



PROJETOS DE INFRAESTRUTURAS VIÁRIAS E GEOTÉCNICAS



ESTADO DE SANTA CATARINA
MUNICÍPIO DE TUNÁPOLIS

PROJETO DE ENGENHARIA RODOVIÁRIA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA

PROJETO EXECUTIVO
VOLUME 02 – ELEMENTOS DE LOCAÇÃO, NOTAS DE SERVIÇO E CÁLCULO DE
VOLUMES

REL-10620-01-EX-02-A



ESTADO DE SANTA CATARINA MUNICÍPIO DE TUNÁPOLIS

PROJETO DE ENGENHARIA RODOVIÁRIA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA

Trecho : Estrada da fronteira – Segmento entre Tunápolis e divisa com Itapiranga/SC
Município : Tunápolis/SC
Extensão : 10,53 km

PROJETO EXECUTIVO

VOLUME 02 - ELEMENTOS DE LOCAÇÃO, NOTAS DE SERVIÇO E CÁLCULO DE VOLUMES

- Elaboração: AZIMUTE Engenheiros Consultores SC Ltda.

Joinville, SC - Outubro de 2021.



A	Outubro/2021	Bruna M.	Apresentação inicial	Fátima.	Vander
Rev.	Data	Elaboração	Modificação	Verificação	Coordenação



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1.0 - APRESENTAÇÃO DO PROJETO



1.0 - APRESENTAÇÃO DO PROJETO

A empresa AZIMUTE Engenheiros Consultores SC Ltda., entrega nesta oportunidade o **Relatório Volume 02** referente ao Projeto de Engenharia Rodoviária para fins de Pavimentação da Estrada da Fronteira, no segmento entre Tunápolis e divisa com Itapiranga, no município de Tunápolis/SC, localizado no extremo oeste de Santa Catarina.

A apresentação do conteúdo é subdividida em relatórios, sendo:

- Volume 01 - Relatório Técnico;
- **Volume 02 - Elementos de Locação, Notas de Serviço e Cálculo de Volumes;**
- Volume 03 - Projeto de Execução.

A elaboração da atualização do projeto conta com o seguinte escopo:

- Estudo de tráfego;
- Estudo topográfico;
- Estudo geológico;
- Estudo geotécnico;
- Estudo hidrológico;
- Projeto geométrico;
- Projeto de terraplenagem;
- Projeto de drenagem pluvial e obras de arte correntes;
- Projeto de pavimentação asfáltica;
- Projeto de sinalização viária;
- Projeto de obras complementares;
- Plano de execução da obra e memorial descritivo;
- Quantitativos e orçamento estimativo.

AZIMUTE Engenheiros Consultores SC Ltda.

Outubro de 2021



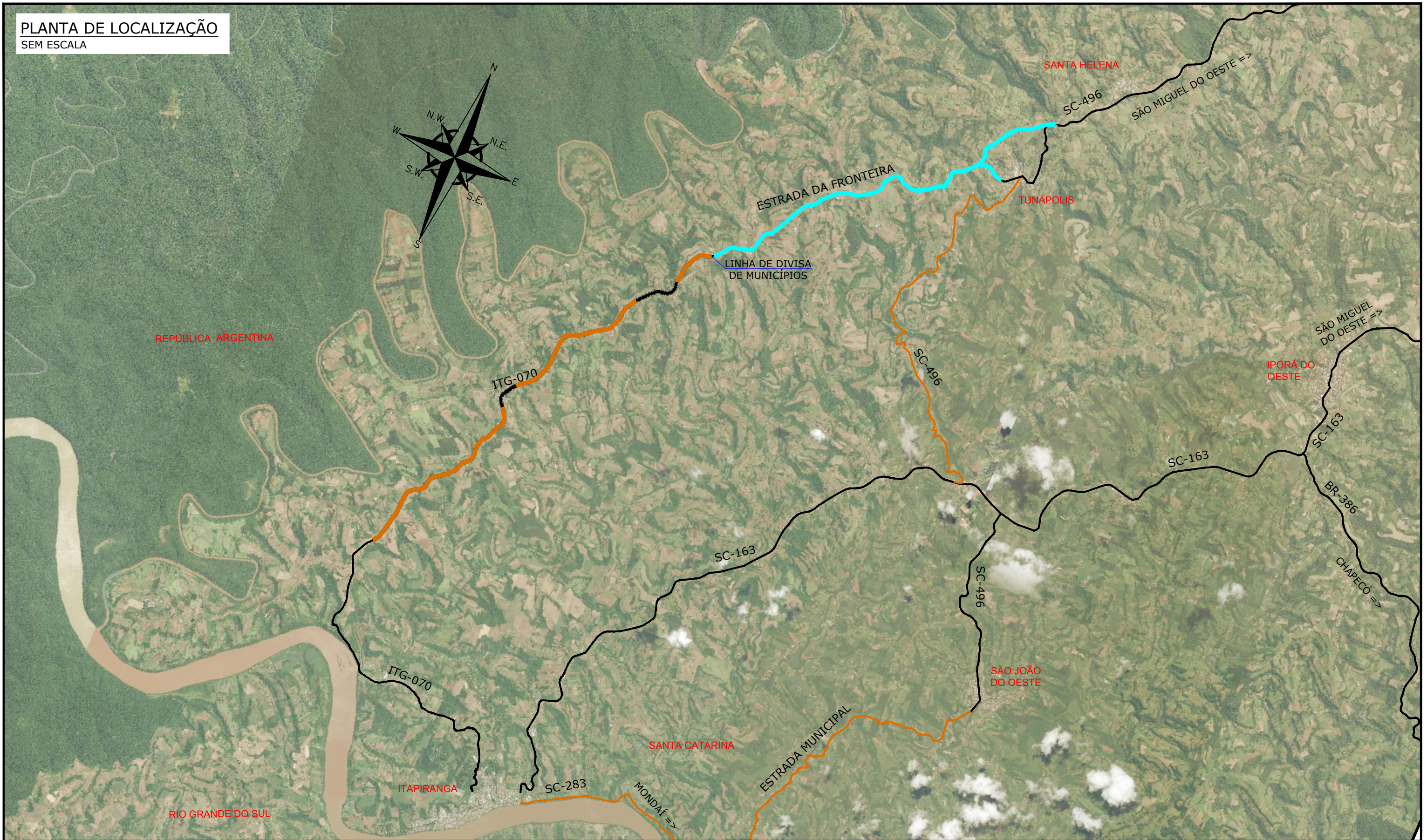
2.0 - IDENTIFICAÇÃO DA OBRA



2.0 - IDENTIFICAÇÃO DA OBRA

2.1 - Planta de Localização

PLANTA DE LOCALIZAÇÃO
SEM ESCALA



- LEGENDA:**
- VIA PAVIMENTADA
 - VIA NÃO PAVIMENTADA
 - LOCAL DO PROJETO – ESTRADA DA FRONTEIRA – SEGMENTO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA/SC

REV.	DATA	ELABORAÇÃO	MODIFICAÇÃO	VERIFICAÇÃO	COORDENAÇÃO
A	OUT/21	BRUNA M.	APRESENTAÇÃO INICIAL	FÁTIMA	VANDER

NOTAS:

1. PARA PERFEITO ENTENDIMENTO, ESTE DESENHO DEVERÁ SER IMPRESSO COLORIDO;
2. ESTE DESENHO CONTÉM INFORMAÇÕES ESPECÍFICAS A FINALIDADE QUE SE PROPÕE E NÃO DEVE SER UTILIZADO PARA OUTROS FINS SEM CONSULTAR O RESPONSÁVEL TÉCNICO.

ELABORAÇÃO: azimute ENGENHARIA		CONTRATANTE: MUNICÍPIO DE TUNÁPOLIS	
FINALIDADE: PROJETO DE ENGENHARIA RODOVIÁRIA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA			
LOCAL/TRECHO: ESTRADA DA FRONTEIRA – SEGMENTO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA/SC MUNICÍPIO DE TUNÁPOLIS/SC			
CONTEÚDO: PLANTA DE LOCALIZAÇÃO		DATA: OUTUBRO/2021	ESCALA: SEM ESCALA
CODIFICAÇÃO: LCL-10620-01-PB-01-A		EXTENSÃO/ÁREA:	PRANCHA: 01/01
RESPONSÁVEL (CONTRATANTE): MUNICÍPIO DE TUNÁPOLIS		RESPONSÁVEL TÉCNICO (AZIMUTE): ENG. ANTONIO CARLOS RAMUSKI CREA SC: 26.930-7	



3.0 - CURVAS HORIZONTAIS

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

		<u>TANGENTE</u>	
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+000.000	7008546.146	231020.357
FIM:	0+038.382	7008568.245	231051.738

		<u>TANGENTE</u>	
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	38.382	RUMO:	N 54° 50' 41.8343" E

<u>PONTOS NOTAVEIS DA CURVA CIRCULAR</u>			
DESCRICAÇÃO	ESTACA	N	E
PC:	0+038.382	7008568.245	231051.738
RP:		7008911.636	230809.906
PT:	0+175.391	7008663.852	231149.027

<u>CURVA CIRCULAR</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	18° 41' 26.1891"	TIPO:	ESQUERDA
RAIO:	420		
COMPRIMENTO:	137.009	TANGENTE:	69.119
DESENVOLVIMENTO:	5.574	AFASTAMENTO:	5.649
COMPRIMENTO CORDA:	136.403	RUMO:	N 45° 29' 58.7398" E

		<u>TANGENTE</u>	
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+175.391	7008663.852	231149.027
FIM:	0+418.923	7008860.487	231292.701

		<u>TANGENTE</u>	
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	243.532	RUMO:	N 36° 09' 15.6452" E

<u>PONTOS NOTAVEIS DA CURVA CIRCULAR</u>			
DESCRICAÇÃO	ESTACA	N	E
PC:	0+418.923	7008860.487	231292.701
RP:		7008695.298	231518.782
PT:	0+604.687	7008964.675	231442.387

<u>CURVA CIRCULAR</u>			
PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	38° 00' 44.5745"	TIPO:	DIREITA
RAIO:	280		
COMPRIMENTO:	185.764	TANGENTE:	96.446
DESENVOLVIMENTO:	15.265	AFASTAMENTO:	16.145
COMPRIMENTO CORDA:	182.375	RUMO:	N 55° 09' 37.9325" E

		<u>TANGENTE</u>	
DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+604.687	7008964.675	231442.387
FIM:	0+762.564	7009007.75	231594.274

		<u>TANGENTE</u>	
PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	157.877	RUMO:	N 74° 10' 00.2197" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+762.564	7009007.75	231594.274
RP:		7013818.048	230230.079
PT:	0+873.478	7009039.192	231700.636

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	01° 16' 15.5327"	TIPO:	ESQUERDA
RAIO:			5000
COMPRIMENTO:		110.914 TANGENTE:	55.459
DESENVOLVIMENTO:		0.308 AFASTAMENTO:	0.308
COMPRIMENTO CORDA:		110.912 RUMO:	N 73° 31' 52.4534" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+873.478	7009039.192	231700.636
FIM:	0+897.266	7009046.189	231723.372

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	23.788	RUMO:	N 72° 53' 44.6870" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+897.266	7009046.189	231723.372
RP:		7007134.646	232311.594
PT:	0+976.200	7009067.909	231799.254

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	02° 15' 40.7158"	TIPO:	DIREITA
RAIO:			2000
COMPRIMENTO:		78.935 TANGENTE:	39.472
DESENVOLVIMENTO:		0.389 AFASTAMENTO:	0.389
COMPRIMENTO CORDA:		78.929 RUMO:	N 74° 01' 35.0449" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+976.200	7009067.909	231799.254
FIM:	1+066.948	7009091.156	231886.973

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	90.748	RUMO:	N 75° 09' 25.4028" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	1+066.948	7009091.156	231886.973
RP:		7009210.052	231855.465
PT:	1+200.489	7009182.485	231975.336

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	62° 12' 21.2812"	TIPO:	ESQUERDA
RAIO:			123
COMPRIMENTO:		133.541 TANGENTE:	74.207
DESENVOLVIMENTO:		17.682 AFASTAMENTO:	20.651
COMPRIMENTO CORDA:		127.078 RUMO:	N 44° 03' 14.7622" E

MUNICÍPIO DE TUNÁPOLIS
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RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	1+200.489	7009182.485	231975.336
FIM:	1+457.501	7009432.959	232032.937

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	257.011	RUMO:	N 12° 57' 04.1216" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	1+457.501	7009432.959	232032.937
RP:		7009253.663	232812.586
PT:	1+491.299	7009465.728	232041.205

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	02° 25' 14.2700"	TIPO:	DIREITA
RAIO:			800
COMPRIMENTO:	33.798	TANGENTE:	16.902
DESENVOLVIMENTO:	0.178	AFASTAMENTO:	0.179
COMPRIMENTO CORDA:	33.796	RUMO:	N 14° 09' 41.2566" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	1+491.299	7009465.728	232041.205
FIM:	1+638.989	7009608.134	232080.355

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	147.689	RUMO:	N 15° 22' 18.3916" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	1+638.989	7009608.134	232080.355
RP:		7009559.094	232258.737
PT:	1+788.340	7009721.87	232170.823

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	46° 15' 18.1148"	TIPO:	DIREITA
RAIO:			185
COMPRIMENTO:	149.351	TANGENTE:	79.014
DESENVOLVIMENTO:	14.868	AFASTAMENTO:	16.167
COMPRIMENTO CORDA:	145.328	RUMO:	N 38° 29' 57.4490" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	1+788.340	7009721.87	232170.823
FIM:	1+843.165	7009747.924	232219.062

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	54.825	RUMO:	N 61° 37' 36.5064" E

MUNICÍPIO DE TUNÁPOLIS
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RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	1+843.165	7009747.924	232219.062
RP:		7009950.294	232109.763
PT:	1+985.733	7009849.066	232316.289

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	35° 30' 55.0056"	TIPO:	ESQUERDA
RAIO:			230
COMPRIMENTO:	142.567	TANGENTE:	73.657
DESENVOLVIMENTO:	10.958	AFASTAMENTO:	11.507
COMPRIMENTO CORDA:	140.296	RUMO:	N 43° 52' 09.0036" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	1+985.733	7009849.066	232316.289
FIM:	2+309.442	7010139.738	232458.76

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	323.709	RUMO:	N 26° 06' 41.5008" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	2+309.442	7010139.738	232458.76
RP:		7009259.498	234254.638
PT:	2+375.257	7010198.349	232488.694

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	01° 53' 07.6925"	TIPO:	DIREITA
RAIO:			2000
COMPRIMENTO:	65.815	TANGENTE:	32.911
DESENVOLVIMENTO:	0.271	AFASTAMENTO:	0.271
COMPRIMENTO CORDA:	65.812	RUMO:	N 27° 03' 15.3470" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	2+375.257	7010198.349	232488.694
FIM:	2+548.847	7010351.624	232570.181

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	173.59	RUMO:	N 27° 59' 49.1933" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	2+548.847	7010351.624	232570.181
RP:		7010821.049	231687.209
PT:	2+595.175	7010393.019	232590.974

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	02° 39' 15.8074"	TIPO:	ESQUERDA
RAIO:			1000
COMPRIMENTO:	46.328	TANGENTE:	23.168
DESENVOLVIMENTO:	0.268	AFASTAMENTO:	0.268
COMPRIMENTO CORDA:	46.324	RUMO:	N 26° 40' 11.2896" E

MUNICÍPIO DE TUNÁPOLIS
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RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	2+595.175	7010393.019	232590.974
FIM:	2+758.393	7010540.53	232660.836

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	163.218	RUMO:	N 25° 20' 33.3858" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	2+758.393	7010540.53	232660.836
RP:		7009898.484	234016.482
PT:	2+801.827	7010579.509	232679.993

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	01° 39' 32.6518"	TIPO:	DIREITA
RAIO:			1500
COMPRIMENTO:	43.434	TANGENTE:	21.719
DESENVOLVIMENTO:	0.157	AFASTAMENTO:	0.157
COMPRIMENTO CORDA:	43.433	RUMO:	N 26° 10' 19.7117" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	2+801.827	7010579.509	232679.993
FIM:	3+024.924	7010778.287	232781.282

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	223.097	RUMO:	N 27° 00' 06.0377" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	3+024.924	7010778.287	232781.282
RP:		7010633.002	233066.4
PT:	3+179.630	7010894.171	232881.493

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	27° 41' 59.9877"	TIPO:	DIREITA
RAIO:			320
COMPRIMENTO:	154.706	TANGENTE:	78.896
DESENVOLVIMENTO:	9.304	AFASTAMENTO:	9.582
COMPRIMENTO CORDA:	153.204	RUMO:	N 40° 51' 06.0315" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	3+179.630	7010894.171	232881.493
FIM:	3+226.642	7010921.336	232919.862

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	47.011	RUMO:	N 54° 42' 06.0254" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	3+226.642	7010921.336	232919.862
RP:		7010105.181	233497.696
PT:	3+286.311	7010954.342	232969.561

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	03° 25' 07.7539"	TIPO:	DIREITA
RAIO:		1000	
COMPRIMENTO:	59.67	TANGENTE:	29.844
DESENVOLVIMENTO:	0.445	AFASTAMENTO:	0.445
COMPRIMENTO CORDA:	59.661	RUMO:	N 56° 24' 39.9023" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	3+286.311	7010954.342	232969.561
FIM:	3+385.684	7011006.825	233053.945

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	99.373	RUMO:	N 58° 07' 13.7793" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	3+385.684	7011006.825	233053.945
RP:		7011193.64	232937.755
PT:	3+520.079	7011107.258	233140.087

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	35° 00' 04.3352"	TIPO:	ESQUERDA
RAIO:		220	
COMPRIMENTO:	134.395	TANGENTE:	69.368
DESENVOLVIMENTO:	10.183	AFASTAMENTO:	10.677
COMPRIMENTO CORDA:	132.315	RUMO:	N 40° 37' 11.6116" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	3+520.079	7011107.258	233140.087
FIM:	3+599.772	7011180.55	233171.378

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	79.692	RUMO:	N 23° 07' 09.4440" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	3+599.772	7011180.55	233171.378
RP:		7011109.874	233336.922
PT:	3+672.593	7011240.005	233212.561

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	23° 10' 46.9810"	TIPO:	DIREITA
RAIO:		180	
COMPRIMENTO:	72.821	TANGENTE:	36.915
DESENVOLVIMENTO:	3.67	AFASTAMENTO:	3.746
COMPRIMENTO CORDA:	72.326	RUMO:	N 34° 42' 32.9345" E

MUNICÍPIO DE TUNÁPOLIS
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RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	3+672.593	7011240.005	233212.561
FIM:	3+725.352	7011276.456	233250.703

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	52.759	RUMO:	N 46° 17' 56.4251" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	3+725.352	7011276.456	233250.703
RP:		7007661.68	236705.178
PT:	3+812.020	7011335.789	233313.876

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	00° 59' 35.2972"	TIPO:	DIREITA
RAIO:		5000	
COMPRIMENTO:	86.668	TANGENTE:	43.335
DESENVOLVIMENTO:	0.188	AFASTAMENTO:	0.188
COMPRIMENTO CORDA:	86.667	RUMO:	N 46° 47' 44.0737" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	3+812.020	7011335.789	233313.876
FIM:	3+835.518	7011351.726	233331.143

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	23.498	RUMO:	N 47° 17' 31.7223" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	3+835.518	7011351.726	233331.143
RP:		7011792.619	232924.186
PT:	3+890.950	7011391.151	233370.082

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	05° 17' 36.3633"	TIPO:	ESQUERDA
RAIO:		600	
COMPRIMENTO:	55.433	TANGENTE:	27.736
DESENVOLVIMENTO:	0.64	AFASTAMENTO:	0.641
COMPRIMENTO CORDA:	55.413	RUMO:	N 44° 38' 43.5406" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	3+890.950	7011391.151	233370.082
FIM:	3+960.217	7011442.627	233416.43

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	69.267	RUMO:	N 41° 59' 55.3590" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	3+960.217	7011442.627	233416.43
RP:		7011041.159	233862.325
PT:	4+024.123	7011487.755	233461.636

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	06° 06' 09.2679"	TIPO:	DIREITA
RAIO:	600		
COMPRIMENTO:	63.906	TANGENTE:	31.983
DESENVOLVIMENTO:	0.851	AFASTAMENTO:	0.852
COMPRIMENTO CORDA:	63.876	RUMO:	N 45° 02' 59.9929" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	4+024.123	7011487.755	233461.636
FIM:	4+096.596	7011536.153	233515.579

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	72.473	RUMO:	N 48° 06' 04.6269" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	4+096.596	7011536.153	233515.579
RP:		7011312.855	233715.924
PT:	4+161.124	7011573.769	233567.856

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	12° 19' 26.1861"	TIPO:	DIREITA
RAIO:	300		
COMPRIMENTO:	64.528	TANGENTE:	32.389
DESENVOLVIMENTO:	1.733	AFASTAMENTO:	1.743
COMPRIMENTO CORDA:	64.404	RUMO:	N 54° 15' 47.7199" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	4+161.124	7011573.769	233567.856
FIM:	4+282.895	7011633.87	233673.762

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	121.771	RUMO:	N 60° 25' 30.8130" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	4+282.895	7011633.87	233673.762
RP:		7011372.957	233821.83
PT:	4+393.711	7011669.73	233777.951

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	21° 09' 51.3266"	TIPO:	DIREITA
RAIO:	300		
COMPRIMENTO:	110.816	TANGENTE:	56.047
DESENVOLVIMENTO:	5.102	AFASTAMENTO:	5.19
COMPRIMENTO CORDA:	110.187	RUMO:	N 71° 00' 26.4763" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	4+393.711	7011669.73	233777.951
FIM:	4+547.920	7011692.286	233930.501

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	154.209	RUMO:	N 81° 35' 22.1396" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	4+547.920	7011692.286	233930.501
RP:		7012364.972	233831.041
PT:	4+845.338	7011797.737	234206.066

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	25° 03' 35.9059"	TIPO:	ESQUERDA
RAIO:			680
COMPRIMENTO:	297.418	TANGENTE:	151.126
DESENVOLVIMENTO:	16.196	AFASTAMENTO:	16.591
COMPRIMENTO CORDA:	295.053	RUMO:	N 69° 03' 34.1867" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	4+845.338	7011797.737	234206.066
FIM:	5+055.847	7011913.834	234381.667

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	210.509	RUMO:	N 56° 31' 46.2337" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	5+055.847	7011913.834	234381.667
RP:		7012539.462	233968.036
PT:	5+223.316	7012020.961	234509.938

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	12° 47' 37.4430"	TIPO:	ESQUERDA
RAIO:			750
COMPRIMENTO:	167.47	TANGENTE:	84.084
DESENVOLVIMENTO:	4.669	AFASTAMENTO:	4.699
COMPRIMENTO CORDA:	167.122	RUMO:	N 50° 07' 57.5122" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	5+223.316	7012020.961	234509.938
FIM:	5+349.749	7012112.314	234597.345

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	126.433	RUMO:	N 43° 44' 08.7907" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	5+349.749	7012112.314	234597.345
RP:		7012197.348	234508.473
PT:	5+448.248	7012201.956	234631.387

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	45° 52' 58.0088"	TIPO:	ESQUERDA
RAIO:			123
COMPRIMENTO:	98.499	TANGENTE:	52.062
DESENVOLVIMENTO:	9.729	AFASTAMENTO:	10.564
COMPRIMENTO CORDA:	95.888	RUMO:	N 20° 47' 39.7863" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	5+448.248	7012201.956	234631.387
FIM:	5+567.440	7012321.063	234626.922

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	119.191	RUMO:	N 02° 08' 49.2181" W

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	5+567.440	7012321.063	234626.922
RP:		7012327.058	234786.809
PT:	5+670.600	7012418.359	234655.417

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	36° 56' 29.3014"	TIPO:	DIREITA
RAIO:			160
COMPRIMENTO:	103.16	TANGENTE:	53.444
DESENVOLVIMENTO:	8.242	AFASTAMENTO:	8.69
COMPRIMENTO CORDA:	101.382	RUMO:	N 16° 19' 25.4326" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	5+670.600	7012418.359	234655.417
FIM:	5+897.136	7012604.391	234784.686

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	226.536	RUMO:	N 34° 47' 40.0833" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	5+897.136	7012604.391	234784.686
RP:		7012534.203	234885.694
PT:	5+979.252	7012651.857	234849.826

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	38° 15' 04.6066"	TIPO:	DIREITA
RAIO:			123
COMPRIMENTO:	82.116	TANGENTE:	42.654
DESENVOLVIMENTO:	6.789	AFASTAMENTO:	7.186
COMPRIMENTO CORDA:	80.6	RUMO:	N 53° 55' 12.3866" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	5+979.252	7012651.857	234849.826
FIM:	6+054.713	7012673.862	234922.007

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	75.461	RUMO:	N 73° 02' 44.6900" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	6+054.713	7012673.862	234922.007
RP:		7012549.513	234959.916
PT:	6+200.935	7012637.354	235055.749

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	64° 26' 44.0148"	TIPO:	DIREITA
RAIO:			130
COMPRIMENTO:	146.222	TANGENTE:	81.938
DESENVOLVIMENTO:	20.022	AFASTAMENTO:	23.668
COMPRIMENTO CORDA:	138.635	RUMO:	S 74° 43' 53.3027" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	6+200.935	7012637.354	235055.749
FIM:	6+301.555	7012563.179	235123.738

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	100.62	RUMO:	S 42° 30' 31.2953" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	6+301.555	7012563.179	235123.738
RP:		7012617.236	235182.712
PT:	6+366.739	7012537.243	235181.586

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	46° 41' 05.8133"	TIPO:	ESQUERDA
RAIO:			80
COMPRIMENTO:	65.184	TANGENTE:	34.524
DESENVOLVIMENTO:	6.548	AFASTAMENTO:	7.131
COMPRIMENTO CORDA:	63.396	RUMO:	S 65° 51' 04.2019" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	6+366.739	7012537.243	235181.586
FIM:	6+399.898	7012536.777	235214.742

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	33.159	RUMO:	S 89° 11' 37.1085" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	6+399.898	7012536.777	235214.742
RP:		7012286.802	235211.223
PT:	6+451.973	7012530.646	235266.36

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	11° 56' 05.0310"	TIPO:	DIREITA
RAIO:			250
COMPRIMENTO:	52.075	TANGENTE:	26.132
DESENVOLVIMENTO:	1.355	AFASTAMENTO:	1.362
COMPRIMENTO CORDA:	51.981	RUMO:	S 83° 13' 34.5931" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	6+451.973	7012530.646	235266.36
FIM:	6+566.143	7012505.466	235377.718

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	114.17	RUMO:	S 77° 15' 32.0776" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	6+566.143	7012505.466	235377.718
RP:		7012807.833	235446.088
PT:	6+743.393	7012516.564	235552.211

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	32° 45' 37.0253"	TIPO:	ESQUERDA
RAIO:			310
COMPRIMENTO:	177.25	TANGENTE:	91.121
DESENVOLVIMENTO:	12.582	AFASTAMENTO:	13.115
COMPRIMENTO CORDA:	174.846	RUMO:	N 86° 21' 39.4098" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	6+743.393	7012516.564	235552.211
FIM:	6+796.321	7012534.683	235601.942

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	52.928	RUMO:	N 69° 58' 50.8971" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	6+796.321	7012534.683	235601.942
RP:		7012910.514	235465.008
PT:	6+935.202	7012603.703	235721.653

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	19° 53' 35.2799"	TIPO:	ESQUERDA
RAIO:			400
COMPRIMENTO:	138.88	TANGENTE:	70.146
DESENVOLVIMENTO:	6.012	AFASTAMENTO:	6.104
COMPRIMENTO CORDA:	138.184	RUMO:	N 60° 02' 03.2572" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	6+935.202	7012603.703	235721.653
FIM:	6+944.440	7012609.63	235728.739

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	9.238	RUMO:	N 50° 05' 15.6172" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	6+944.440	7012609.63	235728.739
RP:		7012456.225	235857.062
PT:	6+979.132	7012629.476	235757.142

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	09° 56' 18.9832"	TIPO:	DIREITA
RAIO:			200
COMPRIMENTO:	34.692	TANGENTE:	17.39
DESENVOLVIMENTO:	0.752	AFASTAMENTO:	0.755
COMPRIMENTO CORDA:	34.649	RUMO:	N 55° 03' 25.1089" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	6+979.132	7012629.476	235757.142
FIM:	7+119.006	7012699.358	235878.309

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	139.875	RUMO:	N 60° 01' 34.6005" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	7+119.006	7012699.358	235878.309
RP:		7012805.907	235816.858
PT:	7+159.893	7012725.243	235909.714

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	19° 02' 43.9683"	TIPO:	ESQUERDA
RAIO:			123
COMPRIMENTO:	40.886	TANGENTE:	20.633
DESENVOLVIMENTO:	1.695	AFASTAMENTO:	1.719
COMPRIMENTO CORDA:	40.698	RUMO:	N 50° 30' 12.6163" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	7+159.893	7012725.243	235909.714
FIM:	7+218.188	7012769.252	235947.945

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	58.296	RUMO:	N 40° 58' 50.6322" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	7+218.188	7012769.252	235947.945
RP:		7012506.93	236249.917
PT:	7+432.591	7012886.682	236124.265

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	30° 42' 39.4277"	TIPO:	DIREITA
RAIO:			400
COMPRIMENTO:	214.403	TANGENTE:	109.844
DESENVOLVIMENTO:	14.279	AFASTAMENTO:	14.808
COMPRIMENTO CORDA:	211.845	RUMO:	N 56° 20' 10.3460" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	7+432.591	7012886.682	236124.265
FIM:	7+493.465	7012905.805	236182.057

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	60.874	RUMO:	N 71° 41' 30.0599" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	7+493.465	7012905.805	236182.057
RP:		7013022.578	236143.419
PT:	7+651.655	7013026.863	236266.345

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	73° 41' 16.0877"	TIPO:	ESQUERDA
RAIO:			123
COMPRIMENTO:	158.19	TANGENTE:	92.163
DESENVOLVIMENTO:	24.567	AFASTAMENTO:	30.698
COMPRIMENTO CORDA:	147.511	RUMO:	N 34° 50' 52.0160" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	7+651.655	7013026.863	236266.345
FIM:	7+676.381	7013051.574	236265.483

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	24.726	RUMO:	N 01° 59' 46.0279" W

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	7+676.381	7013051.574	236265.483
RP:		7013062.72	236585.289
PT:	7+764.601	7013139.048	236274.526

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	15° 47' 44.4457"	TIPO:	DIREITA
RAIO:			320
COMPRIMENTO:	88.22	TANGENTE:	44.391
DESENVOLVIMENTO:	3.035	AFASTAMENTO:	3.064
COMPRIMENTO CORDA:	87.941	RUMO:	N 05° 54' 06.1950" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

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TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	7+764.601	7013139.048	236274.526
FIM:	7+867.586	7013239.061	236299.09

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	102.985	RUMO:	N 13° 47' 58.4178" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	7+867.586	7013239.061	236299.09
RP:		7013281.995	236124.286
PT:	7+967.031	7013337.184	236295.616

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	31° 39' 15.2724"	TIPO:	ESQUERDA
RAIO:			180
COMPRIMENTO:	99.445	TANGENTE:	51.027
DESENVOLVIMENTO:	6.824	AFASTAMENTO:	7.093
COMPRIMENTO CORDA:	98.185	RUMO:	N 02° 01' 39.2184" W

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	7+967.031	7013337.184	236295.616
FIM:	7+967.385	7013337.521	236295.508

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	0.354	RUMO:	N 17° 51' 16.8545" W

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	7+967.385	7013337.521	236295.508
RP:		7013362.05	236371.655
PT:	8+095.677	7013438.961	236349.641

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	91° 52' 55.8184"	TIPO:	DIREITA
RAIO:			80
COMPRIMENTO:	128.292	TANGENTE:	82.672
DESENVOLVIMENTO:	24.368	AFASTAMENTO:	35.042
COMPRIMENTO CORDA:	114.98	RUMO:	N 28° 05' 11.0546" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	8+095.677	7013438.961	236349.641
FIM:	8+178.256	7013461.685	236429.032

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	82.58	RUMO:	N 74° 01' 38.9638" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	8+178.256	7013461.685	236429.032
RP:		7013702.033	236360.238
PT:	8+286.152	7013512.501	236523.264

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	24° 43' 40.5886"	TIPO:	ESQUERDA
RAIO:	250		
COMPRIMENTO:	107.896	TANGENTE:	54.801
DESENVOLVIMENTO:	5.798	AFASTAMENTO:	5.936
COMPRIMENTO CORDA:	107.061	RUMO:	N 61° 39' 48.6695" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	8+286.152	7013512.501	236523.264
FIM:	8+439.600	7013612.565	236639.597

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	153.447	RUMO:	N 49° 17' 58.3752" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	8+439.600	7013612.565	236639.597
RP:		7014067.442	236248.335
PT:	8+600.048	7013732.119	236745.887

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	15° 19' 18.0633"	TIPO:	ESQUERDA
RAIO:	600		
COMPRIMENTO:	160.448	TANGENTE:	80.706
DESENVOLVIMENTO:	5.355	AFASTAMENTO:	5.404
COMPRIMENTO CORDA:	159.971	RUMO:	N 41° 38' 19.3435" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	8+600.048	7013732.119	236745.887
FIM:	8+605.543	7013736.676	236748.958

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	5.495	RUMO:	N 33° 58' 40.3119" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	8+605.543	7013736.676	236748.958
RP:		7013619.313	236923.101
PT:	8+653.122	7013772.795	236779.772

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	12° 58' 52.3794"	TIPO:	DIREITA
RAIO:	210		
COMPRIMENTO:	47.579	TANGENTE:	23.892
DESENVOLVIMENTO:	1.346	AFASTAMENTO:	1.355
COMPRIMENTO CORDA:	47.477	RUMO:	N 40° 28' 06.5016" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	8+653.122	7013772.795	236779.772
FIM:	8+795.718	7013870.119	236883.99

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	142.596	RUMO:	N 46° 57' 32.6913" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	8+795.718	7013870.119	236883.99
RP:		7013928.588	236829.389
PT:	8+842.763	7013910.232	236907.254

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	33° 41' 38.3603"	TIPO:	ESQUERDA
RAIO:			80
COMPRIMENTO:	47.046	TANGENTE:	24.225
DESENVOLVIMENTO:	3.433	AFASTAMENTO:	3.587
COMPRIMENTO CORDA:	46.371	RUMO:	N 30° 06' 43.5111" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	8+842.763	7013910.232	236907.254
FIM:	8+867.176	7013933.993	236912.856

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	24.412	RUMO:	N 13° 15' 54.3310" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	8+867.176	7013933.993	236912.856
RP:		7014025.776	236523.528
PT:	8+899.501	7013965.721	236918.994

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	04° 37' 48.9241"	TIPO:	ESQUERDA
RAIO:			400
COMPRIMENTO:	32.325	TANGENTE:	16.171
DESENVOLVIMENTO:	0.326	AFASTAMENTO:	0.327
COMPRIMENTO CORDA:	32.316	RUMO:	N 10° 56' 59.8689" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	8+899.501	7013965.721	236918.994
FIM:	8+968.852	7014034.286	236929.407

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	69.351	RUMO:	N 08° 38' 05.4069" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	8+968.852	7014034.286	236929.407
RP:		7014004.259	237127.14
PT:	9+012.044	7014075.959	236940.434

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	12° 22' 24.1877"	TIPO:	DIREITA
RAIO:			200
COMPRIMENTO:	43.191	TANGENTE:	21.68
DESENVOLVIMENTO:	1.165	AFASTAMENTO:	1.172
COMPRIMENTO CORDA:	43.107	RUMO:	N 14° 49' 17.5008" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	9+012.044	7014075.959	236940.434
FIM:	9+034.349	7014096.782	236948.43

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	22.305	RUMO:	N 21° 00' 29.5946" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	9+034.349	7014096.782	236948.43
RP:		7014161.312	236780.395
PT:	9+119.151	7014180.081	236959.414

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	26° 59' 35.5819"	TIPO:	ESQUERDA
RAIO:			180
COMPRIMENTO:	84.802	TANGENTE:	43.203
DESENVOLVIMENTO:	4.971	AFASTAMENTO:	5.112
COMPRIMENTO CORDA:	84.02	RUMO:	N 07° 30' 41.8036" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	9+119.151	7014180.081	236959.414
FIM:	9+161.572	7014222.271	236954.991

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	42.421	RUMO:	N 05° 59' 05.9873" W

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	9+161.572	7014222.271	236954.991
RP:		7014213.929	236875.427
PT:	9+205.517	7014262.584	236938.931

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	31° 28' 22.8249"	TIPO:	ESQUERDA
RAIO:			80
COMPRIMENTO:	43.945	TANGENTE:	22.542
DESENVOLVIMENTO:	2.998	AFASTAMENTO:	3.115
COMPRIMENTO CORDA:	43.394	RUMO:	N 21° 43' 17.3998" W

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	9+205.517	7014262.584	236938.931
FIM:	9+250.906	7014298.614	236911.326

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	45.389	RUMO:	N 37° 27' 28.8123" W

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	9+250.906	7014298.614	236911.326
RP:		7014348.484	236976.417
PT:	9+368.474	7014406.153	236918.122

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	82° 08' 53.9106"	TIPO:	DIREITA
RAIO:			82
COMPRIMENTO:	117.568	TANGENTE:	71.468
DESENVOLVIMENTO:	20.183	AFASTAMENTO:	26.774
COMPRIMENTO CORDA:	107.754	RUMO:	N 03° 36' 58.1430" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	9+368.474	7014406.153	236918.122
FIM:	9+370.152	7014407.346	236919.302

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	1.678	RUMO:	N 44° 41' 25.0983" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	9+370.152	7014407.346	236919.302
RP:		7014562.066	236762.9
PT:	9+401.966	7014431.499	236939.966

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	08° 17' 07.8745"	TIPO:	ESQUERDA
RAIO:			220
COMPRIMENTO:	31.814	TANGENTE:	15.935
DESENVOLVIMENTO:	0.575	AFASTAMENTO:	0.576
COMPRIMENTO CORDA:	31.786	RUMO:	N 40° 32' 51.1611" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	9+401.966	7014431.499	236939.966
FIM:	9+437.668	7014460.234	236961.154

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	35.702	RUMO:	N 36° 24' 17.2238" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	9+437.668	7014460.234	236961.154
RP:		7014935.022	236317.279
PT:	9+470.973	7014487.443	236980.357

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	02° 23' 07.0980"	TIPO:	ESQUERDA
RAIO:		800	
COMPRIMENTO:	33.305	TANGENTE:	16.655
DESENVOLVIMENTO:	0.173	AFASTAMENTO:	0.173
COMPRIMENTO CORDA:	33.303	RUMO:	N 35° 12' 43.6748" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	9+470.973	7014487.443	236980.357
FIM:	9+472.982	7014489.108	236981.481

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	2.009	RUMO:	N 34° 01' 10.1258" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	9+472.982	7014489.108	236981.481
RP:		7014041.528	237644.559
PT:	9+510.010	7014519.308	237002.9

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	02° 39' 07.0736"	TIPO:	DIREITA
RAIO:		800	
COMPRIMENTO:	37.028	TANGENTE:	18.518
DESENVOLVIMENTO:	0.214	AFASTAMENTO:	0.214
COMPRIMENTO CORDA:	37.025	RUMO:	N 35° 20' 43.6626" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	9+510.010	7014519.308	237002.9
FIM:	9+553.144	7014553.905	237028.661

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	43.134	RUMO:	N 36° 40' 17.1994" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	9+553.144	7014553.905	237028.661
RP:		7014912.24	236547.417
PT:	9+636.541	7014624.036	237073.666

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	07° 57' 49.6780"	TIPO:	ESQUERDA
RAIO:		600	
COMPRIMENTO:	83.397	TANGENTE:	41.766
DESENVOLVIMENTO:	1.448	AFASTAMENTO:	1.452
COMPRIMENTO CORDA:	83.33	RUMO:	N 32° 41' 22.3604" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	9+636.541	7014624.036	237073.666
FIM:	9+710.600	7014688.992	237109.24

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	74.059	RUMO:	N 28° 42' 27.5214" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	9+710.600	7014688.992	237109.24
RP:		7014400.788	237635.489
PT:	9+754.402	7014726.608	237131.662

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	04° 10' 57.7683"	TIPO:	DIREITA
RAIO:		600	
COMPRIMENTO:	43.801	TANGENTE:	21.91
DESENVOLVIMENTO:	0.4	AFASTAMENTO:	0.4
COMPRIMENTO CORDA:	43.792	RUMO:	N 30° 47' 56.4056" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	9+754.402	7014726.608	237131.662
FIM:	10+049.370	7014974.296	237291.84

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	294.969	RUMO:	N 32° 53' 25.2897" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	10+049.370	7014974.296	237291.84
RP:		7015517.329	236452.129
PT:	10+087.655	7015006.834	237312.009

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	02° 11' 36.7822"	TIPO:	ESQUERDA
RAIO:		1000	
COMPRIMENTO:	38.285	TANGENTE:	19.145
DESENVOLVIMENTO:	0.183	AFASTAMENTO:	0.183
COMPRIMENTO CORDA:	38.282	RUMO:	N 31° 47' 36.8987" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	10+087.655	7015006.834	237312.009
FIM:	10+090.914	7015009.637	237313.673

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	3.26	RUMO:	N 30° 41' 48.5076" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	10+090.914	7015009.637	237313.673
RP:		7014703.34	237829.602
PT:	10+124.062	7015037.658	237331.374

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	03° 09' 55.2969"	TIPO:	DIREITA
RAIO:			600
COMPRIMENTO:	33.148	TANGENTE:	16.578
DESENVOLVIMENTO:	0.229	AFASTAMENTO:	0.229
COMPRIMENTO CORDA:	33.143	RUMO:	N 32° 16' 46.1560" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	10+124.062	7015037.658	237331.374
FIM:	10+146.338	7015056.156	237343.786

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	22.276	RUMO:	N 33° 51' 43.8045" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	10+146.338	7015056.156	237343.786
RP:		7014888.997	237592.9
PT:	10+184.971	7015086.763	237367.315

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	07° 22' 41.9468"	TIPO:	DIREITA
RAIO:			300
COMPRIMENTO:	38.633	TANGENTE:	19.343
DESENVOLVIMENTO:	0.622	AFASTAMENTO:	0.623
COMPRIMENTO CORDA:	38.606	RUMO:	N 37° 33' 04.7779" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	10+184.971	7015086.763	237367.315
FIM:	10+204.640	7015101.553	237380.281

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	19.669	RUMO:	N 41° 14' 25.7513" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	10+204.640	7015101.553	237380.281
RP:		7012464.669	240388.078
PT:	10+360.267	7015216.552	237485.125

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	02° 13' 45.1149"	TIPO:	DIREITA
RAIO:			4000
COMPRIMENTO:	155.627	TANGENTE:	77.824
DESENVOLVIMENTO:	0.757	AFASTAMENTO:	0.757
COMPRIMENTO CORDA:	155.618	RUMO:	N 42° 21' 18.3087" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	10+360.267	7015216.552	237485.125
FIM:	10+393.325	7015240.544	237507.868

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	33.058	RUMO:	N 43° 28' 10.8662" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	10+393.325	7015240.544	237507.868
RP:		7015020.393	237740.104
PT:	10+569.247	7015329.443	237657.111

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	31° 29' 54.8821"	TIPO:	DIREITA
RAIO:			320
COMPRIMENTO:	175.921	TANGENTE:	90.245
DESENVOLVIMENTO:	12.013	AFASTAMENTO:	12.482
COMPRIMENTO CORDA:	173.714	RUMO:	N 59° 13' 08.3072" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	10+569.247	7015329.443	237657.111
FIM:	10+683.891	7015359.177	237767.832

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	114.644	RUMO:	N 74° 58' 05.7483" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	10+683.891	7015359.177	237767.832
RP:		7015648.911	237690.026
PT:	10+761.371	7015388.658	237839.252

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	14° 47' 51.5849"	TIPO:	ESQUERDA
RAIO:			300
COMPRIMENTO:	77.48	TANGENTE:	38.957
DESENVOLVIMENTO:	2.498	AFASTAMENTO:	2.519
COMPRIMENTO CORDA:	77.265	RUMO:	N 67° 34' 09.9558" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	10+761.371	7015388.658	237839.252
FIM:	10+777.508	7015396.685	237853.251

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	16.137	RUMO:	N 60° 10' 14.1633" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

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PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	10+777.508	7015396.685	237853.251
RP:		7015509.461	237788.586
PT:	10+809.645	7015415.937	237878.881

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	14° 09' 50.2375"	TIPO:	ESQUERDA
RAIO:			130
COMPRIMENTO:	32.137	TANGENTE:	16.151
DESENVOLVIMENTO:	0.992	AFASTAMENTO:	0.999
COMPRIMENTO CORDA:	32.055	RUMO:	N 53° 05' 19.0446" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	10+809.645	7015415.937	237878.881
FIM:	10+905.893	7015482.788	237948.124

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	96.248	RUMO:	N 46° 00' 23.9259" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	10+905.893	7015482.788	237948.124
RP:		7014907.252	238503.783
PT:	10+950.196	7015512.662	237980.832

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	03° 10' 22.7015"	TIPO:	DIREITA
RAIO:			800
COMPRIMENTO:	44.303	TANGENTE:	22.157
DESENVOLVIMENTO:	0.307	AFASTAMENTO:	0.307
COMPRIMENTO CORDA:	44.297	RUMO:	N 47° 35' 35.2766" E

TANGENTE

DESCRICAO	ESTACAS	N	E
INICIO:	10+950.196	7015512.662	237980.832
FIM:	11+006.981	7015549.782	238023.804

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	56.785	RUMO:	N 49° 10' 46.6273" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAO	ESTACA	N	E
PC:	11+006.981	7015549.782	238023.804
RP:		7016155.192	237500.852
PT:	11+043.839	7015574.509	238051.132

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	02° 38' 23.0247"	TIPO:	ESQUERDA
RAIO:			800
COMPRIMENTO:	36.858	TANGENTE:	18.432
DESENVOLVIMENTO:	0.212	AFASTAMENTO:	0.212
COMPRIMENTO CORDA:	36.854	RUMO:	N 47° 51' 35.1150" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	11+043.839	7015574.509	238051.132
FIM:	11+132.484	7015635.483	238115.475

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	88.645	RUMO:	N 46° 32' 23.6027" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	11+132.484	7015635.483	238115.475
RP:		7015504.83	238239.288
PT:	11+199.089	7015671.417	238171.106

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	21° 12' 04.4645"	TIPO:	DIREITA
RAIO:			180
COMPRIMENTO:	66.606	TANGENTE:	33.688
DESENVOLVIMENTO:	3.072	AFASTAMENTO:	3.125
COMPRIMENTO CORDA:	66.226	RUMO:	N 57° 08' 25.8349" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	11+199.089	7015671.417	238171.106
FIM:	11+232.332	7015684.009	238201.871

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	33.243	RUMO:	N 67° 44' 28.0672" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	11+232.332	7015684.009	238201.871
RP:		7015869.105	238126.113
PT:	11+275.952	7015704.785	238240.126

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	12° 29' 46.0664"	TIPO:	ESQUERDA
RAIO:			200
COMPRIMENTO:	43.62	TANGENTE:	21.897
DESENVOLVIMENTO:	1.188	AFASTAMENTO:	1.195
COMPRIMENTO CORDA:	43.533	RUMO:	N 61° 29' 35.0340" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	11+275.952	7015704.785	238240.126
FIM:	11+336.300	7015739.188	238289.708

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	60.348	RUMO:	N 55° 14' 42.0007" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	11+336.300	7015739.188	238289.708
RP:		7015574.869	238403.722
PT:	11+402.459	7015767.311	238349.26

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	18° 57' 11.5157"	TIPO:	DIREITA
RAIO:			200
COMPRIMENTO:	66.159	TANGENTE:	33.385
DESENVOLVIMENTO:	2.729	AFASTAMENTO:	2.767
COMPRIMENTO CORDA:	65.858	RUMO:	N 64° 43' 17.7586" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	11+402.459	7015767.311	238349.26
FIM:	11+425.161	7015773.493	238371.104

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	22.702	RUMO:	N 74° 11' 53.5165" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	11+425.161	7015773.493	238371.104
RP:		7015831.225	238354.765
PT:	11+444.797	7015781.809	238388.795

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	18° 45' 03.4933"	TIPO:	ESQUERDA
RAIO:			60
COMPRIMENTO:	19.636	TANGENTE:	9.907
DESENVOLVIMENTO:	0.801	AFASTAMENTO:	0.812
COMPRIMENTO CORDA:	19.548	RUMO:	N 64° 49' 21.7698" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	11+444.797	7015781.809	238388.795
FIM:	11+478.053	7015800.671	238416.185

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	33.256	RUMO:	N 55° 26' 50.0232" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	11+478.053	7015800.671	238416.185
RP:		7015788.316	238424.693
PT:	11+506.111	7015792.797	238439.008

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	107° 10' 20.0347"	TIPO:	DIREITA
RAIO:			15
COMPRIMENTO:	28.058	TANGENTE:	20.335
DESENVOLVIMENTO:	6.096	AFASTAMENTO:	10.269
COMPRIMENTO CORDA:	24.142	RUMO:	S 70° 57' 59.9594" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

		<u>TANGENTE</u>		
	DESCRICAÇÃO	ESTACAS	N	E
INICIO:		11+506.111	7015792.797	238439.008
FIM:		11+511.823	7015787.346	238440.714
		<u>TANGENTE</u>		
	PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:		5.712	RUMO:	S 17° 22' 49.9421" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 02

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+000.000	7013889.938	236903.123
FIM:	0+097.882	7013929.797	236992.522

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	97.882	RUMO:	N 65° 58' 12.4087" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+097.882	7013929.797	236992.522
RP:		7013811.064	237045.46
PT:	0+154.493	7013941.047	237047.548

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	24° 57' 01.2418"	TIPO:	DIREITA
RAIO:			130
COMPRIMENTO:	56.611	TANGENTE:	28.761
DESENVOLVIMENTO:	3.069	AFASTAMENTO:	3.144
COMPRIMENTO CORDA:	56.164	RUMO:	N 78° 26' 43.0296" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+154.493	7013941.047	237047.548
FIM:	0+204.149	7013940.25	237097.198

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	49.656	RUMO:	S 89° 04' 46.3496" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+204.149	7013940.25	237097.198
RP:		7014540.172	237106.837
PT:	0+250.153	7013941.274	237143.179

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	04° 23' 34.9995"	TIPO:	ESQUERDA
RAIO:			600
COMPRIMENTO:	46.004	TANGENTE:	23.013
DESENVOLVIMENTO:	0.441	AFASTAMENTO:	0.441
COMPRIMENTO CORDA:	45.993	RUMO:	N 88° 43' 26.1507" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+250.153	7013941.274	237143.179
FIM:	0+259.875	7013941.863	237152.883

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	9.722	RUMO:	N 86° 31' 38.6510" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 02

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+259.875	7013941.863	237152.883
RP:		7013787.147	237162.271
PT:	0+344.087	7013924.438	237234.218

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	31° 07' 44.5591"	TIPO:	DIREITA
RAIO:			155
COMPRIMENTO:		84.212 TANGENTE:	43.173
DESENVOLVIMENTO:		5.684 AFASTAMENTO:	5.9
COMPRIMENTO CORDA:		83.18 RUMO:	S 77° 54' 29.0695" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+344.087	7013924.438	237234.218
FIM:	0+395.649	7013900.504	237279.889

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	51.562	RUMO:	S 62° 20' 36.7900" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+395.649	7013900.504	237279.889
RP:		7013369.056	237001.387
PT:	0+457.596	7013868.971	237333.178

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	05° 54' 55.9238"	TIPO:	DIREITA
RAIO:			600
COMPRIMENTO:		61.947 TANGENTE:	31.001
DESENVOLVIMENTO:		0.799 AFASTAMENTO:	0.8
COMPRIMENTO CORDA:		61.92 RUMO:	S 59° 23' 08.8280" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+457.596	7013868.971	237333.178
FIM:	0+487.226	7013852.587	237357.865

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	29.63	RUMO:	S 56° 25' 40.8661" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+487.226	7013852.587	237357.865
RP:		7013019.395	236804.881
PT:	0+530.203	7013828.059	237393.151

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	02° 27' 44.5320"	TIPO:	DIREITA
RAIO:			1000
COMPRIMENTO:		42.976 TANGENTE:	21.492
DESENVOLVIMENTO:		0.231 AFASTAMENTO:	0.231
COMPRIMENTO CORDA:		42.973 RUMO:	S 55° 11' 48.6001" E

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
RELATÓRIO DE ALINHAMENTO HORIZONTAL - EIXO 02

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Arquivo: RCV-10620-01-AL-01-A

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+530.203	7013828.059	237393.151
FIM:	0+595.656	7013789.555	237446.081

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	65.454	RUMO:	S 53° 57' 56.3342" E

PONTOS NOTAVEIS DA CURVA CIRCULAR

DESCRICAÇÃO	ESTACA	N	E
PC:	0+595.656	7013789.555	237446.081
RP:		7013894.681	237522.556
PT:	0+658.316	7013766.082	237503.526

CURVA CIRCULAR

PARAMETRO	VALOR	PARAMETRO	VALOR
AC:	27° 36' 59.7046"	TIPO:	ESQUERDA
RAIO:			130
COMPRIMENTO:		62.66 TANGENTE:	31.951
DESENVOLVIMENTO:		3.757 AFASTAMENTO:	3.869
COMPRIMENTO CORDA:		62.055 RUMO:	S 67° 46' 26.1865" E

TANGENTE

DESCRICAÇÃO	ESTACAS	N	E
INICIO:	0+658.316	7013766.082	237503.526
FIM:	0+796.989	7013745.782	237640.704

TANGENTE

PARAMETRO	VALOR	PARAMETRO	VALOR
COMPRIMENTO:	138.672	RUMO:	S 81° 34' 56.0388" E



4.0 - CURVAS VERTICAIS

RELATÓRIO DE CURVAS VERTICAIS (EIXO 01)

Arquivo: RCV-10620-01-CV-01-A

PIV - 01	
ESTACA PIV: 0+000	COTA: 454.552m
PIV - 02	
ESTACA PCV: 0+000.383	COTA: 454.529m
ESTACA PIV: 0+007.383	COTA: 454.101m
ESTACA PTV: 0+014.383	COTA: 454.072m
PONTO BAIXO: 0+014.383	COTA: 454.072m
i1 (%): -6,10%	i2 (%): -0,42%
DIFERENÇA(%): 5,68%	K: 2,464
DESENVOLVIMENTO: 14.000m	
PIV - 03	
ESTACA PCV: 0+044.977	COTA: 453.943m
ESTACA PIV: 0+064.977	COTA: 453.858m
ESTACA PTV: 0+084.977	COTA: 454.354m
PONTO BAIXO: 0+050.800	COTA: 453.930m
i1 (%): -0,42%	i2 (%): 2,48%
DIFERENÇA(%): 2,90%	K: 13,783
DESENVOLVIMENTO: 40.000m	
PIV - 04	
ESTACA PCV: 0+171.133	COTA: 456.491m
ESTACA PIV: 0+191.133	COTA: 456.986m
ESTACA PTV: 0+211.133	COTA: 456.945m
PONTO BAIXO: 0+208.019	COTA: 456.948m
i1 (%): 2,48%	i2 (%): -0,21%
DIFERENÇA(%): 2,69%	K: 14,875
DESENVOLVIMENTO: 40.000m	
PIV - 05	
ESTACA PCV: 0+231.864	COTA: 456.901m
ESTACA PIV: 0+261.864	COTA: 456.838m
ESTACA PTV: 0+291.864	COTA: 457.938m
PONTO BAIXO: 0+235.105	COTA: 456.898m
i1 (%): -0,21%	i2 (%): 3,67%
DIFERENÇA(%): 3,88%	K: 15,479
DESENVOLVIMENTO: 60.000m	
PIV - 06	
ESTACA PCV: 0+295.421	COTA: 458.069m
ESTACA PIV: 0+315.421	COTA: 458.802m
ESTACA PTV: 0+335.421	COTA: 457.670m
PONTO BAIXO: 0+311.144	COTA: 458.357m
i1 (%): 3,67%	i2 (%): -5,66%
DIFERENÇA(%): 9,33%	K: 4,288
DESENVOLVIMENTO: 40.000m	
PIV - 07	
ESTACA PCV: 0+361.584	COTA: 456.189m
ESTACA PIV: 0+381.584	COTA: 455.056m
ESTACA PTV: 0+401.584	COTA: 453.309m
PONTO BAIXO: 0+361.584	COTA: 456.189m
i1 (%): -5,66%	i2 (%): -8,74%
DIFERENÇA(%): 3,07%	K: 13,011
DESENVOLVIMENTO: 40.000m	
PIV - 08	
ESTACA PCV: 0+404.760	COTA: 453.032m
ESTACA PIV: 0+439.760	COTA: 449.974m
ESTACA PTV: 0+474.760	COTA: 449.591m
PONTO BAIXO: 0+474.760	COTA: 449.591m
i1 (%): -8,74%	i2 (%): -1,10%
DIFERENÇA(%): 7,64%	K: 9,162
DESENVOLVIMENTO: 70.000m	

RELATÓRIO DE CURVAS VERTICAIS (EIXO 01)

Arquivo: RCV-10620-01-CV-01-A

PIV - 09

ESTACA PCV: 0+541.321	COTA: 448.861m
ESTACA PIV: 0+561.321	COTA: 448.642m
ESTACA PTV: 0+581.321	COTA: 446.890m
PONTO BAIXO: 0+541.321	COTA: 448.861m
i1 (%): -1,10%	i2 (%): -8,76%
DIFERENÇA(%): 7,67%	K: 5,218
DESENVOLVIMENTO: 40.000m	

PIV - 10

ESTACA PCV: 0+585.356	COTA: 446.536m
ESTACA PIV: 0+605.356	COTA: 444.784m
ESTACA PTV: 0+625.356	COTA: 444.357m
PONTO BAIXO: 0+625.356	COTA: 444.357m
i1 (%): -8,76%	i2 (%): -2,13%
DIFERENÇA(%): 6,63%	K: 6,034
DESENVOLVIMENTO: 40.000m	

PIV - 11

ESTACA PCV: 0+709.008	COTA: 442.573m
ESTACA PIV: 0+769.008	COTA: 441.294m
ESTACA PTV: 0+829.008	COTA: 443.501m
PONTO BAIXO: 0+753.048	COTA: 442.104m
i1 (%): -2,13%	i2 (%): 3,68%
DIFERENÇA(%): 5,81%	K: 20,650
DESENVOLVIMENTO: 120.000m	

PIV - 12

ESTACA PCV: 0+876.723	COTA: 445.256m
ESTACA PIV: 0+891.723	COTA: 445.808m
ESTACA PTV: 0+906.723	COTA: 446.538m
PONTO BAIXO: 0+876.723	COTA: 445.256m
i1 (%): 3,68%	i2 (%): 4,87%
DIFERENÇA(%): 1,19%	K: 25,219
DESENVOLVIMENTO: 30.000m	

PIV - 13

ESTACA PCV: 0+912.173	COTA: 446.803m
ESTACA PIV: 0+947.173	COTA: 448.507m
ESTACA PTV: 0+982.173	COTA: 448.058m
PONTO BAIXO: 0+967.584	COTA: 448.152m
i1 (%): 4,87%	i2 (%): -1,28%
DIFERENÇA(%): 6,15%	K: 11,383
DESENVOLVIMENTO: 70.000m	

PIV - 14

ESTACA PCV: 1+061.130	COTA: 447.046m
ESTACA PIV: 1+111.130	COTA: 446.406m
ESTACA PTV: 1+161.130	COTA: 448.020m
PONTO BAIXO: 1+089.540	COTA: 446.864m
i1 (%): -1,28%	i2 (%): 3,23%
DIFERENÇA(%): 4,51%	K: 22,168
DESENVOLVIMENTO: 100.000m	

PIV - 15

ESTACA PCV: 1+171.318	COTA: 448.349m
ESTACA PIV: 1+201.318	COTA: 449.318m
ESTACA PTV: 1+231.318	COTA: 449.442m
PONTO BAIXO: 1+231.318	COTA: 449.442m
i1 (%): 3,23%	i2 (%): 0,41%
DIFERENÇA(%): 2,82%	K: 21,293
DESENVOLVIMENTO: 60.000m	

RELATÓRIO DE CURVAS VERTICAIS (EIXO 01)

Arquivo: RCV-10620-01-CV-01-A

PIV - 16

ESTACA PCV: 1+254.931	COTA: 449.539m
ESTACA PIV: 1+274.931	COTA: 449.621m
ESTACA PTV: 1+294.931	COTA: 450.053m
PONTO BAIXO: 1+254.931	COTA: 449.539m
i1 (%): 0,41%	i2 (%): 2,16%
DIFERENÇA(%): 1,75%	K: 22,867
DESENVOLVIMENTO: 40.000m	

PIV - 17

ESTACA PCV: 1+318.247	COTA: 450.557m
ESTACA PIV: 1+328.247	COTA: 450.773m
ESTACA PTV: 1+338.247	COTA: 450.943m
PONTO BAIXO: 1+338.247	COTA: 450.943m
i1 (%): 2,16%	i2 (%): 1,70%
DIFERENÇA(%): 0,47%	K: 42,946
DESENVOLVIMENTO: 20.000m	

PIV - 18

ESTACA PCV: 1+382.569	COTA: 451.694m
ESTACA PIV: 1+422.569	COTA: 452.372m
ESTACA PTV: 1+462.569	COTA: 456.372m
PONTO BAIXO: 1+382.569	COTA: 451.694m
i1 (%): 1,70%	i2 (%): 10,00%
DIFERENÇA(%): 8,30%	K: 9,633
DESENVOLVIMENTO: 80.000m	

PIV - 19

ESTACA PCV: 1+482.331	COTA: 458.348m
ESTACA PIV: 1+507.331	COTA: 460.848m
ESTACA PTV: 1+532.331	COTA: 460.475m
PONTO BAIXO: 1+525.832	COTA: 460.523m
i1 (%): 10,00%	i2 (%): -1,49%
DIFERENÇA(%): 11,49%	K: 4,350
DESENVOLVIMENTO: 50.000m	

PIV - 20

ESTACA PCV: 1+559.923	COTA: 460.063m
ESTACA PIV: 1+579.923	COTA: 459.764m
ESTACA PTV: 1+599.923	COTA: 459.896m
PONTO BAIXO: 1+587.682	COTA: 459.855m
i1 (%): -1,49%	i2 (%): 0,66%
DIFERENÇA(%): 2,15%	K: 18,581
DESENVOLVIMENTO: 40.000m	

PIV - 21

ESTACA PCV: 1+633.071	COTA: 460.114m
ESTACA PIV: 1+663.071	COTA: 460.312m
ESTACA PTV: 1+693.071	COTA: 461.509m
PONTO BAIXO: 1+633.071	COTA: 460.114m
i1 (%): 0,66%	i2 (%): 3,99%
DIFERENÇA(%): 3,33%	K: 18,009
DESENVOLVIMENTO: 60.000m	

PIV - 22

ESTACA PCV: 1+696.769	COTA: 461.656m
ESTACA PIV: 1+716.769	COTA: 462.454m
ESTACA PTV: 1+736.769	COTA: 462.711m
PONTO BAIXO: 1+736.769	COTA: 462.711m
i1 (%): 3,99%	i2 (%): 1,28%
DIFERENÇA(%): 2,71%	K: 14,784
DESENVOLVIMENTO: 40.000m	

RELATÓRIO DE CURVAS VERTICAIS (EIXO 01)

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PIV - 23

ESTACA PCV: 1+837.235	COTA: 464.002m
ESTACA PIV: 1+887.235	COTA: 464.644m
ESTACA PTV: 1+937.235	COTA: 460.905m
PONTO BAIXO: 1+851.895	COTA: 464.096m
i1 (%): 1,28%	i2 (%): -7,48%
DIFERENÇA(%): 8,76%	K: 11,411
DESENVOLVIMENTO: 100.000m	

PIV - 24

ESTACA PCV: 1+967.845	COTA: 458.616m
ESTACA PIV: 1+997.845	COTA: 456.372m
ESTACA PTV: 2+027.845	COTA: 456.549m
PONTO BAIXO: 2+023.448	COTA: 456.536m
i1 (%): -7,48%	i2 (%): 0,59%
DIFERENÇA(%): 8,07%	K: 7,435
DESENVOLVIMENTO: 60.000m	

PIV - 25

ESTACA PCV: 2+086.162	COTA: 456.894m
ESTACA PIV: 2+126.162	COTA: 457.131m
ESTACA PTV: 2+166.162	COTA: 459.145m
PONTO BAIXO: 2+086.162	COTA: 456.894m
i1 (%): 0,59%	i2 (%): 5,04%
DIFERENÇA(%): 4,44%	K: 18,003
DESENVOLVIMENTO: 80.000m	

PIV - 26

ESTACA PCV: 2+180.137	COTA: 459.849m
ESTACA PIV: 2+230.137	COTA: 462.366m
ESTACA PTV: 2+280.137	COTA: 460.427m
PONTO BAIXO: 2+236.631	COTA: 461.271m
i1 (%): 5,04%	i2 (%): -3,88%
DIFERENÇA(%): 8,91%	K: 11,220
DESENVOLVIMENTO: 100.000m	

PIV - 27

ESTACA PCV: 2+289.993	COTA: 460.045m
ESTACA PIV: 2+329.993	COTA: 458.494m
ESTACA PTV: 2+369.993	COTA: 460.083m
PONTO BAIXO: 2+329.512	COTA: 459.279m
i1 (%): -3,88%	i2 (%): 3,97%
DIFERENÇA(%): 7,85%	K: 10,192
DESENVOLVIMENTO: 80.000m	

PIV - 28

ESTACA PCV: 2+375.201	COTA: 460.290m
ESTACA PIV: 2+395.201	COTA: 461.084m
ESTACA PTV: 2+415.201	COTA: 460.664m
PONTO BAIXO: 2+401.357	COTA: 460.809m
i1 (%): 3,97%	i2 (%): -2,10%
DIFERENÇA(%): 6,07%	K: 6,585
DESENVOLVIMENTO: 40.000m	

PIV - 29

ESTACA PCV: 2+424.716	COTA: 460.464m
ESTACA PIV: 2+454.716	COTA: 459.833m
ESTACA PTV: 2+484.716	COTA: 459.723m
PONTO BAIXO: 2+484.716	COTA: 459.723m
i1 (%): -2,10%	i2 (%): -0,37%
DIFERENÇA(%): 1,74%	K: 34,575
DESENVOLVIMENTO: 60.000m	

RELATÓRIO DE CURVAS VERTICAIS (EIXO 01)

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PIV - 30

ESTACA PCV: 2+660.694	COTA: 459.077m
ESTACA PIV: 2+690.694	COTA: 458.967m
ESTACA PTV: 2+720.694	COTA: 456.521m
PONTO BAIXO: 2+660.694	COTA: 459.077m
i1 (%): -0,37%	i2 (%): -8,16%
DIFERENÇA(%): 7,79%	K: 7,704
DESENVOLVIMENTO: 60.000m	

PIV - 31

ESTACA PCV: 4+528.626	COTA: 478.492m
ESTACA PIV: 4+618.626	COTA: 473.948m
ESTACA PTV: 4+708.626	COTA: 478.861m
PONTO BAIXO: 4+615.116	COTA: 476.308m
i1 (%): -5,05%	i2 (%): 5,46%
DIFERENÇA(%): 10,51%	K: 17,129
DESENVOLVIMENTO: 180.000m	

PIV - 32

ESTACA PCV: 4+787.217	COTA: 483.151m
ESTACA PIV: 4+832.217	COTA: 485.608m
ESTACA PTV: 4+877.217	COTA: 484.603m
PONTO BAIXO: 4+851.100	COTA: 484.895m
i1 (%): 5,46%	i2 (%): -2,23%
DIFERENÇA(%): 7,69%	K: 11,702
DESENVOLVIMENTO: 90.000m	

PIV - 33

ESTACA PCV: 4+955.530	COTA: 482.856m
ESTACA PIV: 5+025.530	COTA: 481.293m
ESTACA PTV: 5+095.530	COTA: 481.786m
PONTO BAIXO: 5+061.961	COTA: 481.668m
i1 (%): -2,23%	i2 (%): 0,70%
DIFERENÇA(%): 2,94%	K: 47,688
DESENVOLVIMENTO: 140.000m	

PIV - 34

ESTACA PCV: 5+370	COTA: 483.718m
ESTACA PIV: 5+410	COTA: 484.000m
ESTACA PTV: 5+450	COTA: 482.065m
PONTO BAIXO: 5+380.163	COTA: 483.754m
i1 (%): 0,70%	i2 (%): -4,84%
DIFERENÇA(%): 5,54%	K: 14,438
DESENVOLVIMENTO: 80.000m	

PIV - 35

ESTACA PCV: 5+469.562	COTA: 481.119m
ESTACA PIV: 5+559.562	COTA: 476.766m
ESTACA PTV: 5+649.562	COTA: 479.360m
PONTO BAIXO: 5+582.345	COTA: 478.391m
i1 (%): -4,84%	i2 (%): 2,88%
DIFERENÇA(%): 7,72%	K: 23,317
DESENVOLVIMENTO: 180.000m	

PIV - 36

ESTACA PCV: 5+734.207	COTA: 481.800m
ESTACA PIV: 5+764.207	COTA: 482.665m
ESTACA PTV: 5+794.207	COTA: 484.413m
PONTO BAIXO: 5+734.207	COTA: 481.800m
i1 (%): 2,88%	i2 (%): 5,83%
DIFERENÇA(%): 2,95%	K: 20,371
DESENVOLVIMENTO: 60.000m	

RELATÓRIO DE CURVAS VERTICAIS (EIXO 01)

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PIV - 37

ESTACA PCV: 5+833.800	COTA: 486.721m
ESTACA PIV: 5+883.800	COTA: 489.635m
ESTACA PTV: 5+933.800	COTA: 488.302m
PONTO BAIXO: 5+902.415	COTA: 488.721m
i1 (%): 5,83%	i2 (%): -2,67%
DIFERENÇA(%): 8,49%	K: 11,773
DESENVOLVIMENTO: 100.000m	

PIV - 38

ESTACA PCV: 5+971.788	COTA: 487.289m
ESTACA PIV: 6+001.788	COTA: 486.490m
ESTACA PTV: 6+031.788	COTA: 484.646m
PONTO BAIXO: 5+971.788	COTA: 487.289m
i1 (%): -2,67%	i2 (%): -6,15%
DIFERENÇA(%): 3,48%	K: 17,246
DESENVOLVIMENTO: 60.000m	

PIV - 39

ESTACA PCV: 6+053.596	COTA: 483.306m
ESTACA PIV: 6+088.596	COTA: 481.155m
ESTACA PTV: 6+123.596	COTA: 480.952m
PONTO BAIXO: 6+123.596	COTA: 480.952m
i1 (%): -6,15%	i2 (%): -0,58%
DIFERENÇA(%): 5,56%	K: 12,582
DESENVOLVIMENTO: 70.000m	

PIV - 40

ESTACA PCV: 6+170	COTA: 480.682m
ESTACA PIV: 6+200	COTA: 480.508m
ESTACA PTV: 6+230	COTA: 479.538m
PONTO BAIXO: 6+170	COTA: 480.682m
i1 (%): -0,58%	i2 (%): -3,23%
DIFERENÇA(%): 2,65%	K: 22,645
DESENVOLVIMENTO: 60.000m	

PIV - 41

ESTACA PCV: 6+348.256	COTA: 475.717m
ESTACA PIV: 6+368.256	COTA: 475.071m
ESTACA PTV: 6+388.256	COTA: 475.295m
PONTO BAIXO: 6+377.956	COTA: 475.237m
i1 (%): -3,23%	i2 (%): 1,12%
DIFERENÇA(%): 4,35%	K: 9,192
DESENVOLVIMENTO: 40.000m	

PIV - 42

ESTACA PCV: 6+409.377	COTA: 475.532m
ESTACA PIV: 6+429.377	COTA: 475.756m
ESTACA PTV: 6+449.377	COTA: 474.297m
PONTO BAIXO: 6+414.703	COTA: 475.562m
i1 (%): 1,12%	i2 (%): -7,30%
DIFERENÇA(%): 8,42%	K: 4,752
DESENVOLVIMENTO: 40.000m	

PIV - 43

ESTACA PCV: 6+450	COTA: 474.251m
ESTACA PIV: 6+480	COTA: 472.062m
ESTACA PTV: 6+510	COTA: 471.696m
PONTO BAIXO: 6+510	COTA: 471.696m
i1 (%): -7,30%	i2 (%): -1,22%
DIFERENÇA(%): 6,08%	K: 9,875
DESENVOLVIMENTO: 60.000m	

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PIV - 44

ESTACA PCV: 6+521.456	COTA: 471.556m
ESTACA PIV: 6+541.456	COTA: 471.312m
ESTACA PTV: 6+561.456	COTA: 470.710m
PONTO BAIXO: 6+521.456	COTA: 471.556m
i1 (%): -1,22%	i2 (%): -3,01%
DIFERENÇA(%): 1,79%	K: 22,355
DESENVOLVIMENTO: 40.000m	

PIV - 45

ESTACA PCV: 6+582.180	COTA: 470.087m
ESTACA PIV: 6+607.180	COTA: 469.334m
ESTACA PTV: 6+632.180	COTA: 467.510m
PONTO BAIXO: 6+582.180	COTA: 470.087m
i1 (%): -3,01%	i2 (%): -7,30%
DIFERENÇA(%): 4,29%	K: 11,665
DESENVOLVIMENTO: 50.000m	

PIV - 46

ESTACA PCV: 6+657.465	COTA: 465.665m
ESTACA PIV: 6+697.465	COTA: 462.747m
ESTACA PTV: 6+737.465	COTA: 458.631m
PONTO BAIXO: 6+657.465	COTA: 465.665m
i1 (%): -7,30%	i2 (%): -10,29%
DIFERENÇA(%): 2,99%	K: 26,719
DESENVOLVIMENTO: 80.000m	

PIV - 47

ESTACA PCV: 6+757.540	COTA: 456.565m
ESTACA PIV: 6+787.540	COTA: 453.478m
ESTACA PTV: 6+817.540	COTA: 451.821m
PONTO BAIXO: 6+817.540	COTA: 451.821m
i1 (%): -10,29%	i2 (%): -5,53%
DIFERENÇA(%): 4,76%	K: 12,592
DESENVOLVIMENTO: 60.000m	

PIV - 48

ESTACA PCV: 6+830.699	COTA: 451.093m
ESTACA PIV: 6+850.699	COTA: 449.988m
ESTACA PTV: 6+870.699	COTA: 449.462m
PONTO BAIXO: 6+870.699	COTA: 449.462m
i1 (%): -5,53%	i2 (%): -2,63%
DIFERENÇA(%): 2,90%	K: 13,813
DESENVOLVIMENTO: 40.000m	

PIV - 49

ESTACA PCV: 6+890.080	COTA: 448.953m
ESTACA PIV: 6+930.080	COTA: 447.901m
ESTACA PTV: 6+970.080	COTA: 450.251m
PONTO BAIXO: 6+914.815	COTA: 448.628m
i1 (%): -2,63%	i2 (%): 5,87%
DIFERENÇA(%): 8,50%	K: 9,407
DESENVOLVIMENTO: 80.000m	

PIV - 50

ESTACA PCV: 7+011.006	COTA: 452.655m
ESTACA PIV: 7+051.006	COTA: 455.005m
ESTACA PTV: 7+091.006	COTA: 459.925m
PONTO BAIXO: 7+011.006	COTA: 452.655m
i1 (%): 5,87%	i2 (%): 12,30%
DIFERENÇA(%): 6,42%	K: 12,454
DESENVOLVIMENTO: 80.000m	

RELATÓRIO DE CURVAS VERTICAIS (EIXO 01)

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PIV - 51

ESTACA PCV: 7+148.512	COTA: 466.997m
ESTACA PIV: 7+178.512	COTA: 470.687m
ESTACA PTV: 7+208.512	COTA: 472.208m
PONTO BAIXO: 7+208.512	COTA: 472.208m
i1 (%): 12,30%	i2 (%): 5,07%
DIFERENÇA(%): 7,23%	K: 8,298
DESENVOLVIMENTO: 60.000m	

PIV - 52

ESTACA PCV: 7+273.158	COTA: 475.484m
ESTACA PIV: 7+293.158	COTA: 476.498m
ESTACA PTV: 7+313.158	COTA: 478.093m
PONTO BAIXO: 7+273.158	COTA: 475.484m
i1 (%): 5,07%	i2 (%): 7,98%
DIFERENÇA(%): 2,91%	K: 13,752
DESENVOLVIMENTO: 40.000m	

PIV - 53

ESTACA PCV: 7+317.486	COTA: 478.439m
ESTACA PIV: 7+337.486	COTA: 480.034m
ESTACA PTV: 7+357.486	COTA: 480.145m
PONTO BAIXO: 7+357.486	COTA: 480.145m
i1 (%): 7,98%	i2 (%): 0,56%
DIFERENÇA(%): 7,42%	K: 5,390
DESENVOLVIMENTO: 40.000m	

PIV - 54

ESTACA PCV: 7+378.082	COTA: 480.260m
ESTACA PIV: 7+403.082	COTA: 480.399m
ESTACA PTV: 7+428.082	COTA: 481.831m
PONTO BAIXO: 7+378.082	COTA: 480.260m
i1 (%): 0,56%	i2 (%): 5,73%
DIFERENÇA(%): 5,17%	K: 9,662
DESENVOLVIMENTO: 50.000m	

PIV - 55

ESTACA PCV: 7+439.939	COTA: 482.511m
ESTACA PIV: 7+459.939	COTA: 483.657m
ESTACA PTV: 7+479.939	COTA: 483.626m
PONTO BAIXO: 7+478.893	COTA: 483.627m
i1 (%): 5,73%	i2 (%): -0,15%
DIFERENÇA(%): 5,88%	K: 6,797
DESENVOLVIMENTO: 40.000m	

PIV - 56

ESTACA PCV: 7+498.855	COTA: 483.597m
ESTACA PIV: 7+518.855	COTA: 483.566m
ESTACA PTV: 7+538.855	COTA: 482.812m
PONTO BAIXO: 7+498.855	COTA: 483.597m
i1 (%): -0,15%	i2 (%): -3,77%
DIFERENÇA(%): 3,62%	K: 11,059
DESENVOLVIMENTO: 40.000m	

PIV - 57

ESTACA PCV: 7+539.467	COTA: 482.789m
ESTACA PIV: 7+559.467	COTA: 482.035m
ESTACA PTV: 7+579.467	COTA: 482.086m
PONTO BAIXO: 7+576.934	COTA: 482.083m
i1 (%): -3,77%	i2 (%): 0,25%
DIFERENÇA(%): 4,03%	K: 9,936
DESENVOLVIMENTO: 40.000m	

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PIV - 58

ESTACA PCV: 7+697.707	COTA: 482.387m
ESTACA PIV: 7+717.707	COTA: 482.438m
ESTACA PTV: 7+737.707	COTA: 481.401m
PONTO BAIXO: 7+699.581	COTA: 482.390m
i1 (%): 0,25%	i2 (%): -5,19%
DIFERENÇA(%): 5,44%	K: 7,351
DESENVOLVIMENTO: 40.000m	

PIV - 59

ESTACA PCV: 7+760	COTA: 480.245m
ESTACA PIV: 7+780	COTA: 479.207m
ESTACA PTV: 7+800	COTA: 479.051m
PONTO BAIXO: 7+800	COTA: 479.051m
i1 (%): -5,19%	i2 (%): -0,78%
DIFERENÇA(%): 4,41%	K: 9,079
DESENVOLVIMENTO: 40.000m	

PIV - 60

ESTACA PCV: 7+843.161	COTA: 478.714m
ESTACA PIV: 7+873.161	COTA: 478.480m
ESTACA PTV: 7+903.161	COTA: 479.529m
PONTO BAIXO: 7+854.115	COTA: 478.672m
i1 (%): -0,78%	i2 (%): 3,49%
DIFERENÇA(%): 4,28%	K: 14,035
DESENVOLVIMENTO: 60.000m	

PIV - 61

ESTACA PCV: 7+925.107	COTA: 480.296m
ESTACA PIV: 7+945.107	COTA: 480.994m
ESTACA PTV: 7+965.107	COTA: 480.464m
PONTO BAIXO: 7+947.851	COTA: 480.693m
i1 (%): 3,49%	i2 (%): -2,65%
DIFERENÇA(%): 6,15%	K: 6,508
DESENVOLVIMENTO: 40.000m	

PIV - 62

ESTACA PCV: 7+974.428	COTA: 480.217m
ESTACA PIV: 8+014.428	COTA: 479.156m
ESTACA PTV: 8+054.428	COTA: 481.406m
PONTO BAIXO: 8+000.064	COTA: 479.877m
i1 (%): -2,65%	i2 (%): 5,62%
DIFERENÇA(%): 8,27%	K: 9,669
DESENVOLVIMENTO: 80.000m	

PIV - 63

ESTACA PCV: 8+054.983	COTA: 481.437m
ESTACA PIV: 8+074.983	COTA: 482.561m
ESTACA PTV: 8+094.983	COTA: 481.942m
PONTO BAIXO: 8+080.775	COTA: 482.162m
i1 (%): 5,62%	i2 (%): -3,10%
DIFERENÇA(%): 8,72%	K: 4,587
DESENVOLVIMENTO: 40.000m	

PIV - 64

ESTACA PCV: 8+157.969	COTA: 479.991m
ESTACA PIV: 8+187.969	COTA: 479.061m
ESTACA PTV: 8+217.969	COTA: 479.120m
PONTO BAIXO: 8+214.404	COTA: 479.117m
i1 (%): -3,10%	i2 (%): 0,20%
DIFERENÇA(%): 3,29%	K: 18,219
DESENVOLVIMENTO: 60.000m	

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Arquivo: RCV-10620-01-CV-01-A

PIV - 65

ESTACA PCV: 8+373.642	COTA: 479.425m
ESTACA PIV: 8+443.642	COTA: 479.562m
ESTACA PTV: 8+513.642	COTA: 484.897m
PONTO BAIXO: 8+373.642	COTA: 479.425m
i1 (%): 0,20%	i2 (%): 7,62%
DIFERENÇA(%): 7,43%	K: 18,851
DESENVOLVIMENTO: 140.000m	

PIV - 66

ESTACA PCV: 8+517.283	COTA: 485.175m
ESTACA PIV: 8+552.283	COTA: 487.843m
ESTACA PTV: 8+587.283	COTA: 488.577m
PONTO BAIXO: 8+587.283	COTA: 488.577m
i1 (%): 7,62%	i2 (%): 2,10%
DIFERENÇA(%): 5,52%	K: 12,670
DESENVOLVIMENTO: 70.000m	

PIV - 67

ESTACA PCV: 8+713.281	COTA: 491.220m
ESTACA PIV: 8+743.281	COTA: 491.849m
ESTACA PTV: 8+773.281	COTA: 494.215m
PONTO BAIXO: 8+713.281	COTA: 491.220m
i1 (%): 2,10%	i2 (%): 7,89%
DIFERENÇA(%): 5,79%	K: 10,361
DESENVOLVIMENTO: 60.000m	

PIV - 68

ESTACA PCV: 8+844.900	COTA: 499.865m
ESTACA PIV: 8+884.900	COTA: 503.020m
ESTACA PTV: 8+924.900	COTA: 503.584m
PONTO BAIXO: 8+924.900	COTA: 503.584m
i1 (%): 7,89%	i2 (%): 1,41%
DIFERENÇA(%): 6,48%	K: 12,351
DESENVOLVIMENTO: 80.000m	

PIV - 69

ESTACA PCV: 8+928.978	COTA: 503.642m
ESTACA PIV: 8+973.978	COTA: 504.277m
ESTACA PTV: 9+018.978	COTA: 508.985m
PONTO BAIXO: 8+928.978	COTA: 503.642m
i1 (%): 1,41%	i2 (%): 10,46%
DIFERENÇA(%): 9,05%	K: 9,944
DESENVOLVIMENTO: 90.000m	

PIV - 70

ESTACA PCV: 9+068.965	COTA: 514.214m
ESTACA PIV: 9+088.965	COTA: 516.306m
ESTACA PTV: 9+108.965	COTA: 517.844m
PONTO BAIXO: 9+108.965	COTA: 517.844m
i1 (%): 10,46%	i2 (%): 7,69%
DIFERENÇA(%): 2,77%	K: 14,431
DESENVOLVIMENTO: 40.000m	

PIV - 71

ESTACA PCV: 9+127.760	COTA: 519.289m
ESTACA PIV: 9+157.760	COTA: 521.596m
ESTACA PTV: 9+187.760	COTA: 525.582m
PONTO BAIXO: 9+127.760	COTA: 519.289m
i1 (%): 7,69%	i2 (%): 13,28%
DIFERENÇA(%): 5,60%	K: 10,723
DESENVOLVIMENTO: 60.000m	

RELATÓRIO DE CURVAS VERTICAIS (EIXO 01)

Arquivo: RCV-10620-01-CV-01-A

PIV - 72

ESTACA PCV: 9+188.360	COTA: 525.662m
ESTACA PIV: 9+223.360	COTA: 530.311m
ESTACA PTV: 9+258.360	COTA: 528.137m
PONTO BAIXO: 9+236.054	COTA: 528.830m
i1 (%): 13,28%	i2 (%): -6,21%
DIFERENÇA(%): 19,50%	K: 3,590
DESENVOLVIMENTO: 70.000m	

PIV - 73

ESTACA PCV: 9+264.759	COTA: 527.739m
ESTACA PIV: 9+284.759	COTA: 526.496m
ESTACA PTV: 9+304.759	COTA: 526.012m
PONTO BAIXO: 9+304.759	COTA: 526.012m
i1 (%): -6,21%	i2 (%): -2,42%
DIFERENÇA(%): 3,79%	K: 10,543
DESENVOLVIMENTO: 40.000m	

PIV - 74

ESTACA PCV: 9+310	COTA: 525.886m
ESTACA PIV: 9+330	COTA: 525.402m
ESTACA PTV: 9+350	COTA: 522.943m
PONTO BAIXO: 9+310	COTA: 525.886m
i1 (%): -2,42%	i2 (%): -12,29%
DIFERENÇA(%): 9,87%	K: 4,052
DESENVOLVIMENTO: 40.000m	

PIV - 75

ESTACA PCV: 9+365.739	COTA: 521.009m
ESTACA PIV: 9+390.739	COTA: 517.936m
ESTACA PTV: 9+415.739	COTA: 516.442m
PONTO BAIXO: 9+415.739	COTA: 516.442m
i1 (%): -12,29%	i2 (%): -5,98%
DIFERENÇA(%): 6,31%	K: 7,918
DESENVOLVIMENTO: 50.000m	

PIV - 76

ESTACA PCV: 9+440	COTA: 514.991m
ESTACA PIV: 9+460	COTA: 513.796m
ESTACA PTV: 9+480	COTA: 511.705m
PONTO BAIXO: 9+440	COTA: 514.991m
i1 (%): -5,98%	i2 (%): -10,46%
DIFERENÇA(%): 4,48%	K: 8,933
DESENVOLVIMENTO: 40.000m	

PIV - 77

ESTACA PCV: 9+545.513	COTA: 504.856m
ESTACA PIV: 9+600.513	COTA: 499.105m
ESTACA PTV: 9+655.513	COTA: 499.687m
PONTO BAIXO: 9+645.401	COTA: 499.634m
i1 (%): -10,46%	i2 (%): 1,06%
DIFERENÇA(%): 11,51%	K: 9,554
DESENVOLVIMENTO: 110.000m	

PIV - 78

ESTACA PCV: 9+659.627	COTA: 499.731m
ESTACA PIV: 9+679.627	COTA: 499.943m
ESTACA PTV: 9+699.627	COTA: 499.494m
PONTO BAIXO: 9+672.459	COTA: 499.799m
i1 (%): 1,06%	i2 (%): -2,24%
DIFERENÇA(%): 3,30%	K: 12,124
DESENVOLVIMENTO: 40.000m	

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PIV - 79

ESTACA PCV: 9+714.275	COTA: 499.166m
ESTACA PIV: 9+734.275	COTA: 498.718m
ESTACA PTV: 9+754.275	COTA: 498.572m
PONTO BAIXO: 9+754.275	COTA: 498.572m
i1 (%): -2,24%	i2 (%): -0,73%
DIFERENÇA(%): 1,51%	K: 26,503
DESENVOLVIMENTO: 40.000m	

PIV - 80

ESTACA PCV: 9+827.314	COTA: 498.037m
ESTACA PIV: 9+867.314	COTA: 497.745m
ESTACA PTV: 9+907.314	COTA: 501.134m
PONTO BAIXO: 9+833.672	COTA: 498.014m
i1 (%): -0,73%	i2 (%): 8,47%
DIFERENÇA(%): 9,21%	K: 8,690
DESENVOLVIMENTO: 80.000m	

PIV - 81

ESTACA PCV: 9+995.756	COTA: 508.629m
ESTACA PIV: 10+015.756	COTA: 510.324m
ESTACA PTV: 10+035.756	COTA: 511.513m
PONTO BAIXO: 10+035.756	COTA: 511.513m
i1 (%): 8,47%	i2 (%): 5,95%
DIFERENÇA(%): 2,53%	K: 15,827
DESENVOLVIMENTO: 40.000m	

PIV - 82

ESTACA PCV: 10+089.834	COTA: 514.729m
ESTACA PIV: 10+119.834	COTA: 516.513m
ESTACA PTV: 10+149.834	COTA: 516.777m
PONTO BAIXO: 10+149.834	COTA: 516.777m
i1 (%): 5,95%	i2 (%): 0,88%
DIFERENÇA(%): 5,07%	K: 11,841
DESENVOLVIMENTO: 60.000m	

PIV - 83

ESTACA PCV: 10+193.919	COTA: 517.165m
ESTACA PIV: 10+223.919	COTA: 517.429m
ESTACA PTV: 10+253.919	COTA: 515.583m
PONTO BAIXO: 10+201.423	COTA: 517.198m
i1 (%): 0,88%	i2 (%): -6,15%
DIFERENÇA(%): 7,03%	K: 8,530
DESENVOLVIMENTO: 60.000m	

PIV - 84

ESTACA PCV: 10+298.047	COTA: 512.867m
ESTACA PIV: 10+343.047	COTA: 510.097m
ESTACA PTV: 10+388.047	COTA: 511.524m
PONTO BAIXO: 10+357.445	COTA: 511.039m
i1 (%): -6,15%	i2 (%): 3,17%
DIFERENÇA(%): 9,33%	K: 9,651
DESENVOLVIMENTO: 90.000m	

PIV - 85

ESTACA PCV: 10+447.880	COTA: 513.421m
ESTACA PIV: 10+467.880	COTA: 514.055m
ESTACA PTV: 10+487.880	COTA: 514.328m
PONTO BAIXO: 10+487.880	COTA: 514.328m
i1 (%): 3,17%	i2 (%): 1,36%
DIFERENÇA(%): 1,81%	K: 22,117
DESENVOLVIMENTO: 40.000m	

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PIV - 86

ESTACA PCV: 10+633.633	COTA: 516.314m
ESTACA PIV: 10+663.633	COTA: 516.722m
ESTACA PTV: 10+693.633	COTA: 514.377m
PONTO BAIXO: 10+642.538	COTA: 516.374m
i1 (%): 1,36%	i2 (%): -7,82%
DIFERENÇA(%): 9,18%	K: 6,536
DESENVOLVIMENTO: 60.000m	

PIV - 87

ESTACA PCV: 10+706.648	COTA: 513.360m
ESTACA PIV: 10+726.648	COTA: 511.796m
ESTACA PTV: 10+746.648	COTA: 510.615m
PONTO BAIXO: 10+746.648	COTA: 510.615m
i1 (%): -7,82%	i2 (%): -5,90%
DIFERENÇA(%): 1,91%	K: 20,889
DESENVOLVIMENTO: 40.000m	

PIV - 88

ESTACA PCV: 10+771.353	COTA: 509.157m
ESTACA PIV: 10+781.353	COTA: 508.567m
ESTACA PTV: 10+791.353	COTA: 507.695m
PONTO BAIXO: 10+771.353	COTA: 509.157m
i1 (%): -5,90%	i2 (%): -8,72%
DIFERENÇA(%): 2,81%	K: 7,110
DESENVOLVIMENTO: 20.000m	

PIV - 89

ESTACA PCV: 10+804.214	COTA: 506.574m
ESTACA PIV: 10+834.214	COTA: 503.960m
ESTACA PTV: 10+864.214	COTA: 503.362m
PONTO BAIXO: 10+864.214	COTA: 503.362m
i1 (%): -8,72%	i2 (%): -1,99%
DIFERENÇA(%): 6,72%	K: 8,925
DESENVOLVIMENTO: 60.000m	

PIV - 90

ESTACA PCV: 11+045.852	COTA: 499.741m
ESTACA PIV: 11+080.852	COTA: 499.043m
ESTACA PTV: 11+115.852	COTA: 501.208m
PONTO BAIXO: 11+062.912	COTA: 499.571m
i1 (%): -1,99%	i2 (%): 6,19%
DIFERENÇA(%): 8,18%	K: 8,559
DESENVOLVIMENTO: 70.000m	

PIV - 91

ESTACA PCV: 11+126.068	COTA: 501.840m
ESTACA PIV: 11+146.068	COTA: 503.077m
ESTACA PTV: 11+166.068	COTA: 503.743m
PONTO BAIXO: 11+166.068	COTA: 503.743m
i1 (%): 6,19%	i2 (%): 3,33%
DIFERENÇA(%): 2,86%	K: 14,006
DESENVOLVIMENTO: 40.000m	

PIV - 92

ESTACA PCV: 11+225.933	COTA: 505.737m
ESTACA PIV: 11+245.933	COTA: 506.403m
ESTACA PTV: 11+265.933	COTA: 506.564m
PONTO BAIXO: 11+265.933	COTA: 506.564m
i1 (%): 3,33%	i2 (%): 0,81%
DIFERENÇA(%): 2,52%	K: 15,859
DESENVOLVIMENTO: 40.000m	

RELATÓRIO DE CURVAS VERTICAIS (EIXO 01)

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PIV - 93

ESTACA PCV: 11+273.069	COTA: 506.622m
ESTACA PIV: 11+303.069	COTA: 506.864m
ESTACA PTV: 11+333.069	COTA: 508.820m
PONTO BAIXO: 11+273.069	COTA: 506.622m
i1 (%): 0,81%	i2 (%): 6,52%
DIFERENÇA(%): 5,71%	K: 10,503
DESENVOLVIMENTO: 60.000m	

PIV - 94

ESTACA PCV: 11+361.569	COTA: 510.678m
ESTACA PIV: 11+381.569	COTA: 511.982m
ESTACA PTV: 11+401.569	COTA: 512.099m
PONTO BAIXO: 11+401.569	COTA: 512.099m
i1 (%): 6,52%	i2 (%): 0,58%
DIFERENÇA(%): 5,94%	K: 6,736
DESENVOLVIMENTO: 40.000m	

RELATÓRIO DE CURVAS VERTICAIS (EIXO 02)

Arquivo: RCV-10620-01-CV-01-A

PIV - 01		
ESTACA PIV: 0+000		COTA: 498.305m
PIV - 02		
ESTACA PCV: 0+004.376		COTA: 498.732m
ESTACA PIV: 0+029.376		COTA: 501.169m
ESTACA PTV: 0+054.376		COTA: 501.131m
PONTO BAIXO: 0+053.608		COTA: 501.132m
i1 (%): 9,75%		i2 (%): -0,15%
DIFERENÇA(%): 9,90%		K: 5,049
DESENVOLVIMENTO: 50.000m		
PIV - 03		
ESTACA PCV: 0+072.224		COTA: 501.104m
ESTACA PIV: 0+097.224		COTA: 501.066m
ESTACA PTV: 0+122.224		COTA: 498.602m
PONTO BAIXO: 0+072.224		COTA: 501.104m
i1 (%): -0,15%		i2 (%): -9,86%
DIFERENÇA(%): 9,70%		K: 5,152
DESENVOLVIMENTO: 50.000m		
PIV - 04		
ESTACA PCV: 0+161.732		COTA: 494.707m
ESTACA PIV: 0+191.732		COTA: 491.750m
ESTACA PTV: 0+221.732		COTA: 490.545m
PONTO BAIXO: 0+221.732		COTA: 490.545m
i1 (%): -9,86%		i2 (%): -4,02%
DIFERENÇA(%): 5,84%		K: 10,279
DESENVOLVIMENTO: 60.000m		
PIV - 05		
ESTACA PCV: 0+260.334		COTA: 488.993m
ESTACA PIV: 0+280.334		COTA: 488.189m
ESTACA PTV: 0+300.334		COTA: 486.335m
PONTO BAIXO: 0+260.334		COTA: 488.993m
i1 (%): -4,02%		i2 (%): -9,27%
DIFERENÇA(%): 5,25%		K: 7,621
DESENVOLVIMENTO: 40.000m		
PIV - 06		
ESTACA PCV: 0+305.530		COTA: 485.854m
ESTACA PIV: 0+325.530		COTA: 484.000m
ESTACA PTV: 0+345.530		COTA: 483.162m
PONTO BAIXO: 0+345.530		COTA: 483.162m
i1 (%): -9,27%		i2 (%): -4,19%
DIFERENÇA(%): 5,08%		K: 7,878
DESENVOLVIMENTO: 40.000m		
PIV - 07		
ESTACA PCV: 0+441.318		COTA: 479.147m
ESTACA PIV: 0+481.318		COTA: 477.471m
ESTACA PTV: 0+521.318		COTA: 472.533m
PONTO BAIXO: 0+441.318		COTA: 479.147m
i1 (%): -4,19%		i2 (%): -12,34%
DIFERENÇA(%): 8,15%		K: 9,813
DESENVOLVIMENTO: 80.000m		
PIV - 08		
ESTACA PCV: 0+570.257		COTA: 466.492m
ESTACA PIV: 0+610.257		COTA: 461.555m
ESTACA PTV: 0+650.257		COTA: 459.870m
PONTO BAIXO: 0+650.257		COTA: 459.870m
i1 (%): -12,34%		i2 (%): -4,21%
DIFERENÇA(%): 8,13%		K: 9,839
DESENVOLVIMENTO: 80.000m		

RELATÓRIO DE CURVAS VERTICAIS (EIXO 02)

Arquivo: RCV-10620-01-CV-01-A

PIV - 09

ESTACA PCV: 0+667.076	COTA: 459.162m
ESTACA PIV: 0+727.076	COTA: 456.634m
ESTACA PTV: 0+787.076	COTA: 449.420m
PONTO BAIXO: 0+667.076	COTA: 459.162m
i1 (%): -4,21%	i2 (%): -12,02%
DIFERENÇA(%): 7,81%	K: 15,360
DESENVOLVIMENTO: 120.000m	



5.0 - NOTAS DE SERVIÇO

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 0+000													
Dist. eixo (m)			-4,256	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,203		
Cota (m)			454,340	454,334	454,373	454,084	454,182	454,085	454,003	454,335	453,699		
E			231,017,9068	231,017,910	231,018,096	231,018,486	231,020,357	231,022,229	231,022,618	231,022,804	231,023,3531		
N			7,008,549,6251	7,008,549,621	7,008,549,356	7,008,548,803	7,008,546,146	7,008,543,489	7,008,542,935	7,008,542,671	7,008,541,8916		
Estacas: 0+006													
Dist. eixo (m)			-4,503	-4,448	-4,123	-3,446	0,000	3,250	3,927	4,250	4,258		
Cota (m)			454,084	454,027	454,066	453,777	453,881	453,783	453,702	454,033	454,042		
E			231,022,6547	231,022,688	231,022,674	231,023,263	231,025,248	231,027,119	231,027,509	231,027,695	231,027,6997		
N			7,008,553,2718	7,008,553,225	7,008,552,961	7,008,552,408	7,008,549,590	7,008,546,933	7,008,546,379	7,008,546,115	7,008,546,1081		
Estacas: 0+010													
Dist. eixo (m)			-5,776	-5,250	-4,927	-4,250	0,000	3,250	3,927	4,250	4,314		
Cota (m)			453,531	453,882	453,921	453,632	453,759	453,684	453,602	453,934	453,998		
E			231,025,2075	231,025,510	231,025,696	231,026,086	231,028,533	231,030,405	231,030,794	231,030,980	231,031,0174		
N			7,008,556,6258	7,008,556,196	7,008,555,932	7,008,555,378	7,008,551,904	7,008,549,246	7,008,548,693	7,008,548,429	7,008,548,3761		
Estacas: 0+020													
Dist. eixo (m)			-8,325	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,526		
Cota (m)			453,024	453,741	453,779	453,491	453,678	453,657	453,575	453,907	453,722		
E			231,031,9155	231,032,535	231,032,721	231,033,110	231,036,709	231,038,580	231,038,970	231,039,156	231,039,3153		
N			7,008,564,4681	7,008,563,589	7,008,563,325	7,008,562,772	7,008,557,662	7,008,555,004	7,008,554,451	7,008,554,187	7,008,553,9608		
Estacas: 0+024													
Dist. eixo (m)			-8,483	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,802		
Cota (m)			452,902	453,724	453,763	453,474	453,661	453,661	453,580	453,911	453,543		
E			231,035,0801	231,035,790	231,035,976	231,036,366	231,039,965	231,041,836	231,042,226	231,042,412	231,042,7293		
N			7,008,566,8897	7,008,565,882	7,008,565,618	7,008,565,064	7,008,559,954	7,008,557,297	7,008,556,744	7,008,556,479	7,008,556,0282		
Estacas: 0+030													
Dist. eixo (m)			-8,800	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,594		
Cota (m)			452,655	453,698	453,737	453,448	453,636	453,668	453,587	453,918	453,689		
E			231,039,8182	231,040,711	231,040,897	231,041,286	231,044,885	231,046,756	231,047,146	231,047,332	231,047,5305		
N			7,008,570,6141	7,008,569,347	7,008,569,083	7,008,568,529	7,008,563,419	7,008,560,762	7,008,560,209	7,008,559,945	7,008,559,6630		
Estacas: 0+038													
Dist. eixo (m)			-9,529	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,684		
Cota (m)			452,144	453,663	453,702	453,413	453,600	453,678	453,597	453,928	453,639		
E			231,046,2514	231,047,563	231,047,749	231,048,139	231,051,738	231,053,609	231,053,999	231,054,185	231,054,4347		
N			7,008,576,0360	7,008,574,173	7,008,573,909	7,008,573,356	7,008,568,246	7,008,565,588	7,008,565,035	7,008,564,771	7,008,564,4161		
Estacas: 0+040													
Dist. eixo (m)			-9,713	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,669		
Cota (m)			452,014	453,656	453,695	453,406	453,594	453,680	453,599	453,930	453,651		
E			231,047,4359	231,048,862	231,049,049	231,049,441	231,053,059	231,054,941	231,055,333	231,055,520	231,055,7625		
N			7,008,577,0998	7,008,575,091	7,008,574,828	7,008,574,276	7,008,569,180	7,008,566,530	7,008,565,978	7,008,565,715	7,008,565,3725		
Estacas: 0+042													
Dist. eixo (m)			-9,566	-7,037	-6,714	-6,037	0,000	3,250	3,927	4,250	4,567		
Cota (m)			451,968	453,854	453,693	453,404	453,595	453,683	453,602	453,933	453,722		
E			231,049,0974	231,050,571	231,050,759	231,051,154	231,054,672	231,056,566	231,056,961	231,057,149	231,057,3337		
N			7,008,578,1046	7,008,576,050	7,008,575,787	7,008,575,237	7,008,570,331	7,008,567,690	7,008,567,140	7,008,566,877	7,008,566,6198		
Estacas: 0+048													
Dist. eixo (m)			-8,927	-6,336	-6,013	-5,336	0,000	3,250	3,927	4,250	4,295		
Cota (m)			451,872	453,600	453,638	453,350	453,563	453,693	453,612	453,943	453,988		
E			231,054,2175	231,055,757	231,055,949	231,056,352	231,059,923	231,061,455	231,061,857	231,062,049	231,062,0753		
N			7,008,581,0414	7,008,578,958	7,008,578,698	7,008,578,154	7,008,573,862	7,008,571,249	7,008,570,704	7,008,570,444	7,008,570,4085		
Estacas: 0+050													
Dist. eixo (m)			-8,690	-6,080	-5,757	-5,080	0,000	3,250	3,927	4,250	4,315		
Cota (m)			451,868	453,607	453,646	453,357	453,561	453,691	453,609	453,941	454,005		
E			231,055,9451	231,057,506	231,057,699	231,058,104	231,061,143	231,063,087	231,063,492	231,063,686	231,063,7243		
N			7,008,582,0295	7,008,579,938	7,008,579,679	7,008,579,137	7,008,575,066	7,008,572,461	7,008,571,919	7,008,571,660	7,008,571,6081		
Estacas: 0+060													
Dist. eixo (m)			-7,076	-4,896	-4,573	-3,896	0,000	3,250	3,927	4,250	4,344		
Cota (m)			452,232	453,685	453,724	453,435	453,591	453,721	453,640	453,971	453,909		
E			231,064,7186	231,066,064	231,066,263	231,066,681	231,069,085	231,071,090	231,071,508	231,071,708	231,071,7653		
N			7,008,586,7102	7,008,584,995	7,008,584,741	7,008,584,208	7,008,581,142	7,008,578,585	7,008,578,052	7,008,577,798	7,008,577,7245		
Estacas: 0+070													
Dist. eixo (m)			-6,554	-4,250	-3,927	-3,250	0,000	3,804	4,481	4,804	5,011		
Cota (m)			452,278	453,814	453,853	453,564	453,694	453,846	453,765	454,096	453,958		
E			231,072,7134	231,074,178	231,074,383	231,074,814	231,076,880	231,079,297	231,079,728	231,079,933	231,080,0648		
N			7,008,592,4661	7,008,590,687	7,008,590,438	7,008,589,915	7,008,587,406	7,008,584,470	7,008,583,948	7,008,583,698	7,008,583,5382		
Estacas: 0+080													
Dist. eixo (m)			-6,423	-4,250	-3,927	-3,250	0,000	5,019	5,696	6,019	6,511		
Cota (m)			452,541	453,990	454,028	453,740	453,870	454,070	453,989	454,320	453,992		
E			231,080,3230	231,081,744	231,081,955	231,082,398	231,084,523	231,087,805	231,088,247	231,088,459	231,088,7805		
N			7,008,599,7144	7,008,597,070	7,008,596,826	7,008,596,313	7,008,593,854	7,008,590,057	7,008,589,545	7,008,589,300	7,008,588,9275		
Estacas: 0+090													
Dist. eixo (m)			-6,530	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,897		
Cota (m)			452,709	454,229	454,267	453,979	454,109	454,359	454,277	454,609	454,178		
E			231,087,6248	231,089,156	231,089,373	231,089,828	231,092,011	231,096,209	231,096,663	231,096,880	231,097,3146		
N			7,008,605,3197	7,008,603,631	7,008,603,392	7,008,602,890	7,008,600,482	7,008,595,852	7,008,595,351	7,008,595,111	7,008,594,6321		
Estacas: 0+100													
Dist. eixo (m)			-6,183	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	8,178		
Cota (m)			453,188	454,477	454,515	454,227	454,357	454,607	454,525	454,857	454,238		
E			231,095,0773	231,096,410	231,096,632	231,097,099	231,099,338	231,103,645	231,104,112	231,104,335	231,104,9743		
N			7,008,611,7672	7,008,610,366	7,008,610,132	7,008,609,642	7,008,607,287	7,008,602,758	7,008,602,267	7,008,602,033	7,008,601,3602		
Estacas: 0+107													
Dist. eixo (m)			-8,770	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	8,222		
Cota (m)			453,634	454,647	454,686	454,397	454,527	454,777	454,696	455,027	454,379		
E			231,100,2451	231,101,311	231,101,537	231,102,011	231,104,289	231,108,670	231,109,145	231,109,371	231,109,0525		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 0+160													
Dist. eixo (m)			-4,790	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,089		
Cota (m)			456,504	456,964	456,003	455,714	455,844	455,974	455,893	456,224	454,332		
E			231.135.9591	231.136.383	231.136.637	231.137.169	231.139.721	231.142.273	231.148.804	231.143.058	231.149.2877		
N			7.008.654.5598	7.008.654.225	7.008.654.025	7.008.653.606	7.008.651.594	7.008.649.582	7.008.649.163	7.008.648.963	7.008.647.2047		
Estacas: 0+166													
Dist. eixo (m)			-4,842	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,408		
Cota (m)			456,803	456,108	456,147	455,858	455,998	456,118	456,037	456,368	454,930		
E			231.141.9001	231.142.419	231.142.677	231.143.219	231.145.818	231.148.418	231.148.959	231.149.217	231.149.6261		
N			7.008.662.4603	7.008.662.071	7.008.661.877	7.008.661.471	7.008.659.520	7.008.657.569	7.008.657.163	7.008.656.969	7.008.656.8617		
Estacas: 0+170													
Dist. eixo (m)			-4,899	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,761		
Cota (m)			456,803	456,235	456,003	455,985	456,092	456,200	456,118	456,450	456,109		
E			231.141.9001	231.143.480	231.142.677	231.143.219	231.145.818	231.148.418	231.148.959	231.149.217	231.149.6261		
N			7.008.662.4603	7.008.662.071	7.008.661.877	7.008.661.471	7.008.659.520	7.008.657.569	7.008.657.163	7.008.656.969	7.008.656.8617		
Estacas: 0+172													
Dist. eixo (m)			-4,923	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,856		
Cota (m)			456,814	456,289	456,328	456,039	456,137	456,234	456,153	456,484	456,080		
E			231.142.9405	231.143.480	231.143.739	231.144.283	231.146.890	231.149.498	231.150.041	231.150.300	231.148.3609		
N			7.008.663.8925	7.008.663.491	7.008.663.298	7.008.662.894	7.008.660.954	7.008.659.015	7.008.658.611	7.008.658.418	7.008.658.0562		
Estacas: 0+175													
Dist. eixo (m)			-4,843	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,050		
Cota (m)			456,377	456,372	456,411	456,122	456,220	456,298	456,217	456,548	456,015		
E			231.145.1159	231.145.595	231.145.856	231.146.402	231.149.027	231.151.651	231.152.197	231.152.458	231.153.1041		
N			7.008.666.7093	7.008.666.359	7.008.666.169	7.008.665.769	7.008.663.852	7.008.661.935	7.008.661.535	7.008.661.345	7.008.660.8726		
Estacas: 0+180													
Dist. eixo (m)			-4,710	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,433		
Cota (m)			456,160	456,466	456,505	456,216	456,314	456,387	456,286	456,617	456,828		
E			231.147.9429	231.148.314	231.148.575	231.149.122	231.151.746	231.154.370	231.154.916	231.155.177	231.156.1327		
N			7.008.670.3820	7.008.670.081	7.008.669.890	7.008.669.491	7.008.667.573	7.008.665.656	7.008.665.257	7.008.665.066	7.008.664.3680		
Estacas: 0+190													
Dist. eixo (m)			-4,476	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,872		
Cota (m)			456,468	456,619	456,657	456,369	456,466	456,466	456,385	456,716	456,635		
E			231.153.9083	231.154.090	231.154.351	231.154.898	231.157.522	231.160.146	231.160.693	231.160.954	231.162.2631		
N			7.008.678.1194	7.008.677.986	7.008.677.796	7.008.677.396	7.008.675.479	7.008.673.562	7.008.673.162	7.008.672.972	7.008.672.0148		
Estacas: 0+200													
Dist. eixo (m)			-4,788	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,085		
Cota (m)			456,350	456,709	456,747	456,459	456,556	456,501	456,420	456,751	455,527		
E			231.159.6786	231.160.113	231.160.374	231.160.921	231.163.545	231.166.169	231.166.716	231.166.977	231.168.4584		
N			7.008.686.5470	7.008.686.229	7.008.686.039	7.008.685.639	7.008.683.722	7.008.681.805	7.008.681.405	7.008.681.215	7.008.680.1319		
Estacas: 0+208													
Dist. eixo (m)			-4,512	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,880		
Cota (m)			456,555	456,730	456,769	456,480	456,578	456,480	456,399	456,730	456,644		
E			231.164.4980	231.164.710	231.164.971	231.165.517	231.168.141	231.170.766	231.171.312	231.171.573	231.172.8887		
N			7.008.692.6748	7.008.692.520	7.008.692.330	7.008.691.930	7.008.690.013	7.008.688.095	7.008.687.696	7.008.687.505	7.008.686.5439		
Estacas: 0+210													
Dist. eixo (m)			-4,569	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,764		
Cota (m)			456,516	456,729	456,768	456,479	456,577	456,479	456,398	456,729	455,720		
E			231.165.7511	231.166.013	231.166.274	231.166.820	231.169.445	231.172.069	231.172.615	231.172.876	231.174.0988		
N			7.008.694.4921	7.008.694.304	7.008.694.113	7.008.693.714	7.008.691.796	7.008.689.879	7.008.689.480	7.008.689.269	7.008.688.3957		
Estacas: 0+220													
Dist. eixo (m)			-4,655	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,295		
Cota (m)			456,439	456,709	456,747	456,459	456,556	456,459	456,377	456,709	456,012		
E			231.171.5859	231.171.913	231.172.173	231.172.720	231.175.344	231.177.968	231.178.515	231.178.776	231.179.6193		
N			7.008.702.6167	7.008.702.378	7.008.702.187	7.008.701.788	7.008.699.871	7.008.697.953	7.008.697.554	7.008.697.363	7.008.696.7470		
Estacas: 0+230													
Dist. eixo (m)			-4,518	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,218		
Cota (m)			456,509	456,688	456,726	456,438	456,535	456,438	456,356	456,688	456,042		
E			231.177.5955	231.177.812	231.178.073	231.178.620	231.181.244	231.183.868	231.184.415	231.184.675	231.185.4570		
N			7.008.710.6106	7.008.710.452	7.008.710.262	7.008.709.862	7.008.707.945	7.008.706.028	7.008.705.628	7.008.705.438	7.008.704.8665		
Estacas: 0+240													
Dist. eixo (m)			-4,439	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,719		
Cota (m)			456,582	456,688	456,727	456,438	456,536	456,438	456,357	456,688	456,375		
E			231.183.5591	231.183.712	231.183.973	231.184.519	231.187.143	231.189.768	231.190.314	231.190.575	231.190.9539		
N			7.008.718.6382	7.008.718.527	7.008.718.336	7.008.717.937	7.008.716.019	7.008.714.102	7.008.713.703	7.008.713.512	7.008.713.2351		
Estacas: 0+250													
Dist. eixo (m)			-4,499	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,816		
Cota (m)			456,586	456,752	456,791	456,502	456,599	456,502	456,421	456,752	456,375		
E			231.189.4107	231.189.612	231.189.872	231.190.419	231.193.043	231.195.667	231.196.214	231.196.475	231.196.9313		
N			7.008.726.7476	7.008.726.601	7.008.726.410	7.008.726.011	7.008.724.094	7.008.722.176	7.008.721.777	7.008.721.586	7.008.721.2526		
Estacas: 0+260													
Dist. eixo (m)			-4,487	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,989		
Cota (m)			456,723	456,880	456,919	456,630	456,728	456,630	456,549	456,880	456,388		
E			231.195.3199	231.195.511	231.195.772	231.196.319	231.198.943	231.201.567	231.202.113	231.202.374	231.202.9708		
N			7.008.734.8149	7.008.734.675	7.008.734.485	7.008.734.085	7.008.732.168	7.008.730.251	7.008.729.851	7.008.729.661	7.008.729.2246		
Estacas: 0+270													
Dist. eixo (m)			-4,505	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,196		
Cota (m)			456,903	457,074	457,112	456,824	456,921	456,824	456,742	457,074	456,443		
E			231.201.2045	231.201.411	231.201.672	231.202.218	231.204.842	231.207.467	231.208.013	231.208.274	231.209.0376		
N			7.008.742.9002	7.008.742.750	7.008.742.559	7.008.742.160	7.008.740.242	7.008.738.325	7.008.737.926	7.008.737.735	7.008.737.1768		
Estacas: 0+280													
Dist. eixo (m)			-4,620	-4,250	-3,927	-3,250	0,000						

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 0+340													
Dist. eixo (m)			-4,936	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,711		
Cota (m)			456,736	457,193	457,232	456,943	457,041	456,943	456,862	457,193	455,552		
E			231,242,1543	231,242,708	231,254,507	231,243,516	231,246,140	231,248,764	231,250,310	231,249,571	231,251,5584		
N			7,008,799,6743	7,008,799,270	7,008,799,079	7,008,798,680	7,008,796,762	7,008,794,845	7,008,794,446	7,008,794,255	7,008,792,8031		
Estacas: 0+350													
Dist. eixo (m)			-4,591	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,438		
Cota (m)			456,627	456,061	456,866	456,377	456,474	456,377	456,296	456,627	455,168		
E			231,254,0504	231,254,507	231,254,768	231,255,315	231,257,939	231,260,563	231,261,110	231,261,371	231,262,7739		
N			7,008,815,7522	7,008,815,418	7,008,815,228	7,008,814,828	7,008,812,911	7,008,810,994	7,008,810,594	7,008,810,404	7,008,809,3782		
Estacas: 0+360													
Dist. eixo (m)			-4,816	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,988		
Cota (m)			456,627	456,061	456,100	455,811	455,908	455,811	455,730	456,061	454,902		
E			231,254,0504	231,254,507	231,254,768	231,255,315	231,257,939	231,260,563	231,261,110	231,261,371	231,262,7739		
N			7,008,815,7522	7,008,815,418	7,008,815,228	7,008,814,828	7,008,812,911	7,008,810,994	7,008,810,594	7,008,810,404	7,008,809,3782		
Estacas: 0+370													
Dist. eixo (m)			-4,466	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,895		
Cota (m)			455,323	455,467	455,506	455,217	455,315	455,217	455,136	455,467	455,038		
E			231,260,2326	231,260,407	231,260,668	231,261,214	231,263,839	231,266,463	231,267,009	231,267,270	231,267,7906		
N			7,008,823,6200	7,008,823,493	7,008,823,302	7,008,822,903	7,008,820,985	7,008,819,068	7,008,818,669	7,008,818,478	7,008,818,0976		
Estacas: 0+380													
Dist. eixo (m)			-4,679	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,116		
Cota (m)			454,512	454,798	454,837	454,548	454,646	454,548	454,467	454,798	454,221		
E			231,265,9599	231,266,307	231,266,567	231,267,114	231,269,738	231,272,362	231,272,909	231,273,170	231,273,8689		
N			7,008,831,8202	7,008,831,567	7,008,831,376	7,008,830,977	7,008,829,060	7,008,827,142	7,008,826,743	7,008,826,552	7,008,826,0414		
Estacas: 0+383													
Dist. eixo (m)			-4,638	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,006		
Cota (m)			454,234	454,553	454,592	454,303	454,401	454,303	454,222	454,553	454,049		
E			231,267,9978	231,268,311	231,268,572	231,269,119	231,271,743	231,274,367	231,274,914	231,275,175	231,275,7852		
N			7,008,834,5398	7,008,834,311	7,008,834,120	7,008,833,721	7,008,831,803	7,008,829,886	7,008,829,487	7,008,829,296	7,008,828,8498		
Estacas: 0+390													
Dist. eixo (m)			-4,521	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,983		
Cota (m)			453,907	454,088	454,126	453,838	453,936	453,838	453,757	454,088	453,563		
E			231,271,9877	231,272,206	231,272,467	231,273,014	231,275,638	231,278,262	231,278,809	231,279,069	231,279,6613		
N			7,008,839,8009	7,008,839,641	7,008,839,451	7,008,839,051	7,008,837,134	7,008,835,217	7,008,834,817	7,008,834,627	7,008,834,1940		
Estacas: 0+400													
Dist. eixo (m)			-4,582	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,758		
Cota (m)			453,651	453,318	453,357	453,068	453,077	452,979	452,898	453,229	452,891		
E			231,277,8375	231,278,106	231,278,367	231,278,913	231,281,537	231,284,162	231,284,708	231,284,969	231,285,3789		
N			7,008,847,9116	7,008,847,716	7,008,847,525	7,008,847,126	7,008,845,208	7,008,843,291	7,008,842,892	7,008,842,701	7,008,842,4013		
Estacas: 0+402													
Dist. eixo (m)			-4,789	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,794		
Cota (m)			453,713	453,194	453,233	452,944	452,944	452,863	452,782	453,077	452,735		
E			231,278,5857	231,279,005	231,279,265	231,279,812	231,282,436	231,285,060	231,285,607	231,285,868	231,286,3065		
N			7,008,849,2513	7,008,848,945	7,008,848,755	7,008,848,355	7,008,846,438	7,008,844,521	7,008,844,121	7,008,843,931	7,008,843,6100		
Estacas: 0+410													
Dist. eixo (m)			-5,413	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,825		
Cota (m)			453,578	452,515	452,553	452,265	452,219	452,121	452,040	452,371	451,988		
E			231,283,0662	231,284,006	231,284,266	231,284,813	231,287,437	231,290,061	231,290,608	231,290,869	231,291,3333		
N			7,008,856,4761	7,008,855,790	7,008,855,599	7,008,855,200	7,008,853,283	7,008,851,365	7,008,850,966	7,008,850,775	7,008,850,4356		
Estacas: 0+419													
Dist. eixo (m)			-5,504	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,918		
Cota (m)			453,132	451,877	451,916	451,627	451,534	451,436	451,355	451,686	451,241		
E			231,288,2572	231,289,270	231,289,531	231,290,077	231,292,701	231,295,326	231,295,872	231,296,133	231,296,6727		
N			7,008,863,7346	7,008,862,995	7,008,862,804	7,008,862,405	7,008,860,487	7,008,858,570	7,008,858,171	7,008,857,980	7,008,857,5856		
Estacas: 0+420													
Dist. eixo (m)			-5,498	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,936		
Cota (m)			453,077	451,830	451,868	451,580	451,482	451,385	451,303	451,635	451,177		
E			231,288,6994	231,289,705	231,289,965	231,290,511	231,293,135	231,295,759	231,296,306	231,296,565	231,297,1077		
N			7,008,864,3270	7,008,863,588	7,008,863,397	7,008,862,996	7,008,861,072	7,008,859,148	7,008,858,747	7,008,858,556	7,008,858,1499		
Estacas: 0+430													
Dist. eixo (m)			-4,969	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,588		
Cota (m)			451,326	451,208	451,246	450,958	450,804	450,651	450,570	450,901	450,676		
E			231,295,5188	231,296,082	231,296,335	231,296,885	231,299,412	231,301,958	231,302,488	231,302,741	231,303,0061		
N			7,008,872,3871	7,008,871,941	7,008,871,740	7,008,871,319	7,008,869,300	7,008,867,280	7,008,866,859	7,008,866,658	7,008,866,4483		
Estacas: 0+431													
Dist. eixo (m)			-4,937	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,571		
Cota (m)			451,866	451,179	451,218	450,929	450,773	450,617	450,536	450,867	450,654		
E			231,295,8748	231,296,412	231,296,665	231,297,195	231,299,737	231,302,280	231,302,809	231,303,062	231,303,3126		
N			7,008,872,7843	7,008,872,356	7,008,872,155	7,008,871,734	7,008,869,709	7,008,867,685	7,008,867,263	7,008,867,062	7,008,866,8621		
Estacas: 0+440													
Dist. eixo (m)			-4,388	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,449		
Cota (m)			450,805	450,667	450,706	450,417	450,261	450,105	450,024	450,355	450,222		
E			231,302,4262	231,302,531	231,302,777	231,303,292	231,305,764	231,308,237	231,308,752	231,308,998	231,309,1490		
N			7,008,879,8693	7,008,879,780	7,008,879,570	7,008,879,131	7,008,877,022	7,008,874,912	7,008,874,473	7,008,874,263	7,008,874,1341		
Estacas: 0+450													
Dist. eixo (m)			-4,313	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,334		
Cota (m)			450,190	450,232	450,271	449,982	449,826	449,670	449,589	449,920	449,864		
E			231,309,2097	231,309,256	231,309,494	231,309,993	231,312,389	231,314,785	231,315,284	231,315,622	231,315,5838		
N			7,008,887,4265	7,008,887,384	7,008,887,166	7,008,886,708	7,008,884,512	7,008,882,316	7,008,881,858	7,008,881,640	7,008,881,5829		
Estacas: 0+460													
Dist. eixo (m)			-4,511	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,392		
Cota (m)			449,733	449,807	449,846	449,557	449,501	449,345	449,264	449,595	449,501</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 0+512													
Dist. eixo (m)			-4,529	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,592		
Cota (m)			449,035	449,221	449,259	448,971	448,815	448,659	448,577	448,909	448,681		
E			231.356.2365	231.356.396	231.372.580	231.356.967	231.358.824	231.360.681	231.361.067	231.361.252	231.361.4472		
N			7.008.928.8267	7.008.928.698	7.008.928.333	7.008.927.777	7.008.925.110	7.008.922.442	7.008.921.887	7.008.921.621	7.008.921.3406		
Estacas: 0+520													
Dist. eixo (m)			-4,962	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,466		
Cota (m)			448,656	449,131	449,170	448,881	448,725	448,569	448,488	448,819	448,675		
E			231.362.9033	231.363.293	231.363.469	231.363.840	231.365.618	231.367.395	231.367.766	231.367.942	231.368.0607		
N			7.008.933.8458	7.008.933.250	7.008.932.980	7.008.932.413	7.008.929.692	7.008.926.971	7.008.926.405	7.008.926.134	7.008.925.9532		
Estacas: 0+530													
Dist. eixo (m)			-5,033	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,445		
Cota (m)			448,499	449,021	449,060	448,771	448,615	448,459	448,378	448,709	448,579		
E			231.371.4839	231.371.888	231.372.055	231.372.405	231.374.085	231.375.764	231.376.114	231.376.281	231.376.3817		
N			7.008.939.3201	7.008.938.650	7.008.938.374	7.008.937.794	7.008.935.012	7.008.932.229	7.008.931.650	7.008.931.373	7.008.931.2062		
Estacas: 0+540													
Dist. eixo (m)			-5,208	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,703		
Cota (m)			448,273	448,912	448,950	448,662	448,506	448,350	448,268	448,600	448,298		
E			231.380.2057	231.380.671	231.380.828	231.381.157	231.382.736	231.384.315	231.384.644	231.384.801	231.388.0214		
N			7.008.944.5777	7.008.943.740	7.008.943.458	7.008.942.866	7.008.940.025	7.008.937.185	7.008.936.593	7.008.936.311	7.008.935.9149		
Estacas: 0+550													
Dist. eixo (m)			-4,900	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,079		
Cota (m)			448,296	448,730	448,769	448,480	448,324	448,168	448,087	448,418	447,865		
E			231.389.3351	231.389.631	231.389.777	231.390.085	231.391.562	231.393.038	231.393.346	231.393.493	231.393.8691		
N			7.008.948.0921	7.008.948.513	7.008.948.225	7.008.947.622	7.008.944.727	7.008.941.832	7.008.941.229	7.008.940.941	7.008.940.2028		
Estacas: 0+560													
Dist. eixo (m)			-4,487	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,367		
Cota (m)			448,200	448,358	448,397	448,108	447,952	447,796	447,715	448,046	448,163		
E			231.398.6540	231.398.754	231.398.891	231.399.177	231.400.549	231.401.921	231.402.207	231.402.344	231.402.3829		
N			7.008.953.1784	7.008.952.963	7.008.952.670	7.008.952.057	7.008.949.111	7.008.948.165	7.008.945.551	7.008.945.258	7.008.945.1521		
Estacas: 0+570													
Dist. eixo (m)			-4,741	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,264		
Cota (m)			447,467	447,795	447,833	447,545	447,389	447,233	447,151	447,483	447,473		
E			231.407.8400	231.408.031	231.408.157	231.408.421	231.409.687	231.410.953	231.411.217	231.411.343	231.411.3484		
N			7.008.957.5366	7.008.957.085	7.008.956.787	7.008.956.164	7.008.953.171	7.008.950.177	7.008.949.554	7.008.949.256	7.008.949.2437		
Estacas: 0+580													
Dist. eixo (m)			-4,655	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,429		
Cota (m)			446,770	447,040	447,078	446,790	446,634	446,478	446,396	446,728	446,609		
E			231.417.3052	231.417.449	231.417.565	231.417.806	231.418.965	231.420.123	231.420.364	231.420.480	231.420.5432		
N			7.008.961.2502	7.008.960.872	7.008.960.571	7.008.959.938	7.008.956.902	7.008.953.865	7.008.953.233	7.008.952.931	7.008.952.7638		
Estacas: 0+590													
Dist. eixo (m)			-4,426	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,441		
Cota (m)			446,066	446,183	446,222	445,933	445,777	445,621	445,540	445,871	445,744		
E			231.426.9401	231.426.997	231.427.101	231.427.320	231.428.369	231.429.419	231.429.637	231.429.742	231.429.8032		
N			7.008.964.4873	7.008.964.321	7.008.964.016	7.008.963.375	7.008.960.299	7.008.957.223	7.008.956.582	7.008.956.277	7.008.956.0955		
Estacas: 0+593													
Dist. eixo (m)			-4,425	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,469		
Cota (m)			445,828	445,944	445,983	445,694	445,538	445,382	445,301	445,632	445,486		
E			231.429.8134	231.429.968	231.430.069	231.430.281	231.431.296	231.432.311	231.432.523	231.432.624	231.432.6923		
N			7.008.965.4826	7.008.965.317	7.008.965.010	7.008.964.367	7.008.961.279	7.008.958.192	7.008.957.549	7.008.957.242	7.008.957.0339		
Estacas: 0+600													
Dist. eixo (m)			-4,340	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,437		
Cota (m)			445,370	445,430	445,468	445,180	445,061	444,942	444,861	445,192	445,067		
E			231.436.6354	231.436.661	231.436.755	231.436.950	231.437.889	231.438.828	231.439.024	231.439.117	231.439.1710		
N			7.008.967.5126	7.008.967.427	7.008.967.118	7.008.966.470	7.008.963.358	7.008.960.247	7.008.959.599	7.008.959.289	7.008.959.1101		
Estacas: 0+604													
Dist. eixo (m)			-4,369	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,456		
Cota (m)			445,091	445,170	445,209	444,920	444,823	444,725	444,644	444,975	444,838		
E			231.440.4870	231.440.520	231.440.609	231.440.795	231.441.690	231.442.585	231.442.771	231.442.860	231.442.9166		
N			7.008.968.6757	7.008.968.562	7.008.968.251	7.008.967.600	7.008.964.476	7.008.961.351	7.008.960.701	7.008.960.390	7.008.960.1923		
Estacas: 0+605													
Dist. eixo (m)			-4,395	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,457		
Cota (m)			445,029	445,126	445,164	444,876	444,782	444,685	444,603	444,935	444,797		
E			231.441.1879	231.441.228	231.441.316	231.441.500	231.442.387	231.443.274	231.443.459	231.443.547	231.443.6031		
N			7.008.968.9030	7.008.968.763	7.008.968.453	7.008.967.801	7.008.964.675	7.008.961.548	7.008.960.897	7.008.960.586	7.008.960.3867		
Estacas: 0+610													
Dist. eixo (m)			-4,811	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,506		
Cota (m)			444,451	444,825	444,864	444,575	444,510	444,413	444,331	444,663	444,492		
E			231.446.1861	231.446.339	231.446.427	231.446.612	231.447.499	231.448.386	231.448.570	231.448.658	231.448.7282		
N			7.008.970.7529	7.008.970.213	7.008.969.902	7.008.969.251	7.008.966.124	7.008.962.998	7.008.962.346	7.008.962.036	7.008.961.7890		
Estacas: 0+620													
Dist. eixo (m)			-5,263	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,647		
Cota (m)			443,711	444,386	444,425	444,136	444,125	444,028	443,947	444,278	444,013		
E			231.455.6835	231.455.960	231.456.048	231.456.233	231.457.119	231.458.006	231.458.191	231.458.279	231.458.3873		
N			7.008.973.9156	7.008.972.941	7.008.972.631	7.008.971.979	7.008.968.853	7.008.965.726	7.008.965.075	7.008.964.764	7.008.964.3816		
Estacas: 0+622													
Dist. eixo (m)			-5,232	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,614		
Cota (m)			443,611	444,316	444,355	444,066	444,066	443,968	443,887	444,218	443,976		
E			231.457.6994	231.457.967	231.458.056	231.458.240	231.459.127	231.460.014	231.460.198	231.460.287	231.460.3857		
N			7.008.974.4556	7.008.973.511	7.008.973.200	7.008.972.549	7.008.969.422	7.008.966.295	7.008.965.644	7.008.965.333	7.008.964.9833		
Estacas: 0+630													
Dist. eixo (m)			-5,195	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,558		
Cota (m)			443,466	444,096	444,134	443,846	443,888	443,791	443,709	444,041	443,936</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 0+690													
Dist. eixo (m)			-4,675	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,471		
Cota (m)			442,478	442,761	442,800	442,511	442,609	442,511	442,430	442,761	442,614		
E			231,523,1882	231,523,304	231,523,392	231,523,577	231,524,464	231,525,350	231,525,535	231,525,623	231,525,6834		
N			7,008,992,4485	7,008,992,040	7,008,991,729	7,008,991,078	7,008,987,951	7,008,984,825	7,008,984,174	7,008,983,863	7,008,983,6500		
Estacas: 0+700													
Dist. eixo (m)			-4,584	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,423		
Cota (m)			442,325	442,548	442,587	442,298	442,395	442,298	442,217	442,548	442,432		
E			231,532,8334	231,532,925	231,533,013	231,533,197	231,534,084	231,534,971	231,535,156	231,535,244	231,535,2910		
N			7,008,995,0898	7,008,994,769	7,008,994,458	7,008,993,806	7,008,990,680	7,008,987,553	7,008,986,902	7,008,986,591	7,008,986,4242		
Estacas: 0+710													
Dist. eixo (m)			-4,548	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,391		
Cota (m)			441,711	442,335	442,374	442,085	442,182	442,085	442,004	442,335	442,241		
E			231,542,4638	231,542,545	231,542,633	231,542,818	231,543,705	231,544,592	231,544,776	231,544,864	231,544,9027		
N			7,008,997,7838	7,008,997,497	7,008,997,186	7,008,996,535	7,008,993,408	7,008,990,281	7,008,989,630	7,008,989,319	7,008,989,1840		
Estacas: 0+720													
Dist. eixo (m)			-4,780	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,560		
Cota (m)			441,798	442,151	442,189	441,901	441,998	441,901	441,819	442,151	441,944		
E			231,552,0213	231,552,166	231,552,254	231,552,439	231,553,325	231,554,212	231,554,397	231,554,485	231,554,5696		
N			7,009,000,7347	7,009,000,225	7,008,999,915	7,008,999,263	7,008,996,137	7,008,993,010	7,008,992,359	7,008,992,048	7,008,991,7491		
Estacas: 0+730													
Dist. eixo (m)			-4,705	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,535		
Cota (m)			441,711	442,015	442,053	441,765	441,862	441,765	441,684	442,015	441,825		
E			231,561,6621	231,561,786	231,561,875	231,562,059	231,562,946	231,563,833	231,564,017	231,564,106	231,564,1831		
N			7,009,003,3918	7,009,002,954	7,009,002,643	7,009,001,992	7,008,998,865	7,008,995,738	7,008,995,087	7,008,994,776	7,008,994,5023		
Estacas: 0+740													
Dist. eixo (m)			-4,663	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,795		
Cota (m)			441,852	441,927	441,966	441,677	441,775	441,677	441,596	441,927	441,564		
E			231,571,2944	231,571,407	231,571,495	231,571,680	231,572,567	231,573,453	231,573,638	231,573,726	231,573,8749		
N			7,009,006,0791	7,009,005,682	7,009,005,371	7,009,004,720	7,009,001,593	7,008,998,467	7,008,997,815	7,008,997,505	7,008,996,9798		
Estacas: 0+750													
Dist. eixo (m)			-4,420	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,983		
Cota (m)			441,775	441,888	441,927	441,638	441,736	441,638	441,557	441,888	441,399		
E			231,580,9812	231,581,028	231,581,116	231,581,300	231,582,187	231,583,074	231,583,259	231,583,347	231,583,5468		
N			7,009,008,5739	7,008,998,410	7,009,008,100	7,009,007,448	7,009,004,322	7,009,001,195	7,009,000,544	7,009,000,233	7,008,999,5273		
Estacas: 0+760													
Dist. eixo (m)			-4,543	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,188		
Cota (m)			441,703	441,898	441,937	441,648	441,745	441,648	441,567	441,898	441,273		
E			231,590,5683	231,590,648	231,590,736	231,590,921	231,591,808	231,592,695	231,592,879	231,592,967	231,593,2231		
N			7,009,011,4206	7,009,011,139	7,009,010,828	7,009,010,177	7,009,007,050	7,009,003,923	7,009,003,272	7,009,002,961	7,009,002,0593		
Estacas: 0+763													
Dist. eixo (m)			-4,521	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,230		
Cota (m)			441,727	441,908	441,947	441,658	441,756	441,658	441,577	441,908	441,255		
E			231,593,0408	231,593,115	231,593,203	231,593,388	231,594,274	231,595,161	231,595,346	231,595,434	231,595,7012		
N			7,009,012,0990	7,009,011,838	7,009,011,528	7,009,010,876	7,009,007,750	7,009,004,623	7,009,003,972	7,009,003,661	7,009,002,7183		
Estacas: 0+770													
Dist. eixo (m)			-4,767	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,301		
Cota (m)			441,511	441,956	441,994	441,706	441,803	441,706	441,624	441,956	441,255		
E			231,600,1194	231,600,281	231,600,369	231,600,553	231,601,440	231,602,318	231,602,504	231,602,593	231,602,8867		
N			7,009,014,3877	7,009,013,871	7,009,013,560	7,009,012,909	7,009,009,784	7,009,006,658	7,009,006,008	7,009,005,697	7,009,004,8680		
Estacas: 0+780													
Dist. eixo (m)			-4,441	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,320		
Cota (m)			441,935	442,062	442,101	441,812	441,909	441,812	441,731	442,062	441,349		
E			231,609,8140	231,609,867	231,609,956	231,610,143	231,611,041	231,611,938	231,612,125	231,612,214	231,612,5100		
N			7,009,016,8044	7,009,016,621	7,009,016,310	7,009,015,660	7,009,012,536	7,009,009,413	7,009,008,762	7,009,008,451	7,009,007,4229		
Estacas: 0+790													
Dist. eixo (m)			-4,378	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,894		
Cota (m)			442,131	442,217	442,255	441,967	442,064	441,967	441,885	442,217	441,787		
E			231,619,4313	231,619,467	231,619,557	231,619,745	231,620,649	231,621,553	231,621,741	231,621,831	231,622,0099		
N			7,009,019,5128	7,009,019,390	7,009,019,080	7,009,018,429	7,009,015,308	7,009,012,186	7,009,011,536	7,009,011,225	7,009,010,6067		
Estacas: 0+800													
Dist. eixo (m)			-4,314	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,850		
Cota (m)			442,378	442,420	442,459	442,170	442,267	442,170	442,089	442,420	442,020		
E			231,629,0436	231,629,061	231,629,152	231,629,341	231,630,252	231,631,162	231,631,351	231,631,442	231,631,6097		
N			7,009,022,2393	7,009,022,178	7,009,021,868	7,009,021,218	7,009,018,098	7,009,014,978	7,009,014,329	7,009,014,018	7,009,013,4425		
Estacas: 0+810													
Dist. eixo (m)			-4,273	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,657		
Cota (m)			442,695	442,671	442,610	442,421	442,519	442,421	442,340	442,671	441,733		
E			231,638,6438	231,638,650	231,638,741	231,638,932	231,639,849	231,640,765	231,640,956	231,641,047	231,641,4437		
N			7,009,025,0081	7,009,024,986	7,009,024,876	7,009,024,026	7,009,020,908	7,009,017,790	7,009,017,141	7,009,017,831	7,009,015,4805		
Estacas: 0+818													
Dist. eixo (m)			-4,327	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,084		
Cota (m)			442,985	442,908	442,947	442,658	442,756	442,658	442,577	442,908	441,686		
E			231,646,3157	231,646,338	231,646,429	231,646,621	231,647,542	231,648,464	231,648,656	231,648,747	231,649,2669		
N			7,009,027,3252	7,009,027,252	7,009,026,942	7,009,026,293	7,009,023,176	7,009,020,059	7,009,019,410	7,009,019,100	7,009,017,3420		
Estacas: 0+820													
Dist. eixo (m)			-4,334	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,251		
Cota (m)			443,055	442,971	443,010	442,721	442,819	442,721	442,640	442,971	441,638		
E			231,648,2099	231,648,234	231,648,325	231,648,518	231,649,440	231,650,363	231,650,555	231,650,647	231,651,2145		
N			7,009,027,8929	7,009,027,813	7,009,027,503	7,009,026,854	7,009,023,737	7,009,020,621	7,009,019,972	7,009,019,662	7,009,017,7440		
Estacas: 0+830													
Dist. eixo (m)			-4,370	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,390		
Cota (m)			443,439	443,320	443,358	443,070	443,167	443,070	442,988	443,320	441,893		
E			231,657,7770	231,657,811</									

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 0+880													
Dist. eixo (m)			-4,399	-4,250	-3,927	-3,250	0,000	5,050	5,727	6,050	6,218		
Cota (m)			445,061	445,161	445,200	444,911	445,008	444,857	444,776	445,107	445,275		
E			231,705,576	231,705,620	231,705,715	231,705,914	231,706,870	231,708,355	231,708,554	231,708,649	231,708,692		
N			7,009,045,3153	7,009,045,173	7,009,044,864	7,009,044,217	7,009,041,111	7,009,036,284	7,009,035,637	7,009,035,328	7,009,035,1678		
Estacas: 0+890													
Dist. eixo (m)			-4,689	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,680		
Cota (m)			445,269	445,562	445,600	445,312	445,409	445,222	445,140	445,472	445,901		
E			231,715,0482	231,715,177	231,715,272	231,715,471	231,716,427	231,718,265	231,718,465	231,718,560	231,718,859		
N			7,009,048,5329	7,009,048,114	7,009,047,805	7,009,047,158	7,009,044,052	7,009,038,078	7,009,037,431	7,009,037,122	7,009,036,7114		
Estacas: 0+897													
Dist. eixo (m)			-4,690	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,718		
Cota (m)			445,584	445,878	445,916	445,628	445,725	445,538	445,456	445,788	446,255		
E			231,721,9922	231,722,122	231,722,217	231,722,416	231,723,372	231,725,210	231,725,409	231,725,504	231,725,8416		
N			7,009,050,6715	7,009,050,251	7,009,049,942	7,009,049,295	7,009,046,189	7,009,040,215	7,009,039,568	7,009,039,259	7,009,038,8120		
Estacas: 0+900													
Dist. eixo (m)			-4,640	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,710		
Cota (m)			445,724	446,002	446,041	445,752	445,849	445,662	445,581	445,912	446,372		
E			231,724,6267	231,724,741	231,724,836	231,725,034	231,725,986	231,727,816	231,728,014	231,728,108	231,728,2430		
N			7,009,051,4280	7,009,051,055	7,009,050,746	7,009,050,099	7,009,046,991	7,009,041,015	7,009,040,368	7,009,040,059	7,009,039,6189		
Estacas: 0+910													
Dist. eixo (m)			-4,983	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,775		
Cota (m)			445,911	446,480	446,518	446,230	446,327	446,140	446,059	446,390	446,915		
E			231,734,1192	231,734,330	231,734,423	231,734,618	231,735,555	231,737,355	231,737,550	231,737,643	231,737,7938		
N			7,009,054,6672	7,009,053,965	7,009,053,656	7,009,053,007	7,009,049,895	7,009,043,910	7,009,043,262	7,009,042,952	7,009,042,4496		
Estacas: 0+920													
Dist. eixo (m)			-4,879	-4,250	-3,927	-3,250	0,000	4,253	4,930	5,253	5,472		
Cota (m)			446,520	446,840	446,878	446,690	446,787	446,600	446,519	446,850	447,128		
E			231,743,7580	231,743,934	231,744,026	231,744,217	231,745,138	231,746,343	231,746,534	231,746,626	231,746,8876		
N			7,009,057,4305	7,009,056,827	7,009,056,518	7,009,055,868	7,009,052,751	7,009,048,672	7,009,048,023	7,009,047,713	7,009,047,5036		
Estacas: 0+930													
Dist. eixo (m)			-5,553	-5,247	-4,924	-4,247	0,000	3,250	3,927	4,250	4,640		
Cota (m)			447,079	447,284	447,323	447,034	447,161	447,064	446,982	447,314	447,704		
E			231,753,1892	231,753,275	231,753,365	231,753,563	231,754,735	231,755,640	231,755,829	231,755,919	231,756,0274		
N			7,009,060,8933	7,009,060,599	7,009,060,289	7,009,059,638	7,009,055,560	7,009,052,438	7,009,051,788	7,009,051,478	7,009,051,1030		
Estacas: 0+937													
Dist. eixo (m)			-6,973	-6,593	-6,270	-5,593	0,000	3,250	3,927	4,250	4,751		
Cota (m)			447,193	447,446	447,485	447,196	447,364	447,266	447,185	447,516	448,017		
E			231,759,2866	231,759,391	231,759,480	231,759,666	231,761,206	231,762,100	231,762,286	231,762,375	231,762,5129		
N			7,009,064,1270	7,009,063,762	7,009,063,451	7,009,062,800	7,009,057,423	7,009,054,299	7,009,053,648	7,009,053,338	7,009,052,8557		
Estacas: 0+940													
Dist. eixo (m)			-7,674	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,701		
Cota (m)			447,227	447,510	447,549	447,260	447,447	447,350	447,269	447,600	448,051		
E			231,762,2472	231,762,363	231,762,452	231,762,637	231,764,347	231,765,236	231,765,421	231,765,510	231,765,6333		
N			7,009,065,7007	7,009,065,293	7,009,064,983	7,009,064,331	7,009,058,320	7,009,055,194	7,009,054,543	7,009,054,232	7,009,053,7979		
Estacas: 0+950													
Dist. eixo (m)			-7,747	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,757		
Cota (m)			447,377	447,708	447,747	447,458	447,646	447,548	447,467	447,798	448,305		
E			231,771,8896	231,772,023	231,772,110	231,772,292	231,773,972	231,774,846	231,775,028	231,775,115	231,775,2507		
N			7,009,068,4940	7,009,068,015	7,009,067,704	7,009,067,052	7,009,061,032	7,009,057,902	7,009,057,250	7,009,056,938	7,009,056,4505		
Estacas: 0+960													
Dist. eixo (m)			-7,672	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,563		
Cota (m)			447,538	447,819	447,858	447,569	447,756	447,659	447,578	447,909	447,701		
E			231,781,5855	231,781,697	231,781,782	231,781,961	231,783,611	231,784,469	231,784,647	231,784,733	231,784,8152		
N			7,009,071,0954	7,009,070,689	7,009,070,377	7,009,069,724	7,009,063,696	7,009,060,561	7,009,059,909	7,009,059,597	7,009,059,2954		
Estacas: 0+970													
Dist. eixo (m)			-6,395	-6,047	-5,724	-5,047	0,000	3,250	3,927	4,250	4,603		
Cota (m)			447,646	447,878	447,916	447,628	447,779	447,682	447,600	447,932	447,696		
E			231,791,6052	231,791,695	231,791,779	231,791,955	231,793,263	231,794,105	231,794,280	231,794,364	231,794,4554		
N			7,009,072,4882	7,009,072,152	7,009,071,840	7,009,071,186	7,009,066,312	7,009,063,173	7,009,062,519	7,009,062,207	7,009,061,8662		
Estacas: 0+976													
Dist. eixo (m)			-5,578	-5,306	-4,983	-4,306	0,000	3,250	3,927	4,250	4,427		
Cota (m)			447,688	447,870	447,909	447,620	447,749	447,652	447,570	447,902	447,784		
E			231,797,8246	231,797,894	231,797,977	231,798,151	231,799,254	231,800,086	231,800,260	231,800,342	231,800,3876		
N			7,009,073,3015	7,009,073,038	7,009,072,726	7,009,072,072	7,009,067,910	7,009,064,768	7,009,064,114	7,009,063,801	7,009,063,6302		
Estacas: 0+980													
Dist. eixo (m)			-5,001	-4,850	-4,527	-3,850	0,000	3,250	3,927	4,250	4,498		
Cota (m)			447,748	447,848	447,887	447,598	447,714	447,616	447,535	447,866	447,701		
E			231,801,6452	231,801,684	231,801,767	231,801,940	231,802,926	231,803,759	231,803,932	231,804,015	231,804,0787		
N			7,009,073,7171	7,009,073,571	7,009,073,259	7,009,072,604	7,009,068,883	7,009,065,741	7,009,065,087	7,009,064,775	7,009,064,5345		
Estacas: 0+990													
Dist. eixo (m)			-4,587	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,627		
Cota (m)			447,516	447,740	447,779	447,490	447,588	447,490	447,409	447,740	447,489		
E			231,811,4177	231,811,504	231,811,587	231,811,760	231,812,593	231,813,425	231,813,599	231,813,681	231,813,7779		
N			7,009,075,8783	7,009,075,553	7,009,075,241	7,009,074,586	7,009,071,445	7,009,068,303	7,009,067,649	7,009,067,336	7,009,066,9721		
Estacas: 1+000													
Dist. eixo (m)			-5,317	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,629		
Cota (m)			446,901	447,612	447,651	447,362	447,460	447,362	447,281	447,612	447,360		
E			231,820,8970	231,821,170	231,821,253	231,821,426	231,822,259	231,823,092	231,823,265	231,823,348	231,823,4448		
N			7,009,079,1457	7,009,078,114	7,009,077,802	7,009,077,148	7,009,074,006	7,009,070,865	7,009,070,210	7,009,069,898	7,009,069,5317		
Estacas: 1+010													
Dist. eixo (m)			-5,298	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,685		
Cota (m)			446,785	447,484	447,523	447,234	447,332	447,234	447,153	447,484	447,194		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 1+050													
Dist. eixo (m)			-4,561	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,032		
Cota (m)			446,764	446,971	447,010	446,721	446,819	446,844	446,763	447,094	446,573		
E			231.869.4221	231.869.502	231.869.585	231.869.758	231.870.591	231.871.423	231.871.597	231.871.679	231.871.8797		
N			7.009.091.2240	7.009.090.923	7.009.090.611	7.009.089.956	7.009.086.815	7.009.083.673	7.009.083.019	7.009.082.707	7.009.081.9503		
Estacas: 1+060													
Dist. eixo (m)			-4,555	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,932		
Cota (m)			446,640	446,843	446,882	446,593	446,691	446,770	446,689	447,020	446,632		
E			231.879.0900	231.879.168	231.879.251	231.879.424	231.880.257	231.881.090	231.881.263	231.881.346	231.881.4947		
N			7.009.093.7796	7.009.093.485	7.009.093.172	7.009.092.518	7.009.090.234	7.009.087.093	7.009.086.438	7.009.085.581	7.009.085.268	7.009.084.7057	
Estacas: 1+063													
Dist. eixo (m)			-4,555	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,719		
Cota (m)			446,598	446,801	446,840	446,551	446,649	446,746	446,665	446,996	446,684		
E			231.882.3268	231.882.405	231.882.488	231.882.661	231.883.494	231.884.326	231.884.500	231.884.582	231.884.7024		
N			7.009.094.6372	7.009.094.342	7.009.094.030	7.009.093.376	7.009.090.234	7.009.087.093	7.009.086.438	7.009.086.126	7.009.085.6731		
Estacas: 1+067													
Dist. eixo (m)			-4,530	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,681		
Cota (m)			446,556	446,742	446,781	446,492	446,609	446,726	446,645	446,976	446,689		
E			231.885.8130	231.885.885	231.885.968	231.886.141	231.886.974	231.887.806	231.887.979	231.888.062	231.888.1727		
N			7.009.095.5355	7.009.095.265	7.009.094.952	7.009.094.298	7.009.091.156	7.009.088.015	7.009.087.361	7.009.087.048	7.009.086.6314		
Estacas: 1+070													
Dist. eixo (m)			-4,478	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,274		
Cota (m)			446,545	446,697	446,736	446,447	446,580	446,714	446,633	446,964	446,988		
E			231.888.6592	231.888.723	231.888.813	231.889.003	231.889.913	231.890.823	231.891.013	231.891.104	231.891.1102		
N			7.009.096.2730	7.009.096.055	7.009.095.745	7.009.095.095	7.009.091.975	7.009.088.855	7.009.088.205	7.009.087.895	7.009.087.8719		
Estacas: 1+080													
Dist. eixo (m)			-4,649	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,505		
Cota (m)			446,311	446,577	446,616	446,327	446,515	446,702	446,621	446,952	446,783		
E			231.897.7286	231.897.871	231.897.986	231.898.228	231.899.389	231.900.549	231.900.791	231.900.906	231.900.9873		
N			7.009.099.5045	7.009.099.132	7.009.098.830	7.009.098.198	7.009.095.162	7.009.092.127	7.009.091.494	7.009.091.193	7.009.090.9547		
Estacas: 1+081													
Dist. eixo (m)			-4,663	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,569		
Cota (m)			446,289	446,564	446,603	446,314	446,509	446,704	446,623	446,954	446,742		
E			231.898.9226	231.899.084	231.899.203	231.899.452	231.900.646	231.901.839	231.902.088	231.902.207	231.902.3239		
N			7.009.099.9879	7.009.099.604	7.009.099.303	7.009.098.674	7.009.095.651	7.009.092.628	7.009.091.998	7.009.091.698	7.009.091.4010		
Estacas: 1+090													
Dist. eixo (m)			-4,674	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,940		
Cota (m)			446,267	446,549	446,588	446,299	446,494	446,689	446,608	446,939	446,479		
E			231.906.5557	231.906.739	231.906.878	231.907.171	231.908.574	231.909.977	231.910.270	231.910.409	231.910.7071		
N			7.009.103.3249	7.009.102.942	7.009.102.651	7.009.102.040	7.009.099.109	7.009.096.178	7.009.095.567	7.009.095.276	7.009.094.6528		
Estacas: 1+100													
Dist. eixo (m)			-5,684	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,464		
Cota (m)			445,618	446,574	446,613	446,324	446,519	446,714	446,633	446,964	446,155		
E			231.914.5461	231.915.268	231.915.431	231.915.772	231.917.408	231.919.045	231.919.386	231.919.549	231.920.1598		
N			7.009.108.6986	7.009.107.460	7.009.107.181	7.009.106.596	7.009.103.789	7.009.100.981	7.009.100.396	7.009.100.117	7.009.099.0683		
Estacas: 1+110													
Dist. eixo (m)			-5,832	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,950		
Cota (m)			445,389	446,644	446,682	446,394	446,589	446,784	446,702	447,034	446,557		
E			231.922.4972	231.923.402	231.923.587	231.923.974	231.925.834	231.927.693	231.928.080	231.928.265	231.928.6654		
N			7.009.113.9530	7.009.112.856	7.009.112.391	7.009.111.836	7.009.109.170	7.009.108.504	7.009.105.949	7.009.105.684	7.009.105.1102		
Estacas: 1+120													
Dist. eixo (m)			-5,694	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,949		
Cota (m)			445,796	446,759	446,797	446,509	446,704	446,899	446,817	447,149	446,683		
E			231.930.1681	231.931.087	231.931.293	231.931.724	231.933.794	231.935.864	231.936.295	231.936.500	231.936.9454		
N			7.009.119.6078	7.009.118.495	7.009.118.246	7.009.117.724	7.009.115.218	7.009.112.712	7.009.112.190	7.009.111.941	7.009.111.4024		
Estacas: 1+130													
Dist. eixo (m)			-5,512	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,158		
Cota (m)			446,077	446,918	446,957	446,668	446,863	447,058	446,977	447,308	446,703		
E			231.937.3928	231.938.273	231.938.498	231.938.970	231.941.237	231.943.503	231.943.975	231.944.200	231.944.8339		
N			7.009.125.8434	7.009.124.939	7.009.124.707	7.009.124.222	7.009.121.892	7.009.119.563	7.009.119.078	7.009.118.846	7.009.118.1952		
Estacas: 1+134													
Dist. eixo (m)			-5,562	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,128		
Cota (m)			446,115	446,989	447,028	446,739	446,934	447,129	447,048	447,379	446,794		
E			231.939.8653	231.940.808	231.941.040	231.941.527	231.943.863	231.946.198	231.946.685	231.946.917	231.947.5480		
N			7.009.128.3931	7.009.127.481	7.009.127.256	7.009.126.786	7.009.124.526	7.009.122.266	7.009.121.795	7.009.121.571	7.009.120.9600		
Estacas: 1+140													
Dist. eixo (m)			-5,032	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,149		
Cota (m)			446,602	447,124	447,162	446,874	447,069	447,264	447,182	447,514	446,914		
E			231.944.3225	231.944.912	231.945.155	231.945.665	231.948.113	231.950.561	231.951.071	231.951.314	231.951.9915		
N			7.009.132.4593	7.009.131.945	7.009.131.732	7.009.131.267	7.009.129.149	7.009.127.012	7.009.126.567	7.009.126.354	7.009.125.7625		
Estacas: 1+150													
Dist. eixo (m)			-4,554	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,610		
Cota (m)			447,171	447,374	447,413	447,124	447,319	447,514	447,433	447,764	447,524		
E			231.950.7148	231.950.960	231.951.219	231.951.764	231.954.377	231.956.991	231.957.535	231.957.795	231.958.0847		
N			7.009.139.6477	7.009.139.467	7.009.139.275	7.009.138.872	7.009.136.941	7.009.135.009	7.009.134.607	7.009.134.414	7.009.134.2002		
Estacas: 1+160													
Dist. eixo (m)			-4,465	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,811		
Cota (m)			447,526	447,669	447,708	447,419	447,614	447,809	447,728	448,059	447,818		
E			231.956.1934	231.956.376	231.956.651	231.957.226	231.959.988	231.962.750	231.963.325	231.963.600	231.963.9067		
N			7.009.147.5687	7.009.147.455	7.009.147.285	7.009.146.928	7.009.145.215	7.009.143.502	7.009.143.145	7.009.142.975	7.009.142.7841		
Estacas: 1+170													
Dist. eixo (m)			-4,279	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,701		
Cota (m)			448,021	447,992	448,030	447,742	447,937	448,132	448,050	448,382	448,081		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 1+210													
Dist. eixo (m)			-4,565	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,611		
Cota (m)			448,820	449,030	449,068	448,780	448,877	448,943	448,861	449,193	448,286		
E			231.973.0184	231.973.325	231.973.640	231.974.300	231.977.467	231.980.635	231.981.294	231.981.609	231.982.939		
N			7.009.192.7772	7.009.192.707	7.009.192.634	7.009.192.483	7.009.191.754	7.009.191.026	7.009.190.874	7.009.190.802	7.009.190.4967		
Estacas: 1+220													
Dist. eixo (m)			-4,563	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,901		
Cota (m)			448,939	449,147	449,186	448,897	448,995	449,066	448,925	449,256	448,822		
E			231.975.2612	231.975.567	231.975.881	231.976.541	231.979.708	231.982.876	231.983.535	231.983.850	231.984.4851		
N			7.009.202.5224	7.009.202.452	7.009.202.380	7.009.202.228	7.009.201.600	7.009.200.771	7.009.200.620	7.009.200.547	7.009.200.4012		
Estacas: 1+222													
Dist. eixo (m)			-4,570	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,885		
Cota (m)			448,953	449,166	449,205	448,916	449,014	449,084	448,943	449,274	448,840		
E			231.975.7225	231.976.035	231.976.350	231.977.009	231.980.177	231.983.344	231.984.004	231.984.319	231.984.9372		
N			7.009.204.5602	7.009.204.488	7.009.204.416	7.009.204.264	7.009.203.536	7.009.202.808	7.009.202.656	7.009.202.583	7.009.202.4411		
Estacas: 1+230													
Dist. eixo (m)			-4,617	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,807		
Cota (m)			448,973	449,186	449,225	448,936	449,034	449,104	448,963	449,294	448,901		
E			231.977.4495	231.977.808	231.978.122	231.978.782	231.981.950	231.985.117	231.985.777	231.986.091	231.986.6345		
N			7.009.212.2802	7.009.212.198	7.009.212.126	7.009.211.974	7.009.211.245	7.009.210.517	7.009.210.365	7.009.210.293	7.009.210.1679		
Estacas: 1+240													
Dist. eixo (m)			-4,599	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,764		
Cota (m)			449,027	449,260	449,299	449,010	449,107	449,177	448,929	449,260	448,917		
E			231.979.7087	231.980.049	231.980.364	231.981.023	231.984.191	231.987.358	231.988.018	231.988.333	231.988.8340		
N			7.009.222.0217	7.009.221.944	7.009.221.871	7.009.221.719	7.009.220.991	7.009.220.263	7.009.220.111	7.009.220.038	7.009.219.9231		
Estacas: 1+250													
Dist. eixo (m)			-4,472	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,808		
Cota (m)			449,153	449,361	449,400	449,111	449,208	449,278	449,030	449,313	448,928		
E			231.982.0739	231.982.290	231.982.605	231.983.265	231.986.432	231.989.599	231.990.259	231.990.574	231.991.1189		
N			7.009.231.7388	7.009.231.659	7.009.231.617	7.009.231.465	7.009.230.737	7.009.230.008	7.009.229.857	7.009.229.784	7.009.229.6587		
Estacas: 1+260													
Dist. eixo (m)			-4,428	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,700		
Cota (m)			449,229	449,348	449,387	449,098	449,195	449,265	449,017	449,348	449,048		
E			231.984.3574	231.984.531	231.984.846	231.985.506	231.988.673	231.991.841	231.992.500	231.992.815	231.993.2534		
N			7.009.241.4747	7.009.241.435	7.009.241.362	7.009.241.211	7.009.240.482	7.009.239.754	7.009.239.602	7.009.239.530	7.009.239.4289		
Estacas: 1+270													
Dist. eixo (m)			-4,406	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,773		
Cota (m)			449,329	449,433	449,472	449,183	449,281	449,351	449,102	449,433	448,418		
E			231.986.6205	231.986.773	231.987.087	231.987.747	231.990.914	231.994.082	231.994.741	231.995.056	231.996.5402		
N			7.009.251.2153	7.009.251.180	7.009.251.108	7.009.250.956	7.009.250.228	7.009.249.499	7.009.249.348	7.009.249.275	7.009.248.9340		
Estacas: 1+280													
Dist. eixo (m)			-4,386	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,883		
Cota (m)			449,471	449,562	449,601	449,312	449,409	449,479	449,231	449,562	448,607		
E			231.988.8808	231.989.014	231.989.328	231.989.988	231.993.156	231.996.323	231.996.983	231.997.298	231.998.8936		
N			7.009.260.9565	7.009.260.926	7.009.260.854	7.009.260.702	7.009.259.973	7.009.259.245	7.009.259.093	7.009.259.021	7.009.258.6998		
Estacas: 1+290													
Dist. eixo (m)			-4,518	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,285		
Cota (m)			449,556	449,735	449,773	449,485	449,582	449,652	449,403	449,735	449,044		
E			231.990.9933	231.991.255	231.991.570	231.992.229	231.995.397	231.998.564	231.999.224	231.999.539	232.000.5477		
N			7.009.270.7317	7.009.270.672	7.009.270.599	7.009.270.447	7.009.269.719	7.009.268.991	7.009.268.839	7.009.268.767	7.009.268.5345		
Estacas: 1+300													
Dist. eixo (m)			-4,623	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,864		
Cota (m)			449,697	449,945	449,984	449,695	449,793	449,863	449,614	449,945	449,536		
E			231.993.1329	231.993.496	231.993.811	231.994.471	231.997.638	232.000.805	232.001.465	232.001.780	232.002.3787		
N			7.009.280.5007	7.009.280.417	7.009.280.345	7.009.280.193	7.009.279.465	7.009.278.736	7.009.278.585	7.009.278.512	7.009.278.3744		
Estacas: 1+310													
Dist. eixo (m)			-4,903	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,397		
Cota (m)			449,726	450,161	450,200	449,911	450,009	449,911	449,830	450,161	450,064		
E			231.995.1006	231.995.737	231.996.052	231.996.712	231.999.879	232.003.047	232.003.706	232.004.021	232.004.1641		
N			7.009.290.3092	7.009.290.163	7.009.290.090	7.009.289.939	7.009.289.210	7.009.288.482	7.009.288.330	7.009.288.258	7.009.288.2249		
Estacas: 1+320													
Dist. eixo (m)			-5,157	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,398		
Cota (m)			449,772	450,377	450,416	450,127	450,225	450,127	450,046	450,377	450,278		
E			231.997.0942	231.997.979	231.998.293	231.998.953	232.002.120	232.005.288	232.005.947	232.006.262	232.006.4068		
N			7.009.308.1117	7.009.299.908	7.009.299.836	7.009.299.684	7.009.298.956	7.009.298.228	7.009.298.076	7.009.298.003	7.009.297.9701		
Estacas: 1+330													
Dist. eixo (m)			-5,110	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,552		
Cota (m)			450,004	450,578	450,616	450,328	450,425	450,328	450,246	450,578	450,376		
E			231.999.3811	232.000.220	232.000.534	232.001.194	232.004.362	232.007.529	232.008.189	232.008.504	232.008.9882		
N			7.009.309.8468	7.009.309.654	7.009.309.582	7.009.309.430	7.009.308.702	7.009.307.973	7.009.307.821	7.009.307.749	7.009.307.8812		
Estacas: 1+340													
Dist. eixo (m)			-4,731	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,680		
Cota (m)			450,434	450,755	450,794	450,505	450,602	450,505	450,424	450,755	450,468		
E			232.001.9923	232.002.461	232.002.776	232.003.435	232.006.603	232.009.770	232.010.430	232.010.745	232.011.1641		
N			7.009.319.5074	7.009.319.400	7.009.319.327	7.009.319.176	7.009.318.447	7.009.317.719	7.009.317.567	7.009.317.495	7.009.317.3981		
Estacas: 1+350													
Dist. eixo (m)			-4,768	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,005		
Cota (m)			450,579	450,925	450,963	450,675	450,772	450,675	450,593	450,925	450,421		
E			232.004.1974	232.004.702	232.005.017	232.005.677	232.008.844	232.012.011	232.012.671	232.012.986	232.013.7217		
N			7.009.329.1673	7.009.329.145	7.009.329.073	7.009.328.921	7.009.328.193	7.009.327.464	7.009.327.313	7.009.327.240	7.009.327.0710		
Estacas: 1+360													
Dist. eixo (m)			-4,718	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,265		
Cota (m)			450,782	451,094	451,133	450,844	450,942	450,844	450,763	451,094	450,417		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 1+420													
Dist. eixo (m)			-5,042	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,959		
Cota (m)			452,310	452,838	452,877	452,588	452,686	452,588	452,507	452,838	452,366		
E			232,019,6187	232,020,391	232,020,705	232,021,365	232,024,532	232,027,700	232,028,359	232,028,674	232,029,3651		
N			7,009,397,5420	7,009,397,365	7,009,397,292	7,009,397,140	7,009,396,412	7,009,395,684	7,009,395,532	7,009,395,460	7,009,395,3007		
Estacas: 1+430													
Dist. eixo (m)			-5,123	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,043		
Cota (m)			452,866	453,448	453,487	453,198	453,296	453,198	453,117	453,448	452,920		
E			232,021,7808	232,022,632	232,022,947	232,023,606	232,026,774	232,029,941	232,030,601	232,030,916	232,031,6879		
N			7,009,407,3058	7,009,407,110	7,009,407,038	7,009,406,886	7,009,406,158	7,009,405,429	7,009,405,278	7,009,405,205	7,009,405,0275		
Estacas: 1+440													
Dist. eixo (m)			-5,409	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,216		
Cota (m)			453,390	454,162	454,201	453,912	454,010	453,912	453,831	454,162	453,518		
E			232,023,7439	232,024,873	232,025,188	232,025,848	232,029,015	232,032,182	232,032,842	232,033,157	232,034,0980		
N			7,009,417,1154	7,009,416,856	7,009,416,783	7,009,416,632	7,009,415,903	7,009,415,175	7,009,415,023	7,009,414,951	7,009,414,7343		
Estacas: 1+450													
Dist. eixo (m)			-5,094	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,553		
Cota (m)			454,417	454,980	455,019	454,730	454,827	454,730	454,649	454,980	454,778		
E			232,026,2913	232,027,114	232,027,429	232,028,089	232,031,256	232,034,423	232,035,083	232,035,398	232,035,6930		
N			7,009,426,7906	7,009,426,601	7,009,426,529	7,009,426,377	7,009,425,649	7,009,424,921	7,009,424,769	7,009,424,696	7,009,424,6285		
Estacas: 1+458													
Dist. eixo (m)			-4,836	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,901		
Cota (m)			455,270	455,661	455,700	455,411	455,509	455,411	455,330	455,661	455,228		
E			232,028,2239	232,028,795	232,029,110	232,029,770	232,032,937	232,036,104	232,036,764	232,037,079	232,037,7129		
N			7,009,434,0427	7,009,433,911	7,009,433,839	7,009,433,687	7,009,432,959	7,009,432,230	7,009,432,079	7,009,432,006	7,009,431,8605		
Estacas: 1+460													
Dist. eixo (m)			-4,759	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,902		
Cota (m)			455,861	455,901	455,940	455,651	455,749	455,651	455,570	455,901	455,466		
E			232,028,8665	232,029,362	232,029,677	232,030,336	232,033,501	232,036,666	232,037,325	232,037,640	232,038,2752		
N			7,009,436,4747	7,009,436,359	7,009,436,286	7,009,436,132	7,009,435,394	7,009,434,655	7,009,434,502	7,009,434,428	7,009,434,2800		
Estacas: 1+470													
Dist. eixo (m)			-4,365	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,706		
Cota (m)			456,821	456,898	456,937	456,648	456,745	456,648	456,567	456,898	456,594		
E			232,031,5956	232,031,707	232,032,021	232,032,678	232,035,833	232,038,989	232,039,646	232,039,960	232,040,4024		
N			7,009,446,1623	7,009,446,135	7,009,446,058	7,009,445,896	7,009,445,118	7,009,444,340	7,009,444,178	7,009,444,101	7,009,443,9916		
Estacas: 1+474													
Dist. eixo (m)			-4,290	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,551		
Cota (m)			457,378	457,338	457,377	457,088	457,185	457,088	457,007	457,338	457,137		
E			232,032,7387	232,032,777	232,033,091	232,033,747	232,036,898	232,040,049	232,040,706	232,041,019	232,041,3110		
N			7,009,450,4364	7,009,450,427	7,009,450,348	7,009,450,182	7,009,449,387	7,009,448,592	7,009,448,426	7,009,448,347	7,009,448,2734		
Estacas: 1+480													
Dist. eixo (m)			-4,426	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,348		
Cota (m)			458,074	457,898	457,937	457,648	457,745	457,648	457,567	457,898	457,833		
E			232,034,0030	232,034,174	232,034,486	232,035,142	232,038,287	232,041,433	232,042,088	232,042,401	232,042,4954		
N			7,009,455,9249	7,009,455,881	7,009,455,799	7,009,455,629	7,009,454,812	7,009,453,995	7,009,453,825	7,009,453,743	7,009,453,7187		
Estacas: 1+490													
Dist. eixo (m)			-4,310	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,307		
Cota (m)			458,890	458,830	458,869	458,580	458,678	458,580	458,499	458,830	458,752		
E			232,036,7043	232,036,763	232,037,074	232,037,727	232,040,882	232,043,987	232,044,650	232,044,962	232,045,0173		
N			7,009,465,6105	7,009,465,595	7,009,465,510	7,009,465,331	7,009,464,475	7,009,463,618	7,009,463,440	7,009,463,355	7,009,463,3396		
Estacas: 1+491													
Dist. eixo (m)			-4,269	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,331		
Cota (m)			458,954	458,935	458,974	458,685	458,783	458,685	458,604	458,935	458,881		
E			232,037,0893	232,037,107	232,037,419	232,038,072	232,041,205	232,044,339	232,044,992	232,045,303	232,045,3816		
N			7,009,466,8592	7,009,466,854	7,009,466,769	7,009,466,589	7,009,465,728	7,009,464,866	7,009,464,687	7,009,464,601	7,009,464,5795		
Estacas: 1+500													
Dist. eixo (m)			-4,531	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,267		
Cota (m)			459,352	459,539	459,578	459,289	459,386	459,289	459,208	459,539	459,556		
E			232,039,1432	232,039,414	232,039,725	232,040,378	232,043,512	232,046,646	232,047,298	232,047,610	232,047,6260		
N			7,009,475,3182	7,009,475,244	7,009,475,158	7,009,474,979	7,009,474,117	7,009,473,256	7,009,473,076	7,009,472,991	7,009,472,9862		
Estacas: 1+510													
Dist. eixo (m)			-4,714	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,391		
Cota (m)			459,709	460,018	460,057	459,768	459,865	459,768	459,687	460,018	459,924		
E			232,041,6174	232,042,065	232,042,376	232,043,029	232,046,163	232,049,296	232,049,949	232,050,261	232,050,3963		
N			7,009,485,0090	7,009,484,886	7,009,484,801	7,009,484,621	7,009,483,760	7,009,482,898	7,009,482,719	7,009,482,633	7,009,482,5956		
Estacas: 1+520													
Dist. eixo (m)			-4,842	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,354		
Cota (m)			459,872	460,267	460,306	460,017	460,114	460,017	459,936	460,267	460,197		
E			232,044,1451	232,044,716	232,045,027	232,045,680	232,048,814	232,051,947	232,052,600	232,052,911	232,053,0121		
N			7,009,494,6852	7,009,494,528	7,009,494,443	7,009,494,263	7,009,493,402	7,009,492,540	7,009,492,361	7,009,492,275	7,009,492,2475		
Estacas: 1+530													
Dist. eixo (m)			-4,754	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,325		
Cota (m)			459,590	460,286	460,325	460,036	460,133	460,036	459,955	460,286	460,236		
E			232,046,8807	232,047,366	232,047,678	232,048,331	232,051,464	232,054,598	232,055,251	232,055,562	232,055,6345		
N			7,009,504,3041	7,009,504,171	7,009,504,085	7,009,503,906	7,009,503,044	7,009,502,183	7,009,502,003	7,009,501,917	7,009,501,8976		
Estacas: 1+540													
Dist. eixo (m)			-4,864	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,494		
Cota (m)			459,734	460,143	460,182	459,893	459,990	459,893	459,812	460,143	459,980		
E			232,049,4252	232,050,017	232,050,329	232,050,981	232,054,115	232,057,249	232,057,901	232,058,213	232,058,4488		
N			7,009,513,9756	7,009,513,813	7,009,513,727	7,009,513,548	7,009,512,686	7,009,511,825	7,009,511,645	7,009,511,560	7,009,511,4949		
Estacas: 1+550													
Dist. eixo (m)			-4,977	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,661		
Cota (m)			459,509	459,993	460,032	459,743	459,841	459,743	459,662	459,993	459,719</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 1+610													
Dist. eixo (m)			-4,807	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,651		
Cota (m)			459,425	459,796	459,835	459,546	459,592	459,495	459,413	459,745	459,477		
E			232,068,039	232,068,573	232,071,224	232,072,188	232,072,671	232,075,805	232,076,457	232,076,769	232,077,1556		
N			7,009,581,4563	7,009,581,309	7,009,581,223	7,009,581,044	7,009,580,182	7,009,579,321	7,009,579,141	7,009,579,056	7,009,578,9491		
Estacas: 1+619													
Dist. eixo (m)			-4,922	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250			
Cota (m)			459,451	459,899	459,837	459,649	459,649	459,551	459,470	459,801			
E			232,070,2019	232,070,850	232,071,161	232,071,814	232,074,947	232,078,081	232,078,734	232,079,045			
N			7,009,589,7681	7,009,589,590	7,009,589,504	7,009,589,325	7,009,588,464	7,009,587,602	7,009,587,423	7,009,587,337			
Estacas: 1+620													
Dist. eixo (m)			-4,925	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,283		
Cota (m)			459,466	459,915	459,854	459,665	459,665	459,560	459,479	459,810	459,844		
E			232,070,5730	232,071,224	232,071,535	232,072,188	232,075,322	232,078,455	232,079,108	232,079,420	232,079,4517		
N			7,009,591,1296	7,009,590,951	7,009,590,865	7,009,590,686	7,009,589,824	7,009,588,963	7,009,588,783	7,009,588,698	7,009,588,6889		
Estacas: 1+630													
Dist. eixo (m)			-4,839	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,918		
Cota (m)			459,642	460,035	460,074	459,785	459,724	459,626	459,545	459,876	459,431		
E			232,073,3069	232,073,874	232,074,186	232,074,839	232,077,972	232,081,106	232,081,759	232,082,070	232,082,7146		
N			7,009,600,7492	7,009,600,593	7,009,600,508	7,009,600,328	7,009,599,467	7,009,598,605	7,009,598,426	7,009,598,340	7,009,598,1629		
Estacas: 1+637													
Dist. eixo (m)			-4,564	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,534		
Cota (m)			459,911	460,120	460,159	459,870	459,772	459,675	459,594	459,925	459,735		
E			232,075,3752	232,075,678	232,075,989	232,076,642	232,079,776	232,082,909	232,083,562	232,083,874	232,084,1479		
N			7,009,607,2359	7,009,607,153	7,009,607,067	7,009,606,888	7,009,606,026	7,009,605,165	7,009,604,985	7,009,604,900	7,009,604,8242		
Estacas: 1+639													
Dist. eixo (m)			-4,478	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,461		
Cota (m)			460,000	460,152	460,191	459,902	459,793	459,693	459,602	459,933	459,793		
E			232,076,0378	232,076,257	232,076,569	232,077,221	232,080,355	232,083,489	232,084,141	232,084,453	232,084,6563		
N			7,009,608,3206	7,009,608,260	7,009,608,175	7,009,608,995	7,009,608,134	7,009,607,272	7,009,607,093	7,009,607,007	7,009,606,9512		
Estacas: 1+640													
Dist. eixo (m)			-4,438	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,424		
Cota (m)			460,402	460,168	460,206	459,918	459,803	459,688	459,607	459,938	459,823		
E			232,076,3533	232,076,534	232,076,845	232,077,497	232,080,626	232,083,755	232,084,407	232,084,718	232,084,8848		
N			7,009,610,3079	7,009,610,257	7,009,610,170	7,009,609,987	7,009,609,108	7,009,608,230	7,009,608,047	7,009,607,959	7,009,607,9122		
Estacas: 1+650													
Dist. eixo (m)			-4,539	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,376		
Cota (m)			460,161	460,353	460,392	460,103	459,935	459,767	459,686	460,017	459,933		
E			232,079,2913	232,079,565	232,079,870	232,080,511	232,083,588	232,086,665	232,087,306	232,087,612	232,087,7313		
N			7,009,620,1193	7,009,620,026	7,009,619,922	7,009,619,704	7,009,618,658	7,009,617,612	7,009,617,394	7,009,617,290	7,009,617,2491		
Estacas: 1+653													
Dist. eixo (m)			-4,597	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,340		
Cota (m)			460,179	460,410	460,449	460,160	459,978	459,796	459,715	460,046	459,986		
E			232,080,1072	232,080,435	232,080,739	232,081,377	232,084,439	232,087,501	232,088,138	232,088,443	232,088,5278		
N			7,009,622,6439	7,009,622,527	7,009,622,419	7,009,622,192	7,009,621,103	7,009,620,014	7,009,619,787	7,009,619,678	7,009,619,6481		
Estacas: 1+660													
Dist. eixo (m)			-4,775	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,283		
Cota (m)			460,205	460,555	460,593	460,305	460,123	459,941	459,860	460,191	460,159		
E			232,082,6315	232,083,118	232,083,418	232,084,046	232,087,062	232,090,078	232,090,706	232,091,006	232,091,0365		
N			7,009,629,8132	7,009,629,818	7,009,629,497	7,009,629,245	7,009,628,034	7,009,626,823	7,009,626,571	7,009,626,450	7,009,626,4379		
Estacas: 1+670													
Dist. eixo (m)			-4,343	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,086		
Cota (m)			460,736	460,798	460,837	460,548	460,366	460,184	460,103	460,434	459,876		
E			232,087,1010	232,087,185	232,087,478	232,088,092	232,091,038	232,093,984	232,094,597	232,094,890	232,095,6482		
N			7,009,639,0421	7,009,639,003	7,009,638,867	7,009,638,581	7,009,637,208	7,009,635,836	7,009,635,550	7,009,635,414	7,009,635,0608		
Estacas: 1+680													
Dist. eixo (m)			-4,603	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,087		
Cota (m)			460,861	461,097	461,135	460,847	460,665	460,483	460,401	460,733	460,175		
E			232,091,4416	232,091,753	232,092,038	232,092,635	232,095,503	232,098,371	232,098,968	232,099,253	232,099,915		
N			7,009,648,3208	7,009,648,155	7,009,648,003	7,009,647,684	7,009,646,155	7,009,644,625	7,009,644,307	7,009,644,155	7,009,643,7608		
Estacas: 1+690													
Dist. eixo (m)			-4,862	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,815		
Cota (m)			461,043	461,451	461,490	461,201	461,019	460,837	460,756	461,087	460,710		
E			232,096,2851	232,096,809	232,097,085	232,097,664	232,100,445	232,103,226	232,103,805	232,104,081	232,104,5651		
N			7,009,657,3631	7,009,657,047	7,009,656,879	7,009,656,529	7,009,654,847	7,009,653,165	7,009,652,814	7,009,652,647	7,009,652,3544		
Estacas: 1+700													
Dist. eixo (m)			-4,871	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,902		
Cota (m)			461,430	461,844	461,882	461,594	461,412	461,230	461,149	461,480	461,045		
E			232,101,8242	232,102,337	232,102,604	232,103,164	232,105,850	232,108,535	232,109,095	232,109,362	232,109,9003		
N			7,009,665,0016	7,009,665,652	7,009,665,470	7,009,665,089	7,009,663,259	7,009,661,429	7,009,661,048	7,009,660,866	7,009,660,4992		
Estacas: 1+710													
Dist. eixo (m)			-4,793	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,653		
Cota (m)			461,825	462,187	462,226	461,937	461,755	461,573	461,492	461,823	461,554		
E			232,107,8914	232,108,323	232,108,580	232,109,118	232,111,701	232,114,284	232,114,822	232,115,079	232,115,3989		
N			7,009,674,2757	7,009,673,946	7,009,673,750	7,009,673,340	7,009,671,367	7,009,669,395	7,009,668,984	7,009,668,788	7,009,668,5432		
Estacas: 1+714													
Dist. eixo (m)			-4,841	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,622		
Cota (m)			461,902	462,296	462,335	462,046	461,864	461,682	461,601	461,932	461,684		
E			232,110,1640	232,110,627	232,110,880	232,111,410	232,113,953	232,116,497	232,117,026	232,117,279	232,117,5700		
N			7,009,677,2709	7,009,676,903	7,009,676,702	7,009,676,280	7,009,674,257	7,009,672,234	7,009,671,813	7,009,671,611	7,009,671,3800		
Estacas: 1+720													
Dist. eixo (m)			-4,898	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,531		
Cota (m)			462,031	462,463	462,502	462,213	462,031	461,849	461,768	462,099	461,912		
E			232,11										

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 1+775													
Dist. eixo (m)			-4,927	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,585		
Cota (m)			462,810	463,261	463,300	463,011	462,829	462,647	462,566	462,897	462,674		
E			232,156,4510	232,156,816	232,168,990	232,157,354	232,159,105	232,160,855	232,161,219	232,161,393	232,161,579		
N			7,009,719,1246	7,009,718,554	7,009,718,282	7,009,717,712	7,009,714,973	7,009,712,235	7,009,711,664	7,009,711,392	7,009,711,1097		
Estacas: 1+780													
Dist. eixo (m)			-4,996	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,083		
Cota (m)			462,809	463,306	463,345	463,056	462,897	462,738	462,656	462,988	462,432		
E			232,161,0069	232,161,391	232,161,557	232,161,905	232,163,577	232,165,248	232,165,597	232,165,763	232,166,1913		
N			7,009,722,0269	7,009,721,387	7,009,721,110	7,009,720,530	7,009,717,743	7,009,714,956	7,009,714,375	7,009,714,098	7,009,713,3837		
Estacas: 1+788													
Dist. eixo (m)			-5,097	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,950		
Cota (m)			462,813	463,377	463,427	463,127	463,004	462,881	462,799	463,131	462,664		
E			232,168,4006	232,168,803	232,168,956	232,169,278	232,170,823	232,172,367	232,172,689	232,172,842	232,173,1748		
N			7,009,726,3544	7,009,725,809	7,009,725,325	7,009,724,729	7,009,721,870	7,009,719,010	7,009,718,415	7,009,718,130	7,009,717,5145		
Estacas: 1+790													
Dist. eixo (m)			-5,093	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,968		
Cota (m)			462,830	463,391	463,430	463,141	463,025	462,909	462,828	463,159	462,680		
E			232,169,8635	232,170,264	232,170,417	232,170,739	232,172,284	232,173,828	232,174,150	232,174,303	232,174,6446		
N			7,009,727,1397	7,009,726,398	7,009,726,114	7,009,725,518	7,009,722,659	7,009,719,799	7,009,719,204	7,009,718,919	7,009,718,2872		
Estacas: 1+794													
Dist. eixo (m)			-5,081	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,987		
Cota (m)			462,874	463,428	463,467	463,178	463,080	462,983	462,902	463,233	462,741		
E			232,173,6434	232,174,039	232,174,192	232,174,514	232,176,058	232,177,603	232,177,924	232,178,078	232,178,4283		
N			7,009,729,1685	7,009,728,437	7,009,728,153	7,009,727,557	7,009,724,698	7,009,721,838	7,009,721,242	7,009,720,958	7,009,720,3093		
Estacas: 1+800													
Dist. eixo (m)			-5,066	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,936		
Cota (m)			462,932	463,476	463,515	463,226	463,154	463,081	463,000	463,331	462,874		
E			232,178,6747	232,179,063	232,179,216	232,179,538	232,181,082	232,182,627	232,182,948	232,183,102	232,183,4280		
N			7,009,731,8886	7,009,731,150	7,009,730,866	7,009,730,271	7,009,727,411	7,009,724,551	7,009,723,956	7,009,723,672	7,009,723,0677		
Estacas: 1+810													
Dist. eixo (m)			-5,008	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,938		
Cota (m)			463,056	463,561	463,600	463,311	463,282	463,253	463,172	463,503	463,044		
E			232,187,5011	232,187,861	232,188,015	232,188,337	232,189,881	232,191,425	232,191,747	232,191,901	232,192,2276		
N			7,009,736,5695	7,009,735,903	7,009,735,618	7,009,735,023	7,009,732,163	7,009,729,304	7,009,728,708	7,009,728,424	7,009,727,8162		
Estacas: 1+817													
Dist. eixo (m)			-4,960	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,918		
Cota (m)			463,145	463,618	463,657	463,368	463,368	463,368	463,287	463,618	463,173		
E			232,193,3997	232,193,737	232,193,891	232,194,212	232,195,757	232,197,301	232,197,623	232,197,776	232,198,0937		
N			7,009,739,7008	7,009,739,076	7,009,738,792	7,009,738,196	7,009,735,337	7,009,732,477	7,009,731,882	7,009,731,597	7,009,731,0097		
Estacas: 1+820													
Dist. eixo (m)			-4,936	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,958		
Cota (m)			463,189	463,646	463,685	463,396	463,411	463,425	463,344	463,675	463,203		
E			232,196,3339	232,196,660	232,196,814	232,197,135	232,198,680	232,200,224	232,200,546	232,200,699	232,201,0359		
N			7,009,741,2584	7,009,740,655	7,009,740,371	7,009,739,775	7,009,736,915	7,009,734,056	7,009,733,460	7,009,733,176	7,009,732,5526		
Estacas: 1+830													
Dist. eixo (m)			-4,920	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,085		
Cota (m)			463,285	463,731	463,770	463,481	463,539	463,597	463,516	463,847	463,290		
E			232,205,1406	232,205,459	232,205,612	232,205,934	232,207,478	232,209,023	232,209,345	232,209,498	232,209,8550		
N			7,009,745,9959	7,009,745,407	7,009,745,123	7,009,744,527	7,009,741,667	7,009,738,808	7,009,738,212	7,009,737,828	7,009,737,1928		
Estacas: 1+839													
Dist. eixo (m)			-5,100	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,201		
Cota (m)			463,240	463,807	463,845	463,557	463,654	463,752	463,670	464,002	463,368		
E			232,213,0316	232,213,436	232,213,589	232,213,911	232,215,455	232,217,000	232,217,321	232,217,475	232,217,9267		
N			7,009,750,4631	7,009,749,715	7,009,749,431	7,009,748,835	7,009,745,976	7,009,743,116	7,009,742,521	7,009,742,236	7,009,741,3997		
Estacas: 1+840													
Dist. eixo (m)			-5,116	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,204		
Cota (m)			463,235	463,813	463,851	463,563	463,664	463,766	463,685	464,016	463,380		
E			232,213,8457	232,214,257	232,214,411	232,214,733	232,216,277	232,218,822	232,218,143	232,218,297	232,218,7501		
N			7,009,750,9213	7,009,750,159	7,009,749,875	7,009,749,279	7,009,746,420	7,009,743,560	7,009,742,964	7,009,742,680	7,009,741,8407		
Estacas: 1+843													
Dist. eixo (m)			-5,126	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,206		
Cota (m)			463,244	463,828	463,866	463,578	463,693	463,808	463,727	464,058	463,421		
E			232,216,6260	232,217,042	232,217,196	232,217,518	232,219,062	232,220,606	232,220,928	232,221,082	232,221,5359		
N			7,009,752,4337	7,009,751,663	7,009,751,379	7,009,750,783	7,009,747,924	7,009,745,064	7,009,744,468	7,009,744,184	7,009,743,3430		
Estacas: 1+850													
Dist. eixo (m)			-5,001	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,225		
Cota (m)			463,329	463,830	463,869	463,580	463,725	463,870	463,788	464,120	463,469		
E			232,222,5206	232,222,897	232,223,059	232,223,398	232,225,027	232,226,655	232,226,995	232,227,157	232,227,6452		
N			7,009,755,5879	7,009,754,938	7,009,754,659	7,009,754,073	7,009,751,261	7,009,748,448	7,009,747,862	7,009,747,583	7,009,746,7388		
Estacas: 1+856													
Dist. eixo (m)			-4,918	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,272		
Cota (m)			463,356	463,801	463,840	463,551	463,720	463,889	463,808	464,139	463,458		
E			232,227,2413	232,227,590	232,227,759	232,228,112	232,229,808	232,231,505	232,231,858	232,232,027	232,232,5599		
N			7,009,758,3025	7,009,757,733	7,009,757,457	7,009,756,880	7,009,754,107	7,009,751,335	7,009,750,758	7,009,750,482	7,009,749,6105		
Estacas: 1+860													
Dist. eixo (m)			-4,910	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,244		
Cota (m)			463,339	463,778	463,817	463,528	463,697	463,866	463,785	464,116	463,454		
E			232,230,9258	232,231,281	232,231,455	232,231,819	232,233,569	232,235,318	232,235,682	232,235,856	232,236,3916		
N			7,009,760,5962	7,009,760,040	7,009,759,768	7,009,759,197	7,009,756,458	7,009,753,720	7,009,753,149	7,009,752,877	7,009,752,0387		
Estacas: 1+870													
Dist. eixo (m)			-4,714	-4,250	-3,927	-3,250	0,000	3,250	3,927				

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 1+920													
Dist. eixo (m)			-5,268	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,548		
Cota (m)			461,096	461,775	461,814	461,525	461,694	461,863	461,782	462,113	461,914		
E			232,275,4894	232,276,240	232,276,478	232,276,977	232,279,374	232,281,771	232,282,270	232,282,508	232,282,727		
N			7,009,798,5066	7,009,797,819	7,009,797,601	7,009,797,144	7,009,794,949	7,009,792,754	7,009,792,297	7,009,792,078	7,009,791,8771		
Estacas: 1+930													
Dist. eixo (m)			-4,845	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,681		
Cota (m)			460,738	461,134	461,173	460,884	461,053	461,222	461,141	461,472	461,185		
E			232,282,2543	232,282,710	232,282,957	232,283,476	232,285,966	232,288,456	232,288,974	232,289,222	232,289,522		
N			7,009,805,5813	7,009,805,199	7,009,804,992	7,009,804,556	7,009,802,468	7,009,800,379	7,009,799,944	7,009,799,736	7,009,799,4587		
Estacas: 1+940													
Dist. eixo (m)			-4,561	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,758		
Cota (m)			460,202	460,409	460,448	460,159	460,328	460,497	460,416	460,747	460,409		
E			232,288,6065	232,288,853	232,289,109	232,289,646	232,292,224	232,294,803	232,295,340	232,295,596	232,295,9989		
N			7,009,813,0424	7,009,812,853	7,009,812,657	7,009,812,245	7,009,810,266	7,009,808,287	7,009,807,875	7,009,807,678	7,009,807,3692		
Estacas: 1+950													
Dist. eixo (m)			-4,499	-4,250	-3,927	-3,250	0,000	3,765	4,442	4,765	4,973		
Cota (m)			459,495	459,661	459,700	459,411	459,580	459,776	459,695	460,026	459,887		
E			232,294,4533	232,294,657	232,294,922	232,295,476	232,298,138	232,301,222	232,301,776	232,302,041	232,302,216		
N			7,009,820,9102	7,009,820,767	7,009,820,582	7,009,820,194	7,009,818,329	7,009,816,169	7,009,815,780	7,009,815,595	7,009,815,4752		
Estacas: 1+960													
Dist. eixo (m)			-4,347	-4,250	-3,927	-3,250	0,000	4,993	5,670	5,993	6,245		
Cota (m)			458,849	458,913	458,952	458,663	458,832	459,022	459,011	459,342	459,174		
E			232,300,0304	232,300,113	232,300,385	232,300,956	232,303,696	232,307,906	232,308,477	232,308,749	232,308,9616		
N			7,009,828,9784	7,009,828,926	7,009,828,752	7,009,828,388	7,009,826,641	7,009,823,957	7,009,823,593	7,009,823,419	7,009,823,2838		
Estacas: 1+970													
Dist. eixo (m)			-4,452	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,771		
Cota (m)			458,034	458,169	458,207	457,919	458,088	458,413	458,331	458,663	458,315		
E			232,305,0332	232,305,208	232,305,487	232,306,074	232,308,887	232,314,298	232,314,884	232,315,164	232,315,6150		
N			7,009,837,4151	7,009,837,314	7,009,837,153	7,009,836,814	7,009,835,187	7,009,832,059	7,009,831,721	7,009,831,559	7,009,831,2981		
Estacas: 1+973													
Dist. eixo (m)			-4,464	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,860		
Cota (m)			457,794	457,937	457,975	457,687	457,856	458,181	458,099	458,431	458,024		
E			232,306,6374	232,306,824	232,307,106	232,307,697	232,310,534	232,315,990	232,316,581	232,316,863	232,317,3954		
N			7,009,840,2621	7,009,840,158	7,009,840,000	7,009,839,670	7,009,838,084	7,009,835,035	7,009,834,705	7,009,834,547	7,009,834,2496		
Estacas: 1+980													
Dist. eixo (m)			-5,030	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,975		
Cota (m)			457,033	457,553	457,592	457,303	457,436	457,691	457,610	457,941	457,458		
E			232,309,2419	232,309,934	232,310,220	232,310,820	232,313,702	232,319,244	232,319,844	232,320,131	232,320,7732		
N			7,009,845,2766	7,009,845,916	7,009,845,767	7,009,845,454	7,009,843,951	7,009,841,061	7,009,840,748	7,009,840,599	7,009,840,2637		
Estacas: 1+986													
Dist. eixo (m)			-4,966	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	8,169		
Cota (m)			456,794	457,272	457,310	457,022	457,123	457,318	457,237	457,568	456,956		
E			232,311,8297	232,312,473	232,313,763	232,313,371	232,316,289	232,321,901	232,322,509	232,322,799	232,323,6240		
N			7,009,851,2520	7,009,850,937	7,009,850,795	7,009,850,497	7,009,849,066	7,009,846,316	7,009,846,018	7,009,845,875	7,009,845,4711		
Estacas: 1+990													
Dist. eixo (m)			-5,029	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	8,351		
Cota (m)			456,552	457,071	457,110	456,821	456,919	457,069	456,988	457,319	456,585		
E			232,313,6513	232,314,351	232,314,641	232,315,249	232,318,167	232,323,779	232,324,387	232,324,677	232,325,6660		
N			7,009,855,1117	7,009,854,769	7,009,854,627	7,009,854,329	7,009,852,898	7,009,850,148	7,009,849,850	7,009,849,707	7,009,849,2228		
Estacas: 2+000													
Dist. eixo (m)			-4,864	-4,250	-3,927	-3,250	0,000	4,250	4,927	5,250	6,449		
Cota (m)			456,279	456,689	456,728	456,439	456,536	456,567	456,486	456,817	456,018		
E			232,318,2005	232,318,752	232,319,042	232,319,650	232,322,568	232,326,385	232,326,992	232,327,283	232,328,3954		
N			7,009,864,0185	7,009,863,748	7,009,863,606	7,009,863,308	7,009,861,878	7,009,860,007	7,009,859,709	7,009,859,567	7,009,859,0392		
Estacas: 2+004													
Dist. eixo (m)			-4,746	-4,250	-3,927	-3,250	0,000	3,383	4,060	4,383	4,937		
Cota (m)			456,234	456,565	456,603	456,315	456,412	456,412	456,331	456,662	456,293		
E			232,320,2139	232,320,659	232,320,949	232,321,557	232,324,475	232,327,513	232,328,121	232,328,411	232,328,9081		
N			7,009,867,8567	7,009,867,639	7,009,867,496	7,009,867,198	7,009,865,768	7,009,864,279	7,009,863,981	7,009,863,839	7,009,863,5952		
Estacas: 2+010													
Dist. eixo (m)			-5,178	-4,850	-4,527	-3,850	0,000	3,250	3,927	4,250	4,822		
Cota (m)			456,204	456,423	456,461	456,173	456,288	456,257	456,176	456,507	456,126		
E			232,322,3204	232,322,615	232,322,905	232,323,513	232,326,970	232,329,888	232,330,496	232,330,786	232,331,2991		
N			7,009,873,1358	7,009,872,992	7,009,872,850	7,009,872,552	7,009,870,857	7,009,869,427	7,009,869,129	7,009,868,987	7,009,868,7349		
Estacas: 2+020													
Dist. eixo (m)			-6,305	-6,050	-5,727	-5,050	0,000	3,250	3,927	4,250	4,550		
Cota (m)			456,103	456,273	456,312	456,023	456,174	456,089	456,008	456,339	456,139		
E			232,325,7091	232,325,938	232,326,228	232,326,836	232,331,371	232,334,289	232,334,897	232,335,187	232,335,4568		
N			7,009,882,6115	7,009,882,499	7,009,882,357	7,009,882,059	7,009,879,836	7,009,878,406	7,009,878,108	7,009,877,966	7,009,877,8337		
Estacas: 2+022													
Dist. eixo (m)			-6,576	-6,316	-5,993	-5,316	0,000	3,250	3,927	4,250	4,484		
Cota (m)			456,085	456,258	456,297	456,008	456,168	456,070	455,989	456,320	456,164		
E			232,326,4418	232,326,675	232,327,965	232,327,573	232,332,347	232,335,265	232,335,873	232,336,163	232,336,3726		
N			7,009,884,7215	7,009,884,607	7,009,884,465	7,009,884,167	7,009,881,827	7,009,880,397	7,009,880,099	7,009,879,957	7,009,879,8540		
Estacas: 2+030													
Dist. eixo (m)			-7,545	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,450		
Cota (m)			456,058	456,255	456,293	456,005	456,192	456,095	456,014	456,345	456,211		
E			232,328,9968	232,329,262	232,329,552	232,330,160	232,335,772	232,338,690	232,339,298	232,339,588	232,339,7681		
N			7,009,892,1366	7,009,892,007	7,009,891,865	7,009,891,567	7,009,888,816	7,009,887,385	7,009,887,088	7,009,886,945	7,009,886,8572		
Estacas: 2+040													
Dist. eixo (m)			-7,626	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,510		
Cota (m)			456,063	456,314	456,353	456,064	456,251	456,154	456,073	456,404	456,231		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 2+100													
Dist. eixo (m)			-4,319	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,464		
Cota (m)			456,881	456,812	456,851	456,562	456,659	456,562	456,481	456,812	456,670		
E			232,362,7025	232,362,764	232,371,567	232,363,054	232,366,580	232,369,499	232,370,107	232,370,397	232,370,5884		
N			7,009,953,5723	7,009,953,542	7,009,953,400	7,009,953,102	7,009,951,672	7,009,950,241	7,009,949,943	7,009,949,801	7,009,949,7071		
Estacas: 2+110													
Dist. eixo (m)			-4,284	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,362		
Cota (m)			456,853	456,876	457,014	456,726	456,823	456,726	456,644	456,876	456,901		
E			232,367,1347	232,367,165	232,367,455	232,368,063	232,370,982	232,373,900	232,374,508	232,374,798	232,374,8983		
N			7,009,962,5365	7,009,962,521	7,009,962,379	7,009,962,081	7,009,960,651	7,009,959,221	7,009,958,923	7,009,958,780	7,009,958,7312		
Estacas: 2+120													
Dist. eixo (m)			-4,383	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,448		
Cota (m)			457,283	457,195	457,234	456,945	457,042	456,945	456,864	457,195	457,063		
E			232,371,4873	232,371,567	232,371,857	232,372,465	232,375,383	232,378,301	232,379,199	232,379,3770			
N			7,009,971,5397	7,009,971,501	7,009,971,359	7,009,971,061	7,009,969,630	7,009,968,200	7,009,967,902	7,009,967,760	7,009,967,6726		
Estacas: 2+130													
Dist. eixo (m)			-4,441	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,607		
Cota (m)			457,661	457,470	457,509	457,220	457,317	457,220	457,139	457,470	457,232		
E			232,375,7963	232,375,968	232,376,258	232,376,866	232,379,784	232,382,702	232,383,310	232,383,600	232,383,9204		
N			7,009,980,5643	7,009,980,480	7,009,980,338	7,009,980,040	7,009,978,610	7,009,977,179	7,009,976,881	7,009,976,739	7,009,976,5823		
Estacas: 2+140													
Dist. eixo (m)			-4,488	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,452		
Cota (m)			458,038	457,800	457,839	457,550	457,648	457,550	457,469	457,800	457,665		
E			232,380,1551	232,380,369	232,380,659	232,381,267	232,384,185	232,387,104	232,387,711	232,388,001	232,388,1831		
N			7,009,989,5644	7,009,989,460	7,009,989,318	7,009,989,020	7,009,987,589	7,009,986,159	7,009,985,861	7,009,985,719	7,009,985,6296		
Estacas: 2+150													
Dist. eixo (m)			-4,348	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,717		
Cota (m)			458,284	458,186	458,225	457,936	458,034	457,936	457,855	458,186	457,875		
E			232,384,6824	232,384,770	232,385,060	232,385,668	232,388,586	232,391,505	232,392,112	232,392,403	232,392,8221		
N			7,009,998,4820	7,009,998,439	7,009,998,297	7,009,997,999	7,009,996,569	7,009,995,138	7,009,994,840	7,009,994,698	7,009,994,4924		
Estacas: 2+160													
Dist. eixo (m)			-4,275	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,272		
Cota (m)			458,611	458,628	458,666	458,378	458,475	458,378	458,296	458,628	457,946		
E			232,389,1491	232,389,171	232,389,461	232,390,069	232,392,988	232,395,906	232,396,514	232,396,804	232,397,7216		
N			7,010,007,4293	7,010,007,418	7,010,007,276	7,010,006,978	7,010,005,548	7,010,004,118	7,010,003,820	7,010,003,677	7,010,003,2275		
Estacas: 2+170													
Dist. eixo (m)			-4,472	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,866		
Cota (m)			458,973	459,121	459,159	458,871	458,968	458,871	458,789	459,121	458,043		
E			232,393,3736	232,393,573	232,393,863	232,394,471	232,397,389	232,400,307	232,400,915	232,401,205	232,402,8558		
N			7,010,016,9533	7,010,016,398	7,010,016,256	7,010,015,958	7,010,014,527	7,010,013,097	7,010,012,799	7,010,012,657	7,010,011,9457		
Estacas: 2+180													
Dist. eixo (m)			-4,584	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,356		
Cota (m)			459,041	459,624	459,663	459,374	459,471	459,374	459,293	459,624	458,220		
E			232,397,6735	232,397,974	232,398,264	232,398,872	232,401,790	232,404,708	232,405,316	232,405,606	232,407,4970		
N			7,010,025,5244	7,010,025,377	7,010,025,235	7,010,024,937	7,010,023,507	7,010,022,076	7,010,021,778	7,010,021,636	7,010,020,7094		
Estacas: 2+190													
Dist. eixo (m)			-4,663	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,558		
Cota (m)			459,809	460,084	460,123	459,834	459,932	459,834	459,753	460,084	458,545		
E			232,402,0044	232,402,375	232,402,665	232,403,273	232,406,191	232,409,110	232,409,717	232,410,007	232,412,0665		
N			7,010,034,5382	7,010,034,357	7,010,034,214	7,010,033,916	7,010,032,486	7,010,031,056	7,010,030,758	7,010,030,616	7,010,029,5984		
Estacas: 2+200													
Dist. eixo (m)			-4,495	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,264		
Cota (m)			460,292	460,455	460,494	460,205	460,303	460,205	460,124	460,455	459,113		
E			232,406,5562	232,406,776	232,407,066	232,407,674	232,410,592	232,413,511	232,414,118	232,414,409	232,416,2171		
N			7,010,043,4437	7,010,043,336	7,010,043,194	7,010,042,896	7,010,041,466	7,010,040,035	7,010,039,737	7,010,039,595	7,010,038,7085		
Estacas: 2+210													
Dist. eixo (m)			-4,505	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,999		
Cota (m)			460,567	460,737	460,776	460,487	460,585	460,487	460,406	460,737	460,305		
E			232,410,9485	232,411,177	232,411,467	232,412,075	232,414,994	232,417,912	232,418,520	232,418,810	232,419,3927		
N			7,010,052,4275	7,010,052,315	7,010,052,173	7,010,051,875	7,010,050,445	7,010,049,015	7,010,048,717	7,010,048,574	7,010,048,2886		
Estacas: 2+220													
Dist. eixo (m)			-4,475	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,926		
Cota (m)			460,780	460,930	460,969	460,680	460,778	460,680	460,599	460,930	460,479		
E			232,415,3769	232,415,579	232,415,869	232,416,477	232,419,395	232,422,313	232,422,921	232,423,211	232,423,8184		
N			7,010,061,3936	7,010,061,295	7,010,061,153	7,010,060,855	7,010,059,424	7,010,057,994	7,010,057,696	7,010,057,554	7,010,057,2560		
Estacas: 2+230													
Dist. eixo (m)			-5,585	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,788		
Cota (m)			462,369	461,034	461,072	460,784	460,881	460,784	460,702	461,034	460,675		
E			232,418,7811	232,419,980	232,420,270	232,420,878	232,423,796	232,426,714	232,427,322	232,427,612	232,428,0949		
N			7,010,070,8617	7,010,070,274	7,010,070,132	7,010,069,834	7,010,068,404	7,010,066,973	7,010,066,675	7,010,066,533	7,010,066,2965		
Estacas: 2+240													
Dist. eixo (m)			-5,178	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,944		
Cota (m)			461,977	461,048	461,087	460,798	460,896	460,798	460,717	461,048	460,586		
E			232,423,4373	232,424,381	232,424,671	232,425,279	232,428,197	232,431,116	232,431,723	232,432,013	232,432,6362		
N			7,010,079,6621	7,010,079,254	7,010,079,111	7,010,078,813	7,010,077,383	7,010,075,953	7,010,075,655	7,010,075,513	7,010,075,2073		
Estacas: 2+250													
Dist. eixo (m)			-4,275	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,889		
Cota (m)			460,957	460,974	461,012	460,724	460,821	460,724	460,642	460,974	460,548		
E			232,428,7597	232,428,782	232,429,072	232,429,680	232,432,598	232,435,517	232,436,124	232,436,415	232,436,9882		
N			7,010,088,2439	7,010,088,233	7,010,088,091	7,010,087,793	7,010,086,362	7,010,084,932	7,010,084,634	7,010,084,492	7,010,084,2108		
Estacas: 2+260													
Dist. eixo (m)			-5,039	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,627		
Cota (m)			461,399	460,810	460,849	460,560	460,657	460,560	460,479	460,810	460,559		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 2+310													
Dist. eixo (m)			-5,257	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,046		
Cota (m)			458,577	459,248	459,287	458,998	459,096	458,998	458,917	459,248	458,051		
E			232,454,2859	232,455,190	232,455,480	232,456,088	232,459,006	232,461,924	232,462,531	232,462,821	232,464,439		
N			7,010,142,5537	7,010,142,110	7,010,141,968	7,010,141,670	7,010,140,239	7,010,138,808	7,010,138,510	7,010,138,367	7,010,137,5762		
Estacas: 2+320													
Dist. eixo (m)			-5,002	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,093		
Cota (m)			458,604	459,106	459,145	458,856	459,953	458,856	458,775	459,106	457,878		
E			232,458,9517	232,459,626	232,459,915	232,460,521	232,463,432	232,466,343	232,466,949	232,467,238	232,468,882		
N			7,010,151,4311	7,010,151,097	7,010,150,953	7,010,150,652	7,010,149,206	7,010,147,760	7,010,147,459	7,010,147,315	7,010,146,4955		
Estacas: 2+330													
Dist. eixo (m)			-4,774	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	8,256		
Cota (m)			458,712	459,062	459,100	458,812	458,909	458,812	458,730	459,062	456,391		
E			232,463,6378	232,464,106	232,464,394	232,464,999	232,467,903	232,470,806	232,471,411	232,471,700	232,475,2785		
N			7,010,160,2958	7,010,160,060	7,010,159,915	7,010,159,611	7,010,158,151	7,010,156,690	7,010,156,386	7,010,156,241	7,010,154,4410		
Estacas: 2+335													
Dist. eixo (m)			-4,626	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	8,632		
Cota (m)			458,826	459,077	459,115	458,827	459,924	458,827	458,745	459,077	456,156		
E			232,466,0086	232,466,344	232,466,632	232,467,237	232,470,136	232,473,036	232,473,640	232,473,928	232,477,8377		
N			7,010,164,6664	7,010,164,497	7,010,164,351	7,010,164,045	7,010,162,578	7,010,161,110	7,010,160,804	7,010,160,658	7,010,158,6801		
Estacas: 2+340													
Dist. eixo (m)			-4,285	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,829		
Cota (m)			459,092	459,115	459,154	458,865	459,963	458,865	458,784	459,115	456,729		
E			232,468,5996	232,468,631	232,468,919	232,469,522	232,472,418	232,475,314	232,475,918	232,476,206	232,479,3949		
N			7,010,169,0177	7,010,169,002	7,010,168,855	7,010,168,548	7,010,167,073	7,010,165,598	7,010,165,291	7,010,165,145	7,010,163,5203		
Estacas: 2+342													
Dist. eixo (m)			-4,361	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,467		
Cota (m)			459,253	459,142	459,181	458,892	459,990	458,892	458,811	459,142	456,997		
E			232,469,6019	232,469,701	232,469,988	232,470,591	232,473,486	232,476,380	232,476,983	232,477,271	232,480,1360		
N			7,010,171,1497	7,010,171,099	7,010,170,952	7,010,170,644	7,010,169,166	7,010,167,688	7,010,167,380	7,010,167,233	7,010,165,7697		
Estacas: 2+350													
Dist. eixo (m)			-4,434	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,356		
Cota (m)			459,451	459,267	459,306	459,017	459,115	459,017	458,936	459,267	457,863		
E			232,473,0374	232,473,201	232,473,488	232,474,090	232,476,978	232,479,867	232,480,469	232,480,756	232,482,6279		
N			7,010,178,0046	7,010,177,920	7,010,177,772	7,010,177,462	7,010,175,973	7,010,174,484	7,010,174,173	7,010,174,025	7,010,173,0602		
Estacas: 2+360													
Dist. eixo (m)			-4,533	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,512		
Cota (m)			459,800	459,518	459,556	459,268	459,365	459,268	459,186	459,518	459,343		
E			232,477,5646	232,477,815	232,478,102	232,478,702	232,481,583	232,484,464	232,485,064	232,485,351	232,488,5828		
N			7,010,186,9468	7,010,186,816	7,010,186,667	7,010,186,353	7,010,184,850	7,010,183,346	7,010,183,033	7,010,182,883	7,010,182,7621		
Estacas: 2+370													
Dist. eixo (m)			-4,384	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,581		
Cota (m)			460,000	459,866	459,905	459,616	459,713	459,616	459,535	459,866	459,645		
E			232,482,3556	232,482,474	232,482,760	232,483,358	232,486,232	232,489,106	232,489,704	232,489,990	232,490,2828		
N			7,010,195,7511	7,010,195,689	7,010,195,538	7,010,195,221	7,010,193,703	7,010,192,185	7,010,191,869	7,010,191,718	7,010,191,5633		
Estacas: 2+375													
Dist. eixo (m)			-4,266	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,597		
Cota (m)			460,064	460,075	460,113	459,825	459,922	459,825	459,743	460,075	459,843		
E			232,484,9271	232,484,941	232,485,226	232,485,824	232,488,694	232,491,563	232,492,161	232,492,446	232,492,7528		
N			7,010,200,3509	7,010,200,344	7,010,200,192	7,010,199,874	7,010,198,349	7,010,196,823	7,010,196,505	7,010,196,353	7,010,196,1905		
Estacas: 2+380													
Dist. eixo (m)			-4,405	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,905		
Cota (m)			460,142	460,245	460,284	459,995	460,093	459,995	459,914	460,245	459,809		
E			232,487,0301	232,487,167	232,487,453	232,488,050	232,490,920	232,493,790	232,494,387	232,494,673	232,495,2506		
N			7,010,204,6043	7,010,204,531	7,010,204,380	7,010,204,062	7,010,202,536	7,010,201,011	7,010,200,693	7,010,200,541	7,010,200,2339		
Estacas: 2+390													
Dist. eixo (m)			-4,373	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,787		
Cota (m)			460,412	460,494	460,533	460,244	460,341	460,244	460,163	460,494	460,136		
E			232,491,7534	232,491,862	232,492,147	232,492,745	232,495,614	232,498,484	232,499,082	232,499,367	232,499,8411		
N			7,010,213,4186	7,010,213,361	7,010,213,209	7,010,212,892	7,010,211,366	7,010,209,840	7,010,209,523	7,010,209,371	7,010,209,1188		
Estacas: 2+400													
Dist. eixo (m)			-4,485	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,560		
Cota (m)			460,434	460,590	460,629	460,340	460,438	460,340	460,259	460,590	459,717		
E			232,496,3485	232,496,556	232,496,841	232,497,439	232,500,309	232,503,178	232,503,776	232,504,061	232,505,2177		
N			7,010,222,3010	7,010,222,191	7,010,222,039	7,010,221,721	7,010,220,196	7,010,218,670	7,010,218,352	7,010,218,201	7,010,217,5858		
Estacas: 2+410													
Dist. eixo (m)			-4,538	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,665		
Cota (m)			460,343	460,535	460,574	460,285	460,383	460,285	460,204	460,535	459,592		
E			232,500,9957	232,501,250	232,501,535	232,502,133	232,505,003	232,507,872	232,508,470	232,508,755	232,510,0045		
N			7,010,231,1558	7,010,231,021	7,010,230,869	7,010,230,551	7,010,229,025	7,010,227,500	7,010,227,182	7,010,227,030	7,010,226,3663		
Estacas: 2+420													
Dist. eixo (m)			-4,338	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,848		
Cota (m)			460,287	460,345	460,384	460,095	460,193	460,095	460,014	460,345	459,947		
E			232,505,8670	232,505,944	232,506,230	232,506,827	232,509,697	232,512,567	232,513,164	232,513,450	232,513,9776		
N			7,010,239,8913	7,010,239,850	7,010,239,699	7,010,239,381	7,010,237,855	7,010,236,330	7,010,236,012	7,010,235,860	7,010,235,5794		
Estacas: 2+430													
Dist. eixo (m)			-4,549	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,869		
Cota (m)			459,940	460,139	460,178	459,889	459,987	459,889	459,808	460,139	459,060		
E			232,510,3750	232,510,639	232,510,924	232,511,522	232,514,391	232,517,261	232,517,859	232,518,144	232,519,5739		
N			7,010,248,8201	7,010,248,680	7,010,248,528	7,010,248,211	7,010,246,685	7,010,245,159	7,010,244,842	7,010,244,690	7,010,243,9296		
Estacas: 2+440													
Dist. eixo (m)			-4,607	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,169		
Cota (m)			459,721	459,859	459,897	459,709	459,806	459,709	459,628	459,859	458,680		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 2+500													
Dist. eixo (m)			-4,588	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,958		
Cota (m)			459,224	459,449	459,488	459,199	459,297	459,199	459,118	459,449	457,644		
E			232,543,2000	232,543,498	232,543,784	232,544,381	232,547,251	232,550,121	232,550,718	232,551,004	232,553,3948		
N			7,010,310,6466	7,010,310,488	7,010,310,336	7,010,310,019	7,010,308,493	7,010,306,967	7,010,306,650	7,010,306,498	7,010,305,2267		
Estacas: 2+510													
Dist. eixo (m)			-4,633	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,626		
Cota (m)			459,224	459,413	459,452	459,163	459,260	459,163	459,082	459,413	458,562		
E			232,547,9429	232,548,193	232,548,478	232,549,076	232,551,945	232,554,815	232,555,413	232,555,698	232,556,8243		
N			7,010,319,4505	7,010,319,318	7,010,319,166	7,010,318,848	7,010,317,323	7,010,315,797	7,010,315,479	7,010,315,328	7,010,314,7287		
Estacas: 2+520													
Dist. eixo (m)			-4,412	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,727		
Cota (m)			459,228	459,376	459,415	459,126	459,224	459,126	459,045	459,376	458,392		
E			232,552,7441	232,552,887	232,553,172	232,553,770	232,556,640	232,559,509	232,560,107	232,560,392	232,561,6962		
N			7,010,328,2234	7,010,328,147	7,010,327,996	7,010,327,678	7,010,326,152	7,010,324,627	7,010,324,309	7,010,324,157	7,010,323,4640		
Estacas: 2+530													
Dist. eixo (m)			-4,320	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,623		
Cota (m)			459,410	459,339	459,378	459,089	459,187	459,089	459,008	459,339	459,091		
E			232,557,5191	232,557,581	232,557,866	232,558,464	232,561,334	232,564,204	232,564,801	232,565,086	232,565,4155		
N			7,010,337,0101	7,010,336,977	7,010,336,826	7,010,336,508	7,010,334,982	7,010,333,457	7,010,333,139	7,010,332,987	7,010,332,8121		
Estacas: 2+540													
Dist. eixo (m)			-4,261	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,599		
Cota (m)			459,295	459,303	459,341	459,053	459,150	459,053	458,971	459,303	459,070		
E			232,562,2659	232,562,275	232,562,561	232,563,158	232,566,028	232,568,898	232,569,495	232,569,781	232,570,0884		
N			7,010,345,8120	7,010,345,807	7,010,345,655	7,010,345,337	7,010,343,812	7,010,342,286	7,010,341,969	7,010,341,817	7,010,341,6531		
Estacas: 2+549													
Dist. eixo (m)			-4,367	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,398		
Cota (m)			459,387	459,270	459,309	459,020	459,118	459,020	458,939	459,270	458,172		
E			232,566,3252	232,566,429	232,566,714	232,567,312	232,570,181	232,573,051	232,573,649	232,573,934	232,574,0645		
N			7,010,353,6738	7,010,353,619	7,010,353,467	7,010,353,149	7,010,351,624	7,010,350,098	7,010,349,780	7,010,349,629	7,010,349,5593		
Estacas: 2+550													
Dist. eixo (m)			-4,372	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,371		
Cota (m)			459,388	459,266	459,305	459,016	459,114	459,016	458,935	459,266	459,185		
E			232,566,8594	232,566,967	232,567,252	232,567,850	232,570,722	232,573,593	232,574,191	232,574,477	232,574,5836		
N			7,010,354,6895	7,010,354,633	7,010,354,481	7,010,354,164	7,010,352,642	7,010,351,120	7,010,350,803	7,010,350,651	7,010,350,5944		
Estacas: 2+560													
Dist. eixo (m)			-4,508	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,313		
Cota (m)			459,487	459,229	459,268	458,979	459,077	458,979	458,898	459,229	459,292		
E			232,571,3579	232,571,587	232,571,874	232,572,475	232,575,362	232,578,248	232,578,846	232,579,136	232,579,1921		
N			7,010,363,5718	7,010,363,453	7,010,363,305	7,010,362,994	7,010,361,500	7,010,360,007	7,010,359,696	7,010,359,547	7,010,359,5182		
Estacas: 2+570													
Dist. eixo (m)			-4,686	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,434		
Cota (m)			459,629	459,193	459,231	458,943	459,040	458,943	458,861	459,193	458,377		
E			232,575,7290	232,576,119	232,576,407	232,577,011	232,579,913	232,582,814	232,583,418	232,583,707	232,583,8710		
N			7,010,372,5165	7,010,372,320	7,010,372,174	7,010,371,869	7,010,370,405	7,010,368,940	7,010,368,635	7,010,368,489	7,010,368,4063		
Estacas: 2+572													
Dist. eixo (m)			-4,696	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,445		
Cota (m)			459,631	459,185	459,224	458,935	459,033	458,935	458,854	459,185	459,380		
E			232,576,6207	232,577,019	232,577,308	232,577,913	232,580,817	232,583,721	232,584,326	232,584,615	232,584,7684		
N			7,010,374,3088	7,010,374,109	7,010,373,964	7,010,373,660	7,010,372,201	7,010,370,742	7,010,370,438	7,010,370,293	7,010,370,2058		
Estacas: 2+580													
Dist. eixo (m)			-4,722	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,494		
Cota (m)			459,628	459,156	459,195	458,906	459,003	458,906	458,825	459,156	459,400		
E			232,580,1375	232,580,561	232,580,851	232,581,459	232,584,374	232,587,290	232,587,897	232,588,187	232,588,4062		
N			7,010,381,4399	7,010,381,231	7,010,381,089	7,010,380,790	7,010,379,354	7,010,377,919	7,010,377,620	7,010,377,477	7,010,377,3690		
Estacas: 2+590													
Dist. eixo (m)			-4,403	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,360		
Cota (m)			459,272	459,119	459,158	458,869	458,967	458,869	458,788	459,119	459,229		
E			232,584,7769	232,584,915	232,585,206	232,585,816	232,588,746	232,591,676	232,592,287	232,592,578	232,592,6766		
N			7,010,390,2528	7,010,390,187	7,010,390,047	7,010,389,754	7,010,388,348	7,010,386,941	7,010,386,649	7,010,386,509	7,010,386,4612		
Estacas: 2+595													
Dist. eixo (m)			-4,594	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,357		
Cota (m)			458,871	459,100	459,139	458,850	458,948	458,850	458,769	459,100	459,029		
E			232,586,8217	232,587,133	232,587,424	232,588,036	232,590,974	232,593,911	232,594,523	232,594,815	232,594,9115		
N			7,010,394,9854	7,010,394,838	7,010,394,700	7,010,394,410	7,010,393,019	7,010,391,628	7,010,391,338	7,010,391,200	7,010,391,1540		
Estacas: 2+600													
Dist. eixo (m)			-5,073	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,610		
Cota (m)			458,534	459,083	459,121	458,833	458,930	458,833	458,751	459,083	458,842		
E			232,588,4539	232,589,198	232,589,490	232,590,102	232,593,039	232,595,976	232,596,588	232,596,880	232,597,2054		
N			7,010,399,5509	7,010,399,199	7,010,399,060	7,010,398,771	7,010,397,380	7,010,395,988	7,010,395,699	7,010,395,560	7,010,395,4061		
Estacas: 2+610													
Dist. eixo (m)			-6,102	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,053		
Cota (m)			457,811	459,046	459,085	458,796	458,893	458,796	458,715	459,046	458,510		
E			232,591,8042	232,593,478	232,593,770	232,594,382	232,597,319	232,600,256	232,600,868	232,601,160	232,601,8860		
N			7,010,409,0290	7,010,408,236	7,010,408,098	7,010,407,808	7,010,406,417	7,010,405,026	7,010,404,736	7,010,404,598	7,010,404,2542		
Estacas: 2+620													
Dist. eixo (m)			-6,229	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,483		
Cota (m)			457,690	459,009	459,048	458,759	458,857	458,759	458,678	459,009	458,187		
E			232,595,9698	232,597,758	232,598,050	232,598,662	232,601,599	232,604,537	232,605,148	232,605,440	232,606,5547		
N			7,010,418,1210	7,010,417,274	7,010,417,136	7,010,416,846	7,010,415,455	7,010,414,064	7,010,413,774	7,010,413,636	7,010,413,1079		
Estacas: 2+630													
Dist. eixo (m)			-6,157	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,468		
Cota (m)			457,701	458,973	459,011	458,723	458,820	458,723	458,641	458,973	458,180</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 2+690													
Dist. eixo (m)			-4,346	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,508		
Cota (m)			458,291	458,195	458,234	457,945	458,043	457,945	457,864	458,195	458,453		
E			232,627,632	232,627,720	232,628,012	232,628,624	232,631,561	232,634,499	232,635,110	232,635,402	232,635,630		
N			7,010,480,5787	7,010,480,537	7,010,480,399	7,010,480,109	7,010,478,718	7,010,477,327	7,010,477,038	7,010,476,899	7,010,476,786		
Estacas: 2+700													
Dist. eixo (m)			-4,502	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,655		
Cota (m)			457,965	457,713	457,752	457,463	457,561	457,463	457,382	457,713	458,118		
E			232,631,7728	232,632,001	232,632,293	232,632,905	232,635,842	232,638,779	232,639,391	232,639,683	232,640,0485		
N			7,010,489,6830	7,010,489,575	7,010,489,437	7,010,489,147	7,010,487,756	7,010,486,365	7,010,486,075	7,010,485,937	7,010,485,7636		
Estacas: 2+710													
Dist. eixo (m)			-4,436	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,650		
Cota (m)			457,287	457,140	457,140	456,851	456,949	456,851	456,770	457,101	457,501		
E			232,636,1128	232,636,281	232,636,573	232,637,185	232,640,122	232,643,059	232,643,671	232,643,963	232,644,3247		
N			7,010,498,6924	7,010,498,613	7,010,498,475	7,010,498,185	7,010,496,794	7,010,495,403	7,010,495,113	7,010,494,975	7,010,494,8032		
Estacas: 2+720													
Dist. eixo (m)			-4,466	-4,250	-3,927	-3,250	0,000	3,375	4,052	4,375	4,691		
Cota (m)			456,575	456,360	456,398	456,110	456,207	456,110	456,025	456,356	456,672		
E			232,640,3665	232,640,561	232,640,853	232,641,465	232,644,402	232,647,453	232,648,064	232,648,356	232,648,621		
N			7,010,507,7426	7,010,507,650	7,010,507,512	7,010,507,222	7,010,505,831	7,010,504,387	7,010,504,097	7,010,503,959	7,010,503,8233		
Estacas: 2+730													
Dist. eixo (m)			-4,418	-4,250	-3,927	-3,250	0,000	3,500	4,177	4,500	4,906		
Cota (m)			455,712	455,544	455,583	455,294	455,392	455,294	455,206	455,537	455,266		
E			232,644,6899	232,644,842	232,645,134	232,645,745	232,648,683	232,651,846	232,652,458	232,652,750	232,653,1165		
N			7,010,516,7598	7,010,516,688	7,010,516,550	7,010,516,260	7,010,514,869	7,010,513,371	7,010,513,081	7,010,512,943	7,010,512,7689		
Estacas: 4+520													
Dist. eixo (m)			-4,494	-4,250	-3,927	-3,250	0,000	3,500	4,177	4,500	4,520		
Cota (m)			478,354	478,710	478,740	478,460	478,557	478,460	478,371	478,702	478,722		
E			233,902,2243	233,902,260	233,902,307	233,902,406	233,902,882	233,903,394	233,903,493	233,903,540	233,903,5427		
N			7,011,692,6478	7,011,692,406	7,011,692,087	7,011,691,417	7,011,688,202	7,011,684,740	7,011,684,070	7,011,683,750	7,011,683,7307		
Estacas: 4+530													
Dist. eixo (m)			-4,285	-4,250	-3,927	-3,250	0,000	3,375	4,052	4,375	4,562		
Cota (m)			478,182	478,206	478,244	477,956	478,053	477,952	477,871	478,202	478,077		
E			233,912,1473	233,912,153	233,912,200	233,912,299	233,912,774	233,913,268	233,913,367	233,913,414	233,913,4414		
N			7,011,693,9036	7,011,693,869	7,011,693,549	7,011,692,880	7,011,689,665	7,011,686,326	7,011,685,656	7,011,685,337	7,011,685,1512		
Estacas: 4+540													
Dist. eixo (m)			-4,362	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,662		
Cota (m)			477,663	477,738	477,777	477,488	477,585	477,488	477,407	477,738	477,530		
E			233,922,0286	233,922,045	233,922,092	233,922,191	233,922,667	233,923,142	233,923,241	233,923,288	233,923,338		
N			7,011,695,4418	7,011,695,331	7,011,695,012	7,011,694,342	7,011,691,127	7,011,687,912	7,011,687,243	7,011,686,923	7,011,686,6146		
Estacas: 4+548													
Dist. eixo (m)			-4,449	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,703		
Cota (m)			477,276	477,409	477,448	477,159	477,256	477,159	477,078	477,409	477,107		
E			233,929,8505	233,929,880	233,929,927	233,930,026	233,930,501	233,930,977	233,931,076	233,931,123	233,931,1892		
N			7,011,696,6870	7,011,696,490	7,011,696,170	7,011,695,501	7,011,692,286	7,011,689,071	7,011,688,401	7,011,688,081	7,011,687,6330		
Estacas: 4+550													
Dist. eixo (m)			-4,450	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,696		
Cota (m)			477,195	477,329	477,367	477,079	477,176	477,079	476,997	477,329	477,031		
E			233,931,0942	233,931,924	233,931,972	233,932,073	233,932,559	233,933,044	233,933,145	233,933,193	233,933,2586		
N			7,011,696,9384	7,011,696,795	7,011,696,476	7,011,695,807	7,011,692,593	7,011,689,379	7,011,688,710	7,011,688,391	7,011,687,9498		
Estacas: 4+560													
Dist. eixo (m)			-4,585	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,723		
Cota (m)			476,754	476,978	477,016	476,728	476,825	476,728	476,646	476,978	476,662		
E			233,941,6840	233,941,739	233,941,792	233,941,903	233,942,435	233,942,968	233,943,078	233,943,131	233,943,2089		
N			7,011,698,6819	7,011,698,351	7,011,698,032	7,011,697,365	7,011,694,158	7,011,690,952	7,011,690,285	7,011,689,966	7,011,689,4990		
Estacas: 4+570													
Dist. eixo (m)			-4,752	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,908		
Cota (m)			476,350	476,685	476,724	476,435	476,532	476,435	476,354	476,685	476,247		
E			233,951,4404	233,951,530	233,951,588	233,951,708	233,952,288	233,952,867	233,952,988	233,953,046	233,953,1627		
N			7,011,700,5448	7,011,700,051	7,011,699,733	7,011,699,067	7,011,695,869	7,011,692,671	7,011,692,005	7,011,691,687	7,011,691,0401		
Estacas: 4+580													
Dist. eixo (m)			-4,723	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,089		
Cota (m)			476,135	476,451	476,490	476,201	476,298	476,201	476,120	476,451	476,891		
E			233,961,2035	233,961,295	233,961,357	233,961,488	233,962,114	233,962,740	233,962,871	233,962,933	233,963,0949		
N			7,011,702,3592	7,011,701,895	7,011,701,578	7,011,700,913	7,011,697,724	7,011,694,535	7,011,693,871	7,011,693,554	7,011,692,7305		
Estacas: 4+590													
Dist. eixo (m)			-4,937	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,968		
Cota (m)			475,817	476,275	476,314	476,025	476,122	476,025	475,944	476,275	475,796		
E			233,970,8891	233,971,032	233,971,098	233,971,239	233,971,912	233,972,585	233,972,725	233,972,792	233,972,9411		
N			7,011,704,5540	7,011,703,882	7,011,703,566	7,011,702,904	7,011,699,724	7,011,696,545	7,011,695,882	7,011,695,566	7,011,694,8639		
Estacas: 4+600													
Dist. eixo (m)			-5,350	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,979		
Cota (m)			475,424	476,158	476,196	475,908	476,005	475,908	475,826	476,158	475,672		
E			233,980,4941	233,980,738	233,980,809	233,980,959	233,981,679	233,982,399	233,982,549	233,982,611	233,982,7824		
N			7,011,707,0850	7,011,706,012	7,011,705,697	7,011,705,037	7,011,701,868	7,011,698,698	7,011,698,038	7,011,697,723	7,011,697,0122		
Estacas: 4+610													
Dist. eixo (m)			-6,655	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,843		
Cota (m)			474,495	476,088	476,137	475,848	475,946	475,848	475,767	476,088	475,703		
E			233,989,8448	233,990,412	233,990,488	233,990,648	233,991,414	233,992,181	233,992,340	233,992,417	233,992,5564		
N			7,011,710,6215	7,011,708,285	7,011,707,971	7,011,707,313	7,011,704,154	7,011,700,996	7,011,700,338	7,011,700,024	7,011,699,4484		
Estacas: 4+620													
Dist. eixo (m)			-6,060	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,704		
Cota (m)			474,891	476,098	476,137	475,848	475,945	475,848	475,767	476,098	475,795	</	

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estaca: 4+680													
Dist. eixo (m)			-4,605	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,518		
Cota (m)			477,083	477,320	477,358	477,070	477,167	476,980	476,899	477,230	477,498		
E			234.056.934	234.057.049	234.057.157	234.057.384	234.058.471	234.060.561	234.060.787	234.060.895	234.060.9851		
N			7.011.728.4725	7.011.728.138	7.011.727.833	7.011.727.195	7.011.724.132	7.011.718.242	7.011.717.605	7.011.717.300	7.011.717.0472		
Estaca: 4+690													
Dist. eixo (m)			-4,373	-4,250	-3,927	-3,250	0,000	5,240	5,917	6,240	6,599		
Cota (m)			477,646	477,728	477,766	477,478	477,575	477,418	477,337	477,668	478,027		
E			234.066.3467	234.066.390	234.066.502	234.066.738	234.067.870	234.069.695	234.069.931	234.070.043	234.070.1681		
N			7.011.731.6456	7.011.731.530	7.011.731.227	7.011.730.593	7.011.727.546	7.011.722.634	7.011.722.000	7.011.721.697	7.011.721.3604		
Estaca: 4+697													
Dist. eixo (m)			-4,354	-4,250	-3,927	-3,250	0,000	3,913	4,590	4,913	5,197		
Cota (m)			477,961	478,030	478,069	477,780	477,878	477,760	477,679	478,010	477,821		
E			234.072.5162	234.072.553	234.072.669	234.072.911	234.074.072	234.075.471	234.075.713	234.075.828	234.075.9295		
N			7.011.733.9513	7.011.733.854	7.011.733.553	7.011.732.920	7.011.729.885	7.011.726.230	7.011.725.598	7.011.725.296	7.011.725.0316		
Estaca: 4+700													
Dist. eixo (m)			-4,359	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,810		
Cota (m)			478,121	478,194	478,233	477,944	478,042	477,944	477,863	478,194	477,821		
E			234.075.6396	234.075.679	234.075.796	234.076.041	234.077.218	234.078.394	234.078.639	234.078.756	234.078.9589		
N			7.011.735.1612	7.011.735.059	7.011.734.758	7.011.734.127	7.011.731.098	7.011.728.068	7.011.727.437	7.011.727.136	7.011.726.6144		
Estaca: 4+710													
Dist. eixo (m)			-4,444	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,994		
Cota (m)			478,589	478,718	478,757	478,468	478,566	478,468	478,387	478,718	478,222		
E			234.084.8430	234.084.916	234.085.037	234.085.292	234.086.513	234.087.734	234.087.988	234.088.109	234.088.3886		
N			7.011.738.9048	7.011.738.725	7.011.738.426	7.011.737.798	7.011.734.786	7.011.731.775	7.011.731.147	7.011.730.848	7.011.730.1585		
Estaca: 4+720													
Dist. eixo (m)			-4,430	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,444		
Cota (m)			479,144	479,264	479,303	479,014	479,112	479,014	478,933	479,264	478,135		
E			234.094.0274	234.094.098	234.094.223	234.094.487	234.095.752	234.097.017	234.097.281	234.097.406	234.097.4819		
N			7.011.742.6820	7.011.742.526	7.011.742.229	7.011.741.605	7.011.738.611	7.011.735.618	7.011.734.994	7.011.734.687	7.011.734.5181		
Estaca: 4+730													
Dist. eixo (m)			-4,408	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,705		
Cota (m)			479,705	479,810	479,849	479,560	479,658	479,560	479,479	479,810	479,507		
E			234.103.1586	234.103.222	234.103.353	234.103.625	234.104.934	234.106.243	234.106.516	234.106.646	234.106.8292		
N			7.011.746.6066	7.011.746.462	7.011.746.166	7.011.745.546	7.011.742.572	7.011.739.597	7.011.738.978	7.011.738.682	7.011.738.2655		
Estaca: 4+740													
Dist. eixo (m)			-5,524	-5,260	-4,937	-4,260	0,000	3,250	3,927	4,250	4,396		
Cota (m)			480,149	480,326	480,364	480,076	480,204	480,106	480,025	480,356	480,259		
E			234.111.7580	234.111.868	234.112.003	234.112.284	234.114.057	234.115.410	234.115.692	234.115.826	234.115.8867		
N			7.011.751.6899	7.011.751.449	7.011.751.156	7.011.750.540	7.011.746.667	7.011.743.712	7.011.743.096	7.011.742.802	7.011.742.6699		
Estaca: 4+750													
Dist. eixo (m)			-7,459	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,318		
Cota (m)			480,672	480,812	480,851	480,562	480,749	480,652	480,571	480,902	480,857		
E			234.119.9150	234.120.005	234.120.144	234.120.435	234.123.119	234.124.515	234.124.806	234.124.945	234.124.9738		
N			7.011.757.6317	7.011.757.443	7.011.757.151	7.011.756.540	7.011.750.895	7.011.747.961	7.011.747.349	7.011.747.057	7.011.746.9959		
Estaca: 4+760													
Dist. eixo (m)			-7,468	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,271		
Cota (m)			481,213	481,358	481,397	481,108	481,295	481,198	481,117	481,448	481,434		
E			234.126.8114	234.128.908	234.129.051	234.129.350	234.132.118	234.133.557	234.133.856	234.133.999	234.134.0088		
N			7.011.761.9526	7.011.761.758	7.011.761.468	7.011.760.861	7.011.755.257	7.011.752.343	7.011.751.736	7.011.751.446	7.011.751.4271		
Estaca: 4+770													
Dist. eixo (m)			-7,498	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,340		
Cota (m)			481,738	481,904	481,943	481,654	481,841	481,744	481,663	481,994	481,934		
E			234.137.6328	234.137.746	234.137.893	234.138.202	234.141.051	234.142.533	234.142.841	234.142.989	234.143.0299		
N			7.011.766.4239	7.011.766.203	7.011.765.916	7.011.765.313	7.011.759.750	7.011.756.858	7.011.756.255	7.011.755.968	7.011.755.8873		
Estaca: 4+780													
Dist. eixo (m)			-6,348	-6,069	-5,746	-5,069	0,000	3,250	3,927	4,250	4,365		
Cota (m)			482,299	482,485	482,524	482,235	482,387	482,290	482,208	482,540	482,463		
E			234.146.9409	234.147.072	234.147.223	234.147.541	234.149.918	234.151.442	234.151.759	234.151.911	234.151.9644		
N			7.011.769.9813	7.011.769.735	7.011.769.449	7.011.768.851	7.011.764.375	7.011.761.504	7.011.760.906	7.011.760.621	7.011.760.5196		
Estaca: 4+790													
Dist. eixo (m)			-5,233	-4,878	-4,555	-3,878	0,000	3,250	3,927	4,250	4,295		
Cota (m)			482,827	483,063	483,102	482,813	482,930	482,832	482,751	483,082	483,128		
E			234.156.1937	234.156.365	234.156.520	234.156.846	234.158.715	234.160.281	234.160.607	234.160.763	234.160.7850		
N			7.011.773.7138	7.011.773.403	7.011.773.120	7.011.772.527	7.011.769.129	7.011.766.281	7.011.765.688	7.011.765.405	7.011.765.3650		
Estaca: 4+800													
Dist. eixo (m)			-4,499	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,785		
Cota (m)			483,396	483,562	483,600	483,312	483,409	483,312	483,230	483,562	484,096		
E			234.165.2162	234.165.339	234.165.499	234.165.834	234.167.442	234.169.050	234.169.385	234.169.544	234.169.8089		
N			7.011.777.9215	7.011.777.705	7.011.777.424	7.011.776.836	7.011.774.012	7.011.771.187	7.011.770.599	7.011.770.318	7.011.769.8534		
Estaca: 4+810													
Dist. eixo (m)			-4,322	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,720		
Cota (m)			484,027	483,956	483,994	483,706	483,803	483,706	483,624	483,956	484,425		
E			234.173.9029	234.173.939	234.174.103	234.174.447	234.176.096	234.177.745	234.178.088	234.178.252	234.178.4907		
N			7.011.782.7463	7.011.782.685	7.011.782.406	7.011.781.823	7.011.779.022	7.011.776.222	7.011.775.639	7.011.775.360	7.011.774.9555		
Estaca: 4+820													
Dist. eixo (m)			-4,388	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,542		
Cota (m)			484,172	484,264	484,303	484,014	484,112	484,014	483,933	484,264	484,556		
E			234.182.3931	234.182.465	234.182.633	234.182.985	234.184.675	234.186.365	234.186.717	234.186.885	234.187.0372		
N			7.011.787.9078	7.011.787.790	7.011.787.514	7.011.786.936	7.011.784.160	7.011.781.384	7.011.780.806	7.011.780.530	7.011.780.2803		
Estaca: 4+830													
Dist. eixo (m)			-4,483	-4,250	-3,927	-3,250	0,000	3					

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 4+880													
Dist. eixo (m)			-5,312	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,645		
Cota (m)			483,616	484,324	484,363	484,074	484,171	484,074	483,993	484,324	484,061		
E			234,232,0513	234,232,637	234,232,815	234,232,188	234,234,981	234,236,773	234,237,146	234,237,325	234,237,524		
N			7,011,821,2843	7,011,820,399	7,011,820,129	7,011,819,565	7,011,816,853	7,011,814,142	7,011,813,578	7,011,813,308	7,011,812,9788		
Estacas: 4+890													
Dist. eixo (m)			-5,662	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,014		
Cota (m)			483,226	484,101	484,139	483,851	483,948	483,851	483,769	484,101	483,591		
E			234,240,2548	234,240,979	234,241,157	234,241,530	234,243,322	234,245,115	234,245,488	234,245,666	234,246,0879		
N			7,011,827,0082	7,011,825,914	7,011,825,644	7,011,825,080	7,011,822,369	7,011,819,657	7,011,819,093	7,011,818,823	7,011,818,1856		
Estacas: 4+900													
Dist. eixo (m)			-5,231	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,873		
Cota (m)			483,223	483,677	483,916	483,627	483,725	483,627	483,546	483,677	483,462		
E			234,248,7790	234,249,320	234,249,498	234,249,872	234,251,664	234,253,457	234,253,830	234,254,008	234,254,3517		
N			7,011,832,2474	7,011,831,429	7,011,830,159	7,011,830,595	7,011,827,884	7,011,825,173	7,011,824,608	7,011,824,338	7,011,823,8185		
Estacas: 4+910													
Dist. eixo (m)			-5,197	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,839		
Cota (m)			483,023	483,654	483,693	483,404	483,502	483,404	483,323	483,654	483,261		
E			234,257,1394	234,257,662	234,257,840	234,258,213	234,260,006	234,261,798	234,262,172	234,262,350	234,262,6747		
N			7,011,837,7341	7,011,836,944	7,011,836,674	7,011,836,110	7,011,833,399	7,011,830,688	7,011,830,123	7,011,829,853	7,011,829,3619		
Estacas: 4+920													
Dist. eixo (m)			-5,126	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,677		
Cota (m)			482,847	483,431	483,470	483,181	483,279	483,181	483,100	483,431	483,146		
E			234,265,5202	234,266,004	234,266,182	234,266,555	234,268,348	234,270,140	234,270,513	234,270,691	234,270,9270		
N			7,011,843,1900	7,011,842,459	7,011,842,190	7,011,841,625	7,011,838,914	7,011,836,203	7,011,835,638	7,011,835,369	7,011,835,0121		
Estacas: 4+930													
Dist. eixo (m)			-4,900	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,416		
Cota (m)			482,776	483,208	483,247	482,958	483,056	482,958	482,877	483,208	482,907		
E			234,273,9868	234,274,345	234,274,523	234,274,897	234,276,689	234,278,482	234,278,855	234,279,033	234,279,1248		
N			7,011,848,5162	7,011,847,974	7,011,847,705	7,011,847,140	7,011,844,429	7,011,841,718	7,011,841,153	7,011,840,884	7,011,840,7449		
Estacas: 4+940													
Dist. eixo (m)			-4,694	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,717		
Cota (m)			482,689	482,985	483,024	482,735	482,832	482,735	482,654	482,985	482,673		
E			234,282,4423	234,282,687	234,282,865	234,283,238	234,285,031	234,286,823	234,287,197	234,287,375	234,287,6326		
N			7,011,853,8592	7,011,853,489	7,011,853,220	7,011,852,655	7,011,849,944	7,011,847,233	7,011,846,668	7,011,846,399	7,011,846,0087		
Estacas: 4+950													
Dist. eixo (m)			-4,677	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,528		
Cota (m)			482,477	482,762	482,800	482,512	482,609	482,512	482,430	482,762	482,576		
E			234,290,7933	234,291,029	234,291,207	234,291,580	234,293,373	234,295,165	234,295,538	234,295,717	234,295,8698		
N			7,011,859,3601	7,011,859,004	7,011,858,735	7,011,858,170	7,011,855,459	7,011,852,748	7,011,852,183	7,011,852,914	7,011,852,6818		
Estacas: 4+960													
Dist. eixo (m)			-4,626	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,594		
Cota (m)			482,290	482,540	482,579	482,290	482,388	482,290	482,209	482,540	482,311		
E			234,299,1631	234,299,370	234,299,549	234,299,922	234,301,714	234,303,507	234,303,880	234,304,058	234,304,2482		
N			7,011,864,8328	7,011,864,519	7,011,864,250	7,011,863,685	7,011,860,974	7,011,858,263	7,011,857,698	7,011,857,429	7,011,857,1414		
Estacas: 4+970													
Dist. eixo (m)			-4,555	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,540		
Cota (m)			482,134	482,337	482,376	482,087	482,185	482,087	482,006	482,337	482,144		
E			234,307,5438	234,307,712	234,307,890	234,308,264	234,310,056	234,311,848	234,312,222	234,312,400	234,312,5597		
N			7,011,870,2888	7,011,870,034	7,011,869,765	7,011,869,200	7,011,866,489	7,011,863,778	7,011,863,213	7,011,862,944	7,011,862,7021		
Estacas: 4+980													
Dist. eixo (m)			-4,592	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,885		
Cota (m)			481,927	482,155	482,194	481,905	482,002	481,905	481,824	482,155	481,732		
E			234,315,8649	234,316,054	234,316,232	234,316,605	234,318,398	234,320,190	234,320,563	234,320,742	234,321,0917		
N			7,011,875,8350	7,011,875,549	7,011,875,280	7,011,874,715	7,011,872,004	7,011,869,293	7,011,868,729	7,011,868,459	7,011,867,9294		
Estacas: 4+990													
Dist. eixo (m)			-4,592	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,460		
Cota (m)			481,772	481,993	482,032	481,743	481,841	481,743	481,662	481,993	481,187		
E			234,324,2127	234,324,396	234,324,574	234,324,947	234,326,739	234,328,532	234,328,905	234,329,083	234,329,7507		
N			7,011,881,3410	7,011,881,064	7,011,880,795	7,011,880,230	7,011,877,519	7,011,874,808	7,011,874,244	7,011,873,974	7,011,872,9645		
Estacas: 5+000													
Dist. eixo (m)			-4,291	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,546		
Cota (m)			481,825	481,853	481,892	481,603	481,701	481,603	481,522	481,853	480,989		
E			234,332,7144	234,332,737	234,332,915	234,333,289	234,335,081	234,336,874	234,337,247	234,337,425	234,338,1395		
N			7,011,886,6141	7,011,886,580	7,011,886,310	7,011,885,745	7,011,883,034	7,011,880,323	7,011,879,759	7,011,879,489	7,011,878,4083		
Estacas: 5+010													
Dist. eixo (m)			-4,475	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,637		
Cota (m)			481,583	481,734	481,772	481,484	481,581	481,484	481,403	481,734	480,809		
E			234,340,9545	234,341,079	234,341,257	234,341,630	234,343,423	234,345,215	234,345,589	234,345,767	234,346,5315		
N			7,011,892,2827	7,011,892,095	7,011,891,825	7,011,891,260	7,011,888,549	7,011,885,838	7,011,885,274	7,011,885,004	7,011,883,8473		
Estacas: 5+020													
Dist. eixo (m)			-4,468	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,662		
Cota (m)			481,490	481,635	481,674	481,385	481,483	481,385	481,304	481,635	480,694		
E			234,349,3006	234,349,421	234,349,599	234,349,972	234,351,765	234,353,557	234,353,930	234,354,108	234,354,8872		
N			7,011,897,7912	7,011,897,610	7,011,897,340	7,011,896,776	7,011,894,064	7,011,891,353	7,011,890,789	7,011,890,519	7,011,889,3412		
Estacas: 5+030													
Dist. eixo (m)			-4,557	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,929		
Cota (m)			481,353	481,558	481,596	481,308	481,405	481,308	481,226	481,558	480,705		
E			234,357,5930	234,357,762	234,357,940	234,358,314	234,360,106	234,361,899	234,362,272	234,362,450	234,363,1553		
N			7,011,903,3809	7,011,903,125	7,011,902,855	7,011,902,291	7,011,899,580	7,011,896,869	7,011,896,304	7,011,896,034	7,011,894,9677		
Estacas: 5+040													
Dist. eixo (m)			-4,572	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,613		
Cota (m)			481,286	481,501	481,540	481,251	481,349	481,251	481,170	481,501	480,592		
E			234,365,9264	234,366,104	234,366,282	234,366,656	234,368,448	234,370,240	234,370,614	234,370,792	234,371,5435		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 5+090													
Dist. eixo (m)			-4,492	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,220		
Cota (m)			481,372	481,533	481,572	481,283	481,380	481,283	481,202	481,533	480,886		
E			234,407,027	234,407,215	234,407,405	234,407,804	234,409,718	234,411,632	234,421,030	234,412,221	234,412,7921		
N			7,011,936,9421	7,011,936,747	7,011,936,486	7,011,935,939	7,011,933,312	7,011,930,685	7,011,930,138	7,011,929,677	7,011,929,0929		
Estacas: 5+100													
Dist. eixo (m)			-4,512	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,785		
Cota (m)			481,426	481,600	481,639	481,350	481,448	481,350	481,269	481,600	479,910		
E			234,415,0549	234,415,212	234,415,406	234,415,811	234,417,760	234,419,709	234,420,115	234,420,309	234,421,8287		
N			7,011,942,8653	7,011,942,656	7,011,942,398	7,011,941,856	7,011,939,255	7,011,936,654	7,011,936,112	7,011,935,854	7,011,933,8251		
Estacas: 5+110													
Dist. eixo (m)			-4,422	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,536		
Cota (m)			481,556	481,670	481,709	481,420	481,518	481,420	481,339	481,670	481,480		
E			234,423,0242	234,423,129	234,423,326	234,423,740	234,425,723	234,427,706	234,428,119	234,428,316	234,428,4910		
N			7,011,948,8076	7,011,948,671	7,011,948,415	7,011,947,879	7,011,945,304	7,011,942,730	7,011,942,193	7,011,941,937	7,011,941,7107		
Estacas: 5+120													
Dist. eixo (m)			-4,597	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,663		
Cota (m)			481,510	481,741	481,780	481,491	481,588	481,491	481,410	481,741	481,466		
E			234,430,7504	234,430,966	234,431,166	234,431,587	234,433,604	234,435,621	234,436,042	234,436,242	234,436,4983		
N			7,011,955,0635	7,011,954,791	7,011,954,538	7,011,954,007	7,011,951,459	7,011,948,911	7,011,948,381	7,011,948,127	7,011,947,8040		
Estacas: 5+130													
Dist. eixo (m)			-4,601	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,336		
Cota (m)			481,577	481,811	481,850	481,561	481,659	481,561	481,480	481,811	480,421		
E			234,438,4986	234,438,720	234,438,924	234,439,351	234,441,402	234,443,454	234,443,881	234,444,085	234,445,4014		
N			7,011,961,2877	7,011,961,016	7,011,960,765	7,011,960,240	7,011,957,719	7,011,955,198	7,011,954,673	7,011,954,423	7,011,952,8045		
Estacas: 5+140													
Dist. eixo (m)			-4,622	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,397		
Cota (m)			481,631	481,879	481,917	481,629	481,726	481,629	481,547	481,879	480,447		
E			234,445,8326	234,446,071	234,446,278	234,446,712	234,448,795	234,450,879	234,451,313	234,451,520	234,452,8660		
N			7,011,967,3613	7,011,967,076	7,011,966,828	7,011,966,308	7,011,963,814	7,011,961,319	7,011,960,800	7,011,960,552	7,011,958,9037		
Estacas: 5+150													
Dist. eixo (m)			-4,642	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,350		
Cota (m)			481,691	481,952	481,991	481,702	481,800	481,702	481,621	481,952	480,552		
E			234,453,7208	234,453,976	234,454,187	234,454,628	234,456,745	234,458,863	234,459,304	234,459,515	234,460,8828		
N			7,011,974,0685	7,011,973,771	7,011,973,526	7,011,973,013	7,011,970,548	7,011,968,082	7,011,967,569	7,011,967,324	7,011,965,7311		
Estacas: 5+160													
Dist. eixo (m)			-4,843	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,072		
Cota (m)			481,627	482,022	482,061	481,772	481,870	481,772	481,691	482,022	480,808		
E			234,461,0825	234,461,475	234,461,689	234,462,137	234,464,287	234,466,438	234,466,886	234,467,099	234,468,3047		
N			7,011,980,7455	7,011,980,301	7,011,980,059	7,011,979,551	7,011,977,114	7,011,974,677	7,011,974,170	7,011,973,927	7,011,972,5614		
Estacas: 5+170													
Dist. eixo (m)			-4,871	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,661		
Cota (m)			481,679	482,093	482,132	481,843	481,940	481,843	481,762	482,093	481,152		
E			234,468,4695	234,468,887	234,469,103	234,469,558	234,471,741	234,473,924	234,474,378	234,474,595	234,475,5427		
N			7,011,987,3894	7,011,986,929	7,011,986,690	7,011,986,188	7,011,983,781	7,011,981,373	7,011,980,871	7,011,980,632	7,011,979,5863		
Estacas: 5+180													
Dist. eixo (m)			-4,740	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,572		
Cota (m)			481,837	482,163	482,202	481,913	482,011	481,913	481,832	482,163	481,252		
E			234,475,8752	234,476,209	234,476,429	234,476,899	234,479,105	234,481,320	234,481,781	234,482,001	234,482,9020		
N			7,011,994,0147	7,011,993,856	7,011,993,420	7,011,992,924	7,011,990,546	7,011,988,167	7,011,987,672	7,011,987,435	7,011,986,4675		
Estacas: 5+190													
Dist. eixo (m)			-5,010	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,401		
Cota (m)			481,727	482,234	482,272	481,984	482,081	481,984	481,902	482,234	481,466		
E			234,482,9157	234,483,441	234,483,664	234,484,132	234,486,378	234,488,624	234,489,092	234,489,316	234,490,1109		
N			7,012,001,0294	7,012,000,480	7,012,000,247	7,011,999,758	7,011,997,409	7,011,995,060	7,011,994,571	7,011,994,337	7,011,993,5051		
Estacas: 5+200													
Dist. eixo (m)			-4,894	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,279		
Cota (m)			481,875	482,304	482,343	482,054	482,152	482,054	481,973	482,304	481,618		
E			234,490,1301	234,490,581	234,490,808	234,491,282	234,493,559	234,495,837	234,496,311	234,496,537	234,497,2585		
N			7,012,007,8595	7,012,007,400	7,012,007,170	7,012,006,687	7,012,004,368	7,012,002,049	7,012,001,566	7,012,001,336	7,012,000,6012		
Estacas: 5+210													
Dist. eixo (m)			-4,694	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,987		
Cota (m)			482,079	482,374	482,413	482,124	482,222	482,124	482,043	482,374	481,883		
E			234,497,3138	234,497,629	234,497,858	234,498,339	234,500,647	234,502,955	234,503,436	234,503,665	234,504,1884		
N			7,012,014,7267	7,012,014,414	7,012,014,187	7,012,013,710	7,012,011,422	7,012,009,134	7,012,008,657	7,012,008,430	7,012,007,9110		
Estacas: 5+220													
Dist. eixo (m)			-4,618	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,387		
Cota (m)			482,200	482,445	482,484	482,195	482,292	482,195	482,114	482,445	482,354		
E			234,504,3175	234,504,582	234,504,815	234,505,302	234,507,640	234,509,978	234,510,465	234,510,698	234,510,7962		
N			7,012,021,7775	7,012,021,522	7,012,021,298	7,012,020,828	7,012,018,570	7,012,016,313	7,012,015,843	7,012,015,619	7,012,015,8235		
Estacas: 5+223													
Dist. eixo (m)			-4,654	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,466		
Cota (m)			482,199	482,468	482,507	482,218	482,316	482,218	482,137	482,468	482,324		
E			234,506,4685	234,506,867	234,507,100	234,507,590	234,509,938	234,512,286	234,512,775	234,513,009	234,513,1645		
N			7,012,024,1791	7,012,023,900	7,012,023,676	7,012,023,208	7,012,020,961	7,012,018,715	7,012,018,247	7,012,018,023	7,012,017,8739		
Estacas: 5+230													
Dist. eixo (m)			-4,690	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,648		
Cota (m)			482,222	482,515	482,554	482,265	482,363	482,265	482,184	482,515	482,250		
E			234,511,1698	234,511,488	234,511,721	234,512,210	234,514,559	234,516,907	234,517,396	234,517,629	234,517,9167		
N			7,012,029,0330	7,012,028,729	7,012,028,506	7,012,028,038	7,012,025,791	7,012,023,544	7,012,023,076	7,012,022,853	7,012,022,5774		
Estacas: 5+240													
Dist. eixo (m)			-4,927	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,519		
Cota (m)			482,134	482,596	482,634	482,346	482,443	482,346	482,264	482,596	482,406		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 5+300													
Dist. eixo (m)			-5,561	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,400		
Cota (m)			482,134	483,008	483,047	482,758	482,855	482,758	482,677	483,008	482,908		
E			234.558.936	234.559.881	234.560.115	234.560.604	234.562.952	234.565.300	234.575.789	234.586.023	234.586.1308		
N			7.012.080,2129	7.012.079.306	7.012.079.083	7.012.078.615	7.012.076.368	7.012.074.121	7.012.073.653	7.012.073.430	7.012.073.3265		
Estacas: 5+310													
Dist. eixo (m)			-5,603	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,303		
Cota (m)			482,243	483,078	483,117	482,828	482,926	482,828	482,747	483,078	483,043		
E			234.585.8893	234.586.795	234.587.028	234.587.517	234.589.865	234.572.214	234.572.703	234.572.936	234.572.9740		
N			7.012.087,3977	7.012.086.532	7.012.086.308	7.012.085.840	7.012.083.594	7.012.081.347	7.012.080.879	7.012.080.655	7.012.080.6190		
Estacas: 5+320													
Dist. eixo (m)			-5,417	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,495		
Cota (m)			482,371	483,149	483,189	482,899	482,996	482,952	482,871	483,202	483,039		
E			234.572.8644	234.573.708	234.573.941	234.574.430	234.576.779	234.579.127	234.579.616	234.579.849	234.580.0264		
N			7.012.094,5640	7.012.093.757	7.012.093.534	7.012.093.066	7.012.090.819	7.012.088.572	7.012.088.104	7.012.087.881	7.012.087.7112		
Estacas: 5+328													
Dist. eixo (m)			-5,285	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,320		
Cota (m)			482,516	483,206	483,245	482,956	483,054	483,054	482,972	483,304	483,257		
E			234.578.5938	234.579.342	234.579.575	234.580.064	234.582.412	234.584.761	234.585.250	234.585.483	234.585.5339		
N			7.012.100,3605	7.012.099.645	7.012.099.422	7.012.098.954	7.012.096.707	7.012.094.460	7.012.093.992	7.012.093.769	7.012.093.7200		
Estacas: 5+330													
Dist. eixo (m)			-5,255	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,319		
Cota (m)			482,549	483,219	483,258	482,969	483,067	483,077	482,995	483,327	483,280		
E			234.579.8951	234.580.621	234.580.855	234.581.344	234.583.692	234.586.040	234.586.529	234.586.763	234.586.8129		
N			7.012.101,6771	7.012.100.982	7.012.100.759	7.012.100.291	7.012.098.044	7.012.095.797	7.012.095.329	7.012.095.106	7.012.095.0580		
Estacas: 5+340													
Dist. eixo (m)			-5,092	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,272		
Cota (m)			482,728	483,290	483,328	483,040	483,137	483,201	483,120	483,451	483,457		
E			234.586.9259	234.587.535	234.587.768	234.588.257	234.590.605	234.592.954	234.593.443	234.593.876	234.593.8917		
N			7.012.108,7900	7.012.108.208	7.012.107.984	7.012.107.516	7.012.105.270	7.012.103.023	7.012.102.555	7.012.102.331	7.012.102.3164		
Estacas: 5+346													
Dist. eixo (m)			-4,988	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,315		
Cota (m)			482,840	483,333	483,372	483,083	483,180	483,278	483,197	483,528	483,583		
E			234.591.2520	234.591.786	234.592.019	234.592.508	234.594.856	234.597.205	234.597.694	234.597.927	234.597.9743		
N			7.012.113,1612	7.012.112.651	7.012.112.427	7.012.111.959	7.012.109.713	7.012.107.466	7.012.106.998	7.012.106.774	7.012.106.7292		
Estacas: 5+350													
Dist. eixo (m)			-4,893	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,449		
Cota (m)			482,910	483,339	483,377	483,089	483,206	483,323	483,241	483,573	483,772		
E			234.593.8098	234.594.274	234.594.508	234.594.997	234.597.345	234.599.693	234.600.182	234.600.416	234.600.5600		
N			7.012.115,6963	7.012.115.252	7.012.115.029	7.012.114.560	7.012.112.314	7.012.110.067	7.012.109.599	7.012.109.375	7.012.109.2375		
Estacas: 5+360													
Dist. eixo (m)			-4,679	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,712		
Cota (m)			483,069	483,355	483,394	483,105	483,278	483,450	483,369	483,700	484,163		
E			234.600.4766	234.600.811	234.601.062	234.601.588	234.604.115	234.606.642	234.607.169	234.607.420	234.607.7795		
N			7.012.122,9492	7.012.122.679	7.012.122.476	7.012.122.050	7.012.120.007	7.012.117.963	7.012.117.538	7.012.117.335	7.012.117.0437		
Estacas: 5+364													
Dist. eixo (m)			-4,577	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,712		
Cota (m)			483,144	483,362	483,401	483,112	483,307	483,502	483,421	483,752	484,214		
E			234.603.0150	234.603.276	234.603.534	234.604.075	234.606.669	234.609.264	234.609.804	234.610.062	234.610.4310		
N			7.012.126,0329	7.012.125.836	7.012.125.641	7.012.125.234	7.012.123.277	7.012.121.319	7.012.120.912	7.012.120.717	7.012.120.4389		
Estacas: 5+370													
Dist. eixo (m)			-4,561	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,698		
Cota (m)			483,196	483,403	483,442	483,153	483,348	483,543	483,462	483,793	484,241		
E			234.606.3126	234.606.570	234.606.836	234.607.396	234.610.080	234.612.765	234.613.324	234.613.591	234.613.9612		
N			7.012.130,5999	7.012.130.425	7.012.130.243	7.012.129.861	7.012.128.030	7.012.126.198	7.012.125.817	7.012.125.634	7.012.125.3819		
Estacas: 5+380													
Dist. eixo (m)			-4,600	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,384		
Cota (m)			483,205	483,439	483,478	483,189	483,384	483,579	483,498	483,829	483,740		
E			234.611.3758	234.611.680	234.611.961	234.612.550	234.615.374	234.618.199	234.618.787	234.619.068	234.619.1840		
N			7.012.138,7855	7.012.138.612	7.012.138.453	7.012.138.118	7.012.136.510	7.012.134.903	7.012.134.568	7.012.134.408	7.012.134.3418		
Estacas: 5+390													
Dist. eixo (m)			-4,660	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,394		
Cota (m)			483,132	483,405	483,444	483,155	483,350	483,545	483,464	483,795	483,939		
E			234.615.7376	234.616.109	234.616.402	234.617.016	234.619.962	234.622.908	234.623.521	234.623.814	234.623.9443		
N			7.012.147,3611	7.012.147.188	7.012.147.051	7.012.146.765	7.012.145.393	7.012.144.020	7.012.143.734	7.012.143.597	7.012.143.5366		
Estacas: 5+399													
Dist. eixo (m)			-4,816	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,485		
Cota (m)			482,939	483,316	483,355	483,066	483,261	483,456	483,375	483,706	483,550		
E			234.618.9587	234.619.488	234.619.790	234.620.423	234.623.461	234.626.499	234.627.132	234.627.434	234.627.8537		
N			7.012.155,3905	7.012.155.190	7.012.155.075	7.012.154.835	7.012.153.681	7.012.152.527	7.012.152.287	7.012.152.172	7.012.152.0886		
Estacas: 5+400													
Dist. eixo (m)			-4,829	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,468		
Cota (m)			482,917	483,303	483,341	483,053	483,248	483,443	483,361	483,693	483,547		
E			234.619.2847	234.619.828	234.620.130	234.620.765	234.623.813	234.626.860	234.627.495	234.627.798	234.628.0024		
N			7.012.156,2958	7.012.156.095	7.012.155.983	7.012.155.747	7.012.154.618	7.012.153.489	7.012.153.254	7.012.153.142	7.012.153.0662		
Estacas: 5+410													
Dist. eixo (m)			-4,858	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,309		
Cota (m)			482,725	483,131	483,169	482,881	483,076	483,271	483,189	483,521	483,580		
E			234.622.2244	234.622.810	234.623.121	234.623.773	234.626.902	234.630.031	234.630.683	234.630.994	234.631.0512		
N			7.012.165,4385	7.012.165.274	7.012.165.187	7.012.165.004	7.012.164.126	7.012.163.249	7.012.163.066	7.012.162.979	7.012.162.9624		
Estacas: 5+420													
Dist. eixo (m)			-4,923	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,576		
Cota (m)			482,441	482,889	482,928	482,639	482,834	483,029	482,948	483,279	483,062		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 5+452													
Dist. eixo (m)			-4,913	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,333		
Cota (m)			481,316	481,758	481,797	481,508	481,606	481,703	481,622	481,953	481,898		
E			234.626.3423	234.627.005	234.627.328	234.628.004	234.631.252	234.634.500	234.635.176	234.635.499	234.635.5822		
N			7.012.205.3691	7.012.205.394	7.012.205.406	7.012.205.431	7.012.205.553	7.012.205.675	7.012.205.700	7.012.205.712	7.012.205.7155		
Estacas: 5+460													
Dist. eixo (m)			-5,282	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,657		
Cota (m)			480,876	481,364	481,403	481,114	481,211	481,265	481,183	481,515	481,243		
E			234.625.6685	234.626.700	234.627.022	234.627.699	234.630.947	234.634.194	234.634.871	234.635.194	234.635.8006		
N			7.012.213.5014	7.012.213.540	7.012.213.552	7.012.213.578	7.012.213.699	7.012.213.821	7.012.213.846	7.012.213.859	7.012.213.8737		
Estacas: 5+470													
Dist. eixo (m)			-5,155	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,302		
Cota (m)			479,624	480,087	480,126	480,735	480,735	480,654	480,985	480,985	480,980		
E			234.625.4261	234.626.331	234.626.653	234.627.330	234.630.578	234.633.825	234.634.502	234.634.825	234.634.8767		
N			7.012.223.3474	7.012.223.381	7.012.223.393	7.012.223.419	7.012.223.541	7.012.223.662	7.012.223.688	7.012.223.700	7.012.223.7017		
Estacas: 5+480													
Dist. eixo (m)			-5,027	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,424		
Cota (m)			479,902	480,420	480,459	480,170	480,267	480,212	480,131	480,462	480,347		
E			234.625.1742	234.625.950	234.626.273	234.626.950	234.630.197	234.633.445	234.634.121	234.634.444	234.634.6178		
N			7.012.233.4969	7.012.233.526	7.012.233.538	7.012.233.563	7.012.233.685	7.012.233.807	7.012.233.832	7.012.233.844	7.012.233.8509		
Estacas: 5+488													
Dist. eixo (m)			-4,975	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,328		
Cota (m)			479,605	480,088	480,127	479,838	479,936	479,838	479,757	480,088	480,037		
E			234.624.9316	234.625.656	234.625.979	234.626.656	234.629.903	234.633.151	234.633.827	234.634.150	234.634.2281		
N			7.012.241.3415	7.012.241.369	7.012.241.381	7.012.241.406	7.012.241.528	7.012.241.650	7.012.241.675	7.012.241.687	7.012.241.6900		
Estacas: 5+490													
Dist. eixo (m)			-4,968	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,341		
Cota (m)			479,524	480,002	480,041	479,752	479,850	479,752	479,671	480,002	479,942		
E			234.624.8586	234.625.576	234.625.899	234.626.575	234.629.823	234.633.070	234.633.747	234.634.070	234.634.1605		
N			7.012.243.4821	7.012.243.519	7.012.243.531	7.012.243.556	7.012.243.678	7.012.243.800	7.012.243.825	7.012.243.837	7.012.243.8408		
Estacas: 5+500													
Dist. eixo (m)			-4,977	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,290		
Cota (m)			479,143	479,628	479,666	479,378	479,475	479,378	479,296	479,628	479,601		
E			234.624.1744	234.625.201	234.625.524	234.626.200	234.629.448	234.632.696	234.633.372	234.633.696	234.633.7353		
N			7.012.253.4847	7.012.253.512	7.012.253.524	7.012.253.549	7.012.253.671	7.012.253.793	7.012.253.818	7.012.253.830	7.012.253.8319		
Estacas: 5+510													
Dist. eixo (m)			-4,952	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,378		
Cota (m)			478,828	479,296	479,335	479,046	479,143	479,046	478,965	479,296	479,424		
E			234.624.1249	234.624.826	234.625.149	234.625.826	234.629.074	234.632.321	234.632.998	234.633.321	234.633.4482		
N			7.012.263.4786	7.012.263.505	7.012.263.517	7.012.263.542	7.012.263.664	7.012.263.786	7.012.263.811	7.012.263.823	7.012.263.8281		
Estacas: 5+520													
Dist. eixo (m)			-5,154	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,437		
Cota (m)			478,405	479,007	479,046	478,757	478,855	478,757	478,676	479,007	479,194		
E			234.623.5486	234.624.452	234.624.775	234.625.451	234.628.699	234.631.947	234.632.623	234.632.946	234.633.1324		
N			7.012.273.4640	7.012.273.498	7.012.273.510	7.012.273.535	7.012.273.657	7.012.273.779	7.012.273.804	7.012.273.816	7.012.273.8233		
Estacas: 5+528													
Dist. eixo (m)			-5,214	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,434		
Cota (m)			478,156	478,759	478,798	478,549	478,647	478,549	478,468	478,759	478,953		
E			234.624.1757	234.624.140	234.624.462	234.625.139	234.628.387	234.631.634	234.632.311	234.632.634	234.632.8176		
N			7.012.281.7820	7.012.281.828	7.012.281.840	7.012.281.866	7.012.281.987	7.012.282.109	7.012.282.135	7.012.282.147	7.012.282.1535		
Estacas: 5+530													
Dist. eixo (m)			-5,226	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,367		
Cota (m)			478,120	478,770	478,809	478,520	478,609	478,511	478,430	478,761	478,878		
E			234.623.1019	234.624.077	234.624.400	234.625.077	234.628.324	234.631.572	234.632.248	234.632.571	234.632.6884		
N			7.012.283.4543	7.012.283.491	7.012.283.503	7.012.283.528	7.012.283.650	7.012.283.772	7.012.283.797	7.012.283.809	7.012.283.8137		
Estacas: 5+540													
Dist. eixo (m)			-5,442	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,298		
Cota (m)			477,826	478,621	478,660	478,371	478,466	478,368	478,227	478,558	478,526		
E			234.622.5109	234.623.703	234.624.025	234.624.702	234.627.950	234.631.197	234.631.874	234.632.197	234.632.2443		
N			7.012.293.4392	7.012.293.484	7.012.293.496	7.012.293.521	7.012.293.643	7.012.293.765	7.012.293.790	7.012.293.802	7.012.293.8041		
Estacas: 5+546													
Dist. eixo (m)			-6,098	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,396		
Cota (m)			477,317	478,548	478,586	478,298	478,298	478,200	478,119	478,450	478,353		
E			234.621.6165	234.623.461	234.623.784	234.624.461	234.627.708	234.630.956	234.631.632	234.631.955	234.632.1011		
N			7.012.298.8498	7.012.299.919	7.012.299.931	7.012.299.956	7.012.300.078	7.012.300.200	7.012.300.225	7.012.300.237	7.012.300.2428		
Estacas: 5+550													
Dist. eixo (m)			-6,445	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,321		
Cota (m)			477,051	478,515	478,553	478,265	478,245	478,148	478,067	478,398	478,351		
E			234.621.1341	234.623.328	234.623.651	234.624.327	234.627.575	234.630.823	234.631.499	234.631.822	234.631.8926		
N			7.012.303.3946	7.012.303.477	7.012.303.489	7.012.303.514	7.012.303.636	7.012.303.758	7.012.303.783	7.012.303.795	7.012.303.7979		
Estacas: 5+560													
Dist. eixo (m)			-6,051	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,444		
Cota (m)			477,250	478,451	478,490	478,201	478,128	478,031	477,950	478,281	478,151		
E			234.621.1533	234.622.953	234.623.276	234.623.953	234.627.200	234.630.448	234.631.124	234.631.447	234.631.6413		
N			7.012.313.4023	7.012.313.470	7.012.313.482	7.012.313.507	7.012.313.629	7.012.313.751	7.012.313.776	7.012.313.788	7.012.313.7955		
Estacas: 5+565													
Dist. eixo (m)			-5,963	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,828		
Cota (m)			477,294	478,437	478,475	478,187	478,089	477,992	477,910	478,242	477,856		
E			234.621.0711	234.622.783	234.623.106	234.623.782	234.627.030	234.630.278	234.630.954	234.631.277	234.631.8550		
N			7.012.317.9455	7.012.318.010	7.012.318.022	7.012.318.047	7.012.318.169	7.012.318.291	7.012.318.316	7.012.318.328	7.012.318.3498		
Estacas: 5+567													
Dist. eixo (m)			-6,011	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,778		
Cota (m)			477,258	478,432	478,471	478,182	478,089	477,986	477,904	478,206	477,854</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 5+610													
Dist. eixo (m)			-4,879	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,033		
Cota (m)			478,205	478,624	478,662	478,374	478,185	477,997	477,915	478,247	477,725		
E			234.626,2173	234.626,830	234.627,144	234.627,804	234.630,969	234.634,135	234.636,794	234.635,109	234.635,8710		
N			7.012.364,4102	7.012.364,268	7.012.364,195	7.012.364,041	7.012.363,305	7.012.362,569	7.012.362,415	7.012.362,342	7.012.362,1648		
Estacas: 5+619													
Dist. eixo (m)			-4,920	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,152		
Cota (m)			478,301	478,748	478,787	478,498	478,310	478,121	478,040	478,371	477,770		
E			234.628,5371	234.629,180	234.629,490	234.630,140	234.633,259	234.636,378	234.637,028	234.637,338	234.638,2031		
N			7.012.373,4107	7.012.373,222	7.012.373,132	7.012.372,941	7.012.372,028	7.012.371,114	7.012.370,924	7.012.370,833	7.012.370,5799		
Estacas: 5+620													
Dist. eixo (m)			-4,913	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,122		
Cota (m)			478,322	478,764	478,802	478,514	478,325	478,137	478,055	478,387	477,805		
E			234.628,8308	234.629,466	234.629,776	234.630,424	234.633,537	234.636,651	234.637,299	234.637,609	234.638,4443		
N			7.012.374,3777	7.012.374,187	7.012.374,095	7.012.373,900	7.012.372,988	7.012.372,035	7.012.371,841	7.012.371,748	7.012.371,4981		
Estacas: 5+630													
Dist. eixo (m)			-4,891	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,907		
Cota (m)			478,520	478,947	478,985	478,697	478,508	478,320	478,238	478,570	478,131		
E			234.632,1162	234.632,717	234.633,020	234.633,655	234.636,704	234.639,753	234.640,388	234.640,691	234.641,3080		
N			7.012.384,1446	7.012.383,923	7.012.383,811	7.012.383,577	7.012.382,452	7.012.381,326	7.012.381,092	7.012.380,980	7.012.380,7525		
Estacas: 5+640													
Dist. eixo (m)			-4,948	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,049		
Cota (m)			478,707	479,172	479,211	478,922	478,734	478,545	478,464	478,795	478,263		
E			234.635,9311	234.636,570	234.636,865	234.637,484	234.640,457	234.643,430	234.644,049	234.644,345	234.645,0752		
N			7.012.393,7185	7.012.393,436	7.012.393,306	7.012.393,032	7.012.391,719	7.012.390,405	7.012.390,132	7.012.390,001	7.012.389,6785		
Estacas: 5+650													
Dist. eixo (m)			-5,071	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,788		
Cota (m)			478,834	479,441	479,480	479,191	478,903	478,714	478,633	478,964	478,405		
E			234.640,2805	234.641,009	234.641,296	234.641,897	234.644,782	234.647,667	234.648,267	234.648,554	234.649,0325		
N			7.012.403,0885	7.012.402,691	7.012.402,542	7.012.402,230	7.012.400,734	7.012.399,237	7.012.398,925	7.012.398,777	7.012.398,5284		
Estacas: 5+657													
Dist. eixo (m)			-5,192	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,832		
Cota (m)			479,003	479,631	479,670	479,381	479,193	479,004	478,923	479,254	478,666		
E			234.643,4342	234.644,252	234.644,532	234.645,120	234.647,941	234.650,761	234.651,349	234.651,629	234.652,1347		
N			7.012.409,1064	7.012.408,639	7.012.408,478	7.012.408,142	7.012.406,528	7.012.404,913	7.012.404,577	7.012.404,417	7.012.404,1274		
Estacas: 5+660													
Dist. eixo (m)			-5,223	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,837		
Cota (m)			479,063	479,711	479,750	479,461	479,271	479,121	479,040	479,371	478,979		
E			234.645,1838	234.646,018	234.646,295	234.646,875	234.649,661	234.652,447	234.653,027	234.653,304	234.653,8069		
N			7.012.412,1505	7.012.411,650	7.012.411,483	7.012.411,135	7.012.409,461	7.012.407,787	7.012.407,438	7.012.407,272	7.012.406,9695		
Estacas: 5+670													
Dist. eixo (m)			-5,300	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,748		
Cota (m)			479,246	479,946	479,984	479,696	479,507	479,318	479,237	479,568	479,031		
E			234.650,7116	234.651,576	234.651,842	234.652,400	234.655,075	234.657,751	234.658,308	234.658,575	234.658,9845		
N			7.012.420,8740	7.012.420,278	7.012.420,095	7.012.419,711	7.012.417,866	7.012.416,021	7.012.415,637	7.012.415,454	7.012.415,1713		
Estacas: 5+671													
Dist. eixo (m)			-5,304	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,737		
Cota (m)			479,257	479,960	479,998	479,710	479,521	479,332	479,251	479,582	479,045		
E			234.651,0609	234.651,926	234.652,192	234.652,748	234.655,417	234.658,086	234.658,641	234.659,007	234.659,3063		
N			7.012.421,3857	7.012.420,784	7.012.420,600	7.012.420,214	7.012.418,359	7.012.416,505	7.012.416,118	7.012.415,934	7.012.415,6582		
Estacas: 5+673													
Dist. eixo (m)			-5,326	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,676		
Cota (m)			479,310	480,027	480,066	479,777	479,588	479,399	479,318	479,649	479,112		
E			234.652,6957	234.653,579	234.653,845	234.654,401	234.657,069	234.659,738	234.660,294	234.660,560	234.660,9095		
N			7.012.423,7769	7.012.423,163	7.012.422,979	7.012.422,592	7.012.420,738	7.012.418,883	7.012.418,497	7.012.418,313	7.012.418,0693		
Estacas: 5+680													
Dist. eixo (m)			-5,578	-4,250	-4,927	-4,250	0,000	3,250	3,927	4,250	4,529		
Cota (m)			479,314	480,199	480,238	479,949	479,760	479,571	479,490	480,020	479,834		
E			234.655,3788	234.656,469	234.656,735	234.657,291	234.660,781	234.663,450	234.664,006	234.664,271	234.664,5003		
N			7.012.429,8323	7.012.429,075	7.012.428,890	7.012.428,504	7.012.426,079	7.012.424,224	7.012.423,838	7.012.423,654	7.012.423,4940		
Estacas: 5+690													
Dist. eixo (m)			-8,895	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,514		
Cota (m)			479,325	480,422	480,461	480,172	480,156	480,058	479,977	480,308	480,132		
E			234.659,1821	234.660,533	234.660,799	234.661,355	234.666,487	234.669,156	234.669,712	234.669,977	234.670,1940		
N			7.012.439,3667	7.012.438,428	7.012.438,244	7.012.437,857	7.012.434,291	7.012.432,436	7.012.432,050	7.012.431,866	7.012.431,7148		
Estacas: 5+692													
Dist. eixo (m)			-8,857	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,530		
Cota (m)			479,381	480,452	480,491	480,202	480,200	480,104	480,023	480,354	480,168		
E			234.660,1267	234.661,446	234.661,711	234.662,267	234.667,400	234.670,069	234.670,625	234.670,890	234.671,1196		
N			7.012.440,6583	7.012.439,741	7.012.439,557	7.012.439,171	7.012.435,604	7.012.433,750	7.012.433,364	7.012.433,179	7.012.432,9196		
Estacas: 5+700													
Dist. eixo (m)			-8,653	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,611		
Cota (m)			479,672	480,607	480,646	480,357	480,444	480,347	480,265	480,597	480,356		
E			234.665,0873	234.666,240	234.666,505	234.667,061	234.672,193	234.674,862	234.675,418	234.675,684	234.675,9802		
N			7.012.447,4406	7.012.446,640	7.012.446,456	7.012.446,069	7.012.442,503	7.012.440,648	7.012.440,262	7.012.440,078	7.012.439,8714		
Estacas: 5+710													
Dist. eixo (m)			-8,385	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,569		
Cota (m)			480,030	480,786	480,825	480,536	480,724	480,626	480,545	480,876	480,664		
E			234.670,8449	234.671,777	234.672,042	234.672,598	234.677,730	234.680,399	234.680,955	234.681,220	234.681,4822		
N			7.012.455,2555	7.012.454,608	7.012.454,424	7.012.454,037	7.012.450,471	7.012.448,616	7.012.448,230	7.012.448,046	7.012.447,8639		
Estacas: 5+720													
Dist. eixo (m)			-6,775	-6,050	-5,727	-5,050	0,000	3,250	3,927	4,250	4,599		
Cota (m)			480,836	481,119	481,158	480,869	481,021	480,923	480,842	481,173	480,940		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 5+780													
Dist. eixo (m)			-4,624	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,321		
Cota (m)			483,168	483,417	483,456	483,167	483,265	483,077	482,996	483,327	483,280		
E			234.714,0472	234.714,354	234.714,619	234.715,175	234.717,844	234.722,977	234.723,533	234.723,798	234.723,856		
N			7.012.510,8375	7.012.510,624	7.012.510,440	7.012.510,054	7.012.508,199	7.012.504,633	7.012.504,246	7.012.504,062	7.012.504,0216		
Estacas: 5+790													
Dist. eixo (m)			-4,524	-4,250	-3,927	-3,250	0,000	4,250	4,927	5,250	5,403		
Cota (m)			483,772	483,955	483,984	483,705	483,803	483,675	483,594	483,925	483,823		
E			234.719,8354	234.720,060	234.720,326	234.720,882	234.723,551	234.727,041	234.727,596	234.727,862	234.727,9875		
N			7.012.518,9927	7.012.518,836	7.012.518,652	7.012.518,266	7.012.516,411	7.012.513,986	7.012.513,600	7.012.513,415	7.012.513,3280		
Estacas: 5+800													
Dist. eixo (m)			-4,694	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,676		
Cota (m)			484,238	484,534	484,572	484,284	484,381	484,284	484,202	484,534	484,248		
E			234.725,4024	234.725,767	234.726,032	234.726,588	234.729,257	234.731,926	234.732,482	234.732,747	234.733,0984		
N			7.012.527,3015	7.012.527,048	7.012.526,864	7.012.526,478	7.012.524,623	7.012.522,769	7.012.522,382	7.012.522,198	7.012.521,9538		
Estacas: 5+810													
Dist. eixo (m)			-4,310	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,811		
Cota (m)			485,076	485,116	485,155	484,866	484,964	484,866	484,785	485,116	484,742		
E			234.731,4237	234.731,473	234.731,738	234.732,294	234.734,963	234.737,632	234.738,188	234.738,453	234.738,9139		
N			7.012.535,2947	7.012.535,260	7.012.535,076	7.012.534,690	7.012.532,835	7.012.530,981	7.012.530,594	7.012.530,410	7.012.530,0900		
Estacas: 5+820													
Dist. eixo (m)			-4,405	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,580		
Cota (m)			485,596	485,699	485,738	485,449	485,547	485,449	485,368	485,699	485,479		
E			234.737,0523	234.737,179	234.737,445	234.738,001	234.740,670	234.743,338	234.743,894	234.744,160	234.744,4304		
N			7.012.543,5608	7.012.543,473	7.012.543,288	7.012.542,902	7.012.541,047	7.012.539,193	7.012.538,807	7.012.538,622	7.012.538,4339		
Estacas: 5+830													
Dist. eixo (m)			-4,390	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,998		
Cota (m)			486,422	486,282	486,321	486,032	486,130	486,032	486,951	486,282	486,784		
E			234.742,7707	234.742,886	234.743,151	234.743,707	234.746,376	234.749,045	234.749,601	234.749,866	234.750,4800		
N			7.012.551,7645	7.012.551,685	7.012.551,500	7.012.551,114	7.012.549,259	7.012.547,405	7.012.547,019	7.012.546,834	7.012.546,4074		
Estacas: 5+840													
Dist. eixo (m)			-4,318	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,999		
Cota (m)			486,617	486,849	486,887	486,599	486,696	486,599	486,517	486,849	486,349		
E			234.748,5362	234.748,592	234.748,857	234.749,413	234.752,082	234.754,751	234.755,307	234.755,572	234.756,1877		
N			7.012.559,9354	7.012.559,897	7.012.559,712	7.012.559,326	7.012.557,471	7.012.555,617	7.012.555,231	7.012.555,046	7.012.554,6186		
Estacas: 5+850													
Dist. eixo (m)			-4,534	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,914		
Cota (m)			487,147	487,336	487,375	487,086	487,184	487,086	487,005	487,336	486,894		
E			234.754,0649	234.754,298	234.754,564	234.755,120	234.757,789	234.760,458	234.761,013	234.761,279	234.761,8237		
N			7.012.568,2709	7.012.568,109	7.012.567,924	7.012.567,538	7.012.565,683	7.012.563,829	7.012.563,443	7.012.563,258	7.012.562,8795		
Estacas: 5+858													
Dist. eixo (m)			-4,569	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,906		
Cota (m)			487,435	487,648	487,686	487,398	487,495	487,398	487,316	487,648	487,210		
E			234.758,3366	234.758,599	234.758,864	234.759,420	234.762,089	234.764,758	234.765,313	234.765,579	234.766,1176		
N			7.012.574,4788	7.012.574,297	7.012.574,113	7.012.573,726	7.012.571,872	7.012.570,017	7.012.569,631	7.012.569,446	7.012.569,0720		
Estacas: 5+860													
Dist. eixo (m)			-4,424	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,887		
Cota (m)			487,637	487,752	487,791	487,502	487,599	487,499	487,408	487,752	487,314		
E			234.759,8622	234.760,005	234.760,270	234.760,826	234.763,495	234.766,164	234.766,720	234.766,985	234.767,5079		
N			7.012.576,4197	7.012.576,321	7.012.576,136	7.012.575,750	7.012.573,895	7.012.572,041	7.012.571,655	7.012.571,470	7.012.571,1089		
Estacas: 5+870													
Dist. eixo (m)			-4,803	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,773		
Cota (m)			487,756	488,124	488,163	487,874	487,904	487,807	487,726	488,057	487,708		
E			234.765,2569	234.765,711	234.765,976	234.766,532	234.769,201	234.771,870	234.772,426	234.772,691	234.773,1207		
N			7.012.584,8483	7.012.584,533	7.012.584,348	7.012.583,962	7.012.582,108	7.012.580,253	7.012.579,867	7.012.579,682	7.012.579,3840		
Estacas: 5+876													
Dist. eixo (m)			-4,722	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,726		
Cota (m)			487,979	488,294	488,332	488,044	488,044	487,946	487,865	488,196	487,879		
E			234.768,4826	234.768,890	234.769,135	234.769,691	234.772,360	234.775,029	234.775,585	234.775,850	234.776,2408		
N			7.012.589,3476	7.012.589,079	7.012.588,894	7.012.588,508	7.012.586,653	7.012.584,799	7.012.584,413	7.012.584,228	7.012.583,9567		
Estacas: 5+880													
Dist. eixo (m)			-4,657	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,858		
Cota (m)			488,140	488,411	488,450	488,161	488,137	488,040	487,958	488,290	488,018		
E			234.771,0830	234.771,418	234.771,683	234.772,239	234.774,908	234.777,577	234.778,132	234.778,398	234.778,7328		
N			7.012.592,9771	7.012.592,745	7.012.592,560	7.012.592,174	7.012.590,320	7.012.588,465	7.012.588,079	7.012.587,894	7.012.587,6615		
Estacas: 5+890													
Dist. eixo (m)			-4,716	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,486		
Cota (m)			488,303	488,613	488,652	488,363	488,285	488,188	488,106	488,438	488,280		
E			234.776,7410	234.777,124	234.777,389	234.777,945	234.780,614	234.783,283	234.783,839	234.784,104	234.784,2979		
N			7.012.601,2228	7.012.600,957	7.012.600,773	7.012.600,386	7.012.598,532	7.012.596,677	7.012.596,291	7.012.596,106	7.012.595,9717		
Estacas: 5+894													
Dist. eixo (m)			-4,607	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,490		
Cota (m)			488,426	488,665	488,703	488,415	488,317	488,220	488,138	488,470	488,309		
E			234.778,8480	234.779,141	234.779,407	234.779,963	234.782,631	234.785,300	234.785,856	234.786,122	234.786,3189		
N			7.012.604,0640	7.012.603,860	7.012.603,676	7.012.603,290	7.012.601,435	7.012.599,580	7.012.599,194	7.012.599,010	7.012.598,8726		
Estacas: 5+897													
Dist. eixo (m)			-4,532	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,447		
Cota (m)			488,518	488,706	488,744	488,456	488,339	488,222	488,140	488,472	488,340		
E			234.780,9643	234.781,196	234.781,461	234.782,017	234.784,686	234.787,355	234.787,910	234.788,176	234.788,3379		
N			7.012.606,9772	7.012.606,817	7.012.606,632	7.012.606,246	7.012.604,391	7.012.602,537	7.012.602,151	7.012.601,966	7.012.601,8535		
Estacas: 5+900													
Dist. eixo (m)			-4,735	-4,250	-3,927	-3,250	0,000	3,250	3,927				

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 5+940													
Dist. eixo (m)			-5,227	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,767		
Cota (m)			487,561	488,212	488,251	487,962	487,767	487,572	487,491	487,822	487,477		
E			234,811,7094	234,812,273	234,812,459	234,812,850	234,814,725	234,816,600	234,833,641	234,817,177	234,817,4757		
N			7,012,638,9337	7,012,638,136	7,012,637,872	7,012,637,319	7,012,634,665	7,012,632,010	7,012,631,457	7,012,631,193	7,012,630,7710		
Estacas: 5+950													
Dist. eixo (m)			-5,405	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,745		
Cota (m)			487,175	487,945	487,984	487,695	487,500	487,305	487,224	487,555	487,225		
E			234,829,6217	234,830,067	234,830,208	234,830,504	234,831,925	234,833,345	234,833,783	234,833,783	234,833,9784		
N			7,012,644,7497	7,012,643,755	7,012,643,477	7,012,642,894	7,012,640,096	7,012,637,298	7,012,636,716	7,012,636,437	7,012,636,0113		
Estacas: 5+960													
Dist. eixo (m)			-5,268	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,698		
Cota (m)			487,007	487,679	487,718	487,429	487,234	487,039	486,958	487,289	486,990		
E			234,829,6217	234,830,067	234,830,208	234,830,504	234,831,925	234,833,345	234,833,641	234,833,783	234,833,9784		
N			7,012,649,5664	7,012,648,651	7,012,648,372	7,012,647,751	7,012,644,828	7,012,641,905	7,012,641,297	7,012,641,006	7,012,640,8027		
Estacas: 5+965													
Dist. eixo (m)			-5,245	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,669		
Cota (m)			486,886	487,549	487,588	487,299	487,104	486,909	486,828	487,159	486,880		
E			234,834,2239	234,834,623	234,834,753	234,835,025	234,836,329	234,837,633	234,837,905	234,838,035	234,838,2027		
N			7,012,651,6665	7,012,650,755	7,012,650,459	7,012,649,839	7,012,646,863	7,012,643,886	7,012,643,266	7,012,642,970	7,012,642,5860		
Estacas: 5+970													
Dist. eixo (m)			-5,324	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,651		
Cota (m)			486,696	487,412	487,451	487,162	486,967	486,772	486,691	487,022	486,755		
E			234,839,1554	234,839,545	234,839,662	234,839,908	234,841,086	234,842,265	234,842,510	234,842,628	234,842,7730		
N			7,012,653,7909	7,012,652,790	7,012,652,489	7,012,651,858	7,012,648,830	7,012,645,801	7,012,645,170	7,012,644,869	7,012,644,4951		
Estacas: 5+979													
Dist. eixo (m)			-5,350	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,583		
Cota (m)			486,416	487,149	487,188	486,899	486,704	486,509	486,428	486,759	486,598		
E			234,848,2658	234,848,587	234,848,681	234,848,878	234,849,826	234,850,774	234,850,971	234,851,065	234,851,1624		
N			7,012,656,9753	7,012,655,923	7,012,655,614	7,012,654,966	7,012,651,858	7,012,648,749	7,012,648,101	7,012,647,792	7,012,647,4740		
Estacas: 5+980													
Dist. eixo (m)			-5,339	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,574		
Cota (m)			486,400	487,126	487,165	486,876	486,681	486,486	486,405	486,736	486,520		
E			234,848,9850	234,849,303	234,849,397	234,849,594	234,850,542	234,851,490	234,851,687	234,851,781	234,851,8757		
N			7,012,657,1823	7,012,656,141	7,012,655,832	7,012,655,184	7,012,652,076	7,012,648,967	7,012,648,320	7,012,648,010	7,012,647,7004		
Estacas: 5+990													
Dist. eixo (m)			-5,303	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,477		
Cota (m)			486,081	486,783	486,822	486,533	486,338	486,143	486,062	486,393	486,242		
E			234,858,5608	234,858,868	234,858,962	234,859,160	234,860,107	234,861,055	234,861,252	234,861,347	234,861,4127		
N			7,012,660,0645	7,012,659,057	7,012,658,748	7,012,658,101	7,012,654,992	7,012,651,883	7,012,651,236	7,012,650,927	7,012,650,7094		
Estacas: 6+000													
Dist. eixo (m)			-5,324	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,371		
Cota (m)			485,666	486,382	486,420	486,132	485,937	485,742	485,660	485,992	485,911		
E			234,868,1200	234,868,433	234,868,528	234,868,725	234,869,673	234,870,620	234,870,818	234,870,912	234,870,9474		
N			7,012,663,0006	7,012,661,973	7,012,661,664	7,012,661,017	7,012,657,908	7,012,654,799	7,012,654,152	7,012,653,843	7,012,653,7264		
Estacas: 6+010													
Dist. eixo (m)			-5,025	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,316		
Cota (m)			485,406	485,922	485,961	485,672	485,477	485,282	485,201	485,532	485,598		
E			234,877,7726	234,877,939	234,878,093	234,878,290	234,879,238	234,880,186	234,880,383	234,880,477	234,880,4965		
N			7,012,665,6305	7,012,664,889	7,012,664,580	7,012,663,933	7,012,660,824	7,012,657,715	7,012,657,068	7,012,656,759	7,012,656,6966		
Estacas: 6+020													
Dist. eixo (m)			-5,328	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,467		
Cota (m)			484,686	485,405	485,444	485,155	484,960	484,765	484,684	485,015	484,871		
E			234,887,2496	234,887,564	234,887,658	234,887,856	234,888,803	234,889,751	234,889,949	234,890,043	234,890,1060		
N			7,012,668,8367	7,012,667,805	7,012,667,496	7,012,666,849	7,012,663,740	7,012,660,631	7,012,659,984	7,012,659,675	7,012,659,4671		
Estacas: 6+030													
Dist. eixo (m)			-4,989	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,465		
Cota (m)			484,338	484,830	484,869	484,580	484,385	484,190	484,109	484,440	484,297		
E			234,896,9139	234,897,129	234,897,224	234,897,421	234,898,369	234,899,317	234,899,514	234,899,608	234,899,6707		
N			7,012,671,4282	7,012,670,721	7,012,670,412	7,012,669,765	7,012,666,656	7,012,663,547	7,012,662,900	7,012,662,591	7,012,662,3853		
Estacas: 6+040													
Dist. eixo (m)			-5,190	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,418		
Cota (m)			483,590	484,217	484,255	483,967	483,772	483,577	483,495	483,827	483,715		
E			234,906,4206	234,906,695	234,906,789	234,906,986	234,907,934	234,908,882	234,909,079	234,909,174	234,909,2225		
N			7,012,674,5367	7,012,673,637	7,012,673,329	7,012,672,681	7,012,669,572	7,012,666,463	7,012,665,816	7,012,665,507	7,012,665,3461		
Estacas: 6+050													
Dist. eixo (m)			-4,915	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,842		
Cota (m)			483,159	483,602	483,641	483,352	483,157	482,962	482,881	483,212	482,817		
E			234,916,0664	234,916,260	234,916,354	234,916,552	234,917,500	234,918,447	234,918,645	234,918,739	234,918,9115		
N			7,012,677,1892	7,012,676,554	7,012,676,245	7,012,675,597	7,012,672,488	7,012,669,380	7,012,668,732	7,012,668,423	7,012,668,2567		
Estacas: 6+055													
Dist. eixo (m)			-4,868	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,796		
Cota (m)			482,901	483,313	483,352	483,063	482,868	482,673	482,592	482,923	482,559		
E			234,920,5876	234,920,768	234,920,862	234,921,060	234,922,007	234,922,955	234,923,152	234,923,247	234,923,4059		
N			7,012,678,5193	7,012,677,928	7,012,677,619	7,012,676,971	7,012,673,863	7,012,670,754	7,012,670,106	7,012,669,797	7,012,669,2748		
Estacas: 6+060													
Dist. eixo (m)			-4,754	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,724		
Cota (m)			482,668	483,004	483,043	482,754	482,559	482,364	482,283	482,614	482,298		
E			234,925,8945	234,926,022	234,926,103	234,926,274	234,927,095	234,927,915	234,928,086	234,928,168	234,928,2876		
N			7,012,679,9012	7,012,679,413	7,012,679,101	7,012,678,446	7,012,675,301	7,012,672,156	7,012,671,501	7,012,671,189	7,012,670,7299		
Estacas: 6+069													
Dist. eixo (m)			-4,916	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,880		
Cota (m)			482,079	482,523	482,562	482,273	482,078	481,883	481,802	482,133	481,713</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 6+120													
Dist. eixo (m)			-4,692	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,195		
Cota (m)			480,759	481,053	481,092	480,803	480,608	480,413	480,332	480,663	480,033		
E			234,987,5069	234,987,417	234,987,350	234,987,212	234,986,546	234,985,880	234,985,742	234,985,058	234,985,4818		
N			7,012,681,3480	7,012,680,916	7,012,680,600	7,012,679,937	7,012,676,756	7,012,673,575	7,012,672,912	7,012,672,596	7,012,671,6712		
Estacas: 6+128													
Dist. eixo (m)			-4,763	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,400		
Cota (m)			480,667	481,002	481,041	480,752	480,557	480,362	480,281	480,612	480,512		
E			234,995,4027	234,995,270	234,995,185	234,995,007	234,994,151	234,993,295	234,993,117	234,993,032	234,992,9923		
N			7,012,679,5094	7,012,679,024	7,012,678,712	7,012,678,059	7,012,674,924	7,012,671,789	7,012,671,136	7,012,670,824	7,012,670,6793		
Estacas: 6+130													
Dist. eixo (m)			-4,816	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,380		
Cota (m)			480,612	480,990	481,028	480,740	480,545	480,350	480,268	480,600	480,516		
E			234,997,5913	234,997,433	234,997,343	234,997,154	234,996,246	234,995,337	234,995,148	234,995,058	234,995,0216		
N			7,012,678,9572	7,012,678,414	7,012,678,104	7,012,677,454	7,012,674,333	7,012,671,213	7,012,670,563	7,012,670,253	7,012,670,1281		
Estacas: 6+140													
Dist. eixo (m)			-4,799	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,412		
Cota (m)			480,565	480,931	480,970	480,681	480,486	480,291	480,210	480,541	480,434		
E			235,007,4215	235,007,228	235,007,114	235,006,876	235,005,730	235,004,585	235,004,346	235,004,232	235,004,1754		
N			7,012,675,6638	7,012,675,150	7,012,674,847	7,012,674,214	7,012,671,172	7,012,668,131	7,012,667,497	7,012,667,195	7,012,667,0437		
Estacas: 6+150													
Dist. eixo (m)			-5,007	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,560		
Cota (m)			480,368	480,873	480,912	480,623	480,428	480,233	480,152	480,483	480,277		
E			235,017,0635	235,016,743	235,016,606	235,016,320	235,014,944	235,013,568	235,013,282	235,013,145	235,013,0136		
N			7,012,671,8285	7,012,671,142	7,012,670,850	7,012,670,236	7,012,667,292	7,012,664,347	7,012,663,734	7,012,663,441	7,012,663,1603		
Estacas: 6+160													
Dist. eixo (m)			-5,394	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,425		
Cota (m)			480,053	480,815	480,854	480,565	480,370	480,175	480,094	480,425	480,308		
E			235,026,4841	235,025,922	235,025,763	235,025,430	235,023,832	235,022,234	235,021,902	235,021,743	235,021,6565		
N			7,012,667,4117	7,012,666,416	7,012,666,135	7,012,665,545	7,012,662,715	7,012,659,885	7,012,659,295	7,012,659,014	7,012,658,8614		
Estacas: 6+170													
Dist. eixo (m)			-5,926	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,464		
Cota (m)			479,640	480,757	480,796	480,507	480,312	480,117	480,036	480,367	480,224		
E			235,035,6440	235,034,710	235,034,530	235,034,153	235,032,343	235,030,532	235,030,155	235,029,875	235,029,8555		
N			7,012,662,3895	7,012,660,998	7,012,660,730	7,012,660,167	7,012,657,468	7,012,654,770	7,012,654,207	7,012,653,939	7,012,653,7613		
Estacas: 6+180													
Dist. eixo (m)			-5,850	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,278		
Cota (m)			479,610	480,677	480,716	480,427	480,232	480,037	479,956	480,287	480,315		
E			235,044,0470	235,043,056	235,042,856	235,042,437	235,040,424	235,038,412	235,037,993	235,037,792	235,037,7748		
N			7,012,656,1762	7,012,654,920	7,012,654,667	7,012,654,135	7,012,651,583	7,012,649,032	7,012,648,500	7,012,648,246	7,012,648,2242		
Estacas: 6+187													
Dist. eixo (m)			-5,465	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,402		
Cota (m)			479,790	480,601	480,639	480,351	480,156	479,961	479,879	480,211	480,363		
E			235,049,0476	235,048,248	235,048,035	235,047,590	235,045,452	235,043,313	235,042,868	235,042,655	235,042,5551		
N			7,012,651,5248	7,012,650,610	7,012,650,366	7,012,649,857	7,012,647,409	7,012,644,962	7,012,644,452	7,012,644,209	7,012,644,0941		
Estacas: 6+190													
Dist. eixo (m)			-4,947	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,457		
Cota (m)			480,069	480,534	480,572	480,284	480,107	479,931	479,850	480,181	480,388		
E			235,051,3836	235,050,911	235,050,692	235,050,233	235,048,030	235,046,927	235,045,369	235,045,150	235,045,0085		
N			7,012,648,7324	7,012,648,220	7,012,647,982	7,012,647,464	7,012,645,095	7,012,642,705	7,012,642,208	7,012,641,970	7,012,641,8179		
Estacas: 6+200													
Dist. eixo (m)			-5,023	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,356		
Cota (m)			479,796	480,311	480,350	480,061	479,939	479,817	479,736	480,067	480,173		
E			235,058,7930	235,058,227	235,057,991	235,057,495	235,055,115	235,052,735	235,052,239	235,052,003	235,051,9251		
N			7,012,641,4612	7,012,640,935	7,012,640,715	7,012,640,254	7,012,638,041	7,012,635,828	7,012,635,367	7,012,635,147	7,012,635,0745		
Estacas: 6+201													
Dist. eixo (m)			-5,032	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,332		
Cota (m)			479,766	480,288	480,327	480,038	479,921	479,804	479,723	480,054	480,135		
E			235,059,4587	235,058,882	235,058,644	235,058,145	235,055,749	235,053,353	235,052,854	235,052,616	235,052,5559		
N			7,012,640,7541	7,012,640,226	7,012,640,007	7,012,639,550	7,012,637,354	7,012,635,158	7,012,634,701	7,012,634,482	7,012,634,4270		
Estacas: 6+205													
Dist. eixo (m)			-5,072	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,436		
Cota (m)			479,847	480,195	480,234	479,945	479,848	479,750	479,669	480,000	479,876		
E			235,061,9209	235,061,315	235,061,077	235,060,577	235,058,182	235,055,786	235,055,287	235,055,049	235,054,9113		
N			7,012,638,1275	7,012,637,572	7,012,637,354	7,012,636,896	7,012,634,700	7,012,632,504	7,012,632,047	7,012,631,828	7,012,631,7024		
Estacas: 6+210													
Dist. eixo (m)			-5,186	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,835		
Cota (m)			479,420	480,044	480,083	479,794	479,726	479,629	479,547	479,879	479,489		
E			235,065,6976	235,065,007	235,064,769	235,064,270	235,061,874	235,059,479	235,058,980	235,058,741	235,058,3100		
N			7,012,634,1757	7,012,633,543	7,012,633,325	7,012,632,867	7,012,630,671	7,012,628,475	7,012,628,018	7,012,627,800	7,012,627,4041		
Estacas: 6+220													
Dist. eixo (m)			-5,050	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,537		
Cota (m)			479,200	479,732	479,772	479,483	479,469	479,372	479,291	479,622	478,764		
E			235,072,3543	235,071,764	235,071,526	235,071,027	235,068,631	235,066,236	235,065,737	235,065,498	235,064,5497		
N			7,012,626,7120	7,012,626,171	7,012,625,953	7,012,625,496	7,012,623,300	7,012,621,104	7,012,620,646	7,012,620,428	7,012,619,5582		
Estacas: 6+223													
Dist. eixo (m)			-5,041	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,679		
Cota (m)			479,120	479,647	479,686	479,397	479,397	479,300	479,218	479,550	478,597		
E			235,074,0605	235,073,477	235,073,239	235,072,740	235,070,344	235,067,948	235,067,450	235,067,211	235,066,1575		
N			7,012,624,8372	7,012,624,303	7,012,624,084	7,012,623,627	7,012,621,431	7,012,619,235	7,012,618,778	7,012,618,559	7,012,617,5932		
Estacas: 6+230													
Dist. eixo (m)			-5,065	-4,250	-3,927	-3,250	0,000						

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 6+270													
Dist. eixo (m)			-4,868	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,770		
Cota (m)			477,617	478,028	478,067	477,778	477,876	477,822	477,741	478,072	477,725		
E			235,106,0047	235,105,550	235,105,311	235,104,812	235,102,417	235,100,021	235,099,522	235,099,284	235,098,898		
N			7,012,589,7298	7,012,589,313	7,012,589,094	7,012,588,637	7,012,586,441	7,012,584,245	7,012,583,787	7,012,583,569	7,012,583,2174		
Estacas: 6+280													
Dist. eixo (m)			-4,901	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,474		
Cota (m)			477,273	477,707	477,745	477,457	477,554	477,554	477,473	477,804	477,655		
E			235,112,7555	235,112,276	235,112,038	235,111,539	235,109,143	235,106,747	235,106,248	235,106,010	235,105,8446		
N			7,012,582,4137	7,012,581,974	7,012,581,756	7,012,581,298	7,012,579,102	7,012,576,906	7,012,576,449	7,012,576,231	7,012,576,0791		
Estacas: 6+290													
Dist. eixo (m)			-4,998	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,712		
Cota (m)			476,884	477,382	477,421	477,132	477,230	477,230	477,149	477,534	477,226		
E			235,119,6147	235,119,064	235,118,825	235,118,326	235,115,931	235,113,535	235,113,036	235,112,798	235,112,4566		
N			7,012,575,0743	7,012,574,569	7,012,574,351	7,012,573,893	7,012,571,697	7,012,569,501	7,012,569,044	7,012,568,826	7,012,568,5131		
Estacas: 6+298													
Dist. eixo (m)			-5,745	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,991		
Cota (m)			476,128	477,125	477,164	476,875	476,973	477,070	476,989	477,320	476,826		
E			235,125,5408	235,124,439	235,124,201	235,123,701	235,121,306	235,118,910	235,118,411	235,118,173	235,117,6261		
N			7,012,569,7152	7,012,568,705	7,012,568,487	7,012,568,029	7,012,565,833	7,012,563,637	7,012,563,180	7,012,562,962	7,012,562,4606		
Estacas: 6+300													
Dist. eixo (m)			-5,661	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,054		
Cota (m)			476,107	477,048	477,087	476,798	476,906	477,015	476,934	477,265	476,729		
E			235,126,8609	235,125,821	235,125,582	235,125,083	235,122,688	235,120,292	235,119,793	235,119,555	235,118,9615		
N			7,012,568,1509	7,012,567,197	7,012,566,979	7,012,566,522	7,012,564,326	7,012,562,130	7,012,561,672	7,012,561,454	7,012,560,9103		
Estacas: 6+302													
Dist. eixo (m)			-5,538	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,012		
Cota (m)			476,130	476,989	477,028	476,739	476,866	476,973	476,892	477,223	476,715		
E			235,127,8208	235,126,871	235,126,633	235,126,134	235,123,738	235,121,342	235,120,843	235,120,605	235,120,0435		
N			7,012,566,9216	7,012,566,051	7,012,565,833	7,012,565,375	7,012,563,179	7,012,560,983	7,012,560,526	7,012,560,308	7,012,559,7929		
Estacas: 6+310													
Dist. eixo (m)			-4,997	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,802		
Cota (m)			476,173	476,671	476,709	476,421	476,583	476,646	476,665	476,996	476,628		
E			235,133,0695	235,132,575	235,132,361	235,131,913	235,129,762	235,127,611	235,127,163	235,126,948	235,126,5836		
N			7,012,561,0119	7,012,560,452	7,012,560,210	7,012,559,703	7,012,557,266	7,012,554,830	7,012,554,323	7,012,554,080	7,012,553,6663		
Estacas: 6+316													
Dist. eixo (m)			-4,913	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,026		
Cota (m)			476,004	476,446	476,485	476,196	476,391	476,586	476,505	476,836	476,319		
E			235,137,3377	235,136,937	235,136,742	235,136,333	235,134,369	235,132,405	235,131,996	235,131,800	235,131,3316		
N			7,012,557,4095	7,012,556,881	7,012,556,624	7,012,556,084	7,012,553,495	7,012,550,905	7,012,550,366	7,012,550,108	7,012,549,4904		
Estacas: 6+320													
Dist. eixo (m)			-4,953	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,006		
Cota (m)			475,847	476,315	476,354	476,065	476,260	476,455	476,374	476,705	476,202		
E			235,140,4418	235,140,046	235,139,864	235,139,463	235,137,652	235,135,822	235,135,440	235,135,258	235,134,8327		
N			7,012,555,2252	7,012,554,644	7,012,554,378	7,012,553,818	7,012,551,133	7,012,548,447	7,012,547,888	7,012,547,621	7,012,546,9967		
Estacas: 6+330													
Dist. eixo (m)			-4,753	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,243		
Cota (m)			475,653	475,992	476,031	475,742	475,937	476,132	476,051	476,382	475,720		
E			235,148,4139	235,148,182	235,148,035	235,147,726	235,146,245	235,144,764	235,144,455	235,144,308	235,143,8550		
N			7,012,550,2856	7,012,549,813	7,012,549,526	7,012,548,923	7,012,546,031	7,012,543,138	7,012,542,536	7,012,542,248	7,012,541,3639		
Estacas: 6+334													
Dist. eixo (m)			-4,697	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,985		
Cota (m)			475,560	475,858	475,897	475,608	475,803	475,998	475,917	476,248	475,758		
E			235,151,9050	235,151,722	235,151,590	235,151,313	235,149,963	235,148,654	235,148,377	235,148,245	235,147,9438		
N			7,012,548,5226	7,012,548,115	7,012,547,820	7,012,547,202	7,012,544,237	7,012,541,271	7,012,540,654	7,012,540,359	7,012,539,6876		
Estacas: 6+340													
Dist. eixo (m)			-4,687	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,596		
Cota (m)			475,378	475,669	475,708	475,419	475,614	475,809	475,728	476,059	475,829		
E			235,157,0067	235,156,858	235,156,747	235,156,516	235,155,407	235,154,298	235,154,067	235,153,956	235,153,8384		
N			7,012,546,4451	7,012,546,034	7,012,545,731	7,012,545,095	7,012,542,040	7,012,538,985	7,012,538,349	7,012,538,045	7,012,537,7201		
Estacas: 6+350													
Dist. eixo (m)			-4,437	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,275		
Cota (m)			475,223	475,348	475,386	475,098	475,293	475,488	475,406	475,738	475,721		
E			235,165,9777	235,165,936	235,165,865	235,165,715	235,164,995	235,164,275	235,164,125	235,164,054	235,164,0483		
N			7,012,543,5489	7,012,543,367	7,012,543,052	7,012,542,391	7,012,539,222	7,012,536,053	7,012,535,393	7,012,535,078	7,012,535,0532		
Estacas: 6+352													
Dist. eixo (m)			-4,422	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,256		
Cota (m)			475,165	475,279	475,318	475,029	475,224	475,419	475,338	475,669	475,665		
E			235,168,1364	235,168,103	235,168,041	235,167,910	235,167,284	235,166,657	235,166,526	235,166,464	235,166,4626		
N			7,012,543,0767	7,012,542,908	7,012,542,591	7,012,541,926	7,012,538,737	7,012,535,548	7,012,534,884	7,012,534,567	7,012,534,3610		
Estacas: 6+360													
Dist. eixo (m)			-4,589	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,323		
Cota (m)			474,918	475,144	475,183	474,894	475,043	475,192	475,111	475,442	475,393		
E			235,175,3100	235,175,277	235,175,245	235,175,179	235,174,860	235,174,541	235,174,474	235,174,442	235,174,4352		
N			7,012,542,1889	7,012,541,851	7,012,541,530	7,012,540,856	7,012,537,244	7,012,534,388	7,012,533,714	7,012,533,392	7,012,533,3194		
Estacas: 6+367													
Dist. eixo (m)			-4,690	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,297		
Cota (m)			474,784	475,077	475,116	474,827	474,936	475,044	474,963	475,294	475,263		
E			235,181,6522	235,181,646	235,181,642	235,181,632	235,181,586	235,181,541	235,181,531	235,181,526	235,181,5258		
N			7,012,541,9334	7,012,541,493	7,012,541,170	7,012,540,493	7,012,537,244	7,012,533,994	7,012,533,317	7,012,532,994	7,012,532,9473		
Estacas: 6+370													
Dist. eixo (m)			-4,806	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,417		
Cota (m)			474,692	475,063	475,102	474,813	474,902	474,991	474,910	475,241	475,129		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 6+420													
Dist. eixo (m)			-5,637	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,375		
Cota (m)			474,650	475,575	475,613	475,325	475,162	475,000	474,918	475,250	475,166		
E			235,235,3404	235,235,210	235,235,179	235,235,115	235,234,809	235,234,502	235,234,438	235,234,408	235,234,3959		
N			7,012,541,2979	7,012,539,918	7,012,539,596	7,012,538,922	7,012,535,687	7,012,532,451	7,012,531,777	7,012,531,456	7,012,531,3312		
Estacas: 6+426													
Dist. eixo (m)			-5,283	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,302		
Cota (m)			474,783	475,471	475,510	475,221	475,059	474,896	474,815	475,146	475,199		
E			235,241,3335	235,241,212	235,241,174	235,241,094	235,240,710	235,240,327	235,240,247	235,240,209	235,240,2029		
N			7,012,540,3027	7,012,539,277	7,012,538,956	7,012,538,284	7,012,535,057	7,012,531,829	7,012,531,157	7,012,530,836	7,012,530,7843		
Estacas: 6+430													
Dist. eixo (m)			-5,323	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,357		
Cota (m)			474,643	475,356	475,397	475,108	474,945	474,783	474,702	475,033	474,961		
E			235,245,4562	235,245,312	235,245,269	235,245,178	235,244,743	235,244,307	235,244,216	235,244,173	235,244,1583		
N			7,012,539,8193	7,012,538,756	7,012,538,436	7,012,537,765	7,012,534,544	7,012,531,324	7,012,530,653	7,012,530,333	7,012,530,2263		
Estacas: 6+440													
Dist. eixo (m)			-5,446	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,877		
Cota (m)			474,135	474,932	474,971	474,682	474,520	474,357	474,276	474,607	474,190		
E			235,255,5409	235,255,334	235,255,278	235,255,160	235,254,596	235,254,032	235,253,915	235,253,859	235,253,7501		
N			7,012,538,3734	7,012,537,196	7,012,536,878	7,012,536,211	7,012,533,010	7,012,529,810	7,012,529,143	7,012,528,825	7,012,528,2077		
Estacas: 6+450													
Dist. eixo (m)			-4,891	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,859		
Cota (m)			473,812	474,239	474,278	473,989	473,881	473,773	473,692	474,023	473,617		
E			235,265,4747	235,265,338	235,265,270	235,265,125	235,264,434	235,263,742	235,263,598	235,263,529	235,263,3994		
N			7,012,535,8523	7,012,535,226	7,012,534,910	7,012,534,249	7,012,531,073	7,012,527,898	7,012,527,236	7,012,526,921	7,012,526,3255		
Estacas: 6+452													
Dist. eixo (m)			-4,833	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,807		
Cota (m)			473,698	474,087	474,126	473,837	473,739	473,642	473,561	473,892	473,521		
E			235,267,4255	235,267,297	235,267,226	235,267,076	235,266,360	235,265,643	235,265,494	235,265,422	235,265,2986		
N			7,012,535,3594	7,012,534,791	7,012,534,476	7,012,533,816	7,012,530,646	7,012,527,476	7,012,526,816	7,012,526,500	7,012,525,9573		
Estacas: 6+460													
Dist. eixo (m)			-4,804	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,646		
Cota (m)			473,137	473,506	473,545	473,256	473,202	473,105	473,024	473,355	473,091		
E			235,275,2486	235,275,126	235,275,055	235,274,906	235,274,189	235,273,472	235,273,323	235,273,252	235,273,1645		
N			7,012,533,5610	7,012,533,021	7,012,532,706	7,012,532,045	7,012,528,875	7,012,525,706	7,012,525,045	7,012,524,730	7,012,524,3440		
Estacas: 6+470													
Dist. eixo (m)			-4,857	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,649		
Cota (m)			472,471	472,876	472,915	472,626	472,626	472,528	472,447	472,778	472,513		
E			235,284,9877	235,284,854	235,284,783	235,284,633	235,283,917	235,283,200	235,283,050	235,282,979	235,282,8912		
N			7,012,531,4134	7,012,530,821	7,012,530,506	7,012,529,846	7,012,526,676	7,012,523,506	7,012,522,846	7,012,522,531	7,012,522,1417		
Estacas: 6+480													
Dist. eixo (m)			-4,982	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,568		
Cota (m)			471,856	472,344	472,383	472,094	472,148	472,051	471,969	472,301	472,089		
E			235,294,7953	235,294,634	235,294,563	235,294,413	235,293,697	235,292,980	235,292,831	235,292,759	235,292,6892		
N			7,012,529,3236	7,012,528,610	7,012,528,295	7,012,527,635	7,012,524,465	7,012,521,295	7,012,520,634	7,012,520,319	7,012,520,0093		
Estacas: 6+488													
Dist. eixo (m)			-5,543	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,108		
Cota (m)			471,131	471,993	472,032	471,743	471,841	471,743	471,662	471,993	471,421		
E			235,302,6958	235,302,4111	235,302,339	235,302,189	235,301,473	235,300,757	235,300,607	235,300,536	235,300,3467		
N			7,012,528,1130	7,012,526,852	7,012,526,536	7,012,525,876	7,012,522,706	7,012,519,536	7,012,518,876	7,012,518,561	7,012,517,7240		
Estacas: 6+490													
Dist. eixo (m)			-5,481	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,098		
Cota (m)			471,105	471,925	471,964	471,675	471,773	471,675	471,594	471,925	471,360		
E			235,304,6591	235,304,388	235,304,317	235,304,167	235,303,450	235,302,734	235,302,584	235,302,513	235,302,3261		
N			7,012,527,6047	7,012,526,404	7,012,526,089	7,012,525,429	7,012,522,259	7,012,519,089	7,012,518,429	7,012,518,114	7,012,517,2869		
Estacas: 6+500													
Dist. eixo (m)			-5,335	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,697		
Cota (m)			470,928	471,651	471,690	471,401	471,499	471,401	471,320	471,651	471,354		
E			235,314,3807	235,314,142	235,314,070	235,313,921	235,313,204	235,312,487	235,312,338	235,312,267	235,312,1683		
N			7,012,525,2568	7,012,524,199	7,012,523,884	7,012,523,224	7,012,520,054	7,012,516,884	7,012,516,224	7,012,515,908	7,012,515,4726		
Estacas: 6+510													
Dist. eixo (m)			-5,281	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,550		
Cota (m)			470,791	471,479	471,517	471,229	471,326	471,229	471,148	471,479	471,278		
E			235,324,1227	235,323,895	235,323,824	235,323,675	235,322,958	235,322,241	235,322,092	235,322,021	235,321,9543		
N			7,012,522,9993	7,012,521,994	7,012,521,679	7,012,521,018	7,012,517,848	7,012,514,678	7,012,514,018	7,012,513,703	7,012,513,4097		
Estacas: 6+520													
Dist. eixo (m)			-4,891	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,739		
Cota (m)			470,930	471,357	471,395	471,107	471,204	471,107	471,025	471,357	471,031		
E			235,333,7903	235,333,649	235,333,578	235,333,429	235,332,712	235,331,995	235,331,846	235,331,774	235,331,6666		
N			7,012,520,4130	7,012,519,788	7,012,519,473	7,012,518,813	7,012,515,643	7,012,512,473	7,012,511,813	7,012,511,497	7,012,511,0207		
Estacas: 6+530													
Dist. eixo (m)			-4,531	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,948		
Cota (m)			471,031	471,218	471,257	470,968	471,066	470,968	470,887	471,218	470,753		
E			235,343,4647	235,343,403	235,343,332	235,343,182	235,342,466	235,341,749	235,341,599	235,341,528	235,341,3742		
N			7,012,517,8564	7,012,517,583	7,012,517,268	7,012,516,607	7,012,513,437	7,012,510,267	7,012,509,607	7,012,509,292	7,012,508,6112		
Estacas: 6+531													
Dist. eixo (m)			-4,535	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,961		
Cota (m)			471,011	471,201	471,239	470,951	471,048	470,951	470,869	471,201	470,726		
E			235,344,5210	235,344,458	235,344,387	235,344,238	235,343,521	235,342,804	235,342,655	235,342,583	235,342,4265		
N			7,012,517,6222	7,012,517,344	7,012,517,029	7,012,516,369	7,012,513,199	7,012,510,029	7,012,509,369	7,012,509,053	7,012,508,3593		
Estacas: 6+540													
Dist. eixo (m)			-4,551	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,109		
Cota (m)			470,935	471,036	471,074	470,786	470,883	470,786	470,702	471,036	470,511		
E			235,353,2229	235,353,157									

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 6+570													
Dist. eixo (m)			-4,340	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,533		
Cota (m)			470,313	470,223	470,262	469,973	470,083	470,193	470,112	470,443	469,588		
E			235,392,390	235,382,371	235,382,304	235,381,163	235,381,486	235,380,808	235,380,667	235,380,600	235,380,328		
N			7,012,508,8833	7,012,508,796	7,012,508,480	7,012,507,818	7,012,504,639	7,012,501,460	7,012,500,798	7,012,500,482	7,012,499,2277		
Estacas: 6+577													
Dist. eixo (m)			-5,024	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,924		
Cota (m)			470,737	469,963	470,001	469,713	469,862	470,012	469,930	470,262	469,146		
E			235,389,6151	235,389,472	235,389,412	235,389,287	235,388,685	235,388,083	235,387,958	235,387,898	235,387,5879		
N			7,012,508,1313	7,012,507,370	7,012,507,053	7,012,506,388	7,012,503,194	7,012,500,000	7,012,499,335	7,012,499,017	7,012,497,3724		
Estacas: 6+580													
Dist. eixo (m)			-5,151	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,015		
Cota (m)			470,783	469,883	469,921	469,633	469,782	469,932	469,850	470,182	469,005		
E			235,392,2084	235,392,049	235,391,992	235,391,873	235,391,298	235,390,724	235,390,604	235,390,547	235,390,2349		
N			7,012,507,7825	7,012,506,896	7,012,506,578	7,012,505,912	7,012,502,718	7,012,499,514	7,012,498,848	7,012,498,530	7,012,496,7922		
Estacas: 6+590													
Dist. eixo (m)			-5,293	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,217		
Cota (m)			470,599	469,556	469,594	469,306	469,455	469,605	469,523	469,855	468,543		
E			235,401,9345	235,401,783	235,401,737	235,401,638	235,401,167	235,400,697	235,400,598	235,400,552	235,400,2665		
N			7,012,506,3421	7,012,505,310	7,012,504,990	7,012,504,320	7,012,501,105	7,012,497,889	7,012,497,219	7,012,496,900	7,012,494,9528		
Estacas: 6+600													
Dist. eixo (m)			-5,354	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,311		
Cota (m)			470,249	469,145	469,183	468,895	469,044	469,194	469,112	469,444	468,069		
E			235,411,6882	235,411,564	235,411,527	235,411,451	235,411,084	235,410,717	235,410,640	235,410,604	235,410,3709		
N			7,012,505,1356	7,012,504,038	7,012,503,717	7,012,503,045	7,012,499,815	7,012,496,586	7,012,495,914	7,012,495,593	7,012,493,5443		
Estacas: 6+610													
Dist. eixo (m)			-5,926	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,098		
Cota (m)			470,324	468,648	468,687	468,398	468,548	468,697	468,616	468,947	467,715		
E			235,421,5150	235,421,380	235,421,353	235,421,299	235,421,036	235,420,774	235,420,719	235,420,693	235,420,5433		
N			7,012,504,7634	7,012,503,083	7,012,502,761	7,012,502,086	7,012,498,847	7,012,495,607	7,012,494,933	7,012,494,611	7,012,492,7687		
Estacas: 6+620													
Dist. eixo (m)			-6,111	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,938		
Cota (m)			469,926	468,066	468,104	467,816	467,965	468,115	468,033	468,365	466,573		
E			235,431,3118	235,431,221	235,431,206	235,431,173	235,431,015	235,430,857	235,430,824	235,430,808	235,430,6774		
N			7,012,504,3029	7,012,502,445	7,012,502,122	7,012,501,446	7,012,498,200	7,012,494,953	7,012,494,277	7,012,493,955	7,012,491,2699		
Estacas: 6+630													
Dist. eixo (m)			-4,309	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,699		
Cota (m)			467,358	467,398	467,436	467,148	467,297	467,447	467,365	467,697	465,397		
E			235,441,0796	235,441,079	235,441,073	235,441,062	235,441,009	235,440,956	235,440,945	235,440,939	235,440,8828		
N			7,012,502,1827	7,012,502,124	7,012,501,801	7,012,501,124	7,012,497,874	7,012,494,625	7,012,494,277	7,012,493,948	7,012,493,625	7,012,490,1764	
Estacas: 6+640													
Dist. eixo (m)			-4,611	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,824		
Cota (m)			466,430	466,670	466,709	466,420	466,570	466,719	466,638	466,969	464,586		
E			235,450,9353	235,450,941	235,450,946	235,450,957	235,451,009	235,451,060	235,451,071	235,451,076	235,451,1327		
N			7,012,502,4821	7,012,502,121	7,012,501,798	7,012,501,122	7,012,497,872	7,012,494,622	7,012,493,946	7,012,493,622	7,012,490,0484		
Estacas: 6+650													
Dist. eixo (m)			-4,696	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,676		
Cota (m)			465,543	465,940	465,979	465,690	465,840	465,989	465,908	466,239	463,954		
E			235,460,7770	235,460,739	235,460,814	235,460,847	235,461,003	235,461,159	235,461,192	235,461,208	235,461,3724		
N			7,012,502,8826	7,012,502,437	7,012,502,114	7,012,501,438	7,012,498,192	7,012,494,946	7,012,494,270	7,012,493,947	7,012,490,5229		
Estacas: 6+655													
Dist. eixo (m)			-4,638	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,387		
Cota (m)			465,334	465,593	465,631	465,343	465,492	465,642	465,560	465,892	464,467		
E			235,465,4690	235,465,494	235,465,514	235,465,557	235,465,763	235,465,970	235,466,013	235,466,033	235,466,1688		
N			7,012,503,0869	7,012,502,699	7,012,502,377	7,012,501,701	7,012,498,458	7,012,495,214	7,012,494,539	7,012,494,217	7,012,492,0841		
Estacas: 6+660													
Dist. eixo (m)			-4,514	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,655		
Cota (m)			465,033	465,210	465,248	464,960	465,109	465,259	465,177	465,509	464,572		
E			235,470,6194	235,470,641	235,470,667	235,470,721	235,470,982	235,471,243	235,471,297	235,471,323	235,471,4361		
N			7,012,503,3339	7,012,503,070	7,012,502,748	7,012,502,074	7,012,498,834	7,012,495,595	7,012,494,920	7,012,494,598	7,012,493,1971		
Estacas: 6+670													
Dist. eixo (m)			-4,693	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,524		
Cota (m)			464,157	464,452	464,491	464,202	464,351	464,501	464,420	464,751	463,902		
E			235,480,4074	235,480,457	235,480,494	235,480,570	235,480,935	235,481,300	235,481,376	235,481,413	235,481,5559		
N			7,012,504,4607	7,012,504,021	7,012,503,700	7,012,503,027	7,012,499,798	7,012,496,568	7,012,495,896	7,012,495,575	7,012,494,3090		
Estacas: 6+680													
Dist. eixo (m)			-4,658	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,388		
Cota (m)			463,385	463,657	463,695	463,407	463,556	463,706	463,624	463,956	463,197		
E			235,490,1791	235,490,238	235,490,285	235,490,382	235,490,852	235,491,321	235,491,419	235,491,465	235,491,6298		
N			7,012,505,6912	7,012,505,287	7,012,504,968	7,012,504,298	7,012,501,082	7,012,497,866	7,012,497,196	7,012,496,876	7,012,495,7499		
Estacas: 6+690													
Dist. eixo (m)			-4,693	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,790		
Cota (m)			462,529	462,824	462,863	462,574	462,723	462,873	462,792	463,123	461,429		
E			235,499,8949	235,499,973	235,500,030	235,500,149	235,500,722	235,501,295	235,501,414	235,501,471	235,501,9186		
N			7,012,507,3044	7,012,506,869	7,012,506,551	7,012,505,884	7,012,502,685	7,012,499,486	7,012,498,820	7,012,498,502	7,012,496,0011		
Estacas: 6+700													
Dist. eixo (m)			-4,712	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,816		
Cota (m)			461,646	461,954	461,993	461,704	461,853	462,003	461,922	462,253	461,209		
E			235,509,5556	235,509,652	235,509,719	235,509,860	235,510,535	235,511,211	235,511,352	235,511,419	235,511,7444		
N			7,012,509,2150	7,012,508,763	7,012,508,447	7,012,507,785	7,012,504,606	7,012,501,427	7,012,500,765	7,012,500,449	7,012,498,9170		
Estacas: 6+710													
Dist. eixo (m)			-4,316	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,192		
Cota (m)			461,003	461,046	461,085	460,796	460,946	461,096	461,014	461,345			

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 6+750													
Dist. eixo (m)			-6,455	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,916		
Cota (m)			459,281	457,076	457,115	456,826	456,971	457,116	457,035	457,366	456,922		
E			235,556,204	235,556,964	235,557,075	235,557,307	235,558,419	235,559,532	235,559,763	235,559,874	235,560,109		
N			7,012,524,8902	7,012,522,819	7,012,522,515	7,012,521,879	7,012,518,826	7,012,515,772	7,012,515,136	7,012,514,832	7,012,514,2069		
Estacas: 6+760													
Dist. eixo (m)			-6,383	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,771		
Cota (m)			458,185	456,052	456,091	455,802	455,944	456,087	456,005	456,337	455,989		
E			235,565,6297	235,566,360	235,566,471	235,566,702	235,567,815	235,568,928	235,569,159	235,569,270	235,569,483		
N			7,012,528,2463	7,012,526,242	7,012,525,939	7,012,525,302	7,012,522,249	7,012,519,195	7,012,518,559	7,012,518,256	7,012,517,7658		
Estacas: 6+770													
Dist. eixo (m)			-5,329	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,455		
Cota (m)			456,164	455,085	455,124	454,835	454,975	455,114	455,033	455,364	454,561		
E			235,575,3863	235,575,756	235,575,866	235,576,098	235,577,211	235,578,323	235,578,555	235,578,666	235,579,0780		
N			7,012,530,6793	7,012,529,665	7,012,529,362	7,012,528,726	7,012,525,672	7,012,522,619	7,012,521,983	7,012,521,679	7,012,520,5471		
Estacas: 6+780													
Dist. eixo (m)			-4,371	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,872		
Cota (m)			454,318	454,197	454,236	453,947	454,084	454,221	454,140	454,471	454,057		
E			235,585,1103	235,585,152	235,585,262	235,585,494	235,586,606	235,587,719	235,587,951	235,588,061	235,588,2742		
N			7,012,533,2020	7,012,533,089	7,012,532,785	7,012,532,149	7,012,529,096	7,012,526,042	7,012,525,406	7,012,525,102	7,012,524,5180		
Estacas: 6+790													
Dist. eixo (m)			-4,694	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,714		
Cota (m)			453,834	453,389	453,428	453,139	453,273	453,408	453,326	453,658	453,348		
E			235,594,3952	235,594,547	235,594,658	235,594,890	235,596,002	235,597,115	235,597,347	235,597,457	235,597,6160		
N			7,012,536,9296	7,012,536,512	7,012,536,209	7,012,535,573	7,012,532,519	7,012,529,465	7,012,528,829	7,012,528,526	7,012,528,0897		
Estacas: 6+796													
Dist. eixo (m)			-4,493	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,658		
Cota (m)			453,183	452,919	452,958	452,669	452,802	452,934	452,853	453,184	452,912		
E			235,600,4033	235,600,487	235,600,597	235,600,829	235,601,942	235,603,054	235,603,286	235,603,397	235,603,5361		
N			7,012,538,9048	7,012,538,676	7,012,538,373	7,012,537,737	7,012,534,683	7,012,531,629	7,012,530,993	7,012,530,690	7,012,530,3065		
Estacas: 6+800													
Dist. eixo (m)			-4,309	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,617		
Cota (m)			452,621	452,660	452,699	452,410	452,542	452,673	452,592	452,923	452,679		
E			235,603,8799	235,603,901	235,604,014	235,604,252	235,605,392	235,606,533	235,606,770	235,606,884	235,607,0126		
N			7,012,539,9928	7,012,539,938	7,012,539,635	7,012,539,001	7,012,535,958	7,012,532,915	7,012,532,281	7,012,531,978	7,012,531,6347		
Estacas: 6+806													
Dist. eixo (m)			-4,445	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,504		
Cota (m)			452,136	452,266	452,305	452,016	452,146	452,276	452,195	452,526	452,357		
E			235,609,2996	235,609,371	235,609,489	235,609,736	235,610,921	235,612,107	235,612,354	235,612,472	235,612,5642		
N			7,012,542,2162	7,012,542,034	7,012,541,734	7,012,541,103	7,012,538,077	7,012,535,051	7,012,534,421	7,012,534,120	7,012,533,8835		
Estacas: 6+810													
Dist. eixo (m)			-4,528	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,453		
Cota (m)			451,825	452,010	452,048	451,760	451,890	452,020	451,938	452,270	452,134		
E			235,613,0167	235,613,121	235,613,242	235,613,495	235,614,711	235,615,928	235,616,181	235,616,302	235,616,3778		
N			7,012,543,7829	7,012,543,526	7,012,543,226	7,012,542,598	7,012,539,584	7,012,536,571	7,012,535,943	7,012,535,643	7,012,535,4549		
Estacas: 6+820													
Dist. eixo (m)			-4,701	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,467		
Cota (m)			451,134	451,435	451,473	451,185	451,315	451,445	451,363	451,695	451,550		
E			235,622,0690	235,622,248	235,622,376	235,622,645	235,623,937	235,625,229	235,625,487	235,625,625	235,625,7116		
N			7,012,547,7563	7,012,547,343	7,012,547,046	7,012,546,425	7,012,543,443	7,012,540,480	7,012,539,839	7,012,539,542	7,012,539,3431		
Estacas: 6+830													
Dist. eixo (m)			-4,828	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,629		
Cota (m)			450,496	450,882	450,921	450,632	450,762	450,892	450,811	451,142	450,890		
E			235,631,0343	235,631,277	235,631,413	235,631,697	235,633,063	235,634,428	235,634,713	235,634,849	235,635,0075		
N			7,012,551,9116	7,012,551,387	7,012,551,094	7,012,550,479	7,012,547,530	7,012,544,581	7,012,543,967	7,012,543,673	7,012,543,3297		
Estacas: 6+840													
Dist. eixo (m)			-4,795	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,807		
Cota (m)			449,997	450,361	450,400	450,111	450,241	450,371	450,290	450,621	450,250		
E			235,639,9612	235,640,203	235,640,346	235,640,645	235,642,084	235,643,523	235,643,822	235,643,966	235,644,219		
N			7,012,556,1441	7,012,555,655	7,012,555,366	7,012,554,759	7,012,551,844	7,012,548,930	7,012,548,323	7,012,548,034	7,012,547,5343		
Estacas: 6+850													
Dist. eixo (m)			-4,648	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,831		
Cota (m)			449,846	449,812	449,951	449,662	449,792	449,922	449,841	450,172	449,785		
E			235,648,8332	235,649,018	235,649,169	235,649,483	235,650,995	235,652,506	235,652,820	235,652,971	235,653,2407		
N			7,012,560,4981	7,012,560,146	7,012,559,860	7,012,559,260	7,012,556,383	7,012,553,506	7,012,552,906	7,012,552,620	7,012,552,1060		
Estacas: 6+860													
Dist. eixo (m)			-4,512	-4,250	-3,927	-3,250	0,000	3,801	4,478	4,801	5,562		
Cota (m)			449,360	449,535	449,574	449,285	449,415	449,567	449,486	449,817	449,310		
E			235,657,5915	235,657,719	235,657,877	235,658,206	235,659,789	235,661,640	235,661,969	235,662,127	235,662,4972		
N			7,012,565,0839	7,012,564,855	7,012,564,573	7,012,563,961	7,012,561,143	7,012,557,823	7,012,557,231	7,012,556,949	7,012,556,2848		
Estacas: 6+866													
Dist. eixo (m)			-4,442	-4,250	-3,927	-3,250	0,000	4,517	5,194	5,517	6,328		
Cota (m)			449,223	449,351	449,390	449,101	449,231	449,412	449,331	449,662	449,121		
E			235,662,5817	235,662,678	235,662,839	235,663,177	235,664,801	235,667,057	235,667,395	235,667,556	235,667,9612		
N			7,012,567,8329	7,012,567,666	7,012,567,387	7,012,566,800	7,012,563,984	7,012,560,071	7,012,559,485	7,012,559,205	7,012,558,6025		
Estacas: 6+870													
Dist. eixo (m)			-4,470	-4,250	-3,927	-3,250	0,000	5,017	5,694	6,017	6,880		
Cota (m)			449,084	449,231	449,270	448,981	449,111	449,312	449,231	449,562	448,987		
E			235,666,1875	235,666,300	235,666,464	235,666,808	235,668,461	235,671,013	235,671,358	235,671,522	235,671,9604		
N			7,012,569,9697	7,012,569,780	7,012,569,502	7,012,568,919	7,012,566,121	7,012,561,801	7,012,561,218	7,012,560,940	7,012,560,1978		
Estacas: 6+880													
Dist. eixo (m)			-4,624	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	8,173		
Cota (m)			448,719	448,968	449,007	448,718	448,848	448,998	449,017	449,348	448,733		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 6+930													
Dist. eixo (m)			-5,611	-5,249	-4,926	-4,249	0,000	3,250	3,927	4,250	5,734		
Cota (m)			448,275	448,516	448,555	448,266	448,380	448,468	448,387	448,718	447,728		
E			235,714,0984	235,714,327	235,714,531	235,714,958	235,717,642	235,719,695	235,720,122	235,720,326	235,721,2639		
N			7,012,604,7420	7,012,604,462	7,012,604,211	7,012,603,686	7,012,600,392	7,012,597,872	7,012,597,347	7,012,597,097	7,012,595,9460		
Estacas: 6+935													
Dist. eixo (m)			-6,826	-6,290	-5,967	-5,290	0,000	3,250	3,927	4,250	5,181		
Cota (m)			448,310	448,668	448,707	448,418	448,479	448,516	448,435	448,766	448,145		
E			235,717,2735	235,717,618	235,717,825	235,718,259	235,721,654	235,723,739	235,724,173	235,724,380	235,724,9775		
N			7,012,608,9393	7,012,608,528	7,012,608,280	7,012,607,761	7,012,603,703	7,012,601,210	7,012,600,691	7,012,600,443	7,012,599,7295		
Estacas: 6+940													
Dist. eixo (m)			-8,503	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,901		
Cota (m)			448,027	448,862	448,901	448,612	448,674	448,586	448,505	448,836	448,402		
E			235,719,8784	235,720,682	235,720,890	235,721,324	235,725,334	235,727,419	235,727,854	235,728,061	235,728,4785		
N			7,012,613,3039	7,012,612,343	7,012,612,095	7,012,611,576	7,012,606,782	7,012,604,289	7,012,603,770	7,012,603,522	7,012,603,0228		
Estacas: 6+944													
Dist. eixo (m)			-8,648	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,681		
Cota (m)			448,142	449,074	449,113	448,824	448,724	448,672	448,591	448,922	448,635		
E			235,723,1908	235,724,088	235,724,295	235,724,729	235,728,739	235,730,825	235,731,259	235,731,466	235,731,7425		
N			7,012,616,2635	7,012,615,191	7,012,614,944	7,012,614,424	7,012,609,631	7,012,607,138	7,012,606,619	7,012,606,371	7,012,606,0403		
Estacas: 6+950													
Dist. eixo (m)			-8,598	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,489		
Cota (m)			448,470	449,369	449,408	449,119	449,916	448,810	448,729	449,060	448,901		
E			235,727,7221	235,728,558	235,728,758	235,729,178	235,733,053	235,735,069	235,735,488	235,735,689	235,735,8369		
N			7,012,619,8841	7,012,618,827	7,012,618,573	7,012,618,042	7,012,613,138	7,012,610,589	7,012,610,058	7,012,609,804	7,012,609,6162		
Estacas: 6+957													
Dist. eixo (m)			-8,809	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,461		
Cota (m)			448,782	449,802	449,841	449,552	449,214	449,039	448,958	449,289	449,148		
E			235,733,6048	235,734,527	235,734,718	235,735,118	235,738,813	235,740,735	235,741,135	235,741,326	235,741,4511		
N			7,012,624,6281	7,012,623,371	7,012,623,110	7,012,622,564	7,012,617,524	7,012,614,902	7,012,614,357	7,012,614,096	7,012,613,9253		
Estacas: 6+960													
Dist. eixo (m)			-9,075	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,513		
Cota (m)			448,714	449,930	449,969	449,680	449,343	449,167	449,086	449,417	449,242		
E			235,735,7866	235,736,845	235,737,033	235,737,425	235,741,051	235,742,936	235,743,329	235,743,516	235,743,6683		
N			7,012,626,5325	7,012,625,046	7,012,624,783	7,012,624,231	7,012,619,140	7,012,616,493	7,012,615,941	7,012,615,678	7,012,615,4641		
Estacas: 6+962													
Dist. eixo (m)			-8,681	-6,999	-6,676	-5,999	0,000	3,250	3,927	4,250	4,470		
Cota (m)			448,883	450,004	450,043	449,754	449,430	449,255	449,174	449,505	449,358		
E			235,737,5375	235,738,501	235,738,686	235,739,074	235,742,512	235,744,371	235,744,759	235,744,944	235,745,0700		
N			7,012,627,2858	7,012,625,907	7,012,625,642	7,012,625,087	7,012,620,169	7,012,617,505	7,012,616,951	7,012,616,686	7,012,616,5055		
Estacas: 6+966													
Dist. eixo (m)			-7,808	-6,436	-6,113	-5,436	0,000	3,250	3,927	4,250	4,456		
Cota (m)			449,297	450,212	450,251	449,962	449,638	449,463	449,382	449,713	449,606		
E			235,741,9400	235,742,700	235,742,879	235,743,254	235,746,266	235,748,066	235,748,441	235,748,620	235,748,7341		
N			7,012,629,2314	7,012,628,089	7,012,627,820	7,012,627,257	7,012,622,731	7,012,620,025	7,012,619,462	7,012,619,193	7,012,619,0213		
Estacas: 6+970													
Dist. eixo (m)			-7,020	-6,040	-5,717	-5,040	0,000	3,250	3,927	4,250	4,477		
Cota (m)			449,714	450,367	450,406	450,117	449,876	449,721	449,640	449,971	449,819		
E			235,745,9570	235,746,085	235,746,259	235,746,624	235,749,339	235,751,089	235,751,453	235,751,627	235,751,7496		
N			7,012,630,6493	7,012,629,823	7,012,629,551	7,012,628,981	7,012,624,735	7,012,621,996	7,012,621,426	7,012,621,154	7,012,620,9624		
Estacas: 6+979													
Dist. eixo (m)			-5,000	-4,954	-4,631	-3,954	0,000	3,250	3,927	4,250	4,381		
Cota (m)			450,837	450,791	450,830	450,541	450,413	450,308	450,226	450,558	450,470		
E			235,754,6436	235,754,667	235,754,828	235,755,166	235,757,142	235,758,765	235,759,104	235,759,265	235,759,3304		
N			7,012,633,8073	7,012,633,768	7,012,633,488	7,012,632,901	7,012,629,476	7,012,626,661	7,012,626,074	7,012,625,794	7,012,625,6810		
Estacas: 6+980													
Dist. eixo (m)			-4,900	-4,850	-4,527	-3,850	0,000	3,250	3,927	4,250	4,410		
Cota (m)			450,883	450,833	450,872	450,583	450,464	450,363	450,282	450,613	450,507		
E			235,755,4455	235,755,471	235,755,632	235,755,970	235,757,894	235,759,517	235,759,856	235,760,017	235,760,0967		
N			7,012,634,1546	7,012,634,111	7,012,633,831	7,012,633,245	7,012,629,910	7,012,627,094	7,012,626,508	7,012,626,228	7,012,626,0899		
Estacas: 6+981													
Dist. eixo (m)			-4,802	-4,784	-4,461	-3,784	0,000	3,250	3,927	4,250	4,428		
Cota (m)			450,848	450,860	450,899	450,610	450,496	450,399	450,318	450,649	450,530		
E			235,755,9748	235,755,984	235,756,145	235,756,483	235,758,374	235,759,997	235,760,336	235,760,497	235,760,5858		
N			7,012,634,3460	7,012,634,330	7,012,634,051	7,012,633,464	7,012,630,187	7,012,627,371	7,012,626,785	7,012,626,505	7,012,626,3509		
Estacas: 6+990													
Dist. eixo (m)			-4,783	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,608		
Cota (m)			450,992	451,347	451,386	451,097	451,051	450,954	450,873	451,204	450,965		
E			235,764,1666	235,764,433	235,764,594	235,764,933	235,766,556	235,768,180	235,768,518	235,768,680	235,768,8583		
N			7,012,639,0491	7,012,638,587	7,012,638,308	7,012,637,721	7,012,634,906	7,012,632,090	7,012,631,504	7,012,631,224	7,012,630,9143		
Estacas: 6+998													
Dist. eixo (m)			-4,870	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,731		
Cota (m)			451,377	451,791	451,830	451,541	451,541	451,443	451,362	451,693	451,373		
E			235,771,3407	235,771,651	235,771,812	235,772,150	235,773,774	235,775,398	235,775,736	235,775,897	235,776,1375		
N			7,012,643,2871	7,012,642,750	7,012,642,470	7,012,641,884	7,012,639,068	7,012,636,253	7,012,635,667	7,012,635,387	7,012,634,9699		
Estacas: 7+000													
Dist. eixo (m)			-4,459	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,735		
Cota (m)			451,740	451,880	451,918	451,630	451,639	451,541	451,460	451,791	451,468		
E			235,772,9909	235,773,096	235,773,257	235,773,595	235,775,219	235,776,843	235,777,181	235,777,342	235,777,5843		
N			7,012,643,7646	7,012,643,583	7,012,643,304	7,012,642,717	7,012,639,902	7,012,637,086	7,012,636,500	7,012,636,220	7,012,635,8003		
Estacas: 7+010													
Dist. eixo (m)			-4,659	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,938		
Cota (m)			452,140	452,412	452,451	452,162	452,226	452,129	452,048	452,379	451,920</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estaca: 7+060													
Dist. eixo (m)			-4,874	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,849		
Cota (m)			455,864	456,280	456,319	456,030	456,128	456,030	455,949	456,280	455,881		
E			235,840,7590	235,825,0711	235,825,232	235,825,570	235,827,194	235,828,818	235,829,156	235,829,317	235,829,616		
N			7,012,674,1000	7,012,673,5660	7,012,673,280	7,012,672,693	7,012,669,878	7,012,667,063	7,012,666,476	7,012,666,196	7,012,665,6776		
Estaca: 7+070													
Dist. eixo (m)			-4,761	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,783		
Cota (m)			456,960	457,301	457,340	457,051	457,149	457,051	456,970	457,301	456,946		
E			235,833,4778	235,833,733	235,833,895	235,834,233	235,836,857	235,837,480	235,837,819	235,837,980	235,838,2461		
N			7,012,678,9985	7,012,678,556	7,012,678,276	7,012,677,689	7,012,674,874	7,012,672,059	7,012,671,472	7,012,671,192	7,012,670,7308		
Estaca: 7+079													
Dist. eixo (m)			-7,313	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,726		
Cota (m)			461,398	458,335	458,374	458,085	458,182	458,085	458,004	458,335	458,017		
E			235,840,3516	235,841,882	235,842,043	235,842,381	235,844,005	235,845,629	235,845,967	235,846,128	235,846,3663		
N			7,012,685,9081	7,012,683,255	7,012,682,975	7,012,682,389	7,012,679,573	7,012,676,758	7,012,676,172	7,012,675,892	7,012,675,4792		
Estaca: 7+080													
Dist. eixo (m)			-7,348	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,749		
Cota (m)			461,501	458,402	458,441	458,152	458,250	458,152	458,074	458,402	458,073		
E			235,840,8480	235,842,396	235,842,557	235,842,895	235,844,519	235,846,143	235,846,481	235,846,643	235,846,8919		
N			7,012,686,2353	7,012,683,552	7,012,683,272	7,012,682,685	7,012,679,870	7,012,677,055	7,012,676,468	7,012,676,188	7,012,675,7560		
Estaca: 7+090													
Dist. eixo (m)			-7,892	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,885		
Cota (m)			463,226	459,584	459,623	459,334	459,432	459,334	459,253	459,584	459,258		
E			235,849,2387	235,851,058	235,851,220	235,851,558	235,853,182	235,854,806	235,855,144	235,855,305	235,855,6221		
N			7,012,691,7028	7,012,688,548	7,012,688,268	7,012,687,681	7,012,684,866	7,012,682,051	7,012,681,464	7,012,681,184	7,012,680,6347		
Estaca: 7+097													
Dist. eixo (m)			-8,328	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,822		
Cota (m)			464,572	460,495	460,533	460,245	460,342	460,245	460,164	460,495	460,211		
E			235,854,4371	235,857,474	235,857,636	235,857,974	235,859,598	235,861,222	235,861,559	235,861,721	235,862,0066		
N			7,012,695,7800	7,012,692,248	7,012,691,968	7,012,691,382	7,012,688,566	7,012,685,751	7,012,685,165	7,012,684,885	7,012,684,3893		
Estaca: 7+100													
Dist. eixo (m)			-8,484	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,816		
Cota (m)			465,048	460,814	460,852	460,564	460,661	460,564	460,483	460,814	460,548		
E			235,857,6056	235,859,721	235,859,882	235,860,221	235,861,844	235,863,468	235,863,806	235,863,968	235,864,2505		
N			7,012,697,2113	7,012,693,544	7,012,693,264	7,012,692,677	7,012,689,862	7,012,687,047	7,012,686,460	7,012,686,180	7,012,685,6899		
Estaca: 7+110													
Dist. eixo (m)			-8,978	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,823		
Cota (m)			466,771	462,043	462,082	461,793	461,891	461,793	461,712	462,043	461,767		
E			235,866,0214	235,868,384	235,868,545	235,868,883	235,870,507	235,872,131	235,872,469	235,872,630	235,872,9166		
N			7,012,702,6352	7,012,698,540	7,012,698,260	7,012,697,673	7,012,694,858	7,012,692,043	7,012,691,456	7,012,691,177	7,012,690,6797		
Estaca: 7+115													
Dist. eixo (m)			-9,947	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,938		
Cota (m)			467,405	462,708	462,747	462,458	462,556	462,458	462,377	462,708	462,445		
E			235,874,7202	235,876,067	235,876,228	235,876,567	235,878,190	235,879,814	235,880,152	235,880,314	235,880,6574		
N			7,012,705,3095	7,012,701,241	7,012,700,961	7,012,700,375	7,012,697,559	7,012,694,744	7,012,694,158	7,012,693,878	7,012,693,2813		
Estaca: 7+119													
Dist. eixo (m)			-8,115	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,946		
Cota (m)			463,997	463,132	463,170	462,882	462,979	462,882	462,801	463,132	462,900		
E			235,874,2543	235,876,185	235,876,347	235,876,685	235,878,309	235,879,932	235,880,271	235,880,432	235,880,7806		
N			7,012,708,3876	7,012,703,039	7,012,702,760	7,012,702,173	7,012,699,358	7,012,696,542	7,012,695,956	7,012,695,676	7,012,695,0716		
Estaca: 7+120													
Dist. eixo (m)			-7,893	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,910		
Cota (m)			463,891	463,248	463,287	462,998	463,095	462,998	462,917	463,248	462,973		
E			235,875,1690	235,877,014	235,877,175	235,877,512	235,879,136	235,880,760	235,881,100	235,881,261	235,881,6048		
N			7,012,706,6625	7,012,703,522	7,012,703,243	7,012,702,656	7,012,699,841	7,012,697,025	7,012,696,438	7,012,696,158	7,012,695,6239		
Estaca: 7+130													
Dist. eixo (m)			-5,865	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,903		
Cota (m)			466,039	464,424	464,463	464,174	464,271	464,174	464,093	464,424	464,148		
E			235,884,2020	235,885,131	235,885,316	235,885,705	235,887,574	235,889,442	235,889,832	235,890,171	235,890,3355		
N			7,012,710,0667	7,012,708,746	7,012,708,481	7,012,707,927	7,012,705,268	7,012,702,609	7,012,702,055	7,012,701,791	7,012,701,3380		
Estaca: 7+133													
Dist. eixo (m)			-5,265	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,867		
Cota (m)			465,840	464,825	464,863	464,575	464,672	464,575	464,494	464,825	464,548		
E			235,887,1884	235,887,795	235,887,988	235,888,392	235,889,334	235,892,275	235,892,679	235,892,872	235,893,2408		
N			7,012,711,4874	7,012,710,673	7,012,710,414	7,012,709,871	7,012,707,265	7,012,704,659	7,012,704,116	7,012,703,857	7,012,703,3620		
Estaca: 7+139													
Dist. eixo (m)			-4,387	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,920		
Cota (m)			465,705	465,568	465,607	465,318	465,415	465,318	465,237	465,568	465,311		
E			235,892,2988	235,892,386	235,892,592	235,893,022	235,895,089	235,897,157	235,897,587	235,897,793	235,898,2187		
N			7,012,714,3781	7,012,714,272	7,012,714,023	7,012,713,500	7,012,710,992	7,012,708,485	7,012,707,962	7,012,707,713	7,012,707,1957		
Estaca: 7+140													
Dist. eixo (m)			-4,340	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,908		
Cota (m)			465,726	465,636	465,674	465,386	465,483	465,386	465,305	465,636	465,379		
E			235,892,7381	235,892,796	235,893,002	235,893,435	235,895,513	235,897,592	235,898,025	235,898,231	235,898,6518		
N			7,012,714,6800	7,012,714,611	7,012,714,363	7,012,713,842	7,012,711,344	7,012,708,845	7,012,708,325	7,012,708,076	7,012,707,5702		
Estaca: 7+145													
Dist. eixo (m)			-4,314	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,867		
Cota (m)			466,268	466,311	466,350	466,061	466,158	466,061	465,980	466,311	466,064		
E			235,896,7520	235,896,795	235,897,013	235,897,469	235,899,656	235,901,844	235,902,300	235,902,517	235,902,9328		
N			7,012,718,1395	7,012,718,092	7,012,717,853	7,012,717,352	7,012,714,949	7,012,712,546	7,012,712,045	7,012,711,806	7,012,711,3495		
Estaca: 7+150													
Dist. eixo (m)			-4,412	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,918		
Cota (m)			466,774	466,882	466,921	466,632	466,729	466,632	466,551	466,882	466,635		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 7+210													
Dist. eixo (m)			-5,205	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,430		
Cota (m)			471,586	472,223	472,262	471,973	471,913	471,853	471,772	472,103	472,284		
E			235,936,6455	235,939,366	235,939,610	235,940,121	235,942,575	235,945,028	235,952,539	235,945,783	235,945,9194		
N			7,012,766,4838	7,012,765,858	7,012,765,646	7,012,765,202	7,012,763,071	7,012,760,939	7,012,760,495	7,012,760,283	7,012,760,1650		
Estacas: 7+218													
Dist. eixo (m)			-5,055	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,290		
Cota (m)			472,133	472,670	472,709	472,420	472,328	472,236	472,155	472,486	472,526		
E			235,944,1284	235,944,736	235,944,980	235,945,491	235,947,945	235,950,398	235,950,909	235,951,153	235,951,1831		
N			7,012,772,5674	7,012,772,039	7,012,771,828	7,012,771,384	7,012,769,252	7,012,767,121	7,012,766,677	7,012,766,465	7,012,766,4390		
Estacas: 7+220													
Dist. eixo (m)			-5,019	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,284		
Cota (m)			472,257	472,769	472,808	472,519	472,420	472,321	472,239	472,571	472,548		
E			235,945,3620	235,945,940	235,946,183	235,946,692	235,949,136	235,951,580	235,952,089	235,952,332	235,952,3572		
N			7,012,773,9256	7,012,773,419	7,012,773,206	7,012,772,760	7,012,770,617	7,012,768,475	7,012,768,029	7,012,767,816	7,012,767,7931		
Estacas: 7+228													
Dist. eixo (m)			-4,892	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,736		
Cota (m)			472,767	473,195	473,233	472,945	472,815	472,685	472,603	472,935	472,611		
E			235,950,7116	235,951,186	235,951,425	235,951,925	235,954,327	235,956,728	235,957,229	235,957,467	235,957,8266		
N			7,012,779,7193	7,012,779,287	7,012,779,069	7,012,778,613	7,012,776,423	7,012,774,234	7,012,773,778	7,012,773,560	7,012,773,2324		
Estacas: 7+230													
Dist. eixo (m)			-4,815	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,672		
Cota (m)			472,930	473,307	473,346	473,057	472,927	472,797	472,716	473,047	472,765		
E			235,952,2814	235,952,697	235,952,934	235,953,432	235,955,821	235,958,211	235,958,708	235,958,946	235,959,2565		
N			7,012,781,3169	7,012,780,934	7,012,780,715	7,012,780,256	7,012,778,054	7,012,775,851	7,012,775,392	7,012,775,173	7,012,774,8867		
Estacas: 7+240													
Dist. eixo (m)			-4,674	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,543		
Cota (m)			473,531	473,814	473,852	473,564	473,434	473,304	473,222	473,554	473,359		
E			235,959,3341	235,959,639	235,959,871	235,960,357	235,962,691	235,965,024	235,965,510	235,965,742	235,965,9525		
N			7,012,788,5737	7,012,788,278	7,012,788,054	7,012,787,582	7,012,785,320	7,012,783,059	7,012,782,587	7,012,782,363	7,012,782,1588		
Estacas: 7+250													
Dist. eixo (m)			-4,894	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,582		
Cota (m)			473,891	474,320	474,359	474,070	473,940	473,810	473,729	474,060	473,839		
E			235,966,3117	235,966,763	235,966,989	235,967,463	235,969,739	235,972,016	235,972,490	235,972,716	235,972,9488		
N			7,012,795,9059	7,012,795,447	7,012,795,216	7,012,794,733	7,012,792,413	7,012,790,094	7,012,789,611	7,012,789,380	7,012,789,1431		
Estacas: 7+260													
Dist. eixo (m)			-5,055	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,045		
Cota (m)			474,291	474,827	474,866	474,577	474,447	474,317	474,236	474,567	474,037		
E			235,973,5137	235,974,063	235,974,284	235,974,746	235,976,963	235,979,181	235,979,643	235,979,863	235,980,4060		
N			7,012,803,0231	7,012,802,435	7,012,802,199	7,012,801,704	7,012,799,328	7,012,796,952	7,012,796,457	7,012,796,221	7,012,795,6398		
Estacas: 7+270													
Dist. eixo (m)			-4,932	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,146		
Cota (m)			474,808	475,334	475,373	475,084	474,954	474,824	474,743	475,074	474,477		
E			235,981,0835	235,981,536	235,981,751	235,982,200	235,984,358	235,986,515	235,986,965	235,987,179	235,987,7744		
N			7,012,809,7477	7,012,809,238	7,012,808,996	7,012,808,490	7,012,806,060	7,012,803,629	7,012,803,123	7,012,802,881	7,012,802,2110		
Estacas: 7+280													
Dist. eixo (m)			-4,341	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,813		
Cota (m)			475,797	475,858	475,897	475,608	475,478	475,348	475,267	475,598	475,223		
E			235,989,1193	235,989,177	235,989,395	235,989,822	235,991,918	235,994,014	235,994,451	235,994,659	235,995,0224		
N			7,012,815,9216	7,012,815,852	7,012,815,605	7,012,815,068	7,012,812,604	7,012,810,121	7,012,809,604	7,012,809,357	7,012,808,9265		
Estacas: 7+290													
Dist. eixo (m)			-4,453	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,630		
Cota (m)			476,316	476,451	476,490	476,201	476,071	475,941	475,860	476,191	476,004		
E			235,996,8538	235,996,981	235,997,183	235,997,606	235,999,640	236,001,673	236,002,097	236,002,299	236,002,4744		
N			7,012,822,4316	7,012,822,274	7,012,822,022	7,012,819,493	7,012,818,958	7,012,816,423	7,012,815,895	7,012,815,643	7,012,815,4243		
Estacas: 7+300													
Dist. eixo (m)			-4,638	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,586		
Cota (m)			476,858	477,117	477,155	476,867	476,737	476,607	476,525	476,857	476,633		
E			236,004,7075	236,004,942	236,005,138	236,005,548	236,007,518	236,009,487	236,009,898	236,010,093	236,010,2971		
N			7,012,828,8061	7,012,828,498	7,012,828,241	7,012,827,702	7,012,825,117	7,012,822,532	7,012,821,993	7,012,821,736	7,012,821,4688		
Estacas: 7+310													
Dist. eixo (m)			-4,320	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,849		
Cota (m)			477,809	477,855	477,894	477,605	477,475	477,345	477,264	477,595	477,198		
E			236,013,0166	236,013,057	236,013,247	236,013,643	236,015,548	236,017,452	236,017,848	236,018,038	236,018,3887		
N			7,012,834,5773	7,012,834,521	7,012,834,259	7,012,833,711	7,012,831,077	7,012,828,443	7,012,827,895	7,012,827,633	7,012,827,1473		
Estacas: 7+320													
Dist. eixo (m)			-4,353	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,913		
Cota (m)			478,747	478,643	478,682	478,393	478,263	478,133	478,052	478,383	477,941		
E			236,021,2619	236,021,320	236,021,503	236,021,886	236,023,724	236,025,561	236,025,944	236,026,127	236,026,5018		
N			7,012,840,4246	7,012,840,339	7,012,840,073	7,012,839,515	7,012,836,834	7,012,834,154	7,012,833,596	7,012,833,329	7,012,832,7821		
Estacas: 7+325													
Dist. eixo (m)			-4,378	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,806		
Cota (m)			479,150	479,021	479,060	478,771	478,641	478,511	478,430	478,761	478,390		
E			236,025,7622	236,025,833	236,026,013	236,026,388	236,028,189	236,029,991	236,030,366	236,030,545	236,030,8534		
N			7,012,843,4962	7,012,843,389	7,012,843,121	7,012,842,557	7,012,839,852	7,012,837,147	7,012,836,584	7,012,836,315	7,012,835,8518		
Estacas: 7+330													
Dist. eixo (m)			-4,433	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,665		
Cota (m)			479,485	479,302	479,340	479,052	478,922	478,792	478,710	479,042	478,765		
E			236,029,6261	236,029,726	236,029,902	236,030,271	236,032,041	236,033,811	236,034,180	236,034,356	236,034,5817		
N			7,012,846,1034	7,012,845,950	7,012,845,679	7,012,845,111	7,012,842,385	7,012,839,660	7,012,839,092	7,012,838,821	7,012,838,4735		
Estacas: 7+340													
Dist. eixo (m)			-4,497	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,462		
Cota (m)			480,021	479,774	479,813	479,524	479,394	479,264	479,183	479,514	479,373</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 7+400													
Dist. eixo (m)			-5,146	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,765		
Cota (m)			480,043	480,640	480,679	480,390	480,260	480,130	480,049	480,380	480,037		
E			236,091,7653	236,092,115	236,092,241	236,092,506	236,093,774	236,095,043	236,095,307	236,095,433	236,095,6343		
N			7,012,879,9336	7,012,879,109	7,012,878,811	7,012,878,188	7,012,875,196	7,012,872,204	7,012,871,580	7,012,871,283	7,012,870,8087		
Estacas: 7+410													
Dist. eixo (m)			-5,360	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,713		
Cota (m)			480,638	480,974	481,013	480,724	480,594	480,464	480,383	480,714	480,406		
E			236,113,3633	236,110,914	236,111,025	236,111,257	236,112,375	236,113,492	236,113,725	236,113,836	236,113,9653		
N			7,012,887,6205	7,012,886,530	7,012,886,227	7,012,885,591	7,012,882,539	7,012,879,488	7,012,878,852	7,012,878,549	7,012,878,1962		
Estacas: 7+420													
Dist. eixo (m)			-5,411	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,625		
Cota (m)			480,638	481,412	481,602	481,137	481,032	480,902	480,821	481,152	480,902		
E			236,110,5143	236,110,914	236,111,025	236,111,257	236,112,375	236,113,492	236,113,725	236,113,836	236,113,9653		
N			7,012,887,6205	7,012,886,530	7,012,886,227	7,012,885,591	7,012,882,539	7,012,879,488	7,012,878,852	7,012,878,549	7,012,878,1962		
Estacas: 7+423													
Dist. eixo (m)			-5,416	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,636		
Cota (m)			480,785	481,563	481,602	481,313	481,183	481,053	480,972	481,303	481,045		
E			236,113,3633	236,113,756	236,113,865	236,114,093	236,115,188	236,116,282	236,116,510	236,116,619	236,116,7492		
N			7,012,888,6573	7,012,887,559	7,012,887,255	7,012,886,618	7,012,883,557	7,012,880,497	7,012,879,860	7,012,879,556	7,012,879,1921		
Estacas: 7+430													
Dist. eixo (m)			-5,138	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,713		
Cota (m)			481,332	481,924	481,963	481,674	481,571	481,468	481,387	481,718	481,409		
E			236,120,1616	236,120,446	236,120,549	236,120,766	236,121,807	236,122,848	236,123,065	236,123,168	236,123,3167		
N			7,012,890,7274	7,012,889,886	7,012,889,939	7,012,888,939	7,012,885,860	7,012,882,781	7,012,882,140	7,012,881,834	7,012,881,3952		
Estacas: 7+433													
Dist. eixo (m)			-5,026	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,727		
Cota (m)			481,546	482,063	482,102	481,813	481,720	481,626	481,545	481,876	481,558		
E			236,122,6859	236,122,930	236,123,031	236,123,244	236,124,265	236,125,286	236,125,498	236,125,600	236,125,7496		
N			7,012,891,4533	7,012,890,717	7,012,890,410	7,012,889,768	7,012,886,682	7,012,883,597	7,012,882,954	7,012,882,647	7,012,882,1942		
Estacas: 7+440													
Dist. eixo (m)			-4,670	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,552		
Cota (m)			482,179	482,459	482,498	482,209	482,144	482,079	481,998	482,329	482,128		
E			236,129,8314	236,129,963	236,130,065	236,130,277	236,131,298	236,132,319	236,132,532	236,132,633	236,132,7281		
N			7,012,893,4427	7,012,893,044	7,012,892,738	7,012,892,095	7,012,889,009	7,012,885,924	7,012,885,281	7,012,884,975	7,012,884,6862		
Estacas: 7+450													
Dist. eixo (m)			-4,468	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,739		
Cota (m)			482,774	482,919	482,958	482,669	482,643	482,616	482,535	482,866	482,540		
E			236,139,3864	236,139,457	236,139,559	236,139,771	236,140,792	236,141,813	236,142,026	236,142,127	236,142,2807		
N			7,012,896,3930	7,012,896,186	7,012,895,879	7,012,895,236	7,012,892,151	7,012,889,065	7,012,888,423	7,012,888,116	7,012,887,6518		
Estacas: 7+460													
Dist. eixo (m)			-4,739	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,103		
Cota (m)			482,907	483,233	483,271	482,983	482,994	483,006	482,925	483,256	482,688		
E			236,148,7973	236,148,951	236,149,052	236,149,265	236,150,286	236,151,307	236,151,519	236,151,621	236,151,8888		
N			7,012,899,7911	7,012,899,327	7,012,899,020	7,012,898,378	7,012,895,292	7,012,892,207	7,012,891,564	7,012,891,257	7,012,890,4476		
Estacas: 7+470													
Dist. eixo (m)			-4,894	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,236		
Cota (m)			482,359	483,393	483,438	483,149	483,199	483,249	483,168	483,499	482,841		
E			236,158,2423	236,158,445	236,158,546	236,158,759	236,159,780	236,160,801	236,161,013	236,161,115	236,161,4246		
N			7,012,903,0787	7,012,902,468	7,012,902,162	7,012,901,519	7,012,898,433	7,012,895,348	7,012,894,705	7,012,894,399	7,012,893,4621		
Estacas: 7+480													
Dist. eixo (m)			-4,816	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,994		
Cota (m)			483,041	483,418	483,457	483,168	483,256	483,344	483,263	483,594	483,099		
E			236,167,7608	236,167,938	236,168,040	236,168,253	236,169,274	236,170,294	236,170,507	236,170,609	236,170,8421		
N			7,012,906,1464	7,012,905,610	7,012,905,303	7,012,904,660	7,012,901,575	7,012,898,489	7,012,897,847	7,012,897,540	7,012,896,8338		
Estacas: 7+490													
Dist. eixo (m)			-4,731	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,885		
Cota (m)			483,043	483,364	483,403	483,114	483,241	483,367	483,286	483,617	483,194		
E			236,177,2811	236,177,432	236,177,534	236,177,746	236,178,767	236,179,788	236,180,001	236,180,102	236,180,3017		
N			7,012,908,2075	7,012,908,751	7,012,908,444	7,012,907,801	7,012,904,716	7,012,901,631	7,012,900,988	7,012,900,681	7,012,900,0784		
Estacas: 7+493													
Dist. eixo (m)			-4,760	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,939		
Cota (m)			483,066	483,345	483,384	483,095	483,235	483,375	483,294	483,625	483,232		
E			236,180,5620	236,180,722	236,180,824	236,181,036	236,182,057	236,183,078	236,183,291	236,183,392	236,183,5774		
N			7,012,910,3233	7,012,909,839	7,012,909,533	7,012,908,890	7,012,905,805	7,012,902,719	7,012,902,077	7,012,901,770	7,012,901,2101		
Estacas: 7+500													
Dist. eixo (m)			-4,671	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,919		
Cota (m)			483,029	483,310	483,349	483,060	483,225	483,390	483,308	483,640	483,194		
E			236,186,5029	236,186,656	236,186,774	236,187,020	236,188,204	236,189,387	236,189,633	236,189,751	236,189,9946		
N			7,012,912,3716	7,012,911,879	7,012,911,679	7,012,911,048	7,012,908,021	7,012,904,994	7,012,904,364	7,012,904,063	7,012,903,4399		
Estacas: 7+508													
Dist. eixo (m)			-4,568	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,922		
Cota (m)			483,019	483,231	483,270	482,981	483,176	483,371	483,290	483,621	483,173		
E			236,193,5008	236,193,635	236,193,772	236,194,058	236,195,433	236,196,807	236,197,093	236,197,230	236,197,5141		
N			7,012,915,2568	7,012,914,968	7,012,914,676	7,012,914,062	7,012,911,117	7,012,908,172	7,012,907,559	7,012,907,266	7,012,906,6565		
Estacas: 7+510													
Dist. eixo (m)			-4,578	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,904		
Cota (m)			482,990	483,209	483,247	482,959	483,154	483,349	483,268	483,599	483,163		
E			236,195,3513	236,195,495	236,195,637	236,195,934	236,197,359	236,198,784	236,199,081	236,199,223	236,199,5098		
N			7,012,915,1011	7,012,915,856	7,012,915,566	7,012,914,957	7,012,912,036	7,012,909,116	7,012,908,507	7,012,908,217	7,012,907,6289		
Estacas: 7+520													
Dist. eixo (m)			-4,653	-4,250	-3,927	-3,250	0,000						

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 7+573													
Dist. eixo (m)			-4,527	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,075		
Cota (m)			481,593	481,777	481,816	481,527	481,722	481,917	481,836	482,167	481,617		
E			236,240,649	236,240,874	236,241,139	236,241,695	236,244,362	236,247,029	236,247,585	236,247,850	236,248,520		
N			7,012,954,8829	7,012,954,725	7,012,954,540	7,012,954,153	7,012,952,296	7,012,950,439	7,012,950,053	7,012,949,868	7,012,949,3963		
Estacas: 7+580													
Dist. eixo (m)			-4,696	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,048		
Cota (m)			481,475	481,772	481,811	481,522	481,717	481,912	481,831	482,162	481,630		
E			236,244,4173	236,244,798	236,245,073	236,245,651	236,248,426	236,251,200	236,251,778	236,252,054	236,252,7352		
N			7,012,960,9719	7,012,960,740	7,012,960,572	7,012,960,219	7,012,958,527	7,012,956,834	7,012,956,482	7,012,956,314	7,012,955,8982		
Estacas: 7+590													
Dist. eixo (m)			-4,689	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,299		
Cota (m)			481,505	481,798	481,836	481,548	481,743	481,938	481,856	482,188	481,488		
E			236,249,0927	236,249,485	236,249,773	236,250,378	236,253,281	236,256,184	236,256,788	236,257,077	236,258,0137		
N			7,012,969,3746	7,012,969,177	7,012,969,032	7,012,968,728	7,012,967,266	7,012,965,805	7,012,965,500	7,012,965,355	7,012,964,8831		
Estacas: 7+600													
Dist. eixo (m)			-4,853	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,015		
Cota (m)			481,421	481,823	481,862	481,573	481,768	481,963	481,882	482,213	481,703		
E			236,252,9121	236,253,471	236,253,770	236,254,398	236,257,410	236,260,422	236,261,049	236,261,349	236,262,0575		
N			7,012,978,1939	7,012,977,967	7,012,977,846	7,012,977,592	7,012,976,371	7,012,975,150	7,012,974,896	7,012,974,774	7,012,974,4868		
Estacas: 7+610													
Dist. eixo (m)			-4,971	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,823		
Cota (m)			481,368	481,849	481,887	481,599	481,794	481,989	481,907	482,239	481,856		
E			236,256,0423	236,256,731	236,257,039	236,257,685	236,260,796	236,263,887	236,264,533	236,264,841	236,265,3883		
N			7,012,987,2679	7,012,987,052	7,012,987,956	7,012,986,753	7,012,985,781	7,012,984,808	7,012,984,606	7,012,984,509	7,012,984,3377		
Estacas: 7+620													
Dist. eixo (m)			-4,966	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,720		
Cota (m)			481,397	481,874	481,913	481,624	481,819	482,014	481,933	482,264	481,951		
E			236,258,5434	236,259,241	236,259,556	236,260,217	236,263,387	236,266,556	236,267,217	236,267,532	236,267,9800		
N			7,012,996,5296	7,012,996,372	7,012,996,300	7,012,996,151	7,012,995,434	7,012,994,717	7,012,994,567	7,012,994,496	7,012,994,3921		
Estacas: 7+630													
Dist. eixo (m)			-4,839	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,694		
Cota (m)			481,507	481,900	481,938	481,650	481,845	482,040	481,958	482,290	481,993		
E			236,260,4034	236,260,987	236,261,307	236,261,977	236,265,195	236,268,412	236,269,083	236,269,402	236,269,8423		
N			7,013,005,9473	7,013,005,864	7,013,005,819	7,013,005,724	7,013,005,286	7,013,004,809	7,013,004,713	7,013,004,668	7,013,004,6054		
Estacas: 7+637													
Dist. eixo (m)			-4,710	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,865		
Cota (m)			481,611	481,918	481,957	481,668	481,863	482,058	481,977	482,308	481,898		
E			236,261,3093	236,261,768	236,262,090	236,262,765	236,266,004	236,269,243	236,269,917	236,270,239	236,270,8518		
N			7,013,012,8617	7,013,012,824	7,013,012,797	7,013,012,742	7,013,012,475	7,013,012,208	7,013,012,152	7,013,012,126	7,013,012,0752		
Estacas: 7+640													
Dist. eixo (m)			-4,669	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,863		
Cota (m)			481,665	481,944	481,983	481,694	481,870	482,064	481,965	482,296	481,888		
E			236,261,5382	236,261,956	236,262,279	236,262,954	236,266,199	236,269,443	236,270,118	236,270,441	236,271,0528		
N			7,013,015,4924	7,013,015,467	7,013,015,448	7,013,015,407	7,013,015,213	7,013,015,018	7,013,014,978	7,013,014,958	7,013,014,9216		
Estacas: 7+650													
Dist. eixo (m)			-4,590	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,695		
Cota (m)			481,811	482,038	482,076	481,788	481,996	482,004	481,922	482,254	481,957		
E			236,261,8023	236,262,142	236,262,465	236,263,142	236,266,391	236,269,640	236,270,317	236,270,640	236,271,0648		
N			7,013,025,1101	7,013,025,117	7,013,025,124	7,013,025,139	7,013,025,208	7,013,025,278	7,013,025,292	7,013,025,299	7,013,025,3086		
Estacas: 7+652													
Dist. eixo (m)			-4,588	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,688		
Cota (m)			481,828	482,053	482,092	481,803	481,900	481,997	481,915	482,247	481,955		
E			236,261,7594	236,262,097	236,262,420	236,263,097	236,266,345	236,269,593	236,270,269	236,270,592	236,271,0296		
N			7,013,026,7027	7,013,026,715	7,013,026,726	7,013,026,749	7,013,026,863	7,013,026,976	7,013,026,999	7,013,027,011	7,013,027,0258		
Estacas: 7+660													
Dist. eixo (m)			-4,658	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,894		
Cota (m)			481,859	482,131	482,170	481,881	481,921	481,961	481,880	482,211	481,782		
E			236,261,3988	236,261,807	236,262,129	236,262,806	236,266,054	236,269,302	236,269,978	236,270,301	236,270,9445		
N			7,013,035,0403	7,013,035,055	7,013,035,066	7,013,035,089	7,013,035,203	7,013,035,316	7,013,035,339	7,013,035,351	7,013,035,3729		
Estacas: 7+670													
Dist. eixo (m)			-4,736	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,714		
Cota (m)			481,908	482,225	482,264	481,975	481,947	481,918	481,837	482,168	481,192		
E			236,260,9826	236,261,458	236,261,781	236,262,458	236,265,706	236,268,954	236,269,630	236,269,953	236,271,4160		
N			7,013,045,0318	7,013,045,048	7,013,045,060	7,013,045,083	7,013,045,196	7,013,045,310	7,013,045,333	7,013,045,345	7,013,045,3955		
Estacas: 7+676													
Dist. eixo (m)			-4,908	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,958		
Cota (m)			481,846	482,285	482,324	482,035	481,963	481,891	481,810	482,141	481,402		
E			236,260,5787	236,261,236	236,261,559	236,262,235	236,265,483	236,268,731	236,269,408	236,269,731	236,271,4374		
N			7,013,051,4030	7,013,051,426	7,013,051,437	7,013,051,461	7,013,051,574	7,013,051,687	7,013,051,711	7,013,051,722	7,013,051,7814		
Estacas: 7+680													
Dist. eixo (m)			-4,898	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,702		
Cota (m)			481,887	482,319	482,358	482,069	481,972	481,875	481,794	482,125	481,157		
E			236,260,8807	236,261,129	236,261,452	236,262,129	236,265,378	236,268,627	236,269,303	236,269,627	236,271,0785		
N			7,013,055,0757	7,013,055,091	7,013,055,099	7,013,055,115	7,013,055,191	7,013,055,268	7,013,055,283	7,013,055,291	7,013,055,3252		
Estacas: 7+687													
Dist. eixo (m)			-4,849	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,274		
Cota (m)			481,983	482,382	482,421	482,132	481,989	481,846	481,765	482,096	481,414		
E			236,260,4415	236,261,040	236,261,363	236,262,040	236,265,290	236,268,540	236,269,217	236,269,540	236,270,5637		
N			7,013,061,9603	7,013,061,962	7,013,061,963	7,013,061,964	7,013,061,972	7,013,061,979	7,013,061,981	7,013,061,982	7,013,061,9840		
Estacas: 7+690													
Dist. eixo (m)			-4,811	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,094		
Cota (m)			482,017	482,391	482,429	482,141	481,998	481,855	481,773	482,105	481,542		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 7+750													
Dist. eixo (m)			-4,327	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,425		
Cota (m)			480,863	480,786	480,825	480,536	480,393	480,250	480,169	480,500	480,384		
E			236,267,1225	236,267,198	236,267,515	236,268,179	236,271,368	236,274,556	236,275,220	236,275,537	236,275,7086		
N			7,013,125,6337	7,013,125,619	7,013,125,556	7,013,125,425	7,013,124,794	7,013,124,164	7,013,124,033	7,013,123,970	7,013,123,9359		
Estacas: 7+754													
Dist. eixo (m)			-4,629	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,623		
Cota (m)			480,787	480,568	480,607	480,318	480,175	480,032	479,951	480,282	480,034		
E			236,267,6801	236,268,051	236,268,367	236,269,030	236,272,209	236,275,389	236,276,051	236,276,368	236,276,7320		
N			7,013,129,8676	7,013,129,789	7,013,129,722	7,013,129,582	7,013,128,910	7,013,128,238	7,013,128,098	7,013,128,031	7,013,127,9539		
Estacas: 7+760													
Dist. eixo (m)			-4,801	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,352		
Cota (m)			480,787	480,236	480,275	479,986	479,875	479,764	479,682	480,014	478,612		
E			236,268,7814	236,269,319	236,269,634	236,270,293	236,273,460	236,276,627	236,277,287	236,277,602	236,279,6500		
N			7,013,135,6505	7,013,135,527	7,013,135,454	7,013,135,302	7,013,134,572	7,013,133,843	7,013,133,691	7,013,133,618	7,013,133,1462		
Estacas: 7+762													
Dist. eixo (m)			-4,294	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,551		
Cota (m)			480,141	480,097	480,136	479,847	479,570	479,652	479,571	479,902	478,368		
E			236,269,8481	236,269,891	236,270,205	236,270,864	236,274,025	236,277,186	236,277,845	236,278,159	236,280,3975		
N			7,013,137,9774	7,013,137,967	7,013,137,892	7,013,137,735	7,013,136,981	7,013,136,227	7,013,136,070	7,013,135,995	7,013,135,4605		
Estacas: 7+765													
Dist. eixo (m)			-4,329	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,577		
Cota (m)			479,331	479,983	480,022	479,733	479,648	479,550	479,469	479,800	478,249		
E			236,270,3216	236,270,398	236,270,712	236,271,369	236,274,526	236,277,682	236,278,339	236,278,653	236,280,9128		
N			7,013,140,0810	7,013,140,062	7,013,139,985	7,013,139,828	7,013,139,048	7,013,138,273	7,013,138,112	7,013,138,035	7,013,137,4796		
Estacas: 7+770													
Dist. eixo (m)			-4,582	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,881		
Cota (m)			479,509	479,717	479,756	479,467	479,411	479,314	479,232	479,564	477,809		
E			236,271,3832	236,271,686	236,272,000	236,272,657	236,275,813	236,278,970	236,279,627	236,279,941	236,282,4961		
N			7,013,145,3796	7,013,145,305	7,013,145,228	7,013,145,067	7,013,144,292	7,013,143,516	7,013,143,355	7,013,143,278	7,013,142,6501		
Estacas: 7+780													
Dist. eixo (m)			-5,223	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,624		
Cota (m)			478,660	479,309	479,348	479,059	479,058	478,960	478,879	479,210	476,961		
E			236,273,1264	236,274,071	236,274,385	236,275,042	236,278,199	236,281,355	236,282,012	236,282,326	236,285,6027		
N			7,013,155,2487	7,013,155,017	7,013,154,940	7,013,154,778	7,013,154,003	7,013,153,228	7,013,153,066	7,013,152,989	7,013,152,1843		
Estacas: 7+790													
Dist. eixo (m)			-6,079	-5,250	-4,927	-4,250	0,000	3,250	3,927	4,250	5,875		
Cota (m)			478,441	478,994	479,033	478,744	478,814	478,717	478,636	478,967	477,884		
E			236,274,6799	236,275,485	236,275,799	236,276,457	236,280,584	236,283,740	236,284,397	236,284,711	236,286,2890		
N			7,013,165,1643	7,013,164,967	7,013,164,889	7,013,164,728	7,013,163,714	7,013,162,939	7,013,162,778	7,013,162,701	7,013,162,3129		
Estacas: 7+798													
Dist. eixo (m)			-7,457	-6,836	-6,513	-5,836	0,000	3,250	3,927	4,250	5,941		
Cota (m)			478,361	478,775	478,813	478,525	478,700	478,602	478,521	478,852	477,725		
E			236,275,2333	236,275,837	236,276,150	236,276,808	236,282,475	236,285,631	236,286,289	236,286,602	236,288,2441		
N			7,013,173,1924	7,013,173,044	7,013,172,967	7,013,172,806	7,013,171,414	7,013,170,639	7,013,170,477	7,013,170,400	7,013,169,9967		
Estacas: 7+800													
Dist. eixo (m)			-7,848	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	6,026		
Cota (m)			478,348	478,744	478,783	478,494	478,581	478,584	478,503	478,834	477,650		
E			236,275,3521	236,275,928	236,276,242	236,276,900	236,282,969	236,286,125	236,286,783	236,287,096	236,289,8212		
N			7,013,175,2864	7,013,175,155	7,013,175,078	7,013,174,916	7,013,173,426	7,013,172,650	7,013,172,489	7,013,172,412	7,013,171,9882		
Estacas: 7+810													
Dist. eixo (m)			-7,699	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	6,243		
Cota (m)			478,366	478,666	478,704	478,416	478,603	478,506	478,424	478,756	477,427		
E			236,277,8774	236,278,314	236,278,627	236,279,285	236,285,354	236,288,511	236,289,168	236,289,482	236,291,4175		
N			7,013,184,9734	7,013,184,866	7,013,184,789	7,013,184,628	7,013,183,137	7,013,182,362	7,013,182,200	7,013,182,123	7,013,181,6477		
Estacas: 7+820													
Dist. eixo (m)			-7,591	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	5,210		
Cota (m)			478,360	478,588	478,626	478,338	478,525	478,428	478,346	478,678	478,038		
E			236,280,3677	236,280,699	236,281,013	236,281,670	236,287,740	236,290,896	236,291,553	236,291,867	236,292,7994		
N			7,013,194,6590	7,013,194,578	7,013,194,501	7,013,194,339	7,013,192,848	7,013,192,073	7,013,191,912	7,013,191,835	7,013,191,6055		
Estacas: 7+829													
Dist. eixo (m)			-6,883	-6,173	-5,850	-5,173	0,000	3,250	3,927	4,250	4,916		
Cota (m)			478,077	478,550	478,589	478,300	478,455	478,358	478,276	478,608	478,163		
E			236,283,1955	236,283,884	236,284,198	236,284,856	236,289,880	236,293,036	236,293,693	236,294,007	236,294,6541		
N			7,013,203,2027	7,013,203,034	7,013,202,957	7,013,202,795	7,013,201,561	7,013,200,786	7,013,200,624	7,013,200,547	7,013,200,3883		
Estacas: 7+830													
Dist. eixo (m)			-6,761	-6,050	-5,727	-5,050	0,000	3,250	3,927	4,250	4,894		
Cota (m)			478,072	478,546	478,584	478,296	478,447	478,355	478,274	478,605	478,176		
E			236,283,5594	236,284,250	236,284,563	236,285,221	236,290,125	236,293,281	236,293,938	236,294,252	236,294,8780		
N			7,013,204,1723	7,013,204,003	7,013,203,926	7,013,203,764	7,013,202,580	7,013,201,785	7,013,201,623	7,013,201,546	7,013,201,3922		
Estacas: 7+840													
Dist. eixo (m)			-5,556	-4,850	-4,527	-3,850	0,000	3,250	3,927	4,250	4,929		
Cota (m)			478,031	478,504	478,542	478,254	478,369	478,331	478,249	478,581	478,128		
E			236,287,1146	236,287,800	236,288,114	236,288,771	236,292,510	236,295,666	236,296,324	236,296,638	236,297,2971		
N			7,013,213,5963	7,013,213,428	7,013,213,351	7,013,213,189	7,013,212,271	7,013,211,496	7,013,211,334	7,013,211,257	7,013,211,0953		
Estacas: 7+847													
Dist. eixo (m)			-4,748	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,851		
Cota (m)			478,139	478,471	478,510	478,221	478,319	478,319	478,238	478,569	478,168		
E			236,289,6130	236,290,097	236,290,411	236,291,068	236,294,224	236,297,380	236,298,038	236,298,352	236,298,9350		
N			7,013,220,3821	7,013,220,263	7,013,220,186	7,013,220,025	7,013,219,250	7,013,218,474	7,013,218,313	7,013,218,236	7,013,218,0925		
Estacas: 7+850													
Dist. eixo (m)			-4,730	-4,250	-3,927	-3,250	0,000						

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estaca: 7+881													
Dist. eixo (m)			-4,521	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,714		
Cota (m)			478,450	478,631	478,669	478,381	478,563	478,745	478,663	478,995	478,685		
E			236,297,3728	236,297,640	236,297,959	236,298,627	236,301,832	236,305,038	236,305,706	236,306,024	236,306,4818		
N			7,013,253,1220	7,013,253,077	7,013,253,024	7,013,252,913	7,013,252,378	7,013,251,843	7,013,251,732	7,013,251,679	7,013,251,6025		
Estaca: 7+890													
Dist. eixo (m)			-4,550	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,813		
Cota (m)			478,842	478,828	478,867	478,578	478,760	478,942	478,861	479,192	478,817		
E			236,298,5501	236,298,848	236,299,169	236,299,841	236,303,069	236,306,297	236,306,969	236,307,290	236,307,8492		
N			7,013,261,6321	7,013,261,597	7,013,261,560	7,013,261,481	7,013,261,104	7,013,260,727	7,013,260,648	7,013,260,611	7,013,260,5455		
Estaca: 7+900													
Dist. eixo (m)			-4,666	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,016		
Cota (m)			479,252	479,120	479,158	478,870	479,052	479,234	479,152	479,484	478,973		
E			236,299,2958	236,299,711	236,300,034	236,300,709	236,303,953	236,307,197	236,307,873	236,308,196	236,308,9597		
N			7,013,271,3470	7,013,271,322	7,013,271,302	7,013,271,261	7,013,271,064	7,013,270,866	7,013,270,825	7,013,270,806	7,013,270,7590		
Estaca: 7+910													
Dist. eixo (m)			-4,571	-4,250	-3,927	-3,250	0,000	4,377	5,054	5,377	5,918		
Cota (m)			479,252	479,466	479,504	479,216	479,398	479,643	479,561	479,893	479,532		
E			236,299,7124	236,300,033	236,300,356	236,301,033	236,304,283	236,308,660	236,309,337	236,309,660	236,310,2009		
N			7,013,281,0807	7,013,281,079	7,013,281,077	7,013,281,074	7,013,281,057	7,013,281,034	7,013,281,031	7,013,281,029	7,013,281,0260		
Estaca: 7+917													
Dist. eixo (m)			-4,648	-4,250	-3,927	-3,250	0,000	5,218	5,895	6,218	6,833		
Cota (m)			479,456	479,721	479,760	479,471	479,653	479,945	479,864	480,195	479,785		
E			236,299,5280	236,299,926	236,300,248	236,300,925	236,304,173	236,309,388	236,310,065	236,310,388	236,311,0018		
N			7,013,288,1994	7,013,288,214	7,013,288,225	7,013,288,249	7,013,288,364	7,013,288,549	7,013,288,572	7,013,288,584	7,013,288,6056		
Estaca: 7+920													
Dist. eixo (m)			-4,647	-4,250	-3,927	-3,250	0,000	5,540	6,215	6,540	7,241		
Cota (m)			479,551	479,815	479,854	479,565	479,747	480,037	479,976	480,307	479,840		
E			236,299,4168	236,299,813	236,300,136	236,300,812	236,304,058	236,309,590	236,310,266	236,310,589	236,311,2890		
N			7,013,290,8192	7,013,290,839	7,013,290,855	7,013,290,890	7,013,291,053	7,013,291,332	7,013,291,366	7,013,291,382	7,013,291,4174		
Estaca: 7+930													
Dist. eixo (m)			-4,715	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,943		
Cota (m)			479,836	480,146	480,185	479,896	480,078	480,428	480,347	480,678	480,216		
E			236,298,5886	236,299,051	236,299,372	236,300,046	236,303,277	236,309,492	236,310,165	236,310,487	236,311,1762		
N			7,013,300,5229	7,013,300,572	7,013,300,606	7,013,300,678	7,013,301,021	7,013,301,682	7,013,301,753	7,013,301,788	7,013,301,8609		
Estaca: 7+940													
Dist. eixo (m)			-4,635	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,838		
Cota (m)			480,087	480,344	480,382	480,094	480,276	480,626	480,544	480,876	480,484		
E			236,297,3700	236,297,750	236,298,069	236,298,737	236,301,945	236,308,113	236,308,781	236,309,100	236,309,8805		
N			7,013,310,1857	7,013,310,248	7,013,310,300	7,013,310,408	7,013,310,931	7,013,311,936	7,013,312,044	7,013,312,096	7,013,312,1907		
Estaca: 7+950													
Dist. eixo (m)			-4,386	-4,250	-3,927	-3,250	0,000	5,212	5,888	6,212	6,335		
Cota (m)			480,297	480,387	480,426	480,137	480,319	480,611	480,530	480,861	480,779		
E			236,295,7810	236,295,514	236,296,229	236,296,890	236,300,064	236,305,153	236,305,814	236,306,130	236,306,2507		
N			7,013,319,8067	7,013,319,836	7,013,319,906	7,013,320,051	7,013,320,751	7,013,321,873	7,013,322,019	7,013,322,088	7,013,322,1151		
Estaca: 7+953													
Dist. eixo (m)			-4,270	-4,250	-3,927	-3,250	0,000	4,545	5,222	5,545	5,700		
Cota (m)			480,387	480,367	480,406	480,117	480,299	480,554	480,472	480,804	480,700		
E			236,295,1416	236,295,161	236,295,475	236,296,134	236,299,293	236,303,712	236,304,370	236,304,685	236,304,8354		
N			7,013,323,0953	7,013,323,100	7,013,323,176	7,013,323,334	7,013,324,094	7,013,325,157	7,013,325,315	7,013,325,391	7,013,325,4271		
Estaca: 7+960													
Dist. eixo (m)				-4,255	-3,927	-3,250	0,000	3,250	3,927	4,250	4,561		
Cota (m)				480,370	480,404	480,115	480,210	480,304	480,223	480,554	480,347		
E				236,293,543	236,293,859	236,294,511	236,297,641	236,300,771	236,301,423	236,301,734	236,302,0332		
N				7,013,329,306	7,013,329,395	7,013,329,577	7,013,330,452	7,013,331,327	7,013,331,509	7,013,331,596	7,013,331,6794		
Estaca: 7+967													
Dist. eixo (m)			-4,846	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,780		
Cota (m)			479,895	480,292	480,331	480,042	480,043	480,404	479,963	480,294	479,941		
E			236,291,0039	236,291,571	236,291,878	236,292,523	236,295,616	236,298,710	236,299,354	236,299,662	236,300,1662		
N			7,013,335,6984	7,013,335,881	7,013,335,980	7,013,336,188	7,013,337,184	7,013,338,181	7,013,338,388	7,013,338,487	7,013,338,6497		
Estaca: 7+970													
Dist. eixo (m)			-4,688	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,848		
Cota (m)			479,861	480,253	480,291	480,003	479,964	479,926	479,845	480,176	479,910		
E			236,290,2396	236,290,661	236,290,972	236,291,622	236,294,747	236,297,871	236,298,522	236,298,833	236,299,2156		
N			7,013,338,7322	7,013,338,853	7,013,338,942	7,013,339,128	7,013,340,023	7,013,340,918	7,013,341,104	7,013,341,193	7,013,341,3030		
Estaca: 7+980													
Dist. eixo (m)			-4,772	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,675		
Cota (m)			479,788	480,137	480,175	479,887	479,715	479,544	479,463	479,794	479,511		
E			236,287,8848	236,288,401	236,288,720	236,289,369	236,292,601	236,295,812	236,296,481	236,296,800	236,297,2199		
N			7,013,349,0517	7,013,349,132	7,013,349,181	7,013,349,285	7,013,349,783	7,013,350,282	7,013,350,386	7,013,350,435	7,013,350,5002		
Estaca: 7+982													
Dist. eixo (m)			-4,794	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,672		
Cota (m)			479,763	480,125	480,164	479,875	479,680	479,485	479,404	479,735	479,454		
E			236,287,5946	236,288,133	236,288,454	236,289,125	236,292,347	236,295,569	236,296,240	236,296,560	236,296,9782		
N			7,013,350,9210	7,013,350,992	7,013,351,035	7,013,351,124	7,013,351,550	7,013,351,977	7,013,352,066	7,013,352,108	7,013,352,1633		
Estaca: 7+990													
Dist. eixo (m)			-4,877	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,798		
Cota (m)			479,586	480,005	480,043	479,755	479,560	479,365	479,283	479,615	479,249		
E			236,286,8131	236,287,440	236,287,763	236,288,440	236,291,688	236,294,937	236,295,613	236,295,936	236,296,4845		
N			7,013,359,5941	7,013,359,612	7,013,359,622	7,013,359,641	7,013,359,735	7,013,359,829	7,013,359,849	7,013,359,858	7,013,359,8740		
Estaca: 8+000													
Dist. eixo (m)			-5,061	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,102		
Cota (m)			479,411	479,892	479,931	479,702	479,507	479,312	479,231	479,562	478,994		
E			236,										

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 8+050													
Dist. eixo (m)			-4,968	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,851		
Cota (m)			480,763	481,242	481,280	480,992	480,797	480,602	480,520	480,852	480,451		
E			236,307,8349	236,308,374	236,308,617	236,309,125	236,311,567	236,314,008	236,314,516	236,314,759	236,315,2100		
N			7,013,418,1444	7,013,417,670	7,013,417,457	7,013,417,010	7,013,414,864	7,013,412,719	7,013,412,272	7,013,412,059	7,013,411,6620		
Estacas: 8+060													
Dist. eixo (m)			-4,720	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,516		
Cota (m)			481,453	481,766	481,805	481,516	481,321	481,126	481,045	481,376	481,199		
E			236,332,9413	236,334,102	236,334,285	236,334,667	236,336,501	236,338,336	236,338,718	236,338,900	236,338,9719		
N			7,013,432,0691	7,013,431,597	7,013,431,330	7,013,430,771	7,013,428,089	7,013,425,406	7,013,424,847	7,013,424,580	7,013,424,4750		
Estacas: 8+070													
Dist. eixo (m)			-4,822	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,378		
Cota (m)			481,729	482,110	482,149	481,860	481,665	481,470	481,389	481,720	481,635		
E			236,332,7795	236,334,102	236,334,285	236,334,667	236,336,501	236,338,336	236,338,718	236,338,900	236,338,9719		
N			7,013,432,0691	7,013,431,597	7,013,431,330	7,013,430,771	7,013,428,089	7,013,425,406	7,013,424,847	7,013,424,580	7,013,424,4750		
Estacas: 8+080													
Dist. eixo (m)			-4,694	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,571		
Cota (m)			481,940	482,236	482,275	481,986	481,791	481,596	481,515	481,846	481,632		
E			236,332,9413	236,333,144	236,333,292	236,333,601	236,335,087	236,336,572	236,336,882	236,337,030	236,337,1761		
N			7,013,437,3776	7,013,436,983	7,013,436,696	7,013,436,093	7,013,433,203	7,013,430,312	7,013,429,710	7,013,429,423	7,013,429,1375		
Estacas: 8+081													
Dist. eixo (m)			-4,731	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,609		
Cota (m)			481,916	482,237	482,275	481,987	481,792	481,597	481,515	481,847	481,607		
E			236,334,1318	236,334,345	236,334,488	236,334,788	236,336,227	236,337,666	236,337,966	236,338,109	236,338,2679		
N			7,013,438,0189	7,013,437,588	7,013,437,298	7,013,436,691	7,013,433,777	7,013,430,863	7,013,430,257	7,013,429,967	7,013,429,6450		
Estacas: 8+090													
Dist. eixo (m)			-5,008	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,729		
Cota (m)			481,592	482,087	482,136	481,847	481,652	481,457	481,376	481,707	481,482		
E			236,342,5272	236,342,787	236,342,898	236,343,130	236,344,243	236,345,357	236,345,589	236,345,699	236,345,8635		
N			7,013,441,9115	7,013,441,200	7,013,440,896	7,013,440,260	7,013,437,207	7,013,434,154	7,013,433,518	7,013,433,214	7,013,432,7641		
Estacas: 8+096													
Dist. eixo (m)			-5,072	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,582		
Cota (m)			481,369	481,917	481,956	481,667	481,550	481,433	481,352	481,683	481,462		
E			236,348,2448	236,348,471	236,348,560	236,348,746	236,349,641	236,350,535	236,350,721	236,350,810	236,350,9015		
N			7,013,443,8376	7,013,443,047	7,013,442,737	7,013,442,086	7,013,438,961	7,013,435,837	7,013,435,186	7,013,434,875	7,013,434,5558		
Estacas: 8+099													
Dist. eixo (m)			-4,948	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,427		
Cota (m)			481,321	481,786	481,825	481,536	481,439	481,341	481,260	481,591	481,473		
E			236,351,7399	236,351,932	236,352,021	236,352,207	236,353,102	236,353,996	236,354,182	236,354,271	236,354,3198		
N			7,013,444,7092	7,013,444,038	7,013,443,727	7,013,443,076	7,013,439,952	7,013,436,827	7,013,436,177	7,013,435,866	7,013,435,6956		
Estacas: 8+100													
Dist. eixo (m)			-4,927	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,392		
Cota (m)			481,309	481,760	481,799	481,510	481,416	481,319	481,238	481,569	481,474		
E			236,352,4414	236,352,628	236,352,717	236,352,903	236,353,797	236,354,691	236,354,878	236,354,967	236,355,0058		
N			7,013,444,8873	7,013,444,237	7,013,443,926	7,013,443,275	7,013,440,151	7,013,437,026	7,013,436,376	7,013,436,065	7,013,435,9280		
Estacas: 8+110													
Dist. eixo (m)			-4,764	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,438		
Cota (m)			481,054	481,396	481,435	481,146	481,107	481,009	480,928	481,259	481,447		
E			236,362,1002	236,362,244	236,362,330	236,362,517	236,363,411	236,364,305	236,364,492	236,364,581	236,364,6323		
N			7,013,447,4824	7,013,446,989	7,013,446,576	7,013,446,027	7,013,442,903	7,013,439,778	7,013,439,127	7,013,438,617	7,013,438,6588		
Estacas: 8+117													
Dist. eixo (m)			-4,602	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,590		
Cota (m)			480,897	481,131	481,170	480,881	480,881	480,784	480,702	481,034	481,374		
E			236,369,1405	236,369,237	236,369,326	236,369,512	236,370,407	236,371,301	236,371,487	236,371,576	236,371,6698		
N			7,013,449,3288	7,013,448,991	7,013,448,680	7,013,448,029	7,013,444,905	7,013,441,780	7,013,441,130	7,013,440,819	7,013,440,4918		
Estacas: 8+120													
Dist. eixo (m)			-4,600	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,647		
Cota (m)			480,799	481,032	481,071	480,782	480,797	480,699	480,618	480,949	481,347		
E			236,371,7591	236,371,856	236,371,944	236,372,131	236,373,025	236,373,919	236,374,106	236,374,195	236,374,3038		
N			7,013,450,0769	7,013,449,740	7,013,449,430	7,013,448,779	7,013,445,654	7,013,442,530	7,013,441,879	7,013,441,568	7,013,441,1865		
Estacas: 8+130													
Dist. eixo (m)			-4,597	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,384		
Cota (m)			480,437	480,668	480,707	480,418	480,487	480,390	480,308	480,640	480,773		
E			236,381,3740	236,381,469	236,381,558	236,381,745	236,382,639	236,383,533	236,383,720	236,383,808	236,383,8452		
N			7,013,452,8253	7,013,452,492	7,013,452,182	7,013,451,531	7,013,448,406	7,013,445,282	7,013,444,631	7,013,444,320	7,013,444,1917		
Estacas: 8+135													
Dist. eixo (m)			-4,562	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,350		
Cota (m)			480,268	480,476	480,515	480,226	480,324	480,226	480,145	480,476	480,409		
E			236,386,4565	236,386,542	236,386,631	236,386,818	236,387,712	236,388,606	236,388,792	236,388,881	236,388,9089		
N			7,013,454,2438	7,013,453,944	7,013,453,634	7,013,452,983	7,013,449,858	7,013,446,734	7,013,446,083	7,013,445,772	7,013,445,6758		
Estacas: 8+140													
Dist. eixo (m)			-4,681	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,519		
Cota (m)			480,042	480,330	480,369	480,080	480,177	480,080	479,999	480,330	480,151		
E			236,390,9647	236,391,083	236,391,172	236,391,359	236,392,253	236,393,147	236,393,333	236,393,422	236,393,4963		
N			7,013,455,6584	7,013,455,244	7,013,454,933	7,013,454,282	7,013,451,158	7,013,448,033	7,013,447,383	7,013,447,072	7,013,446,8136		
Estacas: 8+142													
Dist. eixo (m)			-4,738	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,488		
Cota (m)			479,934	480,260	480,299	480,010	480,107	480,010	479,929	480,260	480,101		
E			236,393,1181	236,393,253	236,393,341	236,393,528	236,394,422	236,395,316	236,395,503	236,395,592	236,395,6571		
N			7,013,456,3342	7,013,455,865	7,013,455,554	7,013,454,903	7,013,451,779	7,013,448,654	7,013,448,004	7,013,447,693	7,013,447,4638		
Estacas: 8+150													
Dist. eixo (m)			-4,849	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,675		
Cota (m)			479,921	480,020	480,059	479,770	479,868	479,812	479,731	480,062	479,779</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 8+200													
Dist. eixo (m)			-4,987	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,835		
Cota (m)			478,400	478,891	478,930	478,641	478,804	478,966	478,885	479,216	478,826		
E			236,447,8665	236,448,130	236,448,246	236,448,488	236,449,650	236,450,813	236,451,055	236,451,170	236,451,3795		
N			7,013,473,2264	7,013,472,538	7,013,472,237	7,013,471,604	7,013,468,569	7,013,465,534	7,013,464,902	7,013,464,601	7,013,464,0538		
Estacas: 8+210													
Dist. eixo (m)			-4,963	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,992		
Cota (m)			478,364	478,840	478,878	478,590	478,752	478,915	478,833	479,165	478,670		
E			236,456,9556	236,457,237	236,457,365	236,457,632	236,458,915	236,460,197	236,460,465	236,460,592	236,460,8849		
N			7,013,476,8919	7,013,476,237	7,013,475,340	7,013,475,318	7,013,472,332	7,013,469,346	7,013,468,724	7,013,468,427	7,013,467,7452		
Estacas: 8+220													
Dist. eixo (m)			-4,642	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,834		
Cota (m)			478,580	478,842	478,880	478,592	478,754	478,917	478,835	479,167	478,778		
E			236,456,0201	236,456,189	236,456,328	236,456,620	236,458,021	236,459,423	236,459,714	236,459,854	236,470,1053		
N			7,013,480,6495	7,013,480,296	7,013,480,005	7,013,479,394	7,013,476,461	7,013,473,529	7,013,472,918	7,013,472,627	7,013,472,1001		
Estacas: 8+230													
Dist. eixo (m)			-4,583	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,789		
Cota (m)			478,639	478,861	478,900	478,611	478,774	478,936	478,855	479,186	478,827		
E			236,474,8160	236,474,971	236,475,122	236,475,438	236,476,956	236,478,473	236,478,789	236,478,940	236,479,1914		
N			7,013,485,0048	7,013,484,710	7,013,484,425	7,013,483,826	7,013,480,952	7,013,478,078	7,013,477,479	7,013,477,194	7,013,476,7171		
Estacas: 8+232													
Dist. eixo (m)			-4,593	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,778		
Cota (m)			478,637	478,866	478,904	478,616	478,778	478,941	478,859	479,191	478,839		
E			236,476,7201	236,476,883	236,477,036	236,477,358	236,478,900	236,480,443	236,480,764	236,480,918	236,481,1681		
N			7,013,486,0327	7,013,485,730	7,013,485,446	7,013,484,850	7,013,481,990	7,013,479,129	7,013,478,533	7,013,478,249	7,013,477,7844		
Estacas: 8+240													
Dist. eixo (m)			-4,688	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,688		
Cota (m)			478,602	478,881	478,920	478,631	478,793	478,956	478,875	479,206	478,914		
E			236,483,3606	236,483,570	236,483,732	236,484,072	236,485,703	236,487,334	236,487,674	236,487,836	236,488,0556		
N			7,013,489,8337	7,013,489,472	7,013,489,193	7,013,488,607	7,013,485,796	7,013,482,985	7,013,482,400	7,013,482,120	7,013,481,7418		
Estacas: 8+250													
Dist. eixo (m)			-4,520	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,885		
Cota (m)			478,720	478,900	478,939	478,650	478,813	478,975	478,894	479,225	478,802		
E			236,491,8271	236,491,972	236,492,145	236,492,508	236,494,250	236,495,992	236,496,355	236,496,528	236,496,8685		
N			7,013,494,8021	7,013,494,574	7,013,494,302	7,013,493,730	7,013,490,987	7,013,488,243	7,013,487,672	7,013,487,399	7,013,486,8628		
Estacas: 8+260													
Dist. eixo (m)			-4,530	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,942		
Cota (m)			478,733	478,920	478,959	478,670	478,832	478,995	478,914	479,245	478,783		
E			236,500,0032	236,500,163	236,500,347	236,500,732	236,502,582	236,504,433	236,504,818	236,505,002	236,505,3964		
N			7,013,500,2383	7,013,500,008	7,013,499,743	7,013,499,186	7,013,496,514	7,013,493,843	7,013,493,286	7,013,493,021	7,013,492,4515		
Estacas: 8+270													
Dist. eixo (m)			-4,630	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,825		
Cota (m)			478,686	478,939	478,978	478,689	478,852	479,014	478,933	479,264	479,015		
E			236,507,9006	236,508,130	236,508,324	236,508,731	236,510,687	236,512,643	236,513,050	236,513,245	236,513,4702		
N			7,013,506,0690	7,013,505,765	7,013,505,507	7,013,504,967	7,013,502,371	7,013,499,775	7,013,499,235	7,013,498,977	7,013,498,6776		
Estacas: 8+274													
Dist. eixo (m)			-4,623	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,699		
Cota (m)			478,699	478,948	478,986	478,698	478,860	479,023	478,941	479,273	478,974		
E			236,511,1394	236,511,369	236,511,567	236,511,984	236,521,982	236,523,981	236,524,397	236,524,596	236,524,8720		
N			7,013,508,5427	7,013,508,249	7,013,507,994	7,013,507,460	7,013,504,897	7,013,502,335	7,013,501,801	7,013,501,546	7,013,501,1922		
Estacas: 8+280													
Dist. eixo (m)			-4,533	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,902		
Cota (m)			478,802	478,991	479,029	478,741	478,872	479,002	478,921	479,252	478,818		
E			236,515,6808	236,515,860	236,516,064	236,516,493	236,518,551	236,520,609	236,521,038	236,521,243	236,521,6553		
N			7,013,512,0551	7,013,511,836	7,013,511,586	7,013,511,062	7,013,508,547	7,013,506,032	7,013,505,508	7,013,505,258	7,013,504,7533		
Estacas: 8+286													
Dist. eixo (m)			-4,890	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,102		
Cota (m)			478,609	479,036	479,075	478,786	478,884	479,081	478,900	479,231	478,663		
E			236,520,0754	236,520,493	236,520,703	236,521,145	236,523,264	236,525,384	236,525,825	236,526,036	236,526,5912		
N			7,013,516,2086	7,013,515,723	7,013,515,478	7,013,514,965	7,013,512,501	7,013,510,037	7,013,509,524	7,013,509,279	7,013,508,6334		
Estacas: 8+290													
Dist. eixo (m)			-4,976	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,131		
Cota (m)			478,559	479,044	479,082	478,794	478,891	479,088	478,907	479,218	478,630		
E			236,522,9362	236,523,410	236,523,621	236,524,062	236,526,181	236,528,301	236,528,742	236,528,953	236,529,5274		
N			7,013,518,7831	7,013,518,232	7,013,517,988	7,013,517,474	7,013,515,010	7,013,512,546	7,013,512,033	7,013,511,788	7,013,511,1202		
Estacas: 8+300													
Dist. eixo (m)			-5,446	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,190		
Cota (m)			478,266	479,063	479,102	478,813	478,911	479,108	478,933	479,183	478,557		
E			236,530,2112	236,530,991	236,531,202	236,531,643	236,533,763	236,535,882	236,536,323	236,536,534	236,537,1468		
N			7,013,525,6602	7,013,524,753	7,013,524,509	7,013,523,995	7,013,521,531	7,013,519,067	7,013,518,554	7,013,518,309	7,013,517,9969		
Estacas: 8+304													
Dist. eixo (m)			-5,502	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,340		
Cota (m)			478,237	479,071	479,110	478,821	478,919	479,116	478,938	479,169	478,442		
E			236,533,3227	236,534,139	236,534,350	236,534,791	236,536,911	236,539,030	236,539,471	236,539,682	236,540,3929		
N			7,013,528,4103	7,013,527,461	7,013,527,216	7,013,526,703	7,013,524,239	7,013,521,775	7,013,521,262	7,013,521,017	7,013,520,1905		
Estacas: 8+310													
Dist. eixo (m)			-5,579	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,562		
Cota (m)			478,197	479,083	479,121	478,833	478,930	479,127	478,949	479,149	478,274		
E			236,537,7061	236,538,573	236,538,783	236,539,225	236,541,344	236,543,463	236,543,905	236,544,115	236,544,9709		
N			7,013,532,2817	7,013,531,274	7,013,531,030	7,013,530,516	7,013,528,052	7,013,525,589	7,013,525,075	7,013,524,830	7,013,523,8358		
Estacas: 8+320													
Dist. eixo (m)			-5,716	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,321		
Cota (m)			478,125	479,102	479,141	478,852	478,950	479,147	478,968	479,114	478,400</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 8+370													
Dist. eixo (m)			-5,311	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,418		
Cota (m)			478,493	479,200	479,239	478,590	479,048	478,950	478,869	479,200	478,421		
E			236.583,3686	236.584,060	236.584,271	236.584,712	236.586,832	236.588,951	236.589,392	236.589,603	236.590,3648		
N			7.013.571,2048	7.013.570,401	7.013.570,156	7.013.569,643	7.013.567,179	7.013.564,715	7.013.564,202	7.013.563,957	7.013.563,0711		
Estacas: 8+380													
Dist. eixo (m)			-4,641	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,230		
Cota (m)			478,970	479,230	479,269	478,980	479,078	478,980	478,899	479,230	478,577		
E			236.591,3867	236.591,642	236.591,852	236.592,294	236.594,413	236.596,532	236.596,974	236.597,184	236.597,8234		
N			7.013.577,2180	7.013.576,922	7.013.576,677	7.013.576,164	7.013.573,700	7.013.571,236	7.013.570,723	7.013.570,478	7.013.569,7348		
Estacas: 8+390													
Dist. eixo (m)			-4,525	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,092		
Cota (m)			479,127	479,310	479,349	479,060	479,158	479,060	478,979	479,310	478,749		
E			236.599,0434	236.599,223	236.599,433	236.599,875	236.601,994	236.604,114	236.604,555	236.604,766	236.605,3146		
N			7.013.583,6514	7.013.583,443	7.013.583,198	7.013.582,685	7.013.580,221	7.013.577,757	7.013.577,244	7.013.576,999	7.013.576,3605		
Estacas: 8+400													
Dist. eixo (m)			-4,508	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,977		
Cota (m)			479,271	479,443	479,482	479,193	479,291	479,193	479,112	479,443	478,598		
E			236.606,6359	236.606,804	236.607,015	236.607,456	236.609,576	236.611,695	236.612,136	236.612,347	236.612,8214		
N			7.013.590,1594	7.013.589,964	7.013.589,719	7.013.589,206	7.013.586,742	7.013.584,278	7.013.583,765	7.013.583,520	7.013.582,9682		
Estacas: 8+410													
Dist. eixo (m)			-4,435	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,812		
Cota (m)			479,505	479,629	479,668	479,379	479,477	479,379	479,298	479,629	479,255		
E			236.614,2645	236.614,385	236.614,596	236.615,038	236.617,157	236.619,276	236.619,718	236.619,928	236.620,2946		
N			7.013.596,6254	7.013.596,485	7.013.596,240	7.013.595,727	7.013.593,263	7.013.590,799	7.013.590,286	7.013.590,041	7.013.589,6150		
Estacas: 8+420													
Dist. eixo (m)			-4,633	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,985		
Cota (m)			479,612	479,668	479,697	479,618	479,715	479,618	479,537	479,668	478,378		
E			236.621,7167	236.621,967	236.622,177	236.622,619	236.624,738	236.626,858	236.627,299	236.627,510	236.627,8981		
N			7.013.603,2966	7.013.603,006	7.013.602,761	7.013.602,248	7.013.599,784	7.013.597,320	7.013.596,807	7.013.596,562	7.013.596,0044		
Estacas: 8+430													
Dist. eixo (m)			-4,731	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,829		
Cota (m)			479,839	480,160	480,199	479,910	480,007	479,910	479,829	480,160	479,774		
E			236.629,2341	236.629,548	236.629,759	236.630,200	236.632,319	236.634,439	236.634,880	236.635,091	236.635,4687		
N			7.013.609,8919	7.013.609,527	7.013.609,282	7.013.608,769	7.013.606,305	7.013.603,841	7.013.603,328	7.013.603,083	7.013.602,6436		
Estacas: 8+440													
Dist. eixo (m)			-4,594	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,758		
Cota (m)			480,261	480,490	480,529	480,240	480,338	480,240	480,159	480,490	480,151		
E			236.636,6015	236.636,826	236.637,036	236.637,478	236.639,597	236.641,717	236.642,158	236.642,369	236.642,7001		
N			7.013.616,0477	7.013.615,787	7.013.615,542	7.013.615,029	7.013.612,565	7.013.610,101	7.013.609,588	7.013.609,343	7.013.608,9574		
Estacas: 8+450													
Dist. eixo (m)			-4,730	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,036		
Cota (m)			480,853	480,903	480,942	480,653	480,751	480,653	480,572	480,903	480,379		
E			236.644,2768	236.644,596	236.644,811	236.645,261	236.647,423	236.649,585	236.650,035	236.650,250	236.650,7724		
N			7.013.622,9469	7.013.622,589	7.013.622,347	7.013.621,842	7.013.619,415	7.013.616,988	7.013.616,483	7.013.616,242	7.013.615,6547		
Estacas: 8+460													
Dist. eixo (m)			-4,797	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,004		
Cota (m)			480,389	481,354	481,393	481,104	481,202	481,104	481,023	481,354	480,852		
E			236.651,5841	236.651,955	236.652,174	236.652,632	236.654,834	236.657,036	236.657,485	236.657,714	236.658,2344		
N			7.013.629,6569	7.013.629,254	7.013.629,017	7.013.628,519	7.013.626,128	7.013.623,738	7.013.623,240	7.013.623,002	7.013.622,4478		
Estacas: 8+470													
Dist. eixo (m)			-4,924	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,780		
Cota (m)			481,410	481,859	481,897	481,609	481,706	481,609	481,527	481,859	481,505		
E			236.658,7371	236.659,202	236.659,424	236.659,891	236.662,133	236.664,374	236.664,841	236.665,064	236.665,4293		
N			7.013.636,5296	7.013.636,042	7.013.635,808	7.013.635,318	7.013.632,964	7.013.630,611	7.013.630,121	7.013.629,887	7.013.629,5029		
Estacas: 8+480													
Dist. eixo (m)			-4,831	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,622		
Cota (m)			482,028	482,416	482,455	482,166	482,263	482,166	482,085	482,416	482,168		
E			236.665,9265	236.666,334	236.666,561	236.667,036	236.669,316	236.671,596	236.672,071	236.672,298	236.672,5592		
N			7.013.643,3633	7.013.642,949	7.013.642,719	7.013.642,237	7.013.639,921	7.013.637,605	7.013.637,123	7.013.636,893	7.013.636,6276		
Estacas: 8+490													
Dist. eixo (m)			-4,833	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,599		
Cota (m)			482,837	483,026	483,065	482,776	482,874	482,776	482,695	483,026	482,794		
E			236.672,9347	236.673,351	236.673,581	236.674,064	236.676,383	236.678,701	236.679,184	236.679,415	236.679,6634		
N			7.013.650,3831	7.013.649,975	7.013.649,748	7.013.649,274	7.013.646,996	7.013.644,719	7.013.644,245	7.013.644,018	7.013.643,7740		
Estacas: 8+500													
Dist. eixo (m)			-4,854	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,264		
Cota (m)			483,286	483,689	483,728	483,439	483,537	483,439	483,358	483,689	483,703		
E			236.679,8109	236.680,249	236.680,483	236.680,974	236.683,330	236.685,687	236.686,177	236.686,412	236.686,4218		
N			7.013.657,5322	7.013.657,116	7.013.656,893	7.013.656,427	7.013.654,189	7.013.651,950	7.013.651,484	7.013.651,261	7.013.651,2517		
Estacas: 8+510													
Dist. eixo (m)			-4,308	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,399		
Cota (m)			484,367	484,406	484,445	484,156	484,254	484,156	484,075	484,406	484,307		
E			236.686,9848	236.687,028	236.687,265	236.687,764	236.690,157	236.692,550	236.693,049	236.693,287	236.693,3961		
N			7.013.664,4104	7.013.664,371	7.013.664,153	7.013.663,695	7.013.661,496	7.013.659,297	7.013.658,839	7.013.658,620	7.013.658,5197		
Estacas: 8+520													
Dist. eixo (m)			-4,936	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,320		
Cota (m)			484,691	485,149	485,187	484,899	484,996	484,899	484,817	485,149	485,219		
E			236.693,0554	236.693,568	236.693,809	236.694,315	236.696,744	236.699,173	236.699,679	236.699,920	236.699,9729		
N			7.013.672,0632	7.013.671,608	7.013.671,393	7.013.670,943	7.013.668,784	7.013.666,624	7.013.666,175	7.013.665,960	7.013.665,9132		
Estacas: 8+530													
Dist. eixo (m)			-4,277	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,399		
Cota (m)			485,845	485,863	485,902	485,613	485,710	485,613	485,532	485,863	485,764</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 8+580													
Dist. eixo (m)			-4,576	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,529		
Cota (m)			488,031	488,248	488,287	487,998	488,033	487,936	487,854	488,186	487,999		
E			236,730,7000	236,730,964	236,731,225	236,731,774	236,734,407	236,737,040	236,737,588	236,737,850	236,738,0762		
N			7,013,718,3668	7,013,718,176	7,013,717,987	7,013,717,590	7,013,715,684	7,013,713,779	7,013,713,382	7,013,713,193	7,013,713,0289		
Estacas: 8+586													
Dist. eixo (m)			-4,652	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,566		
Cota (m)			488,169	488,437	488,476	488,187	488,187	488,089	488,008	488,339	488,129		
E			236,734,3009	236,734,629	236,734,893	236,735,446	236,738,098	236,740,751	236,741,304	236,741,568	236,741,8252		
N			7,013,723,5301	7,013,723,298	7,013,723,111	7,013,722,720	7,013,720,843	7,013,718,965	7,013,718,574	7,013,718,388	7,013,718,2052		
Estacas: 8+590													
Dist. eixo (m)			-4,728	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,468		
Cota (m)			488,215	488,534	488,573	488,284	488,284	488,166	488,085	488,416	488,271		
E			236,736,3256	236,736,718	236,736,982	236,737,535	236,740,202	236,742,866	236,743,421	236,743,686	236,743,8641		
N			7,013,726,5418	7,013,726,288	7,013,726,083	7,013,725,695	7,013,723,834	7,013,721,973	7,013,721,585	7,013,721,400	7,013,721,2755		
Estacas: 8+600													
Dist. eixo (m)			-4,804	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,402		
Cota (m)			488,429	488,799	488,837	488,549	488,549	488,376	488,295	488,626	488,525		
E			236,741,8766	236,742,336	236,742,604	236,743,165	236,745,860	236,748,555	236,749,116	236,749,384	236,749,5097		
N			7,013,734,7641	7,013,734,455	7,013,734,274	7,013,733,896	7,013,732,079	7,013,730,263	7,013,729,884	7,013,729,704	7,013,729,6189		
Estacas: 8+604													
Dist. eixo (m)			-4,833	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,343		
Cota (m)			488,519	488,908	488,946	488,658	488,658	488,463	488,381	488,713	488,651		
E			236,744,1551	236,744,639	236,744,907	236,745,468	236,748,163	236,750,858	236,751,419	236,751,687	236,751,7642		
N			7,013,738,1976	7,013,737,872	7,013,737,691	7,013,737,313	7,013,735,496	7,013,733,680	7,013,733,302	7,013,733,121	7,013,733,0694		
Estacas: 8+606													
Dist. eixo (m)			-4,868	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,322		
Cota (m)			488,533	488,945	488,984	488,695	488,695	488,498	488,416	488,748	488,686		
E			236,744,9209	236,745,434	236,745,701	236,746,263	236,748,958	236,751,653	236,752,214	236,752,482	236,752,5422		
N			7,013,739,3965	7,013,739,051	7,013,738,871	7,013,738,492	7,013,736,676	7,013,734,860	7,013,734,481	7,013,734,301	7,013,734,2602		
Estacas: 8+610													
Dist. eixo (m)			-4,946	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,278		
Cota (m)			488,599	489,063	489,102	488,813	488,813	488,554	488,472	488,804	488,785		
E			236,747,4458	236,748,015	236,748,279	236,748,832	236,751,488	236,754,144	236,754,697	236,754,961	236,754,9836		
N			7,013,743,1955	7,013,742,794	7,013,742,608	7,013,742,218	7,013,740,345	7,013,738,472	7,013,738,082	7,013,737,896	7,013,737,8794		
Estacas: 8+618													
Dist. eixo (m)			-5,009	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,323		
Cota (m)			488,778	489,284	489,323	489,034	489,034	488,683	488,602	488,933	488,884		
E			236,752,4547	236,753,057	236,753,314	236,753,851	236,756,436	236,759,010	236,759,547	236,759,804	236,759,8615		
N			7,013,750,1131	7,013,749,651	7,013,749,455	7,013,749,043	7,013,747,066	7,013,745,089	7,013,744,677	7,013,744,480	7,013,744,4358		
Estacas: 8+620													
Dist. eixo (m)			-4,916	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,332		
Cota (m)			488,875	489,319	489,357	489,069	489,069	488,718	488,636	488,968	488,913		
E			236,753,5655	236,754,091	236,754,346	236,754,880	236,757,444	236,760,007	236,760,541	236,760,796	236,760,8610		
N			7,013,751,3981	7,013,750,989	7,013,750,790	7,013,750,374	7,013,748,377	7,013,746,379	7,013,745,963	7,013,745,765	7,013,745,7141		
Estacas: 8+629													
Dist. eixo (m)			-4,525	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,282		
Cota (m)			489,331	489,514	489,553	489,264	489,264	488,913	488,832	489,163	489,142		
E			236,759,8980	236,760,108	236,760,353	236,760,888	236,763,341	236,765,813	236,766,328	236,766,574	236,766,5987		
N			7,013,758,5459	7,013,758,367	7,013,758,158	7,013,757,718	7,013,755,609	7,013,753,499	7,013,753,080	7,013,752,850	7,013,752,8294		
Estacas: 8+630													
Dist. eixo (m)			-4,499	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,274		
Cota (m)			489,363	489,528	489,567	489,278	489,278	488,927	488,846	489,177	489,162		
E			236,760,3617	236,760,550	236,760,795	236,761,309	236,763,775	236,766,241	236,766,754	236,766,999	236,767,0172		
N			7,013,759,0465	7,013,758,885	7,013,758,674	7,013,758,233	7,013,756,116	7,013,753,999	7,013,753,588	7,013,753,347	7,013,753,3319		
Estacas: 8+640													
Dist. eixo (m)			-4,438	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,479		
Cota (m)			489,613	489,738	489,777	489,488	489,488	489,137	489,056	489,387	489,616		
E			236,767,2417	236,767,378	236,767,613	236,768,105	236,770,467	236,772,830	236,773,322	236,773,556	236,773,7232		
N			7,013,766,5931	7,013,766,464	7,013,766,242	7,013,765,777	7,013,763,545	7,013,761,313	7,013,760,848	7,013,760,626	7,013,760,4684		
Estacas: 8+650													
Dist. eixo (m)			-4,380	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,477		
Cota (m)			489,808	489,895	489,934	489,645	489,645	489,294	489,213	489,544	489,877		
E			236,774,4695	236,774,560	236,774,783	236,775,253	236,777,506	236,779,759	236,780,229	236,780,453	236,780,6103		
N			7,013,773,8031	7,013,773,710	7,013,773,477	7,013,772,989	7,013,770,647	7,013,768,305	7,013,767,817	7,013,767,584	7,013,767,4203		
Estacas: 8+653													
Dist. eixo (m)			-4,375	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,387		
Cota (m)			489,860	489,943	489,982	489,693	489,693	489,342	489,261	489,592	489,870		
E			236,776,7861	236,776,871	236,777,092	236,777,554	236,779,772	236,781,990	236,782,452	236,782,673	236,782,7663		
N			7,013,775,9917	7,013,775,901	7,013,775,685	7,013,775,170	7,013,772,795	7,013,770,419	7,013,769,925	7,013,769,688	7,013,769,5879		
Estacas: 8+655													
Dist. eixo (m)			-4,333	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,345		
Cota (m)			489,910	489,965	490,004	489,715	489,715	489,364	489,283	489,614	489,865		
E			236,777,8537	236,777,911	236,778,131	236,778,593	236,780,811	236,783,029	236,783,491	236,783,712	236,783,7767		
N			7,013,776,9323	7,013,776,871	7,013,776,635	7,013,776,141	7,013,773,765	7,013,771,390	7,013,770,895	7,013,770,659	7,013,770,5897		
Estacas: 8+660													
Dist. eixo (m)			-4,385	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,314		
Cota (m)			489,960	490,050	490,088	489,800	489,800	489,449	489,368	489,699	489,949		
E			236,781,8063	236,781,898	236,782,119	236,782,581	236,784,799	236,787,017	236,787,479	236,787,700	236,787,7434		
N			7,013,780,6935	7,013,780,595	7,013,780,359	7,013,779,864	7,013,777,489	7,013,775,114	7,013,774,619	7,013,774,383	7,013,774,3359		
Estacas: 8+670													
Dist. eixo (m)			-4,693	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,353		
Cota (m)			489,309	490,205	490,243	489,955	489,955	489,604	489,523	490,094	490,198</		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 8+720													
Dist. eixo (m)			-4,625	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,439		
Cota (m)			490,915	491,165	491,204	490,915	491,012	490,915	490,834	491,165	491,039		
E			236.825,4940	236.825,750	236.825,971	236.826,433	236.828,651	236.830,869	236.845,331	236.831,552	236.831,6807		
N			7,013.821,8207	7,013.821,546	7,013.821,310	7,013.820,816	7,013.818,440	7,013.816,065	7,013.815,570	7,013.815,334	7,013.815,1957		
Estacas: 8+730													
Dist. eixo (m)			-4,625	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,646		
Cota (m)			491,238	491,488	491,526	491,238	491,335	491,238	491,156	491,488	491,224		
E			236.832,8029	236.833,059	236.833,279	236.833,741	236.835,959	236.838,178	236.838,640	236.838,860	236.839,1304		
N			7,013.828,6456	7,013.828,372	7,013.828,136	7,013.827,641	7,013.825,266	7,013.822,890	7,013.822,396	7,013.822,159	7,013.821,8699		
Estacas: 8+740													
Dist. eixo (m)			-4,681	-4,250	-3,927	-3,250	0,000	3,850	4,527	4,850	5,051		
Cota (m)			491,620	491,907	492,462	491,657	491,755	491,639	491,558	491,889	491,755		
E			236.840,0735	236.840,367	236.840,588	236.841,050	236.843,268	236.845,896	236.846,358	236.846,578	236.846,7155		
N			7,013.835,5115	7,013.835,197	7,013.834,961	7,013.834,466	7,013.832,091	7,013.829,277	7,013.828,782	7,013.828,546	7,013.828,3991		
Estacas: 8+750													
Dist. eixo (m)			-4,555	-4,250	-3,927	-3,250	0,000	5,050	5,727	6,050	6,181		
Cota (m)			492,219	492,423	492,462	492,173	492,270	492,119	492,038	492,369	492,499		
E			236.847,4677	236.847,676	236.847,897	236.848,359	236.850,577	236.854,024	236.854,486	236.854,706	236.854,7951		
N			7,013.842,2452	7,013.842,022	7,013.841,786	7,013.841,291	7,013.838,916	7,013.835,225	7,013.834,730	7,013.834,494	7,013.834,3987		
Estacas: 8+756													
Dist. eixo (m)			-4,578	-4,250	-3,927	-3,250	0,000	5,784	6,461	6,784	7,072		
Cota (m)			492,567	492,786	492,825	492,536	492,634	492,460	492,379	492,710	492,997		
E			236.851,9234	236.852,147	236.852,368	236.852,830	236.855,048	236.858,996	236.859,458	236.859,678	236.859,8745		
N			7,013.846,4373	7,013.846,198	7,013.845,962	7,013.845,467	7,013.843,091	7,013.838,864	7,013.838,369	7,013.838,133	7,013.837,9230		
Estacas: 8+760													
Dist. eixo (m)			-4,618	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,536		
Cota (m)			492,790	493,035	493,074	492,785	492,883	492,736	492,655	492,986	493,271		
E			236.854,7333	236.854,985	236.855,205	236.855,667	236.857,885	236.862,151	236.862,613	236.862,834	236.863,0287		
N			7,013.849,1165	7,013.848,847	7,013.848,611	7,013.848,116	7,013.845,741	7,013.841,173	7,013.840,679	7,013.840,442	7,013.840,2335		
Estacas: 8+770													
Dist. eixo (m)			-4,601	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,428		
Cota (m)			493,510	493,744	493,783	493,494	493,592	493,449	493,368	493,699	493,977		
E			236.862,0537	236.862,293	236.862,514	236.862,976	236.865,194	236.869,460	236.869,922	236.870,142	236.870,2639		
N			7,013.855,9291	7,013.855,673	7,013.855,436	7,013.854,942	7,013.852,566	7,013.847,998	7,013.847,504	7,013.847,268	7,013.847,1374		
Estacas: 8+774													
Dist. eixo (m)			-4,564	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,358		
Cota (m)			493,854	494,064	494,103	493,814	493,911	493,764	493,683	494,014	494,269		
E			236.865,0883	236.865,303	236.865,523	236.865,985	236.868,204	236.872,469	236.872,931	236.873,152	236.873,2255		
N			7,013.858,7127	7,013.858,483	7,013.858,247	7,013.857,752	7,013.855,377	7,013.850,809	7,013.850,314	7,013.850,078	7,013.849,9991		
Estacas: 8+780													
Dist. eixo (m)			-4,555	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,259		
Cota (m)			494,324	494,528	494,567	494,278	494,375	494,228	494,147	494,478	494,696		
E			236.869,3936	236.869,602	236.869,823	236.870,285	236.872,503	236.876,769	236.877,231	236.877,451	236.877,4572		
N			7,013.862,7209	7,013.862,498	7,013.862,262	7,013.861,767	7,013.859,392	7,013.854,824	7,013.854,329	7,013.854,093	7,013.854,0861		
Estacas: 8+790													
Dist. eixo (m)			-4,885	-4,250	-3,927	-3,250	0,000	4,250	4,927	5,250	5,542		
Cota (m)			494,893	495,317	495,355	495,067	495,164	495,277	495,195	495,527	495,332		
E			236.876,4773	236.876,911	236.877,131	236.877,593	236.879,811	236.882,712	236.883,174	236.883,395	236.883,5942		
N			7,013.869,7870	7,013.869,323	7,013.869,087	7,013.868,592	7,013.866,217	7,013.863,111	7,013.862,616	7,013.862,380	7,013.862,1659		
Estacas: 8+792													
Dist. eixo (m)			-4,915	-4,250	-3,927	-3,250	0,000	3,826	4,503	4,826	5,259		
Cota (m)			495,041	495,484	495,522	495,234	495,331	495,446	495,365	495,696	495,408		
E			236.878,0048	236.878,459	236.878,679	236.879,141	236.881,359	236.883,971	236.884,433	236.884,653	236.884,9485		
N			7,013.871,2541	7,013.870,768	7,013.870,532	7,013.870,037	7,013.867,662	7,013.864,865	7,013.864,371	7,013.864,135	7,013.863,8185		
Estacas: 8+796													
Dist. eixo (m)			-4,886	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,896		
Cota (m)			495,324	495,748	495,787	495,498	495,595	495,448	495,367	495,698	495,552		
E			236.880,6556	236.881,090	236.881,310	236.881,772	236.883,990	236.886,209	236.886,671	236.886,891	236.887,3317		
N			7,013.873,6900	7,013.873,225	7,013.872,989	7,013.872,495	7,013.870,119	7,013.867,744	7,013.867,249	7,013.867,013	7,013.866,5411		
Estacas: 8+800													
Dist. eixo (m)			-4,860	-4,250	-3,927	-3,250	0,000	3,251	3,927	4,251	5,121		
Cota (m)			495,656	496,063	496,102	495,813	495,953	496,093	496,012	496,343	496,763		
E			236.883,5384	236.883,978	236.884,210	236.884,698	236.887,040	236.889,383	236.889,871	236.890,104	236.890,7310		
N			7,013.876,4934	7,013.876,071	7,013.875,847	7,013.875,378	7,013.873,124	7,013.870,871	7,013.870,401	7,013.870,177	7,013.869,5737		
Estacas: 8+810													
Dist. eixo (m)			-4,531	-4,250	-3,927	-3,250	0,000	4,426	5,103	5,450	6,475		
Cota (m)			496,610	496,797	496,836	496,547	496,742	497,006	496,925	497,254	496,570		
E			236.889,8739	236.890,099	236.890,358	236.890,901	236.893,506	236.897,053	236.897,595	236.897,874	236.898,6953		
N			7,013.883,4547	7,013.883,286	7,013.883,093	7,013.882,688	7,013.880,745	7,013.878,098	7,013.877,693	7,013.877,485	7,013.876,8722		
Estacas: 8+819													
Dist. eixo (m)			-4,417	-4,250	-3,927	-3,250	0,000	7,717	8,394	8,813	9,433		
Cota (m)			497,414	497,626	497,564	497,276	497,471	497,934	497,852	498,172	497,759		
E			236.894,7715	236.894,916	236.895,195	236.895,781	236.898,592	236.905,268	236.905,853	236.906,216	236.906,7523		
N			7,013.890,6690	7,013.890,585	7,013.890,423	7,013.890,084	7,013.888,453	7,013.884,582	7,013.884,242	7,013.884,032	7,013.883,7205		
Estacas: 8+820													
Dist. eixo (m)			-4,392	-4,250	-3,927	-3,250	0,000	8,099	8,776	9,204	9,770		
Cota (m)			497,491	497,586	497,624	497,336	497,531	498,017	497,935	498,254	497,876		
E			236.895,1499	236.895,274	236.895,555	236.896,144	236.898,970	236.906,014	236.906,603	236.906,976	236.907,4679		
N			7,013.891,2792	7,013.891,209	7,013.891,050	7,013.890,716	7,013.889,112	7,013.885,115	7,013.884,781	7,013.884,570	7,013.884,2906		
Estacas: 8+828													
Dist. eixo (m)			-4,299	-4,250	-3,927	-3,250	0,000	3,250					
Cota (m)			498,213	498,245	498,284	497,995	498,190	498,385					
E			236.										

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 8+867													
Dist. eixo (m)				-6,688	-6,362	-6,685	0,000	3,250	3,927	4,250	4,317		
Cota (m)				501,054	501,090	500,801	501,051	501,194	501,113	501,444	501,510		
E				236,906,346	236,906,663	236,907,322	236,912,856	236,916,019	236,916,678	236,916,992	236,917,057		
N				7,013,935,528	7,013,935,453	7,013,935,297	7,013,933,993	7,013,933,247	7,013,933,092	7,013,933,018	7,013,933,0024		
Estacas: 8+870													
Dist. eixo (m)			-7,266	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,266		
Cota (m)				501,198	501,202	501,241	500,952	501,220	501,359	501,278	501,609	501,598	
E				236,906,4199	236,906,426	236,906,741	236,907,401	236,913,494	236,916,663	236,917,322	236,917,638	236,917,6528	
N				7,013,938,3592	7,013,938,358	7,013,938,286	7,013,938,135	7,013,936,744	7,013,936,021	7,013,935,870	7,013,935,798	7,013,935,7946	
Estacas: 8+877													
Dist. eixo (m)			-7,251	-6,927	-6,250	0,000	3,250	3,927	4,250	4,407			
Cota (m)				501,599	501,637	501,348	501,598	501,728	501,647	501,978	501,873		
E				236,907,851	236,908,168	236,908,830	236,914,946	236,918,127	236,918,789	236,919,105	236,919,2591		
N				7,013,944,856	7,013,944,790	7,013,944,650	7,013,943,362	7,013,942,693	7,013,942,553	7,013,942,487	7,013,942,4542		
Estacas: 8+880													
Dist. eixo (m)			-7,271	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,333		
Cota (m)				501,786	501,765	501,804	501,515	501,765	501,895	501,814	502,145	502,090	
E				236,908,4705	236,908,492	236,908,808	236,909,472	236,915,598	236,918,783	236,919,447	236,919,764	236,919,8448	
N				7,013,947,9608	7,013,947,957	7,013,947,893	7,013,947,758	7,013,946,520	7,013,945,876	7,013,945,742	7,013,945,678	7,013,945,6615	
Estacas: 8+883													
Dist. eixo (m)			-7,313	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,605		
Cota (m)				501,992	501,929	501,967	501,679	501,929	502,059	501,978	502,309	502,072	
E				236,909,0654	236,909,128	236,909,445	236,910,109	236,916,246	236,919,436	236,920,101	236,920,418	236,920,7669	
N				7,013,951,1841	7,013,951,172	7,013,951,111	7,013,950,982	7,013,949,795	7,013,949,178	7,013,949,049	7,013,948,988	7,013,948,9202	
Estacas: 8+890													
Dist. eixo (m)			-7,455	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,731		
Cota (m)				502,088	502,225	502,264	501,975	502,225	502,355	502,274	502,605	502,284	
E				236,910,0979	236,910,300	236,910,618	236,911,284	236,917,439	236,920,640	236,921,306	236,921,625	236,922,0883	
N				7,013,957,5438	7,013,957,508	7,013,957,452	7,013,957,334	7,013,956,248	7,013,955,683	7,013,955,566	7,013,955,509	7,013,955,4257	
Estacas: 8+900													
Dist. eixo (m)			-6,914	-6,110	-5,787	-5,110	0,000	3,250	3,927	4,250	4,678		
Cota (m)				502,155	502,691	502,730	502,441	502,595	502,693	502,612	502,943	502,658	
E				236,912,1592	236,912,954	236,913,273	236,913,942	236,918,994	236,922,208	236,922,877	236,923,196	236,923,6190	
N				7,013,966,7590	7,013,966,638	7,013,966,590	7,013,966,488	7,013,965,721	7,013,965,233	7,013,965,132	7,013,965,083	7,013,965,0187	
Estacas: 8+910													
Dist. eixo (m)			-5,376	-4,850	-4,527	-3,850	0,000	3,250	3,927	4,250	4,711		
Cota (m)				502,739	503,090	503,128	502,840	502,914	502,977	502,896	503,227	502,920	
E				236,915,2553	236,915,776	236,916,095	236,916,764	236,920,571	236,923,784	236,924,453	236,924,772	236,925,2283	
N				7,013,976,9678	7,013,976,829	7,013,976,781	7,013,976,679	7,013,976,101	7,013,975,613	7,013,975,511	7,013,975,463	7,013,975,3937	
Estacas: 8+920													
Dist. eixo (m)			-4,416	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,556		
Cota (m)				503,245	503,356	503,395	503,106	503,136	503,185	503,084	503,415	503,212	
E				236,917,7063	236,917,870	236,918,190	236,918,859	236,922,072	236,925,285	236,925,954	236,926,274	236,926,5761	
N				7,013,986,6506	7,013,986,626	7,013,986,577	7,013,986,476	7,013,985,988	7,013,985,500	7,013,985,398	7,013,985,350	7,013,985,3037	
Estacas: 8+930													
Dist. eixo (m)			-4,431	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,362		
Cota (m)				503,722	503,541	503,579	503,291	503,287	503,283	503,202	503,533	503,458	
E				236,919,1924	236,919,372	236,919,691	236,920,360	236,923,573	236,926,787	236,927,456	236,927,775	236,927,8864	
N				7,013,996,5396	7,013,996,512	7,013,996,464	7,013,996,362	7,013,995,874	7,013,995,386	7,013,995,285	7,013,995,236	7,013,995,2193	
Estacas: 8+940													
Dist. eixo (m)			-4,437	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,274		
Cota (m)				503,651	503,775	503,814	503,525	503,489	503,452	503,371	503,702	503,726	
E				236,920,6879	236,920,873	236,921,192	236,921,862	236,925,075	236,928,288	236,928,957	236,929,277	236,929,3007	
N				7,014,006,4271	7,014,006,399	7,014,006,351	7,014,006,249	7,014,005,761	7,014,005,273	7,014,005,171	7,014,005,123	7,014,005,1192	
Estacas: 8+950													
Dist. eixo (m)			-4,796	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,288		
Cota (m)				503,747	504,111	504,150	503,861	503,791	503,721	503,640	503,971	504,009	
E				236,921,8347	236,922,374	236,922,694	236,923,363	236,926,576	236,929,789	236,930,458	236,930,778	236,930,8159	
N				7,014,016,3676	7,014,016,286	7,014,016,237	7,014,016,136	7,014,015,648	7,014,015,160	7,014,015,058	7,014,015,010	7,014,015,0038	
Estacas: 8+960													
Dist. eixo (m)			-4,546	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,331		
Cota (m)				504,350	504,547	504,586	504,297	504,194	504,090	504,009	504,340	504,421	
E				236,923,5834	236,923,876	236,924,195	236,924,864	236,928,077	236,931,291	236,931,960	236,932,279	236,932,3591	
N				7,014,026,2167	7,014,026,172	7,014,026,124	7,014,026,022	7,014,025,534	7,014,025,046	7,014,024,945	7,014,024,896	7,014,024,8841	
Estacas: 8+969													
Dist. eixo (m)			-4,636	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,348		
Cota (m)				504,760	505,017	505,056	504,767	504,634	504,501	504,420	504,751	504,849	
E				236,924,8229	236,925,205	236,925,524	236,926,193	236,929,407	236,932,620	236,933,289	236,933,608	236,933,7052	
N				7,014,034,9824	7,014,034,925	7,014,034,876	7,014,034,774	7,014,034,286	7,014,033,798	7,014,033,697	7,014,033,648	7,014,033,6336	
Estacas: 8+970													
Dist. eixo (m)			-4,668	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,343		
Cota (m)				504,805	505,084	505,122	504,834	504,697	504,560	504,479	504,810	504,903	
E				236,924,9709	236,925,384	236,925,703	236,926,372	236,929,582	236,932,792	236,933,461	236,933,780	236,933,8717	
N				7,014,036,1477	7,014,036,083	7,014,036,032	7,014,035,927	7,014,035,420	7,014,034,914	7,014,034,809	7,014,034,758	7,014,034,7438	
Estacas: 8+980													
Dist. eixo (m)			-4,569	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,275		
Cota (m)				505,508	505,721	505,760	505,471	505,301	505,131	505,050	505,381	505,364	
E				236,926,9145	236,927,227	236,927,543	236,928,205	236,931,386	236,934,567	236,935,230	236,935,546	236,935,5703	
N				7,014,046,1918	7,014,046,126	7,014,046,060	7,014,045,921	7,014,045,255	7,014,044,589	7,014,044,450	7,014,044,384	7,014,044,3790	
Estacas: 8+982													
Dist. eixo (m)			-4,487	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,292		
Cota (m)				505,678	505,896	505,935	505,686	505,410	505,235	505,154	505,485	505,527	
E				236,927,3478	236,927,579	236,927							

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 9+020													
Dist. eixo (m)			-4,263	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,196		
Cota (m)			509,007	508,995	509,034	508,745	508,722	508,698	508,617	508,948	509,895		
E			236,939,3069	236,939,319	236,939,620	236,940,252	236,943,286	236,946,320	236,946,952	236,947,254	236,948,1369		
N			7,014,084,9150	7,014,084,911	7,014,084,795	7,014,084,552	7,014,083,387	7,014,082,222	7,014,081,979	7,014,081,863	7,014,081,5240		
Estacas: 9+030													
Dist. eixo (m)			-4,664	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,910		
Cota (m)			510,381	509,967	510,006	509,717	509,768	509,818	509,737	510,068	510,728		
E			236,942,5173	236,942,904	236,943,205	236,943,837	236,946,871	236,949,905	236,950,537	236,950,839	236,951,4548		
N			7,014,094,3942	7,014,094,246	7,014,094,130	7,014,093,887	7,014,092,722	7,014,091,557	7,014,091,314	7,014,091,199	7,014,090,9619		
Estacas: 9+034													
Dist. eixo (m)			-4,810	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,786		
Cota (m)			510,951	510,943	510,929	510,141	510,223	510,305	510,224	510,555	511,091		
E			236,943,9396	236,944,463	236,944,764	236,945,396	236,948,430	236,951,464	236,952,096	236,952,398	236,952,8978		
N			7,014,098,5065	7,014,098,306	7,014,098,190	7,014,097,947	7,014,096,782	7,014,095,617	7,014,095,374	7,014,095,258	7,014,095,0663		
Estacas: 9+040													
Dist. eixo (m)			-5,158	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,762		
Cota (m)			511,848	510,940	510,979	510,690	510,814	510,938	510,856	511,188	511,699		
E			236,945,5022	236,946,360	236,946,665	236,947,304	236,950,373	236,953,442	236,954,081	236,954,386	236,954,8696		
N			7,014,103,7855	7,014,103,487	7,014,103,381	7,014,103,158	7,014,102,088	7,014,101,019	7,014,100,796	7,014,100,690	7,014,100,5217		
Estacas: 9+048													
Dist. eixo (m)			-5,775	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,500		
Cota (m)			513,238	511,713	511,752	511,463	511,645	511,827	511,746	512,077	512,327		
E			236,947,2899	236,948,751	236,949,060	236,949,700	236,952,822	236,955,935	236,956,583	236,956,893	236,957,1325		
N			7,014,111,3075	7,014,110,870	7,014,110,777	7,014,110,583	7,014,109,650	7,014,108,717	7,014,108,523	7,014,108,430	7,014,108,3585		
Estacas: 9+050													
Dist. eixo (m)			-5,917	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,538		
Cota (m)			513,595	511,928	511,967	511,678	511,860	512,042	511,961	512,292	512,580		
E			236,947,7121	236,949,315	236,949,625	236,950,276	236,953,399	236,956,523	236,957,174	236,957,484	236,957,7608		
N			7,014,113,2517	7,014,112,792	7,014,112,702	7,014,112,515	7,014,111,618	7,014,110,721	7,014,110,534	7,014,110,445	7,014,110,3653		
Estacas: 9+060													
Dist. eixo (m)			-6,257	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,262		
Cota (m)			514,981	512,974	513,013	512,724	512,906	513,088	513,007	513,338	513,330		
E			236,949,7912	236,951,748	236,952,063	236,952,723	236,955,892	236,959,060	236,959,720	236,960,035	236,960,0471		
N			7,014,122,6921	7,014,122,246	7,014,122,174	7,014,122,024	7,014,121,301	7,014,120,579	7,014,120,428	7,014,120,357	7,014,120,3538		
Estacas: 9+070													
Dist. eixo (m)			-5,754	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,876		
Cota (m)			515,524	514,020	514,059	513,770	513,952	514,134	514,053	514,384	513,966		
E			236,952,1700	236,953,653	236,953,971	236,954,639	236,957,843	236,961,047	236,961,714	236,962,032	236,962,8499		
N			7,014,132,0733	7,014,131,821	7,014,131,767	7,014,131,653	7,014,131,108	7,014,130,562	7,014,130,449	7,014,130,395	7,014,130,2895		
Estacas: 9+077													
Dist. eixo (m)			-6,649	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,797		
Cota (m)			515,104	514,705	514,744	514,455	514,637	514,819	514,738	515,069	514,038		
E			236,954,2215	236,954,837	236,954,957	236,955,628	236,958,850	236,962,072	236,962,743	236,963,064	236,964,5972		
N			7,014,138,3892	7,014,138,337	7,014,138,295	7,014,138,206	7,014,137,782	7,014,137,357	7,014,137,268	7,014,137,226	7,014,137,0237		
Estacas: 9+080													
Dist. eixo (m)			-4,341	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,156		
Cota (m)			515,115	515,024	515,063	514,774	514,956	515,138	515,057	515,388	514,118		
E			236,954,9332	236,955,023	236,955,344	236,956,017	236,959,246	236,962,475	236,963,148	236,963,469	236,965,3625		
N			7,014,141,4971	7,014,141,487	7,014,141,451	7,014,141,374	7,014,141,008	7,014,140,641	7,014,140,585	7,014,140,528	7,014,140,3131		
Estacas: 9+090													
Dist. eixo (m)			-4,469	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,384		
Cota (m)			515,813	515,959	515,998	515,709	515,891	516,073	515,992	516,323	515,568		
E			236,955,6360	236,955,855	236,956,177	236,956,853	236,960,098	236,963,342	236,964,018	236,964,341	236,965,4723		
N			7,014,151,2266	7,014,151,214	7,014,151,196	7,014,151,157	7,014,150,970	7,014,150,783	7,014,150,744	7,014,150,726	7,014,150,6605		
Estacas: 9+100													
Dist. eixo (m)			-4,333	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,356		
Cota (m)			516,770	516,825	516,864	516,575	516,757	516,939	516,858	517,189	515,785		
E			236,956,0621	236,956,145	236,956,468	236,957,145	236,960,395	236,963,645	236,964,322	236,964,645	236,966,7511		
N			7,014,160,9725	7,014,160,972	7,014,160,972	7,014,160,970	7,014,160,964	7,014,160,958	7,014,160,957	7,014,160,956	7,014,160,9519		
Estacas: 9+106													
Dist. eixo (m)			-4,274	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,782		
Cota (m)			517,280	517,276	517,314	517,026	517,208	517,390	517,308	517,640	517,285		
E			236,956,0478	236,956,072	236,956,394	236,957,071	236,960,320	236,963,569	236,964,245	236,964,568	236,965,0994		
N			7,014,166,3905	7,014,166,391	7,014,166,401	7,014,166,420	7,014,166,514	7,014,166,608	7,014,166,628	7,014,166,637	7,014,166,6522		
Estacas: 9+110													
Dist. eixo (m)			-4,468	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,409		
Cota (m)			517,475	517,621	517,660	517,371	517,554	517,737	517,655	517,987	517,880		
E			236,955,6744	236,955,892	236,956,215	236,956,891	236,960,136	236,963,382	236,964,058	236,964,380	236,964,5392		
N			7,014,170,7201	7,014,170,732	7,014,170,749	7,014,170,785	7,014,170,960	7,014,171,134	7,014,171,170	7,014,171,187	7,014,171,1959		
Estacas: 9+119													
Dist. eixo (m)			-4,311	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,326		
Cota (m)			518,282	518,323	518,362	518,073	518,257	518,442	518,361	518,692	518,642		
E			236,955,1266	236,955,187	236,955,508	236,956,182	236,959,414	236,962,646	236,963,319	236,963,641	236,963,7160		
N			7,014,179,6311	7,014,179,637	7,014,179,671	7,014,179,742	7,014,180,081	7,014,180,419	7,014,180,490	7,014,180,524	7,014,180,6316		
Estacas: 9+120													
Dist. eixo (m)			-4,287	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,352		
Cota (m)			518,363	518,388	518,427	518,138	518,323	518,507	518,426	518,757	518,690		
E			236,955,0618	236,955,099	236,955,420	236,956,093	236,959,325	236,962,558	236,963,231	236,963,552	236,963,6533		
N			7,014,180,4784	7,014,180,482	7,014,180,516	7,014,180,587	7,014,180,925	7,014,181,264	7,014,181,335	7,014,181,369	7,014,181,3791		
Estacas: 9+130													
Dist. eixo (m)			-4,351	-4,250	-3,927	-3,250	0,000						

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 9+176													
Dist. eixo (m)			-4,614	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,934		
Cota (m)			523,523	523,766	523,804	523,516	523,711	523,906	523,824	524,156	523,700		
E			236,947,7834	236,948,1133	236,948,443	236,949,092	236,952,212	236,955,331	236,955,981	236,956,291	236,956,9476		
N			7,014,235,0855	7,014,235,188	7,014,235,278	7,014,235,468	7,014,236,380	7,014,237,292	7,014,237,482	7,014,237,573	7,014,237,7650		
Estacas: 9+180													
Dist. eixo (m)			-4,611	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,002		
Cota (m)			524,204	524,715	524,303	524,014	524,209	524,404	524,323	524,654	524,153		
E			236,946,6296	236,946,871	236,947,276	236,947,915	236,950,985	236,954,054	236,954,693	236,954,999	236,955,7085		
N			7,014,238,7012	7,014,238,820	7,014,238,926	7,014,239,148	7,014,240,216	7,014,241,284	7,014,241,507	7,014,241,613	7,014,241,8598		
Estacas: 9+184													
Dist. eixo (m)			-4,739	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,796		
Cota (m)			525,204	524,715	524,303	524,014	524,209	524,404	524,323	524,654	524,741		
E			236,945,3440	236,945,798	236,946,098	236,946,727	236,949,746	236,952,766	236,953,394	236,953,695	236,954,2016		
N			7,014,241,7832	7,014,241,964	7,014,242,084	7,014,242,334	7,014,243,537	7,014,244,740	7,014,244,990	7,014,245,110	7,014,245,3119		
Estacas: 9+190													
Dist. eixo (m)			-5,729	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,712		
Cota (m)			527,040	525,561	525,599	525,311	525,506	525,701	525,619	525,951	525,643		
E			236,941,9834	236,943,309	236,943,599	236,944,205	236,947,118	236,950,030	236,950,637	236,950,926	236,951,3403		
N			7,014,246,8888	7,014,247,545	7,014,247,689	7,014,247,989	7,014,249,431	7,014,250,874	7,014,251,174	7,014,251,317	7,014,251,5224		
Estacas: 9+191													
Dist. eixo (m)			-5,727	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,717		
Cota (m)			527,179	525,702	525,741	525,452	525,647	525,842	525,761	526,092	525,781		
E			236,941,5191	236,942,833	236,943,121	236,943,723	236,946,615	236,949,507	236,950,110	236,950,397	236,950,8126		
N			7,014,247,8157	7,014,248,490	7,014,248,637	7,014,248,936	7,014,250,429	7,014,251,911	7,014,252,220	7,014,252,368	7,014,252,5806		
Estacas: 9+200													
Dist. eixo (m)			-5,888	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,460		
Cota (m)			528,368	526,761	526,790	526,501	526,696	526,798	526,716	527,048	526,907		
E			236,937,2396	236,938,589	236,938,858	236,939,422	236,942,132	236,944,842	236,945,407	236,945,676	236,945,8512		
N			7,014,254,8832	7,014,255,746	7,014,255,925	7,014,256,298	7,014,258,093	7,014,259,887	7,014,260,260	7,014,260,439	7,014,260,5547		
Estacas: 9+206													
Dist. eixo (m)			-5,366	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,302		
Cota (m)			528,408	527,292	527,330	527,042	527,161	527,280	527,199	527,530	527,495		
E			236,934,6710	236,935,557	236,935,813	236,936,351	236,938,931	236,941,511	236,942,048	236,942,304	236,942,3458		
N			7,014,259,3201	7,014,259,999	7,014,260,195	7,014,260,607	7,014,262,584	7,014,264,560	7,014,264,972	7,014,265,169	7,014,265,2003		
Estacas: 9+210													
Dist. eixo (m)			-5,064	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,409		
Cota (m)			528,483	527,669	527,707	527,419	527,514	527,610	527,529	527,860	528,019		
E			236,932,1839	236,932,830	236,933,087	236,933,624	236,936,204	236,938,784	236,939,321	236,939,578	236,939,7041		
N			7,014,263,0625	7,014,263,558	7,014,263,754	7,014,264,166	7,014,266,143	7,014,268,119	7,014,268,531	7,014,268,727	7,014,268,8243		
Estacas: 9+220													
Dist. eixo (m)			-4,350	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,620		
Cota (m)			528,408	528,308	528,346	528,058	528,101	528,144	528,063	528,394	528,764		
E			236,926,6688	236,926,749	236,927,005	236,927,542	236,930,122	236,932,702	236,933,239	236,933,496	236,933,7898		
N			7,014,271,4347	7,014,271,496	7,014,271,692	7,014,272,104	7,014,274,081	7,014,276,057	7,014,276,469	7,014,276,665	7,014,276,8906		
Estacas: 9+230													
Dist. eixo (m)			-4,297	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,453		
Cota (m)			528,715	528,668	528,707	528,418	528,409	528,399	528,318	528,649	528,852		
E			236,920,6294	236,920,667	236,920,923	236,921,461	236,924,040	236,926,620	236,927,158	236,927,414	236,927,5750		
N			7,014,279,4052	7,014,279,434	7,014,279,630	7,014,280,042	7,014,282,019	7,014,283,995	7,014,284,407	7,014,284,603	7,014,284,7267		
Estacas: 9+240													
Dist. eixo (m)			-4,363	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,570		
Cota (m)			528,863	528,750	528,789	528,500	528,438	528,376	528,295	528,626	528,946		
E			236,914,4953	236,914,585	236,914,841	236,915,379	236,917,959	236,920,538	236,921,076	236,921,332	236,921,5863		
N			7,014,287,3032	7,014,287,372	7,014,287,568	7,014,287,980	7,014,289,957	7,014,291,933	7,014,292,345	7,014,292,541	7,014,292,7360		
Estacas: 9+250													
Dist. eixo (m)			-4,567	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,300		
Cota (m)			528,342	528,553	528,592	528,303	528,189	528,074	527,993	528,324	528,374		
E			236,908,2515	236,908,503	236,908,760	236,909,297	236,911,877	236,914,457	236,914,994	236,915,250	236,915,2898		
N			7,014,295,1170	7,014,295,310	7,014,295,506	7,014,295,918	7,014,297,895	7,014,299,871	7,014,300,283	7,014,300,479	7,014,300,5095		
Estacas: 9+251													
Dist. eixo (m)			-4,561	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,280		
Cota (m)			528,315	528,522	528,560	528,272	528,152	528,033	527,952	528,283	528,313		
E			236,907,7057	236,907,952	236,908,209	236,908,746	236,911,326	236,913,906	236,914,443	236,914,700	236,914,7230		
N			7,014,295,8399	7,014,296,029	7,014,296,225	7,014,296,637	7,014,298,614	7,014,300,590	7,014,301,002	7,014,301,198	7,014,301,2163		
Estacas: 9+260													
Dist. eixo (m)			-4,440	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,547		
Cota (m)			527,955	528,082	528,121	527,832	527,665	527,498	527,416	527,748	527,550		
E			236,902,4045	236,902,567	236,902,844	236,903,424	236,906,206	236,908,989	236,909,569	236,909,845	236,910,0992		
N			7,014,303,8305	7,014,303,929	7,014,304,096	7,014,304,445	7,014,306,124	7,014,307,803	7,014,308,153	7,014,308,320	7,014,308,4729		
Estacas: 9+265													
Dist. eixo (m)			-4,704	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,538		
Cota (m)			527,478	527,780	527,819	527,530	527,335	527,140	527,059	527,390	527,198		
E			236,899,4379	236,899,841	236,899,128	236,900,729	236,903,614	236,906,500	236,907,101	236,907,388	236,907,6434		
N			7,014,308,5882	7,014,308,797	7,014,308,946	7,014,309,257	7,014,310,753	7,014,312,248	7,014,312,560	7,014,312,708	7,014,312,8409		
Estacas: 9+270													
Dist. eixo (m)			-5,112	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,738		
Cota (m)			526,927	527,501	527,540	527,251	527,056	526,861	526,780	527,111	526,786		
E			236,896,9091	236,897,696	236,897,990	236,898,608	236,901,575	236,904,541	236,905,159	236,905,454	236,905,8990		
N			7,014,312,8913	7,014,313,243	7,014,313,375	7,014,313,652	7,014,314,980	7,014,316,308	7,014,316,584	7,014,316,716	7,014,316,9158		
Estacas: 9+280													
Dist. eixo (m)			-8,917	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,961		
Cota (m)			523,866	526,977	527,016	526,727	526,532	526,337	526,256	526,587	526,114		
E			236,889,5337	236,893,993									

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 9+340													
Dist. eixo (m)			-4,343	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	8,390		
Cota (m)			524,062	524,124	524,163	523,874	523,679	523,484	523,403	523,734	527,874		
E			236.904,036	236.898,118	236.899,412	236.899,026	236.901,977	236.904,927	236.905,541	236.905,835	236.909,528		
N			7.014.384,6940	7.014.384,655	7.014.384,519	7.014.384,236	7.014.382,873	7.014.381,510	7.014.381,226	7.014.381,090	7.014.379,3542		
Estacas: 9+350													
Dist. eixo (m)			-4,826	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	8,413		
Cota (m)			522,634	523,018	523,057	522,768	522,573	522,378	522,297	522,628	526,791		
E			236.902,6101	236.903,100	236.903,375	236.903,950	236.906,713	236.909,475	236.910,051	236.910,326	236.913,8643		
N			7.014.394,2148	7.014.393,911	7.014.393,741	7.014.393,385	7.014.391,673	7.014.389,961	7.014.389,605	7.014.389,434	7.014.387,2417		
Estacas: 9+354													
Dist. eixo (m)			-4,932	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,860		
Cota (m)			522,063	522,518	522,556	522,268	522,073	521,878	521,796	522,128	522,738		
E			236.904,8855	236.905,446	236.905,712	236.906,269	236.908,944	236.911,618	236.912,175	236.912,441	236.912,9427		
N			7.014.397,8836	7.014.397,496	7.014.397,313	7.014.396,928	7.014.395,081	7.014.393,234	7.014.392,850	7.014.392,666	7.014.392,3194		
Estacas: 9+360													
Dist. eixo (m)			-4,795	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,257		
Cota (m)			521,306	521,713	521,752	521,463	521,344	521,225	521,144	521,475	523,482		
E			236.908,7455	236.909,171	236.909,423	236.909,950	236.912,484	236.915,018	236.915,546	236.915,798	236.917,3630		
N			7.014.402,8344	7.014.402,493	7.014.402,291	7.014.401,867	7.014.399,832	7.014.397,797	7.014.397,373	7.014.397,170	7.014.395,9132		
Estacas: 9+368													
Dist. eixo (m)			-4,744	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,870		
Cota (m)			520,239	520,568	520,607	520,318	520,307	520,296	520,215	520,546	524,167		
E			236.914,7494	236.915,101	236.915,330	236.915,812	236.918,122	236.920,433	236.920,914	236.921,144	236.923,7172		
N			7.014.409,4893	7.014.409,142	7.014.408,915	7.014.408,439	7.014.406,153	7.014.403,867	7.014.403,391	7.014.403,164	7.014.400,6179		
Estacas: 9+370													
Dist. eixo (m)			-4,541	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,812		
Cota (m)			520,174	520,368	520,407	520,118	520,127	520,135	520,054	520,385	523,947		
E			236.915,9688	236.916,174	236.916,404	236.916,885	236.919,195	236.921,506	236.921,987	236.922,217	236.924,7490		
N			7.014.410,4316	7.014.410,227	7.014.410,000	7.014.409,523	7.014.407,238	7.014.404,952	7.014.404,476	7.014.404,249	7.014.401,7438		
Estacas: 9+380													
Dist. eixo (m)			-4,515	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,405		
Cota (m)			519,951	519,128	519,167	518,878	519,014	519,151	519,069	519,401	522,556		
E			236.922,7204	236.922,917	236.923,157	236.923,659	236.926,069	236.928,480	236.928,982	236.929,221	236.931,5613		
N			7.014.417,5281	7.014.417,350	7.014.417,134	7.014.416,680	7.014.414,500	7.014.412,320	7.014.411,866	7.014.411,649	7.014.409,5326		
Estacas: 9+383													
Dist. eixo (m)			-4,443	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,348		
Cota (m)			518,703	518,832	518,870	518,582	518,751	518,920	518,838	519,170	522,267		
E			236.924,4399	236.924,585	236.924,827	236.925,334	236.927,770	236.930,205	236.930,713	236.930,955	236.933,2763		
N			7.014.419,3441	7.014.419,216	7.014.419,002	7.014.418,554	7.014.416,402	7.014.414,250	7.014.413,802	7.014.413,588	7.014.411,5371		
Estacas: 9+386													
Dist. eixo (m)			-4,415	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,296		
Cota (m)			518,373	518,483	518,522	518,233	518,402	518,571	518,490	518,821	521,867		
E			236.926,7160	236.926,841	236.927,087	236.927,601	236.930,071	236.932,540	236.933,055	236.933,300	236.935,6149		
N			7.014.421,9189	7.014.421,812	7.014.421,602	7.014.421,162	7.014.419,049	7.014.416,936	7.014.416,496	7.014.416,286	7.014.414,3057		
Estacas: 9+390													
Dist. eixo (m)			-4,533	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,211		
Cota (m)			517,361	518,150	518,188	517,900	518,069	518,238	518,156	518,488	521,449		
E			236.928,8394	236.929,056	236.929,305	236.929,826	236.932,329	236.934,832	236.935,354	236.935,602	236.937,8630		
N			7.014.424,6231	7.014.424,443	7.014.424,237	7.014.423,805	7.014.421,732	7.014.419,659	7.014.419,227	7.014.419,021	7.014.417,1317		
Estacas: 9+400													
Dist. eixo (m)			-4,572	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,408		
Cota (m)			517,059	517,274	517,313	517,024	517,169	517,281	517,200	517,531	517,689		
E			236.935,1364	236.935,394	236.935,652	236.936,194	236.938,792	236.941,390	236.941,932	236.942,190	236.942,3164		
N			7.014.432,6884	7.014.432,475	7.014.432,281	7.014.431,874	7.014.429,922	7.014.427,970	7.014.427,563	7.014.427,369	7.014.427,2743		
Estacas: 9+402													
Dist. eixo (m)			-4,666	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,617		
Cota (m)			516,847	517,124	517,163	516,874	517,015	517,116	517,035	517,366	517,733		
E			236.936,2104	236.936,545	236.936,805	236.937,350	236.939,966	236.942,582	236.943,126	236.943,387	236.943,6821		
N			7.014.434,2683	7.014.434,021	7.014.433,830	7.014.433,428	7.014.431,499	7.014.429,570	7.014.429,169	7.014.428,977	7.014.428,7588		
Estacas: 9+410													
Dist. eixo (m)			-4,711	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,244		
Cota (m)			516,256	516,564	516,602	516,314	516,435	516,493	516,412	516,743	517,737		
E			236.940,9420	236.941,313	236.941,573	236.942,118	236.944,734	236.947,350	236.947,894	236.948,155	236.948,9543		
N			7.014.440,7614	7.014.440,488	7.014.440,296	7.014.439,894	7.014.437,965	7.014.436,036	7.014.435,635	7.014.435,443	7.014.434,8532		
Estacas: 9+420													
Dist. eixo (m)			-4,579	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,946		
Cota (m)			515,749	515,968	516,007	515,718	515,817	515,820	515,739	516,070	517,766		
E			236.946,9832	236.947,248	236.947,508	236.948,053	236.950,669	236.953,285	236.953,829	236.954,089	236.955,4545		
N			7.014.448,7314	7.014.448,536	7.014.448,344	7.014.447,943	7.014.446,014	7.014.444,085	7.014.443,683	7.014.443,491	7.014.442,4847		
Estacas: 9+421													
Dist. eixo (m)			-4,571	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,998		
Cota (m)			515,722	515,936	515,974	515,686	515,783	515,783	515,702	516,033	517,781		
E			236.947,3258	236.947,584	236.947,844	236.948,389	236.951,005	236.953,620	236.954,165	236.954,425	236.955,8322		
N			7.014.449,1820	7.014.448,992	7.014.448,800	7.014.448,398	7.014.446,469	7.014.444,540	7.014.444,139	7.014.443,947	7.014.442,9095		
Estacas: 9+430													
Dist. eixo (m)			-4,415	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,777		
Cota (m)			515,261	515,372	515,410	515,122	515,219	515,188	515,096	515,418	518,945		
E			236.953,0499	236.953,183	236.953,443	236.953,988	236.956,604	236.959,219	236.959,764	236.960,024	236.962,8631		
N			7.014.456,6827	7.014.456,584	7.014.456,393	7.014.455,991	7.014.454,062	7.014.452,133	7.014.451,732	7.014.451,540	7.014.449,4464		
Estacas: 9+438													
Dist. eixo (m)			-4,515	-4,250	-3,927	-3,250	0,000	3,					

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 9+471													
Dist. eixo (m)			-4,421	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,328		
Cota (m)			512,272	512,386	512,424	512,136	512,233	512,136	512,054	512,386	512,464		
E			236,976,6927	236,976,6834	236,977,102	236,977,663	236,980,357	236,983,051	236,983,612	236,983,880	236,983,9444		
N			7,014,489,9161	7,014,489,821	7,014,489,640	7,014,489,261	7,014,487,443	7,014,485,624	7,014,485,246	7,014,485,065	7,014,485,0212		
Estacas: 9+473													
Dist. eixo (m)			-4,366	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,419		
Cota (m)			512,116	512,194	512,232	511,944	512,041	511,944	511,862	512,194	512,363		
E			236,977,8620	236,977,958	236,978,226	236,978,787	236,981,481	236,984,175	236,984,736	236,985,003	236,985,1435		
N			7,014,491,5503	7,014,491,485	7,014,491,305	7,014,490,926	7,014,489,108	7,014,487,289	7,014,486,911	7,014,486,730	7,014,486,6353		
Estacas: 9+480													
Dist. eixo (m)			-4,377	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,930		
Cota (m)			511,403	511,487	511,526	511,237	511,335	511,237	511,156	511,487	512,168		
E			236,981,8268	236,981,931	236,982,197	236,982,757	236,985,433	236,988,111	236,988,668	236,989,934	236,989,4948		
N			7,014,497,3877	7,014,497,316	7,014,497,133	7,014,496,749	7,014,494,907	7,014,493,066	7,014,492,682	7,014,492,499	7,014,492,1133		
Estacas: 9+490													
Dist. eixo (m)			-4,411	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,172		
Cota (m)			510,334	510,442	510,481	510,192	510,289	510,192	510,111	510,442	511,364		
E			236,987,5484	236,987,680	236,987,944	236,988,497	236,991,151	236,993,806	236,994,359	236,994,623	236,995,3757		
N			7,014,505,6560	7,014,505,563	7,014,505,377	7,014,504,986	7,014,503,111	7,014,501,236	7,014,500,845	7,014,500,659	7,014,500,1267		
Estacas: 9+491													
Dist. eixo (m)			-4,305	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,259		
Cota (m)			510,249	510,286	510,324	510,036	510,133	510,036	509,954	510,286	511,294		
E			236,988,5040	236,988,549	236,988,813	236,989,365	236,992,016	236,994,667	236,995,219	236,995,482	236,996,3051		
N			7,014,506,8225	7,014,506,791	7,014,506,604	7,014,506,212	7,014,504,332	7,014,502,452	7,014,502,060	7,014,501,873	7,014,501,2897		
Estacas: 9+500													
Dist. eixo (m)				-4,253	-3,927	-3,250	0,000	3,250	3,927	4,250	5,316		
Cota (m)				508,384	508,436	508,146	508,244	508,146	508,065	508,386	510,462		
E				236,993,529	236,993,793	236,994,341	236,996,972	236,999,603	237,000,151	237,000,412	237,001,2750		
N				7,014,513,739	7,014,513,548	7,014,513,150	7,014,511,242	7,014,509,334	7,014,508,937	7,014,508,747	7,014,508,1211		
Estacas: 9+510													
Dist. eixo (m)			-4,830	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,351		
Cota (m)			507,964	508,351	508,390	508,101	508,198	508,101	508,020	508,351	508,542		
E			236,999,0200	236,999,485	236,999,744	237,000,287	237,002,894	237,005,501	237,006,044	237,006,303	237,006,3839		
N			7,014,522,1846	7,014,521,838	7,014,521,645	7,014,521,241	7,014,519,300	7,014,517,359	7,014,516,955	7,014,516,762	7,014,516,7015		
Estacas: 9+520													
Dist. eixo (m)			-4,580	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,404		
Cota (m)			507,086	507,305	507,344	507,055	507,153	507,055	506,974	507,305	507,203		
E			237,005,1929	237,005,457	237,005,716	237,006,260	237,008,866	237,011,473	237,012,016	237,012,275	237,012,3983		
N			7,014,530,0559	7,014,529,859	7,014,529,666	7,014,529,262	7,014,527,321	7,014,525,380	7,014,524,976	7,014,524,783	7,014,524,6908		
Estacas: 9+530													
Dist. eixo (m)			-4,943	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,414		
Cota (m)			505,798	506,260	506,299	506,010	506,107	506,010	505,929	506,260	506,150		
E			237,010,8742	237,011,430	237,011,689	237,012,232	237,014,839	237,017,445	237,017,988	237,018,247	237,018,3791		
N			7,014,538,2933	7,014,537,880	7,014,537,687	7,014,537,283	7,014,535,342	7,014,533,401	7,014,532,996	7,014,532,803	7,014,532,7051		
Estacas: 9+540													
Dist. eixo (m)			-4,897	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,351		
Cota (m)			504,783	505,214	505,253	504,964	505,062	504,964	504,883	505,214	505,316		
E			237,016,8833	237,017,402	237,017,661	237,018,204	237,020,811	237,023,418	237,023,960	237,024,220	237,024,3006		
N			7,014,546,2866	7,014,545,901	7,014,545,708	7,014,545,303	7,014,543,362	7,014,541,421	7,014,541,017	7,014,540,824	7,014,540,7637		
Estacas: 9+550													
Dist. eixo (m)			-4,829	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,583		
Cota (m)			503,794	504,180	504,218	503,930	504,027	503,930	503,848	504,180	504,512		
E			237,022,9100	237,023,374	237,023,633	237,024,176	237,026,783	237,029,390	237,029,933	237,030,192	237,030,4588		
N			7,014,554,2668	7,014,553,921	7,014,553,728	7,014,553,324	7,014,551,383	7,014,549,442	7,014,549,038	7,014,548,845	7,014,548,6460		
Estacas: 9+553													
Dist. eixo (m)			-4,832	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,651		
Cota (m)			503,483	503,871	503,909	503,621	503,718	503,621	503,539	503,871	504,271		
E			237,024,7856	237,025,252	237,025,511	237,026,054	237,028,661	237,031,268	237,031,810	237,032,070	237,032,3910		
N			7,014,556,7904	7,014,556,443	7,014,556,250	7,014,555,846	7,014,553,905	7,014,551,964	7,014,551,560	7,014,551,367	7,014,551,1274		
Estacas: 9+560													
Dist. eixo (m)			-4,654	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,750		
Cota (m)			502,964	503,233	503,272	502,983	503,081	502,983	502,902	503,233	503,733		
E			237,028,9592	237,029,286	237,029,544	237,030,095	237,032,724	237,033,353	237,033,900	237,034,161	237,034,5658		
N			7,014,562,1638	7,014,561,926	7,014,561,736	7,014,561,338	7,014,559,427	7,014,557,516	7,014,557,118	7,014,556,928	7,014,556,6339		
Estacas: 9+570													
Dist. eixo (m)			-4,805	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,714		
Cota (m)			502,022	502,392	502,431	502,142	502,239	502,142	502,061	502,392	502,856		
E			237,034,6031	237,035,058	237,035,322	237,035,876	237,038,536	237,041,197	237,041,751	237,042,015	237,042,3946		
N			7,014,570,3244	7,014,569,006	7,014,568,821	7,014,568,431	7,014,567,584	7,014,565,697	7,014,565,308	7,014,565,123	7,014,564,8562		
Estacas: 9+580													
Dist. eixo (m)			-4,807	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,578		
Cota (m)			501,284	501,655	501,694	501,405	501,502	501,405	501,324	501,655	501,983		
E			237,040,2322	237,040,693	237,041,154	237,041,707	237,044,367	237,046,903	237,047,464	237,047,925	237,048,0028		
N			7,014,578,4924	7,014,578,180	7,014,577,999	7,014,577,619	7,014,575,797	7,014,573,975	7,014,573,595	7,014,573,414	7,014,573,2299		
Estacas: 9+590													
Dist. eixo (m)			-4,913	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,448		
Cota (m)			500,581	501,023	501,061	500,773	500,870	500,773	500,691	501,023	501,221		
E			237,045,6371	237,046,192	237,046,463	237,047,030	237,049,751	237,052,472	237,053,038	237,053,309	237,053,4747		
N			7,014,586,8100	7,014,586,447	7,014,586,271	7,014,585,901	7,014,584,123	7,014,582,346	7,014,581,976	7,014,581,799	7,014,581,6906		
Estacas: 9+595													
Dist. eixo (m)			-5,044	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,444		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 9+640													
Dist. eixo (m)			-5,185	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,304		
Cota (m)			498,808	499,432	499,470	499,182	499,279	499,182	499,100	499,432	499,486		
E			237,070,7800	237,071,600	237,071,883	237,072,477	237,075,328	237,078,178	237,078,772	237,079,055	237,079,1028		
N			7,014,629,5602	7,014,629,111	7,014,628,956	7,014,628,631	7,014,627,070	7,014,625,509	7,014,625,184	7,014,625,028	7,014,625,0022		
Estacas: 9+650													
Dist. eixo (m)			-4,642	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,480		
Cota (m)			499,166	499,427	499,466	499,177	499,275	499,177	499,096	499,427	499,657		
E			237,076,0597	237,076,403	237,076,687	237,077,280	237,080,131	237,082,981	237,083,575	237,083,859	237,084,0601		
N			7,014,638,0702	7,014,637,882	7,014,637,727	7,014,637,402	7,014,635,841	7,014,634,279	7,014,633,954	7,014,633,799	7,014,633,6887		
Estacas: 9+660													
Dist. eixo (m)			-4,610	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,825		
Cota (m)			499,278	499,517	499,556	499,267	499,365	499,267	499,186	499,517	500,092		
E			237,080,8913	237,081,207	237,081,490	237,082,084	237,084,934	237,087,785	237,088,379	237,088,662	237,089,1663		
N			7,014,646,8256	7,014,646,653	7,014,646,498	7,014,646,173	7,014,644,611	7,014,643,050	7,014,642,725	7,014,642,570	7,014,642,2937		
Estacas: 9+670													
Dist. eixo (m)			-4,603	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,909		
Cota (m)			499,344	499,579	499,618	499,329	499,426	499,329	499,248	499,579	500,238		
E			237,085,7009	237,086,010	237,086,293	237,086,887	237,089,738	237,092,588	237,093,182	237,093,465	237,094,0436		
N			7,014,655,5930	7,014,655,424	7,014,655,269	7,014,654,943	7,014,653,382	7,014,651,821	7,014,651,496	7,014,651,341	7,014,651,0240		
Estacas: 9+680													
Dist. eixo (m)			-4,737	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,060		
Cota (m)			499,233	499,558	499,597	499,308	499,405	499,308	499,227	499,558	500,368		
E			237,090,3860	237,090,814	237,091,097	237,091,691	237,094,541	237,097,392	237,097,985	237,098,269	237,098,9793		
N			7,014,664,4286	7,014,664,195	7,014,664,039	7,014,663,714	7,014,662,153	7,014,660,592	7,014,660,267	7,014,660,112	7,014,659,7224		
Estacas: 9+690													
Dist. eixo (m)			-4,743	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,378		
Cota (m)			499,128	499,454	499,493	499,204	499,302	499,204	499,123	499,454	499,669		
E			237,095,1850	237,095,617	237,095,900	237,096,494	237,099,345	237,102,195	237,102,789	237,103,072	237,103,1844		
N			7,014,673,2019	7,014,672,965	7,014,672,810	7,014,672,485	7,014,670,924	7,014,669,363	7,014,669,038	7,014,668,882	7,014,668,8209		
Estacas: 9+700													
Dist. eixo (m)			-4,823	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,347		
Cota (m)			498,887	499,269	499,307	499,019	499,116	499,019	498,937	499,269	499,204		
E			237,099,9182	237,100,420	237,100,704	237,101,297	237,104,148	237,106,999	237,107,592	237,107,876	237,107,9608		
N			7,014,682,0111	7,014,681,736	7,014,681,581	7,014,681,256	7,014,679,695	7,014,678,134	7,014,677,808	7,014,677,653	7,014,677,6066		
Estacas: 9+710													
Dist. eixo (m)			-4,822	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,447		
Cota (m)			498,663	499,045	499,083	498,795	498,892	498,795	498,713	499,045	499,242		
E			237,104,7218	237,105,224	237,105,507	237,106,101	237,108,951	237,111,802	237,112,396	237,112,679	237,112,8519		
N			7,014,690,7819	7,014,690,507	7,014,690,352	7,014,690,027	7,014,688,466	7,014,686,904	7,014,686,579	7,014,686,424	7,014,686,3293		
Estacas: 9+711													
Dist. eixo (m)			-4,829	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,476		
Cota (m)			498,645	499,031	499,070	498,781	498,879	498,781	498,700	499,031	499,257		
E			237,105,0044	237,105,512	237,105,795	237,106,389	237,109,240	237,112,090	237,112,684	237,113,967	237,113,1653		
N			7,014,691,3115	7,014,691,033	7,014,690,878	7,014,690,553	7,014,688,992	7,014,687,431	7,014,687,106	7,014,686,951	7,014,686,8421		
Estacas: 9+720													
Dist. eixo (m)			-4,908	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,290		
Cota (m)			498,388	498,827	498,865	498,577	498,674	498,577	498,495	498,827	498,800		
E			237,098,5517	237,110,124	237,110,405	237,110,994	237,113,819	237,116,645	237,117,233	237,117,514	237,117,6482		
N			7,014,699,6254	7,014,699,300	7,014,699,141	7,014,698,806	7,014,697,201	7,014,695,595	7,014,695,261	7,014,695,101	7,014,695,0812		
Estacas: 9+730													
Dist. eixo (m)			-4,741	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,275		
Cota (m)			498,316	498,643	498,682	498,393	498,491	498,393	498,312	498,643	498,668		
E			237,114,7490	237,115,172	237,115,450	237,116,033	237,118,832	237,121,630	237,122,213	237,122,491	237,122,5128		
N			7,014,708,2642	7,014,708,014	7,014,707,850	7,014,707,506	7,014,705,854	7,014,704,201	7,014,703,857	7,014,703,693	7,014,703,6799		
Estacas: 9+733													
Dist. eixo (m)			-4,773	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,260		
Cota (m)			498,255	498,603	498,642	498,353	498,451	498,353	498,272	498,603	498,613		
E			237,116,0081	237,116,457	237,116,735	237,117,316	237,120,108	237,122,899	237,123,481	237,123,758	237,123,7668		
N			7,014,710,4481	7,014,710,181	7,014,710,015	7,014,709,669	7,014,708,004	7,014,706,340	7,014,705,994	7,014,705,828	7,014,705,8232		
Estacas: 9+740													
Dist. eixo (m)			-4,806	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,329		
Cota (m)			498,127	498,497	498,536	498,247	498,345	498,247	498,166	498,497	498,444		
E			237,119,8908	237,120,364	237,120,640	237,121,217	237,123,988	237,126,758	237,127,335	237,127,611	237,127,6781		
N			7,014,716,9337	7,014,716,643	7,014,716,475	7,014,716,121	7,014,714,422	7,014,712,723	7,014,712,369	7,014,712,200	7,014,712,1588		
Estacas: 9+750													
Dist. eixo (m)			-4,801	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,330		
Cota (m)			498,022	498,389	498,428	498,139	498,236	498,139	498,058	498,389	498,336		
E			237,125,2353	237,125,700	237,125,973	237,126,544	237,129,286	237,132,028	237,132,599	237,132,871	237,132,9388		
N			7,014,725,4801	7,014,725,184	7,014,725,011	7,014,724,648	7,014,722,903	7,014,721,158	7,014,720,795	7,014,720,621	7,014,720,5781		
Estacas: 9+754													
Dist. eixo (m)			-4,749	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250			
Cota (m)			498,020	498,353	498,392	498,103	498,201	498,103	498,022	498,353			
E			237,127,6740	237,128,093	237,128,365	237,128,933	237,131,662	237,134,391	237,134,960	237,135,251			
N			7,014,729,1866	7,014,728,915	7,014,728,740	7,014,728,372	7,014,726,608	7,014,724,843	7,014,724,475	7,014,724,300			
Estacas: 9+760													
Dist. eixo (m)			-4,677	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,309		
Cota (m)			498,028	498,312	498,351	498,062	498,160	498,062	497,981	498,312	498,372		
E			237,130,7748	237,131,134	237,131,405	237,131,973	237,134,702	237,137,431	237,138,000	237,138,271	237,138,3211		
N			7,014,733,8485	7,014,733,617	7,014,733,441	7,014,733,074	7,014,728,309	7,014,729,544	7,014,729,176	7,014,729,001	7,014,728,9684		
Estacas: 9+770													
Dist. eixo (m)			-4,620	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,309		
Cota (m)			497,992	498,299	498,338	498,049	498,147	498,049	497,968	498,299	498,200		
E			237,										

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 9+830													
Dist. eixo (m)			-7,453	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,881		
Cota (m)			497,917	497,714	497,753	497,464	497,652	497,554	497,473	497,804	497,384		
E			237,166,4567	237,166,6227	237,178,786	237,167,467	237,172,715	237,175,444	237,176,012	237,176,283	237,182,8132		
N			7,014,794,1354	7,014,794,025	7,014,793,850	7,014,793,482	7,014,790,088	7,014,788,324	7,014,787,956	7,014,787,781	7,014,787,4379		
Estacas: 9+840													
Dist. eixo (m)			-7,562	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	5,360		
Cota (m)			498,042	497,730	497,768	497,480	497,667	497,570	497,488	497,820	497,080		
E			237,171,7951	237,172,057	237,172,328	237,172,897	237,178,145	237,180,874	237,181,442	237,181,714	237,182,6456		
N			7,014,802,5919	7,014,802,423	7,014,802,247	7,014,801,880	7,014,798,486	7,014,796,721	7,014,796,353	7,014,796,178	7,014,795,5750		
Estacas: 9+850													
Dist. eixo (m)			-6,251	-6,050	-5,727	-5,050	0,000	3,250	3,927	4,250	5,716		
Cota (m)			498,097	497,896	497,935	497,646	497,798	497,700	497,619	497,950	496,972		
E			237,178,3261	237,178,495	237,178,766	237,179,335	237,183,575	237,186,304	237,186,873	237,187,144	237,188,3754		
N			7,014,810,2773	7,014,810,168	7,014,809,993	7,014,809,625	7,014,806,883	7,014,805,118	7,014,804,750	7,014,804,575	7,014,803,7785		
Estacas: 9+860													
Dist. eixo (m)			-5,327	-4,850	-4,527	-3,850	0,000	3,250	3,927	4,250	5,433		
Cota (m)			497,859	498,177	498,216	497,927	498,043	497,945	497,864	498,195	497,407		
E			237,184,5322	237,184,933	237,185,204	237,185,773	237,189,006	237,191,735	237,192,303	237,192,574	237,193,5675		
N			7,014,818,1727	7,014,817,914	7,014,817,738	7,014,817,370	7,014,815,280	7,014,813,515	7,014,813,147	7,014,812,972	7,014,812,3296		
Estacas: 9+870													
Dist. eixo (m)			-4,983	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	7,727		
Cota (m)			498,067	498,556	498,595	498,306	498,403	498,306	498,225	498,556	496,238		
E			237,190,2515	237,190,867	237,191,138	237,191,707	237,194,436	237,197,165	237,197,733	237,198,005	237,200,9246		
N			7,014,826,3830	7,014,825,985	7,014,825,809	7,014,825,442	7,014,823,677	7,014,821,912	7,014,821,545	7,014,821,369	7,014,819,4807		
Estacas: 9+880													
Dist. eixo (m)			-4,943	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,581		
Cota (m)			498,570	498,032	498,070	498,782	498,879	498,782	498,700	498,032	498,144		
E			237,195,7158	237,196,298	237,196,569	237,197,137	237,199,866	237,202,595	237,203,164	237,203,435	237,204,5528		
N			7,014,834,7581	7,014,834,382	7,014,834,207	7,014,833,839	7,014,832,074	7,014,830,309	7,014,829,942	7,014,829,766	7,014,829,0433		
Estacas: 9+890													
Dist. eixo (m)			-4,697	-4,250	-3,927	-3,250	0,000	3,850	4,527	4,850	6,022		
Cota (m)			499,324	499,622	499,661	499,372	499,470	499,374	499,273	499,604	498,823		
E			237,201,3521	237,201,728	237,201,999	237,202,568	237,205,297	237,208,530	237,209,098	237,209,369	237,210,3535		
N			7,014,843,0220	7,014,842,779	7,014,842,604	7,014,842,236	7,014,840,471	7,014,838,380	7,014,838,013	7,014,837,837	7,014,837,2009		
Estacas: 9+900													
Dist. eixo (m)			-4,793	-4,250	-3,927	-3,250	0,000	5,050	5,727	6,050	6,979		
Cota (m)			499,966	500,328	500,367	500,078	500,175	500,024	499,943	500,274	499,655		
E			237,206,7019	237,207,158	237,207,429	237,207,998	237,210,727	237,214,968	237,215,536	237,215,807	237,216,5873		
N			7,014,851,4712	7,014,851,176	7,014,851,001	7,014,850,633	7,014,848,868	7,014,846,126	7,014,845,758	7,014,845,583	7,014,845,0784		
Estacas: 9+910													
Dist. eixo (m)			-4,871	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	8,093		
Cota (m)			500,730	501,145	501,183	500,895	500,992	500,805	500,723	501,055	500,492		
E			237,212,0669	237,212,589	237,212,860	237,213,428	237,216,157	237,221,406	237,221,974	237,222,245	237,222,9532		
N			7,014,859,9105	7,014,859,573	7,014,859,398	7,014,859,030	7,014,857,265	7,014,853,871	7,014,853,504	7,014,853,328	7,014,852,8705		
Estacas: 9+920													
Dist. eixo (m)			-4,678	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,782		
Cota (m)			501,708	501,992	502,031	501,742	501,839	501,652	501,571	501,902	501,547		
E			237,217,8610	237,218,019	237,218,290	237,218,859	237,221,588	237,226,836	237,227,404	237,227,675	237,228,1225		
N			7,014,868,2017	7,014,867,970	7,014,867,795	7,014,867,427	7,014,865,662	7,014,862,269	7,014,861,901	7,014,861,725	7,014,861,4384		
Estacas: 9+930													
Dist. eixo (m)			-4,755	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,726		
Cota (m)			502,503	502,839	502,878	502,589	502,687	502,499	502,418	502,749	502,432		
E			237,223,0253	237,223,449	237,223,720	237,224,289	237,227,018	237,232,266	237,232,835	237,233,106	237,233,5059		
N			7,014,876,6416	7,014,876,367	7,014,876,192	7,014,875,824	7,014,874,060	7,014,870,666	7,014,870,298	7,014,870,123	7,014,869,8639		
Estacas: 9+940													
Dist. eixo (m)			-4,875	-4,250	-3,927	-3,250	0,000	4,250	4,927	5,250	5,840		
Cota (m)			503,720	503,687	503,726	503,437	503,534	503,407	503,326	503,657	503,263		
E			237,228,3549	237,228,880	237,229,151	237,229,719	237,232,448	237,236,017	237,236,585	237,236,857	237,237,3523		
N			7,014,885,1038	7,014,884,765	7,014,884,589	7,014,884,222	7,014,882,457	7,014,880,149	7,014,879,781	7,014,879,606	7,014,879,2853		
Estacas: 9+950													
Dist. eixo (m)			-4,927	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,025		
Cota (m)			504,083	504,534	504,573	504,284	504,382	504,284	504,203	504,534	504,017		
E			237,233,7417	237,234,310	237,234,581	237,235,150	237,237,879	237,240,608	237,241,176	237,241,447	237,242,0986		
N			7,014,893,5291	7,014,893,162	7,014,892,986	7,014,892,619	7,014,890,854	7,014,889,089	7,014,888,721	7,014,888,546	7,014,888,1248		
Estacas: 9+960													
Dist. eixo (m)			-4,861	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,546		
Cota (m)			504,974	505,382	505,420	505,132	505,229	505,132	505,050	505,382	504,518		
E			237,239,2270	237,239,740	237,240,011	237,240,580	237,243,309	237,246,038	237,246,606	237,246,877	237,247,9659		
N			7,014,901,8906	7,014,901,559	7,014,901,383	7,014,901,016	7,014,899,251	7,014,897,486	7,014,897,119	7,014,896,943	7,014,896,2393		
Estacas: 9+970													
Dist. eixo (m)			-5,279	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,704		
Cota (m)			505,543	506,229	506,268	505,979	506,077	505,979	505,898	506,229	505,529		
E			237,244,3062	237,245,171	237,245,442	237,246,010	237,248,739	237,251,468	237,252,037	237,252,308	237,253,5294		
N			7,014,910,5148	7,014,909,956	7,014,909,781	7,014,909,413	7,014,907,648	7,014,905,883	7,014,905,516	7,014,905,340	7,014,904,5503		
Estacas: 9+980													
Dist. eixo (m)			-5,180	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,710		
Cota (m)			506,456	507,076	507,115	506,826	506,924	506,826	506,745	507,076	506,103		
E			237,249,8197	237,250,601	237,250,872	237,251,441	237,254,170	237,256,899	237,257,467	237,257,738	237,258,9645		
N			7,014,918,8582	7,014,918,353	7,014,918,178	7,014,917,810	7,014,916,045	7,014,914,280	7,014,913,913	7,014,913,737	7,014,912,9443		
Estacas: 9+990													
Dist. eixo (m)			-5,150	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,510		
Cota (m)			507,324	507,924	507,963	507,674	507,771	507,674	507,593	507,924	507,084		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 10+049													
Dist. eixo (m)			-4,396	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,442		
Cota (m)			512,008	512,105	512,144	511,855	511,953	511,855	511,774	512,105	511,978		
E			237,288,1484	237,288,271	237,288,542	237,289,111	237,291,840	237,294,569	237,295,137	237,295,409	237,295,5696		
N			7,014,976,6834	7,014,976,604	7,014,976,429	7,014,976,061	7,014,974,296	7,014,972,531	7,014,972,164	7,014,971,988	7,014,971,8842		
Estacas: 10+050													
Dist. eixo (m)			-4,407	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,433		
Cota (m)			512,038	512,143	512,182	511,893	511,990	511,893	511,812	512,143	512,021		
E			237,288,4793	237,288,612	237,288,883	237,289,452	237,292,182	237,294,912	237,295,481	237,295,752	237,295,9057		
N			7,014,977,2161	7,014,977,131	7,014,976,955	7,014,976,588	7,014,974,825	7,014,973,062	7,014,972,695	7,014,972,519	7,014,972,4201		
Estacas: 10+060													
Dist. eixo (m)			-4,479	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,362		
Cota (m)			512,585	512,738	512,776	512,488	512,585	512,488	512,406	512,738	512,663		
E			237,293,7778	237,293,972	237,294,245	237,294,817	237,297,565	237,300,312	237,300,885	237,301,158	237,301,2527		
N			7,014,985,6448	7,014,985,522	7,014,985,350	7,014,984,988	7,014,983,253	7,014,981,517	7,014,981,155	7,014,980,983	7,014,980,9228		
Estacas: 10+069													
Dist. eixo (m)			-4,568	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,320		
Cota (m)			513,032	513,244	513,283	512,994	513,091	512,994	512,913	513,244	513,197		
E			237,298,1976	237,298,468	237,298,743	237,299,318	237,302,080	237,304,843	237,305,418	237,305,693	237,305,7525		
N			7,014,992,8755	7,014,992,708	7,014,992,538	7,014,992,181	7,014,990,469	7,014,988,756	7,014,988,400	7,014,988,230	7,014,988,1924		
Estacas: 10+070													
Dist. eixo (m)			-4,615	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,314		
Cota (m)			513,089	513,332	513,371	513,082	513,180	513,082	513,001	513,332	513,290		
E			237,298,9372	237,299,248	237,299,522	237,300,098	237,302,863	237,305,628	237,306,204	237,306,479	237,306,5329		
N			7,014,994,1589	7,014,993,967	7,014,993,798	7,014,993,442	7,014,991,733	7,014,990,025	7,014,989,670	7,014,989,500	7,014,989,4662		
Estacas: 10+080													
Dist. eixo (m)			-4,497	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,426		
Cota (m)			513,763	513,927	513,966	513,677	513,774	513,677	513,596	513,927	514,103		
E			237,304,2276	237,304,439	237,304,715	237,305,295	237,308,077	237,310,858	237,311,438	237,311,714	237,311,8647		
N			7,015,002,5919	7,015,002,464	7,015,002,297	7,015,001,947	7,015,000,267	7,014,998,587	7,014,998,237	7,014,998,069	7,014,997,9785		
Estacas: 10+088													
Dist. eixo (m)			-4,550	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,571		
Cota (m)			514,182	514,382	514,421	514,132	514,230	514,132	514,051	514,382	514,703		
E			237,308,0773	237,308,355	237,308,633	237,309,215	237,312,009	237,314,804	237,315,386	237,315,664	237,315,9399		
N			7,015,009,1568	7,015,009,004	7,015,008,839	7,015,008,493	7,015,006,834	7,015,005,175	7,015,004,830	7,015,004,665	7,015,004,5008		
Estacas: 10+090													
Dist. eixo (m)			-4,520	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,579		
Cota (m)			514,342	514,522	514,560	514,272	514,369	514,272	514,190	514,522	514,851		
E			237,309,3199	237,309,552	237,309,830	237,310,412	237,313,207	237,316,001	237,316,583	237,316,861	237,317,1442		
N			7,015,011,1581	7,015,011,020	7,015,010,855	7,015,010,510	7,015,008,851	7,015,007,192	7,015,006,846	7,015,006,681	7,015,006,5130		
Estacas: 10+091													
Dist. eixo (m)			-4,508	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,563		
Cota (m)			514,403	514,576	514,614	514,326	514,423	514,326	514,244	514,576	514,888		
E			237,309,7970	237,310,019	237,310,297	237,310,879	237,313,673	237,316,468	237,317,050	237,317,328	237,317,5970		
N			7,015,011,9384	7,015,011,807	7,015,011,642	7,015,011,296	7,015,009,637	7,015,007,978	7,015,007,632	7,015,007,467	7,015,007,3077		
Estacas: 10+100													
Dist. eixo (m)			-4,636	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,435		
Cota (m)			515,459	515,073	515,111	514,823	514,920	514,823	514,741	515,073	515,258		
E			237,314,4201	237,314,749	237,315,025	237,315,601	237,318,371	237,321,140	237,321,716	237,322,492	237,322,4486		
N			7,015,019,8410	7,015,019,639	7,015,019,470	7,015,019,115	7,015,017,414	7,015,015,713	7,015,015,359	7,015,015,189	7,015,015,0924		
Estacas: 10+107													
Dist. eixo (m)			-4,835	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,577		
Cota (m)			516,015	515,430	515,469	515,180	515,278	515,180	515,099	515,430	515,757		
E			237,318,2419	237,318,737	237,319,010	237,319,582	237,322,330	237,325,078	237,325,650	237,325,923	237,326,1998		
N			7,015,026,3522	7,015,026,040	7,015,025,867	7,015,025,506	7,015,023,770	7,015,022,034	7,015,021,673	7,015,021,500	7,015,021,3254		
Estacas: 10+110													
Dist. eixo (m)			-4,881	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,682		
Cota (m)			516,170	515,539	515,578	515,289	515,387	515,289	515,208	515,539	515,971		
E			237,319,5601	237,320,092	237,320,365	237,320,935	237,323,676	237,326,416	237,326,987	237,327,260	237,327,6238		
N			7,015,028,5146	7,015,028,175	7,015,028,002	7,015,027,638	7,015,025,891	7,015,024,144	7,015,023,780	7,015,023,606	7,015,023,3736		
Estacas: 10+111													
Dist. eixo (m)			-4,911	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,714		
Cota (m)			516,254	515,593	515,632	515,343	515,440	515,343	515,262	515,593	516,057		
E			237,320,2278	237,320,785	237,321,057	237,321,627	237,324,364	237,327,100	237,327,670	237,327,942	237,328,3330		
N			7,015,029,6158	7,015,029,259	7,015,029,085	7,015,028,720	7,015,026,967	7,015,025,214	7,015,024,849	7,015,024,674	7,015,024,4241		
Estacas: 10+120													
Dist. eixo (m)			-4,814	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,643		
Cota (m)			516,532	515,968	516,007	515,718	515,769	515,671	515,590	515,968	516,311		
E			237,325,1062	237,325,577	237,325,846	237,326,411	237,329,122	237,331,833	237,332,397	237,332,667	237,332,9945		
N			7,015,036,9327	7,015,036,622	7,015,036,444	7,015,036,070	7,015,034,278	7,015,032,485	7,015,032,112	7,015,031,933	7,015,031,7166		
Estacas: 10+124													
Dist. eixo (m)			-4,682	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,657		
Cota (m)			516,553	516,121	516,160	515,871	515,900	515,803	515,721	516,053	516,459		
E			237,327,4860	237,327,845	237,328,113	237,328,675	237,331,374	237,334,072	237,334,634	237,334,903	237,335,2406		
N			7,015,040,2668	7,015,040,026	7,015,039,846	7,015,039,469	7,015,037,658	7,015,035,847	7,015,035,470	7,015,035,290	7,015,035,0633		
Estacas: 10+130													
Dist. eixo (m)			-4,525	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,804		
Cota (m)			516,580	516,305	516,343	516,055	516,055	515,957	515,876	516,207	516,561		
E			237,330,6670	237,330,896	237,331,164	237,331,726	237,334,425	237,337,124	237,337,686	237,337,954	237,338,2478		
N			7,015,044,7268	7,015,044,573	7,015,044,393	7,015,044,016	7,015,042,205	7,015,040,394	7,015,040,017	7,015,039,837	7,015,039,6400		
Estacas: 10+140													
Dist. eixo (m)			-4,490	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 10+166													
Dist. eixo (m)			-4,811	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,686		
Cota (m)			516,572	516,946	516,985	516,696	516,546	516,397	516,316	516,647	515,090		
E			237,351,2436	237,351,688	237,351,944	237,352,481	237,355,058	237,357,634	237,358,171	237,363,427	237,360,2788		
N			7,015,074,7701	7,015,074,428	7,015,074,232	7,015,073,819	7,015,071,838	7,015,069,857	7,015,069,445	7,015,069,248	7,015,067,8243		
Estacas: 10+170													
Dist. eixo (m)			-4,769	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,914		
Cota (m)			516,645	516,984	517,023	516,734	516,595	516,435	516,354	516,685	514,909		
E			237,356,4689	237,356,793	237,357,043	237,357,569	237,360,091	237,362,613	237,363,138	237,363,389	237,363,4187		
N			7,015,081,1487	7,015,080,886	7,015,080,682	7,015,080,255	7,015,078,205	7,015,076,155	7,015,075,729	7,015,075,525	7,015,073,8749		
Estacas: 10+174													
Dist. eixo (m)			-4,667	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,866		
Cota (m)			516,739	517,017	517,056	516,767	516,618	516,468	516,387	516,718	514,974		
E			237,356,4689	237,356,793	237,357,043	237,357,569	237,360,091	237,362,613	237,363,138	237,363,389	237,363,4187		
N			7,015,081,1487	7,015,080,886	7,015,080,682	7,015,080,255	7,015,078,205	7,015,076,155	7,015,075,729	7,015,075,525	7,015,073,8749		
Estacas: 10+180													
Dist. eixo (m)			-4,482	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,726		
Cota (m)			516,884	517,039	517,078	516,789	516,673	516,556	516,475	516,806	515,156		
E			237,360,6508	237,360,828	237,361,074	237,361,590	237,364,069	237,366,548	237,367,065	237,367,311	237,363,1997		
N			7,015,085,8964	7,015,085,747	7,015,085,538	7,015,085,100	7,015,082,998	7,015,080,897	7,015,080,459	7,015,080,250	7,015,078,6487		
Estacas: 10+184													
Dist. eixo (m)			-4,385	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,662		
Cota (m)			516,961	517,051	517,090	516,801	516,703	516,606	516,525	516,856	515,248		
E			237,363,0433	237,363,145	237,363,389	237,363,900	237,366,355	237,368,809	237,369,320	237,369,564	237,371,3857		
N			7,015,088,5366	7,015,088,448	7,015,088,236	7,015,087,793	7,015,085,662	7,015,083,532	7,015,083,088	7,015,082,876	7,015,081,2946		
Estacas: 10+185													
Dist. eixo (m)			-4,266	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,624		
Cota (m)			517,045	517,056	517,056	516,806	516,716	516,619	516,538	516,869	515,286		
E			237,364,1068	237,364,119	237,364,362	237,364,871	237,367,315	237,369,759	237,370,268	237,370,511	237,372,2960		
N			7,015,089,5754	7,015,089,565	7,015,089,352	7,015,088,905	7,015,086,763	7,015,084,620	7,015,084,174	7,015,083,961	7,015,082,3962		
Estacas: 10+190													
Dist. eixo (m)			-4,285	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,378		
Cota (m)			517,600	517,073	517,112	516,823	516,761	516,663	516,582	516,913	515,494		
E			237,367,4082	237,367,435	237,367,678	237,368,187	237,368,630	237,373,074	237,373,583	237,373,826	237,375,4267		
N			7,015,093,3695	7,015,093,346	7,015,093,133	7,015,092,687	7,015,090,545	7,015,088,402	7,015,087,956	7,015,087,743	7,015,086,3398		
Estacas: 10+200													
Dist. eixo (m)			-4,825	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,678		
Cota (m)			517,661	517,086	517,125	516,836	516,827	516,729	516,648	516,979	516,694		
E			237,373,5943	237,374,027	237,374,270	237,374,779	237,377,223	237,379,667	237,380,175	237,380,418	237,380,7405		
N			7,015,101,2450	7,015,100,866	7,015,100,653	7,015,100,207	7,015,098,064	7,015,095,922	7,015,095,476	7,015,095,262	7,015,094,9801		
Estacas: 10+202													
Dist. eixo (m)			-4,904	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,822		
Cota (m)			517,732	517,078	517,117	516,828	516,828	516,730	516,649	516,980	516,732		
E			237,374,7023	237,375,194	237,375,437	237,375,946	237,378,390	237,380,834	237,381,343	237,381,586	237,381,8655		
N			7,015,102,6285	7,015,102,197	7,015,101,984	7,015,101,538	7,015,099,396	7,015,097,253	7,015,096,807	7,015,096,594	7,015,096,3487		
Estacas: 10+205													
Dist. eixo (m)			-5,040	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,500		
Cota (m)			517,846	517,057	517,095	516,807	516,822	516,724	516,643	516,974	516,808		
E			237,376,4916	237,377,086	237,377,328	237,377,838	237,380,281	237,382,725	237,383,234	237,383,477	237,383,6652		
N			7,015,104,8754	7,015,104,355	7,015,104,142	7,015,103,696	7,015,101,553	7,015,099,411	7,015,098,964	7,015,098,751	7,015,098,5865		
Estacas: 10+210													
Dist. eixo (m)			-5,186	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,676		
Cota (m)			517,927	516,991	517,030	516,741	516,785	516,687	516,606	516,937	516,653		
E			237,379,9224	237,380,626	237,380,868	237,381,377	237,383,818	237,386,259	237,386,767	237,387,010	237,387,3299		
N			7,015,109,0053	7,015,108,387	7,015,108,174	7,015,107,727	7,015,105,581	7,015,103,436	7,015,102,989	7,015,102,775	7,015,102,4937		
Estacas: 10+220													
Dist. eixo (m)			-4,470	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,491		
Cota (m)			516,999	516,778	516,817	516,528	516,626	516,528	516,447	516,778	516,617		
E			237,387,0789	237,387,244	237,387,486	237,387,994	237,390,429	237,392,865	237,393,372	237,393,614	237,393,7950		
N			7,015,116,0436	7,015,115,898	7,015,115,684	7,015,115,236	7,015,113,084	7,015,110,932	7,015,110,484	7,015,110,270	7,015,110,1100		
Estacas: 10+230													
Dist. eixo (m)			-4,461	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,283		
Cota (m)			516,381	516,502	516,541	516,252	516,349	516,252	516,171	516,502	516,480		
E			237,393,7241	237,393,882	237,394,123	237,394,629	237,397,060	237,399,490	237,399,996	237,400,238	237,400,2625		
N			7,015,123,5312	7,015,123,391	7,015,123,177	7,015,122,727	7,015,120,570	7,015,118,412	7,015,117,962	7,015,117,748	7,015,117,7255		
Estacas: 10+240													
Dist. eixo (m)			-4,468	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,393		
Cota (m)			515,963	516,108	516,147	515,858	515,956	515,858	515,777	516,108	516,252		
E			237,400,3752	237,400,538	237,400,779	237,401,284	237,403,709	237,406,134	237,406,639	237,406,880	237,406,9665		
N			7,015,131,0136	7,015,130,869	7,015,130,654	7,015,130,203	7,015,128,039	7,015,125,875	7,015,125,424	7,015,125,209	7,015,125,1134		
Estacas: 10+250													
Dist. eixo (m)			-4,621	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,366		
Cota (m)			515,530	515,597	515,636	515,347	515,445	515,347	515,266	515,597	515,713		
E			237,406,9362	237,407,213	237,407,453	237,407,957	237,410,376	237,412,796	237,413,300	237,413,540	237,413,6265		
N			7,015,138,5770	7,015,138,329	7,015,138,113	7,015,137,661	7,015,135,491	7,015,133,321	7,015,132,869	7,015,132,654	7,015,132,5762		
Estacas: 10+260													
Dist. eixo (m)			-4,606	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,889		
Cota (m)			514,754	514,991	515,030	514,741	514,838	514,741	514,660	514,991	514,698		
E			237,413,6418	237,413,906	237,414,146	237,414,649	237,417,063	237,419,477	237,419,979	237,420,220	237,420,5454		
N			7,015,146,0111	7,015,145,773	7,015,145,557	7,015,145,103	7,015,142,927	7,015,140,751	7,015,140,298	7,015,140,082	7,015,139,7877		
Estacas: 10+270													
Dist. eixo (m)			-4,610	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,527		
Cota (m)			514,135	514,375	514,414	514,125	514,223	514,125	514,044	514,375	514,191		
E													

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 10+320													
Dist. eixo (m)			-4,308	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,633		
Cota (m)			511,509	511,548	511,586	511,298	511,395	511,298	511,216	511,548	511,359		
E			237,454,4134	237,454,456	237,455,692	237,455,188	237,457,569	237,459,950	237,460,446	237,460,683	237,460,8903		
N			7,015,190,1215	7,015,190,082	7,015,189,862	7,015,189,402	7,015,187,190	7,015,184,977	7,015,184,517	7,015,184,297	7,015,184,1043		
Estacas: 10+330													
Dist. eixo (m)			-4,259	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,698		
Cota (m)			511,206	511,211	511,250	510,961	511,059	510,961	510,890	511,211	510,980		
E			237,461,2721	237,461,278	237,461,515	237,462,009	237,464,385	237,466,760	237,467,255	237,467,491	237,467,7455		
N			7,015,197,4135	7,015,197,408	7,015,197,187	7,015,196,725	7,015,194,507	7,015,192,289	7,015,191,827	7,015,191,607	7,015,191,3694		
Estacas: 10+340													
Dist. eixo (m)			-4,879	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,845		
Cota (m)			510,559	510,979	511,018	510,729	510,826	510,729	510,648	510,979	509,916		
E			237,467,6605	237,468,119	237,468,355	237,468,849	237,471,219	237,473,589	237,474,082	237,474,318	237,475,4808		
N			7,015,205,1467	7,015,204,716	7,015,204,495	7,015,204,032	7,015,201,808	7,015,199,584	7,015,199,121	7,015,198,900	7,015,197,8083		
Estacas: 10+350													
Dist. eixo (m)			-4,479	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,756		
Cota (m)			510,697	510,850	510,889	510,600	510,697	510,600	510,519	510,850	509,846		
E			237,474,8117	237,474,979	237,475,214	237,475,706	237,478,071	237,480,435	237,480,927	237,481,162	237,482,2579		
N			7,015,212,1648	7,015,212,008	7,015,211,786	7,015,211,321	7,015,209,092	7,015,206,862	7,015,206,397	7,015,206,176	7,015,205,1424		
Estacas: 10+360													
Dist. eixo (m)			-4,473	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,326		
Cota (m)			510,676	510,825	510,863	510,575	510,672	510,575	510,493	510,825	510,107		
E			237,481,6928	237,481,855	237,482,089	237,482,581	237,484,939	237,487,298	237,487,789	237,488,024	237,488,8049		
N			7,015,219,4339	7,015,219,280	7,015,219,058	7,015,218,592	7,015,216,357	7,015,214,121	7,015,213,655	7,015,213,433	7,015,212,6928		
Estacas: 10+370													
Dist. eixo (m)			-4,297	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,019		
Cota (m)			510,927	510,958	510,997	510,708	510,750	510,653	510,572	510,903	510,391		
E			237,488,7021	237,488,736	237,488,970	237,489,462	237,491,820	237,494,179	237,494,670	237,494,905	237,495,4626		
N			7,015,226,5713	7,015,226,539	7,015,226,317	7,015,225,851	7,015,223,615	7,015,221,379	7,015,220,914	7,015,220,692	7,015,220,1627		
Estacas: 10+378													
Dist. eixo (m)			-4,290	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,854		
Cota (m)			511,172	511,132	511,171	510,882	510,882	510,784	510,703	511,034	510,632		
E			237,494,0219	237,494,051	237,494,285	237,494,777	237,497,135	237,499,494	237,499,985	237,500,220	237,500,6578		
N			7,015,232,1733	7,015,232,146	7,015,231,924	7,015,231,458	7,015,229,222	7,015,226,986	7,015,226,521	7,015,226,298	7,015,225,8828		
Estacas: 10+380													
Dist. eixo (m)			-4,327	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,804		
Cota (m)			511,144	511,195	511,234	510,945	510,932	510,835	510,754	511,085	510,715		
E			237,495,5599	237,495,616	237,495,850	237,496,341	237,498,700	237,501,059	237,501,550	237,501,784	237,502,1867		
N			7,015,233,8494	7,015,233,797	7,015,233,574	7,015,233,109	7,015,230,873	7,015,228,637	7,015,228,171	7,015,227,949	7,015,227,5675		
Estacas: 10+390													
Dist. eixo (m)			-4,325	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,738		
Cota (m)			511,484	511,533	511,572	511,283	511,216	511,118	511,037	511,368	511,043		
E			237,502,4411	237,502,495	237,502,730	237,503,221	237,505,580	237,507,938	237,508,430	237,508,664	237,509,0187		
N			7,015,241,1054	7,015,241,054	7,015,240,832	7,015,240,366	7,015,238,130	7,015,235,894	7,015,235,429	7,015,235,206	7,015,234,8702		
Estacas: 10+393													
Dist. eixo (m)			-4,332	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,649		
Cota (m)			511,803	511,857	511,896	511,407	511,321	511,224	511,143	511,474	511,208		
E			237,504,7239	237,504,783	237,505,018	237,505,509	237,507,868	237,510,226	237,510,717	237,510,952	237,511,2418		
N			7,015,243,5236	7,015,243,467	7,015,243,245	7,015,242,779	7,015,240,544	7,015,238,308	7,015,237,842	7,015,237,620	7,015,237,3449		
Estacas: 10+395													
Dist. eixo (m)			-4,311	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,660		
Cota (m)			511,696	511,736	511,775	511,486	511,389	511,291	511,210	511,541	511,268		
E			237,506,2273	237,506,271	237,506,504	237,506,993	237,509,356	237,511,680	237,512,168	237,512,401	237,512,6967		
N			7,015,245,0691	7,015,245,027	7,015,244,803	7,015,244,334	7,015,242,083	7,015,239,831	7,015,239,362	7,015,239,138	7,015,238,8542		
Estacas: 10+400													
Dist. eixo (m)			-4,270	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,767		
Cota (m)			511,892	511,905	511,944	511,655	511,533	511,410	511,329	511,660	511,316		
E			237,509,4730	237,509,487	237,509,717	237,510,198	237,512,510	237,514,821	237,515,303	237,515,532	237,515,9001		
N			7,015,248,3406	7,015,248,327	7,015,248,100	7,015,247,624	7,015,245,339	7,015,243,055	7,015,242,579	7,015,242,352	7,015,241,9883		
Estacas: 10+404													
Dist. eixo (m)			-4,262	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,880		
Cota (m)			512,036	512,044	512,083	511,794	511,651	511,508	511,427	511,758	511,338		
E			237,512,1475	237,512,156	237,512,383	237,512,859	237,515,144	237,517,429	237,517,904	237,518,132	237,518,5746		
N			7,015,251,0049	7,015,250,996	7,015,250,767	7,015,250,285	7,015,247,974	7,015,245,662	7,015,245,181	7,015,244,951	7,015,244,5029		
Estacas: 10+410													
Dist. eixo (m)			-5,295	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,970		
Cota (m)			513,288	512,243	512,282	511,993	511,850	511,707	511,626	511,957	511,477		
E			237,516,0014	237,516,721	237,516,944	237,517,410	237,519,649	237,521,888	237,522,355	237,522,577	237,523,0731		
N			7,015,255,1786	7,015,255,421	7,015,255,187	7,015,254,696	7,015,252,341	7,015,249,985	7,015,249,494	7,015,249,260	7,015,248,7382		
Estacas: 10+420													
Dist. eixo (m)			-4,656	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,739		
Cota (m)			512,967	512,660	512,599	512,310	512,167	512,024	511,943	512,274	511,948		
E			237,523,9031	237,524,174	237,524,389	237,524,840	237,527,004	237,529,168	237,529,619	237,529,834	237,530,1596		
N			7,015,262,5892	7,015,262,286	7,015,262,045	7,015,261,540	7,015,259,115	7,015,256,691	7,015,256,186	7,015,255,945	7,015,255,6804		
Estacas: 10+430													
Dist. eixo (m)			-4,612	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,828		
Cota (m)			512,636	512,877	512,916	512,627	512,484	512,341	512,260	512,591	512,206		
E			237,531,6044	237,531,837	237,532,045	237,532,479	237,534,567	237,536,654	237,537,089	237,537,297	237,537,6681		
N			7,015,269,1923	7,015,268,915	7,015,268,667	7,015,268,148	7,015,265,657	7,015,263,166	7,015,262,647	7,015,262,400	7,015,261,9565		
Estacas: 10+440													
Dist. eixo (m)			-4,570	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,848		
Cota (m)			513,515	513,194	513,233	512,944	512,801	512,658	512,577	512,908			

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 10+490													
Dist. eixo (m)			-5,347	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,406		
Cota (m)			515,477	514,380	514,419	514,130	513,987	513,712	513,631	513,962	513,858		
E			237,599,749	237,581,813	237,581,970	237,582,901	237,583,887	237,586,939	237,587,269	237,587,427	237,587,503		
N			7,015,304,3376	7,015,303,380	7,015,303,099	7,015,302,508	7,015,299,671	7,015,294,217	7,015,293,626	7,015,293,344	7,015,293,2074		
Estacas: 10+500													
Dist. eixo (m)			-4,302	-4,250	-3,927	-3,250	0,000	6,250	6,927	7,250	7,387		
Cota (m)			514,481	514,516	514,555	514,266	514,123	513,848	513,767	514,098	514,007		
E			237,599,7077	237,590,732	237,590,881	237,591,193	237,592,690	237,595,569	237,595,881	237,596,030	237,596,0927		
N			7,015,308,2346	7,015,308,188	7,015,307,901	7,015,307,301	7,015,304,416	7,015,298,869	7,015,298,268	7,015,297,981	7,015,297,8592		
Estacas: 10+510													
Dist. eixo (m)			-4,359	-4,250	-3,927	-3,250	0,000	4,271	4,948	5,271	5,330		
Cota (m)			514,580	514,652	514,691	514,402	514,259	514,071	513,990	514,321	514,381		
E			237,599,7499	237,599,797	237,599,937	237,600,230	237,601,636	237,603,484	237,603,777	237,603,917	237,603,9425		
N			7,015,312,8126	7,015,312,715	7,015,312,424	7,015,311,813	7,015,308,883	7,015,305,033	7,015,304,423	7,015,304,131	7,015,304,0776		
Estacas: 10+520													
Dist. eixo (m)			-4,719	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,327		
Cota (m)			514,476	514,789	514,827	514,539	514,396	514,253	514,171	514,503	514,451		
E			237,608,8093	237,608,999	237,609,130	237,609,403	237,610,717	237,612,032	237,612,305	237,612,436	237,612,4670		
N			7,015,317,3848	7,015,316,956	7,015,316,660	7,015,316,041	7,015,313,069	7,015,310,096	7,015,309,477	7,015,309,182	7,015,309,1110		
Estacas: 10+530													
Dist. eixo (m)			-4,603	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,306		
Cota (m)			514,689	514,925	514,964	514,675	514,532	514,389	514,308	514,639	514,601		
E			237,618,1963	237,618,329	237,618,450	237,618,705	237,619,925	237,621,146	237,621,400	237,621,521	237,621,5424		
N			7,015,321,2349	7,015,320,907	7,015,320,608	7,015,319,981	7,015,316,969	7,015,313,956	7,015,313,329	7,015,313,030	7,015,312,9776		
Estacas: 10+540													
Dist. eixo (m)			-4,836	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,461		
Cota (m)			514,670	515,061	515,100	514,811	514,668	514,525	514,444	514,775	514,986		
E			237,627,5751	237,627,778	237,627,890	237,628,125	237,629,250	237,630,376	237,630,611	237,630,723	237,630,7957		
N			7,015,325,1152	7,015,324,566	7,015,324,263	7,015,323,627	7,015,320,579	7,015,317,530	7,015,316,895	7,015,316,592	7,015,316,3940		
Estacas: 10+550													
Dist. eixo (m)			-4,790	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,715		
Cota (m)			514,837	515,197	515,236	514,947	514,804	514,661	514,580	514,911	515,377		
E			237,637,1657	237,637,337	237,637,439	237,637,654	237,638,684	237,639,714	237,639,928	237,640,031	237,640,1782		
N			7,015,328,4386	7,015,327,927	7,015,327,620	7,015,326,978	7,015,323,896	7,015,320,813	7,015,320,171	7,015,319,865	7,015,319,4234		
Estacas: 10+559													
Dist. eixo (m)			-4,926	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,776		
Cota (m)			514,867	515,318	515,357	515,068	514,925	514,782	514,701	515,032	515,560		
E			237,645,6806	237,645,877	237,645,971	237,646,168	237,647,112	237,648,057	237,648,253	237,648,347	237,648,5006		
N			7,015,331,2965	7,015,330,650	7,015,330,341	7,015,329,693	7,015,326,583	7,015,323,474	7,015,322,826	7,015,322,517	7,015,322,0112		
Estacas: 10+560													
Dist. eixo (m)			-4,928	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,781		
Cota (m)			514,875	515,327	515,366	515,077	514,934	514,804	514,723	515,054	515,585		
E			237,646,8011	237,646,996	237,647,089	237,647,283	237,648,216	237,649,149	237,649,344	237,649,437	237,649,5891		
N			7,015,331,6370	7,015,330,987	7,015,330,678	7,015,330,030	7,015,326,916	7,015,323,803	7,015,323,155	7,015,322,845	7,015,322,3366		
Estacas: 10+567													
Dist. eixo (m)			-5,107	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,831		
Cota (m)			514,817	515,385	515,424	515,135	515,038	514,940	514,859	515,190	515,771		
E			237,653,7019	237,653,923	237,654,014	237,654,194	237,655,059	237,655,922	237,656,102	237,656,198	237,656,3419		
N			7,015,333,8036	7,015,332,982	7,015,332,671	7,015,332,018	7,015,328,895	7,015,325,782	7,015,325,099	7,015,324,788	7,015,324,2276		
Estacas: 10+569													
Dist. eixo (m)			-5,200	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,871		
Cota (m)			514,769	515,402	515,441	515,152	515,066	514,969	514,888	515,219	515,840		
E			237,655,7620	237,656,008	237,656,092	237,656,268	237,657,111	237,657,954	237,658,129	237,658,213	237,658,3740		
N			7,015,334,4651	7,015,333,548	7,015,333,236	7,015,332,582	7,015,329,443	7,015,326,305	7,015,325,651	7,015,325,339	7,015,324,7388		
Estacas: 10+570													
Dist. eixo (m)			-5,233	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,886		
Cota (m)			514,753	515,408	515,447	515,158	515,077	514,979	514,898	515,229	515,866		
E			237,656,4808	237,656,736	237,656,820	237,656,995	237,657,838	237,658,681	237,658,857	237,658,940	237,659,1054		
N			7,015,334,6930	7,015,333,743	7,015,333,431	7,015,332,777	7,015,329,639	7,015,326,500	7,015,325,846	7,015,325,534	7,015,324,9194		
Estacas: 10+580													
Dist. eixo (m)			-5,567	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,495		
Cota (m)			514,611	515,490	515,528	515,240	515,213	515,115	515,034	515,365	515,611		
E			237,666,0520	237,666,394	237,666,477	237,666,653	237,667,496	237,668,339	237,668,514	237,668,598	237,668,6617		
N			7,015,337,6091	7,015,336,337	7,015,336,025	7,015,335,371	7,015,332,232	7,015,329,093	7,015,328,440	7,015,328,128	7,015,327,8909		
Estacas: 10+585													
Dist. eixo (m)			-5,066	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,488		
Cota (m)			514,985	515,529	515,568	515,279	515,279	515,182	515,100	515,432	515,670		
E			237,670,8628	237,671,075	237,671,158	237,671,334	237,672,177	237,673,020	237,673,195	237,673,279	237,673,3408		
N			7,015,338,3823	7,015,337,594	7,015,337,282	7,015,336,628	7,015,333,489	7,015,330,350	7,015,329,697	7,015,329,385	7,015,329,1546		
Estacas: 10+590													
Dist. eixo (m)			-5,460	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,491		
Cota (m)			514,764	515,571	515,610	515,321	515,349	515,252	515,171	515,502	515,742		
E			237,675,7376	237,676,052	237,676,135	237,676,311	237,677,154	237,677,997	237,678,172	237,678,256	237,678,3184		
N			7,015,340,0991	7,015,338,930	7,015,338,618	7,015,337,965	7,015,334,826	7,015,331,687	7,015,331,033	7,015,330,721	7,015,330,4887		
Estacas: 10+600													
Dist. eixo (m)			-6,027	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,492		
Cota (m)			514,467	515,652	515,691	515,402	515,485	515,388	515,307	515,638	515,880		
E			237,685,2485	237,685,709	237,685,793	237,685,969	237,686,812	237,687,655	237,687,830	237,687,914	237,687,9765		
N			7,015,343,2400	7,015,341,524	7,015,341,212	7,015,340,558	7,015,337,419	7,015,334,281	7,015,333,627	7,015,333,315	7,015,333,0812		
Estacas: 10+603													
Dist. eixo (m)			-6,043	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,534		
Cota (m)			514,477	515,673	515,712	515,423	515,521	515,423	515,342	515,673	515,957		
E													

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 10+650													
Dist. eixo (m)			-8,614	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	5,148		
Cota (m)			515,115	516,024	516,063	515,774	515,962	515,871	515,789	516,121	517,019		
E			237,732,8667	237,733,220	237,733,304	237,733,480	237,735,101	237,735,944	237,736,119	237,736,203	237,736,4359		
N			7,015,358,7061	7,015,357,389	7,015,357,077	7,015,356,423	7,015,350,387	7,015,347,248	7,015,346,595	7,015,346,282	7,015,345,4150		
Estacas: 10+660													
Dist. eixo (m)			-8,361	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250	4,289		
Cota (m)			515,099	515,834	515,872	515,584	515,771	515,733	515,652	515,983	516,022		
E			237,742,5926	237,742,878	237,742,962	237,743,138	237,744,759	237,745,601	237,745,777	237,745,861	237,745,8708		
N			7,015,361,0459	7,015,359,982	7,015,359,671	7,015,359,017	7,015,352,981	7,015,349,842	7,015,349,188	7,015,348,876	7,015,348,8384		
Estacas: 10+667													
Dist. eixo (m)			-6,476	-5,832	-5,509	-4,832	0,000	3,250	3,927	4,250	4,259		
Cota (m)			514,846	514,849	514,837	514,509	514,696	514,786	514,705	515,036	515,021		
E			237,749,9274	237,750,095	237,750,178	237,750,354	237,751,607	237,752,450	237,752,625	237,752,709	237,752,7115		
N			7,015,361,0741	7,015,360,452	7,015,360,140	7,015,359,486	7,015,354,820	7,015,351,681	7,015,351,027	7,015,350,715	7,015,350,7086		
Estacas: 10+670													
Dist. eixo (m)			-5,822	-5,250	-4,927	-4,250	0,000	3,250	3,927	4,250	4,284		
Cota (m)			515,169	515,550	515,589	515,300	515,427	515,443	515,362	515,693	515,670		
E			237,752,9064	237,753,055	237,753,139	237,753,314	237,754,416	237,755,259	237,755,435	237,755,519	237,755,5274		
N			7,015,361,1966	7,015,360,644	7,015,360,333	7,015,359,679	7,015,355,574	7,015,352,435	7,015,351,782	7,015,351,470	7,015,351,4368		
Estacas: 10+680													
Dist. eixo (m)			-4,534	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,351		
Cota (m)			514,894	515,083	515,122	514,833	514,931	515,000	514,918	515,250	515,182		
E			237,762,8982	237,762,972	237,763,056	237,763,231	237,764,074	237,764,917	237,765,093	237,765,176	237,765,2026		
N			7,015,362,5466	7,015,362,272	7,015,361,960	7,015,361,306	7,015,358,168	7,015,355,029	7,015,354,375	7,015,354,063	7,015,353,9655		
Estacas: 10+684													
Dist. eixo (m)			-4,553	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,272		
Cota (m)			514,846	514,849	514,837	514,509	514,696	514,786	514,705	515,036	515,021		
E			237,766,6512	237,766,730	237,766,814	237,766,989	237,767,832	237,768,675	237,768,851	237,768,934	237,768,9402		
N			7,015,363,5743	7,015,363,281	7,015,362,969	7,015,362,316	7,015,359,177	7,015,356,038	7,015,355,384	7,015,355,072	7,015,355,0505		
Estacas: 10+685													
Dist. eixo (m)			-4,591	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,296		
Cota (m)			514,527	514,755	514,793	514,505	514,602	514,700	514,618	514,950	514,995		
E			237,768,0298	237,768,120	237,768,205	237,768,384	237,769,242	237,770,100	237,770,279	237,770,364	237,770,3764		
N			7,015,363,9870	7,015,363,658	7,015,363,347	7,015,362,694	7,015,359,559	7,015,356,424	7,015,355,772	7,015,355,460	7,015,355,4156		
Estacas: 10+690													
Dist. eixo (m)			-4,630	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,619		
Cota (m)			514,155	514,409	514,447	514,159	514,281	514,403	514,322	514,653	515,023		
E			237,772,4238	237,772,530	237,772,620	237,772,809	237,773,715	237,774,622	237,774,811	237,774,901	237,775,0041		
N			7,015,365,2672	7,015,364,902	7,015,364,592	7,015,363,942	7,015,360,821	7,015,357,700	7,015,357,050	7,015,356,740	7,015,356,3851		
Estacas: 10+695													
Dist. eixo (m)			-4,630	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,922		
Cota (m)			513,740	513,994	514,032	513,744	513,893	514,043	513,961	514,293	514,964		
E			237,777,2252	237,777,338	237,777,433	237,777,633	237,778,592	237,779,552	237,779,751	237,779,847	237,780,0451		
N			7,015,366,7065	7,015,366,343	7,015,366,035	7,015,365,388	7,015,362,283	7,015,359,178	7,015,358,531	7,015,358,222	7,015,357,5805		
Estacas: 10+700													
Dist. eixo (m)			-4,387	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,092		
Cota (m)			513,519	513,610	513,649	513,360	513,509	513,659	513,578	513,909	514,751		
E			237,781,9068	237,781,949	237,782,060	237,782,260	237,783,270	237,784,280	237,784,491	237,784,691	237,784,8528		
N			7,015,367,9395	7,015,367,810	7,015,367,503	7,015,366,859	7,015,363,770	7,015,360,681	7,015,360,038	7,015,359,731	7,015,358,9306		
Estacas: 10+710													
Dist. eixo (m)			-4,472	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,635		
Cota (m)			512,683	512,831	512,870	512,581	512,730	512,880	512,799	513,130	513,415		
E			237,791,1904	237,791,267	237,791,377	237,791,609	237,792,721	237,793,834	237,794,066	237,794,176	237,794,2739		
N			7,015,371,2383	7,015,371,029	7,015,370,726	7,015,370,090	7,015,367,036	7,015,363,983	7,015,363,347	7,015,363,043	7,015,362,7747		
Estacas: 10+720													
Dist. eixo (m)			-4,485	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,389		
Cota (m)			511,932	512,089	512,128	511,839	511,988	512,138	512,057	512,388	512,295		
E			237,800,3834	237,800,471	237,800,592	237,800,845	237,802,058	237,803,272	237,803,525	237,803,646	237,803,8975		
N			7,015,374,7762	7,015,374,558	7,015,374,258	7,015,373,630	7,015,370,615	7,015,367,601	7,015,366,973	7,015,366,673	7,015,366,5438		
Estacas: 10+723													
Dist. eixo (m)			-4,544	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,457		
Cota (m)			511,706	511,902	511,941	511,652	511,801	511,951	511,870	512,201	512,063		
E			237,802,7613	237,802,873	237,802,997	237,803,255	237,804,495	237,805,735	237,805,993	237,806,117	237,806,1956		
N			7,015,378,8085	7,015,378,537	7,015,378,239	7,015,374,613	7,015,371,609	7,015,368,605	7,015,367,979	7,015,367,680	7,015,367,4888		
Estacas: 10+730													
Dist. eixo (m)			-4,749	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,671		
Cota (m)			511,062	511,395	511,434	511,145	511,295	511,444	511,363	511,694	511,413		
E			237,809,3516	237,809,553	237,809,684	237,809,958	237,811,271	237,812,585	237,812,858	237,812,988	237,813,1587		
N			7,015,378,8478	7,015,378,391	7,015,378,096	7,015,377,476	7,015,374,504	7,015,371,531	7,015,370,912	7,015,370,616	7,015,370,2312		
Estacas: 10+740													
Dist. eixo (m)			-4,856	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,421		
Cota (m)			510,345	510,749	510,788	510,499	510,649	510,798	510,717	511,048	510,934		
E			237,818,2392	237,818,503	237,818,643	237,818,937	237,820,349	237,821,761	237,822,055	237,822,195	237,822,2695		
N			7,015,383,0711	7,015,382,525	7,015,382,234	7,015,381,624	7,015,378,697	7,015,375,770	7,015,375,160	7,015,374,869	7,015,374,7146		
Estacas: 10+750													
Dist. eixo (m)			-4,832	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,526		
Cota (m)			509,760	510,148	510,187	509,898	510,048	510,197	510,116	510,447	509,597		
E			237,827,0392	237,827,309	237,827,459	237,827,773	237,829,282	237,830,791	237,831,105	237,831,255	237,831,8469		
N			7,015,387,4698	7,015,386,955	7,015,386,669	7,015,386,069	7,015,383,190	7,015,380,312	7,015,379,712	7,015,379,426	7,015,378,2959		
Estacas: 10+760													
Dist. eixo (m)			-4,369	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,524		
Cota (m)			509,468	509,547	509,586	509,297	509,447	509,596					

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 10+792													
Dist. eixo (m)			-4,326	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,016		
Cota (m)			507,408	507,332	507,371	507,082	507,277	507,472	507,391	507,722	507,211		
E			237,862,7671	237,863,812	237,863,003	237,863,403	237,865,321	237,867,239	237,867,639	237,867,830	237,868,2818		
N			7,015,408,0168	7,015,407,955	7,015,407,694	7,015,407,148	7,015,404,525	7,015,401,901	7,015,401,355	7,015,401,094	7,015,400,4753		
Estacas: 10+794													
Dist. eixo (m)			-4,296	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,892		
Cota (m)			507,233	507,187	507,225	506,837	507,132	507,327	507,245	507,577	507,149		
E			237,864,0812	237,864,109	237,864,303	237,864,709	237,866,661	237,868,613	237,869,020	237,869,214	237,869,5992		
N			7,015,408,9529	7,015,408,916	7,015,408,658	7,015,408,117	7,015,405,518	7,015,402,919	7,015,402,378	7,015,402,120	7,015,401,6067		
Estacas: 10+795													
Dist. eixo (m)			-4,267	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,857		
Cota (m)			507,041	507,041	506,991	506,791	506,986	507,181	507,100	507,431	507,026		
E			237,865,3826	237,865,393	237,865,590	237,866,004	237,867,989	237,869,974	237,870,387	237,870,585	237,870,9556		
N			7,015,409,9072	7,015,409,894	7,015,409,638	7,015,409,102	7,015,406,529	7,015,403,955	7,015,403,419	7,015,403,163	7,015,402,8827		
Estacas: 10+800													
Dist. eixo (m)			-4,441	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,928		
Cota (m)			506,525	506,652	506,691	506,402	506,572	506,741	506,660	506,991	506,539		
E			237,868,8603	237,868,983	237,869,189	237,869,622	237,871,700	237,873,778	237,874,210	237,874,417	237,874,8500		
N			7,015,412,9158	7,015,412,769	7,015,412,521	7,015,412,000	7,015,409,501	7,015,407,002	7,015,406,481	7,015,406,233	7,015,405,7119		
Estacas: 10+810													
Dist. eixo (m)			-4,548	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,882		
Cota (m)			506,682	505,881	506,919	505,631	505,748	505,865	505,783	506,115	505,693		
E			237,875,7220	237,875,929	237,876,153	237,876,623	237,878,881	237,881,138	237,881,608	237,881,833	237,882,2715		
N			7,015,419,2086	7,015,418,994	7,015,418,762	7,015,418,275	7,015,415,937	7,015,413,599	7,015,413,112	7,015,412,879	7,015,412,4248		
Estacas: 10+813													
Dist. eixo (m)			-4,566	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,832		
Cota (m)			505,404	505,615	505,654	505,365	505,463	505,580	505,479	505,810	505,423		
E			237,878,2989	237,878,519	237,878,743	237,879,213	237,881,471	237,883,728	237,884,198	237,884,423	237,884,8267		
N			7,015,421,7225	7,015,421,495	7,015,421,263	7,015,420,775	7,015,418,437	7,015,416,099	7,015,415,612	7,015,415,380	7,015,414,9612		
Estacas: 10+820													
Dist. eixo (m)			-4,635	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,791		
Cota (m)			504,864	505,121	505,159	504,871	504,968	505,029	504,948	505,279	504,918		
E			237,883,1108	237,883,378	237,883,603	237,884,073	237,886,330	237,888,588	237,889,058	237,889,282	237,889,6578		
N			7,015,426,4634	7,015,426,186	7,015,425,954	7,015,425,467	7,015,423,129	7,015,420,791	7,015,420,304	7,015,420,071	7,015,419,6822		
Estacas: 10+830													
Dist. eixo (m)			-4,626	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,807		
Cota (m)			504,232	504,482	504,521	504,232	504,329	504,336	504,255	504,586	504,215		
E			237,890,3116	237,890,572	237,890,797	237,891,267	237,893,524	237,895,782	237,896,252	237,896,476	237,896,8629		
N			7,015,433,4023	7,015,433,132	7,015,432,900	7,015,432,413	7,015,430,075	7,015,427,737	7,015,427,250	7,015,427,017	7,015,426,6167		
Estacas: 10+831													
Dist. eixo (m)			-4,628	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,795		
Cota (m)			504,159	504,410	504,449	504,160	504,258	504,258	504,177	504,508	504,145		
E			237,891,2060	237,891,468	237,891,693	237,892,163	237,894,420	237,896,678	237,897,148	237,897,372	237,897,7506		
N			7,015,434,2688	7,015,433,997	7,015,433,765	7,015,433,278	7,015,430,940	7,015,428,602	7,015,428,115	7,015,427,882	7,015,427,4902		
Estacas: 10+840													
Dist. eixo (m)			-4,725	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,791		
Cota (m)			503,639	503,955	503,994	503,705	503,803	503,755	503,674	504,005	503,645		
E			237,897,4370	237,897,767	237,897,991	237,898,461	237,900,719	237,902,976	237,903,446	237,903,671	237,904,0463		
N			7,015,440,4193	7,015,440,078	7,015,439,846	7,015,439,359	7,015,437,020	7,015,434,682	7,015,434,195	7,015,433,963	7,015,433,5737		
Estacas: 10+849													
Dist. eixo (m)			-4,568	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,699		
Cota (m)			503,356	503,568	503,607	503,318	503,416	503,318	503,237	503,568	503,268		
E			237,904,1973	237,904,418	237,904,642	237,905,113	237,907,370	237,909,627	237,910,097	237,910,322	237,910,6340		
N			7,015,446,7279	7,015,446,500	7,015,446,267	7,015,445,780	7,015,443,442	7,015,441,104	7,015,440,617	7,015,440,384	7,015,440,0611		
Estacas: 10+850													
Dist. eixo (m)			-4,561	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,709		
Cota (m)			503,333	503,541	503,579	503,291	503,388	503,291	503,210	503,541	503,235		
E			237,904,7448	237,904,961	237,905,185	237,905,655	237,907,913	237,910,170	237,910,640	237,910,865	237,911,1836		
N			7,015,447,2474	7,015,447,024	7,015,446,791	7,015,446,304	7,015,443,966	7,015,441,628	7,015,441,141	7,015,440,909	7,015,440,5783		
Estacas: 10+860													
Dist. eixo (m)			-4,624	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,520		
Cota (m)			502,989	503,238	503,277	502,988	503,086	502,988	502,907	503,238	503,058		
E			237,911,8953	237,912,155	237,912,379	237,912,850	237,915,107	237,917,364	237,917,834	237,918,059	237,918,2468		
N			7,015,454,2385	7,015,453,969	7,015,453,737	7,015,453,250	7,015,450,912	7,015,448,574	7,015,448,087	7,015,447,854	7,015,447,6598		
Estacas: 10+870													
Dist. eixo (m)			-4,489	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,579		
Cota (m)			502,869	503,029	503,068	502,779	502,876	502,779	502,698	503,029	502,809		
E			237,919,1831	237,919,349	237,919,574	237,920,044	237,922,301	237,924,559	237,925,029	237,925,253	237,925,4820		
N			7,015,461,0872	7,015,460,915	7,015,460,683	7,015,460,196	7,015,457,858	7,015,455,520	7,015,455,033	7,015,454,800	7,015,454,3631		
Estacas: 10+880													
Dist. eixo (m)			-4,691	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,669		
Cota (m)			502,535	502,830	502,868	502,580	502,677	502,580	502,498	502,830	502,550		
E			237,926,2370	237,926,543	237,926,768	237,927,238	237,929,495	237,931,753	237,932,223	237,932,447	237,932,7384		
N			7,015,468,1784	7,015,467,861	7,015,467,629	7,015,467,142	7,015,464,803	7,015,462,465	7,015,461,978	7,015,461,746	7,015,461,4444		
Estacas: 10+890													
Dist. eixo (m)			-4,795	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,738		
Cota (m)			502,267	502,630	502,669	502,380	502,478	502,380	502,299	502,630	502,305		
E			237,933,3593	237,933,738	237,933,962	237,934,432	237,936,690	237,938,947	237,939,417	237,939,642	237,939,9804		
N			7,015,475,1985	7,015,474,807	7,015,474,574	7,015,474,087	7,015,471,749	7,015,469,411	7,015,468,924	7,015,468,692	7,015,468,3406		
Estacas: 10+900													
Dist. eixo (m)			-4,792	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 10+940													
Dist. eixo (m)			-4,820	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,266		
Cota (m)			501,254	501,634	501,672	501,384	501,481	501,384	501,302	501,634	501,649		
E			237,969,9613	237,970,339	237,970,553	237,971,002	237,973,158	237,975,314	237,975,763	237,975,977	237,975,9873		
N			7,015,509,5546	7,015,509,128	7,015,508,887	7,015,508,380	7,015,505,948	7,015,503,516	7,015,503,009	7,015,502,767	7,015,502,7556		
Estacas: 10+950													
Dist. eixo (m)			-4,868	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,753		
Cota (m)			500,928	501,434	501,473	501,184	501,282	501,184	501,103	501,434	501,099		
E			237,977,4998	237,977,904	237,978,115	237,978,558	237,980,683	237,982,808	237,983,251	237,983,462	237,983,7909		
N			7,015,516,2170	7,015,515,749	7,015,515,505	7,015,514,993	7,015,512,534	7,015,510,075	7,015,509,563	7,015,509,318	7,015,508,9375		
Estacas: 10+960													
Dist. eixo (m)			-4,710	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,838		
Cota (m)			500,928	501,235	501,274	500,985	501,082	500,985	500,904	501,235	500,843		
E			237,985,1718	237,985,473	237,985,684	237,986,126	237,988,251	237,990,375	237,990,818	237,991,029	237,991,4132		
N			7,015,522,6349	7,015,522,287	7,015,522,042	7,015,521,530	7,015,519,071	7,015,516,611	7,015,516,099	7,015,515,854	7,015,515,4093		
Estacas: 10+970													
Dist. eixo (m)			-4,745	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,980		
Cota (m)			500,706	501,036	501,074	500,786	500,883	500,786	500,704	501,036	500,549		
E			237,992,7167	237,993,040	237,993,251	237,993,694	237,995,818	237,997,943	237,998,385	237,998,597	237,998,0738		
N			7,015,529,1980	7,015,528,824	7,015,528,579	7,015,528,067	7,015,525,607	7,015,523,148	7,015,522,636	7,015,522,391	7,015,521,8386		
Estacas: 10+980													
Dist. eixo (m)			-4,699	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,334		
Cota (m)			500,537	500,836	500,875	500,586	500,684	500,586	500,505	500,836	500,780		
E			238,000,3141	238,000,608	238,000,819	238,001,261	238,003,386	238,005,510	238,005,953	238,006,164	238,006,2190		
N			7,015,535,7005	7,015,535,361	7,015,535,116	7,015,534,604	7,015,532,144	7,015,529,685	7,015,529,173	7,015,528,928	7,015,528,6645		
Estacas: 10+990													
Dist. eixo (m)			-4,431	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,330		
Cota (m)			500,516	500,637	500,676	500,387	500,484	500,387	500,306	500,637	500,583		
E			238,008,0573	238,008,175	238,008,387	238,008,829	238,010,954	238,013,078	238,013,520	238,013,732	238,013,7841		
N			7,015,542,0342	7,015,541,898	7,015,541,653	7,015,541,141	7,015,538,681	7,015,536,222	7,015,535,710	7,015,535,465	7,015,535,4044		
Estacas: 11+000													
Dist. eixo (m)			-4,290	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,292		
Cota (m)			500,477	500,438	500,476	500,188	500,285	500,188	500,106	500,438	500,409		
E			238,015,7170	238,015,743	238,015,954	238,016,397	238,018,521	238,020,646	238,021,088	238,021,299	238,021,3270		
N			7,015,548,4644	7,015,548,434	7,015,548,190	7,015,547,678	7,015,545,218	7,015,542,759	7,015,542,247	7,015,542,002	7,015,541,9699		
Estacas: 11+007													
Dist. eixo (m)			-4,405	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250			
Cota (m)			500,454	500,298	500,337	500,048	500,146	500,048	499,967	500,298			
E			238,020,9244	238,021,026	238,021,237	238,021,680	238,023,804	238,025,929	238,026,371	238,026,582			
N			7,015,553,1153	7,015,552,998	7,015,552,753	7,015,552,241	7,015,549,782	7,015,547,322	7,015,546,810	7,015,546,565			
Estacas: 11+010													
Dist. eixo (m)			-4,432	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,274		
Cota (m)			500,420	500,238	500,277	499,988	500,086	499,988	499,907	500,238	500,262		
E			238,023,1750	238,023,295	238,023,507	238,023,951	238,026,085	238,028,219	238,028,663	238,028,875	238,028,8912		
N			7,015,555,1026	7,015,554,965	7,015,554,722	7,015,554,211	7,015,551,759	7,015,549,308	7,015,548,797	7,015,548,554	7,015,548,5354		
Estacas: 11+020													
Dist. eixo (m)			-4,539	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,337		
Cota (m)			500,328	500,039	500,078	499,789	499,886	499,789	499,708	500,039	500,125		
E			238,030,5643	238,030,757	238,030,972	238,031,423	238,033,587	238,035,751	238,036,202	238,036,417	238,036,4746		
N			7,015,561,7578	7,015,561,542	7,015,561,301	7,015,560,796	7,015,568,372	7,015,565,947	7,015,565,442	7,015,565,201	7,015,565,1385		
Estacas: 11+025													
Dist. eixo (m)			-4,404	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,487		
Cota (m)			500,085	499,931	499,970	499,681	499,779	499,681	499,600	499,931	499,773		
E			238,034,6556	238,034,759	238,034,976	238,035,430	238,037,610	238,039,791	238,040,245	238,040,462	238,040,6210		
N			7,015,565,2532	7,015,565,139	7,015,564,900	7,015,564,398	7,015,561,988	7,015,559,578	7,015,559,076	7,015,558,836	7,015,558,6605		
Estacas: 11+030													
Dist. eixo (m)			-4,304	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,807		
Cota (m)			499,804	499,840	499,878	499,590	499,687	499,590	499,508	499,840	499,468		
E			238,038,0991	238,038,136	238,038,354	238,038,811	238,041,005	238,043,200	238,043,657	238,043,875	238,044,2508		
N			7,015,568,2522	7,015,568,212	7,015,567,974	7,015,567,475	7,015,565,077	7,015,562,680	7,015,562,181	7,015,561,942	7,015,561,5315		
Estacas: 11+040													
Dist. eixo (m)			-4,843	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,167		
Cota (m)			499,245	499,640	499,679	499,390	499,488	499,390	499,309	499,640	499,029		
E			238,045,0250	238,045,431	238,045,652	238,046,115	238,048,339	238,050,563	238,051,027	238,051,248	238,051,8754		
N			7,015,578,4063	7,015,574,974	7,015,574,739	7,015,574,245	7,015,571,875	7,015,569,506	7,015,569,012	7,015,568,776	7,015,568,1076		
Estacas: 11+044													
Dist. eixo (m)			-5,091	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,229		
Cota (m)			499,030	499,564	499,602	499,314	499,411	499,314	499,232	499,564	498,911		
E			238,047,6301	238,048,208	238,048,431	238,048,896	238,051,132	238,053,367	238,053,833	238,054,055	238,054,7283		
N			7,015,578,2039	7,015,577,594	7,015,577,359	7,015,576,868	7,015,574,509	7,015,572,150	7,015,571,659	7,015,571,424	7,015,570,7136		
Estacas: 11+050													
Dist. eixo (m)			-5,076	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,603		
Cota (m)			499,900	499,451	499,490	499,201	499,298	499,201	499,120	499,451	498,549		
E			238,052,1128	238,052,681	238,052,903	238,053,369	238,055,604	238,057,840	238,058,305	238,058,527	238,059,4583		
N			7,015,582,4311	7,015,581,832	7,015,581,597	7,015,581,106	7,015,578,747	7,015,576,388	7,015,575,897	7,015,575,662	7,015,574,6797		
Estacas: 11+060													
Dist. eixo (m)			-4,969	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,890		
Cota (m)			498,879	499,358	499,397	499,108	499,206	499,108	499,027	499,358	498,265		
E			238,059,4446	238,059,939	238,060,161	238,060,627	238,062,863	238,065,098	238,065,564	238,065,786	238,066,9141		
N			7,015,589,2323	7,015,588,710	7,015,588,476	7,015,587,985	7,015,585,626	7,015,583,267	7,015,582,775	7,015,582,541	7,015,581,3501		
Estacas: 11+070													
Dist. eixo (m)			-4,891	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,842		
Cota (m)			499,356	499,383	499,422	499,133	499,230	499,133	499,052	499,383	498,988		
E			238,066,7571	238,067,198	238								

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 11+112													
Dist. eixo (m)			-5,132	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,312		
Cota (m)			501,745	500,864	500,902	500,614	500,614	500,516	500,435	500,766	500,828		
E			238,097,1380	238,097,744	238,097,967	238,098,432	238,100,668	238,102,903	238,103,369	238,103,591	238,103,634		
N			7,015,625,1761	7,015,624,536	7,015,624,302	7,015,623,810	7,015,621,451	7,015,619,092	7,015,618,601	7,015,618,366	7,015,618,3211		
Estacas: 11+120													
Dist. eixo (m)			-4,922	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,278		
Cota (m)			502,060	501,387	501,426	501,137	501,095	500,997	500,916	501,247	501,275		
E			238,103,0280	238,103,490	238,103,713	238,104,178	238,106,414	238,108,649	238,109,115	238,109,337	238,109,3661		
N			7,015,630,4693	7,015,629,981	7,015,629,747	7,015,629,256	7,015,626,897	7,015,624,537	7,015,624,046	7,015,623,812	7,015,623,7916		
Estacas: 11+130													
Dist. eixo (m)			-4,567	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,467		
Cota (m)			502,371	502,054	502,093	501,804	501,708	501,610	501,529	501,860	502,077		
E			238,110,5307	238,110,749	238,110,971	238,111,437	238,113,672	238,115,908	238,116,373	238,116,596	238,116,749		
N			7,015,637,0902	7,015,636,860	7,015,636,625	7,015,636,134	7,015,633,775	7,015,631,416	7,015,630,925	7,015,630,690	7,015,630,5326		
Estacas: 11+132													
Dist. eixo (m)			-4,471	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,583		
Cota (m)			502,432	502,212	502,250	501,962	501,852	501,743	501,662	501,993	502,327		
E			238,112,4001	238,112,552	238,112,774	238,113,240	238,115,475	238,117,711	238,118,176	238,118,399	238,118,6280		
N			7,015,638,7285	7,015,638,568	7,015,638,334	7,015,637,843	7,015,635,484	7,015,633,124	7,015,632,633	7,015,632,399	7,015,632,1565		
Estacas: 11+140													
Dist. eixo (m)			-4,274	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,802		
Cota (m)			502,646	502,662	502,701	502,412	502,263	502,113	502,032	502,363	502,916		
E			238,118,2296	238,118,245	238,118,457	238,118,902	238,121,037	238,123,172	238,123,617	238,123,829	238,124,1921		
N			7,015,643,7601	7,015,643,742	7,015,643,499	7,015,642,988	7,015,640,538	7,015,638,088	7,015,637,578	7,015,637,334	7,015,636,9174		
Estacas: 11+146													
Dist. eixo (m)			-4,538	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,726		
Cota (m)			502,805	502,997	503,036	502,747	502,565	502,383	502,302	502,633	503,109		
E			238,122,8263	238,123,009	238,123,212	238,123,640	238,125,691	238,127,742	238,128,169	238,128,373	238,128,6734		
N			7,015,647,9772	7,015,647,753	7,015,647,503	7,015,646,978	7,015,644,457	7,015,641,936	7,015,641,411	7,015,641,160	7,015,640,7904		
Estacas: 11+150													
Dist. eixo (m)			-4,673	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,572		
Cota (m)			502,896	503,178	503,217	502,928	502,746	502,564	502,483	502,814	503,136		
E			238,126,8857	238,126,145	238,126,344	238,126,759	238,128,755	238,130,751	238,131,167	238,131,365	238,131,5627		
N			7,015,650,5827	7,015,650,249	7,015,649,994	7,015,649,460	7,015,646,895	7,015,644,330	7,015,643,796	7,015,643,541	7,015,643,2863		
Estacas: 11+160													
Dist. eixo (m)			-4,831	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,547		
Cota (m)			503,203	503,590	503,629	503,340	503,158	502,976	502,895	503,226	503,523		
E			238,134,0639	238,134,395	238,134,578	238,134,964	238,136,814	238,138,664	238,139,050	238,139,234	238,139,4028		
N			7,015,656,7848	7,015,656,307	7,015,656,042	7,015,655,485	7,015,652,813	7,015,650,141	7,015,649,585	7,015,649,319	7,015,648,0748		
Estacas: 11+166													
Dist. eixo (m)			-4,773	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,311		
Cota (m)			503,447	503,796	503,835	503,546	503,364	503,182	503,101	503,432	503,493		
E			238,139,0340	238,139,318	238,139,493	238,139,860	238,141,624	238,143,387	238,143,754	238,143,930	238,143,9625		
N			7,015,660,0396	7,015,659,601	7,015,659,329	7,015,658,761	7,015,656,031	7,015,653,301	7,015,652,732	7,015,652,461	7,015,652,4095		
Estacas: 11+170													
Dist. eixo (m)			-5,045	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,303		
Cota (m)			503,406	503,936	503,975	503,686	503,504	503,322	503,241	503,572	503,625		
E			238,142,5518	238,142,968	238,143,136	238,143,490	238,145,189	238,146,888	238,147,242	238,147,411	238,147,4385		
N			7,015,662,5758	7,015,661,898	7,015,661,623	7,015,661,046	7,015,658,275	7,015,655,504	7,015,654,927	7,015,654,652	7,015,654,6071		
Estacas: 11+180													
Dist. eixo (m)			-5,315	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,464		
Cota (m)			503,559	504,269	504,308	504,019	503,837	503,655	503,574	503,905	503,762		
E			238,151,3320	238,151,838	238,151,991	238,152,312	238,153,855	238,155,397	238,155,719	238,155,872	238,155,937		
N			7,015,667,9416	7,015,667,004	7,015,666,720	7,015,666,124	7,015,663,263	7,015,660,403	7,015,659,807	7,015,659,522	7,015,659,3337		
Estacas: 11+185													
Dist. eixo (m)			-5,364	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,587		
Cota (m)			503,710	504,452	504,491	504,202	504,020	503,838	503,757	504,088	503,863		
E			238,156,3250	238,156,823	238,156,968	238,157,271	238,158,726	238,160,180	238,160,483	238,160,628	238,160,7786		
N			7,015,670,5910	7,015,669,595	7,015,669,306	7,015,668,701	7,015,665,795	7,015,662,888	7,015,662,283	7,015,661,994	7,015,661,6925		
Estacas: 11+190													
Dist. eixo (m)			-5,492	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,646		
Cota (m)			503,747	504,675	504,614	504,325	504,170	504,015	503,934	504,265	504,001		
E			238,160,4498	238,160,978	238,161,115	238,161,403	238,162,794	238,164,165	238,164,453	238,164,590	238,164,7584		
N			7,015,672,7337	7,015,671,610	7,015,671,317	7,015,670,705	7,015,667,763	7,015,664,821	7,015,664,208	7,015,663,916	7,015,663,5575		
Estacas: 11+199													
Dist. eixo (m)			-5,366	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,724		
Cota (m)			504,080	504,823	504,862	504,573	504,473	504,372	504,291	504,622	504,306		
E			238,169,0731	238,169,496	238,169,618	238,169,875	238,171,106	238,172,337	238,172,593	238,172,715	238,172,8949		
N			7,015,676,3623	7,015,675,350	7,015,675,051	7,015,674,424	7,015,671,147	7,015,668,409	7,015,667,782	7,015,667,483	7,015,667,0447		
Estacas: 11+200													
Dist. eixo (m)			-5,340	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,729		
Cota (m)			504,122	504,648	504,687	504,398	504,303	504,208	504,127	504,458	504,339		
E			238,169,9256	238,170,338	238,170,461	238,170,717	238,171,948	238,173,179	238,173,436	238,173,558	238,173,7394		
N			7,015,676,7031	7,015,675,695	7,015,675,396	7,015,674,769	7,015,671,762	7,015,668,754	7,015,668,127	7,015,667,828	7,015,667,3852		
Estacas: 11+210													
Dist. eixo (m)			-5,111	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,771		
Cota (m)			504,547	505,121	505,160	504,871	504,836	504,801	504,720	505,051	504,704		
E			238,179,2671	238,179,593	238,179,716	238,179,972	238,181,203	238,182,434	238,182,691	238,182,813	238,183,0101		
N			7,015,680,2793	7,015,679,483	7,015,679,184	7,015,678,557	7,015,675,549	7,015,672,542	7,015,671,915	7,015,671,616	7,015,671,1342		
Estacas: 11+220													
Dist. eixo (m)			-4,917	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,79		

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 11+254													
Dist. eixo (m)			-7,821	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,551		
Cota (m)			503,749	506,130	506,168	505,880	506,055	506,231	506,149	506,481	506,280		
E			238,217,8329	238,219,537	238,219,691	238,220,014	238,221,566	238,223,117	238,223,440	238,231,594	238,232,735		
N			7,015,700,2257	7,015,697,088	7,015,696,804	7,015,696,209	7,015,693,353	7,015,690,497	7,015,689,902	7,015,689,618	7,015,689,3540		
Estacas: 11+260													
Dist. eixo (m)			-8,481	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,383		
Cota (m)			503,492	506,210	506,248	505,960	506,135	506,311	506,229	506,561	506,472		
E			238,225,0579	238,224,535	238,224,697	238,225,038	238,226,672	238,228,306	238,228,646	238,228,809	238,228,8755		
N			7,015,703,5547	7,015,699,898	7,015,699,619	7,015,699,033	7,015,696,224	7,015,693,415	7,015,692,830	7,015,692,550	7,015,692,4354		
Estacas: 11+263													
Dist. eixo (m)			-8,377	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,526		
Cota (m)			503,492	506,244	506,282	505,994	506,169	506,345	506,263	506,595	506,411		
E			238,225,0579	238,227,189	238,227,356	238,227,705	238,229,384	238,231,062	238,231,411	238,231,578	238,231,7205		
N			7,015,705,0041	7,015,701,470	7,015,701,193	7,015,700,613	7,015,697,830	7,015,695,047	7,015,694,467	7,015,694,190	7,015,693,9541		
Estacas: 11+270													
Dist. eixo (m)			-8,272	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,564		
Cota (m)			503,658	506,339	506,378	506,089	506,227	506,365	506,284	506,615	506,405		
E			238,230,6753	238,232,869	238,233,045	238,233,414	238,235,187	238,236,959	238,237,328	238,237,504	238,237,6758		
N			7,015,708,3993	7,015,705,028	7,015,704,758	7,015,704,190	7,015,701,466	7,015,698,742	7,015,698,174	7,015,697,904	7,015,697,6400		
Estacas: 11+276													
Dist. eixo (m)			-8,274	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,539		
Cota (m)			503,741	506,424	506,462	506,174	506,279	506,384	506,303	506,634	506,442		
E			238,235,4095	238,237,703	238,237,888	238,238,274	238,240,126	238,241,979	238,242,365	238,242,549	238,242,7136		
N			7,015,711,5833	7,015,708,277	7,015,708,012	7,015,707,456	7,015,704,786	7,015,702,115	7,015,701,559	7,015,701,294	7,015,701,0565		
Estacas: 11+277													
Dist. eixo (m)			-8,292	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,522		
Cota (m)			503,753	506,448	506,487	506,198	506,295	506,399	506,312	506,643	506,452		
E			238,236,5679	238,238,872	238,239,056	238,239,442	238,241,295	238,243,147	238,243,533	238,243,718	238,243,8725		
N			7,015,712,4086	7,015,709,088	7,015,708,823	7,015,708,267	7,015,705,596	7,015,702,926	7,015,702,370	7,015,702,105	7,015,701,8811		
Estacas: 11+280													
Dist. eixo (m)			-8,306	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,478		
Cota (m)			503,779	506,483	506,522	506,233	506,331	506,414	506,332	506,664	506,512		
E			238,238,7175	238,241,030	238,241,214	238,241,600	238,243,452	238,245,305	238,245,691	238,245,875	238,246,0048		
N			7,015,713,9172	7,015,710,585	7,015,710,320	7,015,709,764	7,015,707,093	7,015,704,423	7,015,703,867	7,015,703,602	7,015,703,4145		
Estacas: 11+290													
Dist. eixo (m)			-8,606	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,402		
Cota (m)			503,773	506,677	506,716	506,427	506,525	506,553	506,472	506,803	506,702		
E			238,246,7623	238,249,246	238,249,430	238,249,816	238,251,668	238,253,521	238,253,907	238,254,091	238,254,1779		
N			7,015,719,8646	7,015,716,286	7,015,716,020	7,015,715,464	7,015,712,794	7,015,710,124	7,015,709,568	7,015,709,302	7,015,709,1770		
Estacas: 11+295													
Dist. eixo (m)			-8,840	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,360		
Cota (m)			503,755	506,815	506,853	506,565	506,662	506,662	506,581	506,912	506,839		
E			238,250,8618	238,253,478	238,253,662	238,254,048	238,255,901	238,257,754	238,258,139	238,258,324	238,258,3863		
N			7,015,722,9933	7,015,719,223	7,015,718,957	7,015,718,401	7,015,715,731	7,015,713,061	7,015,712,505	7,015,712,239	7,015,712,1487		
Estacas: 11+300													
Dist. eixo (m)			-9,179	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,314		
Cota (m)			503,685	506,971	507,009	506,721	506,814	506,788	506,707	507,038	506,955		
E			238,254,6516	238,257,461	238,257,646	238,258,032	238,259,884	238,261,737	238,262,123	238,262,307	238,262,3435		
N			7,015,726,0360	7,015,721,987	7,015,721,721	7,015,721,165	7,015,718,495	7,015,715,825	7,015,715,268	7,015,715,003	7,015,714,9502		
Estacas: 11+310													
Dist. eixo (m)			-10,379	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,319		
Cota (m)			503,325	507,410	507,449	507,160	507,199	507,118	507,037	507,368	507,322		
E			238,262,1837	238,265,677	238,265,862	238,266,248	238,268,100	238,269,953	238,270,339	238,270,523	238,270,5624		
N			7,015,732,7224	7,015,727,687	7,015,727,422	7,015,726,866	7,015,724,195	7,015,721,525	7,015,720,969	7,015,720,704	7,015,720,6468		
Estacas: 11+313													
Dist. eixo (m)			-10,554	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,349		
Cota (m)			503,354	507,557	507,596	507,307	507,330	507,232	507,151	507,482	507,417		
E			238,264,4905	238,268,084	238,268,268	238,268,654	238,270,507	238,272,360	238,272,746	238,272,930	238,272,9861		
N			7,015,734,5366	7,015,729,357	7,015,729,092	7,015,728,536	7,015,725,865	7,015,723,195	7,015,722,639	7,015,722,374	7,015,722,2925		
Estacas: 11+316													
Dist. eixo (m)			-11,033	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,411		
Cota (m)			503,178	507,700	507,739	507,450	507,458	507,361	507,279	507,611	507,503		
E			238,266,4369	238,270,304	238,270,488	238,270,874	238,272,727	238,274,579	238,274,965	238,275,149	238,275,2409		
N			7,015,736,4702	7,015,730,897	7,015,730,632	7,015,730,076	7,015,727,405	7,015,724,735	7,015,724,179	7,015,723,914	7,015,723,7816		
Estacas: 11+320													
Dist. eixo (m)			-10,486	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,543		
Cota (m)			503,788	507,945	507,984	507,695	507,679	507,582	507,500	507,832	507,637		
E			238,270,3383	238,273,893	238,274,078	238,274,463	238,276,316	238,278,169	238,278,555	238,278,739	238,278,9057		
N			7,015,739,5115	7,015,733,388	7,015,733,123	7,015,732,566	7,015,729,896	7,015,727,226	7,015,726,670	7,015,726,404	7,015,726,1639		
Estacas: 11+330													
Dist. eixo (m)			-8,679	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,773		
Cota (m)			505,623	508,675	508,614	508,325	508,254	508,157	508,076	508,407	508,058		
E			238,279,5847	238,282,109	238,282,294	238,282,679	238,284,532	238,286,385	238,286,771	238,286,955	238,287,2532		
N			7,015,742,7271	7,015,739,089	7,015,738,823	7,015,738,267	7,015,735,597	7,015,732,927	7,015,732,370	7,015,732,105	7,015,731,6751		
Estacas: 11+333													
Dist. eixo (m)			-8,085	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,796		
Cota (m)			506,255	508,812	508,850	508,562	508,472	508,375	508,293	508,625	508,261		
E			238,282,7238	238,284,910	238,285,094	238,285,480	238,287,333	238,289,185	238,289,571	238,289,756	238,290,0666		
N			7,015,744,1823	7,015,741,032	7,015,740,766	7,015,740,210	7,015,737,540	7,015,734,870	7,015,734,314	7,015,734,048	7,015,733,5997		
Estacas: 11+336													
Dist. eixo (m)			-7,589	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,809		
Cota (m)			506,790	509,016	509,055	508,766	508,681	508,585	508,474	508,805			

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 11+369													
Dist. eixo (m)			-5,744	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250			
Cota (m)			510,202	511,198	511,237	510,948	510,772	510,597	510,516	510,847			
E			238,316,8656	238,316,504	238,316,642	238,316,931	238,318,318	238,319,706	238,319,995	238,320,133			
N			7,015,760,9114	7,015,759,560	7,015,759,268	7,015,758,656	7,015,755,717	7,015,752,779	7,015,752,167	7,015,751,874			
Estacas: 11+370													
Dist. eixo (m)			-5,736	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,438		
Cota (m)			510,240	511,231	511,270	510,981	510,805	510,630	510,549	510,880	510,755		
E			238,320,1066	238,320,679	238,320,811	238,321,086	238,322,407	238,323,729	238,324,004	238,324,135	238,324,7420		
N			7,015,762,7618	7,015,761,475	7,015,761,180	7,015,760,561	7,015,757,592	7,015,754,623	7,015,754,004	7,015,753,709	7,015,752,3454		
Estacas: 11+374													
Dist. eixo (m)			-5,658	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,743		
Cota (m)			510,484	511,424	511,462	511,174	510,998	510,823	510,741	511,073	510,078		
E			238,320,1066	238,320,679	238,320,811	238,321,086	238,322,407	238,323,729	238,324,004	238,324,135	238,324,7420		
N			7,015,762,7618	7,015,761,475	7,015,761,180	7,015,760,561	7,015,757,592	7,015,754,623	7,015,754,004	7,015,753,709	7,015,752,3454		
Estacas: 11+380													
Dist. eixo (m)			-4,925	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,641		
Cota (m)			511,233	511,683	511,722	511,433	511,258	511,082	511,001	511,332	509,738		
E			238,326,1742	238,326,430	238,326,552	238,326,808	238,328,038	238,329,268	238,329,524	238,329,646	238,330,5509		
N			7,015,764,5541	7,015,763,929	7,015,763,631	7,015,763,004	7,015,759,996	7,015,756,987	7,015,756,361	7,015,756,062	7,015,753,8484		
Estacas: 11+388													
Dist. eixo (m)			-5,318	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,800		
Cota (m)			511,229	511,941	511,980	511,691	511,516	511,340	511,259	511,590	509,890		
E			238,333,7838	238,334,148	238,334,258	238,334,488	238,335,596	238,336,703	238,336,933	238,337,043	238,337,9116		
N			7,015,767,9083	7,015,766,903	7,015,766,600	7,015,765,963	7,015,762,908	7,015,759,852	7,015,759,216	7,015,758,912	7,015,756,5149		
Estacas: 11+390													
Dist. eixo (m)			-5,399	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,810		
Cota (m)			511,210	511,986	512,024	511,736	511,562	511,388	511,307	511,638	508,932		
E			238,335,5940	238,335,975	238,336,082	238,336,307	238,337,385	238,338,463	238,338,687	238,338,795	238,339,6436		
N			7,015,768,6404	7,015,767,556	7,015,767,252	7,015,766,613	7,015,763,547	7,015,760,481	7,015,759,842	7,015,759,537	7,015,757,1225		
Estacas: 11+400													
Dist. eixo (m)			-5,650	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,710		
Cota (m)			511,153	512,086	512,125	511,836	511,718	511,599	511,518	511,849	510,209		
E			238,345,2926	238,345,690	238,345,782	238,345,974	238,346,898	238,347,821	238,348,014	238,348,105	238,348,8042		
N			7,015,772,0432	7,015,770,701	7,015,770,392	7,015,769,743	7,015,766,626	7,015,763,510	7,015,762,861	7,015,762,552	7,015,760,1930		
Estacas: 11+402													
Dist. eixo (m)			-5,823	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,698		
Cota (m)			511,041	512,089	512,128	511,839	511,734	511,629	511,547	511,879	510,246		
E			238,347,6741	238,348,102	238,348,190	238,348,375	238,349,260	238,350,145	238,350,329	238,350,417	238,351,0838		
N			7,015,772,9133	7,015,771,400	7,015,771,089	7,015,770,438	7,015,767,311	7,015,764,183	7,015,763,532	7,015,763,221	7,015,760,8653		
Estacas: 11+406													
Dist. eixo (m)			-5,886	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,626		
Cota (m)			511,000	512,090	512,129	511,840	511,754	511,656	511,575	511,906	510,322		
E			238,350,9463	238,351,392	238,351,480	238,351,664	238,352,549	238,353,434	238,353,619	238,353,707	238,354,3535		
N			7,015,773,9050	7,015,772,331	7,015,772,020	7,015,771,369	7,015,768,242	7,015,765,114	7,015,764,463	7,015,764,152	7,015,761,8657		
Estacas: 11+410													
Dist. eixo (m)			-5,907	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,539		
Cota (m)			510,987	512,092	512,130	511,842	511,778	511,680	511,599	511,930	510,404		
E			238,354,9072	238,355,359	238,355,446	238,355,631	238,356,516	238,357,401	238,357,585	238,357,673	238,358,2963		
N			7,015,775,0476	7,015,773,453	7,015,773,143	7,015,772,491	7,015,769,364	7,015,766,237	7,015,765,586	7,015,765,275	7,015,763,0721		
Estacas: 11+420													
Dist. eixo (m)			-5,945	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250			
Cota (m)			510,965	512,095	512,134	511,845	511,836	511,738	511,657	511,988			
E			238,364,5190	238,364,981	238,365,068	238,365,253	238,366,138	238,367,023	238,367,207	238,367,295			
N			7,015,777,8071	7,015,776,177	7,015,775,866	7,015,775,214	7,015,772,087	7,015,768,960	7,015,768,309	7,015,767,998			
Estacas: 11+424													
Dist. eixo (m)			-5,981	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,240		
Cota (m)			510,942	512,096	512,135	511,846	511,857	511,760	511,678	512,010	510,683		
E			238,368,0263	238,368,498	238,368,586	238,368,770	238,369,655	238,370,540	238,370,724	238,370,812	238,371,3544		
N			7,015,778,8379	7,015,777,172	7,015,776,861	7,015,776,210	7,015,773,083	7,015,769,955	7,015,769,304	7,015,768,993	7,015,767,0780		
Estacas: 11+430													
Dist. eixo (m)			-6,083	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,433		
Cota (m)			510,877	512,098	512,137	511,848	511,894	511,797	511,715	512,047	511,258		
E			238,373,5793	238,374,219	238,374,331	238,374,568	238,375,702	238,376,836	238,377,072	238,377,185	238,377,5976		
N			7,015,780,6967	7,015,778,979	7,015,778,677	7,015,778,042	7,015,774,996	7,015,771,951	7,015,771,316	7,015,771,014	7,015,769,9046		
Estacas: 11+440													
Dist. eixo (m)			-8,174	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,181		
Cota (m)			509,497	512,113	512,152	511,863	511,952	511,855	511,773	512,105	511,484		
E			238,380,6561	238,382,617	238,382,778	238,383,116	238,384,74	238,386,363	238,386,702	238,386,863	238,387,3281		
N			7,015,786,3300	7,015,782,931	7,015,782,651	7,015,782,064	7,015,779,249	7,015,776,433	7,015,775,847	7,015,775,567	7,015,774,7605		
Estacas: 11+450													
Dist. eixo (m)			-9,566	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,556		
Cota (m)			506,681	512,225	512,264	511,975	512,010	511,913	511,832	512,163	511,292		
E			238,387,6545	238,390,670	238,390,853	238,391,237	238,393,080	238,394,924	238,395,308	238,395,491	238,396,2314		
N			7,015,792,6387	7,015,788,260	7,015,787,994	7,015,787,436	7,015,784,760	7,015,782,083	7,015,781,526	7,015,781,259	7,015,780,1838		
Estacas: 11+451													
Dist. eixo (m)			-9,649	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,591		
Cota (m)			506,633	512,232	512,271	511,982	512,014	511,917	511,835	512,167	511,273		
E			238,388,1241	238,391,186	238,391,370	238,391,754	238,393,597	238,395,440	238,395,824	238,396,007	238,396,7675		
N			7,015,793,0625	7,015,788,616	7,015,788,350	7,015,787,792	7,015,785,115	7,015,782,439	7,015,781,881	7,015,781,615	7,015,780,5110		
Estacas: 11+460													
Dist. eixo (m)			-12,185	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,115		
Cota (m)			507,048	512,338	512,376	512,088	512,089	511,971	511,890	512,221	510,977		
E			238,394,4057	238,398,906	238,399,089	238,399,473	238,401,316						

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 01

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 11+500													
Dist. eixo (m)			-12,968	-5,262	-4,863	-4,186	0,000	7,906	9,582	11,036			
Cota (m)			507,601	512,738	512,786	512,497	512,301	511,931	511,729	510,760			
E			238.445,8889	238.440,049	238.439,746	238.439,233	238.436,061	238.430,069	238.428,799	238.427,697			
N			7.015.806,5626	7.015.801,535	7.015.801,275	7.015.800,833	7.015.798,102	7.015.792,945	7.015.791,851	7.015.790,903			
Estacas: 11+506													
Dist. eixo (m)			-16,922	-14,758	-13,303	-12,626	0,000	8,956	10,633	11,127			
Cota (m)			511,466	512,909	513,083	512,795	512,337	512,012	511,811	511,482			
E			238.455,1567	238.453,092	238.451,703	238.451,057	238.439,008	238.430,460	238.428,860	238.428,389			
N			7.015.797,8520	7.015.797,206	7.015.796,771	7.015.796,569	7.015.792,797	7.015.790,122	7.015.789,621	7.015.789,474			
Estacas: 11+510													
Dist. eixo (m)					-22,000	-21,890	0,000	11,726	14,247				
Cota (m)					512,992	513,005	512,359	512,008	511,705				
E					238.461,165	238.461,060	238.440,169	238.428,979	238.426,573				
N					7.015.785,658	7.015.785,625	7.015.789,086	7.015.785,583	7.015.784,830				

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 02

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

PONTO NOTÁVEL	TALUDE	BANQUETA	TALUDE	BANQUETA	TALUDE DE PAVIMENTAÇÃO	PISTA	EIXO	PISTA	TALUDE DE PAVIMENTAÇÃO	BANQUETA	TALUDE	BANQUETA	TALUDE
Estacas: 0+000													
Dist. eixo (m)							0,000	0,009					
Cota (m)							497,935	497,935					
E							236,903,123	236,903,127					
N							7,013,889,939	7,013,889,930					
Estacas: 0+010													
Dist. eixo (m)						-9,332	0,000	4,096	4,773	5,103	5,369		
Cota (m)						498,364	498,879	498,756	499,462	499,005	498,828		
E						236,908,456	236,912,256	236,913,924	236,914,200	236,914,334	236,914,4424		
N						7,013,902,534	7,013,894,011	7,013,890,270	7,013,889,652	7,013,889,350	7,013,889,1074		
Estacas: 0+020													
Dist. eixo (m)						-10,987	-10,651	-9,274	-8,597	0,000	3,324	4,001	4,325
Cota (m)						500,040	500,264	500,180	499,768	499,643	499,544	499,462	500,023
E						236,916,9155	236,917,052	236,917,613	236,917,889	236,921,390	236,922,743	236,923,019	236,923,151
N						7,013,908,1176	7,013,907,811	7,013,906,553	7,013,905,934	7,013,898,083	7,013,895,047	7,013,894,428	7,013,894,133
Estacas: 0+030													
Dist. eixo (m)						-4,367	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250
Cota (m)						500,479	500,362	500,401	500,112	500,210	500,112	500,031	500,362
E						236,928,7447	236,928,792	236,929,200	236,929,200	236,930,523	236,931,846	236,932,122	236,932,254
N						7,013,906,1431	7,013,906,037	7,013,905,742	7,013,905,123	7,013,902,155	7,013,899,187	7,013,898,568	7,013,898,273
Estacas: 0+040													
Dist. eixo (m)						-6,482	-6,250	-5,927	-5,250	0,000	3,250	3,927	4,250
Cota (m)						500,903	500,671	500,710	500,421	500,578	500,481	500,400	500,731
E						236,937,0168	236,937,111	236,937,243	236,937,518	236,939,656	236,940,980	236,941,255	236,941,387
N						7,013,912,1470	7,013,911,935	7,013,911,640	7,013,911,022	7,013,906,227	7,013,903,259	7,013,902,641	7,013,902,345
Estacas: 0+050													
Dist. eixo (m)						-7,549	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250
Cota (m)						501,111	500,811	500,850	500,561	500,749	500,651	500,570	500,901
E						236,945,7154	236,945,837	236,945,969	236,946,245	236,948,790	236,950,113	236,950,389	236,950,520
N						7,013,917,1943	7,013,916,921	7,013,916,626	7,013,916,007	7,013,910,299	7,013,907,331	7,013,906,713	7,013,906,417
Estacas: 0+058													
Dist. eixo (m)						-7,579	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250
Cota (m)						501,147	500,818	500,856	500,568	500,755	500,658	500,576	500,908
E						236,953,2678	236,953,402	236,953,533	236,953,809	236,956,354	236,957,678	236,958,953	236,958,085
N						7,013,920,5940	7,013,920,293	7,013,919,999	7,013,919,380	7,013,913,672	7,013,910,703	7,013,910,085	7,013,909,790
Estacas: 0+060													
Dist. eixo (m)						-7,570	-7,250	-6,927	-6,250	0,000	3,250	3,927	4,250
Cota (m)						501,153	500,833	500,872	500,583	500,753	500,655	500,574	500,905
E						236,954,8402	236,954,971	236,955,102	236,955,378	236,957,923	236,959,246	236,959,522	236,959,654
N						7,013,921,2855	7,013,920,993	7,013,920,698	7,013,920,080	7,013,914,371	7,013,911,403	7,013,910,785	7,013,910,490
Estacas: 0+070													
Dist. eixo (m)						-7,049	-6,650	-6,327	-5,650	0,000	3,250	3,927	4,250
Cota (m)						501,327	500,928	500,967	500,678	500,737	500,640	500,559	500,890
E						236,964,1859	236,964,348	236,964,480	236,964,756	236,967,056	236,968,380	236,968,655	236,968,787
N						7,013,924,8812	7,013,924,517	7,013,924,222	7,013,923,604	7,013,918,443	7,013,915,475	7,013,914,857	7,013,914,562
Estacas: 0+076													
Dist. eixo (m)						-6,148	-5,896	-5,573	-4,896	0,000	3,250	3,927	4,250
Cota (m)						501,214	500,962	501,001	500,712	500,712	500,614	500,533	500,864
E						236,970,2904	236,970,393	236,970,525	236,970,800	236,972,794	236,974,118	236,974,393	236,974,525
N						7,013,926,6171	7,013,926,387	7,013,926,092	7,013,925,473	7,013,921,002	7,013,918,033	7,013,917,415	7,013,917,120
Estacas: 0+080													
Dist. eixo (m)						-5,662	-5,450	-5,127	-4,450	0,000	3,250	3,927	4,250
Cota (m)						501,153	500,941	500,980	500,691	500,663	500,566	500,485	500,816
E						236,973,8840	236,973,970	236,974,102	236,974,378	236,976,190	236,977,513	236,977,789	236,977,920
N						7,013,927,6868	7,013,927,493	7,013,927,198	7,013,926,580	7,013,922,516	7,013,919,547	7,013,918,929	7,013,918,634
Estacas: 0+090													
Dist. eixo (m)						-4,315	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250
Cota (m)						500,681	500,725	500,763	500,475	500,400	500,303	500,222	500,553
E						236,983,5657	236,983,525	236,983,724	236,984,000	236,985,323	236,986,646	236,986,922	236,987,054
N						7,013,930,5289	7,013,930,469	7,013,930,174	7,013,929,556	7,013,926,588	7,013,923,619	7,013,923,001	7,013,922,706
Estacas: 0+094													
Dist. eixo (m)						-4,331	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250
Cota (m)						500,657	500,576	500,614	500,326	500,228	500,131	500,049	500,381
E						236,987,4705	236,987,503	236,987,635	236,987,911	236,989,234	236,990,558	236,990,833	236,990,965
N						7,013,932,2870	7,013,932,213	7,013,931,918	7,013,931,300	7,013,928,331	7,013,925,363	7,013,924,745	7,013,924,450
Estacas: 0+098													
Dist. eixo (m)						-4,498	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250
Cota (m)						500,671	500,423	500,462	500,173	500,056	499,939	499,858	500,189
E						236,990,6904	236,990,791	236,990,923	236,991,199	236,992,522	236,993,846	236,994,121	236,994,253
N						7,013,933,9056	7,013,933,679	7,013,933,384	7,013,932,766	7,013,929,797	7,013,926,829	7,013,926,211	7,013,925,916
Estacas: 0+100													
Dist. eixo (m)						-4,606	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250
Cota (m)						500,677	500,321	500,360	500,071	499,943	499,815	499,733	500,065
E						236,992,6565	236,992,796	236,992,923	236,993,188	236,994,463	236,995,738	236,996,004	236,996,130
N						7,013,934,8804	7,013,934,553	7,013,934,256	7,013,933,634	7,013,930,644	7,013,927,655	7,013,927,032	7,013,926,735
Estacas: 0+110													
Dist. eixo (m)						-4,865	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250
Cota (m)						500,339	499,724	499,763	499,474	499,292	499,109	499,028	499,359
E						237,002,2444	237,002,442	237,002,545	237,002,762	237,003,803	237,004,845	237,005,062	237,005,165
N						7,013,938,8180	7,013,938,235	7,013,937,929	7,013,937,288	7,013,934,209	7,013,931,131	7,013,930,490	7,013,929,8459
Estacas: 0+112													
Dist. eixo (m)						-4,914	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250
Cota (m)						500,225	499,561	499,600	499,311	499,116	498,931	498,840	499,171
E						237,004,4790	237,004,681	237,004,779	237,004,984	237,005,972	237,006,959	237,007,164	237,007,263
N						7,013,939,6035	7,013,938,971	7,013,938,663	7,013,938,018	7,013,934,922	7,013,931,825	7,013,931,180	7,013,930,872
Estacas: 0+120													
Dist. eixo (m)						-4,343	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250
Cota (m)						498,984	498,891	498,930	498,641	498,446	498,251	498,170	498,501
E						237,012,3185	237,012,342	237,012,421	237,012,588	237,013,390	237,014,192	237,014,359	237,014,438
N						7,013,941,2554	7,013,941,165	7,013,940,852	7,013,940,196	7,013,937,046	7,013,933,897	7,013,933,241	7,013,932,928
Estacas: 0+126													
Dist. eixo (m)													

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 02

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

Estacas: 0+154											
Dist. eixo (m)			-4,344	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,664
Cota (m)			495,355	495,418	495,457	495,168	495,051	494,934	494,853	495,184	494,908
E			237,047,6179	237,047,616	237,047,611	237,047,600	237,047,548	237,047,496	237,047,485	237,047,480	237,047,4732
N			7,013,945,3906	7,013,945,297	7,013,944,974	7,013,944,297	7,013,941,047	7,013,937,798	7,013,937,121	7,013,936,798	7,013,936,3837
Estacas: 0+158											
Dist. eixo (m)			-4,599	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,674
Cota (m)			494,811	495,044	495,082	494,794	494,696	494,599	494,517	494,849	494,566
E			237,051,2216	237,051,216	237,051,211	237,051,200	237,051,148	237,051,096	237,051,085	237,051,079	237,051,0726
N			7,013,945,5879	7,013,945,239	7,013,944,916	7,013,944,239	7,013,940,990	7,013,937,740	7,013,937,063	7,013,936,740	7,013,936,3161
Estacas: 0+160											
Dist. eixo (m)			-4,738	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,703
Cota (m)			494,520	494,845	494,884	494,595	494,508	494,411	494,329	494,661	494,359
E			237,053,1307	237,053,123	237,053,118	237,053,107	237,053,055	237,053,002	237,052,992	237,052,986	237,052,9791
N			7,013,945,6964	7,013,945,208	7,013,944,885	7,013,944,208	7,013,940,959	7,013,937,709	7,013,937,033	7,013,936,709	7,013,936,2563
Estacas: 0+170											
Dist. eixo (m)			-4,626	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,499
Cota (m)			493,588	493,839	493,878	493,589	493,556	493,458	493,377	493,708	493,543
E			237,063,1276	237,063,122	237,063,116	237,063,106	237,063,053	237,063,001	237,062,990	237,062,985	237,062,9811
N			7,013,945,4233	7,013,945,048	7,013,944,725	7,013,944,048	7,013,940,798	7,013,937,549	7,013,936,872	7,013,936,549	7,013,936,3002
Estacas: 0+176											
Dist. eixo (m)			-4,595	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,287
Cota (m)			493,042	493,272	493,311	493,022	493,022	492,925	492,844	493,175	493,150
E			237,069,2192	237,069,214	237,069,209	237,069,198	237,069,145	237,069,093	237,069,082	237,069,077	237,069,0765
N			7,013,945,2949	7,013,944,950	7,013,944,627	7,013,943,950	7,013,940,700	7,013,937,451	7,013,936,774	7,013,936,451	7,013,936,4137
Estacas: 0+180											
Dist. eixo (m)			-4,439	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,306
Cota (m)			492,802	492,828	492,867	492,678	492,698	492,602	492,520	492,852	492,815
E			237,073,1233	237,073,120	237,073,115	237,073,104	237,073,052	237,073,000	237,072,989	237,072,984	237,072,9829
N			7,013,945,0755	7,013,944,887	7,013,944,564	7,013,943,887	7,013,940,638	7,013,937,388	7,013,936,711	7,013,936,388	7,013,936,3325
Estacas: 0+190											
Dist. eixo (m)			-4,552	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,408
Cota (m)			491,913	492,115	492,153	491,865	491,940	491,842	491,761	492,092	492,250
E			237,083,1239	237,083,119	237,083,114	237,083,103	237,083,051	237,082,999	237,082,988	237,082,983	237,082,9799
N			7,013,945,0288	7,013,944,726	7,013,944,403	7,013,943,727	7,013,940,477	7,013,937,227	7,013,936,551	7,013,936,228	7,013,936,0699
Estacas: 0+194											
Dist. eixo (m)			-4,493	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,677
Cota (m)			491,648	491,810	491,848	491,560	491,657	491,560	491,478	491,810	491,525
E			237,087,2152	237,087,211	237,087,206	237,087,195	237,087,143	237,087,091	237,087,080	237,087,075	237,087,0679
N			7,013,944,9032	7,013,944,661	7,013,944,338	7,013,943,661	7,013,940,411	7,013,937,162	7,013,936,485	7,013,936,162	7,013,935,7351
Estacas: 0+200											
Dist. eixo (m)			-4,374	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,721
Cota (m)			491,347	491,430	491,469	491,180	491,278	491,180	491,099	491,430	491,117
E			237,093,1197	237,093,118	237,093,113	237,093,102	237,093,049	237,092,997	237,092,986	237,092,981	237,092,9736
N			7,013,944,6902	7,013,944,566	7,013,944,243	7,013,943,566	7,013,940,316	7,013,937,067	7,013,936,390	7,013,936,067	7,013,935,5962
Estacas: 0+204											
Dist. eixo (m)			-4,537	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,769
Cota (m)			490,993	491,184	491,223	490,934	491,032	490,934	490,853	491,184	490,938
E			237,097,2708	237,097,266	237,097,261	237,097,250	237,097,198	237,097,146	237,097,135	237,097,130	237,097,1213
N			7,013,944,7858	7,013,944,499	7,013,944,176	7,013,943,499	7,013,940,250	7,013,937,000	7,013,936,323	7,013,936,000	7,013,935,4809
Estacas: 0+210											
Dist. eixo (m)			-4,466	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,787
Cota (m)			490,722	490,866	490,904	490,616	490,713	490,616	490,534	490,866	490,508
E			237,103,0767	237,103,075	237,103,073	237,103,069	237,103,049	237,103,028	237,103,024	237,103,022	237,103,0183
N			7,013,944,6499	7,013,944,434	7,013,944,111	7,013,943,434	7,013,940,184	7,013,936,934	7,013,936,257	7,013,935,934	7,013,935,3976
Estacas: 0+220											
Dist. eixo (m)			-4,387	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,806
Cota (m)			490,306	490,398	490,437	490,148	490,246	490,148	490,067	490,398	490,027
E			237,113,0030	237,113,004	237,113,006	237,113,015	237,113,048	237,113,082	237,113,089	237,113,092	237,113,0981
N			7,013,944,5916	7,013,944,454	7,013,944,131	7,013,943,454	7,013,940,204	7,013,936,955	7,013,936,278	7,013,935,955	7,013,935,3981
Estacas: 0+227											
Dist. eixo (m)			-4,482	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,835
Cota (m)			490,005	490,145	490,185	489,896	489,957	489,859	489,778	490,109	489,719
E			237,120,0990	237,120,104	237,120,111	237,120,126	237,120,198	237,120,271	237,120,286	237,120,293	237,120,3061
N			7,013,944,7821	7,013,944,570	7,013,944,247	7,013,943,570	7,013,940,321	7,013,937,072	7,013,936,395	7,013,936,072	7,013,935,4876
Estacas: 0+230											
Dist. eixo (m)			-4,720	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,813
Cota (m)			489,734	490,047	490,086	489,797	489,842	489,745	489,663	489,995	489,620
E			237,122,9190	237,122,932	237,122,940	237,122,969	237,123,047	237,123,134	237,123,153	237,123,161	237,123,1765
N			7,013,945,1096	7,013,944,640	7,013,944,317	7,013,943,640	7,013,940,391	7,013,937,142	7,013,936,466	7,013,936,143	7,013,935,5804
Estacas: 0+238											
Dist. eixo (m)			-5,074	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,211
Cota (m)			489,210	489,760	489,798	489,510	489,510	489,412	489,331	489,662	489,021
E			237,131,1092	237,131,143	237,131,156	237,131,184	237,131,316	237,131,449	237,131,477	237,131,490	237,131,5289
N			7,013,945,7418	7,013,944,918	7,013,944,596	7,013,943,919	7,013,940,672	7,013,937,425	7,013,936,748	7,013,936,425	7,013,935,4652
Estacas: 0+240											
Dist. eixo (m)			-7,597	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,583
Cota (m)			487,468	489,700	489,738	489,450	489,440	489,343	489,261	489,593	489,371
E			237,132,7084	237,132,855	237,132,869	237,132,898	237,133,040	237,133,182	237,133,212	237,133,226	237,133,2403
N			7,013,948,3348	7,013,944,991	7,013,944,668	7,013,943,992	7,013,940,745	7,013,937,498	7,013,936,822	7,013,936,499	7,013,936,1662
Estacas: 0+250											
Dist. eixo (m)			-4,803	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,375
Cota (m)			489,983	489,352	489,390	489,102	489,038	488,941	488,860	489,191	489,316
E			237,142,7368	237,142,770	237,142,790	237,142,831	237,143,027	237,143,223	237,143,263	237,143,283	237,143,2904
N			7,013,946,0593	7,013,945,507	7,013,945,185	7,013,944,509	7,013,941,265	7,013,938,021	7,013,937,345	7,013,937,022	7,013,936,8977
Estacas: 0+256											
Dist. eixo (m)			-4,304	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,500
Cota (m)			489,098	489,134	489,172	488,884	488,786	488,689	488,607	488,939	489,189
E			237,149,0289	237,149,032	237,149,052	237,149,093	237,149,290	237,149,486	237,149,527	237,149,547	237,149,5621
N			7,013,945,9404	7,013,945,887	7,013,945,565	7,013,944,889	7,013,941,645	7,013,938,401			

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 02

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

Estacas: 0+300										
Dist. eixo (m)		-6,908	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,336
Cota (m)		484,669	486,441	486,480	486,191	485,996	485,801	485,720	486,051	485,994
E		237,194,1623	237,193,639	237,193,575	237,193,442	237,192,802	237,192,162	237,192,028	237,191,965	237,191,9476
N		7,013,945,8831	7,013,942,278	7,013,942,961	7,013,942,297	7,013,939,111	7,013,935,925	7,013,935,261	7,013,934,944	7,013,934,8594
Estacas: 0+302										
Dist. eixo (m)		-7,172	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,391
Cota (m)		484,310	486,258	486,296	486,008	485,813	485,618	485,536	485,868	486,774
E		237,196,2434	237,195,631	237,195,564	237,195,422	237,194,741	237,194,060	237,193,918	237,193,851	237,193,8212
N		7,013,945,7212	7,013,942,864	7,013,942,548	7,013,941,886	7,013,938,708	7,013,935,530	7,013,934,869	7,013,934,553	7,013,934,4150
Estacas: 0+310										
Dist. eixo (m)		-7,885	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,368
Cota (m)		483,104	485,527	485,566	485,277	485,082	484,887	484,806	485,137	485,058
E		237,204,5838	237,203,640	237,203,556	237,203,380	237,202,536	237,201,691	237,201,515	237,201,432	237,201,4007
N		7,013,944,4408	7,013,940,930	7,013,940,619	7,013,939,965	7,013,936,826	7,013,933,688	7,013,933,034	7,013,932,722	7,013,932,8079
Estacas: 0+320										
Dist. eixo (m)		-10,593	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,273
Cota (m)		480,492	484,720	484,759	484,470	484,275	484,080	483,999	484,330	484,353
E		237,215,5072	237,213,468	237,213,364	237,213,147	237,212,102	237,211,057	237,210,839	237,210,735	237,210,7281
N		7,013,943,9495	7,013,937,943	7,013,937,638	7,013,936,997	7,013,933,919	7,013,930,842	7,013,930,201	7,013,929,895	7,013,929,8731
Estacas: 0+330										
Dist. eixo (m)		-12,762	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,271
Cota (m)		478,385	484,060	484,099	483,810	483,615	483,420	483,339	483,670	483,691
E		237,226,0207	237,222,786	237,222,663	237,222,406	237,221,171	237,219,936	237,219,679	237,219,556	237,219,5479
N		7,013,942,3256	7,013,934,452	7,013,934,153	7,013,933,527	7,013,930,520	7,013,927,514	7,013,926,888	7,013,926,589	7,013,926,5695
Estacas: 0+340										
Dist. eixo (m)		-11,047	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,280
Cota (m)		478,904	483,432	483,471	483,182	482,987	482,792	482,711	483,042	483,063
E		237,235,4413	237,232,446	237,232,304	237,232,005	237,230,573	237,229,141	237,228,843	237,228,701	237,228,6874
N		7,013,936,2038	7,013,930,102	7,013,929,812	7,013,929,205	7,013,926,287	7,013,923,370	7,013,922,762	7,013,922,472	7,013,922,4452
Estacas: 0+344										
Dist. eixo (m)		-10,260	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,274
Cota (m)		479,214	483,221	483,259	482,971	482,776	482,581	482,500	482,831	482,852
E		237,238,9800	237,236,190	237,236,040	237,235,726	237,234,218	237,232,709	237,232,395	237,232,245	237,232,2336
N		7,013,933,5257	7,013,928,203	7,013,927,916	7,013,927,317	7,013,924,438	7,013,921,559	7,013,920,960	7,013,920,674	7,013,920,6520
Estacas: 0+348										
Dist. eixo (m)		-9,329	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,346
Cota (m)		479,663	483,049	483,088	482,799	482,604	482,409	482,328	482,659	482,700
E		237,241,7365	237,239,379	237,239,229	237,238,915	237,237,406	237,235,898	237,235,584	237,235,434	237,235,3889
N		7,013,931,0301	7,013,926,532	7,013,926,245	7,013,925,646	7,013,922,767	7,013,919,888	7,013,919,289	7,013,919,003	7,013,918,9172
Estacas: 0+350										
Dist. eixo (m)		-9,042	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,357
Cota (m)		479,744	482,939	482,978	482,689	482,494	482,299	482,218	482,549	482,570
E		237,243,6526	237,241,428	237,241,278	237,240,964	237,239,455	237,237,947	237,237,633	237,237,483	237,237,4332
N		7,013,929,7027	7,013,925,458	7,013,925,172	7,013,924,572	7,013,921,693	7,013,918,815	7,013,918,215	7,013,917,929	7,013,917,8345
Estacas: 0+360										
Dist. eixo (m)		-4,268	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,398
Cota (m)		482,454	482,466	482,505	482,216	482,021	481,826	481,745	482,076	482,239
E		237,250,2937	237,250,286	237,250,136	237,249,821	237,248,313	237,246,804	237,246,490	237,246,340	237,246,2715
N		7,013,920,8317	7,013,920,816	7,013,920,530	7,013,919,930	7,013,917,052	7,013,914,173	7,013,913,573	7,013,913,287	7,013,913,1564
Estacas: 0+366										
Dist. eixo (m)		-4,307	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,324
Cota (m)		482,159	482,197	482,236	481,947	481,752	481,557	481,476	481,807	481,858
E		237,255,3488	237,255,323	237,255,173	237,254,858	237,253,350	237,251,841	237,251,527	237,251,377	237,251,3427
N		7,013,918,2266	7,013,918,176	7,013,917,890	7,013,917,291	7,013,914,412	7,013,911,533	7,013,910,934	7,013,910,648	7,013,910,5821
Estacas: 0+370										
Dist. eixo (m)		-6,915	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,330
Cota (m)		480,216	481,993	482,032	481,743	481,548	481,353	481,272	481,603	481,654
E		237,260,3797	237,259,143	237,258,993	237,258,679	237,257,170	237,255,662	237,255,348	237,255,198	237,255,1605
N		7,013,918,5344	7,013,916,174	7,013,915,888	7,013,915,289	7,013,912,410	7,013,909,531	7,013,908,932	7,013,908,646	7,013,908,5748
Estacas: 0+380										
Dist. eixo (m)		-4,757	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,294
Cota (m)		481,181	481,520	481,559	481,270	481,075	480,880	480,799	481,130	481,181
E		237,268,2358	237,268,000	237,267,851	237,267,536	237,266,028	237,264,519	237,264,205	237,264,055	237,264,0347
N		7,013,911,9818	7,013,911,533	7,013,911,247	7,013,910,647	7,013,907,768	7,013,904,890	7,013,904,290	7,013,904,004	7,013,903,9650
Estacas: 0+384										
Dist. eixo (m)		-4,438	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,281
Cota (m)		481,220	481,345	481,384	481,095	480,900	480,705	480,624	480,955	481,006
E		237,271,3532	237,271,266	237,271,116	237,270,802	237,269,293	237,267,785	237,267,471	237,267,321	237,267,3063
N		7,013,909,9879	7,013,909,821	7,013,909,535	7,013,908,936	7,013,906,057	7,013,903,178	7,013,902,579	7,013,902,293	7,013,902,2655
Estacas: 0+390										
Dist. eixo (m)		-4,416	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,261
Cota (m)		480,970	481,080	481,119	480,830	480,635	480,440	480,359	480,690	480,741
E		237,276,9348	237,276,858	237,276,708	237,276,394	237,274,885	237,273,377	237,273,063	237,272,913	237,272,9073
N		7,013,907,0378	7,013,906,891	7,013,906,605	7,013,906,005	7,013,903,127	7,013,900,248	7,013,899,648	7,013,899,362	7,013,899,3523
Estacas: 0+396										
Dist. eixo (m)		-4,957	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,256
Cota (m)		480,372	480,844	480,882	480,594	480,399	480,204	480,123	480,454	480,505
E		237,282,1896	237,281,862	237,281,712	237,281,397	237,279,889	237,278,380	237,278,066	237,277,916	237,277,9131
N		7,013,904,8950	7,013,904,269	7,013,903,983	7,013,903,383	7,013,900,504	7,013,897,626	7,013,897,026	7,013,896,740	7,013,896,7344
Estacas: 0+400										
Dist. eixo (m)		-9,735	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,280
Cota (m)		477,004	480,661	480,700	480,411	480,216	480,021	479,940	480,271	480,322
E		237,286,3166	237,285,735	237,285,583	237,285,265	237,283,755	237,282,246	237,281,887	237,281,735	237,281,7211
N		7,013,907,0610	7,013,902,221	7,013,901,936	7,013,901,339	7,013,898,471	7,013,895,603	7,013,895,006	7,013,894,721	7,013,894,6942
Estacas: 0+410										
Dist. eixo (m)		-11,758	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,704
Cota (m)		475,237	480,242	480,281	479,992	480,090	479,992	479,911	480,242	479,940
E		237,298,2246	237,294,581	237,294,425	237,294,096	237,292,519	237,290,942	237,290,614	237,290,457	237,290,2369
N		7,013,903,9732	7,013,897,408	7,013,897,126	7,013,896,534	7,013,893,692	7,013,890,850	7,013,890,258	7,013,889,976	7,013,889,5788
Estacas: 0+420										
Dist. eixo (m)		-11,570	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,682

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 02

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

Estacas: 0+458										
Dist. eixo (m)		-10,878	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	8,342
Cota (m)		473,694	478,112	478,151	477,862	477,960	477,862	477,781	478,112	482,204
E		237,339,1932	237,335,528	237,335,500	237,334,975	237,333,178	237,331,381	237,331,007	237,330,828	237,328,5650
N		7,013,878,0348	7,013,872,513	7,013,872,243	7,013,871,679	7,013,868,972	7,013,866,264	7,013,865,700	7,013,865,430	7,013,862,0210
Estacas: 0+460										
Dist. eixo (m)		-11,433	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	8,190
Cota (m)		473,180	477,969	478,008	477,719	477,816	477,719	477,638	477,969	481,909
E		237,341,5027	237,337,531	237,337,352	237,336,978	237,335,181	237,333,384	237,333,009	237,332,831	237,330,6518
N		7,013,877,1678	7,013,871,183	7,013,870,914	7,013,870,350	7,013,867,642	7,013,864,934	7,013,864,371	7,013,864,101	7,013,860,8185
Estacas: 0+470										
Dist. eixo (m)		-12,205	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,463
Cota (m)		472,005	477,308	477,347	477,058	477,156	477,058	476,977	477,308	477,166
E		237,350,2619	237,345,863	237,345,684	237,345,310	237,343,513	237,341,715	237,341,341	237,341,162	237,341,0446
N		7,013,872,2817	7,013,865,654	7,013,865,384	7,013,864,820	7,013,862,112	7,013,859,405	7,013,858,841	7,013,858,571	7,013,858,3939
Estacas: 0+480										
Dist. eixo (m)		-10,370	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,318
Cota (m)		472,466	476,546	476,585	476,296	476,393	476,296	476,215	476,546	476,501
E		237,357,5790	237,354,195	237,354,016	237,353,642	237,351,845	237,350,047	237,349,673	237,349,494	237,349,4567
N		7,013,865,2230	7,013,860,124	7,013,859,855	7,013,859,291	7,013,856,583	7,013,853,875	7,013,853,311	7,013,853,042	7,013,852,9848
Estacas: 0+487										
Dist. eixo (m)		-5,990	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,779
Cota (m)		474,772	475,932	475,970	475,682	475,779	475,682	475,600	475,932	475,579
E		237,361,1773	237,360,215	237,360,037	237,359,662	237,357,865	237,356,068	237,355,694	237,355,515	237,355,2223
N		7,013,857,5772	7,013,856,128	7,013,855,859	7,013,855,295	7,013,852,587	7,013,849,879	7,013,849,315	7,013,849,046	7,013,848,6047
Estacas: 0+490										
Dist. eixo (m)		-6,062	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,874
Cota (m)		474,474	475,882	475,720	475,432	475,528	475,432	475,351	475,882	475,265
E		237,363,5403	237,362,534	237,362,355	237,361,979	237,360,174	237,358,370	237,357,994	237,357,814	237,357,4675
N		7,013,856,0909	7,013,854,584	7,013,854,316	7,013,853,752	7,013,851,050	7,013,848,347	7,013,847,784	7,013,847,515	7,013,846,9957
Estacas: 0+500										
Dist. eixo (m)		-6,880	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,136
Cota (m)		472,962	474,716	474,754	474,466	474,563	474,466	474,384	474,716	474,125
E		237,372,3405	237,370,858	237,370,676	237,370,295	237,368,463	237,366,631	237,366,250	237,366,068	237,365,5681
N		7,013,851,1387	7,013,848,966	7,013,848,699	7,013,848,140	7,013,845,455	7,013,842,770	7,013,842,211	7,013,841,944	7,013,841,2121
Estacas: 0+509										
Dist. eixo (m)		-5,692	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,053
Cota (m)		472,830	473,791	473,829	473,541	473,638	473,541	473,459	473,791	473,256
E		237,378,8885	237,378,066	237,377,881	237,377,495	237,375,640	237,373,785	237,373,399	237,373,214	237,372,7562
N		7,013,845,1860	7,013,844,002	7,013,843,737	7,013,843,181	7,013,840,513	7,013,837,844	7,013,837,288	7,013,837,023	7,013,836,3639
Estacas: 0+510										
Dist. eixo (m)		-5,686	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,045
Cota (m)		472,757	473,648	473,686	473,398	473,495	473,398	473,316	473,648	473,117
E		237,379,8893	237,379,125	237,378,941	237,378,554	237,376,695	237,374,837	237,374,450	237,374,265	237,373,8103
N		7,013,844,3607	7,013,843,265	7,013,843,000	7,013,842,444	7,013,839,778	7,013,837,112	7,013,836,557	7,013,836,292	7,013,835,6391
Estacas: 0+520										
Dist. eixo (m)		-4,774	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,557
Cota (m)		472,639	472,478	472,516	472,228	472,325	472,228	472,146	472,478	472,270
E		237,387,6390	237,387,335	237,387,148	237,386,755	237,384,870	237,382,985	237,382,593	237,382,405	237,382,270
N		7,013,837,9079	7,013,837,481	7,013,837,218	7,013,836,667	7,013,834,019	7,013,831,372	7,013,830,820	7,013,830,557	7,013,830,3064
Estacas: 0+530										
Dist. eixo (m)		-4,547	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,606
Cota (m)		471,046	471,244	471,283	470,994	471,092	470,994	470,913	471,244	471,007
E		237,395,6616	237,395,487	237,395,297	237,394,899	237,392,967	237,391,076	237,390,678	237,390,488	237,390,2786
N		7,013,831,8562	7,013,831,616	7,013,831,355	7,013,830,807	7,013,828,179	7,013,825,550	7,013,825,003	7,013,824,741	7,013,824,4533
Estacas: 0+540										
Dist. eixo (m)		-4,353	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,359
Cota (m)		470,113	470,010	470,048	469,760	469,857	469,760	469,679	470,010	469,937
E		237,403,6350	237,403,574	237,403,384	237,402,986	237,401,074	237,399,162	237,398,764	237,398,574	237,398,5097
N		7,013,825,8162	7,013,825,733	7,013,825,472	7,013,824,924	7,013,822,296	7,013,819,668	7,013,819,120	7,013,818,859	7,013,818,7708
Estacas: 0+550										
Dist. eixo (m)		-4,287	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,295
Cota (m)		468,812	468,775	468,814	468,525	468,623	468,525	468,444	468,775	468,446
E		237,411,6824	237,411,681	237,411,471	237,411,073	237,409,161	237,407,249	237,406,851	237,406,661	237,406,6343
N		7,013,819,8795	7,013,819,850	7,013,819,589	7,013,819,041	7,013,816,413	7,013,813,785	7,013,813,238	7,013,812,976	7,013,812,9401
Estacas: 0+556										
Dist. eixo (m)		-4,565	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,427
Cota (m)		467,818	468,028	468,067	467,778	467,875	467,778	467,697	468,028	467,910
E		237,416,7436	237,416,558	237,416,368	237,415,970	237,414,058	237,412,146	237,411,748	237,411,558	237,411,4542
N		7,013,816,5418	7,013,816,287	7,013,816,026	7,013,815,479	7,013,812,850	7,013,810,222	7,013,809,675	7,013,809,414	7,013,809,2708
Estacas: 0+560										
Dist. eixo (m)		-4,479	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,422
Cota (m)		467,389	467,541	467,580	467,291	467,389	467,312	467,231	467,562	467,447
E		237,419,8820	237,419,748	237,419,558	237,419,159	237,417,247	237,415,336	237,414,937	237,414,747	237,414,6458
N		7,013,814,1521	7,013,813,967	7,013,813,706	7,013,813,159	7,013,810,530	7,013,807,902	7,013,807,355	7,013,807,094	7,013,806,9542
Estacas: 0+570										
Dist. eixo (m)		-4,255	-3,927	-3,250	-3,250	0,000	3,250	3,927	4,250	4,420
Cota (m)		466,312	466,345	466,057	465,769	465,866	465,769	465,688	466,312	466,289
E		237,427,837	237,427,644	237,427,246	237,426,848	237,424,936	237,423,024	237,422,626	237,422,4339	237,422,7339
N		7,013,808,089	7,013,807,823	7,013,807,276	7,013,806,728	7,013,804,080	7,013,801,432	7,013,801,472	7,013,801,211	7,013,801,0735
Estacas: 0+574										
Dist. eixo (m)		-4,375	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,476
Cota (m)		465,730	465,813	465,852	465,564	465,661	465,564	465,483	465,813	465,780
E		237,431,1876	237,431,114	237,430,924	237,430,526	237,428,614	237,426,702	237,426,304	237,426,114	237,425,9809
N		7,013,805,7990	7,013,805,698	7,013,805,437	7,013,804,890	7,013,802,262	7,013,799,633	7,013,799,086	7,013,798,825	7,013,798,6417
Estacas: 0+580										
Dist. eixo (m)		-4,586	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,483
Cota (m)		464,896	465,121	465,159	464,871	464,968	464,871	464,790	465,121	465,095
E		237,436,1187	237,435,921	237,435,731	237,435,333	237,433,421	237,431,509	237,431,111	237,430,921	237,430,7831
N		7,013,802,4739	7,013,802,202	7,013,801,941	7,013,801,393	7,013,798,765	7,013,796,137	7,013,795,590	7,013,795,328	7,013,795,1394
Estacas: 0+590										
Dist. eixo (m)		-4,582	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,692
Cota (

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 02

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

Estacas: 0+620											
Dist. eixo (m)			-8,114	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,300
Cota (m)			458,719	461,295	461,334	461,045	461,240	461,435	461,354	461,685	460,985
E			237,470,4574	237,468,806	237,468,668	237,468,379	237,466,989	237,465,600	237,465,311	237,465,173	237,464,7239
N			7,013,784,4907	7,013,780,998	7,013,780,706	7,013,780,094	7,013,777,156	7,013,774,217	7,013,773,606	7,013,773,313	7,013,772,3643
Estacas: 0+627											
Dist. eixo (m)			-12,810	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,170
Cota (m)			455,104	460,811	460,849	460,556	460,756	460,951	460,869	461,201	460,587
E			237,478,2278	237,474,990	237,474,868	237,474,612	237,473,382	237,472,153	237,471,897	237,471,775	237,471,4268
N			7,013,786,1984	7,013,778,275	7,013,777,976	7,013,777,349	7,013,774,340	7,013,771,332	7,013,770,705	7,013,770,406	7,013,769,5546
Estacas: 0+630											
Dist. eixo (m)			-11,532	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,956
Cota (m)			455,762	460,617	460,656	460,367	460,562	460,757	460,676	461,007	460,536
E			237,480,2986	237,477,701	237,477,586	237,477,344	237,476,185	237,475,026	237,474,784	237,474,669	237,474,4174
N			7,013,784,0063	7,013,777,203	7,013,776,902	7,013,776,269	7,013,773,233	7,013,770,197	7,013,769,564	7,013,769,263	7,013,768,8032
Estacas: 0+640											
Dist. eixo (m)			-6,682	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,812
Cota (m)			458,419	460,041	460,079	459,791	459,986	460,181	460,099	460,431	460,993
E			237,487,5521	237,486,862	237,486,770	237,486,578	237,485,655	237,484,733	237,484,541	237,484,449	237,484,2893
N			7,013,776,4361	7,013,777,104	7,013,773,794	7,013,773,145	7,013,770,029	7,013,766,912	7,013,766,263	7,013,765,953	7,013,765,4143
Estacas: 0+644											
Dist. eixo (m)			-6,513	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,892
Cota (m)			458,334	459,843	459,881	459,593	459,788	459,983	459,901	460,233	461,874
E			237,491,0864	237,490,510	237,490,427	237,490,255	237,489,427	237,488,598	237,488,426	237,488,344	237,487,9252
N			7,013,775,2713	7,013,773,083	7,013,772,771	7,013,772,116	7,013,768,974	7,013,765,831	7,013,765,176	7,013,764,864	7,013,763,2764
Estacas: 0+650											
Dist. eixo (m)			-5,179	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	5,361
Cota (m)			458,980	459,993	459,938	459,349	459,511	459,673	459,592	459,923	461,034
E			237,496,4277	237,496,233	237,496,166	237,496,024	237,495,344	237,494,663	237,494,522	237,494,454	237,494,2214
N			7,013,772,6256	7,013,771,717	7,013,771,401	7,013,770,739	7,013,767,561	7,013,764,383	7,013,763,722	7,013,763,406	7,013,762,3195
Estacas: 0+658											
Dist. eixo (m)			-7,780	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,639
Cota (m)			456,940	459,294	459,332	459,044	459,161	459,278	459,196	459,528	461,917
E			237,504,6647	237,504,148	237,504,101	237,504,002	237,503,526	237,503,050	237,502,951	237,502,904	237,502,5539
N			7,013,773,7778	7,013,770,286	7,013,769,967	7,013,769,297	7,013,766,082	7,013,762,867	7,013,762,197	7,013,761,878	7,013,759,5144
Estacas: 0+660											
Dist. eixo (m)			-8,026	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,801
Cota (m)			456,715	459,232	459,271	458,982	459,099	459,198	459,116	459,448	461,999
E			237,506,3662	237,505,814	237,505,766	237,505,667	237,505,191	237,504,716	237,504,617	237,504,569	237,504,1957
N			7,013,773,7746	7,013,770,040	7,013,769,720	7,013,769,050	7,013,765,835	7,013,762,620	7,013,761,951	7,013,761,631	7,013,759,1071
Estacas: 0+662											
Dist. eixo (m)			-8,028	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	6,541
Cota (m)			456,643	459,162	459,200	458,912	459,009	459,107	459,025	459,357	461,647
E			237,508,2622	237,507,709	237,507,662	237,507,563	237,507,087	237,506,611	237,506,512	237,506,465	237,506,1295
N			7,013,773,4959	7,013,769,759	7,013,769,440	7,013,768,770	7,013,765,555	7,013,762,340	7,013,761,670	7,013,761,351	7,013,759,0843
Estacas: 0+670											
Dist. eixo (m)			-6,417	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,548
Cota (m)			457,623	458,818	458,857	458,569	458,666	458,719	458,638	458,969	459,478
E			237,516,0230	237,515,706	237,515,659	237,515,559	237,515,084	237,514,608	237,514,509	237,514,461	237,514,2178
N			7,013,770,7194	7,013,768,576	7,013,768,256	7,013,767,586	7,013,764,371	7,013,761,156	7,013,760,487	7,013,760,167	7,013,759,8725
Estacas: 0+680											
Dist. eixo (m)			-5,285	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,903
Cota (m)			457,660	458,350	458,388	458,100	458,197	458,278	458,196	458,447	459,100
E			237,525,6667	237,525,515	237,525,468	237,525,369	237,524,893	237,524,417	237,524,318	237,524,271	237,524,1754
N			7,013,768,1474	7,013,767,124	7,013,766,805	7,013,766,135	7,013,762,920	7,013,759,705	7,013,759,035	7,013,758,716	7,013,758,0696
Estacas: 0+690											
Dist. eixo (m)			-5,576	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,853
Cota (m)			456,923	457,808	457,846	457,558	457,655	457,600	457,519	457,850	457,582
E			237,535,6844	237,535,490	237,535,443	237,535,344	237,534,868	237,534,392	237,534,293	237,534,246	237,534,1870
N			7,013,766,9598	7,013,765,648	7,013,765,328	7,013,764,659	7,013,761,444	7,013,758,229	7,013,757,559	7,013,757,239	7,013,756,8408
Estacas: 0+698											
Dist. eixo (m)			-4,410	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,823
Cota (m)			457,229	457,336	457,374	457,086	457,183	457,096	457,014	457,336	457,709
E			237,543,3448	237,543,321	237,543,274	237,543,175	237,542,699	237,542,223	237,542,124	237,542,077	237,542,0224
N			7,013,764,6473	7,013,764,489	7,013,764,169	7,013,763,500	7,013,760,285	7,013,757,070	7,013,756,400	7,013,756,081	7,013,755,7112
Estacas: 0+700											
Dist. eixo (m)			-4,278	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,539
Cota (m)			457,232	457,205	457,243	456,955	457,052	456,955	456,873	457,205	457,493
E			237,545,3866	237,545,383	237,545,335	237,545,236	237,544,760	237,544,285	237,544,186	237,544,138	237,544,0959
N			7,013,764,2113	7,013,764,184	7,013,763,864	7,013,763,195	7,013,759,980	7,013,756,765	7,013,756,095	7,013,755,776	7,013,755,4897
Estacas: 0+710											
Dist. eixo (m)			-4,316	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,807
Cota (m)			456,603	456,636	456,675	456,286	456,384	456,286	456,205	456,536	457,093
E			237,556,2845	237,555,275	237,555,228	237,555,128	237,554,653	237,554,177	237,554,078	237,554,031	237,553,9490
N			7,013,762,7855	7,013,762,720	7,013,762,401	7,013,761,731	7,013,758,516	7,013,755,301	7,013,754,631	7,013,754,312	7,013,753,7605
Estacas: 0+720											
Dist. eixo (m)			-4,358	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,317
Cota (m)			455,912	455,803	455,842	455,553	455,651	455,553	455,472	455,803	455,759
E			237,565,1829	237,565,167	237,565,120	237,565,021	237,564,545	237,564,069	237,563,970	237,563,923	237,563,9130
N			7,013,761,3633	7,013,761,256	7,013,760,937	7,013,760,267	7,013,757,052	7,013,753,837	7,013,753,167	7,013,752,848	7,013,752,7818
Estacas: 0+730											
Dist. eixo (m)			-4,577	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,305
Cota (m)			454,787	455,005	455,044	454,755	454,852	454,755	454,674	455,005	454,968
E			237,575,1073	237,575,059	237,575,012	237,574,913	237,574,437	237,573,961	237,573,862	237,573,815	237,573,8069
N			7,013,760,1159	7,013,759,792	7,013,759,473	7,013,758,803	7,013,755,588	7,013,752,373	7,013,751,704	7,013,751,384	7,013,751,3289
Estacas: 0+740											
Dist. eixo (m)			-5,034	-4,250	-3,927	-3,250	0,000	3,250	3,927	4,250	4,763
Cota (m)			453,619	454,141	454,180	453,891	453,989	453,891	453,810	454,141	453,800
E			237,585,0664	237,584,952	237,584,904	237,584,805	237,584,330	237,583,854	237,583,755	237,583,707	237,583,6322
N			7,013,759,1042	7,013,758,328	7,013,758,009	7,013,757,339	7,013,754,124	7,013,750,909			

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
NOTA DE SERVIÇO DE TERRAPLANAGEM
EIXO 02

LOCAL/TRECHO: ESTRADA DA FRONTEIRA - TRECHO ENTRE TUNÁPOLIS E DIVISA COM ITAPIRANGA - TUNÁPOLIS/SC

Estacas: 0+797											
Dist. eixo (m)		-4,742	-4,500	-4,177	-3,500	0,000	3,500	4,177	4,500	5,214	
Cota (m)		448,245	448,003	448,041	447,753	447,858	447,753	447,671	448,003	448,717	
E		237.641,3985	237.641,363	237.641,316	237.641,217	237.640,704	237.640,192	237.640,093	237.640,046	237.639,9410	
N		7.013.750,4728	7.013.750,233	7.013.749,914	7.013.749,244	7.013.745,782	7.013.742,319	7.013.741,650	7.013.741,330	7.013.740,6237	



6.0 - PLANILHAS DE VOLUMES

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Município: Tunápolis/SC

Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
0+000,000	0,000	2,873	0,379	0,000	0,000
0+010,000	10,000	4,006	0,156	34,397	2,672
0+020,000	10,000	3,190	0,878	35,982	5,169
0+030,000	10,000	2,503	1,442	28,464	11,602
0+038,382	8,382	2,299	1,691	20,123	13,130
0+040,000	1,618	2,256	1,874	3,685	2,884
0+050,000	10,000	2,027	1,897	21,415	18,855
0+060,000	10,000	1,486	1,129	17,566	15,130
0+070,000	10,000	0,511	1,577	9,982	13,527
0+080,000	10,000	0,223	1,913	3,665	17,449
0+090,000	10,000	0,000	3,442	1,113	26,773
0+100,000	10,000	0,000	3,486	0,000	34,636
0+106,886	6,886	0,000	3,072	0,000	22,577
0+110,000	3,114	0,000	2,952	0,000	9,379
0+120,000	10,000	0,001	1,988	0,006	24,699
0+130,000	10,000	0,002	1,932	0,014	19,602
0+140,000	10,000	0,000	2,928	0,009	24,301
0+150,000	10,000	0,011	3,928	0,056	34,279
0+160,000	10,000	0,000	3,585	0,056	37,566
0+170,000	10,000	0,000	3,447	0,000	35,163
0+175,391	5,391	0,000	3,994	0,000	20,059
0+180,000	4,609	0,000	3,927	0,000	18,254
0+190,000	10,000	0,017	3,071	0,083	34,986
0+200,000	10,000	0,057	1,710	0,368	23,903
0+210,000	10,000	0,153	1,046	1,051	13,779
0+220,000	10,000	0,472	0,576	3,127	8,110
0+230,000	10,000	0,348	0,527	4,102	5,516
0+240,000	10,000	0,107	0,531	2,278	5,290
0+250,000	10,000	0,007	0,716	0,570	6,234
0+260,000	10,000	0,010	1,090	0,083	9,030
0+270,000	10,000	0,000	1,576	0,050	13,330
0+280,000	10,000	0,038	1,201	0,190	13,882
0+290,000	10,000	0,206	0,953	1,218	10,770
0+300,000	10,000	0,449	0,630	3,274	7,915
0+310,000	10,000	0,709	0,346	5,789	4,878
0+320,000	10,000	0,644	0,879	6,765	6,123
0+330,000	10,000	0,123	2,289	3,837	15,840
0+340,000	10,000	0,010	2,187	0,666	22,378
0+350,000	10,000	0,006	1,534	0,080	18,602
0+360,000	10,000	0,522	0,837	2,637	11,853
0+370,000	10,000	0,291	0,548	4,064	6,926
0+380,000	10,000	0,049	0,963	1,703	7,557
0+390,000	10,000	0,111	0,848	0,803	9,055
0+400,000	10,000	0,187	0,712	1,492	7,801
0+410,000	10,000	0,732	0,869	4,597	7,906
0+418,923	8,923	1,209	1,189	8,661	9,179
0+420,000	1,077	1,230	1,181	1,313	1,276
0+430,000	10,000	1,988	0,146	16,088	6,635
0+440,000	10,000	1,214	0,134	16,009	1,401
0+450,000	10,000	2,060	0,047	16,366	0,906
0+460,000	10,000	1,627	0,101	18,430	0,738
0+470,000	10,000	1,280	0,153	14,531	1,267
0+480,000	10,000	0,476	0,302	8,779	2,273
0+490,000	10,000	0,064	0,765	2,699	5,334
0+500,000	10,000	0,003	1,703	0,333	12,341
0+510,000	10,000	0,006	1,352	0,045	15,274
0+511,805	1,805	0,006	1,439	0,011	2,518
0+520,000	8,195	0,003	1,699	0,034	12,855
0+530,000	10,000	0,008	1,778	0,055	17,385
0+540,000	10,000	0,122	1,992	0,650	18,850
0+550,000	10,000	0,012	2,200	0,669	20,956
0+560,000	10,000	0,186	0,657	0,993	14,282
0+570,000	10,000	0,776	0,182	4,813	4,194
0+580,000	10,000	0,164	0,619	4,701	4,006
0+590,000	10,000	0,069	0,776	1,163	6,977
0+600,000	10,000	0,217	0,442	1,427	6,088
0+604,687	4,687	0,246	0,441	1,085	2,068
0+610,000	5,313	0,101	0,655	0,922	2,910
0+620,000	10,000	0,036	0,967	0,682	8,109
0+630,000	10,000	0,069	0,813	0,524	8,902
0+640,000	10,000	0,051	0,752	0,603	7,829
0+650,000	10,000	0,051	0,594	0,514	6,732
0+660,000	10,000	0,124	0,364	0,874	4,790
0+670,000	10,000	0,071	0,694	0,973	5,289
0+680,000	10,000	0,002	1,206	0,363	9,500
0+690,000	10,000	0,024	0,682	0,126	9,441
0+700,000	10,000	0,181	0,340	1,025	5,110
0+710,000	10,000	0,251	0,339	2,161	3,395
0+720,000	10,000	0,078	0,640	1,641	4,893
0+730,000	10,000	0,125	0,328	1,010	4,839
0+740,000	10,000	0,057	0,577	0,910	4,524
0+750,000	10,000	0,321	0,630	1,893	6,031
0+760,000	10,000	0,626	0,934	4,737	7,820
0+762,564	2,564	0,653	0,998	1,640	2,477
0+770,000	7,436	0,604	0,885	4,675	7,002
0+780,000	10,000	0,367	0,861	4,858	8,731

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
0+790,000	10,000	0,382	0,502	3,746	6,816
0+800,000	10,000	0,181	0,535	2,817	5,188
0+810,000	10,000	0,231	0,888	2,064	7,115
0+818,021	8,021	0,210	1,270	1,769	8,653
0+820,000	1,979	0,176	1,357	0,382	2,599
0+830,000	10,000	0,137	1,594	1,564	14,756
0+840,000	10,000	0,047	1,752	0,917	16,734
0+850,000	10,000	0,024	1,592	0,352	16,719
0+860,000	10,000	0,135	0,962	0,792	12,768
0+870,000	10,000	0,096	0,430	1,152	6,962
0+873,478	3,478	0,220	0,290	0,550	1,252
0+880,000	6,522	0,712	0,138	3,041	1,394
0+890,000	10,000	1,872	0,219	12,919	1,784
0+897,266	7,266	2,063	0,493	14,293	2,588
0+900,000	2,734	1,960	0,455	5,498	1,297
0+910,000	10,000	1,695	0,303	18,274	3,794
0+920,000	10,000	0,761	0,265	12,278	2,842
0+930,000	10,000	2,850	0,050	18,054	1,574
0+936,733	6,733	5,489	0,099	28,075	0,501
0+940,000	3,267	4,766	0,140	16,752	0,390
0+950,000	10,000	2,939	0,175	38,528	1,574
0+960,000	10,000	1,981	0,238	24,602	2,064
0+970,000	10,000	1,123	0,243	15,520	2,403
0+976,200	6,200	0,992	0,158	6,558	1,242
0+980,000	3,800	1,001	0,159	3,787	0,601
0+990,000	10,000	0,826	0,285	9,137	2,220
1+000,000	10,000	0,343	1,279	5,848	7,821
1+010,000	10,000	0,143	1,145	2,430	12,120
1+020,000	10,000	0,021	1,778	0,817	14,618
1+030,000	10,000	0,017	1,679	0,186	17,286
1+040,000	10,000	0,001	1,059	0,090	13,687
1+050,000	10,000	0,082	0,972	0,417	10,151
1+060,000	10,000	0,042	1,220	0,620	10,959
1+066,948	6,948	0,005	1,320	0,163	8,825
1+070,000	3,052	0,094	0,771	0,151	3,191
1+080,000	10,000	0,036	0,916	0,649	8,438
1+090,000	10,000	0,074	0,884	0,552	9,004
1+100,000	10,000	0,038	3,067	0,563	19,755
1+110,000	10,000	0,019	1,886	0,286	24,764
1+120,000	10,000	0,000	2,047	0,094	19,666
1+130,000	10,000	0,000	2,381	0,000	22,138
1+133,719	3,719	0,000	2,334	0,000	8,766
1+140,000	6,281	0,000	1,651	0,000	12,513
1+150,000	10,000	0,053	0,754	0,265	12,023
1+160,000	10,000	0,102	0,644	0,772	6,987
1+170,000	10,000	0,429	0,344	2,652	4,936
1+180,000	10,000	0,341	0,384	3,849	3,638
1+190,000	10,000	0,132	0,775	2,364	5,797
1+200,000	10,000	0,057	1,328	0,945	10,514
1+200,489	0,489	0,051	1,347	0,026	0,654
1+210,000	9,511	0,019	1,311	0,332	12,639
1+220,000	10,000	0,019	1,089	0,193	12,002
1+230,000	10,000	0,051	0,660	0,351	8,749
1+240,000	10,000	0,201	0,430	1,257	5,450
1+250,000	10,000	0,251	0,407	2,257	4,185
1+260,000	10,000	0,277	0,442	2,637	4,249
1+270,000	10,000	0,241	0,825	2,587	6,336
1+280,000	10,000	0,246	0,813	2,433	8,187
1+290,000	10,000	0,176	0,846	2,109	8,292
1+300,000	10,000	0,058	0,886	1,169	8,659
1+310,000	10,000	0,281	0,772	1,694	8,292
1+320,000	10,000	0,604	0,733	4,423	7,527
1+330,000	10,000	0,475	0,795	5,392	7,639
1+340,000	10,000	0,373	0,704	4,237	7,493
1+350,000	10,000	0,160	0,654	2,663	6,787
1+360,000	10,000	0,059	0,863	1,096	7,583
1+370,000	10,000	0,007	1,081	0,329	9,720
1+380,000	10,000	0,054	0,904	0,301	9,927
1+390,000	10,000	0,000	1,260	0,268	10,821
1+400,000	10,000	0,015	1,962	0,077	16,109
1+410,000	10,000	0,000	2,757	0,077	23,594
1+420,000	10,000	0,000	3,909	0,000	33,330
1+430,000	10,000	0,000	4,889	0,000	43,990
1+440,000	10,000	0,000	6,408	0,000	56,485
1+450,000	10,000	0,000	3,760	0,000	50,843
1+457,501	7,501	0,005	2,228	0,018	22,458
1+460,000	2,499	0,029	1,829	0,042	5,068
1+470,000	10,000	0,752	0,346	3,905	10,873
1+474,400	4,400	1,522	0,100	5,003	0,980
1+480,000	5,600	2,660	0,034	11,708	0,374
1+490,000	10,000	1,853	0,017	22,563	0,255
1+491,299	1,299	1,562	0,022	2,218	0,025
1+500,000	8,701	0,408	0,210	8,567	1,008
1+510,000	10,000	0,108	0,624	2,576	4,167
1+520,000	10,000	0,055	0,955	0,814	7,892
1+530,000	10,000	0,142	0,573	0,984	7,641

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Município: Tunápolis/SC

Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
1+540,000	10,000	0,105	0,638	1,233	6,058
1+550,000	10,000	0,084	0,741	0,944	6,899
1+560,000	10,000	0,000	1,104	0,419	9,225
1+570,000	10,000	0,000	1,732	0,000	14,180
1+580,000	10,000	0,018	1,105	0,088	14,189
1+590,000	10,000	0,021	1,006	0,192	10,557
1+600,000	10,000	0,022	0,727	0,214	8,664
1+610,000	10,000	0,244	0,761	1,329	7,437
1+620,000	10,000	0,102	0,955	1,730	8,576
1+630,000	10,000	0,039	1,010	0,707	9,824
1+638,989	8,989	0,043	0,700	0,370	7,686
1+640,000	1,011	0,055	0,671	0,050	0,693
1+650,000	10,000	0,142	0,667	0,986	6,686
1+660,000	10,000	0,049	1,200	0,959	9,331
1+670,000	10,000	0,042	1,703	0,459	14,512
1+680,000	10,000	0,000	2,312	0,212	20,076
1+690,000	10,000	0,000	1,566	0,000	19,393
1+700,000	10,000	0,270	0,793	1,351	11,795
1+710,000	10,000	0,436	0,531	3,531	6,618
1+713,664	3,664	0,432	0,616	1,590	2,101
1+720,000	6,336	0,263	0,763	2,201	4,367
1+730,000	10,000	0,052	0,979	1,575	8,710
1+740,000	10,000	0,000	1,496	0,261	12,374
1+750,000	10,000	0,025	1,835	0,123	16,655
1+760,000	10,000	0,076	1,963	0,505	18,988
1+770,000	10,000	0,020	2,015	0,484	19,885
1+780,000	10,000	0,000	2,319	0,102	21,667
1+788,340	8,340	0,000	2,646	0,000	20,702
1+790,000	1,660	0,000	2,547	0,000	4,310
1+800,000	10,000	0,000	1,912	0,000	22,295
1+810,000	10,000	0,009	1,519	0,046	17,155
1+820,000	10,000	0,014	1,540	0,117	15,297
1+830,000	10,000	0,008	1,669	0,113	16,044
1+840,000	10,000	0,000	2,856	0,042	22,623
1+843,165	3,165	0,000	3,164	0,000	9,526
1+850,000	6,835	0,000	3,274	0,000	22,002
1+860,000	10,000	0,000	2,176	0,000	27,251
1+870,000	10,000	0,097	1,178	0,485	16,770
1+880,000	10,000	0,928	0,325	5,126	7,513
1+890,000	10,000	1,431	0,080	11,797	2,023
1+900,000	10,000	0,680	0,263	10,557	1,716
1+910,000	10,000	0,414	0,768	5,471	5,155
1+914,449	4,449	0,273	0,857	1,529	3,614
1+920,000	5,551	0,308	0,867	1,615	4,784
1+930,000	10,000	0,295	0,663	3,015	7,647
1+940,000	10,000	0,533	0,374	4,137	5,186
1+950,000	10,000	0,487	0,343	5,099	3,586
1+960,000	10,000	0,377	0,426	4,319	3,843
1+970,000	10,000	0,189	0,980	2,830	7,029
1+980,000	10,000	0,000	2,252	0,945	16,160
1+985,733	5,733	0,142	1,711	0,408	11,359
1+990,000	4,267	0,295	1,835	0,932	7,565
2+000,000	10,000	0,273	1,096	2,840	14,656
2+010,000	10,000	0,827	0,317	5,502	7,065
2+020,000	10,000	1,707	0,165	12,672	2,407
2+030,000	10,000	1,670	0,143	16,885	1,539
2+040,000	10,000	1,257	0,241	14,631	1,919
2+050,000	10,000	0,845	0,847	10,508	5,438
2+060,000	10,000	0,519	0,920	6,820	8,835
2+070,000	10,000	0,517	0,702	5,180	8,110
2+080,000	10,000	0,436	0,732	4,765	7,168
2+090,000	10,000	1,045	0,193	7,405	4,623
2+100,000	10,000	1,731	0,056	13,882	1,242
2+110,000	10,000	1,607	0,060	16,693	0,579
2+120,000	10,000	1,511	0,069	15,590	0,644
2+130,000	10,000	1,469	0,089	14,897	0,788
2+140,000	10,000	1,279	0,073	13,737	0,810
2+150,000	10,000	0,854	0,242	10,662	1,575
2+160,000	10,000	0,487	0,502	6,703	3,721
2+170,000	10,000	0,000	0,846	2,435	6,739
2+180,000	10,000	0,035	1,062	0,175	9,540
2+190,000	10,000	0,013	1,455	0,242	12,588
2+200,000	10,000	0,012	1,131	0,129	12,932
2+210,000	10,000	0,273	0,561	1,426	8,461
2+220,000	10,000	0,342	0,469	3,075	5,152
2+230,000	10,000	1,105	0,178	7,235	3,239
2+240,000	10,000	1,180	0,269	11,426	2,238
2+250,000	10,000	0,779	0,304	9,797	2,866
2+260,000	10,000	0,826	0,213	8,027	2,586
2+270,000	10,000	1,693	0,113	12,599	1,633
2+280,000	10,000	0,525	0,258	11,093	1,854
2+290,000	10,000	0,290	0,940	4,075	5,988
2+300,000	10,000	0,000	2,801	1,449	18,707
2+309,442	9,442	0,000	4,506	0,000	34,495
2+310,000	0,558	0,000	4,494	0,000	2,511
2+320,000	10,000	0,000	3,770	0,000	41,321

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
2+330,000	10,000	0,000	4,537	0,000	41,535
2+340,000	10,000	0,022	3,031	0,108	37,839
2+342,350	2,350	0,033	2,416	0,064	6,400
2+350,000	7,650	0,049	1,302	0,314	14,220
2+360,000	10,000	0,047	0,778	0,479	10,398
2+370,000	10,000	0,065	0,537	0,558	6,575
2+375,257	5,257	0,043	0,628	0,284	3,064
2+380,000	4,743	0,042	0,936	0,202	3,710
2+390,000	10,000	0,057	0,501	0,494	7,186
2+400,000	10,000	0,072	0,911	0,645	7,060
2+410,000	10,000	0,000	1,490	0,361	12,005
2+420,000	10,000	0,084	0,532	0,418	10,111
2+430,000	10,000	0,084	1,147	0,836	8,399
2+440,000	10,000	0,071	1,200	0,773	11,736
2+450,000	10,000	0,045	1,636	0,578	14,181
2+460,000	10,000	0,001	2,087	0,227	18,616
2+470,000	10,000	0,031	2,619	0,160	23,530
2+480,000	10,000	0,062	3,022	0,467	28,206
2+490,000	10,000	0,121	2,545	0,914	27,836
2+500,000	10,000	0,131	1,432	1,259	19,884
2+510,000	10,000	0,237	0,836	1,843	11,336
2+520,000	10,000	0,537	0,662	3,873	7,487
2+530,000	10,000	1,516	0,135	10,267	3,982
2+540,000	10,000	2,219	0,105	18,675	1,199
2+548,847	8,847	2,984	0,034	23,012	0,616
2+550,000	1,153	3,099	0,027	3,506	0,035
2+560,000	10,000	4,127	0,000	36,127	0,136
2+570,000	10,000	5,250	0,000	46,882	0,000
2+572,011	2,011	5,232	0,000	10,539	0,000
2+580,000	7,989	5,195	0,000	41,651	0,000
2+590,000	10,000	3,293	0,000	42,440	0,000
2+595,175	5,175	1,402	0,142	12,149	0,368
2+600,000	4,825	0,008	0,806	3,403	2,287
2+610,000	10,000	0,000	2,611	0,041	17,082
2+620,000	10,000	0,000	3,114	0,000	28,624
2+630,000	10,000	0,000	2,248	0,000	26,811
2+640,000	10,000	0,165	0,889	0,826	15,685
2+650,000	10,000	0,717	0,170	4,412	5,293
2+660,000	10,000	1,622	0,063	11,695	1,166
2+670,000	10,000	1,699	0,027	16,604	0,449
2+680,000	10,000	2,645	0,000	21,721	0,133
2+690,000	10,000	3,182	0,000	29,135	0,000
2+700,000	10,000	4,602	0,000	38,920	0,000
2+710,000	10,000	4,422	0,000	45,118	0,000
2+720,000	10,000	4,236	0,000	43,286	0,000
2+730,000	10,000	3,269	0,130	37,522	0,648
2+740,000	10,000	0,000	0,000	16,344	0,648
2+750,000	10,000	0,000	0,000	0,000	0,000
2+758,393	8,393	0,000	0,000	0,000	0,000
2+760,000	1,607	0,000	0,000	0,000	0,000
2+770,000	10,000	0,000	0,000	0,000	0,000
2+780,000	10,000	0,000	0,000	0,000	0,000
2+780,110	0,110	0,000	0,000	0,000	0,000
2+790,000	9,890	0,000	0,000	0,000	0,000
2+800,000	10,000	0,000	0,000	0,000	0,000
2+801,827	1,827	0,000	0,000	0,000	0,000
2+810,000	8,173	0,000	0,000	0,000	0,000
2+820,000	10,000	0,000	0,000	0,000	0,000
2+830,000	10,000	0,000	0,000	0,000	0,000
2+840,000	10,000	0,000	0,000	0,000	0,000
2+850,000	10,000	0,000	0,000	0,000	0,000
2+860,000	10,000	0,000	0,000	0,000	0,000
2+870,000	10,000	0,000	0,000	0,000	0,000
2+880,000	10,000	0,000	0,000	0,000	0,000
2+890,000	10,000	0,000	0,000	0,000	0,000
2+900,000	10,000	0,000	0,000	0,000	0,000
2+910,000	10,000	0,000	0,000	0,000	0,000
2+920,000	10,000	0,000	0,000	0,000	0,000
2+930,000	10,000	0,000	0,000	0,000	0,000
2+940,000	10,000	0,000	0,000	0,000	0,000
2+950,000	10,000	0,000	0,000	0,000	0,000
2+960,000	10,000	0,000	0,000	0,000	0,000
2+970,000	10,000	0,000	0,000	0,000	0,000
2+980,000	10,000	0,000	0,000	0,000	0,000
2+990,000	10,000	0,000	0,000	0,000	0,000
3+000,000	10,000	0,000	0,000	0,000	0,000
3+010,000	10,000	0,000	0,000	0,000	0,000
3+020,000	10,000	0,000	0,000	0,000	0,000
3+024,924	4,924	0,000	0,000	0,000	0,000
3+030,000	5,076	0,000	0,000	0,000	0,000
3+040,000	10,000	0,000	0,000	0,000	0,000
3+050,000	10,000	0,000	0,000	0,000	0,000
3+060,000	10,000	0,000	0,000	0,000	0,000
3+070,000	10,000	0,000	0,000	0,000	0,000
3+080,000	10,000	0,000	0,000	0,000	0,000
3+090,000	10,000	0,000	0,000	0,000	0,000

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
3+100,000	10,000	0,000	0,000	0,000	0,000
3+102,277	2,277	0,000	0,000	0,000	0,000
3+110,000	7,723	0,000	0,000	0,000	0,000
3+120,000	10,000	0,000	0,000	0,000	0,000
3+130,000	10,000	0,000	0,000	0,000	0,000
3+140,000	10,000	0,000	0,000	0,000	0,000
3+150,000	10,000	0,000	0,000	0,000	0,000
3+160,000	10,000	0,000	0,000	0,000	0,000
3+170,000	10,000	0,000	0,000	0,000	0,000
3+179,630	9,630	0,000	0,000	0,000	0,000
3+180,000	0,370	0,000	0,000	0,000	0,000
3+190,000	10,000	0,000	0,000	0,000	0,000
3+200,000	10,000	0,000	0,000	0,000	0,000
3+210,000	10,000	0,000	0,000	0,000	0,000
3+220,000	10,000	0,000	0,000	0,000	0,000
3+226,642	6,642	0,000	0,000	0,000	0,000
3+230,000	3,358	0,000	0,000	0,000	0,000
3+240,000	10,000	0,000	0,000	0,000	0,000
3+250,000	10,000	0,000	0,000	0,000	0,000
3+256,476	6,476	0,000	0,000	0,000	0,000
3+260,000	3,524	0,000	0,000	0,000	0,000
3+270,000	10,000	0,000	0,000	0,000	0,000
3+280,000	10,000	0,000	0,000	0,000	0,000
3+286,311	6,311	0,000	0,000	0,000	0,000
3+290,000	3,689	0,000	0,000	0,000	0,000
3+300,000	10,000	0,000	0,000	0,000	0,000
3+310,000	10,000	0,000	0,000	0,000	0,000
3+320,000	10,000	0,000	0,000	0,000	0,000
3+330,000	10,000	0,000	0,000	0,000	0,000
3+340,000	10,000	0,000	0,000	0,000	0,000
3+350,000	10,000	0,000	0,000	0,000	0,000
3+360,000	10,000	0,000	0,000	0,000	0,000
3+370,000	10,000	0,000	0,000	0,000	0,000
3+380,000	10,000	0,000	0,000	0,000	0,000
3+385,684	5,684	0,000	0,000	0,000	0,000
3+390,000	4,316	0,000	0,000	0,000	0,000
3+400,000	10,000	0,000	0,000	0,000	0,000
3+410,000	10,000	0,000	0,000	0,000	0,000
3+420,000	10,000	0,000	0,000	0,000	0,000
3+430,000	10,000	0,000	0,000	0,000	0,000
3+440,000	10,000	0,000	0,000	0,000	0,000
3+450,000	10,000	0,000	0,000	0,000	0,000
3+452,882	2,882	0,000	0,000	0,000	0,000
3+460,000	7,118	0,000	0,000	0,000	0,000
3+470,000	10,000	0,000	0,000	0,000	0,000
3+480,000	10,000	0,000	0,000	0,000	0,000
3+490,000	10,000	0,000	0,000	0,000	0,000
3+500,000	10,000	0,000	0,000	0,000	0,000
3+510,000	10,000	0,000	0,000	0,000	0,000
3+520,000	10,000	0,000	0,000	0,000	0,000
3+520,079	0,079	0,000	0,000	0,000	0,000
3+530,000	9,921	0,000	0,000	0,000	0,000
3+540,000	10,000	0,000	0,000	0,000	0,000
3+550,000	10,000	0,000	0,000	0,000	0,000
3+560,000	10,000	0,000	0,000	0,000	0,000
3+570,000	10,000	0,000	0,000	0,000	0,000
3+580,000	10,000	0,000	0,000	0,000	0,000
3+590,000	10,000	0,000	0,000	0,000	0,000
3+599,772	9,772	0,000	0,000	0,000	0,000
3+600,000	0,228	0,000	0,000	0,000	0,000
3+610,000	10,000	0,000	0,000	0,000	0,000
3+620,000	10,000	0,000	0,000	0,000	0,000
3+630,000	10,000	0,000	0,000	0,000	0,000
3+636,183	6,183	0,000	0,000	0,000	0,000
3+640,000	3,817	0,000	0,000	0,000	0,000
3+650,000	10,000	0,000	0,000	0,000	0,000
3+660,000	10,000	0,000	0,000	0,000	0,000
3+670,000	10,000	0,000	0,000	0,000	0,000
3+672,593	2,593	0,000	0,000	0,000	0,000
3+680,000	7,407	0,000	0,000	0,000	0,000
3+690,000	10,000	0,000	0,000	0,000	0,000
3+700,000	10,000	0,000	0,000	0,000	0,000
3+710,000	10,000	0,000	0,000	0,000	0,000
3+720,000	10,000	0,000	0,000	0,000	0,000
3+725,352	5,352	0,000	0,000	0,000	0,000
3+730,000	4,648	0,000	0,000	0,000	0,000
3+740,000	10,000	0,000	0,000	0,000	0,000
3+750,000	10,000	0,000	0,000	0,000	0,000
3+760,000	10,000	0,000	0,000	0,000	0,000
3+768,686	8,686	0,000	0,000	0,000	0,000
3+770,000	1,314	0,000	0,000	0,000	0,000
3+780,000	10,000	0,000	0,000	0,000	0,000
3+790,000	10,000	0,000	0,000	0,000	0,000
3+800,000	10,000	0,000	0,000	0,000	0,000
3+810,000	10,000	0,000	0,000	0,000	0,000
3+812,020	2,020	0,000	0,000	0,000	0,000

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
3+820,000	7,980	0,000	0,000	0,000	0,000
3+830,000	10,000	0,000	0,000	0,000	0,000
3+835,518	5,518	0,000	0,000	0,000	0,000
3+840,000	4,482	0,000	0,000	0,000	0,000
3+850,000	10,000	0,000	0,000	0,000	0,000
3+860,000	10,000	0,000	0,000	0,000	0,000
3+863,234	3,234	0,000	0,000	0,000	0,000
3+870,000	6,766	0,000	0,000	0,000	0,000
3+880,000	10,000	0,000	0,000	0,000	0,000
3+890,000	10,000	0,000	0,000	0,000	0,000
3+890,950	0,950	0,000	0,000	0,000	0,000
3+900,000	9,050	0,000	0,000	0,000	0,000
3+910,000	10,000	0,000	0,000	0,000	0,000
3+920,000	10,000	0,000	0,000	0,000	0,000
3+930,000	10,000	0,000	0,000	0,000	0,000
3+940,000	10,000	0,000	0,000	0,000	0,000
3+950,000	10,000	0,000	0,000	0,000	0,000
3+960,000	10,000	0,000	0,000	0,000	0,000
3+960,217	0,217	0,000	0,000	0,000	0,000
3+970,000	9,783	0,000	0,000	0,000	0,000
3+980,000	10,000	0,000	0,000	0,000	0,000
3+990,000	10,000	0,000	0,000	0,000	0,000
3+992,170	2,170	0,000	0,000	0,000	0,000
4+000,000	7,830	0,000	0,000	0,000	0,000
4+010,000	10,000	0,000	0,000	0,000	0,000
4+020,000	10,000	0,000	0,000	0,000	0,000
4+024,123	4,123	0,000	0,000	0,000	0,000
4+030,000	5,877	0,000	0,000	0,000	0,000
4+040,000	10,000	0,000	0,000	0,000	0,000
4+050,000	10,000	0,000	0,000	0,000	0,000
4+060,000	10,000	0,000	0,000	0,000	0,000
4+070,000	10,000	0,000	0,000	0,000	0,000
4+080,000	10,000	0,000	0,000	0,000	0,000
4+090,000	10,000	0,000	0,000	0,000	0,000
4+096,596	6,596	0,000	0,000	0,000	0,000
4+100,000	3,404	0,000	0,000	0,000	0,000
4+110,000	10,000	0,000	0,000	0,000	0,000
4+120,000	10,000	0,000	0,000	0,000	0,000
4+128,860	8,860	0,000	0,000	0,000	0,000
4+130,000	1,140	0,000	0,000	0,000	0,000
4+140,000	10,000	0,000	0,000	0,000	0,000
4+150,000	10,000	0,000	0,000	0,000	0,000
4+160,000	10,000	0,000	0,000	0,000	0,000
4+161,124	1,124	0,000	0,000	0,000	0,000
4+170,000	8,876	0,000	0,000	0,000	0,000
4+180,000	10,000	0,000	0,000	0,000	0,000
4+190,000	10,000	0,000	0,000	0,000	0,000
4+200,000	10,000	0,000	0,000	0,000	0,000
4+210,000	10,000	0,000	0,000	0,000	0,000
4+220,000	10,000	0,000	0,000	0,000	0,000
4+230,000	10,000	0,000	0,000	0,000	0,000
4+240,000	10,000	0,000	0,000	0,000	0,000
4+250,000	10,000	0,000	0,000	0,000	0,000
4+260,000	10,000	0,000	0,000	0,000	0,000
4+270,000	10,000	0,000	0,000	0,000	0,000
4+280,000	10,000	0,000	0,000	0,000	0,000
4+282,895	2,895	0,000	0,000	0,000	0,000
4+290,000	7,105	0,000	0,000	0,000	0,000
4+300,000	10,000	0,000	0,000	0,000	0,000
4+310,000	10,000	0,000	0,000	0,000	0,000
4+320,000	10,000	0,000	0,000	0,000	0,000
4+330,000	10,000	0,000	0,000	0,000	0,000
4+338,303	8,303	0,000	0,000	0,000	0,000
4+340,000	1,697	0,000	0,000	0,000	0,000
4+350,000	10,000	0,000	0,000	0,000	0,000
4+360,000	10,000	0,000	0,000	0,000	0,000
4+370,000	10,000	0,000	0,000	0,000	0,000
4+380,000	10,000	0,000	0,000	0,000	0,000
4+390,000	10,000	0,000	0,000	0,000	0,000
4+393,711	3,711	0,000	0,000	0,000	0,000
4+400,000	6,289	0,000	0,000	0,000	0,000
4+410,000	10,000	0,000	0,000	0,000	0,000
4+420,000	10,000	0,000	0,000	0,000	0,000
4+430,000	10,000	0,000	0,000	0,000	0,000
4+440,000	10,000	0,000	0,000	0,000	0,000
4+450,000	10,000	0,000	0,000	0,000	0,000
4+460,000	10,000	0,000	0,000	0,000	0,000
4+470,000	10,000	0,000	0,000	0,000	0,000
4+480,000	10,000	0,000	0,000	0,000	0,000
4+490,000	10,000	0,000	0,000	0,000	0,000
4+500,000	10,000	0,000	0,000	0,000	0,000
4+510,000	10,000	0,000	0,000	0,000	0,000
4+520,000	10,000	1,473	0,030	7,364	0,152
4+530,000	10,000	0,128	0,466	8,003	2,482
4+540,000	10,000	0,013	0,976	0,705	7,208
4+547,920	7,920	0,000	1,864	0,051	11,242

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
4+550,000	2,080	0,000	1,783	0,000	3,792
4+560,000	10,000	0,000	1,734	0,000	17,585
4+570,000	10,000	0,000	1,915	0,001	18,244
4+580,000	10,000	0,004	1,821	0,019	18,676
4+590,000	10,000	0,000	1,875	0,018	18,478
4+600,000	10,000	0,000	1,823	0,000	18,490
4+610,000	10,000	0,000	1,846	0,000	18,344
4+620,000	10,000	0,047	2,419	0,236	21,325
4+630,000	10,000	0,077	1,669	0,619	20,440
4+640,000	10,000	0,024	2,324	0,502	19,966
4+650,000	10,000	0,017	2,256	0,205	22,902
4+660,000	10,000	0,036	1,661	0,265	19,586
4+670,000	10,000	0,404	0,960	2,199	13,103
4+680,000	10,000	0,926	0,385	6,647	6,722
4+690,000	10,000	0,844	0,242	8,846	3,132
4+696,629	6,629	0,368	0,338	4,016	1,921
4+700,000	3,371	0,353	0,396	1,215	1,237
4+710,000	10,000	0,131	0,695	2,420	5,453
4+720,000	10,000	0,257	0,384	1,942	5,392
4+730,000	10,000	0,091	0,567	1,740	4,752
4+740,000	10,000	0,150	0,514	1,204	5,403
4+750,000	10,000	0,296	0,780	2,231	6,471
4+760,000	10,000	0,392	0,811	3,439	7,957
4+770,000	10,000	0,202	1,269	2,965	10,397
4+780,000	10,000	0,217	0,435	2,092	8,520
4+790,000	10,000	0,839	0,188	5,281	3,115
4+800,000	10,000	3,413	0,058	21,260	1,230
4+810,000	10,000	5,632	0,000	45,221	0,292
4+820,000	10,000	3,885	0,024	47,581	0,122
4+830,000	10,000	2,532	0,080	32,083	0,522
4+840,000	10,000	1,570	0,132	20,512	1,058
4+845,338	5,338	1,390	0,173	7,901	0,812
4+850,000	4,662	1,382	0,249	6,461	0,982
4+860,000	10,000	0,275	0,619	8,281	4,338
4+870,000	10,000	0,032	1,346	1,536	9,825
4+880,000	10,000	0,000	2,393	0,162	18,696
4+890,000	10,000	0,000	3,728	0,000	30,604
4+900,000	10,000	0,000	2,830	0,000	32,790
4+910,000	10,000	0,000	2,389	0,000	26,097
4+920,000	10,000	0,000	1,951	0,000	21,700
4+930,000	10,000	0,003	1,365	0,014	16,578
4+940,000	10,000	0,000	1,045	0,014	12,048
4+950,000	10,000	0,035	0,757	0,176	9,009
4+960,000	10,000	0,080	0,553	0,576	6,550
4+970,000	10,000	0,361	0,324	2,204	4,386
4+980,000	10,000	0,234	0,464	2,971	3,939
4+990,000	10,000	0,341	0,592	2,874	5,280
5+000,000	10,000	0,420	0,461	3,807	5,264
5+010,000	10,000	0,547	0,436	4,837	4,485
5+020,000	10,000	0,541	0,353	5,442	3,945
5+030,000	10,000	0,447	0,476	4,939	4,146
5+040,000	10,000	0,179	0,708	3,129	5,924
5+050,000	10,000	0,026	1,199	1,025	9,536
5+055,847	5,847	0,016	0,829	0,122	5,929
5+060,000	4,153	0,006	1,021	0,045	3,841
5+070,000	10,000	0,000	1,696	0,028	13,585
5+080,000	10,000	0,003	1,254	0,017	14,750
5+090,000	10,000	0,003	1,232	0,030	12,430
5+100,000	10,000	0,020	2,169	0,112	17,005
5+110,000	10,000	0,028	0,826	0,241	14,971
5+120,000	10,000	0,000	1,158	0,142	9,917
5+130,000	10,000	0,000	1,785	0,000	14,714
5+139,581	9,581	0,000	2,334	0,000	19,731
5+140,000	0,419	0,000	2,353	0,000	0,982
5+150,000	10,000	0,000	2,463	0,000	24,076
5+160,000	10,000	0,000	1,952	0,000	22,071
5+170,000	10,000	0,020	1,279	0,101	16,154
5+180,000	10,000	0,074	1,109	0,472	11,941
5+190,000	10,000	0,071	0,964	0,726	10,366
5+200,000	10,000	0,176	0,753	1,232	8,585
5+210,000	10,000	0,423	0,439	2,993	5,961
5+220,000	10,000	0,562	0,234	4,924	3,369
5+223,316	3,316	0,574	0,248	1,883	0,799
5+230,000	6,684	0,425	0,282	3,340	1,771
5+240,000	10,000	0,323	0,520	3,739	4,011
5+250,000	10,000	0,164	0,728	2,433	6,239
5+260,000	10,000	0,029	0,936	0,967	8,319
5+270,000	10,000	0,028	1,178	0,287	10,572
5+280,000	10,000	0,019	1,415	0,233	12,967
5+290,000	10,000	0,010	1,515	0,144	14,653
5+300,000	10,000	0,001	1,768	0,058	16,419
5+310,000	10,000	0,001	1,506	0,012	16,371
5+320,000	10,000	0,000	1,474	0,005	14,901
5+330,000	10,000	0,083	0,822	0,417	11,481
5+340,000	10,000	0,436	0,533	2,594	6,774
5+349,749	9,749	1,265	0,212	8,289	3,630

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
5+350,000	0,251	1,293	0,208	0,321	0,053
5+360,000	10,000	2,087	0,113	16,901	1,606
5+370,000	10,000	2,267	0,071	21,772	0,922
5+380,000	10,000	1,997	0,152	21,320	1,115
5+390,000	10,000	1,773	0,124	18,846	1,380
5+398,999	8,999	1,467	0,238	14,577	1,630
5+400,000	1,001	1,428	0,247	1,449	0,243
5+410,000	10,000	0,851	0,243	11,396	2,451
5+420,000	10,000	0,501	0,410	6,763	3,263
5+430,000	10,000	0,415	0,435	4,583	4,225
5+440,000	10,000	0,151	0,683	2,830	5,591
5+448,248	8,248	0,042	0,958	0,796	6,765
5+450,000	1,752	0,017	1,056	0,052	1,764
5+460,000	10,000	0,000	2,060	0,084	15,581
5+470,000	10,000	0,001	1,352	0,003	17,059
5+480,000	10,000	0,003	0,992	0,016	11,720
5+490,000	10,000	0,063	0,714	0,330	8,529
5+500,000	10,000	0,067	0,816	0,652	7,650
5+510,000	10,000	0,558	0,421	3,126	6,186
5+520,000	10,000	0,601	0,511	5,797	4,660
5+530,000	10,000	0,834	0,592	7,174	5,514
5+540,000	10,000	0,612	0,978	7,227	7,849
5+550,000	10,000	0,178	1,959	3,949	14,686
5+560,000	10,000	0,047	1,989	1,125	19,738
5+567,440	7,440	0,054	2,054	0,375	15,037
5+570,000	2,560	0,054	2,075	0,137	5,285
5+580,000	10,000	0,004	1,741	0,286	19,082
5+590,000	10,000	0,002	1,288	0,026	15,144
5+600,000	10,000	0,001	1,196	0,011	12,420
5+610,000	10,000	0,008	1,094	0,044	11,451
5+619,020	9,020	0,004	1,327	0,056	10,918
5+620,000	0,980	0,002	1,318	0,003	1,296
5+630,000	10,000	0,000	1,498	0,008	14,078
5+640,000	10,000	0,000	1,456	0,000	14,767
5+650,000	10,000	0,081	1,475	0,403	14,651
5+660,000	10,000	0,251	1,575	1,660	15,250
5+670,000	10,000	0,146	1,714	1,986	16,446
5+670,600	0,600	0,134	1,726	0,084	1,032
5+680,000	9,400	0,027	2,513	0,753	19,919
5+690,000	10,000	0,000	4,131	0,135	33,217
5+700,000	10,000	0,000	3,825	0,001	39,781
5+710,000	10,000	0,001	2,765	0,003	32,950
5+720,000	10,000	0,018	1,638	0,093	22,011
5+730,000	10,000	0,177	0,664	0,976	11,505
5+740,000	10,000	0,475	0,420	3,260	5,416
5+750,000	10,000	1,053	0,364	7,638	3,918
5+760,000	10,000	1,537	0,361	12,947	3,624
5+770,000	10,000	1,195	0,363	13,658	3,620
5+780,000	10,000	1,059	0,342	11,267	3,528
5+790,000	10,000	0,588	0,182	8,234	2,621
5+800,000	10,000	0,319	0,462	4,536	3,218
5+810,000	10,000	0,266	0,503	2,926	4,823
5+820,000	10,000	0,218	0,463	2,422	4,830
5+830,000	10,000	0,057	0,844	1,376	6,538
5+840,000	10,000	0,082	0,997	0,698	9,207
5+850,000	10,000	0,000	1,047	0,412	10,221
5+860,000	10,000	0,001	0,975	0,006	10,110
5+870,000	10,000	0,146	0,684	0,734	8,294
5+880,000	10,000	0,413	0,400	2,795	5,421
5+890,000	10,000	0,935	0,250	6,742	3,253
5+897,136	7,136	0,607	0,198	5,503	1,600
5+900,000	2,864	0,606	0,181	1,738	0,543
5+910,000	10,000	0,143	0,624	3,749	4,027
5+920,000	10,000	0,034	2,323	0,887	14,738
5+930,000	10,000	0,041	3,279	0,373	28,013
5+938,194	8,194	0,000	3,306	0,168	26,981
5+940,000	1,806	0,000	3,261	0,000	5,931
5+950,000	10,000	0,000	3,143	0,000	32,021
5+960,000	10,000	0,000	2,700	0,000	29,214
5+970,000	10,000	0,000	2,307	0,000	25,034
5+979,252	9,252	0,000	2,219	0,000	20,935
5+980,000	0,748	0,000	2,189	0,000	1,649
5+990,000	10,000	0,015	1,722	0,073	19,555
6+000,000	10,000	0,098	1,274	0,562	14,977
6+010,000	10,000	0,055	0,995	0,763	11,344
6+020,000	10,000	0,120	1,029	0,872	10,120
6+030,000	10,000	0,093	0,982	1,063	10,056
6+040,000	10,000	0,066	1,237	0,795	11,096
6+050,000	10,000	0,000	1,706	0,331	14,716
6+054,713	4,713	0,000	1,643	0,000	7,894
6+060,000	5,287	0,000	1,821	0,000	9,158
6+070,000	10,000	0,081	1,183	0,405	15,022
6+080,000	10,000	0,079	1,078	0,800	11,306
6+090,000	10,000	0,049	0,683	0,640	8,805
6+100,000	10,000	0,057	0,991	0,528	8,372
6+110,000	10,000	0,051	1,034	0,540	10,127

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
6+120,000	10,000	0,000	1,332	0,257	11,830
6+127,824	7,824	0,118	0,955	0,461	8,944
6+130,000	2,176	0,138	0,944	0,278	2,065
6+140,000	10,000	0,128	1,345	1,331	11,441
6+150,000	10,000	0,044	1,480	0,862	14,125
6+160,000	10,000	0,058	1,306	0,510	13,933
6+170,000	10,000	0,631	1,174	3,443	12,399
6+180,000	10,000	1,289	0,855	9,600	10,144
6+190,000	10,000	1,682	0,418	14,856	6,367
6+200,000	10,000	1,200	0,394	14,409	4,062
6+200,935	0,935	1,090	0,396	1,070	0,369
6+210,000	9,065	0,000	1,907	4,938	10,438
6+220,000	10,000	0,000	3,775	0,000	28,411
6+230,000	10,000	0,000	4,514	0,000	41,446
6+240,000	10,000	0,000	2,798	0,000	36,560
6+250,000	10,000	0,011	1,680	0,053	22,390
6+260,000	10,000	0,030	1,167	0,204	14,235
6+270,000	10,000	0,034	1,014	0,320	10,908
6+280,000	10,000	0,001	1,087	0,176	10,509
6+290,000	10,000	0,000	1,845	0,007	14,660
6+300,000	10,000	0,000	3,614	0,000	27,295
6+301,555	1,555	0,000	3,396	0,000	5,451
6+310,000	8,445	0,000	2,111	0,000	23,256
6+320,000	10,000	0,000	2,044	0,000	20,775
6+330,000	10,000	0,003	1,236	0,017	16,396
6+334,147	4,147	0,296	0,715	0,620	4,043
6+340,000	5,853	0,953	0,310	3,655	2,998
6+350,000	10,000	1,932	0,065	14,427	1,874
6+360,000	10,000	1,180	0,121	15,559	0,930
6+366,739	6,739	0,997	0,194	7,334	1,062
6+370,000	3,261	0,750	0,288	2,848	0,786
6+380,000	10,000	0,039	1,331	3,944	8,092
6+390,000	10,000	0,000	2,377	0,195	18,539
6+399,898	9,898	0,028	2,177	0,136	22,540
6+400,000	0,102	0,028	2,176	0,003	0,222
6+410,000	10,000	0,017	2,429	0,226	23,026
6+420,000	10,000	0,046	1,867	0,319	21,481
6+425,935	5,935	0,538	0,957	1,734	8,382
6+430,000	4,065	0,281	1,107	1,665	4,195
6+440,000	10,000	0,000	2,116	1,407	16,115
6+450,000	10,000	0,000	2,126	0,000	21,212
6+451,973	1,973	0,000	2,205	0,000	4,273
6+460,000	8,027	0,000	2,802	0,000	20,096
6+470,000	10,000	0,000	3,233	0,000	30,175
6+480,000	10,000	0,000	2,750	0,000	29,914
6+490,000	10,000	0,000	2,872	0,000	28,106
6+500,000	10,000	0,000	1,636	0,000	22,537
6+510,000	10,000	0,009	1,108	0,046	13,718
6+520,000	10,000	0,012	0,870	0,108	9,888
6+530,000	10,000	0,045	1,028	0,285	9,487
6+540,000	10,000	0,015	1,319	0,299	11,731
6+550,000	10,000	0,018	1,392	0,165	13,553
6+560,000	10,000	0,020	1,526	0,189	14,588
6+566,143	6,143	0,032	1,672	0,158	9,822
6+570,000	3,857	0,413	1,509	0,857	6,134
6+580,000	10,000	0,912	1,891	6,626	16,997
6+590,000	10,000	0,949	2,021	9,304	19,558
6+600,000	10,000	1,477	1,957	12,129	19,890
6+610,000	10,000	3,125	1,387	23,012	16,721
6+620,000	10,000	1,337	2,137	22,312	17,620
6+630,000	10,000	0,002	2,556	6,695	23,462
6+640,000	10,000	0,015	3,021	0,086	27,883
6+650,000	10,000	0,048	3,182	0,319	31,017
6+654,768	4,768	0,059	2,499	0,256	13,545
6+660,000	5,232	0,054	2,162	0,294	12,194
6+670,000	10,000	0,052	1,645	0,527	19,037
6+680,000	10,000	0,000	2,474	0,259	20,597
6+690,000	10,000	0,000	3,866	0,000	31,702
6+700,000	10,000	0,000	3,206	0,000	35,360
6+710,000	10,000	0,000	2,426	0,000	28,157
6+720,000	10,000	2,025	1,962	10,126	21,939
6+730,000	10,000	0,633	1,488	13,292	17,249
6+740,000	10,000	0,332	1,473	4,827	14,805
6+743,393	3,393	0,607	1,395	1,594	4,866
6+750,000	6,607	1,091	1,182	5,609	8,514
6+760,000	10,000	1,341	1,095	12,157	11,386
6+770,000	10,000	0,582	1,782	9,611	14,387
6+780,000	10,000	0,005	1,904	2,933	18,430
6+790,000	10,000	0,035	1,514	0,201	17,091
6+796,321	6,321	0,025	1,748	0,190	10,309
6+800,000	3,679	0,000	1,582	0,046	6,125
6+810,000	10,000	0,099	0,836	0,494	12,092
6+820,000	10,000	0,148	0,916	1,233	8,762
6+830,000	10,000	0,281	0,853	2,144	8,847
6+840,000	10,000	0,253	1,039	2,668	9,461
6+850,000	10,000	0,478	0,749	3,654	8,939

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Município: Tunápolis/SC

Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
6+860,000	10,000	0,379	1,005	4,285	8,770
6+865,761	5,761	0,345	1,049	2,085	5,917
6+870,000	4,239	0,276	1,201	1,315	4,769
6+880,000	10,000	0,055	1,940	1,651	15,703
6+890,000	10,000	0,124	1,575	0,894	17,574
6+900,000	10,000	0,118	2,008	1,210	17,916
6+910,000	10,000	0,370	0,597	2,440	13,026
6+920,000	10,000	0,497	0,511	4,334	5,540
6+930,000	10,000	0,546	1,629	5,213	10,697
6+935,202	5,202	0,200	1,259	1,940	7,510
6+940,000	4,798	0,000	1,959	0,479	7,720
6+944,440	4,440	0,028	1,755	0,062	8,246
6+950,000	5,560	0,107	2,080	0,375	10,660
6+960,000	10,000	0,022	3,255	0,644	26,673
6+961,786	1,786	0,025	2,731	0,042	5,345
6+970,000	8,214	0,120	1,283	0,596	16,486
6+979,132	9,132	0,163	0,808	1,294	9,548
6+980,000	0,868	0,135	0,811	0,130	0,702
6+990,000	10,000	0,236	0,706	1,858	7,583
7+000,000	10,000	0,569	0,451	4,026	5,781
7+010,000	10,000	0,645	0,470	6,072	4,601
7+020,000	10,000	0,591	1,204	6,182	8,366
7+030,000	10,000	0,613	2,139	6,019	16,713
7+040,000	10,000	0,409	2,802	5,108	24,707
7+050,000	10,000	0,005	1,085	2,071	19,437
7+060,000	10,000	0,001	1,491	0,030	12,880
7+070,000	10,000	0,015	1,290	0,079	13,903
7+080,000	10,000	2,632	0,787	13,236	10,381
7+090,000	10,000	3,838	1,243	32,351	10,145
7+100,000	10,000	3,793	0,685	38,157	9,636
7+110,000	10,000	4,162	0,542	39,778	6,135
7+119,006	9,006	2,192	0,462	28,611	4,524
7+120,000	0,994	1,880	0,459	2,024	0,458
7+130,000	10,000	0,901	0,595	13,904	5,271
7+139,450	9,450	0,617	0,946	7,172	7,279
7+140,000	0,550	0,601	0,981	0,335	0,530
7+150,000	10,000	0,343	1,482	4,717	12,315
7+159,893	9,893	0,156	1,257	2,466	13,548
7+160,000	0,107	0,157	1,260	0,017	0,135
7+170,000	10,000	0,006	1,708	0,811	14,839
7+180,000	10,000	0,084	1,447	0,447	15,778
7+190,000	10,000	0,113	1,133	0,985	12,903
7+200,000	10,000	0,138	1,610	1,255	13,719
7+210,000	10,000	0,275	2,444	2,065	20,271
7+218,188	8,188	0,110	1,808	1,577	17,404
7+220,000	1,812	0,070	1,678	0,163	3,158
7+230,000	10,000	0,078	1,065	0,735	13,718
7+240,000	10,000	0,030	1,237	0,535	11,514
7+250,000	10,000	0,003	1,551	0,163	13,943
7+260,000	10,000	0,000	3,174	0,015	23,628
7+270,000	10,000	0,000	3,480	0,000	33,272
7+280,000	10,000	0,013	1,843	0,063	26,617
7+290,000	10,000	0,029	1,821	0,209	18,320
7+300,000	10,000	0,000	3,206	0,146	25,132
7+310,000	10,000	0,024	2,160	0,121	26,830
7+320,000	10,000	0,103	1,187	0,634	16,737
7+325,390	5,390	0,491	0,558	1,599	4,703
7+330,000	4,610	1,117	0,299	3,706	1,974
7+340,000	10,000	1,545	0,126	13,309	2,120
7+350,000	10,000	0,061	0,879	8,028	5,024
7+360,000	10,000	0,017	1,685	0,386	12,823
7+370,000	10,000	0,001	2,334	0,090	20,097
7+380,000	10,000	0,000	2,617	0,008	24,756
7+390,000	10,000	0,000	2,324	0,002	24,704
7+400,000	10,000	0,000	2,866	0,000	25,947
7+410,000	10,000	0,000	3,763	0,000	33,144
7+420,000	10,000	0,000	3,154	0,000	34,587
7+430,000	10,000	0,000	2,589	0,000	28,716
7+432,591	2,591	0,000	2,281	0,000	6,309
7+440,000	7,409	0,021	1,329	0,076	13,374
7+450,000	10,000	0,089	0,463	0,546	8,959
7+460,000	10,000	0,000	1,798	0,444	11,306
7+470,000	10,000	0,000	2,040	0,000	19,190
7+480,000	10,000	0,000	1,665	0,000	18,525
7+490,000	10,000	0,106	1,026	0,528	13,455
7+493,465	3,465	0,187	1,024	0,507	3,551
7+500,000	6,535	0,316	1,123	1,645	7,016
7+510,000	10,000	0,444	1,248	3,803	11,858
7+520,000	10,000	0,404	1,184	4,241	12,161
7+530,000	10,000	0,388	1,038	3,959	11,110
7+540,000	10,000	0,178	1,414	2,831	12,260
7+550,000	10,000	0,000	1,899	0,891	16,564
7+560,000	10,000	0,039	1,233	0,193	15,656
7+570,000	10,000	0,000	1,372	0,193	13,020
7+572,560	2,560	0,062	1,313	0,080	3,436
7+580,000	7,440	0,288	1,256	1,302	9,557

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Município: Tunápolis/SC

Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
7+590,000	10,000	0,310	0,932	2,992	10,939
7+600,000	10,000	0,058	1,484	1,843	12,077
7+610,000	10,000	0,000	2,522	0,291	20,027
7+620,000	10,000	0,000	2,150	0,000	23,357
7+630,000	10,000	0,014	1,682	0,068	19,156
7+640,000	10,000	0,291	1,222	1,525	14,517
7+650,000	10,000	0,576	0,491	4,335	8,566
7+651,655	1,655	0,628	0,406	0,996	0,743
7+660,000	8,345	0,541	0,519	4,879	3,859
7+670,000	10,000	0,102	1,261	3,214	8,900
7+676,381	6,381	0,025	1,597	0,404	9,117
7+680,000	3,619	0,025	1,414	0,090	5,448
7+690,000	10,000	0,063	1,156	0,437	12,849
7+700,000	10,000	0,059	0,956	0,607	10,558
7+710,000	10,000	0,211	0,499	1,352	7,278
7+720,000	10,000	1,357	0,082	7,844	2,906
7+720,491	0,491	1,314	0,093	0,656	0,043
7+730,000	9,509	0,929	0,155	10,666	1,179
7+740,000	10,000	1,249	0,051	10,891	1,029
7+750,000	10,000	0,393	0,365	8,210	2,080
7+760,000	10,000	0,048	1,699	2,205	10,320
7+764,601	4,601	0,004	1,949	0,120	8,392
7+770,000	5,399	0,000	2,391	0,011	11,715
7+780,000	10,000	0,000	3,425	0,000	29,080
7+790,000	10,000	0,074	1,164	0,371	22,948
7+800,000	10,000	0,442	1,071	2,580	11,176
7+810,000	10,000	0,767	1,149	6,043	11,098
7+820,000	10,000	0,567	0,783	6,667	9,658
7+830,000	10,000	0,545	0,697	5,556	7,401
7+840,000	10,000	0,303	0,864	4,235	7,807
7+850,000	10,000	0,470	0,655	3,862	7,596
7+860,000	10,000	0,365	1,093	4,176	8,740
7+867,586	7,586	0,474	1,031	3,183	8,055
7+870,000	2,414	0,490	0,993	1,164	2,442
7+880,000	10,000	0,406	0,870	4,484	9,314
7+890,000	10,000	0,374	1,306	3,904	10,883
7+900,000	10,000	0,280	1,231	3,272	12,688
7+910,000	10,000	0,381	0,992	3,305	11,116
7+917,308	7,308	0,372	1,312	2,752	8,417
7+920,000	2,692	0,361	1,427	0,987	3,686
7+930,000	10,000	0,350	1,438	3,555	14,325
7+940,000	10,000	0,563	0,642	4,566	10,400
7+950,000	10,000	1,674	0,130	11,188	3,858
7+960,000	10,000	0,926	0,286	12,999	2,076
7+967,031	7,031	0,260	0,500	4,167	2,760
7+967,385	0,354	0,240	0,500	0,088	0,177
7+970,000	2,615	0,158	0,516	0,519	1,328
7+980,000	10,000	0,306	0,611	2,315	5,632
7+990,000	10,000	0,084	0,865	1,946	7,377
8+000,000	10,000	0,000	1,562	0,418	12,136
8+010,000	10,000	0,000	1,970	0,000	17,663
8+020,000	10,000	0,000	2,469	0,000	22,195
8+030,000	10,000	0,000	1,759	0,000	21,137
8+031,531	1,531	0,000	1,831	0,000	2,748
8+040,000	8,469	0,000	1,266	0,000	13,113
8+050,000	10,000	0,340	0,655	1,698	9,604
8+060,000	10,000	1,403	0,410	8,714	5,322
8+070,000	10,000	1,462	0,443	14,325	4,262
8+080,000	10,000	0,711	0,573	10,864	5,079
8+090,000	10,000	0,022	1,177	3,667	8,751
8+095,677	5,677	0,000	1,312	0,064	7,066
8+100,000	4,323	0,001	1,101	0,002	5,216
8+110,000	10,000	0,223	0,639	1,122	8,700
8+120,000	10,000	0,708	0,393	4,658	5,162
8+130,000	10,000	0,482	0,243	5,951	3,180
8+140,000	10,000	0,446	0,254	4,640	2,484
8+150,000	10,000	0,014	0,908	2,302	5,808
8+160,000	10,000	0,000	1,377	0,072	11,424
8+170,000	10,000	0,000	1,549	0,000	14,629
8+178,256	8,256	0,000	1,515	0,000	12,645
8+180,000	1,744	0,001	1,436	0,001	2,572
8+190,000	10,000	0,089	1,222	0,451	13,289
8+200,000	10,000	0,089	1,339	0,891	12,805
8+210,000	10,000	0,038	1,499	0,633	14,187
8+220,000	10,000	0,022	0,978	0,297	12,383
8+230,000	10,000	0,107	0,675	0,642	8,266
8+232,204	2,204	0,144	0,608	0,276	1,415
8+240,000	7,796	0,275	0,338	1,632	3,688
8+250,000	10,000	0,217	0,576	2,460	4,569
8+260,000	10,000	0,210	0,751	2,138	6,634
8+270,000	10,000	0,195	0,817	2,028	7,841
8+280,000	10,000	0,036	1,038	1,157	9,278
8+286,152	6,152	0,000	1,714	0,111	8,466
8+290,000	3,848	0,000	2,191	0,000	7,514
8+300,000	10,000	0,000	3,389	0,000	27,901
8+310,000	10,000	0,000	4,495	0,000	39,421

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Município: Tunápolis/SC

Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
8+320,000	10,000	0,000	4,803	0,000	46,491
8+330,000	10,000	0,000	4,962	0,000	48,823
8+340,000	10,000	0,000	5,082	0,000	50,218
8+350,000	10,000	0,000	4,505	0,000	47,934
8+360,000	10,000	0,000	4,145	0,000	43,247
8+370,000	10,000	0,000	3,328	0,000	37,361
8+380,000	10,000	0,006	1,857	0,029	25,925
8+390,000	10,000	0,049	1,105	0,275	14,814
8+400,000	10,000	0,031	1,007	0,401	10,564
8+410,000	10,000	0,020	0,836	0,254	9,219
8+420,000	10,000	0,001	1,072	0,105	9,540
8+430,000	10,000	0,001	1,182	0,012	11,265
8+439,600	9,600	0,002	1,277	0,017	11,799
8+440,000	0,400	0,003	1,281	0,001	0,511
8+450,000	10,000	0,025	1,852	0,140	15,664
8+460,000	10,000	0,002	2,111	0,133	19,817
8+470,000	10,000	0,000	2,113	0,008	21,119
8+480,000	10,000	0,037	1,222	0,187	16,674
8+490,000	10,000	0,037	1,057	0,373	11,397
8+500,000	10,000	0,556	0,396	2,967	7,266
8+510,000	10,000	1,140	0,235	8,481	3,157
8+519,824	9,824	1,640	0,316	13,656	2,706
8+520,000	0,176	1,648	0,319	0,289	0,056
8+530,000	10,000	2,271	0,026	19,591	1,726
8+540,000	10,000	3,924	0,000	30,973	0,132
8+550,000	10,000	5,152	0,000	45,379	0,000
8+560,000	10,000	3,181	0,000	41,664	0,000
8+570,000	10,000	1,394	0,028	22,873	0,140
8+580,000	10,000	0,192	0,328	7,928	1,782
8+590,000	10,000	0,134	0,856	1,629	5,921
8+600,000	10,000	0,097	1,164	1,157	10,098
8+600,048	0,048	0,097	1,166	0,005	0,056
8+605,543	5,495	0,074	1,355	0,469	6,927
8+610,000	4,457	0,049	1,163	0,273	5,611
8+620,000	10,000	0,171	0,828	1,101	9,954
8+629,333	9,333	0,880	0,199	4,905	4,793
8+630,000	0,667	0,995	0,174	0,625	0,124
8+640,000	10,000	2,115	0,125	15,547	1,493
8+650,000	10,000	1,641	0,052	18,781	0,883
8+653,122	3,122	1,517	0,040	4,930	0,143
8+660,000	6,878	1,089	0,037	8,962	0,263
8+670,000	10,000	0,586	0,143	8,374	0,897
8+680,000	10,000	0,250	0,291	4,177	2,166
8+690,000	10,000	0,149	0,444	1,993	3,672
8+700,000	10,000	0,245	0,632	1,969	5,376
8+710,000	10,000	0,058	1,040	1,515	8,356
8+720,000	10,000	0,111	0,898	0,843	9,688
8+730,000	10,000	0,067	0,652	0,887	7,750
8+740,000	10,000	0,155	0,713	1,109	6,824
8+750,000	10,000	0,438	0,757	2,965	7,348
8+760,000	10,000	1,051	1,220	7,443	9,887
8+770,000	10,000	0,996	0,889	10,231	10,546
8+780,000	10,000	0,578	0,654	7,868	7,715
8+790,000	10,000	0,000	2,410	2,890	15,321
8+795,718	5,718	0,000	2,984	0,000	15,420
8+800,000	4,282	0,000	3,218	0,000	13,277
8+810,000	10,000	0,000	4,125	0,000	36,715
8+819,241	9,241	0,003	2,830	0,014	32,138
8+820,000	0,759	0,009	2,743	0,004	2,115
8+830,000	10,000	0,673	0,022	3,409	13,822
8+840,000	10,000	2,589	0,000	16,308	0,110
8+842,763	2,763	2,964	0,000	7,671	0,000
8+850,000	7,237	2,502	0,000	19,777	0,000
8+860,000	10,000	2,928	0,003	27,147	0,013
8+867,176	7,176	2,508	0,008	19,502	0,036
8+870,000	2,824	2,271	0,005	6,748	0,018
8+880,000	10,000	1,489	0,049	18,804	0,271
8+883,338	3,338	1,228	0,192	4,535	0,401
8+890,000	6,662	0,626	0,700	6,174	2,968
8+899,501	9,501	0,059	1,237	3,254	9,199
8+900,000	0,499	0,050	1,299	0,027	0,633
8+910,000	10,000	0,013	1,989	0,315	16,440
8+920,000	10,000	0,438	0,548	2,258	12,686
8+930,000	10,000	0,871	0,119	6,545	3,337
8+940,000	10,000	1,332	0,064	11,016	0,917
8+950,000	10,000	1,331	0,208	13,318	1,362
8+960,000	10,000	0,935	0,291	11,331	2,494
8+968,852	8,852	0,421	0,693	6,002	4,351
8+970,000	1,148	0,339	0,800	0,436	0,856
8+980,000	10,000	0,301	0,632	3,202	7,160
8+990,000	10,000	1,093	0,434	6,969	5,331
8+990,448	0,448	1,122	0,442	0,496	0,196
9+000,000	9,552	1,442	0,408	12,245	4,062
9+010,000	10,000	2,419	0,026	19,302	2,172
9+012,044	2,044	2,651	0,006	5,181	0,034
9+020,000	7,956	3,364	0,001	23,927	0,029

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
9+030,000	10,000	4,107	0,000	37,354	0,005
9+034,349	4,349	4,478	0,000	18,667	0,000
9+040,000	5,651	5,008	0,000	26,802	0,000
9+050,000	10,000	6,522	0,004	57,651	0,019
9+060,000	10,000	6,457	0,008	64,894	0,061
9+070,000	10,000	2,455	0,261	44,560	1,346
9+076,750	6,750	0,797	0,921	10,977	3,989
9+080,000	3,250	0,492	0,792	2,095	2,784
9+090,000	10,000	0,891	0,715	6,919	7,534
9+100,000	10,000	0,855	1,335	8,731	10,247
9+110,000	10,000	1,295	0,178	10,747	7,561
9+119,151	9,151	1,234	0,188	11,571	1,670
9+120,000	0,849	1,204	0,198	1,035	0,163
9+130,000	10,000	0,940	0,463	10,721	3,304
9+140,000	10,000	0,489	0,803	7,143	6,330
9+150,000	10,000	0,070	1,487	2,793	11,449
9+160,000	10,000	1,109	1,865	5,897	16,760
9+161,572	1,572	1,039	2,041	1,689	3,070
9+170,000	8,428	0,000	3,797	4,379	24,604
9+180,000	10,000	0,283	1,277	1,414	25,369
9+183,544	3,544	0,981	0,671	2,238	3,450
9+190,000	6,456	3,178	0,249	13,422	2,970
9+200,000	10,000	5,245	0,063	42,115	1,562
9+205,517	5,517	4,030	0,021	25,587	0,230
9+210,000	4,483	3,420	0,005	16,699	0,057
9+220,000	10,000	4,042	0,000	37,309	0,024
9+230,000	10,000	2,963	0,000	35,024	0,000
9+240,000	10,000	3,927	0,000	34,447	0,000
9+250,000	10,000	0,861	0,097	23,937	0,483
9+250,906	0,906	0,712	0,114	0,712	0,095
9+260,000	9,094	0,487	0,330	5,454	2,018
9+270,000	10,000	0,060	0,917	2,735	6,233
9+280,000	10,000	0,000	4,520	0,298	27,184
9+290,000	10,000	0,129	1,054	0,645	27,871
9+300,000	10,000	0,577	0,524	3,531	7,891
9+309,690	9,690	3,623	0,168	20,351	3,351
9+310,000	0,310	3,742	0,157	1,142	0,050
9+320,000	10,000	12,552	0,023	81,465	0,900
9+330,000	10,000	20,016	0,000	162,837	0,115
9+340,000	10,000	16,275	0,027	181,453	0,137
9+350,000	10,000	9,205	0,382	127,399	2,047
9+360,000	10,000	4,457	0,587	68,312	4,843
9+368,474	8,474	5,837	0,422	43,617	4,273
9+370,000	1,526	4,964	0,434	8,241	0,653
9+370,152	0,152	4,856	0,439	0,746	0,066
9+380,000	9,848	2,562	0,580	36,527	5,018
9+386,059	6,059	1,641	0,754	12,733	4,040
9+390,000	3,941	0,772	1,093	4,754	3,638
9+400,000	10,000	0,273	1,296	5,222	11,940
9+401,966	1,966	0,279	1,234	0,542	2,486
9+410,000	8,034	0,300	1,212	2,326	9,826
9+420,000	10,000	0,863	0,958	5,817	10,853
9+430,000	10,000	3,005	0,197	19,343	5,774
9+437,668	7,668	5,015	0,127	30,751	1,240
9+440,000	2,332	4,576	0,233	11,183	0,420
9+450,000	10,000	3,314	1,026	39,447	6,292
9+454,320	4,320	2,924	1,010	13,473	4,396
9+460,000	5,680	2,387	1,174	15,082	6,202
9+470,000	10,000	0,274	0,945	13,305	10,596
9+470,973	0,973	0,300	0,800	0,279	0,849
9+472,982	2,009	0,510	0,590	0,814	1,397
9+480,000	7,018	1,125	0,525	5,738	3,915
9+490,000	10,000	1,243	0,204	11,844	3,648
9+491,496	1,496	1,895	0,170	2,348	0,280
9+500,000	8,504	0,945	0,508	12,076	2,880
9+510,000	10,000	0,576	0,582	7,605	5,445
9+510,010	0,010	0,575	0,582	0,006	0,006
9+520,000	9,990	0,003	2,196	2,890	13,875
9+530,000	10,000	0,045	3,013	0,242	26,047
9+540,000	10,000	0,200	2,892	1,225	29,525
9+550,000	10,000	0,357	2,811	2,784	28,514
9+553,144	3,144	0,432	2,703	1,240	8,668
9+560,000	6,856	0,543	2,867	3,340	19,093
9+570,000	10,000	0,657	2,654	5,996	27,607
9+580,000	10,000	0,573	2,852	6,148	27,534
9+590,000	10,000	0,107	2,463	3,397	26,575
9+594,843	4,843	0,000	2,991	0,258	13,205
9+600,000	5,157	0,000	3,150	0,000	15,833
9+610,000	10,000	0,000	4,126	0,000	36,379
9+620,000	10,000	0,000	4,088	0,000	41,068
9+630,000	10,000	0,026	2,838	0,128	34,627
9+636,541	6,541	0,155	1,450	0,590	14,022
9+640,000	3,459	0,086	0,997	0,416	4,232
9+650,000	10,000	0,472	0,333	2,788	6,650
9+660,000	10,000	0,320	0,351	3,958	3,418
9+670,000	10,000	0,241	0,469	2,801	4,098

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Município: Tunápolis/SC

Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
9+680,000	10,000	0,206	0,207	2,233	3,380
9+690,000	10,000	0,087	0,460	1,463	3,336
9+700,000	10,000	0,157	0,409	1,217	4,346
9+710,000	10,000	0,169	0,444	1,631	4,266
9+710,600	0,600	0,166	0,456	0,101	0,270
9+720,000	9,400	0,087	0,540	1,188	4,681
9+730,000	10,000	0,146	0,374	1,164	4,573
9+732,501	2,501	0,164	0,270	0,387	0,805
9+740,000	7,499	0,337	0,212	1,879	1,805
9+750,000	10,000	0,436	0,212	3,865	2,118
9+754,402	4,402	0,432	0,167	1,910	0,834
9+760,000	5,598	0,404	0,151	2,342	0,890
9+770,000	10,000	0,330	0,198	3,670	1,744
9+780,000	10,000	0,128	0,430	2,287	3,141
9+790,000	10,000	0,113	0,481	1,203	4,557
9+800,000	10,000	0,141	0,583	1,267	5,320
9+810,000	10,000	0,354	0,436	2,472	5,091
9+820,000	10,000	1,308	0,271	8,309	3,534
9+830,000	10,000	1,930	0,223	16,188	2,470
9+840,000	10,000	1,748	0,990	18,386	6,064
9+850,000	10,000	0,681	2,523	12,142	17,563
9+860,000	10,000	0,001	3,526	3,407	30,245
9+870,000	10,000	0,000	10,588	0,003	70,573
9+880,000	10,000	0,000	3,530	0,000	70,591
9+890,000	10,000	0,069	2,187	0,345	28,583
9+900,000	10,000	0,055	1,787	0,619	19,870
9+910,000	10,000	0,000	1,988	0,274	18,877
9+920,000	10,000	0,000	1,622	0,000	18,053
9+930,000	10,000	0,044	1,534	0,222	15,779
9+940,000	10,000	0,000	2,738	0,222	21,360
9+950,000	10,000	0,000	3,790	0,000	32,640
9+960,000	10,000	0,000	5,387	0,000	45,883
9+970,000	10,000	0,000	6,897	0,000	61,421
9+980,000	10,000	0,000	8,170	0,000	75,335
9+990,000	10,000	0,000	7,316	0,000	77,426
10+000,000	10,000	0,000	6,410	0,000	68,628
10+010,000	10,000	0,015	1,666	0,077	40,378
10+020,000	10,000	1,063	0,137	5,391	9,013
10+030,000	10,000	1,001	0,141	10,317	1,388
10+040,000	10,000	0,764	0,114	8,824	1,275
10+049,370	9,370	0,241	0,197	4,709	1,457
10+050,000	0,630	0,216	0,213	0,144	0,129
10+060,000	10,000	0,183	0,484	1,996	3,486
10+068,513	8,513	0,142	0,798	1,383	5,456
10+070,000	1,487	0,140	0,869	0,210	1,239
10+080,000	10,000	0,172	0,755	1,564	8,121
10+087,655	7,655	0,225	0,719	1,519	5,642
10+090,000	2,345	0,233	0,831	0,537	1,817
10+090,914	0,914	0,239	0,886	0,216	0,784
10+100,000	9,086	0,927	0,201	5,298	4,939
10+107,488	7,488	2,569	0,000	13,090	0,754
10+110,000	2,512	3,128	0,000	7,156	0,000
10+120,000	10,000	3,213	0,000	31,705	0,000
10+124,062	4,062	3,012	0,000	12,643	0,000
10+130,000	5,938	2,758	0,000	17,133	0,000
10+140,000	10,000	0,692	0,166	17,253	0,828
10+146,338	6,338	0,052	0,967	2,358	3,588
10+150,000	3,662	0,003	1,237	0,100	4,034
10+160,000	10,000	0,000	1,826	0,014	15,314
10+165,654	5,654	0,000	2,371	0,000	11,865
10+170,000	4,346	0,000	2,899	0,000	11,451
10+180,000	10,000	0,008	2,001	0,041	24,497
10+184,971	4,971	0,047	1,680	0,138	9,149
10+190,000	5,029	0,082	1,256	0,324	7,385
10+200,000	10,000	0,474	0,198	2,780	7,271
10+204,640	4,640	1,151	0,059	3,771	0,597
10+210,000	5,360	1,831	0,137	7,990	0,526
10+220,000	10,000	2,025	0,039	19,278	0,882
10+230,000	10,000	2,106	0,083	20,657	0,611
10+240,000	10,000	2,536	0,057	23,213	0,701
10+250,000	10,000	2,065	0,090	23,008	0,736
10+260,000	10,000	0,469	0,371	12,671	2,304
10+270,000	10,000	0,396	0,203	4,325	2,870
10+280,000	10,000	0,457	0,353	4,265	2,778
10+282,454	2,454	0,685	0,184	1,402	0,658
10+290,000	7,546	1,570	0,014	8,511	0,746
10+300,000	10,000	1,763	0,054	16,669	0,342
10+310,000	10,000	0,658	0,131	12,108	0,927
10+320,000	10,000	0,485	0,110	5,715	1,204
10+330,000	10,000	0,628	0,164	5,563	1,366
10+340,000	10,000	0,309	1,434	4,686	7,987
10+350,000	10,000	0,275	0,710	2,923	10,720
10+360,000	10,000	0,374	0,553	3,245	6,318
10+360,267	0,267	0,372	0,559	0,100	0,148
10+370,000	9,733	0,285	0,404	3,195	4,687
10+380,000	10,000	0,335	0,260	3,100	3,323

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
10+390,000	10,000	0,108	0,756	2,218	5,084
10+393,325	3,325	0,102	1,132	0,349	3,139
10+400,000	6,675	0,022	1,212	0,411	7,823
10+410,000	10,000	0,075	1,135	0,482	11,735
10+420,000	10,000	0,534	0,514	3,043	8,243
10+430,000	10,000	0,294	0,732	4,140	6,232
10+440,000	10,000	0,288	0,575	2,912	6,538
10+450,000	10,000	0,085	1,344	1,867	9,596
10+460,000	10,000	0,306	0,811	1,956	10,777
10+470,000	10,000	0,817	0,557	5,613	6,843
10+480,000	10,000	1,376	0,565	10,966	5,612
10+481,286	1,286	1,389	0,553	1,778	0,719
10+490,000	8,714	1,078	0,533	10,748	4,732
10+500,000	10,000	0,969	0,778	10,234	6,555
10+510,000	10,000	0,546	0,972	7,573	8,750
10+520,000	10,000	0,019	1,056	2,822	10,142
10+530,000	10,000	0,681	0,180	3,498	6,180
10+540,000	10,000	0,324	0,778	5,026	4,790
10+550,000	10,000	0,564	1,300	4,443	10,390
10+560,000	10,000	0,589	1,197	5,764	12,484
10+569,247	9,247	0,506	1,050	5,059	10,386
10+570,000	0,753	0,485	1,029	0,373	0,782
10+580,000	10,000	0,430	1,028	4,572	10,285
10+590,000	10,000	0,355	0,674	3,925	8,514
10+600,000	10,000	0,331	1,043	3,430	8,587
10+610,000	10,000	0,772	0,975	5,512	10,088
10+620,000	10,000	1,558	1,306	11,646	11,402
10+630,000	10,000	2,786	1,740	21,719	15,231
10+640,000	10,000	3,339	2,305	30,627	20,227
10+650,000	10,000	3,648	1,337	34,937	18,212
10+660,000	10,000	2,325	1,001	29,865	11,692
10+670,000	10,000	2,153	0,215	22,389	6,078
10+680,000	10,000	1,211	0,093	16,821	1,538
10+683,891	3,891	1,037	0,087	4,373	0,351
10+690,000	6,109	1,414	0,086	7,485	0,528
10+700,000	10,000	2,672	0,077	20,430	0,815
10+710,000	10,000	2,188	0,044	24,300	0,608
10+720,000	10,000	1,296	0,120	17,421	0,821
10+722,631	2,631	0,972	0,168	2,983	0,378
10+730,000	7,369	0,088	0,569	3,905	2,715
10+740,000	10,000	0,277	1,031	1,828	7,997
10+750,000	10,000	0,000	3,177	1,386	21,040
10+760,000	10,000	0,349	2,050	1,743	26,137
10+761,371	1,371	0,493	1,764	0,577	2,614
10+770,000	8,629	2,136	0,482	11,345	9,687
10+777,508	7,508	2,738	0,256	18,295	2,770
10+780,000	2,492	2,007	0,369	5,911	0,778
10+790,000	10,000	1,477	0,626	17,418	4,970
10+793,577	3,577	0,663	0,732	3,827	2,428
10+800,000	6,423	0,040	1,541	2,257	7,301
10+809,645	9,645	0,007	1,856	0,224	16,383
10+810,000	0,355	0,007	1,845	0,002	0,657
10+820,000	10,000	0,001	2,152	0,039	19,981
10+830,000	10,000	0,002	2,037	0,015	20,940
10+840,000	10,000	0,000	2,336	0,011	21,864
10+850,000	10,000	0,054	1,005	0,269	16,708
10+860,000	10,000	0,096	0,672	0,751	8,384
10+870,000	10,000	0,048	0,763	0,720	7,173
10+880,000	10,000	0,004	0,898	0,256	8,303
10+890,000	10,000	0,001	1,336	0,021	11,170
10+900,000	10,000	0,036	1,455	0,184	13,956
10+905,893	5,893	0,041	1,295	0,227	8,101
10+910,000	4,107	0,057	1,286	0,200	5,298
10+920,000	10,000	0,172	1,111	1,145	11,985
10+928,045	8,045	0,258	1,418	1,730	10,174
10+930,000	1,955	0,247	1,540	0,493	2,891
10+940,000	10,000	0,114	1,820	1,804	16,800
10+950,000	10,000	0,068	1,670	0,910	17,451
10+950,196	0,196	0,066	1,664	0,013	0,327
10+960,000	9,804	0,011	1,364	0,379	14,845
10+970,000	10,000	0,078	0,799	0,446	10,813
10+980,000	10,000	0,708	0,270	3,932	5,342
10+990,000	10,000	1,678	0,087	11,930	1,786
11+000,000	10,000	2,003	0,024	18,401	0,557
11+006,981	6,981	2,360	0,011	15,228	0,123
11+010,000	3,019	2,550	0,006	7,411	0,026
11+020,000	10,000	3,094	0,000	28,216	0,029
11+025,410	5,410	1,598	0,087	12,690	0,234
11+030,000	4,590	0,259	0,413	4,261	1,146
11+040,000	10,000	0,000	2,462	1,294	14,377
11+043,839	3,839	0,000	2,503	0,000	9,530
11+050,000	6,161	0,000	2,407	0,000	15,122
11+060,000	10,000	0,000	2,752	0,000	25,793
11+070,000	10,000	0,029	1,443	0,143	20,976
11+080,000	10,000	0,117	0,987	0,730	12,151
11+090,000	10,000	1,214	0,061	6,655	5,237

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 01

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga
Município: Tunápolis/SC

Data: Outubro/2021
Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
11+100,000	10,000	1,735	0,000	14,744	0,303
11+110,000	10,000	2,295	0,012	20,150	0,061
11+120,000	10,000	2,147	0,015	22,209	0,135
11+130,000	10,000	2,025	0,000	20,860	0,075
11+132,484	2,484	2,020	0,001	5,024	0,001
11+140,000	7,516	1,955	0,036	14,938	0,136
11+150,000	10,000	0,934	0,327	14,447	1,813
11+160,000	10,000	0,381	0,637	6,578	4,818
11+165,787	5,787	0,261	1,312	1,858	5,638
11+170,000	4,213	0,267	1,497	1,112	5,917
11+180,000	10,000	0,048	2,194	1,576	18,458
11+190,000	10,000	0,000	2,978	0,241	25,860
11+199,089	9,089	0,000	3,892	0,000	31,219
11+200,000	0,911	0,000	3,975	0,000	3,583
11+210,000	10,000	0,000	3,875	0,000	39,247
11+220,000	10,000	0,000	2,410	0,000	31,424
11+230,000	10,000	0,009	1,535	0,043	19,727
11+232,332	2,332	0,023	1,314	0,037	3,322
11+240,000	7,668	0,060	1,799	0,319	11,936
11+250,000	10,000	0,055	3,044	0,574	24,217
11+254,142	4,142	0,100	4,091	0,321	14,776
11+260,000	5,858	0,208	6,023	0,902	29,624
11+270,000	10,000	0,244	6,977	2,259	65,002
11+275,952	5,952	0,341	7,991	1,742	44,545
11+280,000	4,048	0,427	8,060	1,556	32,488
11+290,000	10,000	0,430	8,176	4,284	81,181
11+300,000	10,000	0,648	10,375	5,388	92,752
11+310,000	10,000	0,706	13,503	6,771	119,387
11+320,000	10,000	0,225	12,282	4,655	128,923
11+330,000	10,000	0,011	9,589	1,180	109,355
11+336,300	6,300	0,036	6,614	0,147	51,039
11+340,000	3,700	0,080	4,903	0,213	21,306
11+350,000	10,000	0,239	2,274	1,592	35,885
11+360,000	10,000	0,806	0,681	5,226	14,774
11+369,380	9,380	0,785	0,911	7,465	7,465
11+370,000	0,620	0,795	0,902	0,490	0,562
11+380,000	10,000	1,620	0,901	12,077	9,013
11+390,000	10,000	0,752	1,711	11,860	13,060
11+400,000	10,000	0,660	2,565	7,061	21,381
11+402,459	2,459	0,563	2,732	1,504	6,512
11+410,000	7,541	0,314	2,328	3,306	19,078
11+420,000	10,000	0,057	2,234	1,852	22,812
11+425,161	5,161	0,000	3,349	0,146	14,407
11+430,000	4,839	0,000	4,221	0,000	18,315
11+434,979	4,979	0,000	5,402	0,000	23,955
11+440,000	5,021	0,000	7,664	0,000	32,801
11+444,797	4,797	0,000	12,442	0,000	48,224
11+450,000	5,203	0,000	19,287	0,000	82,544
11+460,000	10,000	0,000	37,168	0,000	282,275
11+470,000	10,000	0,000	61,507	0,000	493,373
11+478,053	8,053	0,340	79,531	1,370	567,890
11+480,000	1,947	0,353	84,340	0,674	159,528
11+490,000	10,000	0,000	91,472	1,763	879,058
11+492,082	2,082	0,000	88,071	0,000	186,904
11+500,000	7,918	0,000	63,723	0,000	600,952
11+506,111	6,111	0,000	37,172	0,000	308,284
11+510,000	3,889	8,418	0,000	16,368	72,280
11+511,823	1,823	0,000	0,000	7,673	0,000
VOLUMES TOTAIS DO EIXO 01				6.302,349	16.256,228

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 02

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Município: Tunápolis/PR

Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m³)	Volume de Aterro (m³)
0+000,000	0,000	0,000	0,001	0,000	0,000
0+010,000	10,000	2,907	0,236	14,537	1,187
0+020,000	10,000	2,962	0,296	29,348	2,663
0+030,000	10,000	1,593	0,105	22,777	2,004
0+040,000	10,000	1,576	0,180	15,843	1,420
0+050,000	10,000	1,635	0,230	16,052	2,046
0+060,000	10,000	1,984	0,198	18,093	2,140
0+070,000	10,000	1,639	0,233	18,113	2,154
0+080,000	10,000	1,105	0,194	13,719	2,132
0+090,000	10,000	1,544	0,464	13,244	3,288
0+097,882	7,882	3,148	0,488	18,489	3,749
0+100,000	2,118	3,766	0,412	7,322	0,953
0+110,000	10,000	6,732	0,062	52,488	2,372
0+120,000	10,000	3,981	0,000	53,562	0,310
0+126,188	6,188	1,547	0,042	17,102	0,129
0+130,000	3,812	0,429	0,095	3,765	0,261
0+140,000	10,000	0,000	1,207	2,144	6,509
0+150,000	10,000	0,036	1,037	0,181	11,217
0+154,493	4,493	0,033	0,954	0,156	4,471
0+160,000	5,507	0,004	1,085	0,103	5,613
0+170,000	10,000	0,018	0,988	0,111	10,363
0+180,000	10,000	0,339	0,368	1,786	6,777
0+190,000	10,000	0,295	0,522	3,172	4,449
0+200,000	10,000	0,047	1,064	1,710	7,931
0+204,149	4,149	0,025	1,313	0,150	4,932
0+210,000	5,851	0,031	1,330	0,165	7,733
0+220,000	10,000	0,103	0,526	0,668	9,283
0+227,151	7,151	0,190	0,451	1,047	3,493
0+230,000	2,849	0,230	0,482	0,599	1,328
0+240,000	10,000	0,554	3,100	3,920	17,909
0+250,000	10,000	0,790	0,681	6,718	18,905
0+250,153	0,153	0,802	0,674	0,122	0,104
0+259,875	9,722	0,995	0,530	8,737	5,853
0+260,000	0,125	0,994	0,532	0,124	0,066
0+270,000	10,000	1,194	0,824	10,941	6,780
0+280,000	10,000	1,441	0,594	13,175	7,092
0+290,000	10,000	1,898	0,277	16,695	4,354
0+300,000	10,000	1,344	0,715	16,209	4,959
0+301,981	1,981	1,477	0,861	2,795	1,561
0+310,000	8,019	1,784	1,677	13,075	10,175
0+320,000	10,000	1,479	5,332	16,313	35,043
0+330,000	10,000	1,191	10,468	13,350	79,000
0+340,000	10,000	1,375	5,942	12,828	82,052
0+344,087	4,087	1,273	2,955	5,411	18,180
0+350,000	5,913	1,470	1,510	8,109	13,200
0+360,000	10,000	1,503	0,049	14,861	7,794
0+370,000	10,000	1,432	0,445	14,671	2,469
0+380,000	10,000	1,081	0,393	12,564	4,189
0+390,000	10,000	0,726	0,142	9,035	2,671
0+395,649	5,649	0,507	0,307	3,481	1,267
0+400,000	4,351	0,346	1,662	1,856	4,284
0+410,000	10,000	0,128	4,726	2,373	31,942
0+420,000	10,000	0,215	6,756	1,713	57,411
0+426,623	6,623	0,241	6,685	1,509	44,509
0+430,000	3,377	0,344	5,154	0,988	19,990
0+440,000	10,000	0,759	0,796	5,515	29,748
0+450,000	10,000	5,081	0,478	29,199	6,369
0+457,596	7,596	3,663	3,569	33,210	15,372
0+460,000	2,404	2,966	4,817	7,968	10,080
0+470,000	10,000	0,000	7,766	14,830	62,911
0+480,000	10,000	0,000	4,984	0,000	63,746
0+487,226	7,226	0,000	3,498	0,000	30,644
0+490,000	2,774	0,000	3,658	0,000	9,925
0+500,000	10,000	0,006	3,142	0,030	33,999
0+508,714	8,714	0,123	2,085	0,563	22,773
0+510,000	1,286	0,112	2,026	0,151	2,643
0+520,000	10,000	0,022	1,125	0,670	15,753
0+530,000	10,000	0,487	0,559	2,544	8,420
0+530,203	0,203	0,493	0,546	0,099	0,112
0+540,000	9,797	0,905	0,025	6,846	2,798
0+550,000	10,000	1,641	0,152	12,731	0,883
0+560,000	10,000	1,240	0,255	14,405	2,031
0+570,000	10,000	0,779	0,208	10,096	2,315
0+580,000	10,000	0,117	0,787	4,484	4,975
0+590,000	10,000	0,117	2,664	1,169	17,253
0+595,656	5,656	0,023	3,205	0,394	16,596
0+600,000	4,344	0,000	4,256	0,050	16,204
0+610,000	10,000	0,000	4,833	0,000	45,443
0+620,000	10,000	0,000	7,032	0,000	59,323
0+626,986	6,986	0,000	14,294	0,000	74,492
0+630,000	3,014	0,000	13,555	0,000	41,968
0+640,000	10,000	0,156	1,867	0,781	77,107
0+650,000	10,000	0,998	0,749	5,771	13,077
0+658,316	8,316	1,403	1,741	9,981	10,351
0+660,000	1,684	1,567	2,023	2,500	3,169
0+670,000	10,000	0,313	1,790	9,399	19,065

MUNICÍPIO DE TUNÁPOLIS
PROJETO DE ENGENHARIA RODOVIÁRIA PARA PAVIMENTAÇÃO DA ESTRADA DA FRONTEIRA
PLANILHA DE CÁLCULO DE VOLUMES
EIXO 02

Local: Estrada da Fronteira - Trecho entre Tunápolis e divisa com Itapiranga

Data: Outubro/2021

Município: Tunápolis/PR

Arquivo: RCV-10620-01-VL-01-A

Estaca	Distância (m)	Área de Corte (m ²)	Área de Aterro (m ²)	Volume de Corte (m ³)	Volume de Aterro (m ³)
0+680,000	10,000	0,551	0,842	4,322	13,162
0+690,000	10,000	0,691	0,583	6,209	7,129
0+700,000	10,000	1,006	0,198	8,483	3,907
0+710,000	10,000	0,709	0,213	8,575	2,057
0+720,000	10,000	0,593	0,134	6,509	1,736
0+730,000	10,000	1,043	0,113	8,180	1,233
0+740,000	10,000	0,916	0,507	9,795	3,099
0+750,000	10,000	1,125	0,146	10,206	3,264
0+760,000	10,000	1,469	0,225	12,970	1,853
0+770,000	10,000	2,332	0,002	19,001	1,133
0+780,000	10,000	2,820	0,062	25,757	0,319
0+790,000	10,000	4,048	0,008	34,338	0,352
0+796,989	6,989	4,015	0,019	28,177	0,094
VOLUMES TOTAIS DO EIXO 02				893,908	1.351,534



7.0 - TERMO DE ENCERRAMENTO



7.0 - TERMO DE ENCERRAMENTO

O presente Volume 02 – Elementos de Locação, Notas de Serviço e Cálculo de Volumes; pertence ao Projeto de Engenharia Rodoviária para fins de Pavimentação da Estrada da Fronteira, no segmento entre Tunápolis e divisa com Itapiranga, no município de Tunápolis/SC, contém um total de 144 páginas, numeradas em ordem crescente

AZIMUTE Engenheiros Consultores SC Ltda.

Outubro de 2021