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APRESENTAÇÃO

APRESENTAÇÃO

A empresa **TECHPROJ Consultoria e Projetos** apresenta o **Volume 3A – Estudos Geotécnicos**, referente ao Projeto Executivo de Engenharia para reabilitação e melhoramentos da rodovia Vicinal de Acesso as Comunidades de Cágado, Caiçara e Salgado (Trecho 02 – Est 0 a Est 268+4,00) com extensão de 5,36 km, localizado no município de São Gonçalo do Amarante.

O trecho de pista simples apresentado foi desenvolvido com velocidade diretriz de 60km/h, com uma pista de 6m de largura e 0,5m de acostamento.

O Projeto Final, em sua forma de apresentação consta de 05 (cinco) volumes, assim identificados:

VOLUME 1 – RELATÓRIO DO PROJETO

Objetivo

Apresentar em formato A4 todas as informações necessárias à licitação da obra, em conformidade com as Instruções Provisórias para Apresentação de Relatórios e Projetos Executivos de Engenharia para Restauração de Rodovias.

VOLUME 2 – PROJETO DE EXECUÇÃO

Objetivo

Apresentar as plantas, perfis, seções transversais tipo, desenhos, tabelas e demais elementos gráficos necessários à execução dos projetos. É apresentado em formato A3.

VOLUME 3A – ESTUDOS GEOTÉCNICOS.

Objetivo

Apresentar os elementos obtidos nos estudos geotécnicos, tais como boletins de sondagens e os resultados dos ensaios efetuados para as camadas do pavimento existente, subleito da duplicação e terceira faixa, ocorrências de solo, areais, pedreiras e empréstimos para terraplenagem. É apresentado em formato A4.

VOLUME 3C – NOTAS DE SERVIÇO E CÁLCULO DE VOLUMES

Objetivo

Apresentar todos os estudos e projetos desenvolvidos, as metodologias adotadas, os resultados obtidos e a conclusão a respeito dos trabalhos. É apresentado em formato A4.

VOLUME 4 – ORÇAMENTO

Objetivo

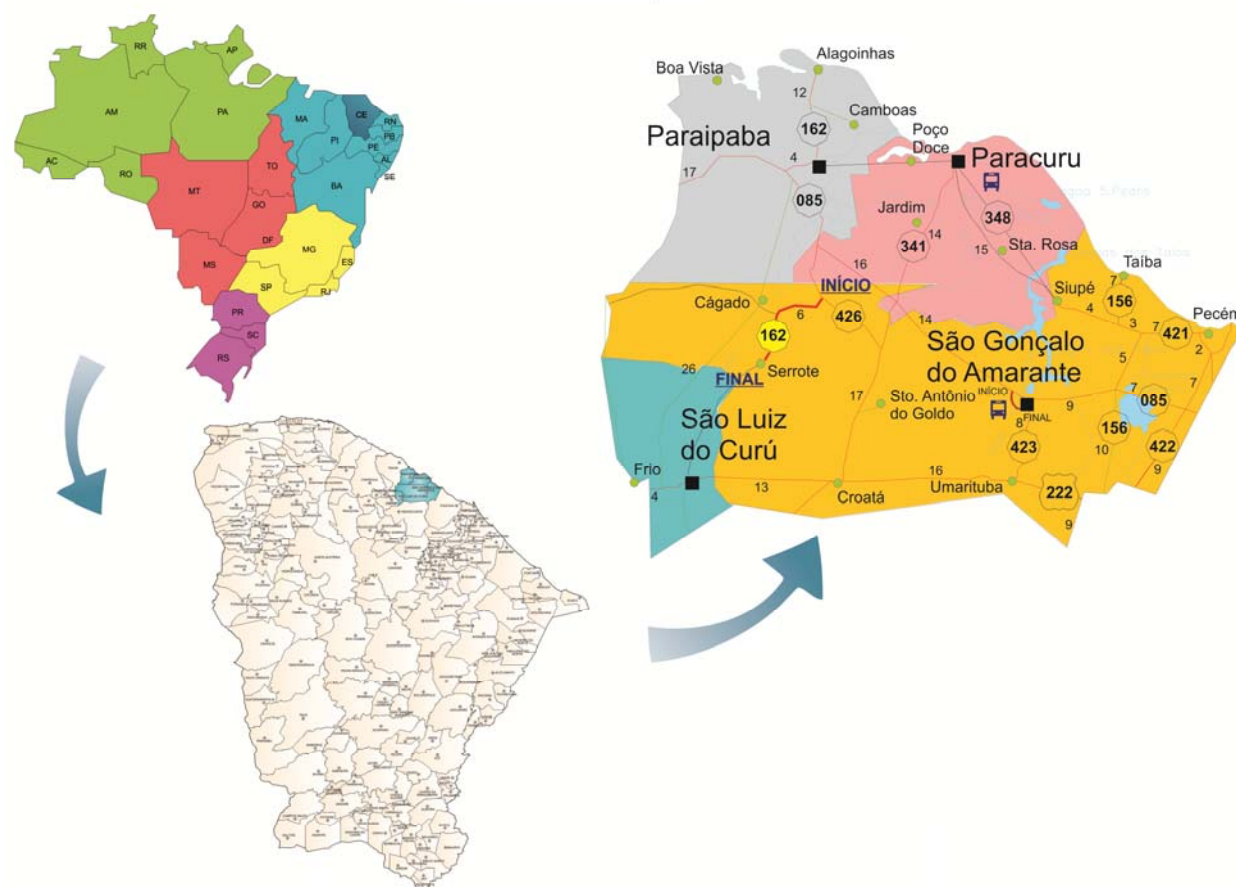
Apresentar o custo de todas as obras necessárias à execução do Projeto e como deverá ser executado o mesmo, indicando e justificando os métodos adotados na sua obtenção. É apresentado em formato A4.

O presente volume corresponde ao **VOLUME 3C – NOTAS DE SERVIÇO E CÁLCULO DE VOLUMES**.

1. MAPA DE SITUAÇÃO

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

MAPA DE SITUAÇÃO



2. QUADRO DE COORDENADAS

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
0+0.00	9.607.979.3565m	481.266.9422m	N 283° 11' 39.33"
1+0.00	9.607.983.9216m	481.247.4702m	N 283° 11' 39.33"
2+0.00	9.607.988.4867m	481.227.9981m	N 283° 11' 39.33"
3+0.00	9.607.993.0517m	481.208.5261m	N 283° 11' 39.33"
4+0.00	9.607.997.6168m	481.189.0541m	N 283° 11' 39.33"
5+0.00	9.608.002.1819m	481.169.5820m	N 283° 11' 39.33"
6+0.00	9.608.006.7469m	481.150.1100m	N 283° 11' 39.33"
7+0.00	9.608.011.3120m	481.130.6380m	N 283° 11' 39.33"
8+0.00	9.608.015.8771m	481.111.1659m	N 283° 11' 39.33"
9+0.00	9.608.020.4723m	481.091.7012m	N 283° 51' 18.33"
10+0.00	9.608.025.2617m	481.072.2831m	N 283° 51' 18.33"
11+0.00	9.608.030.0510m	481.052.8650m	N 283° 51' 18.33"
12+0.00	9.608.034.8404m	481.033.4469m	N 283° 51' 18.33"
13+0.00	9.608.039.6297m	481.014.0288m	N 283° 51' 18.33"
14+0.00	9.608.044.4190m	480.994.6107m	N 283° 51' 18.33"
15+0.00	9.608.049.2084m	480.975.1926m	N 283° 51' 18.33"
16+0.00	9.608.053.9977m	480.955.7745m	N 283° 51' 18.33"
17+0.00	9.608.058.7871m	480.936.3564m	N 283° 51' 18.33"
18+0.00	9.608.063.5764m	480.916.9383m	N 283° 51' 18.33"
19+0.00	9.608.068.3658m	480.897.5203m	N 283° 51' 18.33"
20+0.00	9.608.073.1018m	480.878.0895m	N 282° 49' 07.49"
21+0.00	9.608.077.5392m	480.858.5880m	N 282° 49' 07.49"
22+0.00	9.608.081.9765m	480.839.0865m	N 282° 49' 07.49"
23+0.00	9.608.086.4139m	480.819.5849m	N 282° 49' 07.49"
24+0.00	9.608.090.8512m	480.800.0834m	N 282° 49' 07.49"
25+0.00	9.608.095.0567m	480.780.5357m	N 278° 06' 32.08"
26+0.00	9.608.095.0301m	480.760.6037m	N 261° 44' 19.27"
27+0.00	9.608.090.0243m	480.741.2637m	N 253° 19' 45.61"
28+0.00	9.608.084.2869m	480.722.1043m	N 253° 19' 45.61"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
29+0.00	9.608.078.5495m	480.702.9449m	N 253° 19' 45.61"
30+0.00	9.608.072.8121m	480.683.7855m	N 253° 19' 45.61"
31+0.00	9.608.067.0747m	480.664.6262m	N 253° 19' 45.61"
32+0.00	9.608.061.3373m	480.645.4668m	N 253° 19' 45.61"
33+0.00	9.608.055.5999m	480.626.3074m	N 253° 19' 45.61"
34+0.00	9.608.050.6802m	480.606.9499m	N 262° 29' 06.26"
35+0.00	9.608.051.0883m	480.587.0306m	N 279° 51' 45.72"
36+0.00	9.608.055.7354m	480.567.5813m	N 283° 54' 31.00"
37+0.00	9.608.060.5428m	480.548.1677m	N 283° 54' 31.00"
38+0.00	9.608.065.3503m	480.528.7541m	N 283° 54' 31.00"
39+0.00	9.608.070.1578m	480.509.3405m	N 283° 54' 31.00"
40+0.00	9.608.074.9653m	480.489.9268m	N 283° 54' 31.00"
41+0.00	9.608.079.7727m	480.470.5132m	N 283° 54' 31.00"
42+0.00	9.608.084.5802m	480.451.0996m	N 283° 54' 31.00"
43+0.00	9.608.089.3877m	480.431.6860m	N 283° 54' 31.00"
44+0.00	9.608.094.1952m	480.412.2724m	N 283° 54' 31.00"
45+0.00	9.608.099.0027m	480.392.8588m	N 283° 54' 31.00"
46+0.00	9.608.103.8101m	480.373.4452m	N 283° 54' 31.00"
47+0.00	9.608.108.5397m	480.354.0127m	N 283° 08' 38.15"
48+0.00	9.608.112.9112m	480.334.4964m	N 282° 25' 07.73"
49+0.00	9.608.117.2123m	480.314.9644m	N 282° 25' 07.73"
50+0.00	9.608.121.5134m	480.295.4324m	N 282° 25' 07.73"
51+0.00	9.608.125.8145m	480.275.9003m	N 282° 25' 07.73"
52+0.00	9.608.130.1156m	480.256.3683m	N 282° 25' 07.73"
53+0.00	9.608.134.4168m	480.236.8363m	N 282° 25' 07.73"
54+0.00	9.608.138.7179m	480.217.3042m	N 282° 25' 07.73"
55+0.00	9.608.143.0190m	480.197.7722m	N 282° 25' 07.73"
56+0.00	9.608.147.3201m	480.178.2402m	N 282° 25' 07.73"
57+0.00	9.608.151.6213m	480.158.7081m	N 282° 25' 07.73"

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
58+0.00	9.608.155.9224m	480.139.1761m	N 282° 25' 07.73"
59+0.00	9.608.160.2235m	480.119.6441m	N 282° 25' 07.73"
60+0.00	9.608.164.5246m	480.100.1120m	N 282° 25' 07.73"
61+0.00	9.608.168.8257m	480.080.5800m	N 282° 25' 07.73"
62+0.00	9.608.173.1269m	480.061.0480m	N 282° 25' 07.73"
63+0.00	9.608.177.4280m	480.041.5159m	N 282° 25' 07.73"
64+0.00	9.608.181.7291m	480.021.9839m	N 282° 25' 07.73"
65+0.00	9.608.185.9140m	480.002.4269m	N 281° 44' 33.68"
66+0.00	9.608.189.9843m	479.982.8454m	N 281° 44' 33.68"
67+0.00	9.608.194.0546m	479.963.2640m	N 281° 44' 33.68"
68+0.00	9.608.198.1250m	479.943.6826m	N 281° 44' 33.68"
69+0.00	9.608.202.1953m	479.924.1011m	N 281° 44' 33.68"
70+0.00	9.608.206.2656m	479.904.5197m	N 281° 44' 33.68"
71+0.00	9.608.210.3360m	479.884.9383m	N 281° 44' 33.68"
72+0.00	9.608.214.4063m	479.865.3568m	N 281° 44' 33.68"
73+0.00	9.608.218.4767m	479.845.7754m	N 281° 44' 33.68"
74+0.00	9.608.222.5470m	479.826.1940m	N 281° 44' 33.68"
75+0.00	9.608.226.6173m	479.806.6126m	N 281° 44' 33.68"
76+0.00	9.608.230.6901m	479.787.0316m	N 281° 52' 46.70"
77+0.00	9.608.235.0318m	479.767.5090m	N 283° 11' 48.42"
78+0.00	9.608.239.7397m	479.748.0711m	N 283° 43' 04.28"
79+0.00	9.608.244.4825m	479.728.6416m	N 283° 43' 04.28"
80+0.00	9.608.249.2253m	479.709.2121m	N 283° 43' 04.28"
81+0.00	9.608.253.9681m	479.689.7826m	N 283° 43' 04.28"
82+0.00	9.608.258.7109m	479.670.3531m	N 283° 43' 04.28"
83+0.00	9.608.263.4537m	479.650.9236m	N 283° 43' 04.28"
84+0.00	9.608.268.1966m	479.631.4941m	N 283° 43' 04.28"
85+0.00	9.608.272.9394m	479.612.0646m	N 283° 43' 04.28"
86+0.00	9.608.277.6822m	479.592.6351m	N 283° 43' 04.28"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
87+0.00	9.608.282.4250m	479.573.2056m	N 283° 43' 04.28"
88+0.00	9.608.287.1305m	479.553.7672m	N 282° 53' 05.07"
89+0.00	9.608.291.5903m	479.534.2708m	N 282° 53' 05.07"
90+0.00	9.608.296.0501m	479.514.7744m	N 282° 53' 05.07"
91+0.00	9.608.300.5099m	479.495.2780m	N 282° 53' 05.07"
92+0.00	9.608.304.9698m	479.475.7816m	N 282° 53' 05.07"
93+0.00	9.608.309.4296m	479.456.2852m	N 282° 53' 05.07"
94+0.00	9.608.313.9138m	479.436.7945m	N 283° 40' 15.80"
95+0.00	9.608.318.6407m	479.417.3611m	N 283° 40' 15.80"
96+0.00	9.608.323.3677m	479.397.9278m	N 283° 40' 15.80"
97+0.00	9.608.328.0946m	479.378.4944m	N 283° 40' 15.80"
98+0.00	9.608.332.8216m	479.359.0610m	N 283° 40' 15.80"
99+0.00	9.608.337.5485m	479.339.6277m	N 283° 40' 15.80"
100+0.00	9.608.342.2755m	479.320.1943m	N 283° 40' 15.80"
101+0.00	9.608.347.0024m	479.300.7609m	N 283° 40' 15.80"
102+0.00	9.608.351.7294m	479.281.3275m	N 283° 40' 15.80"
103+0.00	9.608.356.4563m	479.261.8942m	N 283° 40' 15.80"
104+0.00	9.608.361.1833m	479.242.4608m	N 283° 40' 15.80"
105+0.00	9.608.365.9102m	479.223.0274m	N 283° 40' 15.80"
106+0.00	9.608.370.6371m	479.203.5940m	N 283° 40' 15.80"
107+0.00	9.608.375.3641m	479.184.1607m	N 283° 40' 15.80"
108+0.00	9.608.379.9571m	479.164.6956m	N 282° 40' 08.44"
109+0.00	9.608.384.1348m	479.145.1371m	N 281° 38' 49.87"
110+0.00	9.608.388.1725m	479.125.5489m	N 281° 38' 49.87"
111+0.00	9.608.392.2102m	479.105.9607m	N 281° 38' 49.87"
112+0.00	9.608.396.2479m	479.086.3725m	N 281° 39' 09.78"
113+0.00	9.608.400.4949m	479.066.8290m	N 282° 39' 15.21"
114+0.00	9.608.404.8762m	479.047.3148m	N 282° 39' 15.21"
115+0.00	9.608.409.2576m	479.027.8006m	N 282° 39' 15.21"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
116+0.00	9.608.413.6389m	479.008.2864m	N 282° 39' 15.21"
117+0.00	9.608.418.0202m	478.988.7722m	N 282° 39' 15.21"
118+0.00	9.608.422.4016m	478.969.2580m	N 282° 39' 15.21"
119+0.00	9.608.426.7829m	478.949.7438m	N 282° 39' 15.21"
120+0.00	9.608.431.1642m	478.930.2296m	N 282° 39' 15.21"
121+0.00	9.608.435.8181m	478.910.7930m	N 292° 19' 42.87"
122+0.00	9.608.450.7165m	478.898.7184m	N 349° 37' 27.67"
123+0.00	9.608.469.0024m	478.904.6494m	N 40° 51' 42.25"
124+0.00	9.608.484.1282m	478.917.7341m	N 40° 51' 42.25"
125+0.00	9.608.499.2540m	478.930.8188m	N 40° 51' 42.25"
126+0.00	9.608.514.3798m	478.943.9036m	N 40° 51' 42.25"
127+0.00	9.608.529.5056m	478.956.9883m	N 40° 51' 42.25"
128+0.00	9.608.544.6314m	478.970.0730m	N 40° 51' 42.25"
129+0.00	9.608.559.7572m	478.983.1577m	N 40° 51' 42.25"
130+0.00	9.608.574.8830m	478.996.2424m	N 40° 51' 42.25"
131+0.00	9.608.590.0089m	479.009.3271m	N 40° 51' 42.25"
132+0.00	9.608.605.1347m	479.022.4119m	N 40° 51' 42.25"
133+0.00	9.608.620.2605m	479.035.4966m	N 40° 51' 42.25"
134+0.00	9.608.635.3863m	479.048.5813m	N 40° 51' 42.25"
135+0.00	9.608.650.4006m	479.061.7926m	N 42° 21' 00.38"
136+0.00	9.608.665.0068m	479.075.4547m	N 43° 16' 23.02"
137+0.00	9.608.679.5687m	479.089.1642m	N 43° 16' 23.02"
138+0.00	9.608.694.1306m	479.102.8737m	N 43° 16' 23.02"
139+0.00	9.608.708.7583m	479.116.5114m	N 41° 44' 33.79"
140+0.00	9.608.723.6812m	479.129.8271m	N 41° 44' 33.79"
141+0.00	9.608.738.6717m	479.143.0653m	N 39° 54' 14.25"
142+0.00	9.608.754.3883m	479.155.4323m	N 37° 49' 08.34"
143+0.00	9.608.770.1874m	479.167.6957m	N 37° 49' 08.34"
144+0.00	9.608.785.8153m	479.180.1687m	N 42° 02' 04.94"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
145+0.00	9.608.799.5798m	479.194.6624m	N 48° 03' 50.16"
146+0.00	9.608.812.9458m	479.209.5402m	N 48° 03' 50.16"
147+0.00	9.608.826.2981m	479.224.4303m	N 48° 50' 28.63"
148+0.00	9.608.838.8057m	479.240.0314m	N 52° 21' 43.58"
149+0.00	9.608.851.0191m	479.255.8691m	N 52° 21' 43.58"
150+0.00	9.608.863.2324m	479.271.7068m	N 52° 21' 43.58"
151+0.00	9.608.875.4458m	479.287.5445m	N 52° 21' 43.58"
152+0.00	9.608.887.6592m	479.303.3822m	N 52° 21' 43.58"
153+0.00	9.608.899.8726m	479.319.2199m	N 52° 21' 43.58"
154+0.00	9.608.912.0860m	479.335.0577m	N 52° 21' 43.58"
155+0.00	9.608.924.2993m	479.350.8954m	N 52° 21' 43.58"
156+0.00	9.608.936.5127m	479.366.7331m	N 52° 21' 43.58"
157+0.00	9.608.948.7261m	479.382.5708m	N 52° 21' 43.58"
158+0.00	9.608.960.9395m	479.398.4085m	N 52° 21' 43.58"
159+0.00	9.608.973.1529m	479.414.2463m	N 52° 21' 43.58"
160+0.00	9.608.985.3662m	479.430.0840m	N 52° 21' 43.58"
161+0.00	9.608.997.5796m	479.445.9217m	N 52° 21' 43.58"
162+0.00	9.609.009.7930m	479.461.7594m	N 52° 21' 43.58"
163+0.00	9.609.022.0064m	479.477.5971m	N 52° 21' 43.58"
164+0.00	9.609.034.2198m	479.493.4349m	N 52° 21' 43.58"
165+0.00	9.609.046.4331m	479.509.2726m	N 52° 21' 43.58"
166+0.00	9.609.058.6465m	479.525.1103m	N 52° 21' 43.58"
167+0.00	9.609.070.8599m	479.540.9480m	N 52° 21' 43.58"
168+0.00	9.609.083.0733m	479.556.7857m	N 52° 21' 43.58"
169+0.00	9.609.095.2867m	479.572.6234m	N 52° 21' 43.58"
170+0.00	9.609.107.5000m	479.588.4612m	N 52° 21' 43.58"
171+0.00	9.609.119.7134m	479.604.2989m	N 52° 21' 43.58"
172+0.00	9.609.131.9268m	479.620.1366m	N 52° 21' 43.58"
173+0.00	9.609.144.1402m	479.635.9743m	N 52° 21' 43.58"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
174+0.00	9.609.156.3536m	479.651.8120m	N 52° 21' 43.58"
175+0.00	9.609.168.5579m	479.667.6567m	N 52° 24' 37.85"
176+0.00	9.609.180.7579m	479.683.5048m	N 52° 24' 37.85"
177+0.00	9.609.192.9579m	479.699.3528m	N 52° 24' 37.85"
178+0.00	9.609.205.1579m	479.715.2008m	N 52° 24' 37.85"
179+0.00	9.609.217.3579m	479.731.0489m	N 52° 24' 37.85"
180+0.00	9.609.229.5579m	479.746.8969m	N 52° 24' 37.85"
181+0.00	9.609.241.7578m	479.762.7449m	N 52° 24' 37.85"
182+0.00	9.609.253.9578m	479.778.5930m	N 52° 24' 37.85"
183+0.00	9.609.266.4649m	479.794.1997m	N 51° 16' 23.30"
184+0.00	9.609.278.9774m	479.809.8022m	N 51° 15' 42.49"
185+0.00	9.609.291.4927m	479.825.4024m	N 51° 15' 42.49"
186+0.00	9.609.304.0080m	479.841.0027m	N 51° 15' 42.49"
187+0.00	9.609.316.5232m	479.856.6030m	N 51° 15' 42.49"
188+0.00	9.609.329.0385m	479.872.2033m	N 51° 15' 42.49"
189+0.00	9.609.341.5537m	479.887.8035m	N 51° 15' 42.49"
190+0.00	9.609.353.9683m	479.903.4836m	N 51° 56' 23.55"
191+0.00	9.609.366.2980m	479.919.2309m	N 51° 56' 23.55"
192+0.00	9.609.378.6278m	479.934.9782m	N 51° 56' 23.55"
193+0.00	9.609.390.9575m	479.950.7255m	N 51° 56' 23.55"
194+0.00	9.609.403.2873m	479.966.4728m	N 51° 56' 23.55"
195+0.00	9.609.415.6171m	479.982.2200m	N 51° 56' 23.55"
196+0.00	9.609.427.9468m	479.997.9673m	N 51° 56' 23.55"
197+0.00	9.609.440.2766m	480.013.7146m	N 51° 56' 23.55"
198+0.00	9.609.452.6063m	480.029.4619m	N 51° 56' 23.55"
199+0.00	9.609.464.9361m	480.045.2092m	N 51° 56' 23.55"
200+0.00	9.609.477.2659m	480.060.9565m	N 51° 56' 23.55"
201+0.00	9.609.489.5956m	480.076.7038m	N 51° 56' 23.55"
202+0.00	9.609.501.9254m	480.092.4510m	N 51° 56' 23.55"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
203+0.00	9.609.514.2552m	480.108.1983m	N 51° 56' 23.55"
204+0.00	9.609.526.5849m	480.123.9456m	N 51° 56' 23.55"
205+0.00	9.609.538.9147m	480.139.6929m	N 51° 56' 23.55"
206+0.00	9.609.551.2444m	480.155.4402m	N 51° 56' 23.55"
207+0.00	9.609.563.5742m	480.171.1875m	N 51° 56' 23.55"
208+0.00	9.609.575.9040m	480.186.9347m	N 51° 56' 23.55"
209+0.00	9.609.588.2337m	480.202.6820m	N 51° 56' 23.55"
210+0.00	9.609.600.5635m	480.218.4293m	N 51° 56' 23.55"
211+0.00	9.609.612.8932m	480.234.1766m	N 51° 56' 23.55"
212+0.00	9.609.625.2230m	480.249.9239m	N 51° 56' 23.55"
213+0.00	9.609.637.5528m	480.265.6712m	N 51° 56' 23.55"
214+0.00	9.609.649.8825m	480.281.4185m	N 51° 56' 23.55"
215+0.00	9.609.662.2123m	480.297.1657m	N 51° 56' 23.55"
216+0.00	9.609.674.5420m	480.312.9130m	N 51° 56' 23.55"
217+0.00	9.609.686.8718m	480.328.6603m	N 51° 56' 23.55"
218+0.00	9.609.699.1890m	480.344.4174m	N 52° 15' 47.34"
219+0.00	9.609.711.2804m	480.360.3481m	N 53° 07' 40.44"
220+0.00	9.609.723.2810m	480.376.3477m	N 53° 07' 40.44"
221+0.00	9.609.735.2816m	480.392.3472m	N 53° 07' 40.44"
222+0.00	9.609.747.2822m	480.408.3467m	N 53° 07' 40.44"
223+0.00	9.609.759.2829m	480.424.3463m	N 53° 07' 40.44"
224+0.00	9.609.771.2835m	480.440.3458m	N 53° 07' 40.44"
225+0.00	9.609.783.2840m	480.456.3454m	N 53° 09' 55.70"
226+0.00	9.609.795.0260m	480.472.5348m	N 54° 55' 42.31"
227+0.00	9.609.806.3335m	480.489.0312m	N 55° 46' 26.22"
228+0.00	9.609.817.5827m	480.505.5677m	N 55° 46' 26.22"
229+0.00	9.609.828.8319m	480.522.1042m	N 55° 46' 26.22"
230+0.00	9.609.840.0810m	480.538.6407m	N 55° 46' 26.22"
231+0.00	9.609.851.3302m	480.555.1772m	N 55° 46' 26.22"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
232+0.00	9.609.862.5794m	480.571.7137m	N 55° 46' 26.22"
233+0.00	9.609.873.8286m	480.588.2502m	N 55° 46' 26.22"
234+0.00	9.609.885.0778m	480.604.7867m	N 55° 46' 26.22"
235+0.00	9.609.896.3270m	480.621.3232m	N 55° 46' 26.22"
236+0.00	9.609.912.9520m	480.625.4343m	N 317° 31' 52.98"
237+0.00	9.609.918.2753m	480.606.5305m	N 279° 31' 55.87"
238+0.00	9.609.921.5873m	480.586.8066m	N 279° 31' 55.87"
239+0.00	9.609.924.8994m	480.567.0828m	N 279° 31' 55.87"
240+0.00	9.609.928.2628m	480.547.3679m	N 280° 50' 26.17"
241+0.00	9.609.932.9868m	480.527.9419m	N 285° 54' 53.92"
242+0.00	9.609.938.4710m	480.508.7085m	N 285° 54' 53.92"
243+0.00	9.609.943.1569m	480.489.2791m	N 280° 27' 36.10"
244+0.00	9.609.946.7821m	480.469.6105m	N 280° 10' 07.69"
245+0.00	9.609.949.8782m	480.449.8532m	N 277° 51' 17.04"
246+0.00	9.609.952.6115m	480.430.0408m	N 277° 51' 17.04"
247+0.00	9.609.956.0176m	480.410.3416m	N 282° 13' 13.96"
248+0.00	9.609.960.2512m	480.390.7948m	N 282° 13' 13.96"
249+0.00	9.609.964.4847m	480.371.2480m	N 282° 13' 13.96"
250+0.00	9.609.968.7182m	480.351.7012m	N 282° 13' 13.96"
251+0.00	9.609.972.9517m	480.332.1544m	N 282° 13' 13.96"
252+0.00	9.609.977.1852m	480.312.6076m	N 282° 13' 13.96"
253+0.00	9.609.981.4187m	480.293.0608m	N 282° 13' 13.96"
254+0.00	9.609.985.6522m	480.273.5140m	N 282° 13' 13.96"
255+0.00	9.609.989.8857m	480.253.9672m	N 282° 13' 13.96"
256+0.00	9.609.994.1192m	480.234.4204m	N 282° 13' 13.96"
257+0.00	9.609.998.3527m	480.214.8736m	N 282° 13' 13.96"
258+0.00	9.610.002.5862m	480.195.3268m	N 282° 13' 13.96"
259+0.00	9.610.007.0349m	480.175.8287m	N 283° 46' 03.78"
260+0.00	9.610.011.7946m	480.156.4033m	N 283° 46' 03.78"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Eixo Principal			
Estaca	Norte	Leste	Rumo
261+0.00	9.610.016.5543m	480.136.9779m	N 283° 46' 03.78"
262+0.00	9.610.023.3925m	480.118.4724m	N 314° 06' 54.80"
263+0.00	9.610.033.3223m	480.102.0130m	N 282° 52' 21.31"
264+0.00	9.610.037.7779m	480.082.5156m	N 282° 52' 21.31"
265+0.00	9.610.042.2336m	480.063.0182m	N 282° 52' 21.31"
266+0.00	9.610.046.6893m	480.043.5209m	N 282° 52' 21.31"
267+0.00	9.610.051.1450m	480.024.0235m	N 282° 52' 21.31"
268+4.00	9.610.055.6006m	480.004.5262m	N 282° 52' 21.31"

QUADRO DE COORDENADAS			
Alinhamento: Rua A			
Estaca	Norte	Leste	Rumo
0+0.00	9.609.439.7818m	480.013.7906m	N 322° 00' 55.34"
1+0.00	9.609.454.2729m	480.000.1538m	N 304° 37' 07.95"
2+0.00	9.609.463.1499m	479.982.3172m	N 289° 36' 17.08"
3+0.00	9.609.469.0613m	479.963.2137m	N 286° 32' 13.25"
4+0.00	9.609.474.7540m	479.944.0410m	N 286° 32' 13.25"
5+0.00	9.609.480.2206m	479.924.8051m	N 284° 41' 28.40"
6+0.00	9.609.485.2928m	479.905.4589m	N 284° 41' 28.40"
7+0.00	9.609.490.3650m	479.886.1128m	N 284° 41' 28.40"
8+0.00	9.609.495.4372m	479.866.7667m	N 284° 41' 28.40"
9+0.00	9.609.500.5094m	479.847.4206m	N 284° 41' 28.40"
10+0.00	9.609.505.5816m	479.828.0744m	N 284° 41' 28.40"
11+0.00	9.609.510.5504m	479.808.7016m	N 284° 13' 10.83"
12+0.00	9.609.515.4633m	479.789.3144m	N 284° 13' 10.83"
13+0.00	9.609.520.3761m	479.769.9272m	N 284° 13' 10.83"
14+0.00	9.609.525.2889m	479.750.5400m	N 284° 13' 10.83"
15+0.00	9.609.529.5901m	479.731.0142m	N 280° 46' 09.04"
16+0.00	9.609.533.3271m	479.711.3665m	N 280° 46' 09.04"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Rua A			
Estaca	Norte	Leste	Rumo
17+0.00	9.609.537.0642m	479.691.7187m	N 280° 46' 09.04"
18+0.00	9.609.540.8012m	479.672.0710m	N 280° 46' 09.04"
19+0.00	9.609.544.5383m	479.652.4232m	N 280° 46' 09.04"
20+0.00	9.609.548.2753m	479.632.7755m	N 280° 46' 09.04"
21+0.00	9.609.552.0995m	479.613.1448m	N 281° 24' 00.06"
22+0.00	9.609.556.0527m	479.593.5393m	N 281° 24' 00.06"
23+0.00	9.609.560.0058m	479.573.9339m	N 281° 24' 00.06"
24+0.00	9.609.563.9590m	479.554.3285m	N 281° 24' 00.06"
25+0.00	9.609.567.9121m	479.534.7231m	N 281° 24' 00.06"
26+0.00	9.609.571.8653m	479.515.1177m	N 281° 24' 00.06"
27+0.00	9.609.575.8184m	479.495.5122m	N 281° 24' 00.06"
28+0.00	9.609.578.8454m	479.475.7471m	N 277° 44' 27.48"
29+0.00	9.609.581.5588m	479.455.9324m	N 280° 57' 49.26"
30+0.00	9.609.596.5653m	479.446.1125m	N 12° 38' 12.95"
31+0.00	9.609.615.5107m	479.452.5131m	N 18° 52' 46.44"
32+0.00	9.609.634.4348m	479.458.9847m	N 18° 52' 46.44"
33+0.00	9.609.653.3588m	479.465.4563m	N 18° 52' 46.44"
34+0.00	9.609.672.2828m	479.471.9279m	N 18° 52' 46.44"
35+0.00	9.609.691.2068m	479.478.3995m	N 18° 52' 46.44"
36+0.00	9.609.710.1366m	479.484.8541m	N 18° 48' 27.97"
37+0.00	9.609.729.0688m	479.491.3020m	N 18° 48' 27.97"
38+0.00	9.609.748.0009m	479.497.7499m	N 18° 48' 27.97"
39+0.00	9.609.766.9330m	479.504.1977m	N 18° 48' 27.97"
40+0.00	9.609.785.8651m	479.510.6456m	N 18° 48' 27.97"
41+0.00	9.609.804.7724m	479.517.1657m	N 19° 06' 14.34"
42+0.00	9.609.823.6709m	479.523.7114m	N 19° 06' 14.34"
43+0.00	9.609.842.5694m	479.530.2571m	N 19° 06' 14.34"
44+0.00	9.609.861.4680m	479.536.8028m	N 19° 06' 14.34"
45+0.00	9.609.880.3665m	479.543.3484m	N 19° 06' 14.34"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Rua A			
Estaca	Norte	Leste	Rumo
46+0.00	9.609.899.2935m	479.549.8101m	N 18° 25' 17.40"
47+0.00	9.609.918.2687m	479.556.1302m	N 18° 25' 17.40"
48+0.00	9.609.937.2438m	479.562.4503m	N 18° 25' 17.40"
49+0.00	9.609.956.1908m	479.568.8534m	N 19° 06' 22.50"
50+0.00	9.609.975.0891m	479.575.3998m	N 19° 06' 22.50"
51+0.00	9.609.993.9873m	479.581.9462m	N 19° 06' 22.50"
52+0.00	9.610.012.8868m	479.588.4890m	N 18° 41' 20.82"
53+0.00	9.610.031.8323m	479.594.8977m	N 18° 41' 20.82"
54+0.00	9.610.050.7777m	479.601.3063m	N 18° 41' 20.82"
55+0.00	9.610.069.7231m	479.607.7150m	N 18° 41' 20.82"
56+0.00	9.610.088.6685m	479.614.1236m	N 18° 41' 20.82"
57+0.00	9.610.107.6140m	479.620.5323m	N 18° 41' 20.82"
58+0.00	9.610.126.7835m	479.626.1684m	N 13° 40' 05.11"
58+8.25	9.610.139.8515m	479.629.3463m	N 13° 40' 05.11"

QUADRO DE COORDENADAS			
Alinhamento: Rua B			
Estaca	Norte	Leste	Rumo
0+0.00	9.609.900.7908m	480.627.7817m	N 55° 51' 51.64"
1+0.00	9.609.912.0138m	480.644.3359m	N 55° 51' 51.64"
2+0.00	9.609.923.2404m	480.660.8878m	N 55° 47' 18.42"
3+0.00	9.609.934.4854m	480.677.4271m	N 55° 47' 18.42"
4+0.00	9.609.945.7304m	480.693.9665m	N 55° 47' 18.42"
5+0.00	9.609.956.9754m	480.710.5058m	N 55° 47' 18.42"
6+0.00	9.609.968.5418m	480.726.8175m	N 53° 34' 45.65"
7+0.00	9.609.980.4160m	480.742.9111m	N 53° 34' 45.65"
8+0.00	9.609.992.2901m	480.759.0047m	N 53° 34' 45.65"
9+0.00	9.610.004.1643m	480.775.0983m	N 53° 34' 45.65"
10+0.00	9.610.016.0385m	480.791.1919m	N 53° 34' 45.65"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Rua B			
Estaca	Norte	Leste	Rumo
11+0.00	9.610.027.9127m	480.807.2855m	N 53° 34' 45.65"
12+0.00	9.610.041.7810m	480.821.5745m	N 36° 24' 10.06"
13+0.00	9.610.059.3412m	480.831.0543m	N 24° 54' 00.43"
14+0.00	9.610.077.4821m	480.839.4750m	N 24° 54' 00.43"
15+0.00	9.610.095.6229m	480.847.8958m	N 24° 54' 00.43"
16+0.00	9.610.113.7638m	480.856.3165m	N 24° 54' 00.43"
17+0.00	9.610.118.7135m	480.837.0580m	N 284° 08' 15.79"
18+0.00	9.610.123.5986m	480.817.6637m	N 284° 08' 15.79"
19+0.00	9.610.128.4305m	480.798.2574m	N 281° 33' 24.19"
20+0.00	9.610.132.4469m	480.778.6650m	N 283° 21' 45.28"
21+0.00	9.610.137.0691m	480.759.2064m	N 283° 21' 45.28"
22+0.00	9.610.141.6914m	480.739.7479m	N 283° 21' 45.28"
23+0.00	9.610.146.3136m	480.720.2894m	N 283° 21' 45.28"
24+0.00	9.610.150.9359m	480.700.8308m	N 283° 21' 45.28"
25+0.00	9.610.155.5581m	480.681.3723m	N 283° 21' 45.28"
26+0.00	9.610.160.1804m	480.661.9137m	N 283° 21' 45.28"
27+0.00	9.610.164.6693m	480.642.4250m	N 282° 09' 38.92"
28+0.00	9.610.169.1383m	480.622.9320m	N 283° 29' 14.73"
29+0.00	9.610.173.8030m	480.603.4836m	N 283° 29' 14.73"
30+0.00	9.610.178.4676m	480.584.0352m	N 283° 29' 14.73"
31+0.00	9.610.183.1322m	480.564.5868m	N 283° 29' 14.73"
32+0.00	9.610.187.7969m	480.545.1384m	N 283° 29' 14.73"
33+0.00	9.610.192.4188m	480.525.6798m	N 283° 11' 47.06"
34+0.00	9.610.196.9724m	480.506.2051m	N 283° 05' 29.78"
35+0.00	9.610.201.5026m	480.486.7249m	N 283° 05' 29.78"
36+0.00	9.610.206.0328m	480.467.2447m	N 283° 05' 29.78"
37+0.00	9.610.210.5425m	480.447.7599m	N 282° 45' 56.50"
38+0.00	9.610.214.9134m	480.428.2434m	N 282° 31' 42.56"
39+0.00	9.610.219.2519m	480.408.7196m	N 282° 31' 42.56"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Rua B			
Estaca	Norte	Leste	Rumo
40+0.00	9.610.223.5904m	480.389.1958m	N 282° 31' 42.56"
41+0.00	9.610.227.9289m	480.369.6721m	N 282° 31' 42.56"
42+0.00	9.610.232.2674m	480.350.1483m	N 282° 31' 42.56"
43+0.00	9.610.236.6059m	480.330.6245m	N 282° 31' 42.56"
44+0.00	9.610.240.9444m	480.311.1008m	N 282° 31' 42.56"
45+0.00	9.610.245.2829m	480.291.5770m	N 282° 31' 42.56"
46+0.00	9.610.249.5495m	480.272.0379m	N 281° 35' 11.92"
47+0.00	9.610.253.6570m	480.252.4643m	N 281° 55' 21.87"
48+0.00	9.610.257.6376m	480.232.8652m	N 280° 52' 20.07"
49+0.00	9.610.261.9421m	480.213.3344m	N 282° 31' 43.87"
50+0.00	9.610.266.2807m	480.193.8107m	N 282° 31' 43.87"
51+0.00	9.610.270.6194m	480.174.2870m	N 282° 31' 43.87"
52+0.00	9.610.274.7799m	480.154.7251m	N 281° 36' 30.08"
53+0.00	9.610.279.0103m	480.135.1788m	N 282° 48' 12.00"
54+0.00	9.610.283.4424m	480.115.6761m	N 282° 48' 12.00"
55+0.00	9.610.287.8745m	480.096.1733m	N 282° 48' 12.00"
56+0.00	9.610.292.3066m	480.076.6706m	N 282° 48' 12.00"
57+0.00	9.610.296.7387m	480.057.1679m	N 282° 48' 12.00"
58+0.00	9.610.301.1708m	480.037.6651m	N 282° 48' 12.00"
59+0.00	9.610.305.6030m	480.018.1624m	N 282° 48' 12.00"
60+0.00	9.610.310.0351m	479.998.6597m	N 282° 48' 12.00"
61+0.00	9.610.314.4672m	479.979.1570m	N 282° 48' 12.00"
62+0.00	9.610.318.8993m	479.959.6542m	N 282° 48' 12.00"
63+0.00	9.610.323.3314m	479.940.1515m	N 282° 48' 12.00"
64+0.00	9.610.327.7635m	479.920.6488m	N 282° 48' 12.00"
65+0.00	9.610.319.4668m	479.906.5217m	N 187° 31' 10.43"
66+0.00	9.610.299.6388m	479.903.9044m	N 187° 31' 10.43"
67+0.00	9.610.279.8108m	479.901.2871m	N 187° 31' 10.43"
68+0.00	9.610.259.9828m	479.898.6698m	N 187° 31' 10.43"

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE COORDENADAS			
Alinhamento: Rua B			
Estaca	Norte	Leste	Rumo
69+0.00	9.610.240.1548m	479.896.0525m	N 187° 31' 10.43"
70+0.00	9.610.220.3268m	479.893.4352m	N 187° 31' 10.43"
71+0.00	9.610.200.4988m	479.890.8179m	N 187° 31' 10.43"
72+0.00	9.610.180.6708m	479.888.2006m	N 187° 31' 10.43"
73+0.00	9.610.160.8428m	479.885.5833m	N 187° 31' 10.43"
74+0.00	9.610.141.0148m	479.882.9660m	N 187° 31' 10.43"
75+0.00	9.610.121.1868m	479.880.3487m	N 187° 31' 10.43"
76+0.00	9.610.101.3647m	479.877.6978m	N 192° 32' 50.02"
76+13.66	9.610.085.3998m	479.874.1512m	N 192° 57' 58.86"

QUADRO DE COORDENADAS			
Alinhamento: Rua C			
Estaca	Norte	Leste	Rumo
0+0.00	9.610.034.1122m	480.098.0835m	N 102° 15' 57.55"
1+0.00	9.610.039.2229m	480.116.5683m	N 45° 54' 14.98"
2+0.00	9.610.057.5076m	480.123.3876m	N 7° 54' 22.18"
3+0.00	9.610.077.3175m	480.126.1386m	N 7° 54' 22.18"
4+0.00	9.610.097.1273m	480.128.8896m	N 7° 54' 22.18"
5+0.00	9.610.116.9372m	480.131.6406m	N 7° 54' 22.18"
6+0.00	9.610.136.7471m	480.134.3916m	N 7° 54' 22.18"
7+0.00	9.610.156.5570m	480.137.1427m	N 7° 54' 22.18"
8+0.00	9.610.176.3669m	480.139.8937m	N 7° 54' 22.18"
9+0.00	9.610.196.1768m	480.142.6447m	N 7° 54' 22.18"
10+0.00	9.610.215.9867m	480.145.3957m	N 7° 54' 22.18"
11+0.00	9.610.235.7966m	480.148.1468m	N 7° 54' 22.18"
12+0.00	9.610.255.6065m	480.150.8978m	N 7° 54' 22.18"
12+16.62	9.610.275.0125m	480.153.5927m	N 7° 54' 22.18"

3. NOTAS DE SERVIÇO

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-5,273	7,594	-4,620	6,941	0+0.000	7,474	7,439	0,035	4,620	6,941	5,405	7,725
-4,750	6,894	-4,622	6,979	1+0.000	7,518	7,473	0,045	4,617	7,002	4,736	7,121
-4,692	7,087	-4,623	7,018	2+0.000	7,563	7,511	0,051	4,613	7,063	4,657	7,106
-4,794	7,249	-4,624	7,079	3+0.000	7,629	7,634	-0,005	4,610	7,146	4,796	7,332
-5,188	7,861	-4,625	7,298	4+0.000	7,854	7,916	-0,061	4,607	7,388	4,964	7,746
-5,062	8,134	-4,626	7,698	5+0.000	8,260	8,294	-0,034	4,603	7,811	5,041	8,248
-4,976	8,605	-4,628	8,257	6+0.000	8,824	8,728	0,096	4,600	8,392	4,930	8,721
-4,918	9,127	-4,629	8,838	7+0.000	9,411	9,182	0,229	4,597	8,995	4,824	9,223
-5,013	9,802	-4,630	9,418	8+0.000	9,997	9,836	0,161	4,593	9,598	4,782	9,787
-5,079	10,447	-4,631	9,999	9+0.000	10,584	10,562	0,022	4,590	10,202	4,903	10,514
-5,103	11,051	-4,632	10,580	10+0.000	11,171	11,196	-0,026	4,587	10,805	5,065	11,283
-5,083	11,584	-4,634	11,135	11+0.000	11,730	11,649	0,081	4,584	11,382	4,606	11,404
-5,074	11,941	-4,635	11,502	12+0.000	12,103	12,022	0,081	4,581	11,771	4,798	11,988
-5,078	12,096	-4,636	11,655	13+0.000	12,262	12,052	0,211	4,577	11,947	4,662	12,031
-5,017	11,974	-4,637	11,594	14+0.000	12,207	11,917	0,290	4,574	11,908	4,597	11,893
-4,798	11,479	-4,639	11,320	15+0.000	11,938	11,561	0,377	4,571	11,656	4,970	11,391
-4,738	10,813	-4,640	10,878	16+0.000	11,503	10,903	0,599	4,568	11,237	5,372	10,701
-5,772	9,797	-4,641	10,551	17+0.000	11,181	10,165	1,016	4,565	10,932	5,985	9,985
-6,793	8,951	-4,642	10,384	18+0.000	11,020	9,114	1,907	4,563	10,787	7,475	8,846
-7,683	8,333	-4,644	10,359	19+0.000	11,000	8,455	2,545	4,560	10,784	8,449	8,191
-8,344	7,887	-4,645	10,353	20+0.000	11,000	8,046	2,954	4,557	10,800	8,952	7,870
-8,489	7,786	-4,646	10,347	21+0.000	11,000	8,241	2,759	4,554	10,817	8,932	7,898
-8,544	7,744	-4,648	10,341	22+0.000	11,000	8,086	2,914	4,551	10,833	8,657	8,096
-8,794	7,572	-4,649	10,336	23+0.000	11,000	8,209	2,791	4,548	10,850	8,591	8,155
-9,060	7,390	-4,650	10,330	24+0.000	11,000	7,891	3,109	4,546	10,866	9,060	7,856
-9,978	6,794	-4,646	10,349	25+0.000	11,000	7,342	3,658	4,575	10,698	9,506	7,411
-11,498	5,814	-4,637	10,388	25+10.000	11,000	6,780	4,220	4,589	10,622	10,244	6,852

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-12,755	5,009	-4,629	10,427	26+0.000	11,000	6,171	4,829	4,604	10,546	11,263	6,106
		-4,582	10,660	34+0.000	11,000	4,615	6,385	4,642	10,368	13,169	4,683
-13,762	4,454	-4,597	10,564	34+10.000	10,982	5,769	5,213	4,633	10,390	12,311	5,271
-11,275	5,990	-4,613	10,432	35+0.000	10,929	6,436	4,493	4,624	10,376	11,439	5,833
-9,758	6,982	-4,570	10,440	36+0.000	10,714	7,321	3,393	4,617	10,197	9,350	7,041
-8,167	7,667	-4,677	9,994	37+0.000	10,357	8,384	1,973	4,721	9,788	7,516	7,925
-6,560	8,309	-4,682	9,561	38+0.000	9,946	8,802	1,144	4,716	9,398	6,063	8,501
-5,915	8,435	-4,687	9,253	39+0.000	9,661	8,801	0,859	4,712	9,134	5,603	8,540
-6,063	8,175	-4,693	9,088	40+0.000	9,518	8,650	0,868	4,707	9,012	5,220	8,670
-6,610	7,774	-4,699	9,048	41+0.000	9,500	8,318	1,182	4,702	9,015	6,120	8,070
-7,110	7,423	-4,704	9,026	42+0.000	9,500	7,559	1,941	4,697	9,036	6,983	7,513
-6,595	7,748	-4,710	9,004	43+0.000	9,500	7,488	2,012	4,693	9,057	7,403	7,251
-6,756	7,622	-4,716	8,982	44+0.000	9,500	7,632	1,868	4,688	9,078	7,578	7,152
-7,134	7,351	-4,722	8,959	45+0.000	9,500	7,425	2,075	4,683	9,099	7,731	7,067
		-4,728	8,937	46+0.000	9,500	7,191	2,309	4,679	9,120	7,794	7,044
-7,532	7,057	-4,730	8,925	46+10.000	9,500	7,209	2,291	4,672	9,151	7,846	7,035
-7,498	7,065	-4,730	8,910	47+0.000	9,500	7,234	2,266	4,698	9,031	7,690	7,037
-7,465	7,072	-4,730	8,895	47+10.000	9,500	7,290	2,210	4,726	8,910	7,514	7,052
-7,220	7,234	-4,730	8,894	48+0.000	9,500	7,236	2,264	4,668	9,174	7,853	7,051
-6,480	7,730	-4,730	8,896	49+0.000	9,500	7,645	1,855	4,668	9,171	7,114	7,541
-5,392	8,457	-4,730	8,898	50+0.000	9,500	8,370	1,130	4,669	9,168	6,068	8,235
-4,776	8,870	-4,730	8,900	51+0.000	9,500	8,904	0,596	4,669	9,165	5,977	8,294
-4,770	8,942	-4,730	8,902	52+0.000	9,500	8,962	0,538	4,670	9,163	5,079	8,890
-5,019	8,712	-4,730	8,904	53+0.000	9,500	8,679	0,821	4,671	9,160	5,352	8,705
-5,096	8,663	-4,730	8,907	54+0.000	9,500	8,732	0,768	4,671	9,157	5,625	8,521
-5,442	8,434	-4,730	8,909	55+0.000	9,500	8,565	0,935	4,672	9,154	5,868	8,357
-5,513	8,389	-4,730	8,911	56+0.000	9,500	8,381	1,119	4,672	9,152	5,917	8,322

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-5,598	8,334	-4,730	8,913	57+0.000	9,500	8,433	1,067	4,673	9,149	6,086	8,207
-5,784	8,212	-4,730	8,915	58+0.000	9,500	8,308	1,192	4,674	9,146	6,116	8,184
-6,006	8,067	-4,730	8,917	59+0.000	9,500	8,204	1,296	4,674	9,143	6,278	8,074
-6,230	7,919	-4,730	8,919	60+0.000	9,500	8,034	1,466	4,675	9,140	6,493	7,928
-6,413	7,799	-4,730	8,921	61+0.000	9,500	7,889	1,611	4,675	9,138	6,699	7,789
-6,658	7,638	-4,730	8,923	62+0.000	9,500	7,784	1,716	4,676	9,135	6,891	7,658
-6,979	7,427	-4,730	8,925	63+0.000	9,500	7,558	1,942	4,676	9,132	7,163	7,474
-7,277	7,230	-4,730	8,928	64+0.000	9,500	7,512	1,988	4,677	9,129	7,276	7,397
-7,406	7,127	-4,730	8,910	64+10.000	9,500	7,401	2,099	4,698	9,033	7,174	7,382
-7,544	7,022	-4,729	8,898	65+0.000	9,500	7,375	2,125	4,669	9,169	7,496	7,284
-7,795	6,872	-4,724	8,920	66+0.000	9,500	7,152	2,348	4,674	9,148	7,664	7,154
-8,099	6,688	-4,719	8,941	67+0.000	9,500	7,081	2,419	4,679	9,126	7,960	6,939
-8,328	6,553	-4,714	8,962	68+0.000	9,500	6,965	2,535	4,685	9,104	8,161	6,786
-8,297	6,592	-4,709	8,984	69+0.000	9,500	6,869	2,631	4,690	9,082	8,306	6,671
-8,271	6,627	-4,704	9,005	70+0.000	9,500	6,796	2,704	4,696	9,060	8,404	6,587
-8,493	6,497	-4,850	8,926	71+0.000	9,500	6,799	2,701	4,852	8,937	8,512	6,497
-8,577	6,459	-4,844	8,947	72+0.000	9,500	6,612	2,888	4,859	8,914	8,732	6,332
-7,791	7,001	-4,839	8,969	73+0.000	9,500	6,830	2,670	4,866	8,891	8,519	6,456
-7,940	6,919	-4,833	8,991	74+0.000	9,500	6,895	2,605	4,873	8,868	8,384	6,527
-8,470	6,584	-4,828	9,012	75+0.000	9,500	6,896	2,604	4,881	8,844	7,939	6,805
-8,327	6,719	-4,816	9,059	76+0.000	9,500	6,927	2,573	4,887	8,821	7,787	6,888
-8,119	6,777	-4,840	8,963	76+10.000	9,500	6,955	2,545	4,887	8,809	7,728	6,916
-7,986	6,786	-4,866	8,866	77+0.000	9,500	6,977	2,523	4,887	8,798	7,664	6,946
-8,219	6,803	-4,812	9,074	78+0.000	9,500	7,040	2,460	4,886	8,793	7,586	6,993
-7,789	7,083	-4,815	9,066	79+0.000	9,500	7,211	2,289	4,884	8,802	7,428	7,105
-7,567	7,224	-4,817	9,057	80+0.000	9,500	7,301	2,199	4,881	8,810	7,284	7,208
-7,454	7,292	-4,820	9,049	81+0.000	9,500	7,420	2,080	4,879	8,818	7,010	7,398

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-7,485	7,265	-4,822	9,040	82+0.000	9,500	7,535	1,965	4,877	8,826	6,788	7,552
-7,385	7,325	-4,824	9,032	83+0.000	9,500	7,481	2,019	4,875	8,835	7,000	7,417
-7,248	7,409	-4,827	9,023	84+0.000	9,500	7,706	1,794	4,872	8,843	6,835	7,534
-7,537	7,210	-4,829	9,015	85+0.000	9,500	7,662	1,838	4,870	8,851	6,953	7,463
-7,466	7,250	-4,832	9,006	86+0.000	9,500	7,551	1,949	4,868	8,859	6,883	7,516
-7,496	7,223	-4,834	8,998	87+0.000	9,500	7,556	1,944	4,866	8,867	6,973	7,462
-7,476	7,230	-4,837	8,989	88+0.000	9,500	7,488	2,012	4,863	8,876	7,096	7,387
-7,530	7,187	-4,839	8,981	89+0.000	9,500	7,420	2,080	4,861	8,884	7,492	7,130
-7,584	7,144	-4,842	8,972	90+0.000	9,500	7,334	2,166	4,859	8,892	7,542	7,103
-7,735	7,037	-4,844	8,964	91+0.000	9,500	7,323	2,177	4,857	8,900	7,678	7,019
-7,830	6,966	-4,847	8,955	92+0.000	9,500	7,250	2,250	4,855	8,908	7,873	6,896
-7,807	6,975	-4,849	8,947	93+0.000	9,500	7,229	2,271	4,852	8,916	7,599	7,085
-8,252	6,671	-4,852	8,938	94+0.000	9,500	7,141	2,359	4,850	8,925	8,129	6,739
-7,987	6,841	-4,854	8,929	95+0.000	9,500	7,146	2,354	4,848	8,933	7,773	6,983
-8,129	6,740	-4,857	8,921	96+0.000	9,500	7,149	2,351	4,846	8,941	8,241	6,678
-7,914	6,876	-4,860	8,912	97+0.000	9,500	7,103	2,397	4,844	8,949	7,945	6,882
-7,790	6,952	-4,862	8,903	98+0.000	9,500	7,134	2,366	4,842	8,957	7,864	6,942
-7,982	6,817	-4,865	8,895	99+0.000	9,500	7,125	2,375	4,840	8,965	7,576	7,141
-8,594	6,402	-4,868	8,886	100+0.000	9,500	7,096	2,404	4,838	8,973	7,660	7,092
-8,706	6,320	-4,870	8,877	101+0.000	9,500	6,647	2,853	4,835	8,981	7,598	7,140
-8,690	6,324	-4,873	8,869	102+0.000	9,500	6,441	3,059	4,833	8,989	8,349	6,646
-8,304	6,575	-4,876	8,860	103+0.000	9,500	6,490	3,010	4,831	8,997	8,530	6,532
-8,192	6,822	-4,879	9,031	104+0.000	9,680	6,655	3,025	4,829	9,186	7,781	7,218
-8,227	7,332	-4,881	9,563	105+0.000	10,220	7,761	2,459	4,827	9,734	7,613	7,877
-8,223	8,228	-4,884	10,454	106+0.000	11,120	9,024	2,096	4,825	10,642	7,175	9,075
-5,709	11,157	-4,887	11,705	107+0.000	12,380	10,271	2,109	4,823	11,910	7,129	10,373
-5,497	12,011	-4,887	12,417	107+10.000	13,100	11,580	1,520	4,824	12,627	6,452	11,542

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
		-4,887	13,126	108+0.000	13,820	12,957	0,863	4,847	13,256	5,203	13,019
-5,916	14,863	-4,887	13,835	108+10.000	14,540	14,052	0,488	4,872	13,884	5,591	14,604
-6,029	15,709	-4,883	14,564	109+0.000	15,260	14,944	0,316	4,815	14,824	5,543	15,551
-5,999	17,099	-4,862	15,962	110+0.000	16,582	16,810	-0,228	4,838	16,066	5,956	17,185
-5,961	18,320	-4,693	17,053	111+0.000	17,497	18,284	-0,787	4,710	17,003	5,719	18,012
-5,082	18,079	-4,668	17,665	112+0.000	17,992	18,277	-0,285	4,730	17,420	5,341	18,030
-5,048	17,920	-4,706	17,578	112+10.000	18,082	18,005	0,077	4,730	17,488	5,056	17,813
-4,910	17,583	-4,667	17,746	113+0.000	18,067	17,800	0,267	4,731	17,456	4,932	17,657
-4,784	17,455	-4,663	17,536	114+0.000	17,840	17,530	0,310	4,736	17,211	5,105	16,965
-4,682	17,335	-4,660	17,313	115+0.000	17,600	17,461	0,139	4,740	16,954	4,785	16,998
-4,775	17,210	-4,656	17,091	116+0.000	17,360	17,308	0,052	4,744	16,696	4,950	16,901
-4,724	16,939	-4,653	16,868	117+0.000	17,120	17,046	0,074	4,749	16,438	4,879	16,568
-4,913	16,469	-4,649	16,645	118+0.000	16,880	16,532	0,348	4,753	16,180	5,076	16,503
-5,242	16,084	-4,646	16,481	119+0.000	16,699	16,194	0,505	4,758	15,981	4,944	16,167
-5,471	15,884	-4,643	16,436	120+0.000	16,637	15,987	0,650	4,763	15,900	4,869	16,007
-5,696	15,661	-4,673	16,343	121+0.000	16,693	15,885	0,808	4,766	15,951	4,859	16,044
-5,348	15,907	-4,687	16,348	121+10.000	16,765	15,963	0,802	4,765	16,050	4,849	16,135
-4,796	16,477	-4,702	16,383	122+0.000	16,867	16,291	0,575	4,763	16,179	4,923	16,338
-5,096	16,810	-4,717	16,431	122+10.000	16,983	16,909	0,074	4,762	16,322	4,988	16,548
-4,838	16,945	-4,667	16,775	123+0.000	17,100	17,146	-0,046	4,761	16,460	4,978	16,677
-4,935	17,275	-4,668	17,007	124+0.000	17,333	17,351	-0,018	4,758	16,697	5,150	17,089
-5,122	17,694	-4,668	17,240	125+0.000	17,567	17,449	0,117	4,756	16,933	5,009	17,187
-4,755	17,559	-4,668	17,473	126+0.000	17,800	17,843	-0,043	4,753	17,170	5,227	17,644
-5,385	17,181	-4,668	17,659	127+0.000	17,987	17,548	0,439	4,751	17,360	4,934	17,544
-5,319	17,319	-4,668	17,752	128+0.000	18,081	17,689	0,392	4,748	17,458	4,995	17,704
-4,843	17,637	-4,668	17,753	129+0.000	18,083	17,708	0,375	4,746	17,463	5,067	17,784
-4,800	17,793	-4,669	17,661	130+0.000	17,992	18,002	-0,010	4,743	17,375	5,201	17,833

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-4,683	17,467	-4,669	17,477	131+0.000	17,809	17,670	0,138	4,741	17,195	5,096	17,550
-6,030	16,292	-4,669	17,200	132+0.000	17,532	17,324	0,208	4,738	16,922	5,054	17,237
-4,966	16,679	-4,669	16,877	133+0.000	17,210	16,903	0,306	4,736	16,603	4,933	16,800
-5,216	16,188	-4,669	16,553	134+0.000	16,887	16,539	0,348	4,734	16,283	4,857	16,407
-5,307	15,940	-4,676	16,361	134+10.000	16,726	16,142	0,584	4,733	16,123	4,769	16,098
-5,027	15,852	-4,705	16,066	135+0.000	16,565	16,167	0,398	4,731	15,959	4,840	16,068
-5,463	15,402	-4,677	15,926	136+0.000	16,296	15,991	0,305	4,720	15,734	4,754	15,769
-5,396	15,299	-4,693	15,768	137+0.000	16,212	15,946	0,265	4,702	15,725	4,978	15,541
-5,292	15,411	-4,710	15,800	138+0.000	16,318	15,898	0,420	4,686	15,907	5,667	15,252
-6,004	15,117	-4,727	15,969	139+0.000	16,563	15,705	0,858	4,670	16,225	6,988	14,679
-5,472	15,658	-4,746	16,143	140+0.000	16,813	16,268	0,544	4,655	16,549	6,157	15,547
-5,935	15,601	-4,745	16,395	141+0.000	17,063	16,495	0,567	4,696	16,606	5,062	16,362
-5,028	16,341	-4,703	16,558	142+0.000	17,046	16,739	0,307	4,693	16,603	4,814	16,725
-5,062	15,927	-4,663	16,194	143+0.000	16,496	16,050	0,446	4,736	15,865	5,053	15,654
-4,770	14,921	-4,692	14,972	144+0.000	15,412	15,102	0,311	4,751	14,721	4,931	14,601
-5,019	14,430	-4,728	14,139	144+10.000	14,737	14,504	0,234	4,731	14,126	4,820	14,067
-4,884	13,981	-4,663	13,760	145+0.000	14,063	13,980	0,082	4,736	13,432	4,810	13,506
-4,707	12,512	-4,653	12,457	146+0.000	12,713	12,526	0,186	4,748	12,033	4,881	12,166
-5,017	10,761	-4,678	10,987	147+0.000	11,362	11,012	0,350	4,759	10,656	5,005	10,902
-5,327	9,720	-4,720	10,124	147+10.000	10,688	10,223	0,464	4,759	10,037	4,828	10,106
-6,310	8,616	-4,668	9,711	148+0.000	10,036	9,478	0,558	4,759	9,398	5,085	9,181
-6,174	7,638	-4,668	8,643	149+0.000	8,969	8,122	0,846	4,758	8,332	5,157	8,066
-5,883	7,085	-4,668	7,895	150+0.000	8,222	7,812	0,410	4,758	7,586	5,753	6,923
-4,996	7,250	-4,668	7,469	151+0.000	7,796	7,523	0,273	4,757	7,161	4,822	7,226
-5,530	6,765	-4,668	7,340	152+0.000	7,668	7,380	0,288	4,757	7,034	4,872	7,149
-6,315	6,174	-4,668	7,272	153+0.000	7,601	7,292	0,309	4,757	6,968	4,800	7,011
-6,758	5,816	-4,668	7,209	154+0.000	7,538	7,341	0,197	4,756	6,906	4,927	7,076

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-5,127	6,869	-4,668	7,174	155+0.000	7,504	7,451	0,053	4,756	6,873	4,811	6,928
-4,736	7,237	-4,669	7,169	156+0.000	7,500	7,501	-0,001	4,756	6,870	4,996	7,110
-4,779	7,279	-4,669	7,169	157+0.000	7,500	7,495	0,005	4,755	6,871	4,855	6,970
-4,960	7,459	-4,669	7,168	158+0.000	7,500	7,523	-0,023	4,755	6,872	4,764	6,881
-4,735	7,234	-4,669	7,167	159+0.000	7,500	7,385	0,115	4,754	6,873	4,982	6,721
-4,687	7,155	-4,669	7,138	160+0.000	7,471	7,294	0,177	4,754	6,844	4,962	6,706
-4,711	7,091	-4,669	7,049	161+0.000	7,383	7,199	0,184	4,754	6,758	4,881	6,885
-4,966	6,734	-4,669	6,932	162+0.000	7,267	7,105	0,162	4,753	6,642	4,817	6,706
-5,787	6,070	-4,670	6,815	163+0.000	7,150	6,897	0,253	4,753	6,526	4,872	6,446
-5,724	6,059	-4,670	6,762	164+0.000	7,097	6,921	0,177	4,753	6,474	5,166	6,199
-4,831	6,729	-4,670	6,837	165+0.000	7,173	7,041	0,132	4,752	6,551	4,961	6,760
-4,740	7,110	-4,670	7,040	166+0.000	7,377	7,195	0,182	4,752	6,756	5,020	7,024
-4,901	7,217	-4,670	7,371	167+0.000	7,709	7,427	0,282	4,752	7,089	5,052	6,888
-5,911	7,004	-4,670	7,831	168+0.000	8,169	7,846	0,324	4,751	7,550	6,079	6,665
-5,629	7,780	-4,670	8,419	169+0.000	8,758	8,481	0,277	4,751	8,139	5,869	7,394
-5,138	8,759	-4,671	9,071	170+0.000	9,411	9,152	0,259	4,750	8,793	5,197	8,495
-4,706	9,758	-4,671	9,723	171+0.000	10,063	9,817	0,246	4,750	9,446	4,801	9,497
-4,775	10,479	-4,671	10,375	172+0.000	10,716	10,606	0,110	4,750	10,100	4,971	10,321
-4,822	11,178	-4,671	11,027	173+0.000	11,368	11,308	0,060	4,749	10,753	4,892	10,896
-4,783	11,760	-4,671	11,648	174+0.000	11,991	11,895	0,095	4,749	11,377	4,821	11,448
-4,852	12,238	-4,671	12,057	175+0.000	12,400	12,320	0,080	4,749	11,787		
-4,758	12,309	-4,671	12,223	176+0.000	12,566	12,315	0,252	4,748	11,954	5,315	11,576
-4,799	12,272	-4,672	12,145	177+0.000	12,490	12,494	-0,004	4,748	11,878	4,790	11,920
-4,880	12,063	-4,672	11,855	178+0.000	12,200	12,204	-0,004	4,748	11,590	5,123	11,965
-4,912	11,775	-4,672	11,534	179+0.000	11,880	11,838	0,042	4,747	11,270	5,076	11,599
-4,930	11,472	-4,672	11,214	180+0.000	11,560	11,374	0,186	4,747	10,951	4,927	11,132
-4,885	11,106	-4,672	10,893	181+0.000	11,240	11,102	0,138	4,746	10,632	4,929	10,814

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-4,909	10,809	-4,672	10,572	182+0.000	10,920	10,841	0,079	4,746	10,313	4,791	10,358
-5,017	10,676	-4,672	10,332	183+0.000	10,680	10,587	0,093	4,746	10,074	4,774	10,103
-4,876	10,455	-4,672	10,251	184+0.000	10,600	10,115	0,485	4,745	9,995	5,164	9,716
-5,222	9,884	-4,571	10,318	185+0.000	10,600	9,809	0,791	4,633	10,071	5,732	9,338
-6,310	9,158	-4,571	10,317	186+0.000	10,600	9,198	1,402	4,633	10,071	6,951	8,526
-7,586	8,307	-4,572	10,316	187+0.000	10,600	8,764	1,836	4,632	10,072	8,301	7,626
-9,011	7,356	-4,572	10,316	188+0.000	10,600	8,481	2,119	4,632	10,073	9,174	7,045
-8,398	7,764	-4,572	10,315	189+0.000	10,600	8,325	2,275	4,632	10,074	8,849	7,263
		-4,572	10,315	190+0.000	10,600	8,184	2,416	4,631	10,075	9,144	7,066
-8,746	7,532	-4,572	10,314	191+0.000	10,600	8,122	2,478	4,631	10,076	9,190	7,036
-9,054	7,325	-4,572	10,313	192+0.000	10,600	8,068	2,532	4,631	10,076	9,277	6,979
-8,181	7,907	-4,572	10,313	193+0.000	10,600	8,180	2,420	4,630	10,077	8,559	7,458
-7,348	8,462	-4,572	10,312	194+0.000	10,600	8,345	2,255	4,630	10,078	7,835	7,942
-7,296	8,496	-4,573	10,311	195+0.000	10,600	8,516	2,084	4,630	10,079	7,326	8,282
-7,056	8,655	-4,573	10,311	196+0.000	10,600	8,755	1,845	4,630	10,080	7,068	8,454
-7,131	8,604	-4,573	10,310	197+0.000	10,600	8,772	1,828	4,629	10,081	7,083	8,445
-7,386	8,434	-4,573	10,309	198+0.000	10,600	8,808	1,792	4,629	10,082	6,559	8,795
-6,804	8,821	-4,573	10,309	199+0.000	10,600	8,911	1,689	4,629	10,082	6,371	8,921
-6,292	9,162	-4,573	10,308	200+0.000	10,600	9,207	1,393	4,628	10,083	6,185	9,046
-5,550	9,656	-4,573	10,307	201+0.000	10,600	9,612	0,988	4,628	10,084	5,515	9,493
-4,901	10,233	-4,573	10,452	202+0.000	10,745	10,185	0,560	4,628	10,230	4,854	10,079
-4,579	10,892	-4,573	10,886	203+0.000	11,180	10,854	0,326	4,627	10,666	4,648	10,687
-4,904	11,246	-4,574	11,466	204+0.000	11,760	11,553	0,208	4,627	11,247	4,733	11,353
-4,962	11,690	-4,574	11,948	205+0.000	12,244	12,156	0,088	4,627	11,731	4,736	11,840
-4,833	12,064	-4,574	12,237	206+0.000	12,532	12,510	0,022	4,626	12,021	4,705	12,099
-5,590	11,653	-4,574	12,330	207+0.000	12,627	12,716	-0,089	4,626	12,116	4,698	12,188
-4,659	12,174	-4,574	12,230	208+0.000	12,527	12,640	-0,112	4,626	12,017	4,918	12,310

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-4,644	12,005	-4,574	11,936	209+0.000	12,233	12,333	-0,100	4,626	11,724	4,926	12,025
-4,806	11,678	-4,574	11,447	210+0.000	11,745	11,788	-0,043	4,625	11,237	4,835	11,446
-4,705	10,992	-4,574	10,861	211+0.000	11,160	11,177	-0,017	4,625	10,652	5,006	11,034
-4,587	10,266	-4,575	10,275	212+0.000	10,574	10,404	0,170	4,625	10,068	4,806	10,249
-4,591	9,803	-4,575	9,786	213+0.000	10,087	9,943	0,143	4,624	9,581	4,887	9,843
-4,762	9,368	-4,575	9,493	214+0.000	9,794	9,408	0,386	4,624	9,289	4,783	9,448
-5,351	8,878	-4,575	9,395	215+0.000	9,696	8,880	0,817	4,624	9,192	5,086	8,884
-5,966	8,466	-4,575	9,394	216+0.000	9,696	8,469	1,227	4,624	9,193	5,674	8,493
-6,484	8,121	-4,575	9,393	217+0.000	9,696	8,162	1,534	4,623	9,194	6,242	8,115
-6,797	7,886	-4,581	9,364	218+0.000	9,696	8,003	1,693	4,623	9,185	6,569	7,888
-6,642	7,874	-4,606	9,231	218+10.000	9,696	8,005	1,691	4,623	9,169	6,556	7,880
-6,798	7,950	-4,567	9,437	219+0.000	9,696	8,007	1,689	4,623	9,161	6,407	7,971
-6,566	8,100	-4,568	9,432	220+0.000	9,696	8,166	1,530	4,622	9,165	6,141	8,153
-5,531	8,786	-4,569	9,427	221+0.000	9,696	8,796	0,900	4,622	9,170	5,459	8,612
-4,839	9,871	-4,570	9,602	222+0.000	9,877	9,692	0,185	4,622	9,354	4,655	9,388
-4,883	10,451	-4,571	10,138	223+0.000	10,418	10,423	-0,005	4,621	9,900	4,788	10,066
-4,745	10,966	-4,572	10,793	224+0.000	11,077	11,042	0,036	4,621	10,564	4,649	10,591
-4,731	11,206	-4,568	11,043	225+0.000	11,304	11,285	0,019	4,621	10,794	4,803	10,673
-4,794	11,089	-4,584	10,879	225+10.000	11,232	11,137	0,095	4,621	10,714	5,399	10,196
-4,900	10,951	-4,602	10,654	226+0.000	11,099	10,995	0,103	4,621	10,573	4,777	10,468
-4,729	10,706	-4,571	10,549	227+0.000	10,831	10,723	0,109	4,615	10,323	4,851	10,166
-4,790	10,450	-4,580	10,240	228+0.000	10,570	10,535	0,035	4,605	10,110	4,707	10,211
-4,790	10,266	-4,589	10,065	229+0.000	10,442	10,398	0,044	4,596	10,030	4,653	10,086
-4,668	9,895	-4,598	9,941	230+0.000	10,366	10,320	0,046	4,587	10,001	4,633	10,047
-4,885	10,130	-4,608	9,853	231+0.000	10,326	10,385	-0,059	4,578	10,008	4,764	10,194
-5,097	10,579	-4,618	10,100	232+0.000	10,621	10,604	0,017	4,569	10,351	4,750	10,532
-5,165	11,025	-4,628	10,488	233+0.000	11,058	11,049	0,008	4,561	10,835	4,842	11,116

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-5,091	11,674	-4,639	11,222	234+0.000	11,840	11,738	0,102	4,553	11,664	4,743	11,854
-5,036	12,400	-4,650	12,013	235+0.000	12,680	12,595	0,085	4,545	12,551	4,714	12,721
-5,009	12,619	-4,642	12,252	235+10.000	12,884	12,919	-0,035	4,582	12,544	5,248	13,210
-5,099	12,552	-4,629	12,082	236+0.000	12,655	12,641	0,013	4,604	12,199	5,176	12,771
-4,965	12,051	-4,605	11,691	237+0.000	12,149	12,179	-0,030	4,580	11,817	4,911	12,148
-4,704	11,817	-4,583	11,697	238+0.000	12,043	11,973	0,070	4,602	11,598	5,068	12,065
-4,598	12,017	-4,563	11,981	239+0.000	12,216	12,199	0,017	4,625	11,659	5,582	12,615
-4,724	12,337	-4,577	12,190	240+0.000	12,504	12,529	-0,025	4,640	11,881	5,688	12,930
-4,730	12,340	-4,601	12,211	240+10.000	12,648	12,610	0,038	4,629	12,076	5,497	12,944
-4,792	12,355	-4,573	12,501	241+0.000	12,792	12,671	0,121	4,613	12,293	5,321	13,001
-4,935	12,794	-4,632	12,492	242+0.000	13,080	13,004	0,076	4,558	12,876	4,750	13,069
-5,050	13,014	-4,639	12,604	242+10.000	13,224	13,162	0,062	4,586	12,862	4,780	13,056
-4,973	13,186	-4,621	12,834	243+0.000	13,368	13,297	0,072	4,567	13,111	4,685	13,032
-5,001	13,499	-4,621	13,119	244+0.000	13,656	13,607	0,049	4,572	13,368	4,586	13,382
-5,004	13,649	-4,621	13,265	244+10.000	13,800	13,760	0,040	4,598	13,378	4,947	13,727
-4,906	13,686	-4,615	13,395	245+0.000	13,900	13,794	0,106	4,572	13,615	4,812	13,855
-4,626	13,530	-4,557	13,575	246+0.000	13,776	13,645	0,131	4,633	13,184	5,173	13,725
-4,758	13,394	-4,588	13,224	246+10.000	13,596	13,517	0,079	4,649	12,969	5,287	13,607
-4,606	13,195	-4,567	13,156	247+0.000	13,415	13,316	0,099	4,648	12,849	5,136	13,337
-4,591	12,816	-4,567	12,793	248+0.000	13,052	12,923	0,130	4,646	12,491	4,769	12,614
-4,686	12,567	-4,568	12,448	249+0.000	12,710	12,665	0,045	4,643	12,152	5,411	12,919
-4,734	12,671	-4,568	12,505	250+0.000	12,768	12,725	0,044	4,641	12,215	5,419	12,993
-4,734	12,888	-4,568	12,721	251+0.000	12,986	12,891	0,095	4,639	12,436	5,212	13,010
-4,858	13,227	-4,568	12,938	252+0.000	13,204	13,244	-0,040	4,636	12,658	5,231	13,253
-4,887	13,625	-4,569	13,308	253+0.000	13,575	13,679	-0,104	4,634	13,034	5,193	13,593
-4,716	14,115	-4,569	13,969	254+0.000	14,238	14,178	0,060	4,632	13,700	5,076	14,144
-4,636	14,703	-4,569	14,637	255+0.000	14,908	14,766	0,142	4,629	14,373	4,993	14,737

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Eixo Principal											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-4,597	15,332	-4,570	15,304	256+0.000	15,577	15,399	0,178	4,627	15,047	5,004	15,424
-4,635	16,037	-4,570	15,972	257+0.000	16,247	16,126	0,121	4,625	15,720	5,071	16,166
-4,902	16,972	-4,570	16,640	258+0.000	16,916	17,075	-0,159	4,623	16,394	5,215	16,986
-5,051	17,355	-4,586	16,889	258+10.000	17,251	17,460	-0,209	4,621	16,725	5,272	17,375
-4,985	17,748	-4,567	17,329	259+0.000	17,586	17,844	-0,258	4,621	17,050	5,343	17,772
-4,911	18,404	-4,557	18,051	260+0.000	18,255	18,468	-0,213	4,632	17,666	5,107	18,141
-4,804	18,616	-4,549	18,786	261+0.000	18,938	18,851	0,087	4,644	18,295	5,049	18,700
-4,690	19,293	-4,612	19,214	262+0.000	19,707	19,546	0,161	4,625	19,152	4,818	19,345
-4,676	19,500	-4,651	19,475	262+10.000	20,098	19,445	0,654	4,591	19,710	4,883	19,515
-4,917	19,745	-4,650	19,923	263+0.000	20,490	19,964	0,526	4,567	20,231	4,891	20,015
-5,360	21,420	-4,649	20,709	264+0.000	21,273	21,383	-0,110	4,568	21,012	4,882	21,327
-5,510	22,168	-4,647	21,305	265+0.000	21,866	21,887	-0,022	4,568	21,602	4,675	21,710
-5,146	21,914	-4,646	21,414	266+0.000	21,971	21,995	-0,024	4,568	21,706	4,852	21,990
-5,163	21,743	-4,644	21,224	267+0.000	21,778	21,722	0,057	4,569	21,511	4,730	21,672
-5,165	21,553	-4,643	21,031	268+0.000	21,582	21,449	0,133	4,569	21,312	4,717	21,460
-4,801	21,089	-4,642	20,929	269+0.000	21,476	21,202	0,274	4,569	21,205	4,776	21,411

NOTA DE SERVIÇO											
Alinhamento: Rua A											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-5,305	8,842	-4,719	8,256	0+0.000	8,814	8,814	0,000	4,677	8,442	5,088	8,852
-5,086	8,846	-4,738	8,498	0+10.000	9,136	8,988	0,148	4,661	8,841	4,827	9,007
-5,144	9,125	-4,758	8,739	1+0.000	9,457	9,256	0,200	4,646	9,239	4,758	9,351
-5,209	9,527	-4,755	9,073	1+10.000	9,778	9,568	0,210	4,648	9,547	4,780	9,678
-5,299	10,037	-4,735	9,472	2+0.000	10,097	10,073	0,024	4,664	9,789	4,744	9,870

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Rua A											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-5,018	10,586	-4,698	10,266	3+0.000	10,733	10,756	-0,023	4,697	10,270	5,055	10,628
-4,839	11,192	-4,667	11,021	4+0.000	11,346	11,326	0,020	4,730	10,739	5,242	11,250
-4,795	11,617	-4,667	11,490	5+0.000	11,815	11,784	0,032	4,730	11,208	5,121	11,599
-4,840	11,680	-4,667	11,796	6+0.000	12,121	11,756	0,365	4,730	11,514	4,841	11,624
-4,697	11,938	-4,667	11,957	7+0.000	12,282	12,142	0,140	4,730	11,675	4,947	11,892
-4,689	12,085	-4,667	12,099	8+0.000	12,424	12,208	0,215	4,730	11,817	5,041	12,127
-4,683	12,255	-4,667	12,240	9+0.000	12,565	12,366	0,199	4,730	11,958	5,074	12,301
-4,714	12,428	-4,667	12,381	10+0.000	12,706	12,535	0,171	4,730	12,099	5,111	12,480
-4,771	12,626	-4,667	12,522	11+0.000	12,847	12,733	0,114	4,730	12,240	5,149	12,659
-4,778	12,781	-4,667	12,671	12+0.000	12,996	12,847	0,150	4,730	12,389	5,048	12,707
-4,836	12,966	-4,681	12,810	13+0.000	13,200	12,831	0,369	4,715	12,659	4,738	12,643
-5,114	13,171	-4,745	12,802	14+0.000	13,467	13,317	0,150	4,656	13,198	4,666	13,191
-5,357	13,548	-4,749	12,940	14+10.000	13,623	13,653	-0,029	4,652	13,372		
-5,283	13,701	-4,738	13,156	15+0.000	13,796	13,909	-0,113	4,661	13,503	4,701	13,543
-4,693	13,791	-4,679	13,800	16+0.000	14,180	14,158	0,022	4,717	13,629	4,861	13,774
-4,676	14,258	-4,667	14,249	17+0.000	14,572	14,459	0,113	4,731	13,963	5,003	14,235
		-4,666	14,644	18+0.000	14,964	14,719	0,245	4,732	14,352	5,090	14,711
-4,716	15,089	-4,666	15,039	19+0.000	15,356	15,172	0,184	4,732	14,741	5,119	15,128
-4,757	15,525	-4,665	15,434	20+0.000	15,748	15,576	0,172	4,733	15,130	5,141	15,539
-4,748	15,921	-4,665	15,838	21+0.000	16,149	15,961	0,188	4,734	15,529	5,134	15,929
-4,775	16,418	-4,664	16,308	22+0.000	16,616	16,586	0,030	4,734	15,993	5,208	16,467
-4,886	17,065	-4,664	16,843	23+0.000	17,149	17,257	-0,108	4,735	16,522	5,361	17,148
-4,898	17,623	-4,663	17,388	24+0.000	17,691	17,666	0,025	4,736	17,061	5,213	17,538
-4,748	17,721	-4,667	17,640	24+10.000	17,962	17,737	0,225	4,731	17,351	5,094	17,714
-4,797	18,045	-4,666	17,914	25+0.000	18,233	18,250	-0,018	4,732	17,619	5,175	18,062
-5,110	18,720	-4,698	18,308	26+0.000	18,774	18,659	0,116	4,697	18,311	5,134	18,748
-5,188	19,018	-4,760	18,589	27+0.000	19,316	19,144	0,172	4,644	19,107	4,683	19,146

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Rua A											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-5,101	19,176	-4,760	18,835	27+10.000	19,561	19,457	0,104	4,644	19,352	4,667	19,374
-4,979	19,418	-4,726	19,166	28+0.000	19,755	19,672	0,083	4,671	19,413	4,857	19,598
-4,843	19,660	-4,683	19,500	28+10.000	19,897	19,903	-0,006	4,713	19,364	5,128	19,779
-4,764	19,898	-4,644	19,779	29+0.000	19,987	19,814	0,173	4,761	19,259	5,311	19,809
-5,016	20,215	-4,640	19,840	29+10.000	20,026	19,954	0,072	4,766	19,275	5,330	19,839
-5,026	20,047	-4,667	19,689	30+0.000	20,014	19,951	0,062	4,730	19,407	5,170	19,846
-4,834	19,675	-4,667	19,508	31+0.000	19,833	19,691	0,142	4,730	19,226	5,115	19,611
-4,849	19,419	-4,667	19,237	32+0.000	19,562	19,451	0,111	4,730	18,955	5,138	19,363
-4,947	19,326	-4,667	19,047	33+0.000	19,372	19,262	0,110	4,730	18,765	5,128	19,162
-5,032	19,315	-4,667	18,950	34+0.000	19,275	19,237	0,038	4,730	18,668	5,194	19,132
-4,967	19,246	-4,667	18,947	35+0.000	19,272	19,203	0,068	4,730	18,665	5,136	19,070
-4,860	19,229	-4,667	19,037	36+0.000	19,362	19,060	0,301	4,730	18,755	4,895	18,920
-4,798	19,133	-4,667	19,220	37+0.000	19,545	19,241	0,304	4,730	18,938	4,768	18,976
-4,774	19,603	-4,667	19,497	38+0.000	19,822	19,594	0,227	4,730	19,215	4,923	19,408
-4,780	19,967	-4,667	19,855	39+0.000	20,180	20,042	0,138	4,730	19,573	5,090	19,932
		-4,667	20,214	40+0.000	20,539	20,330	0,209	4,730	19,932	5,051	20,253
-4,789	20,418	-4,667	20,499	41+0.000	20,824	20,749	0,075	4,730	20,217	4,996	20,483
-4,820	20,598	-4,667	20,699	42+0.000	21,024	20,681	0,344	4,730	20,417	4,907	20,594
-4,740	20,777	-4,667	20,825	43+0.000	21,150	20,843	0,306	4,730	20,543	4,915	20,727
-4,745	20,888	-4,667	20,940	44+0.000	21,265	20,554	0,711	4,730	20,658	4,753	20,681
-4,937	20,875	-4,667	21,055	45+0.000	21,380	20,851	0,529	4,730	20,773	4,746	20,762
-4,872	21,033	-4,667	21,170	46+0.000	21,495	21,128	0,367	4,730	20,888	4,909	21,067
-4,953	21,094	-4,667	21,284	47+0.000	21,609	21,181	0,429	4,730	21,003	5,045	21,317
-4,855	21,275	-4,667	21,399	48+0.000	21,724	21,436	0,288	4,730	21,117	5,113	21,500
-4,741	21,588	-4,667	21,514	49+0.000	21,839	21,694	0,146	4,730	21,232	5,145	21,647
-4,794	21,756	-4,667	21,629	50+0.000	21,954	21,842	0,112	4,730	21,347	5,179	21,796
-4,831	21,908	-4,667	21,744	51+0.000	22,069	21,988	0,081	4,730	21,462	5,218	21,950

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

NOTA DE SERVIÇO											
Alinhamento: Rua A											
Lado Esquerdo				Eixo				Lado Direito			
OFFSET		BORDO		Estaca	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO		OFFSET	
Afast. (m)	Cota (m)	Afast. (m)	Cota (m)					Afast. (m)	Cota (m)	Afast. (m)	Cota (m)
-4,866	22,057	-4,667	21,859	52+0.000	22,184	22,124	0,060	4,730	21,577	5,218	22,065
-4,755	22,061	-4,667	21,974	53+0.000	22,299	22,176	0,123	4,730	21,692	5,135	22,097
-4,687	22,064	-4,667	22,044	54+0.000	22,369	22,249	0,121	4,730	21,762	5,069	22,101
-4,756	22,050	-4,667	21,961	55+0.000	22,286	22,156	0,130	4,730	21,679	5,155	22,104
-4,826	21,761	-4,688	21,624	56+0.000	22,045	21,883	0,162	4,707	21,536	4,955	21,783
-5,079	21,282	-4,760	20,963	57+0.000	21,689	21,410	0,280	4,644	21,480	4,744	21,414
-5,003	21,025	-4,760	20,783	57+10.000	21,509	21,053	0,456	4,644	21,300	4,843	21,168
-5,051	20,960	-4,747	20,656	58+0.000	21,329	20,937	0,393	4,654	21,069	4,990	20,845
-5,055	21,178	-4,698	20,821	58+8.249	21,181	21,180	0,000	4,698	20,611	5,233	21,146

4. QUADRO DE CUBAÇÃO

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
0+00.000	5,380	0,000					
1+00.000	2,090	0,060	74,700	0,720	74,700	0,720	73,980
2+00.000	1,290	0,000	33,800	0,720	108,500	1,440	107,060
3+00.000	2,460	0,000	37,500	0,000	146,000	1,440	144,560
4+00.000	4,360	0,000	68,200	0,000	214,200	1,440	212,760
5+00.000	4,320	0,000	86,800	0,000	301,000	1,440	299,560
6+00.000	3,240	0,000	75,600	0,000	376,600	1,440	375,160
7+00.000	2,030	0,000	52,700	0,000	429,300	1,440	427,860
8+00.000	1,870	0,000	39,000	0,000	468,300	1,440	466,860
9+00.000	3,770	0,000	56,400	0,000	524,700	1,440	523,260
10+00.000	4,490	0,000	82,600	0,000	607,300	1,440	605,860
11+00.000	2,520	0,000	70,100	0,000	677,400	1,440	675,960
12+00.000	3,070	0,000	55,900	0,000	733,300	1,440	731,860
13+00.000	2,540	0,000	56,100	0,000	789,400	1,440	787,960
14+00.000	1,800	0,000	43,400	0,000	832,800	1,440	831,360
15+00.000	0,520	0,660	23,200	7,920	856,000	9,360	846,640
16+00.000	0,000	2,460	5,200	37,440	861,200	46,800	814,400
17+00.000	0,000	7,640	0,000	121,200	861,200	168,000	693,200
18+00.000	0,000	19,790	0,000	329,160	861,200	497,160	364,040
19+00.000	0,000	28,580	0,000	580,440	861,200	1077,600	-216,400
20+00.000	0,000	34,390	0,000	755,640	861,200	1833,240	-972,040
21+00.000	0,000	33,450	0,000	814,080	861,200	2647,320	-1786,120
22+00.000	0,000	33,700	0,000	805,800	861,200	3453,120	-2591,920
23+00.000	0,000	34,050	0,000	813,000	861,200	4266,120	-3404,920
24+00.000	0,000	38,270	0,000	867,840	861,200	5133,960	-4272,760
25+00.000	0,000	46,500	0,000	1017,240	861,200	6151,200	-5290,000
25+10.000	0,000	57,940	0,000	626,640	861,200	6777,840	-5916,640
26+00.000	0,000	73,690	0,000	789,780	861,200	7567,620	-6706,420

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
27+00.000	0,000	0,000	0,000	884,280	861,200	8451,900	-7590,700
28+00.000	0,000	0,000	0,000	0,000	861,200	8451,900	-7590,700
29+00.000	0,000	0,000	0,000	0,000	861,200	8451,900	-7590,700
30+00.000	0,000	0,000	0,000	0,000	861,200	8451,900	-7590,700
31+00.000	0,000	0,000	0,000	0,000	861,200	8451,900	-7590,700
32+00.000	0,000	0,000	0,000	0,000	861,200	8451,900	-7590,700
33+00.000	0,000	0,000	0,000	0,000	861,200	8451,900	-7590,700
34+00.000	0,000	100,600	0,000	1207,200	861,200	9659,100	-8797,900
34+10.000	0,000	83,090	0,000	1102,140	861,200	10761,240	-9900,040
35+00.000	0,000	62,570	0,000	873,960	861,200	11635,200	-10774,000
36+00.000	0,000	43,850	0,000	1277,040	861,200	12912,240	-12051,040
37+00.000	0,000	21,520	0,000	784,440	861,200	13696,680	-12835,480
38+00.000	0,000	9,940	0,000	377,520	861,200	14074,200	-13213,000
39+00.000	0,000	5,700	0,000	187,680	861,200	14261,880	-13400,680
40+00.000	0,000	5,400	0,000	133,200	861,200	14395,080	-13533,880
41+00.000	0,000	9,830	0,000	182,760	861,200	14577,840	-13716,640
42+00.000	0,000	17,910	0,000	332,880	861,200	14910,720	-14049,520
43+00.000	0,000	17,650	0,000	426,720	861,200	15337,440	-14476,240
44+00.000	0,000	18,020	0,000	428,040	861,200	15765,480	-14904,280
45+00.000	0,000	21,060	0,000	468,960	861,200	16234,440	-15373,240
46+00.000	0,000	23,410	0,000	533,640	861,200	16768,080	-15906,880
46+10.000	0,000	23,420	0,000	280,980	861,200	17049,060	-16187,860
47+00.000	0,000	22,580	0,000	276,000	861,200	17325,060	-16463,860
47+10.000	0,000	21,690	0,000	265,620	861,200	17590,680	-16729,480
48+00.000	0,000	21,730	0,000	260,520	861,200	17851,200	-16990,000
49+00.000	0,000	16,260	0,000	455,880	861,200	18307,080	-17445,880
50+00.000	0,000	6,330	0,000	271,080	861,200	18578,160	-17716,960
51+00.000	0,000	1,830	0,000	97,920	861,200	18676,080	-17814,880

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
52+00.000	0,160	1,050	1,600	34,560	862,800	18710,640	-17847,840
53+00.000	0,000	3,570	1,600	55,440	864,400	18766,080	-17901,680
54+00.000	0,000	3,520	0,000	85,080	864,400	18851,160	-17986,760
55+00.000	0,000	5,600	0,000	109,440	864,400	18960,600	-18096,200
56+00.000	0,000	6,780	0,000	148,560	864,400	19109,160	-18244,760
57+00.000	0,000	6,870	0,000	163,800	864,400	19272,960	-18408,560
58+00.000	0,000	8,290	0,000	181,920	864,400	19454,880	-18590,480
59+00.000	0,000	9,560	0,000	214,200	864,400	19669,080	-18804,680
60+00.000	0,000	11,410	0,000	251,640	864,400	19920,720	-19056,320
61+00.000	0,000	13,220	0,000	295,560	864,400	20216,280	-19351,880
62+00.000	0,000	14,900	0,000	337,440	864,400	20553,720	-19689,320
63+00.000	0,000	17,670	0,000	390,840	864,400	20944,560	-20080,160
64+00.000	0,000	19,190	0,000	442,320	864,400	21386,880	-20522,480
64+10.000	0,000	19,610	0,000	232,800	864,400	21619,680	-20755,280
65+00.000	0,000	21,910	0,000	249,120	864,400	21868,800	-21004,400
66+00.000	0,000	23,720	0,000	547,560	864,400	22416,360	-21551,960
67+00.000	0,000	25,800	0,000	594,240	864,400	23010,600	-22146,200
68+00.000	0,000	28,130	0,000	647,160	864,400	23657,760	-22793,360
69+00.000	0,000	29,120	0,000	687,000	864,400	24344,760	-23480,360
70+00.000	0,000	29,960	0,000	708,960	864,400	25053,720	-24189,320
71+00.000	0,000	29,720	0,000	716,160	864,400	25769,880	-24905,480
72+00.000	0,000	30,820	0,000	726,480	864,400	26496,360	-25631,960
73+00.000	0,000	28,820	0,000	715,680	864,400	27212,040	-26347,640
74+00.000	0,000	28,140	0,000	683,520	864,400	27895,560	-27031,160
75+00.000	0,000	27,830	0,000	671,640	864,400	28567,200	-27702,800
76+00.000	0,000	26,490	0,000	651,840	864,400	29219,040	-28354,640
76+10.000	0,000	25,310	0,000	310,800	864,400	29529,840	-28665,440
77+00.000	0,000	24,440	0,000	298,500	864,400	29828,340	-28963,940

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
78+00.000	0,000	24,630	0,000	588,840	864,400	30417,180	-29552,780
79+00.000	0,000	21,830	0,000	557,520	864,400	30974,700	-30110,300
80+00.000	0,000	20,410	0,000	506,880	864,400	31481,580	-30617,180
81+00.000	0,000	18,800	0,000	470,520	864,400	31952,100	-31087,700
82+00.000	0,000	17,370	0,000	434,040	864,400	32386,140	-31521,740
83+00.000	0,000	17,780	0,000	421,800	864,400	32807,940	-31943,540
84+00.000	0,000	15,210	0,000	395,880	864,400	33203,820	-32339,420
85+00.000	0,000	17,020	0,000	386,760	864,400	33590,580	-32726,180
86+00.000	0,000	17,020	0,000	408,480	864,400	33999,060	-33134,660
87+00.000	0,000	17,440	0,000	413,520	864,400	34412,580	-33548,180
88+00.000	0,000	18,300	0,000	428,880	864,400	34841,460	-33977,060
89+00.000	0,000	20,040	0,000	460,080	864,400	35301,540	-34437,140
90+00.000	0,000	20,750	0,000	489,480	864,400	35791,020	-34926,620
91+00.000	0,000	21,460	0,000	506,520	864,400	36297,540	-35433,140
92+00.000	0,000	23,580	0,000	540,480	864,400	36838,020	-35973,620
93+00.000	0,000	22,300	0,000	550,560	864,400	37388,580	-36524,180
94+00.000	0,000	26,400	0,000	584,400	864,400	37972,980	-37108,580
95+00.000	0,000	23,560	0,000	599,520	864,400	38572,500	-37708,100
96+00.000	0,000	26,630	0,000	602,280	864,400	39174,780	-38310,380
97+00.000	0,000	24,200	0,000	609,960	864,400	39784,740	-38920,340
98+00.000	0,000	23,780	0,000	575,760	864,400	40360,500	-39496,100
99+00.000	0,000	24,030	0,000	573,720	864,400	40934,220	-40069,820
100+00.000	0,000	26,760	0,000	609,480	864,400	41543,700	-40679,300
101+00.000	0,000	30,090	0,000	682,200	864,400	42225,900	-41361,500
102+00.000	0,000	34,500	0,000	775,080	864,400	43000,980	-42136,580
103+00.000	0,000	32,730	0,000	806,760	864,400	43807,740	-42943,340
104+00.000	0,000	31,860	0,000	775,080	864,400	44582,820	-43718,420
105+00.000	0,000	25,130	0,000	683,880	864,400	45266,700	-44402,300

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
106+00.000	0,000	21,570	0,000	560,400	864,400	45827,100	-44962,700
107+00.000	0,000	15,280	0,000	442,200	864,400	46269,300	-45404,900
107+10.000	0,000	9,520	0,000	148,800	864,400	46418,100	-45553,700
108+00.000	0,000	2,270	0,000	70,740	864,400	46488,840	-45624,440
108+10.000	3,970	0,000	19,850	13,620	884,250	46502,460	-45618,210
109+00.000	6,330	0,000	51,500	0,000	935,750	46502,460	-45566,710
110+00.000	10,170	0,000	165,000	0,000	1100,750	46502,460	-45401,710
111+00.000	12,900	0,000	230,700	0,000	1331,450	46502,460	-45171,010
112+00.000	6,680	0,000	195,800	0,000	1527,250	46502,460	-44975,210
112+10.000	3,640	0,000	51,600	0,000	1578,850	46502,460	-44923,610
113+00.000	1,240	0,200	24,400	1,200	1603,250	46503,660	-44900,410
114+00.000	0,930	0,140	21,700	4,080	1624,950	46507,740	-44882,790
115+00.000	2,340	0,000	32,700	1,680	1657,650	46509,420	-44851,770
116+00.000	3,580	0,000	59,200	0,000	1716,850	46509,420	-44792,570
117+00.000	3,050	0,000	66,300	0,000	1783,150	46509,420	-44726,270
118+00.000	1,240	0,240	42,900	2,880	1826,050	46512,300	-44686,250
119+00.000	0,210	1,590	14,500	21,960	1840,550	46534,260	-44693,710
120+00.000	0,160	2,090	3,700	44,160	1844,250	46578,420	-44734,170
121+00.000	0,040	3,110	2,000	62,400	1846,250	46640,820	-44794,570
121+10.000	0,040	2,710	0,400	34,920	1846,650	46675,740	-44829,090
122+00.000	0,260	0,360	1,500	18,420	1848,150	46694,160	-44846,010
122+10.000	3,680	0,000	19,700	2,160	1867,850	46696,320	-44828,470
123+00.000	3,530	0,000	36,050	0,000	1903,900	46696,320	-44792,420
124+00.000	4,320	0,000	78,500	0,000	1982,400	46696,320	-44713,920
125+00.000	3,560	0,000	78,800	0,000	2061,200	46696,320	-44635,120
126+00.000	4,320	0,000	78,800	0,000	2140,000	46696,320	-44556,320
127+00.000	1,310	1,390	56,300	16,680	2196,300	46713,000	-44516,700
128+00.000	1,140	1,110	24,500	30,000	2220,800	46743,000	-44522,200

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
129+00.000	1,100	0,090	22,400	14,400	2243,200	46757,400	-44514,200
130+00.000	4,010	0,000	51,100	1,080	2294,300	46758,480	-44464,180
131+00.000	2,610	0,000	66,200	0,000	2360,500	46758,480	-44397,980
132+00.000	2,090	0,510	47,000	6,120	2407,500	46764,600	-44357,100
133+00.000	1,180	0,260	32,700	9,240	2440,200	46773,840	-44333,640
134+00.000	0,840	0,610	20,200	10,440	2460,400	46784,280	-44323,880
134+10.000	0,000	1,550	4,200	12,960	2464,600	46797,240	-44332,640
135+00.000	0,650	0,350	3,250	11,400	2467,850	46808,640	-44340,790
136+00.000	0,740	0,930	13,900	15,360	2481,750	46824,000	-44342,250
137+00.000	0,430	0,960	11,700	22,680	2493,450	46846,680	-44353,230
138+00.000	0,040	2,050	4,700	36,120	2498,150	46882,800	-44384,650
139+00.000	0,000	6,740	0,400	105,480	2498,550	46988,280	-44489,730
140+00.000	0,000	3,960	0,000	128,400	2498,550	47116,680	-44618,130
141+00.000	0,000	2,960	0,000	83,040	2498,550	47199,720	-44701,170
142+00.000	0,940	0,210	9,400	38,040	2507,950	47237,760	-44729,810
143+00.000	0,180	0,690	11,200	10,800	2519,150	47248,560	-44729,410
144+00.000	1,060	0,130	12,400	9,840	2531,550	47258,400	-44726,850
144+10.000	2,330	0,020	16,950	0,900	2548,500	47259,300	-44710,800
145+00.000	3,120	0,000	27,250	0,120	2575,750	47259,420	-44683,670
146+00.000	2,080	0,000	52,000	0,000	2627,750	47259,420	-44631,670
147+00.000	1,010	0,420	30,900	5,040	2658,650	47264,460	-44605,810
147+10.000	0,150	0,950	5,800	8,220	2664,450	47272,680	-44608,230
148+00.000	0,000	4,670	0,750	33,720	2665,200	47306,400	-44641,200
149+00.000	0,000	4,900	0,000	114,840	2665,200	47421,240	-44756,040
150+00.000	0,310	2,260	3,100	85,920	2668,300	47507,160	-44838,860
151+00.000	0,870	0,410	11,800	32,040	2680,100	47539,200	-44859,100
152+00.000	1,080	0,830	19,500	14,880	2699,600	47554,080	-44854,480
153+00.000	1,040	1,990	21,200	33,840	2720,800	47587,920	-44867,120

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
154+00.000	1,790	3,720	28,300	68,520	2749,100	47656,440	-44907,340
155+00.000	2,140	0,470	39,300	50,280	2788,400	47706,720	-44918,320
156+00.000	3,210	0,000	53,500	5,640	2841,900	47712,360	-44870,460
157+00.000	2,950	0,000	61,600	0,000	2903,500	47712,360	-44808,860
158+00.000	3,490	0,000	64,400	0,000	2967,900	47712,360	-44744,460
159+00.000	1,670	0,170	51,600	2,040	3019,500	47714,400	-44694,900
160+00.000	1,260	0,230	29,300	4,800	3048,800	47719,200	-44670,400
161+00.000	1,640	0,000	29,000	2,760	3077,800	47721,960	-44644,160
162+00.000	1,620	0,140	32,600	1,680	3110,400	47723,640	-44613,240
163+00.000	1,080	1,940	27,000	24,960	3137,400	47748,600	-44611,200
164+00.000	0,980	1,490	20,600	41,160	3158,000	47789,760	-44631,760
165+00.000	1,910	0,060	28,900	18,600	3186,900	47808,360	-44621,460
166+00.000	2,240	0,000	41,500	0,720	3228,400	47809,080	-44580,680
167+00.000	0,550	0,320	27,900	3,840	3256,300	47812,920	-44556,620
168+00.000	0,280	1,780	8,300	25,200	3264,600	47838,120	-44573,520
169+00.000	0,380	2,420	6,600	50,400	3271,200	47888,520	-44617,320
170+00.000	0,270	1,610	6,500	48,360	3277,700	47936,880	-44659,180
171+00.000	1,200	0,000	14,700	19,320	3292,400	47956,200	-44663,800
172+00.000	2,380	0,000	35,800	0,000	3328,200	47956,200	-44628,000
173+00.000	2,750	0,000	51,300	0,000	3379,500	47956,200	-44576,700
174+00.000	2,330	0,000	50,800	0,000	3430,300	47956,200	-44525,900
175+00.000	2,380	0,000	47,100	0,000	3477,400	47956,200	-44478,800
176+00.000	1,350	0,280	37,300	3,360	3514,700	47959,560	-44444,860
177+00.000	2,790	0,000	41,400	3,360	3556,100	47962,920	-44406,820
178+00.000	3,730	0,000	65,200	0,000	3621,300	47962,920	-44341,620
179+00.000	3,570	0,000	73,000	0,000	3694,300	47962,920	-44268,620
180+00.000	2,480	0,000	60,500	0,000	3754,800	47962,920	-44208,120
181+00.000	2,530	0,000	50,100	0,000	3804,900	47962,920	-44158,020

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
182+00.000	2,680	0,000	52,100	0,000	3857,000	47962,920	-44105,920
183+00.000	2,700	0,000	53,800	0,000	3910,800	47962,920	-44052,120
184+00.000	0,320	0,580	30,200	6,960	3941,000	47969,880	-44028,880
185+00.000	0,000	4,920	3,200	66,000	3944,200	48035,880	-44091,680
186+00.000	0,000	13,100	0,000	216,240	3944,200	48252,120	-44307,920
187+00.000	0,000	21,980	0,000	420,960	3944,200	48673,080	-44728,880
188+00.000	0,000	29,080	0,000	612,720	3944,200	49285,800	-45341,600
189+00.000	0,000	28,880	0,000	695,520	3944,200	49981,320	-46037,120
190+00.000	0,000	26,440	0,000	663,840	3944,200	50645,160	-46700,960
191+00.000	0,000	33,020	0,000	713,520	3944,200	51358,680	-47414,480
192+00.000	0,000	33,680	0,000	800,400	3944,200	52159,080	-48214,880
193+00.000	0,000	28,260	0,000	743,280	3944,200	52902,360	-48958,160
194+00.000	0,000	23,140	0,000	616,800	3944,200	53519,160	-49574,960
195+00.000	0,000	20,960	0,000	529,200	3944,200	54048,360	-50104,160
196+00.000	0,000	17,650	0,000	463,320	3944,200	54511,680	-50567,480
197+00.000	0,000	18,240	0,000	430,680	3944,200	54942,360	-50998,160
198+00.000	0,000	16,600	0,000	418,080	3944,200	55360,440	-51416,240
199+00.000	0,000	14,630	0,000	374,760	3944,200	55735,200	-51791,000
200+00.000	0,000	11,260	0,000	310,680	3944,200	56045,880	-52101,680
201+00.000	0,000	5,890	0,000	205,800	3944,200	56251,680	-52307,480
202+00.000	0,000	1,670	0,000	90,720	3944,200	56342,400	-52398,200
203+00.000	0,450	0,000	4,500	20,040	3948,700	56362,440	-52413,740
204+00.000	1,150	0,170	16,000	2,040	3964,700	56364,480	-52399,780
205+00.000	1,410	0,250	25,600	5,040	3990,300	56369,520	-52379,220
206+00.000	1,540	0,250	29,500	6,000	4019,800	56375,520	-52355,720
207+00.000	2,560	0,870	41,000	13,440	4060,800	56388,960	-52328,160
208+00.000	3,090	0,010	56,500	10,560	4117,300	56399,520	-52282,220
209+00.000	3,270	0,000	63,600	0,120	4180,900	56399,640	-52218,740

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
210+00.000	3,170	0,000	64,400	0,000	4245,300	56399,640	-52154,340
211+00.000	3,200	0,000	63,700	0,000	4309,000	56399,640	-52090,640
212+00.000	1,400	0,000	46,000	0,000	4355,000	56399,640	-52044,640
213+00.000	1,860	0,000	32,600	0,000	4387,600	56399,640	-52012,040
214+00.000	0,370	0,250	22,300	3,000	4409,900	56402,640	-51992,740
215+00.000	0,000	4,120	3,700	52,440	4413,600	56455,080	-52041,480
216+00.000	0,000	8,430	0,000	150,600	4413,600	56605,680	-52192,080
217+00.000	0,000	12,820	0,000	255,000	4413,600	56860,680	-52447,080
218+00.000	0,000	14,730	0,000	330,600	4413,600	57191,280	-52777,680
218+10.000	0,000	14,340	0,000	174,420	4413,600	57365,700	-52952,100
219+00.000	0,000	14,840	0,000	175,080	4413,600	57540,780	-53127,180
220+00.000	0,000	12,680	0,000	330,240	4413,600	57871,020	-53457,420
221+00.000	0,000	5,620	0,000	219,600	4413,600	58090,620	-53677,020
222+00.000	1,710	0,000	17,100	67,440	4430,700	58158,060	-53727,360
223+00.000	2,970	0,000	46,800	0,000	4477,500	58158,060	-53680,560
224+00.000	2,290	0,000	52,600	0,000	4530,100	58158,060	-53627,960
225+00.000	1,850	0,180	41,400	2,160	4571,500	58160,220	-53588,720
225+10.000	1,540	0,690	16,950	5,220	4588,450	58165,440	-53576,990
226+00.000	1,800	0,060	16,700	4,500	4605,150	58169,940	-53564,790
227+00.000	1,610	0,110	34,100	2,040	4639,250	58171,980	-53532,730
228+00.000	2,380	0,000	39,900	1,320	4679,150	58173,300	-53494,150
229+00.000	2,230	0,000	46,100	0,000	4725,250	58173,300	-53448,050
230+00.000	1,790	0,010	40,200	0,120	4765,450	58173,420	-53407,970
231+00.000	3,470	0,000	52,600	0,120	4818,050	58173,540	-53355,490
232+00.000	3,490	0,000	69,600	0,000	4887,650	58173,540	-53285,890
233+00.000	3,910	0,000	74,000	0,000	4961,650	58173,540	-53211,890
234+00.000	3,030	0,000	69,400	0,000	5031,050	58173,540	-53142,490
235+00.000	2,890	0,000	59,200	0,000	5090,250	58173,540	-53083,290

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
235+10.000	4,650	0,000	37,700	0,000	5127,950	58173,540	-53045,590
236+00.000	4,360	0,000	45,050	0,000	5173,000	58173,540	-53000,540
237+00.000	3,680	0,000	80,400	0,000	5253,400	58173,540	-52920,140
238+00.000	3,120	0,000	68,000	0,000	5321,400	58173,540	-52852,140
239+00.000	4,800	0,000	79,200	0,000	5400,600	58173,540	-52772,940
240+00.000	5,340	0,000	101,400	0,000	5502,000	58173,540	-52671,540
240+10.000	4,350	0,000	48,450	0,000	5550,450	58173,540	-52623,090
241+00.000	3,200	0,170	37,750	1,020	5588,200	58174,560	-52586,360
242+00.000	2,800	0,000	60,000	2,040	5648,200	58176,600	-52528,400
242+10.000	3,300	0,000	30,500	0,000	5678,700	58176,600	-52497,900
243+00.000	2,680	0,010	29,900	0,060	5708,600	58176,660	-52468,060
244+00.000	2,920	0,000	56,000	0,120	5764,600	58176,780	-52412,180
244+10.000	3,560	0,000	32,400	0,000	5797,000	58176,780	-52379,780
245+00.000	2,700	0,000	31,300	0,000	5828,300	58176,780	-52348,480
246+00.000	2,550	0,020	52,500	0,240	5880,800	58177,020	-52296,220
246+10.000	3,540	0,000	30,450	0,120	5911,250	58177,140	-52265,890
247+00.000	2,800	0,000	31,700	0,000	5942,950	58177,140	-52234,190
248+00.000	1,560	0,000	43,600	0,000	5986,550	58177,140	-52190,590
249+00.000	4,300	0,000	58,600	0,000	6045,150	58177,140	-52131,990
250+00.000	4,380	0,000	86,800	0,000	6131,950	58177,140	-52045,190
251+00.000	3,470	0,000	78,500	0,000	6210,450	58177,140	-51966,690
252+00.000	4,400	0,000	78,700	0,000	6289,150	58177,140	-51887,990
253+00.000	4,760	0,000	91,600	0,000	6380,750	58177,140	-51796,390
254+00.000	3,150	0,000	79,100	0,000	6459,850	58177,140	-51717,290
255+00.000	2,330	0,000	54,800	0,000	6514,650	58177,140	-51662,490
256+00.000	2,040	0,000	43,700	0,000	6558,350	58177,140	-51618,790
257+00.000	2,550	0,000	45,900	0,000	6604,250	58177,140	-51572,890
258+00.000	5,030	0,000	75,800	0,000	6680,050	58177,140	-51497,090

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Eixo Principal							
Estaca 0+00.000 a Estaca 268+04.000							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
258+10.000	5,770	0,000	54,000	0,000	6734,050	58177,140	-51443,090
259+00.000	6,080	0,000	59,250	0,000	6793,300	58177,140	-51383,840
260+00.000	5,500	0,000	115,800	0,000	6909,100	58177,140	-51268,040
261+00.000	2,180	0,120	76,800	1,440	6985,900	58178,580	-51192,680
262+00.000	1,780	0,000	39,600	1,440	7025,500	58180,020	-51154,520
262+10.000	0,010	1,260	8,950	7,560	7034,450	58187,580	-51153,130
263+00.000	0,000	1,540	0,050	16,800	7034,500	58204,380	-51169,880
264+00.000	3,970	0,000	39,700	18,480	7074,200	58222,860	-51148,660
265+00.000	5,010	0,000	89,800	0,000	7164,000	58222,860	-51058,860
266+00.000	3,940	0,000	89,500	0,000	7253,500	58222,860	-50969,360
267+00.000	3,360	0,000	73,000	0,000	7326,500	58222,860	-50896,360
268+00.000	2,910	0,000	62,700	0,000	7389,200	58222,860	-50833,660
268+04.000	2,310	0,000	52,200	0,000	7441,400	58222,860	-50781,460

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Rua A							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
0+00.000	4,700	0,000					
0+10.000	2,830	0,000	37,650	0,000	37,650	0,000	37,650
1+00.000	2,590	0,000	27,100	0,000	64,750	0,000	64,750
1+10.000	2,650	0,000	26,200	0,000	90,950	0,000	90,950
2+00.000	3,830	0,000	32,400	0,000	123,350	0,000	123,350
3+00.000	4,240	0,000	80,700	0,000	204,050	0,000	204,050
4+00.000	3,970	0,000	82,100	0,000	286,150	0,000	286,150
5+00.000	3,630	0,000	76,000	0,000	362,150	0,000	362,150
6+00.000	0,710	0,130	43,400	1,560	405,550	1,560	403,990
7+00.000	2,160	0,000	28,700	1,560	434,250	3,120	431,130
8+00.000	2,020	0,000	41,800	0,000	476,050	3,120	472,930
9+00.000	2,270	0,000	42,900	0,000	518,950	3,120	515,830
10+00.000	2,590	0,000	48,600	0,000	567,550	3,120	564,430
11+00.000	3,100	0,000	56,900	0,000	624,450	3,120	621,330
12+00.000	2,580	0,000	56,800	0,000	681,250	3,120	678,130
13+00.000	0,960	0,010	35,400	0,120	716,650	3,240	713,410
14+00.000	2,430	0,000	33,900	0,120	750,550	3,360	747,190
14+10.000	4,080	0,000	32,550	0,000	783,100	3,360	779,740
15+00.000	4,100	0,000	40,900	0,000	824,000	3,360	820,640
16+00.000	2,810	0,000	69,100	0,000	893,100	3,360	889,740
17+00.000	2,240	0,000	50,500	0,000	943,600	3,360	940,240
18+00.000	2,140	0,000	43,800	0,000	987,400	3,360	984,040
19+00.000	2,530	0,000	46,700	0,000	1034,100	3,360	1030,740
20+00.000	2,780	0,000	53,100	0,000	1087,200	3,360	1083,840
21+00.000	2,660	0,000	54,400	0,000	1141,600	3,360	1138,240
22+00.000	3,140	0,000	58,000	0,000	1199,600	3,360	1196,240
23+00.000	5,010	0,000	81,500	0,000	1281,100	3,360	1277,740
24+00.000	3,570	0,000	85,800	0,000	1366,900	3,360	1363,540
24+10.000	2,280	0,000	29,250	0,000	1396,150	3,360	1392,790

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Rua A							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
25+00.000	3,650	0,000	29,650	0,000	1425,800	3,360	1422,440
26+00.000	4,020	0,000	76,700	0,000	1502,500	3,360	1499,140
27+00.000	2,590	0,000	66,100	0,000	1568,600	3,360	1565,240
27+10.000	2,570	0,000	25,800	0,000	1594,400	3,360	1591,040
28+00.000	2,860	0,000	27,150	0,000	1621,550	3,360	1618,190
28+10.000	3,580	0,000	32,200	0,000	1653,750	3,360	1650,390
29+00.000	3,080	0,000	33,300	0,000	1687,050	3,360	1683,690
29+10.000	4,080	0,000	35,800	0,000	1722,850	3,360	1719,490
30+00.000	3,940	0,000	40,100	0,000	1762,950	3,360	1759,590
31+00.000	3,020	0,000	69,600	0,000	1832,550	3,360	1829,190
32+00.000	3,270	0,000	62,900	0,000	1895,450	3,360	1892,090
33+00.000	3,520	0,000	67,900	0,000	1963,350	3,360	1959,990
34+00.000	4,300	0,000	78,200	0,000	2041,550	3,360	2038,190
35+00.000	3,770	0,000	80,700	0,000	2122,250	3,360	2118,890
36+00.000	1,600	0,000	53,700	0,000	2175,950	3,360	2172,590
37+00.000	0,680	0,060	22,800	0,720	2198,750	4,080	2194,670
38+00.000	1,770	0,000	24,500	0,720	2223,250	4,800	2218,450
39+00.000	2,820	0,000	45,900	0,000	2269,150	4,800	2264,350
40+00.000	2,110	0,000	49,300	0,000	2318,450	4,800	2313,650
41+00.000	2,350	0,060	44,600	0,720	2363,050	5,520	2357,530
42+00.000	0,950	0,100	33,000	1,920	2396,050	7,440	2388,610
43+00.000	1,120	0,020	20,700	1,440	2416,750	8,880	2407,870
44+00.000	0,060	0,780	11,800	9,600	2428,550	18,480	2410,070
45+00.000	0,000	0,730	0,600	18,120	2429,150	36,600	2392,550
46+00.000	0,860	0,180	8,600	10,920	2437,750	47,520	2390,230
47+00.000	1,050	0,350	19,100	6,360	2456,850	53,880	2402,970
48+00.000	1,790	0,140	28,400	5,880	2485,250	59,760	2425,490
49+00.000	2,870	0,000	46,600	1,680	2531,850	61,440	2470,410
50+00.000	3,260	0,000	61,300	0,000	2593,150	61,440	2531,710

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

QUADRO DE CUBAÇÃO DE TERRAPLENAGEM - Rua A							
Estaca	Área (m²)		Volume (m³)		Volume Acumul. (m³)		Ordenada de Massa
	Corte	Aterro	Corte (f=1,00)	Aterro (f=1,20)	Corte (f=1,00)	Aterro (f=1,20)	
51+00.000	3,610	0,000	68,700	0,000	2661,850	61,440	2600,410
52+00.000	3,850	0,000	74,600	0,000	2736,450	61,440	2675,010
53+00.000	2,970	0,000	68,200	0,000	2804,650	61,440	2743,210
54+00.000	2,520	0,000	54,900	0,000	2859,550	61,440	2798,110
55+00.000	2,970	0,000	54,900	0,000	2914,450	61,440	2853,010
56+00.000	2,530	0,000	55,000	0,000	2969,450	61,440	2908,010
57+00.000	1,500	0,030	40,300	0,360	3009,750	61,800	2947,950
57+10.000	0,330	0,390	9,150	2,520	3018,900	64,320	2954,580
58+00.000	1,130	0,510	7,300	5,400	3026,200	69,720	2956,480
58+08.249	4,560	0,000	23,468	2,524	3049,668	72,244	2977,424

PROJETO EXECUTIVO DE REABILITAÇÃO E MELHORAMENTOS EM RODOVIA

RESUMO DO MOVIMENTO DE TERRA							
Faixa De Distância de Transporte	1ª Categoria		2ª Categoria		3ª Categoria		Volume Total (m³)
	DMT (km)	Volume (m³)	DMT (km)	Volume (m³)	DMT (km)	Volume (m³)	
0.0m < DMT ≤ 200.0m	0.129	822.890	0.000	0.000	0.000	0.000	822,890
200.0m < DMT ≤ 400.0m	0.263	1.014.640	0.000	0.000	0.000	0.000	1.014,640
400.0m < DMT ≤ 600.0m	0.479	1.864.060	0.000	0.000	0.000	0.000	1.864,060
600.0m < DMT ≤ 800.0m	0.000		0.000	0.000	0.000	0.000	0,000
800.0m < DMT ≤ 1000.0m	0.933	822.860	0.000	0.000	0.000	0.000	822,860
1000.0m < DMT ≤ 1200.0m	1.087	1.784.830	0.000	0.000	0.000	0.000	1.784,830
1200.0m < DMT ≤ 1400.0m	1.226	44.686.250	0.000	0.000	0.000	0.000	44.686,250
1400.0m < DMT ≤ 1600.0m	1.470	385.680	0.000	0.000	0.000	0.000	385,680
1600.0m < DMT ≤ 1800.0m	0.000		0.000	0.000	0.000	0.000	0,000
1800.0m < DMT ≤ 2000.0m	0.000		0.000	0.000	0.000	0.000	0,000
2000.0m < DMT ≤ 3000.0m	2.257	587.194	0.000	0.000	0.000	0.000	587,194
3000.0m < DMT ≤ 4000.0m	3.560	2.250.596	0.000	0.000	0.000	0.000	2.250,596
4000.0m < DMT ≤ 5000.0m	0.000		0.000	0.000	0.000	0.000	0,000
DMT > 5000m	8.274	812.042	0.000	0.000	0.000	0.000	812,042
VOLUME TOTAL DE CORTE							10.748,434
VOLUME TOTAL DE BOTA-FORA							0.000
VOLUME TOTAL DE EMPRÉSTIMO							45.194,608
VOLUME TOTAL DE ATERRO							55.031,042
VOLUME TOTAL DE ATERRO COMPACTADO							45.859,202