,000	116,640
138	0,000	5,729			
			10,000	0,000	109,720
139	0,000	5,243			
			10,000	0,000	117,450
140	0,000	6,502			
			10,000	0,000	126,310
141	0,000	6,129			
			10,000	0,000	123,930
142	0,000	6,264			
			10,000	0,000	105,260
143	0,000	4,262			
			10,000	0,000	95,140
144	0,000	5,252			
			10,000	0,000	98,180
145	0,000	4,566			
			10,000	0,000	96,240
146	0,000	5,058			
			10,000	0,000	111,530
147	0,000	6,095			
			10,000	0,000	120,070
148	0,000	5,912			
			10,000	0,000	122,700
149	0,000	6,358			
			10,000	0,000	118,310
150	0,000	5,473			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
150	0,000	5,473			
			10,000	0,000	112,110
151	0,000	5,738			
			10,000	0,000	117,370
152	0,000	5,999			
			10,000	0,000	115,260
153	0,000	5,527			
			10,000	0,000	117,680
154	0,000	6,241			
			10,000	0,000	154,930
155	0,000	9,252			
			10,000	0,000	157,540
156	0,000	6,502			
			10,000	0,000	121,770
157	0,000	5,675			
			10,000	0,000	109,740
158	0,000	5,299			
			10,000	0,000	110,160
159	0,000	5,717			
			10,000	0,000	114,420
160	0,000	5,725			
			10,000	0,000	112,960
161	0,000	5,571			
			10,000	0,000	115,340
162	0,000	5,963			
			10,000	0,000	117,600
163	0,000	5,797			
			10,000	0,000	113,420
164	0,000	5,545			
			10,000	0,000	111,980
165	0,000	5,653			
			10,000	0,000	111,610
166	0,000	5,508			
			10,000	0,000	118,630
167	0,000	6,355			
			10,000	0,000	121,250
168	0,000	5,770			
			10,000	0,000	105,000
169	0,000	4,730			
			10,000	0,000	94,550
170	0,000	4,725			
			10,000	0,000	93,780
171	0,000	4,653			
			10,000	0,000	95,600
172	0,000	4,907			
			10,000	0,000	100,320
173	0,000	5,125			
			10,000	0,000	94,970
174	0,000	4,372			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
174	0,000	4,372			
			10,000	0,000	91,480
175	0,000	4,776			
			10,000	0,000	102,900
176	0,000	5,514			
			10,000	0,000	114,030
177	0,000	5,889			
			10,000	0,000	116,580
178	0,000	5,769			
			10,000	0,000	117,340
179	0,000	5,965			
			10,000	0,000	124,020
180	0,000	6,437			
			10,000	0,000	129,220
181	0,000	6,485			
			10,000	0,000	122,600
182	0,000	5,775			
			10,000	0,000	116,220
183	0,000	5,847			
			10,000	0,000	112,600
184	0,000	5,413			
			10,000	0,000	112,600
185	0,000	5,847			
			10,000	0,000	111,590
186	0,000	5,312			
			1,927	0,000	20,900
186+3,854	0,000	5,534			
			8,073	0,000	87,067
187	0,000	5,251			
			10,000	0,000	111,100
188	0,000	5,859			
			10,000	0,000	120,230
189	0,000	6,164			
			10,000	0,000	119,090
190	0,000	5,745			
			6,118	0,000	67,433
190+12,235	0,000	5,278			
			3,883	0,000	40,681
191	0,000	5,200			
			10,000	0,000	112,880
192	0,000	6,088			
			10,000	0,000	112,030
193	0,000	5,115			
			10,000	0,000	108,120
194	0,000	5,697			
			10,000	0,000	114,830
195	0,000	5,786			
			10,000	0,000	122,680
196	0,000	6,482			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
196	0,000	6,482			
			10,000	0,000	139,330
197	0,000	7,451			
			10,000	0,000	138,400
198	0,000	6,389			
			10,000	0,000	126,310
199	0,000	6,242			
			10,000	0,000	123,270
200	0,000	6,085			
			10,000	0,000	119,090
201	0,000	5,824			
			10,000	0,000	117,460
202	0,000	5,922			
			10,000	0,000	113,480
203	0,000	5,426			
			10,000	0,000	112,300
204	0,000	5,804			
			10,000	0,000	115,280
205	0,000	5,724			
			10,000	0,000	107,380
206	0,000	5,014			
			10,000	0,000	101,800
207	0,000	5,166			
			10,000	0,000	100,040
208	0,000	4,838			
			10,000	0,000	96,090
209	0,000	4,771			
			10,000	0,000	93,770
210	0,000	4,606			
			10,000	0,000	91,650
211	0,000	4,559			
			10,000	0,000	94,300
212	0,000	4,871			
			10,000	0,000	94,360
213	0,000	4,565			
			10,000	0,000	99,350
214	0,000	5,370			
			10,000	0,000	108,180
215	0,000	5,448			
			10,000	0,000	114,820
216	0,000	6,034			
			10,000	0,000	112,330
217	0,000	5,199			
			10,000	0,000	103,860
218	0,000	5,187			
			10,000	0,000	131,130
219	0,000	7,926			
			10,000	0,000	140,190
220	0,000	6,093			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
220	0,000	6,093			
			10,000	0,000	120,800
221	0,000	5,987			
			10,000	0,000	113,680
222	0,000	5,381			
			10,000	0,000	107,000
223	0,000	5,319			
			10,000	0,000	107,180
224	0,000	5,399			
			10,000	0,000	107,990
225	0,000	5,400			
			10,000	0,000	104,800
226	0,000	5,080			
			10,000	0,000	105,540
227	0,000	5,474			
			10,000	0,000	114,590
228	0,000	5,985			
			10,000	0,000	116,970
229	0,000	5,712			
			10,000	0,000	113,420
230	0,000	5,630			
			10,000	0,000	107,310
231	0,000	5,101			
			10,000	0,000	102,370
232	0,000	5,136			
			10,000	0,000	99,030
233	0,000	4,767			
			10,000	0,000	86,130
234	0,000	3,846			
			10,000	0,000	90,790
235	0,000	5,233			
			10,000	0,000	101,210
236	0,000	4,888			
			10,000	0,000	93,220
237	0,000	4,434			
			10,000	0,000	97,830
238	0,000	5,349			
			10,000	0,000	102,060
239	0,000	4,857			
			10,000	0,000	97,530
240	0,000	4,896			
			10,000	0,000	98,160
241	0,000	4,920			
			10,000	0,000	103,820
242	0,000	5,462			
			0,005	0,000	0,055
242+0,010	0,000	5,463			
			9,995	0,000	105,807
243	0,000	5,123			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
243	0,000	5,123			
			10,000	0,000	98,040
244	0,000	4,681			
			10,000	0,000	97,400
245	0,000	5,059			
			7,507	0,000	78,140
245+15,014	0,000	5,350			
			2,493	0,000	27,473
246	0,000	5,670			
			10,000	0,000	123,410
247	0,000	6,671			
			10,000	0,000	116,720
248	0,000	5,001			
			10,000	0,000	99,210
249	0,000	4,920			
			10,000	0,000	90,270
250	0,000	4,107			
			10,000	0,000	91,830
251	0,000	5,076			
			10,000	0,000	99,630
252	0,000	4,887			
			10,000	0,000	100,340
253	0,000	5,147			
			10,000	0,000	102,920
254	0,000	5,145			
			10,000	0,000	102,260
255	0,000	5,081			
			10,000	0,000	107,840
256	0,000	5,703			
			10,000	0,000	110,490
257	0,000	5,346			
			10,000	0,000	112,290
258	0,000	5,883			
			10,000	0,000	113,250
259	0,000	5,442			
			10,000	0,000	109,290
260	0,000	5,487			
			10,000	0,000	116,690
261	0,000	6,182			
			10,000	0,000	119,540
262	0,000	5,772			
			10,000	0,000	114,050
263	0,000	5,633			
			10,000	0,000	114,270
264	0,000	5,794			
			10,000	0,000	115,260
265	0,000	5,732			
			10,000	0,000	114,610
266	0,000	5,729			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
266	0,000	5,729			
			10,000	0,000	113,520
267	0,000	5,623			
			10,000	0,000	108,080
268	0,000	5,185			
			10,000	0,000	107,040
269	0,000	5,519			
			10,000	0,000	112,480
270	0,000	5,729			
			10,000	0,000	108,440
271	0,000	5,115			
			10,000	0,000	105,350
272	0,000	5,420			
			10,000	0,000	117,360
273	0,000	6,316			
			10,000	0,000	120,750
274	0,000	5,759			
			10,000	0,000	116,290
275	0,000	5,870			
			10,000	0,000	115,620
276	0,000	5,692			
			10,000	0,000	115,120
277	0,000	5,820			
			10,000	0,000	119,570
278	0,000	6,137			
			10,000	0,000	115,200
279	0,000	5,383			
			10,000	0,000	106,440
280	0,000	5,261			
			10,000	0,000	105,060
281	0,000	5,245			
			10,000	0,000	94,690
282	0,000	4,224			
			10,000	0,000	88,380
283	0,000	4,614			
			10,000	0,000	90,800
284	0,000	4,466			
			4,250	0,000	39,049
284+8,499	0,000	4,723			
			5,751	0,000	56,769
285	0,000	5,149			
			10,000	0,000	105,220
286	0,000	5,373			
			10,000	0,000	110,360
287	0,000	5,663			
			10,000	0,000	112,040
288	0,000	5,541			
			10,000	0,000	117,540
289	0,000	6,213			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
289	0,000	6,213			
			10,000	0,000	122,270
290	0,000	6,014			
			10,000	0,000	123,360
291	0,000	6,322			
			0,179	0,000	2,266
291+0,358	0,000	6,340			
			9,821	0,000	123,823
292	0,000	6,268			
			10,000	0,000	118,150
293	0,000	5,547			
			10,000	0,000	105,530
294	0,000	5,006			
			10,000	0,000	92,450
295	0,000	4,239			
			10,000	0,000	91,330
296	0,000	4,894			
			10,000	0,000	98,890
297	0,000	4,995			
			10,000	0,000	102,910
298	0,000	5,296			
			10,000	0,000	105,610
299	0,000	5,265			
			10,000	0,000	102,670
300	0,000	5,002			
			10,000	0,000	112,000
301	0,000	6,198			
			10,000	0,000	117,610
302	0,000	5,563			
			10,000	0,000	113,900
303	0,000	5,827			
			10,000	0,000	110,890
304	0,000	5,262			
			10,000	0,000	118,590
305	0,000	6,597			
			10,000	0,000	120,900
306	0,000	5,493			
			10,000	0,000	111,030
307	0,000	5,610			
			10,000	0,000	106,700
308	0,000	5,060			
			10,000	0,000	111,330
309	0,000	6,073			
			10,000	0,000	129,180
310	0,000	6,845			
			10,000	0,000	121,820
311	0,000	5,337			
			10,000	0,000	105,030
312	0,000	5,166			



## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
312	0,000	5,166			
			10,000	0,000	86,320
313	0,000	3,466			
			10,000	0,000	80,630
314	0,000	4,597			
			10,000	0,000	96,310
315	0,000	5,034			
			10,000	0,000	94,950
316	0,000	4,461			
			10,000	0,000	93,780
317	0,000	4,917			
			10,000	0,000	94,520
318	0,000	4,535			
			10,000	0,000	93,350
319	0,000	4,800			
			10,000	0,000	100,920
320	0,000	5,292			
			3,570	0,000	38,317
320+7,140	0,000	5,441			
			6,430	0,000	71,971
321	0,000	5,752			
			10,000	0,000	113,650
322	0,000	5,613			
			0,577	0,000	6,487
322+1,153	0,000	5,639			
			9,424	0,000	106,203
323	0,000	5,631			
			10,000	0,000	110,180
324	0,000	5,387			
			10,000	0,000	115,790
325	0,000	6,192			
			10,000	0,000	119,370
326	0,000	5,745			
			10,000	0,000	106,570
327	0,000	4,912			
			10,000	0,000	99,200
328	0,000	5,008			
			10,000	0,000	98,330
329	0,000	4,825			
			10,000	0,000	100,400
330	0,000	5,215			
			10,000	0,000	108,970
331	0,000	5,682			
			10,000	0,000	115,070
332	0,000	5,825			
			10,000	0,000	109,550
333	0,000	5,130			
			10,000	0,000	100,810
334	0,000	4,951			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
334	0,000	4,951			
			10,000	0,000	93,120
335	0,000	4,361			
			10,000	0,000	79,710
336	0,000	3,610			
			10,000	0,000	82,370
337	0,000	4,627			
			10,000	0,000	93,420
338	0,000	4,715			
			10,000	0,000	106,390
339	0,000	5,924			
			10,000	0,000	124,280
340	0,000	6,504			
			10,000	0,000	127,890
341	0,000	6,285			
			10,000	0,000	96,130
342	0,000	3,328			
			10,000	0,000	82,270
343	0,000	4,899			
			10,000	0,000	98,170
344	0,000	4,918			
			10,000	0,000	100,850
345	0,000	5,167			
			10,000	0,000	88,130
346	0,000	3,646			
			10,000	0,000	83,370
347	0,000	4,691			
			10,000	0,000	99,570
348	0,000	5,266			
			10,000	0,000	85,930
349	0,000	3,327			
			10,000	0,000	85,400
350	0,000	5,213			
			10,000	0,000	105,650
351	0,000	5,352			
			10,000	0,000	111,950
352	0,000	5,843			
			10,000	0,000	112,810
353	0,000	5,438			
			10,000	0,000	113,050
354	0,000	5,867			
			10,000	0,000	121,860
355	0,000	6,319			
			10,000	0,000	115,050
356	0,000	5,186			
			10,000	0,000	107,370
357	0,000	5,551			
			10,000	1,290	98,390
358	0,129	4,288			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
358	0,129	4,288			
			10,000	1,290	88,340
359	0,000	4,546			
			4,937	0,000	43,609
359+9,874	0,000	4,287			
			5,063	0,000	43,324
360	0,000	4,270			
			10,000	0,000	93,870
361	0,000	5,117			
			10,000	0,000	107,270
362	0,000	5,610			
			10,000	0,000	108,740
363	0,000	5,264			
			4,599	0,000	49,678
363+9,198	0,000	5,538			
			5,401	0,000	60,081
364	0,000	5,586			
			10,000	0,000	113,720
365	0,000	5,786			
			10,000	0,000	115,490
366	0,000	5,763			
			10,000	0,000	115,150
367	0,000	5,752			
			10,000	0,000	110,460
368	0,000	5,294			
			10,000	0,010	99,940
369	0,001	4,700			
			10,000	0,010	81,940
370	0,000	3,494			
			10,000	0,000	70,000
371	0,000	3,506			
			10,000	0,000	72,030
372	0,000	3,697			
			10,000	0,000	80,380
373	0,000	4,341			
			10,000	0,000	92,420
374	0,000	4,901			
			10,000	0,000	101,030
375	0,000	5,202			
			10,000	0,000	94,160
376	0,000	4,214			
			10,000	0,000	75,940
377	0,000	3,380			
			10,000	0,000	64,930
378	0,000	3,113			
			10,000	0,000	61,550
379	0,000	3,042			
			10,000	0,000	81,440
380	0,000	5,102			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
380	0,000	5,102			
			10,000	0,000	107,810
381	0,000	5,679			
			10,000	0,000	117,010
382	0,000	6,022			
			10,000	0,000	116,450
383	0,000	5,623			
			10,000	0,000	96,960
384	0,000	4,073			
			10,000	0,000	84,420
385	0,000	4,369			
			10,000	0,000	91,910
386	0,000	4,822			
			10,000	0,000	96,970
387	0,000	4,875			
			10,000	0,000	91,430
388	0,000	4,268			
			10,000	0,000	84,040
389	0,000	4,136			
			10,000	0,000	85,230
390	0,000	4,387			
			10,000	0,000	81,250
391	0,000	3,738			
			10,000	0,000	74,870
392	0,000	3,749			
			10,000	0,000	77,190
393	0,000	3,970			
			10,000	0,000	79,240
394	0,000	3,954			
			10,000	0,000	87,390
395	0,000	4,785			
			10,000	0,000	93,330
396	0,000	4,548			
			10,000	0,000	92,780
397	0,000	4,730			
			10,000	0,000	96,900
398	0,000	4,960			
			10,000	0,000	97,680
399	0,000	4,808			
			10,000	0,000	99,240
400	0,000	5,116			
			10,000	0,000	96,910
401	0,000	4,575			
			10,000	0,000	88,770
402	0,000	4,302			
			10,000	0,000	87,000
403	0,000	4,398			
			10,000	0,000	90,020
404	0,000	4,604			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
404	0,000	4,604			
			10,000	0,000	102,920
405	0,000	5,688			
			0,536	0,000	6,120
405+1,071	0,000	5,740			
			9,465	0,000	101,866
406	0,000	5,023			
			10,000	0,000	97,870
407	0,000	4,764			
			10,000	0,000	94,770
408	0,000	4,713			
			10,000	0,000	95,040
409	0,000	4,791			
			10,000	0,000	97,760
410	0,000	4,985			
			10,000	0,000	102,060
411	0,000	5,221			
			10,000	0,000	108,170
412	0,000	5,596			
			10,000	0,000	113,730
413	0,000	5,777			
			10,000	0,000	122,490
414	0,000	6,472			
			10,000	0,000	128,060
415	0,000	6,334			
			8,679	0,000	106,746
415+17,357	0,000	5,966			
			1,322	0,000	15,624
416	0,000	5,857			
			10,000	0,000	115,000
417	0,000	5,643			
			10,000	0,000	110,850
418	0,000	5,442			
			10,000	0,000	103,720
419	0,000	4,930			
			10,000	0,000	95,800
420	0,000	4,650			
			10,000	0,000	98,430
421	0,000	5,193			
			10,000	0,000	101,820
422	0,000	4,989			
			10,000	0,000	98,970
423	0,000	4,908			
			10,000	0,000	99,380
424	0,000	5,030			
			10,000	0,000	105,340
425	0,000	5,504			
			10,000	0,000	101,800
426	0,000	4,676			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
426	0,000	4,676			
			10,000	0,000	91,280
427	0,000	4,452			
			10,000	0,000	83,910
428	0,000	3,939			
			10,000	0,000	81,530
429	0,000	4,214			
			10,000	0,000	85,190
430	0,000	4,305			
			10,000	0,000	94,750
431	0,000	5,170			
			10,000	0,000	87,870
432	0,000	3,617			
			10,000	0,000	85,140
433	0,000	4,897			
			10,000	0,000	102,630
434	0,000	5,366			
			8,970	0,000	92,054
434+17,939	0,000	4,897			
			1,031	0,000	10,258
435	0,000	5,057			
			10,000	0,000	106,240
436	0,000	5,567			
			10,000	0,000	104,800
437	0,000	4,913			
			10,000	0,000	100,050
438	0,000	5,092			
			10,000	0,000	91,700
439	0,000	4,078			
			10,000	0,000	82,210
440	0,000	4,143			
			10,000	0,380	86,510
441	0,038	4,508			
			10,000	0,380	94,850
442	0,000	4,977			
			10,000	0,000	109,590
443	0,000	5,982			
			10,000	0,000	117,310
444	0,000	5,749			
			3,954	0,000	46,319
444+7,907	0,000	5,967			
			6,047	0,000	72,280
445	0,000	5,987			
			10,000	0,000	104,490
446	0,000	4,462			
			10,000	0,000	86,520
447	0,000	4,190			
			0,987	0,000	8,208
447+1,973	0,000	4,130			

## Cálculo de Volume por Comparação de Perfis: Terreno x Projeto

Estaca	Área Corte	Área Aterro	Semi-Dis.	Vol.Corte	Vol.Aterro
447+1,973	0,000	4,130			
			9,014	0,000	99,194
448	0,000	6,875			

	Corte	Aterro
Áreas	5,0150 m <sup>2</sup>	2.395,305 m <sup>2</sup>
Volumes	73,886 m <sup>3</sup>	45.352,788 m <sup>3</sup>



ESTADO DE SANTA CATARINA  
MUNICÍPIO DE JAGUARUNA  
SECRETARIA DE PLANEJAMENTO

## **05 – DISPOSIÇÕES GERAIS**

O presente memorial descritivo contém as coordenadas georreferenciadas ao Sistema Geodésico Brasileiro, Meridiano Central 51º WGr e encontra-se representadas no Sistema UTM, tendo como datum o SIRGAS 2000. Todos os azimutes e distâncias, área e perímetro foram calculados no plano de projeção UTM fuso 22.

