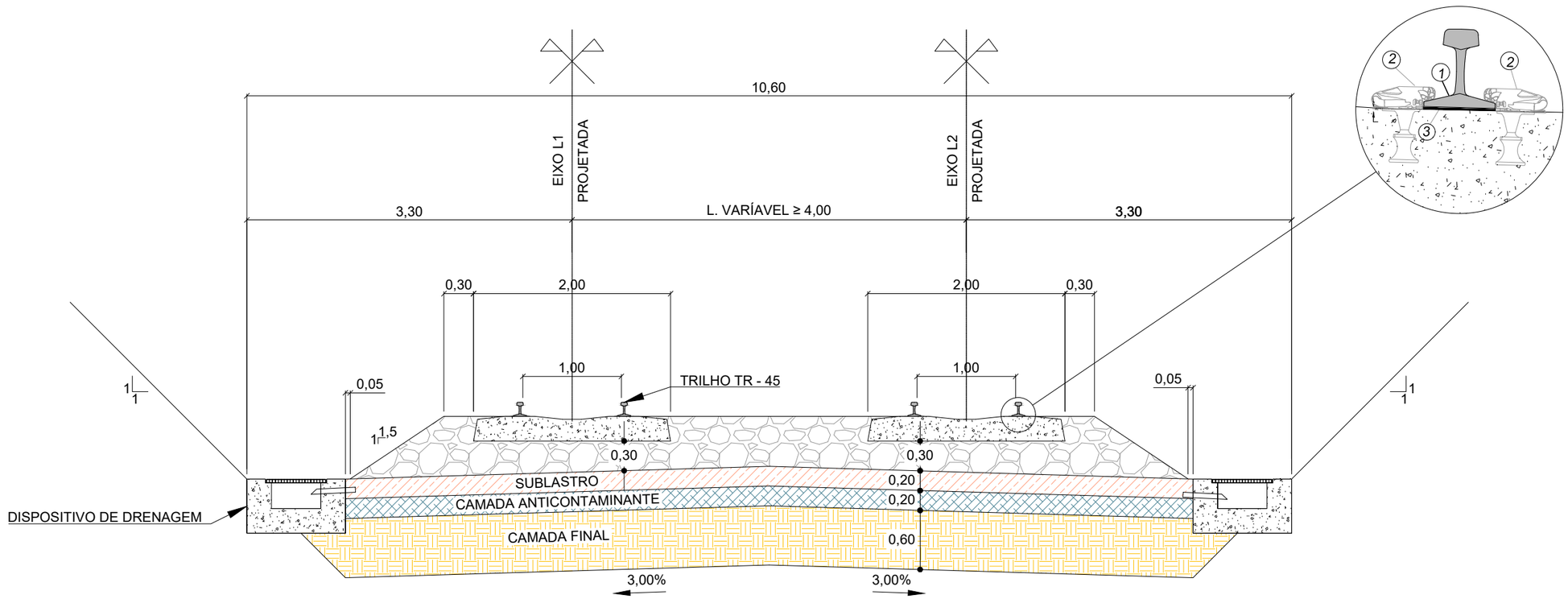


MATERIAL Nº/LEGENDA	DESCRIÇÃO	ALTURA	OBSERVAÇÕES
1	TRILHO	0,142m	TRILHO TR-45 EM AÇO CARBONO COM TRATAMENTO TÉRMICO.
2	FIXAÇÃO	-	CONJUNTO DE FIXAÇÃO ELÁSTICA TIPO FAST CLIP.
3	PALMILHA AMORTECEDORA	0,005m	CONSTITUÍDA DE MATERIAL RESILIENTE.
	DORMENTE	0,20m	DORMENTES MONOBLOCO DE CONCRETO PROTENDIDO NAS DIMENSÕES C=2,00m, L= 0,30m E ESP= 0,250 SOB O TRILHO, ESPAÇADOS EM 0,60m OU APLICADOS NA TAXA DE 1.667 un/km.
	LASTRO	0,30m	LASTRO EM PEDRA BRITADA COM OMBROS DE 0,30m, GRANULOMETRIA ENTRE 2 1/2" e 1/2".
	SUBLASTRO	0,20m	SUBLASTRO DE SOLO ESTABILIZADO GRANULOMETRICAMENTE.

NOTAS:

EMISSÕES:

DATA	TIPO	POR	DESCRIÇÃO
02/02/23	B	IMR	PARA APROVAÇÃO

RESPONSÁVEL:	DATA:	RESPONSÁVEL:	DATA:
APROVAÇÃO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	22/02/2023	ELABORAÇÃO: Israel M. Rodrigues - CREA/RJ 2017110538	02/02/23
RESP. TÉCNICO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	22/02/2023	VERIFICAÇÃO: João Bosco F. de Souza - CREA/RJ 1972100711	02/02/23

TIPO DE EMISSÃO:

(A) PRELIMINAR (B) PARA APROVAÇÃO (C) PARA CONHECIMENTO (D) PARA COTAÇÃO (E) PARA CONSTRUÇÃO (F) CONFORME COMPRADO (G) CONFORME CONSTRUIDO (H) CANCELADO

Piauí GOVERNO DO ESTADO

TRANSPORTES
Secretaria de estado dos transportes / SETRANS

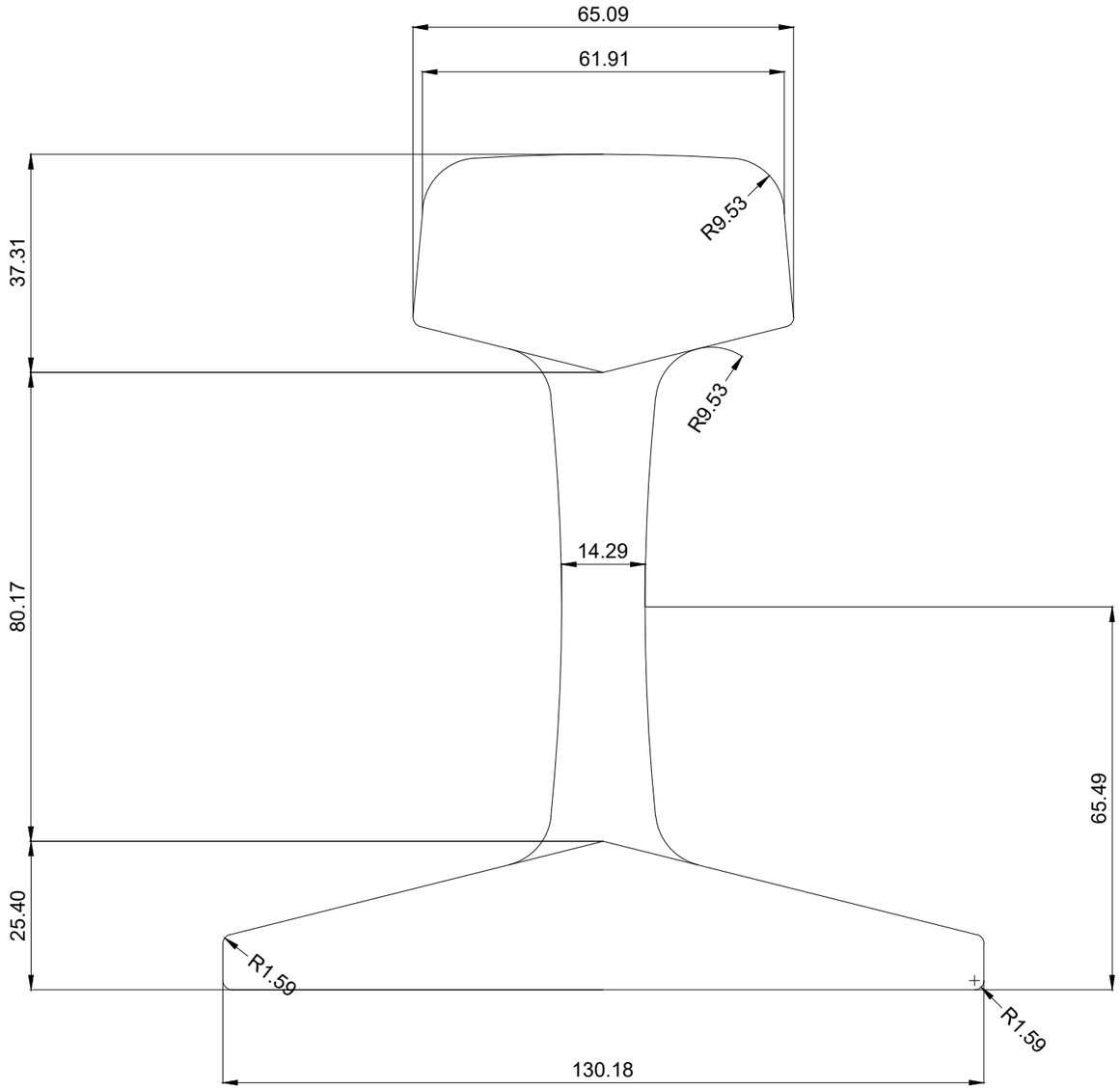
CONSÓRCIO: ENEFER CAVA INFRAESTRUTURA

PROJETO: METRÔ DE TERESINA - MTE
OBRAS DE REVITALIZAÇÃO, MODERNIZAÇÃO E MELHORIAS
LINHA 1 - SUDESTE - ESTAÇÕES ALBERTO SILVA - ITARARÉ

TÍTULO: PROJETO EXECUTIVO - SUPERESTRUTURA
SEÇÃOTIPO

ESCALA	DOCUMENTO Nº	FOLHA	DATA.	REV.
INDICADA	MTE-VIA-SUP-PE-DE-1101	01/01	02/2023	0

Formato (A3)



CARACTERÍSTICAS BÁSICAS DO TRILHO

ÁREA DA SEÇÃO TRANSVERSAL	56,90cm²
MASSA POR METRO	44,65kg/m
MOMENTO DE INÉRCIA DO EIXO	1610,81cm⁴
MÓDULO DA SEÇÃO - BOLETO	205,82cm³
MÓDULO DA SEÇÃO - PATIM	249,58cm³

NOTAS:

EMISSÕES:

DATA	TIPO	POR	DESCRIÇÃO
22/09/22	B	IMR	PARA APROVAÇÃO

RESPONSÁVEL:	DATA:	RESPONSÁVEL:	DATA:
APROVAÇÃO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	22/09/22	ELABORAÇÃO: Israel M. Rodrigues - CREA/RJ 2017410538	22/09/22
RESP. TÉCNICO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	22/09/22	VERIFICAÇÃO: João Bosco F. de Souza - CREA/RJ 1972100711	22/09/22

TIPO DE EMISSÃO:

(A) PRELIMINAR (B) PARA APROVAÇÃO (C) PARA CONHECIMENTO (D) PARA COTAÇÃO (E) PARA CONSTRUÇÃO (F) CONFORME COMPRADO (G) CONFORME CONSTRUIDO (H) CANCELADO

Piauí GOVERNO DO ESTADO

TRANSPORTES
Secretaria de estado dos transportes / SETRANS

CONSÓRCIO: ENEFER CAVA INFRAESTRUTURA

PROJETO METRÔ DE TERESINA - MTE
OBRAS DE REVITALIZAÇÃO, MODERNIZAÇÃO E MELHORIAS
LINHA 1 - SUDESTE - ESTAÇÕES ALBERTO SILVA - ITARARÉ

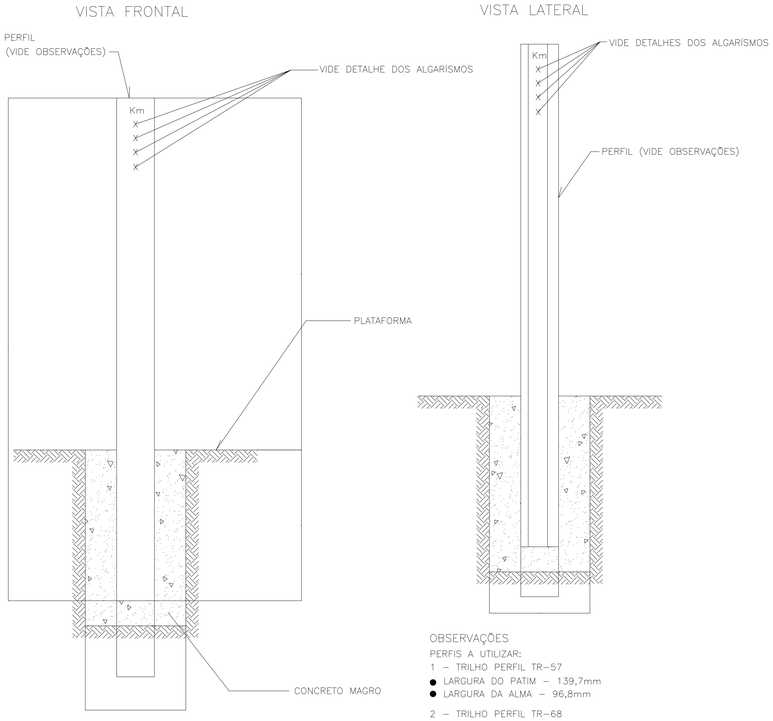
TÍTULO PROJETO EXECUTIVO - SUPERESTRUTURA DA VIA PERMANENTE
PROJETO TIPO - TRILHO TR45

ESCALA	DOCUMENTO Nº	FOLHA	DATA.	REV.
INDICADA	MTE-VIA-SUP-PE-DE-1102	01/01	09/2022	0

Formato (A3)

DETALHES

DETALHE DE MONTAGEM



OBSERVAÇÕES

PERFIS A UTILIZAR:

1 – TRILHO PERFIL TR–57
- LARGURA DO PATIM – 139,7mm
- LARGURA DA ALMA – 96,8mm

2 – TRILHO PERFIL TR–68
- LARGURA DO PATIM – 152,4mm
- LARGURA DA ALMA – 106,49mm

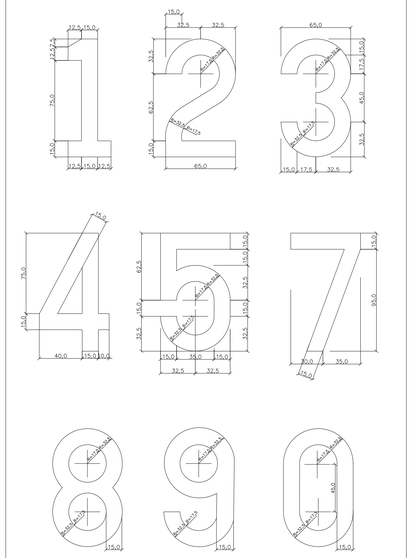
3 PERFIL "H" ESTRUTURAL LAMINADO DE AÇO CARBONO DE SEÇÃO RETA CONFORME DETALHE.

4 A UTILIZAÇÃO DE OUTRO TIPO DE PERFIL, DEVERÁ SER APROVADO PELA FISCALIZAÇÃO DA VALEC.

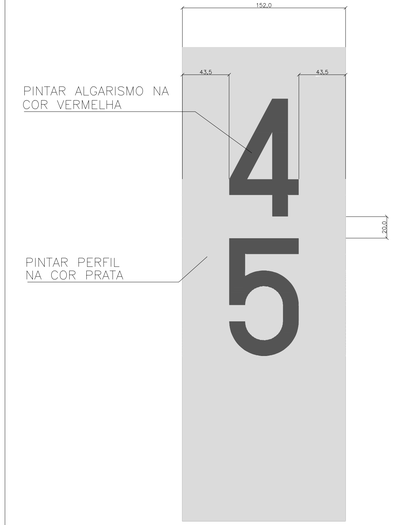
D=EM FUNÇÃO DO PERFIL UTILIZADO

COTAS EM METRO

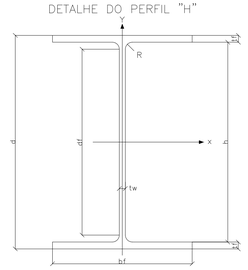
ALGARISMO



PINTURA



DETALHE DO PERFIL "H"



BITOLA (mmxkg/m)	Massa Linear (kg/m)	d (mm)	bf (mm)	Espessura tw mm	Espessura tf mm	h mm	d' mm	Quadro Área cm²	Eixo X–X Ix (cm⁴)	Eixo X–X Wx (cm³)	Eixo X–X rx (cm)	Eixo X–X Zx (cm³)
W0150x13,0	13	148	100	4,3	4,9	138	118	16,2	635	85,8	6,18	96,4
W0150x18,0	18	153	102	5,8	7,1	139	119	23,4	939	122,8	6,34	139,4
W0150x22,5	22,5	152	152	5,8	6,6	139	119	29	1.229	161,7	6,51	179,6

NOTAS:

- DEVERÁ SER OBSERVADA A ESPECIFICAÇÃO TÉCNICA ET–VALEC Nº80–ES–050A–18–8001 (LANÇAMENTO, MONTAGEM E ACABAMENTO DA VP.)
- OS MARCOS DE REFERÊNCIA PLANIALTIMÉTRICOS A SEREM IMPLANTADOS EM OAEs (PONTES E VIADUTOS) E PASSAGENS INFERIORES, DEVERÃO SER DEFINIDOS PELA FISCALIZAÇÃO DA VALEC.
- TOLERÂNCIA EM MILIMETRO (mm)

ARQUIVO TÉCNICO — EM —/—/—

- [ ] LIBERADO PARA EMISSÃO
- [ ] LIBERADO COM COMENTARIOS
- [ ] NÃO LIBERADO

ASSINATURA — EM —/—/—

ESTE DOCUMENTO É DE TOTAL E EXCLUSIVA RESPONSABILIDADE DO PROJETISTA.

LIBERADO P/ EXECUÇÃO DA OBRA

ASSINATURA — EM —/—/—

APROVAÇÃO — EM —/—/—

DOCUMENTOS DE REFERÊNCIA:

80–DES–3100G–18–00001 (SEÇÃO TIPO DE SUPERESTRUTURA).

DATA	TIPO	POR	DESCRIÇÃO
22/09/2022	E	IMR	PARA CONSTRUÇÃO

EMISSÕES:

TIPO DE EMISSÃO

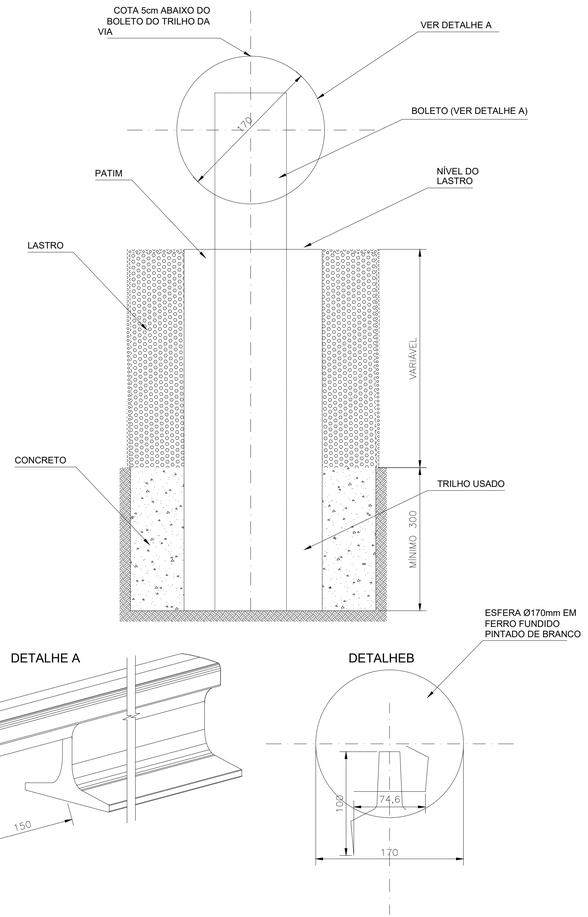
(A) PRELIMINAR
(B) PARA LIBERAÇÃO
(C) PARA CONHECIMENTO
(D) PARA COTAÇÃO
(E) PARA CONSTRUÇÃO
(F) CONFORME COMPRADO
(G) CONFORME CONSTRUÍDO
(H) CANCELADO

Piauí TRANSPORTES
Secretaria de estado dos transportes / SETRANS

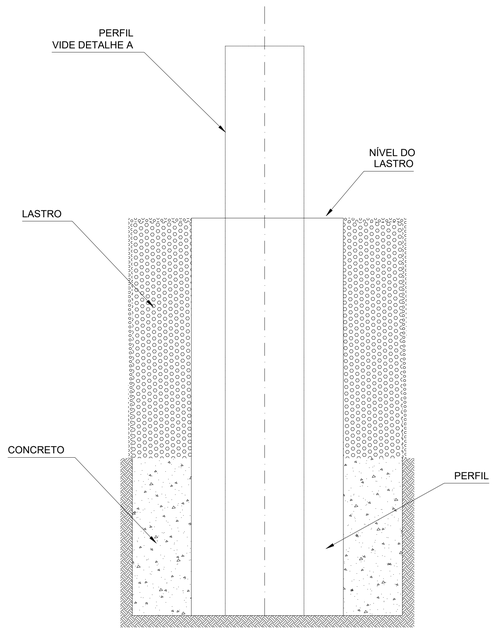
CONSÓRCIO: ENEFER CAVA INFRAESTRUTURA

RESPONSÁVEL:	DATA:	PROJETO:
ELABORAÇÃO: Israel M. Rodrigues - CREA/PI2071110538	22/09/22	METRÔ DE TERESINA - MTE OBRAS DE REVITALIZAÇÃO, MODERNIZAÇÃO E MELHORIAS LINHA 1 - SUDESTE - ESTAÇÕES ALBERTO SILVA - ITARARÉ
VERIFICAÇÃO: João Bosco P. de Araújo - CREA/RJ 1972100711	22/09/22	TÍTULO: PROJETO DE SUPERESTRUTURA PROJETO TIPO MARCO DE QUILOMÉTRICO — FOLHA: 01
APROVAÇÃO: Fabio Lucien D. Marcel - CREA/RJ 2014121743	22/09/22	
RESP.TÉCNICO: Fabio Lucien D. Marcel - CREA/RJ 2014121743	22/09/22	ESCALA: INDICADA — DOCUMENTO Nº: MTE-VIA-SUP-PE-DE-1103 — REV.: 0

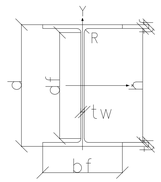
DETALHE DO MARCO DE SEGURANÇA EM TRILHO



DETALHE DO MARCO DE SEGURANÇA EM PERFIL METÁLICO

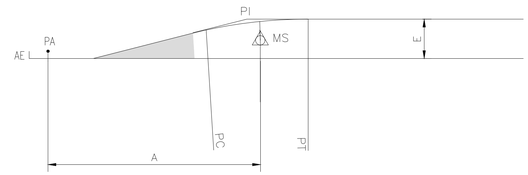


DETALHE A



BITOLA (mmxkg/m)	Massa Linear (kg/m)	d (mm)	bf (mm)	Espessura tw mm	Espessura tf mm	h mm	d' mm	Quadro Área cm²	Eixo X–X Ix (cm⁴)	Wx (cm³)	rx (cm)	Zx (cm³)
W0150x13,0	13	148	100	4,3	4,9	138	118	16,2	635	85,8	6,18	96,4
W0150x18,0	18	153	102	5,8	7,1	139	119	23,4	939	122,8	6,34	139,4
W0150x22,5	22,5	152	152	5,8	6,6	139	119	29	1.229	161,7	6,51	179,6

CROQUI INDICATIVO DA LOCALIZAÇÃO DO MARCO DE SEGURANÇA DA VIA



A=DISTÂNCIA DA PONTA DA AGULHA ATÉ O MARCO DE SEGURANÇA (MS), CÁLCULADO EM FUNÇÃO DO Nº DO AMV E DA ENTREVIA

QUADRO DAS DISTÂNCIAS

ENTREVIA E (m)	DISTÂNCIA A (m)	
	AMV Nº8	AMV Nº14 OTIMIZADO
4,25	45,85	76,31
4,50	43,73	74,31
4,75	42,57	73,56
5,00	41,90	73,44
5,25	41,56	73,44
5,50	41,44	73,44
6,00	41,43	73,44
6,30	41,43	73,44

OBSERVAÇÃO:

1 – NO CASO DA UTILIZAÇÃO DE OUTRO PERFIL, O MESMO DEVERÁ SER APROVADO PELA FISCALIZAÇÃO DA VALEC.

NOTAS:

- DEVERÁ SER OBSERVADA A ESPECIFICAÇÃO TÉCNICA ET-VALEC Nº80-ES-050A-18-8001 (LANÇAMENTO, MONTAGEM E ACABAMENTO DA VP.)
- TOLERÂNCIA EM MILIMETRO (mm)

ARQUIVO TÉCNICO | EM ___/___/___

☐ LIBERADO PARA EMISSÃO
☐ LIBERADO COM COMENTÁRIOS
☐ NÃO LIBERADO

ASSINATURA | EM ___/___/___

ESTE DOCUMENTO É DE TOTAL E EXCLUSIVA RESPONSABILIDADE DO PROJETISTA.

LIBERADO P/ EXECUÇÃO DA OBRA

ASSINATURA | EM ___/___/___

APROVAÇÃO | EM ___/___/___

DOCUMENTOS DE REFERÊNCIA:

80-DES-31000-18-00001 (SEÇÃO TIPO DE SUPERESTRUTURA).

DATA	TIPO	POR	DESCRIÇÃO
21/09/2022	E	IMR	PARA CONSTRUÇÃO

EMISSÕES:

TIPO DE EMISSÃO

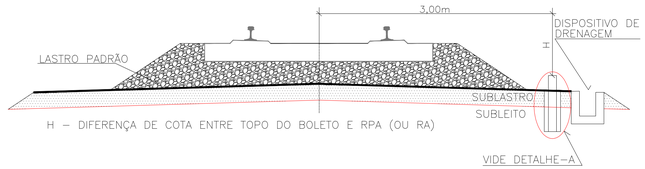
(A) PRELIMINAR (B) PARA LIBERAÇÃO (C) PARA CONHECIMENTO (D) PARA COTAÇÃO (E) PARA CONSTRUÇÃO (F) CONFORME COMPRADO (G) CONFORME CONSTRUÍDO (H) CANCELADO

Piauí TRANSPORTES Secretaria de estado dos transportes / SETRANS

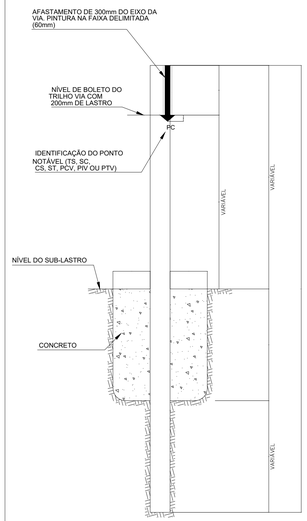
CONSÓRCIO ENEFER CAVA INFRAESTRUTURA

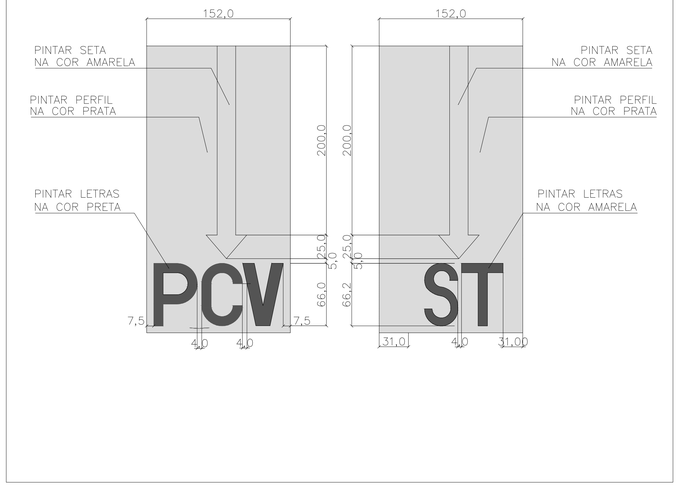
RESPONSÁVEL:	DATA:	PROJETO: METRÔ DE TERESINA - MTE OBRAS DE REVITALIZAÇÃO, MODERNIZAÇÃO E MELHORIAS LINHA 1 - SUDESTE - ESTAÇÕES ALBERTO SILVA - ITARARÉ	
ELABORAÇÃO: Israel M. Rodrigues - CREA/RJ2017110638	21/09/2022		
VERIFICAÇÃO: João Bosco P. de Araújo - CREA/RJ 1972100711	21/09/2022	TÍTULO: PROJETO DE SUPERESTRUTURA PROJETO TIPO MARCO DE SEGURANÇA DE VIA	FOLHA: 01
APROVAÇÃO: Fabio Lucien D. Macier - CREA/RJ 2014121743	21/09/2022		
RESP. TÉCNICO: Fabio Lucien D. Macier - CREA/RJ 2014121743	21/09/2022	ESCALA: INDICADA	DOCUMENTO Nº: MTE-VIA-SUP-PE-DE-1104 REV: 0

SEÇÃO TRANSVERSAL DA SUPERESTRUTURA DA VIA
REPRESENTAÇÃO DO MARCO DE REFERÊNCIA



DETALHE - A





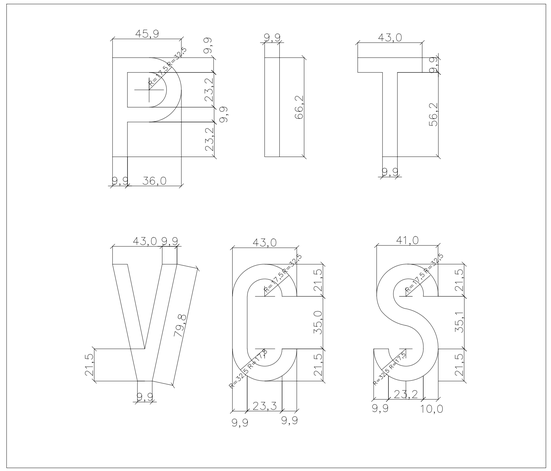
QUADRO DE DISCRIMINAÇÃO DOS PONTOS NOTÁVEIS

MARCOS *R.P.A.* REFERÊNCIAS PLANIALTIMÉTRICAS		MARCOS *R.A.* REFERÊNCIAS ALTIMÉTRICAS	
LOCALIZAÇÃO			
EM CURVAS HORIZONTAIS	EM TANGENTES	EM CURVAS VERTICAIS	EM RAMPAS
* NOS PONTOS NOTÁVEIS TS, SC, CS, ST, PC e PT	* A CADA 500m	* NOS PONTOS NOTÁVEIS PCV, PIV e PTV	____

NOMENCLATURA

TS - PONTO DE CONCORDÂNCIA HORIZONTAL ENTRE TANGENTE E ESPIRAL
SC - PONTO DE CONCORDÂNCIA HORIZONTAL ENTRE ESPIRAL E CURVA CIRCULAR
CS - PONTO DE CONCORDÂNCIA HORIZONTAL ENTRE CURVA CIRCULAR E ESPIRAL
ST - PONTO DE CONCORDÂNCIA HORIZONTAL ENTRE ESPIRAL E TANGENTE
PC - PONTO DE CONCORDÂNCIA HORIZONTAL ENTRE TANGENTE E CURVA CIRCULAR
PT - PONTO DE CONCORDÂNCIA HORIZONTAL ENTRE CURVA CIRCULAR E TANGENTE
PCV - PONTO DE CONCORDÂNCIA VERTICAL ENTRE RAMPA E CURVA PARABÓLICA
PIV - PONTO DE INTERSEÇÃO VERTICAL ENTRE OS PROLONGAMENTOS DAS RAMPAS
PTV - PONTO DE CONCORD. VERTICAL ENTRE CURVA PARABÓLICA E RAMPA

OBSERVAÇÕES:
PERFIS A UTILIZAR:
1 - TRILHO PERFIL TR-45
- LARGURA DO PATIM - 130,17mm
- LARGURA DA ALMA - 15,88mm



NOTAS:

- DEVERÁ SER OBSERVADA A ESPECIFICAÇÃO TÉCNICA ET-VALEC Nº80-ES-050A-18-8001 (LANÇAMENTO, MONTAGEM E ACABAMENTO DA VP.)
- OS MARCOS DE REFERÊNCIA PLANIALTIMÉTRICOS A SEREM IMPLANTADOS EM OAEs (PONTES E VIADUTOS) E PASSAGENS INFERIORES, DEVERÃO SER DEFINIDOS PELA FISCALIZAÇÃO DA VALEC.
- TOLERÂNCIA EM MILIMETRO (mm)

ARQUIVO TÉCNICO ____ EM __/__/__

☐ LIBERADO PARA EMISSÃO
☐ LIBERADO COM COMENTÁRIOS
☐ NÃO LIBERADO

ASSINATURA ____ EM __/__/__

ESTE DOCUMENTO É DE TOTAL E EXCLUSIVA RESPONSABILIDADE DO PROJETISTA.
LIBERADO P/ EXECUÇÃO DA OBRA

ASSINATURA ____ EM __/__/__

APROVAÇÃO ____ EM __/__/__

DOCUMENTOS DE REFERÊNCIA:

80-DE-S-3100G-18-00005 (SEÇÃO TIPO DE SUPERESTRUTURA).

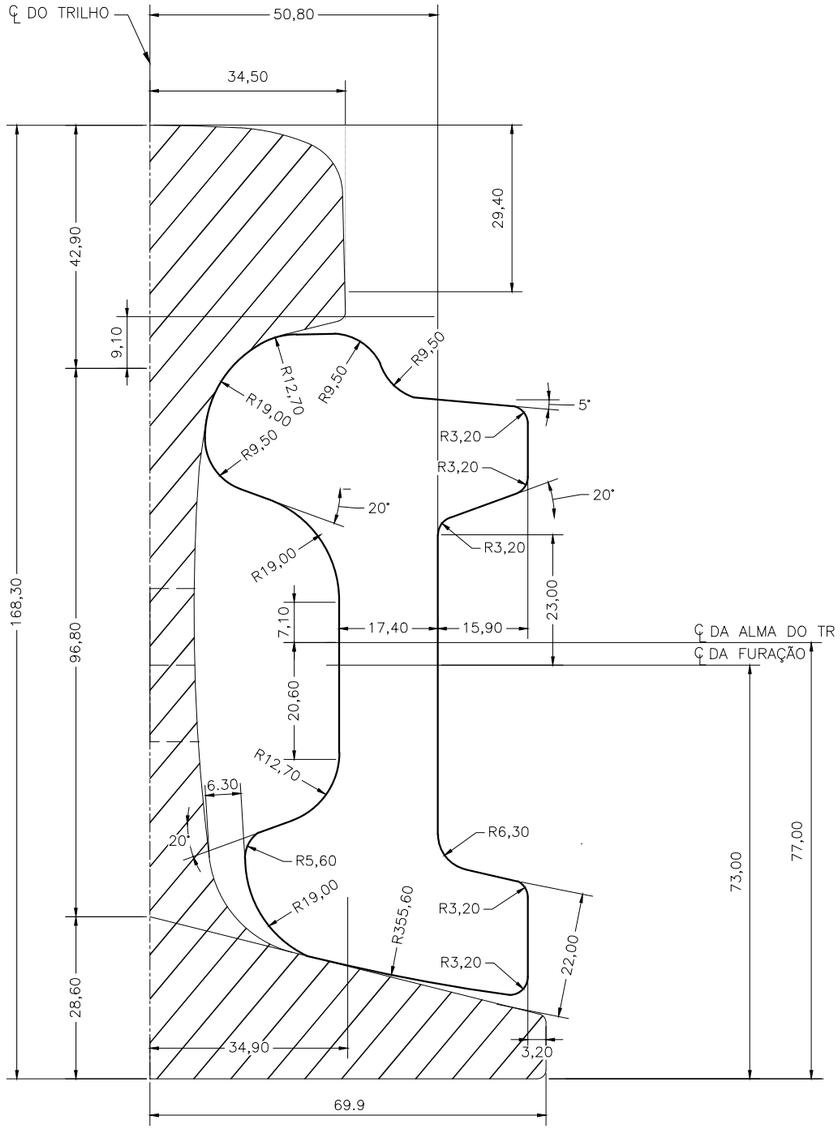
DATA	TIPO	POR	DESCRIÇÃO
21/09/2022	E	IMR	PARA CONSTRUÇÃO

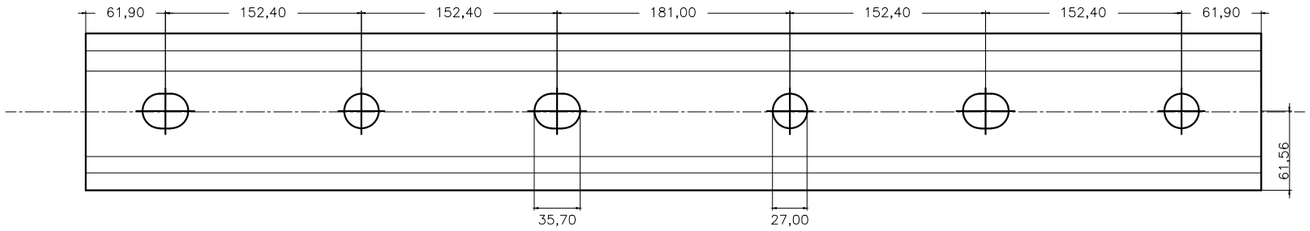
EMISSÕES:

TIPO DE EMISSÃO
(A) PRELIMINAR (B) PARA LIBERAÇÃO (C) PARA CONHECIMENTO
(D) PARA COTAÇÃO (E) PARA CONSTRUÇÃO (F) CONFORME COMPRADO
(G) CONFORME CONSTRUÍDO (H) CANCELADO

Piauí TRANSPORTES Secretaria de estado dos transportes / SETRANS
CONSÓRCIO: ENEFER CAVA INFRAESTRUTURA

RESPONSÁVEL:	DATA:	PROJETO:
ELABORAÇÃO: Israel M. Rabiçquet - CREA/PI 2017110538	21/09/2022	METRÔ DE TERESINA - MTE OBRAS DE REVITALIZAÇÃO, MODERNIZAÇÃO E MELHORIAS LINHA 1 - SUDESTE - ESTAÇÕES ALBERTO SILVA - ITARARÉ
VERIFICAÇÃO: João Bosco P. de Araújo - CREA/RJ 1972100711	21/09/2022	TÍTULO: PROJETO DE SUPERESTRUTURA PROJETO TIPO MARCO REFERÊNCIA DE VIA — FOLHA: 01
APROVAÇÃO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	21/09/2022	
RESP.TÉCNICO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	21/09/2022	ESCALA: INDICADA — DOCUMENTO Nº: MTE-VIA-SUP-PE-DE-1105 — REV.: 0





NOTAS:

EMISSÕES:

DATA	TIPO	POR	DESCRIÇÃO
04/10/22	B	IMR	PARA CONSTRUÇÃO

RESPONSÁVEL:	DATA:	RESPONSÁVEL:	DATA:
APROVAÇÃO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	04/10/2022	ELABORAÇÃO: Israel M. Rodrigues - CREA/RJ 2017010538	04/10/22
RESP.TÉCNICO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	04/10/2022	VERIFICAÇÃO: João Bosco F. de Souza - CREA/RJ 1972100711	04/10/22

TIPO DE EMISSÃO:

(A) PRELIMINAR
(B) PARA APROVAÇÃO
(C) PARA CONHECIMENTO
(D) PARA COTAÇÃO
(E) PARA CONSTRUÇÃO
(F) CONFORME COMPRADO
(G) CONFORME CONSTRUIDO
(H) CANCELADO

Piauí GOVERNO DO ESTADO

TRANSPORTES
Secretaria de estado dos transportes / SETRANS

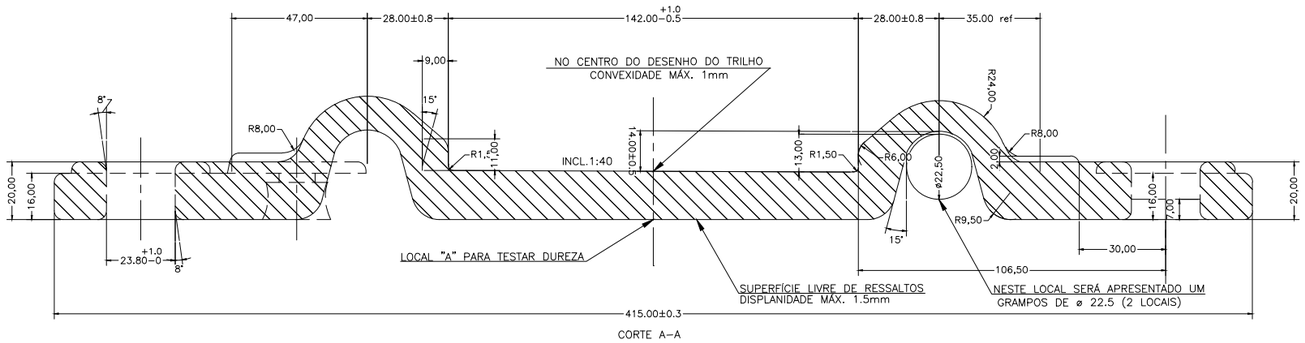
CONSÓRCIO: ENEFER CAVA INFRAESTRUTURA

PROJETO: METRÔ DE TERESINA - MTE
OBRAS DE REVITALIZAÇÃO, MODERNIZAÇÃO E MELHORIAS
LINHA 1 - SUDESTE - ESTAÇÕES ALBERTO SILVA - ITARARÉ

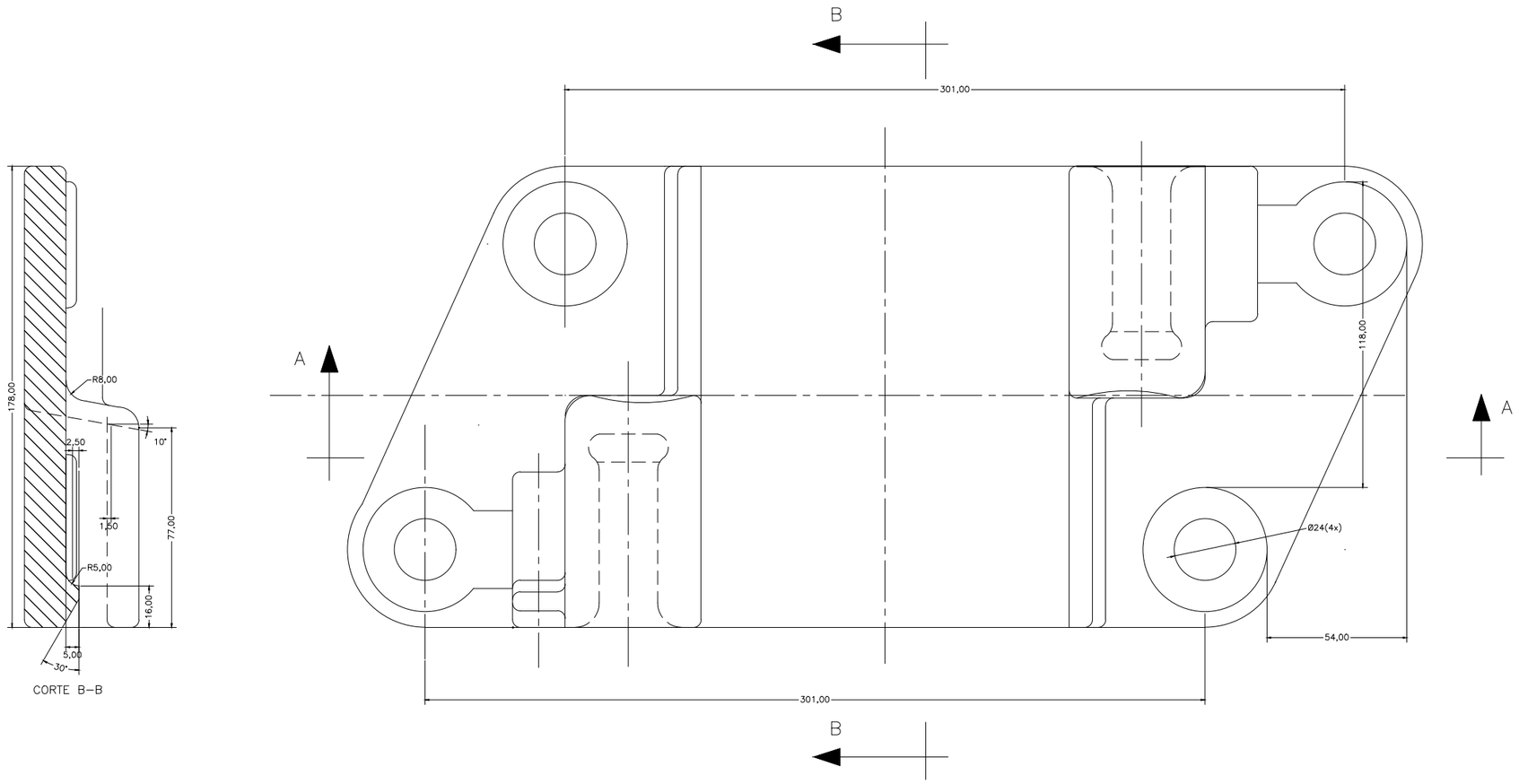
TÍTULO: PROJETO EXECUTIVO - SUPERESTRUTURA
PROJETO TIPO - TALA DE JUNÇÃO

ESCALA	DOCUMENTO Nº	FOLHA	DATA.	REV.
INDICADA	MTE-VIA-SUP-PE-DE-1106	01/01	10/2022	0

Formato (A3)



CORTE A–A



CORTE B–B

NOTAS:

EMISSÕES:			
DATA	TIPO	POR	DESCRIÇÃO
04/10/22	E	IMR	PARA CONSTRUÇÃO

TIPO DE EMISSÃO:

(A) PRELIMINAR (B) PARA APROVAÇÃO (C) PARA CONHECIMENTO (D) PARA COTAÇÃO (E) PARA CONSTRUÇÃO (F) CONFORME COMPRADO (G) CONFORME CONSTRUIDO (H) CANCELADO

RESPONSÁVEL:	DATA:	RESPONSÁVEL:	DATA:
APROVAÇÃO: Fabio Lucien D. Maciel - CREA/RJ 2014121743		ELABORAÇÃO: Israel M. Rodrigues - CREA/RJ 2017010538	04/10/22
RESP.TÉCNICO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	04/10/2022	VERIFICAÇÃO: João Bosco F. de Souza - CREA/RJ 1972100711	04/10/22

Piauí GOVERNO DO ESTADO — TRANSPORTES — Secretaria de estado dos transportes / SETRANS

CONSÓRCIO: ENEFER — CAVA INFRAESTRUTURA

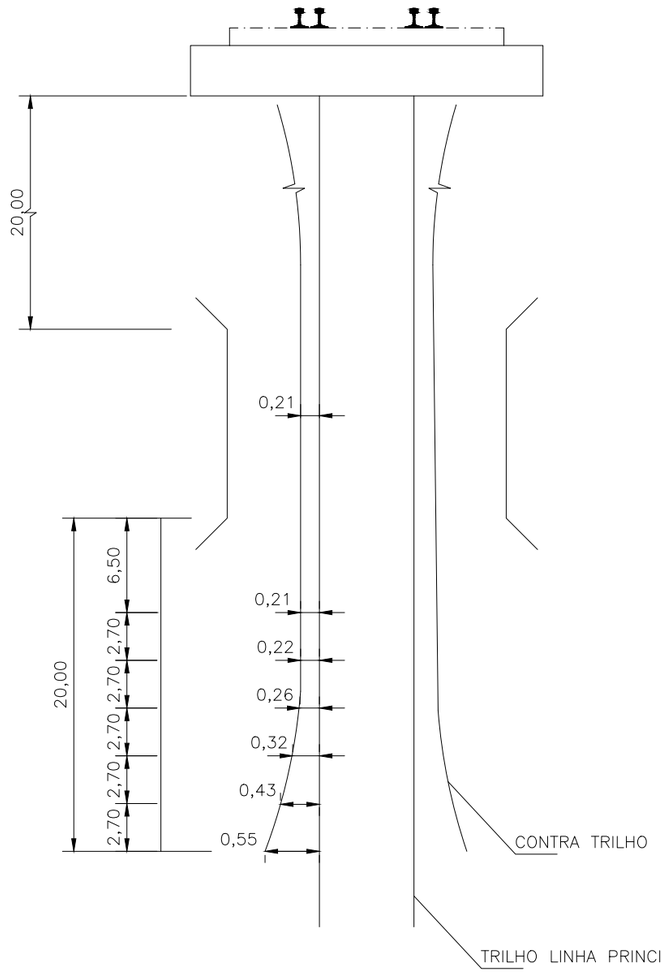
PROJETO: METRÔ DE TERESINA - MTE
OBRAS DE REVITALIZAÇÃO, MODERNIZAÇÃO E MELHORIAS
LINHA 1 - SUDESTE - ESTAÇÕES ALBERTO SILVA - ITARARÉ

TÍTULO: PROJETO TIPO - PLACA DE APOIO PLANA FUNDIDA

ESCALA	DOCUMENTO Nº	FOLHA	DATA.	REV.
INDICADA	MTE-VIA-SUP-PE-DE-1107	01/01	10/2022	0

Formato (A3)

CONTRA TRILHO - EXTERNO

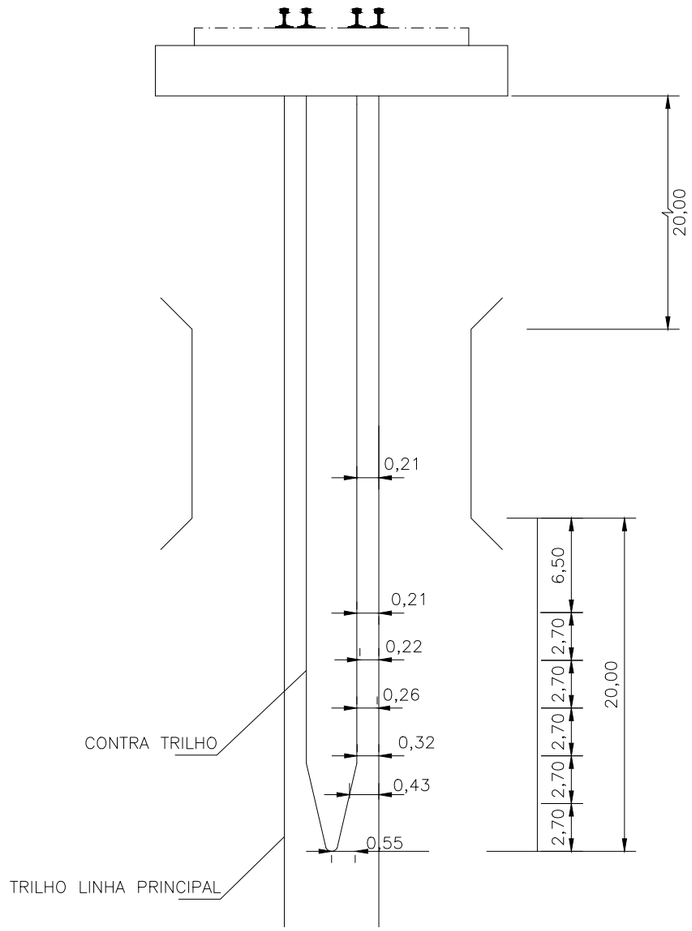


OBSERVAÇÕES:

1) NA UTILIZAÇÃO DO DISPOSITIVO DO CONTRA–TRILHO EXTERNO, SERÃO UTILIZADOS 33 (TRINTA e TRES) DORMENTES DE MADEIRA ACORDO COM AS DIMENSÕES ABAIXO:

DIMENSÃO DO DORMENTE	QUANTIDADE
2,80m	22
3,00m	04
5,40m	04
5,60m	03

CONTRA TRILHO - INTERNO



OBSERVAÇÕES:

2) NA UTILIZAÇÃO DO DISPOSITIVO DO CONTRA–TRILHO INTERNO, DEVERÃO SER UTILIZADOS 33 (TRINTA e TRES) DORMENTES DE MADEIRA DE 2,80m.

NOTAS:

- PARA UTILIZAÇÃO EM ESTRUTURA METÁLICA SEM O TABULEIRO (LAJE DE CONCRETO ARMADO)
- NO CASO DA UTILIZAÇÃO NOS CONTRA TRILHOS DE DORMENTE DE CONCRETO MONOBLOCO, OS MESMO DEVERÃO SER DOTADOS DE DISPOSITIVOS PARA FIXAÇÃO DO TRILHO DO CONTRA.

EMISSÕES:

DATA	TIPO	POR	DESCRIÇÃO
04/10/22	E	IMR	PARA CONSTRUÇÃO

RESPONSÁVEL:	DATA:	RESPONSÁVEL:	DATA:
APROVAÇÃO: Fabio Lucien D. Maciel - CREA/RJ 2014121743		ELABORAÇÃO: Israel M. Rodrigues - CREA/RJ2017910538	04/10/22
RESP.TÉCNICO: Fabio Lucien D. Maciel - CREA/RJ 2014121743	04/10/2022	VERIFICAÇÃO: João Bosco F. de Souza - CREA/RJ 1972100711	04/10/22

TIPO DE EMISSÃO:

(A) PRELIMINAR (B) PARA APROVAÇÃO (C) PARA CONHECIMENTO (D) PARA COTAÇÃO (E) PARA CONSTRUÇÃO (F) CONFORME COMPRADO (G) CONFORME CONSTRUIDO (H) CANCELADO

Piauí GOVERNO DO ESTADO — TRANSPORTES — Secretaria de estado dos transportes / SETRANS

CONSÓRCIO: ENEFER — CAVA INFRAESTRUTURA

PROJETO: METRÔ DE TERESINA - MTE
OBRAS DE REVITALIZAÇÃO, MODERNIZAÇÃO E MELHORIAS
LINHA 1 - SUDESTE - ESTAÇÕES ALBERTO SILVA - ITARARÉ

TÍTULO: PROJETO EXECUTIVO - SUPERESTRUTURA
PROJETO TIPO - CONTRATRILHO

ESCALA	DOCUMENTO Nº	FOLHA	DATA.	REV.
INDICADA	MTE-VIA-SUP-PE-DE-1107	01/01	10/2022	0

Formato (A3)

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
65,981	65,077	65,277	3,00%	-0,500	100+000,000	9.436.755,091	741.807,377	INÍCIO	59,957	65,292	65,092	5,135	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+020,000	9.436.771,292	741.795,650		59,882	65,292	65,092	5,210	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+040,000	9.436.787,494	741.783,924		59,846	65,292	65,092	5,246	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+060,000	9.436.803,695	741.772,198		59,806	65,292	65,092	5,286	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+080,000	9.436.819,897	741.760,471		59,870	65,292	65,092	5,222	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+100,000	9.436.836,099	741.748,745		59,711	65,292	65,092	5,381	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+120,000	9.436.852,300	741.737,019		59,575	65,292	65,092	5,517	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+140,000	9.436.868,502	741.725,292		59,469	65,292	65,092	5,623	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+160,000	9.436.884,704	741.713,566		59,523	65,292	65,092	5,569	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+180,000	9.436.900,905	741.701,840		59,653	65,292	65,092	5,439	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+200,000	9.436.917,107	741.690,113		59,482	65,292	65,092	5,610	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+220,000	9.436.933,309	741.678,387		59,494	65,292	65,092	5,598	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+240,000	9.436.949,510	741.666,661		59,511	65,292	65,092	5,581	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+260,000	9.436.965,712	741.654,934		59,523	65,292	65,092	5,569	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+280,000	9.436.981,914	741.643,208		59,488	65,292	65,092	5,604	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+300,000	9.436.998,115	741.631,482		59,444	65,292	65,092	5,648	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+320,000	9.437.014,317	741.619,755		59,389	65,292	65,092	5,703	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+333,395	9.437.025,168	741.611,902	PC	59,309	65,292	65,092	5,783	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+340,000	9.437.030,525	741.608,038		59,272	65,292	65,092	5,820	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+345,903	9.437.035,323	741.604,600		59,239	65,292	65,092	5,853	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+358,411	9.437.045,524	741.597,361	PT	59,248	65,292	65,092	5,844	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+360,000	9.437.046,823	741.596,446		59,250	65,292	65,092	5,842	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+380,000	9.437.063,170	741.584,923		59,267	65,292	65,092	5,825	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+400,000	9.437.079,517	741.573,401		59,206	65,292	65,092	5,886	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+420,000	9.437.095,864	741.561,878		59,070	65,292	65,092	6,022	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+440,000	9.437.112,211	741.550,355		58,920	65,292	65,092	6,172	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+460,000	9.437.128,558	741.538,832		58,918	65,292	65,092	6,174	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+480,000	9.437.144,905	741.527,310		59,010	65,292	65,092	6,082	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+500,000	9.437.161,252	741.515,787		59,084	65,292	65,092	6,008	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+520,000	9.437.177,599	741.504,264		59,092	65,292	65,092	6,000	0,500	3,00%	65,307	65,107	66,041
65,981	65,077	65,277	3,00%	-0,500	100+540,000	9.437.193,946	741.492,741		59,042	65,292	65,092	6,050	0,500	3,00%	65,307	65,107	66,041
65,985	65,080	65,280	3,00%	-0,500	100+560,000	9.437.210,294	741.481,219		58,975	65,295	65,095	6,120	0,500	3,00%	65,310	65,110	66,045
65,995	65,090	65,290	3,00%	-0,500	100+580,000	9.437.226,641	741.469,696		58,983	65,305	65,105	6,122	0,500	3,00%	65,320	65,120	66,055
66,001	65,096	65,296	3,00%	-0,500	100+587,949	9.437.233,138	741.465,116	PC	58,982	65,311	65,111	6,130	0,500	3,00%	65,326	65,126	66,061
66,011	65,107	65,307	3,00%	-0,500	100+600,000	9.437.242,850	741.457,983		58,998	65,322	65,122	6,125	0,500	3,00%	65,337	65,137	66,071
66,035	65,131	65,331	3,00%	-0,500	100+620,000	9.437.258,334	741.445,330		59,059	65,346	65,146	6,086	0,500	3,00%	65,361	65,161	66,095
66,036	65,132	65,332	3,00%	-0,500	100+620,612	9.437.258,795	741.444,927		59,064	65,347	65,147	6,082	0,500	3,00%	65,362	65,162	66,096
66,062	65,158	65,358	3,00%	-0,500	100+640,000	9.437.272,970	741.431,705		59,195	65,373	65,173	5,978	0,500	3,00%	65,388	65,188	66,122
66,080	65,176	65,376	3,00%	-0,500	100+653,275	9.437.282,187	741.422,152	PT	59,275	65,391	65,191	5,916	0,500	3,00%	65,406	65,206	66,140
66,089	65,185	65,385	3,00%	-0,500	100+660,000	9.437.286,752	741.417,214		59,323	65,400	65,200	5,877	0,500	3,00%	65,415	65,215	66,149
66,116	65,211	65,411	3,00%	-0,500	100+680,000	9.437.300,327	741.402,526		59,427	65,426	65,226	5,799	0,500	3,00%	65,441	65,241	66,176
66,143	65,238	65,438	3,00%	-0,500	100+700,000	9.437.313,902	741.387,839		59,624	65,453	65,253	5,629	0,500	3,00%	65,468	65,268	66,203
66,169	65,265	65,465	3,00%	-0,500	100+720,000	9.437.327,477	741.373,152		59,724	65,480	65,280	5,556	0,500	3,00%	65,495	65,295	66,229
66,196	65,292	65,492	3,00%	-0,500	100+740,000	9.437.341,052	741.358,465		59,942	65,507	65,307	5,365	0,500	3,00%	65,522	65,322	66,256
66,223	65,319	65,519	3,00%	-0,500	100+760,000	9.437.354,627	741.343,777		60,026	65,534	65,334	5,308	0,500	3,00%	65,549	65,349	66,283
66,245	65,341	65,541	3,00%	-0,500	100+776,297	9.437.365,689	741.331,810	PC	60,185	65,556	65,356	5,171	0,500	3,00%	65,571	65,371	66,305
66,250	65,346	65,546	3,00%	-0,500	100+780,000	9.437.368,251	741.329,136		60,213	65,561	65,361	5,148	0,500	3,00%	65,576	65,376	66,310
66,277	65,373	65,573	3,00%	-0,500	100+800,000	9.437.383,647	741.316,420		60,527	65,588	65,388	4,860	0,500	3,00%	65,603	65,403	66,337
66,304	65,400	65,600	3,00%	-0,500	100+820,000	9.437.401,225	741.306,947		61,021	65,615	65,415	4,393	0,500	3,00%	65,630	65,430	66,364
66,331	65,427	65,627	3,00%	-0,500	100+840,000	9.437.420,311	741.301,080		60,974	65,642	65,442	4,468	0,500	3,00%	65,657	65,457	66,391
66,338	65,434	65,634	3,00%	-0,500	100+845,326	9.437.425,556	741.300,158		61,024	65,649	65,449	4,425	0,500	3,00%	65,664	65,464	66,398
66,358	65,453	65,653	3,00%	-0,500	100+860,000	9.437.440,175	741.299,044		61,033	65,668	65,468	4,435	0,500	3,00%	65,683	65,483	66,418
66,385	65,480	65,680	3,00%	-0,500	100+880,000	9.437.460,055	741.300,917		61,484	65,695	65,495	4,012	0,500	3,00%	65,710	65,510	66,445
66,411	65,507	65,707	3,00%	-0,500	100+900,000	9.437.479,189	741.306,627		66,290	65,722	65,522	-0,768	0,500	3,00%	65,737	65,537	66,471
66,431	65,527	65,727	3,00%	-0,500	100+914,355	9.437.492,051	741.312,974	PT	66,400	65,742	65,542	-0,858	0,500	3,00%	65,757	65,557	66,491
66,438	65,534	65,734	3,00%	-0,500	100+920,000	9.437.496,925	741.315,822		66,311	65,749	65,549	-0,762	0,500	3,00%	65,764	65,564	66,498
66,502	65,598	65,798	3,00%	-0,500	100+940,000	9.437.514,194	741.325,911		66,377	65,813	65,613	-0,765	0,500	3,00%	65,828	65,628	66,562

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
66,638	65,734	65,934	3,00%	-0,500	100+960,000	9.437.531,462	741.336,001		65,878	65,949	65,749	-0,129	0,500	3,00%	65,964	65,764	66,698
66,668	65,764	65,964	3,00%	-0,500	100+963,320	9.437.534,329	741.337,676	PC	63,531	65,979	65,779	2,248	0,500	3,00%	65,994	65,794	66,728
66,848	65,944	66,144	3,00%	-0,500	100+980,000	9.437.548,957	741.345,686		66,602	66,159	65,959	-0,644	0,500	3,00%	66,174	65,974	66,908
67,094	66,190	66,390	3,00%	-0,500	101+000,000	9.437.567,050	741.354,201		66,669	66,405	66,205	-0,465	0,500	3,00%	66,420	66,220	67,154
67,137	66,233	66,433	3,00%	-0,500	101+003,530	9.437.570,301	741.355,577		66,752	66,448	66,248	-0,504	0,500	3,00%	66,463	66,263	67,197
67,340	66,436	66,636	3,00%	-0,500	101+020,000	9.437.585,670	741.361,491		66,913	66,651	66,451	-0,462	0,500	3,00%	66,666	66,466	67,400
67,586	66,682	66,882	3,00%	-0,500	101+040,000	9.437.604,734	741.367,525		67,017	66,897	66,697	-0,321	0,500	3,00%	66,912	66,712	67,646
67,632	66,728	66,928	3,00%	-0,500	101+043,740	9.437.608,342	741.368,511	PT	67,105	66,943	66,743	-0,362	0,500	3,00%	66,958	66,758	67,692
67,837	66,933	67,133	3,00%	-0,500	101+059,585	9.437.623,652	741.372,596	PC	67,468	67,148	66,948	-0,520	0,500	3,00%	67,163	66,963	67,897
67,843	66,939	67,139	3,00%	-0,500	101+060,000	9.437.624,052	741.372,702		67,487	67,154	66,954	-0,533	0,500	3,00%	67,169	66,969	67,903
67,982	67,078	67,278	3,00%	-0,500	101+070,392	9.437.634,123	741.375,268		67,592	67,293	67,093	-0,499	0,500	3,00%	67,308	67,108	68,042
68,111	67,207	67,407	3,00%	-0,500	101+080,000	9.437.643,478	741.377,454		67,718	67,422	67,222	-0,496	0,500	3,00%	67,437	67,237	68,171
68,127	67,223	67,423	3,00%	-0,500	101+081,199	9.437.644,649	741.377,714	PT	67,824	67,438	67,238	-0,587	0,500	3,00%	67,453	67,253	68,187
68,379	67,475	67,675	3,00%	-0,500	101+100,000	9.437.663,007	741.381,771		68,069	67,690	67,490	-0,579	0,500	3,00%	67,705	67,505	68,439
68,647	67,743	67,943	3,00%	-0,500	101+120,000	9.437.682,536	741.386,086		68,240	67,958	67,758	-0,483	0,500	3,00%	67,973	67,773	68,707
68,877	67,973	68,173	3,00%	-0,500	101+140,000	9.437.702,065	741.390,402		64,145	68,188	67,988	3,843	0,500	3,00%	68,203	68,003	68,937
69,071	68,167	68,367	3,00%	-0,500	101+160,000	9.437.721,594	741.394,718		65,357	68,382	68,182	2,824	0,500	3,00%	68,397	68,197	69,131
69,264	68,360	68,560	3,00%	-0,500	101+180,000	9.437.741,122	741.399,033		68,900	68,575	68,375	-0,525	0,500	3,00%	68,590	68,390	69,324
69,458	68,553	68,753	3,00%	-0,500	101+200,000	9.437.760,651	741.403,349		68,981	68,768	68,568	-0,412	0,500	3,00%	68,783	68,583	69,518
69,651	68,747	68,947	3,00%	-0,500	101+220,000	9.437.780,180	741.407,664		69,009	68,962	68,762	-0,247	0,500	3,00%	68,977	68,777	69,711
69,675	68,771	68,971	3,00%	-0,500	101+222,527	9.437.782,648	741.408,210	PC	69,000	68,986	68,786	-0,214	0,500	3,00%	69,001	68,801	69,735
69,844	68,940	69,140	3,00%	-0,500	101+240,000	9.437.799,523	741.412,720		69,188	69,155	68,955	-0,233	0,500	3,00%	69,170	68,970	69,904
69,951	69,046	69,246	3,00%	-0,500	101+250,990	9.437.809,910	741.416,305		69,334	69,261	69,061	-0,273	0,500	3,00%	69,276	69,076	70,011
70,038	69,134	69,334	3,00%	-0,500	101+260,000	9.437.818,269	741.419,666		69,243	69,349	69,149	-0,095	0,500	3,00%	69,364	69,164	70,098
70,180	69,276	69,476	3,00%	-0,500	101+279,452	9.437.835,748	741.428,184	PT	67,624	69,491	69,291	1,667	0,500	3,00%	69,506	69,306	70,240
70,183	69,279	69,479	3,00%	-0,500	101+280,000	9.437.836,228	741.428,448		67,701	69,494	69,294	1,592	0,500	3,00%	69,509	69,309	70,243
70,231	69,327	69,527	3,00%	-0,500	101+300,000	9.437.853,760	741.438,074		69,619	69,542	69,342	-0,277	0,500	3,00%	69,557	69,357	70,291
70,231	69,327	69,527	3,00%	-0,500	101+320,000	9.437.871,291	741.447,699		69,607	69,542	69,342	-0,265	0,500	3,00%	69,557	69,357	70,291
70,231	69,327	69,527	3,00%	-0,500	101+340,000	9.437.888,822	741.457,325		69,748	69,542	69,342	-0,406	0,500	3,00%	69,557	69,357	70,291
70,254	69,350	69,550	3,00%	-0,500	101+360,000	9.437.906,354	741.466,950		70,041	69,565	69,365	-0,676	0,500	3,00%	69,580	69,380	70,314
70,258	69,354	69,554	3,00%	-0,500	101+361,330	9.437.907,520	741.467,591	PC	70,065	69,569	69,369	-0,696	0,500	3,00%	69,584	69,384	70,318
70,354	69,450	69,650	3,00%	-0,500	101+380,000	9.437.923,484	741.477,259		70,296	69,665	69,465	-0,832	0,500	3,00%	69,680	69,480	70,414
70,531	69,627	69,827	3,00%	-0,500	101+400,000	9.437.939,611	741.489,077		70,562	69,842	69,642	-0,920	0,500	3,00%	69,857	69,657	70,591
70,568	69,664	69,864	3,00%	-0,500	101+403,690	9.437.942,465	741.491,415		70,596	69,879	69,679	-0,917	0,500	3,00%	69,894	69,694	70,628
70,731	69,827	70,027	3,00%	-0,500	101+420,000	9.437.954,598	741.502,310		70,716	70,042	69,842	-0,874	0,500	3,00%	70,057	69,857	70,791
70,931	70,027	70,227	3,00%	-0,500	101+440,000	9.437.968,321	741.516,850		70,920	70,242	70,042	-0,878	0,500	3,00%	70,257	70,057	70,991
70,992	70,088	70,288	3,00%	-0,500	101+446,050	9.437.972,206	741.521,487	PT	71,046	70,303	70,103	-0,944	0,500	3,00%	70,318	70,118	71,052
71,038	70,134	70,334	3,00%	-0,500	101+450,718	9.437.975,155	741.525,106	PC	71,084	70,349	70,149	-0,935	0,500	3,00%	70,364	70,164	71,098
71,131	70,227	70,427	3,00%	-0,500	101+460,000	9.437.980,863	741.532,424		71,206	70,442	70,242	-0,964	0,500	3,00%	70,457	70,257	71,191
71,300	70,396	70,596	3,00%	-0,500	101+476,865	9.437.990,426	741.546,311		71,254	70,611	70,411	-0,844	0,500	3,00%	70,626	70,426	71,360
71,331	70,427	70,627	3,00%	-0,500	101+480,000	9.437.992,085	741.548,971		71,300	70,642	70,442	-0,858	0,500	3,00%	70,657	70,457	71,391
71,517	70,613	70,813	3,00%	-0,500	101+500,000	9.438.001,759	741.566,468		71,482	70,828	70,628	-0,854	0,500	3,00%	70,843	70,643	71,577
71,543	70,639	70,839	3,00%	-0,500	101+503,012	9.438.003,076	741.569,176	PT	71,492	70,854	70,654	-0,838	0,500	3,00%	70,869	70,669	71,603
71,676	70,772	70,972	3,00%	-0,500	101+520,000	9.438.010,403	741.584,503		71,519	70,987	70,787	-0,732	0,500	3,00%	71,002	70,802	71,736
71,720	70,816	71,016	3,00%	-0,500	101+526,012	9.438.012,995	741.589,928	PC	71,543	71,031	70,831	-0,713	0,500	3,00%	71,046	70,846	71,780
71,821	70,917	71,117	3,00%	-0,500	101+540,000	9.438.018,759	741.602,672		71,549	71,132	70,932	-0,617	0,500	3,00%	71,147	70,947	71,881
71,966	71,062	71,262	3,00%	-0,500	101+560,000	9.438.026,050	741.621,292		71,540	71,277	71,077	-0,463	0,500	3,00%	71,292	71,092	72,026
72,111	71,207	71,407	3,00%	-0,500	101+580,000	9.438.032,199	741.640,320		71,522	71,422	71,222	-0,300	0,500	3,00%	71,437	71,237	72,171
72,256	71,352	71,552	3,00%	-0,500	101+600,000	9.438.037,185	741.659,686		71,523	71,567	71,367	-0,156	0,500	3,00%	71,582	71,382	72,316
72,348	71,444	71,644	3,00%	-0,500	101+612,715	9.438.039,741	741.672,140		71,583	71,659	71,459	-0,124	0,500	3,00%	71,674	71,474	72,408
72,401	71,497	71,697	3,00%	-0,500	101+620,000	9.438.040,989	741.679,318		71,642	71,712	71,512	-0,130	0,500	3,00%	71,727	71,527	72,461
72,546	71,642	71,842	3,00%	-0,500	101+640,000	9.438.043,597	741.699,144		71,710	71,857	71,657	-0,053	0,500	3,00%	71,872	71,672	72,606
72,691	71,787	71,987	3,00%	-0,500	101+660,000	9.438.044,999	741.719,091		71,716	72,002	71,802	0,086	0,500	3,00%	72,017	71,817	72,751
72,839	71,934	72,134	3,00%	-0,500	101+680,000	9.438.045,190	741.739,087		71,844	72,149	71,949	0,105	0,500	3,00%	72,164	71,964	72,899
72,997	72,093	72,293	3,00%	-0,500	101+699,417	9.438.044,217	741.758,477	PT	71,856	72,308	72,108	0,251	0,500	3,00%	72,323	72,123	73,057
73,002	72,098	72,298	3,00%	-0,500	101+700,000	9.438.044,170	741.759,058		71,862	72,313	72,113	0,251	0,500	3,00%	72,328	72,128	73,062
73,184	72,279	72,479	3,00%	-0,500	101+720,000	9.438.042,580	741.778,995		71,971	72,494	72,294	0,323	0,500	3,00%	72,509	72,309	73,244

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
73,381	72,477	72,677	3,00%	-0,500	101+740,000	9.438.040,991	741.798,932		71,972	72,692	72,492	0,520	0,500	3,00%	72,707	72,507	73,441
73,581	72,677	72,877	3,00%	-0,500	101+760,000	9.438.039,401	741.818,868		72,020	72,892	72,692	0,672	0,500	3,00%	72,907	72,707	73,641
73,781	72,877	73,077	3,00%	-0,500	101+780,000	9.438.037,811	741.838,805		72,021	73,092	72,892	0,871	0,500	3,00%	73,107	72,907	73,841
73,981	73,077	73,277	3,00%	-0,500	101+800,000	9.438.036,221	741.858,742		72,063	73,292	73,092	1,029	0,500	3,00%	73,307	73,107	74,041
74,181	73,277	73,477	3,00%	-0,500	101+820,000	9.438.034,631	741.878,679		72,258	73,492	73,292	1,034	0,500	3,00%	73,507	73,307	74,241
74,381	73,477	73,677	3,00%	-0,500	101+840,000	9.438.033,041	741.898,615		72,390	73,692	73,492	1,102	0,500	3,00%	73,707	73,507	74,441
74,560	73,656	73,856	3,00%	-0,500	101+857,914	9.438.031,617	741.916,473	PC	72,346	73,871	73,671	1,326	0,500	3,00%	73,886	73,686	74,620
74,581	73,677	73,877	3,00%	-0,500	101+860,000	9.438.031,450	741.918,552		72,347	73,892	73,692	1,345	0,500	3,00%	73,907	73,707	74,641
74,659	73,755	73,955	3,00%	-0,500	101+868,234	9.438.030,770	741.926,758		72,367	73,970	73,770	1,403	0,500	3,00%	73,985	73,785	74,719
74,745	73,841	74,041	3,00%	-0,500	101+878,555	9.438.029,870	741.937,039	PT	72,421	74,056	73,856	1,435	0,500	3,00%	74,071	73,871	74,805
74,756	73,852	74,052	3,00%	-0,500	101+880,000	9.438.029,741	741.938,479		72,428	74,067	73,867	1,439	0,500	3,00%	74,082	73,882	74,816
74,881	73,977	74,177	3,00%	-0,500	101+900,000	9.438.027,945	741.958,398		72,576	74,192	73,992	1,416	0,500	3,00%	74,207	74,007	74,941
74,911	74,006	74,206	3,00%	-0,500	101+906,362	9.438.027,374	741.964,735	PC	72,597	74,221	74,021	1,425	0,500	3,00%	74,236	74,036	74,971
74,947	74,043	74,243	3,00%	-0,500	101+916,683	9.438.026,474	741.975,016		72,614	74,258	74,058	1,444	0,500	3,00%	74,273	74,073	75,007
74,956	74,052	74,252	3,00%	-0,500	101+920,000	9.438.026,196	741.978,321		72,649	74,267	74,067	1,418	0,500	3,00%	74,282	74,082	75,016
74,971	74,066	74,266	3,00%	-0,500	101+927,003	9.438.025,627	741.985,301	PT	72,728	74,281	74,081	1,353	0,500	3,00%	74,296	74,096	75,031
74,981	74,077	74,277	3,00%	-0,500	101+940,000	9.438.024,594	741.998,257		72,867	74,292	74,092	1,225	0,500	3,00%	74,307	74,107	75,041
74,981	74,077	74,277	3,00%	-0,500	101+960,000	9.438.023,004	742.018,194		73,203	74,292	74,092	0,889	0,500	3,00%	74,307	74,107	75,041
74,981	74,077	74,277	3,00%	-0,500	101+980,000	9.438.021,414	742.038,130		73,436	74,292	74,092	0,656	0,500	3,00%	74,307	74,107	75,041
74,981	74,077	74,277	3,00%	-0,500	102+000,000	9.438.019,824	742.058,067		73,641	74,292	74,092	0,451	0,500	3,00%	74,307	74,107	75,041
74,981	74,077	74,277	3,00%	-0,500	102+020,000	9.438.018,234	742.078,004		73,909	74,292	74,092	0,183	0,500	3,00%	74,307	74,107	75,041
74,981	74,077	74,277	3,00%	-0,500	102+040,000	9.438.016,645	742.097,940		74,238	74,292	74,092	-0,146	0,500	3,00%	74,307	74,107	75,041
74,988	74,084	74,284	3,00%	-0,500	102+060,000	9.438.015,055	742.117,877		74,433	74,299	74,099	-0,333	0,500	3,00%	74,314	74,114	75,048
74,998	74,094	74,294	3,00%	-0,500	102+065,462	9.438.014,621	742.123,322	PC	74,490	74,309	74,109	-0,381	0,500	3,00%	74,324	74,124	75,058
75,021	74,117	74,317	3,00%	-0,500	102+073,776	9.438.013,977	742.131,611		74,576	74,332	74,132	-0,444	0,500	3,00%	74,347	74,147	75,081
75,045	74,141	74,341	3,00%	-0,500	102+080,000	9.438.013,518	742.137,818		74,654	74,356	74,156	-0,498	0,500	3,00%	74,371	74,171	75,105
75,055	74,150	74,350	3,00%	-0,500	102+082,090	9.438.013,368	742.139,903	PT	74,685	74,365	74,165	-0,520	0,500	3,00%	74,380	74,180	75,115
75,159	74,255	74,455	3,00%	-0,500	102+100,000	9.438.012,092	742.157,767		74,966	74,470	74,270	-0,695	0,500	3,00%	74,485	74,285	75,219
75,283	74,379	74,579	3,00%	-0,500	102+115,296	9.438.011,003	742.173,025	PC	75,202	74,594	74,394	-0,808	0,500	3,00%	74,609	74,409	75,343
75,323	74,419	74,619	3,00%	-0,500	102+120,000	9.438.010,661	742.177,716		75,252	74,634	74,434	-0,818	0,500	3,00%	74,649	74,449	75,383
75,396	74,492	74,692	3,00%	-0,500	102+128,540	9.438.010,002	742.186,230		75,295	74,707	74,507	-0,788	0,500	3,00%	74,722	74,522	75,456
75,494	74,590	74,790	3,00%	-0,500	102+140,000	9.438.009,042	742.197,650		75,358	74,805	74,605	-0,753	0,500	3,00%	74,820	74,620	75,554
75,509	74,605	74,805	3,00%	-0,500	102+141,783	9.438.008,884	742.199,426	PT	75,366	74,820	74,620	-0,746	0,500	3,00%	74,835	74,635	75,569
75,665	74,761	74,961	3,00%	-0,500	102+160,000	9.438.007,266	742.217,571		75,470	74,976	74,776	-0,694	0,500	3,00%	74,991	74,791	75,725
75,836	74,932	75,132	3,00%	-0,500	102+180,000	9.438.005,490	742.237,492		75,608	75,147	74,947	-0,661	0,500	3,00%	75,162	74,962	75,896
76,007	75,103	75,303	3,00%	-0,500	102+200,000	9.438.003,714	742.257,413		75,795	75,318	75,118	-0,677	0,500	3,00%	75,333	75,133	76,067
76,178	75,274	75,474	3,00%	-0,500	102+220,000	9.438.001,938	742.277,334		75,719	75,489	75,289	-0,430	0,500	3,00%	75,504	75,304	76,238
76,318	75,414	75,614	3,00%	-0,500	102+240,000	9.438.000,162	742.297,255		75,661	75,629	75,429	-0,232	0,500	3,00%	75,644	75,444	76,378
76,397	75,492	75,692	3,00%	-0,500	102+260,000	9.437.998,386	742.317,176		75,666	75,707	75,507	-0,159	0,500	3,00%	75,722	75,522	76,457
76,413	75,509	75,709	3,00%	-0,500	102+280,000	9.437.996,610	742.337,097		75,683	75,724	75,524	-0,159	0,500	3,00%	75,739	75,539	76,473
76,368	75,463	75,663	3,00%	-0,500	102+300,000	9.437.994,834	742.357,018		75,684	75,678	75,478	-0,205	0,500	3,00%	75,693	75,493	76,428
76,260	75,356	75,556	3,00%	-0,500	102+320,000	9.437.993,058	742.376,939		75,678	75,571	75,371	-0,307	0,500	3,00%	75,586	75,386	76,320
76,091	75,187	75,387	3,00%	-0,500	102+340,000	9.437.991,282	742.396,860		75,371	75,402	75,202	-0,169	0,500	3,00%	75,417	75,217	76,151
76,009	75,105	75,305	3,00%	-0,500	102+348,228	9.437.990,551	742.405,055	PC	75,313	75,320	75,120	-0,193	0,500	3,00%	75,335	75,135	76,069
75,891	74,987	75,187	3,00%	-0,500	102+360,000	9.437.989,513	742.416,782		75,202	75,202	75,002	-0,200	0,500	3,00%	75,217	75,017	75,951
75,717	74,813	75,013	3,00%	-0,500	102+377,376	9.437.988,005	742.434,092		75,045	75,028	74,828	-0,217	0,500	3,00%	75,043	74,843	75,777
75,691	74,787	74,987	3,00%	-0,500	102+380,000	9.437.987,780	742.436,706		75,023	75,002	74,802	-0,221	0,500	3,00%	75,017	74,817	75,751
75,491	74,587	74,787	3,00%	-0,500	102+400,000	9.437.986,087	742.456,635		74,954	74,802	74,602	-0,352	0,500	3,00%	74,817	74,617	75,551
75,426	74,522	74,722	3,00%	-0,500	102+406,524	9.437.985,544	742.463,136	PT	74,937	74,737	74,537	-0,400	0,500	3,00%	74,752	74,552	75,486
75,291	74,387	74,587	3,00%	-0,500	102+420,000	9.437.984,425	742.476,565		74,915	74,602	74,402	-0,513	0,500	3,00%	74,617	74,417	75,351
75,091	74,187	74,387	3,00%	-0,500	102+440,000	9.437.982,765	742.496,496		74,742	74,402	74,202	-0,540	0,500	3,00%	74,417	74,217	75,151
74,891	73,987	74,187	3,00%	-0,500	102+460,000	9.437.981,105	742.516,427		74,540	74,202	74,002	-0,538	0,500	3,00%	74,217	74,017	74,951
74,691	73,787	73,987	3,00%	-0,500	102+480,000	9.437.979,445	742.536,358		74,066	74,002	73,802	-0,264	0,500	3,00%	74,017	73,817	74,751
74,491	73,587	73,787	3,00%	-0,500	102+500,000	9.437.977,785	742.556,289		73,717	73,802	73,602	-0,115	0,500	3,00%	73,817	73,617	74,551
74,291	73,387	73,587	3,00%	-0,500	102+520,000	9.437.976,125	742.576,220		73,421	73,602	73,402	-0,019	0,500	3,00%	73,617	73,417	74,351
74,091	73,187	73,387	3,00%	-0,500	102+540,000	9.437.974,465	742.596,151		73,058	73,402	73,202	0,144	0,500	3,00%	73,417	73,217	74,151
73,891	72,987	73,187	3,00%	-0,500	102+560,000	9.437.972,805	742.616,082		72,869	73,202	73,002	0,133	0,500	3,00%	73,217	73,017	73,951

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
73,829	72,925	73,125	3,00%	-0,500	102+566,231	9.437.972,288	742.622,292	PC	72,713	73,140	72,940	0,226	0,500	3,00%	73,155	72,955	73,889
73,691	72,787	72,987	3,00%	-0,500	102+580,000	9.437.971,155	742.636,014		72,587	73,002	72,802	0,215	0,500	3,00%	73,017	72,817	73,751
73,520	72,616	72,816	3,00%	-0,500	102+597,089	9.437.969,775	742.653,047		72,436	72,831	72,631	0,195	0,500	3,00%	72,846	72,646	73,580
73,491	72,587	72,787	3,00%	-0,500	102+600,000	9.437.969,542	742.655,949		72,343	72,802	72,602	0,259	0,500	3,00%	72,817	72,617	73,551
73,291	72,387	72,587	3,00%	-0,500	102+620,000	9.437.967,970	742.675,887		72,235	72,602	72,402	0,167	0,500	3,00%	72,617	72,417	73,351
73,213	72,309	72,509	3,00%	-0,500	102+627,947	9.437.967,356	742.683,810	PT	72,154	72,524	72,324	0,170	0,500	3,00%	72,539	72,339	73,273
73,101	72,197	72,397	3,00%	-0,500	102+640,000	9.437.966,430	742.695,828		72,026	72,412	72,212	0,185	0,500	3,00%	72,427	72,227	73,161
72,930	72,026	72,226	3,00%	-0,500	102+660,000	9.437.964,893	742.715,769		71,994	72,241	72,041	0,047	0,500	3,00%	72,256	72,056	72,990
72,779	71,875	72,075	3,00%	-0,500	102+680,000	9.437.963,356	742.735,709		71,721	72,090	71,890	0,168	0,500	3,00%	72,105	71,905	72,839
72,647	71,743	71,943	3,00%	-0,500	102+700,000	9.437.961,819	742.755,650		71,778	71,958	71,758	-0,020	0,500	3,00%	71,973	71,773	72,707
72,535	71,631	71,831	3,00%	-0,500	102+720,000	9.437.960,282	742.775,591		71,716	71,846	71,646	-0,071	0,500	3,00%	71,861	71,661	72,595
72,442	71,538	71,738	3,00%	-0,500	102+740,000	9.437.958,745	742.795,532		71,599	71,753	71,553	-0,046	0,500	3,00%	71,768	71,568	72,502
72,369	71,465	71,665	3,00%	-0,500	102+760,000	9.437.957,208	742.815,473		71,240	71,680	71,480	0,240	0,500	3,00%	71,695	71,495	72,429
72,315	71,411	71,611	3,00%	-0,500	102+780,000	9.437.955,671	742.835,414		71,160	71,626	71,426	0,266	0,500	3,00%	71,641	71,441	72,375
72,281	71,377	71,577	3,00%	-0,500	102+800,000	9.437.954,134	742.855,355		71,191	71,592	71,392	0,201	0,500	3,00%	71,607	71,407	72,341
72,266	71,362	71,562	3,00%	-0,500	102+820,000	9.437.952,597	742.875,295		71,228	71,577	71,377	0,149	0,500	3,00%	71,592	71,392	72,326
72,271	71,367	71,567	3,00%	-0,500	102+840,000	9.437.951,060	742.895,236		71,270	71,582	71,382	0,111	0,500	3,00%	71,597	71,397	72,331
72,295	71,391	71,591	3,00%	-0,500	102+860,000	9.437.949,523	742.915,177		71,253	71,606	71,406	0,152	0,500	3,00%	71,621	71,421	72,355
72,339	71,435	71,635	3,00%	-0,500	102+880,000	9.437.947,986	742.935,118		71,446	71,650	71,450	0,003	0,500	3,00%	71,665	71,465	72,399
72,402	71,498	71,698	3,00%	-0,500	102+900,000	9.437.946,449	742.955,059		71,634	71,713	71,513	-0,121	0,500	3,00%	71,728	71,528	72,462
72,426	71,522	71,722	3,00%	-0,500	102+906,584	9.437.945,943	742.961,624	PC	71,678	71,737	71,537	-0,141	0,500	3,00%	71,752	71,552	72,486
72,475	71,571	71,771	3,00%	-0,500	102+920,000	9.437.944,757	742.974,987		71,661	71,786	71,586	-0,075	0,500	3,00%	71,801	71,601	72,535
72,548	71,644	71,844	3,00%	-0,500	102+940,000	9.437.942,417	742.994,848		71,663	71,859	71,659	-0,005	0,500	3,00%	71,874	71,674	72,608
72,582	71,678	71,878	3,00%	-0,500	102+949,340	9.437.941,090	743.004,093		71,677	71,893	71,693	0,015	0,500	3,00%	71,908	71,708	72,642
72,621	71,717	71,917	3,00%	-0,500	102+960,000	9.437.939,393	743.014,617		71,777	71,932	71,732	-0,045	0,500	3,00%	71,947	71,747	72,681
72,694	71,790	71,990	3,00%	-0,500	102+980,000	9.437.935,690	743.034,270		71,985	72,005	71,805	-0,180	0,500	3,00%	72,020	71,820	72,754
72,738	71,834	72,034	3,00%	-0,500	102+992,096	9.437.933,122	743.046,091	PT	72,026	72,049	71,849	-0,178	0,500	3,00%	72,064	71,864	72,798
72,765	71,861	72,061	3,00%	-0,500	102+999,448	9.437.931,486	743.053,258	PC	72,020	72,076	71,876	-0,144	0,500	3,00%	72,091	71,891	72,825
72,767	71,863	72,063	3,00%	-0,500	103+000,000	9.437.931,363	743.053,796		72,016	72,078	71,878	-0,138	0,500	3,00%	72,093	71,893	72,827
72,840	71,936	72,136	3,00%	-0,500	103+020,000	9.437.926,547	743.073,207		72,090	72,151	71,951	-0,140	0,500	3,00%	72,166	71,966	72,900
72,913	72,008	72,208	3,00%	-0,500	103+040,000	9.437.921,041	743.092,433		72,287	72,223	72,023	-0,264	0,500	3,00%	72,238	72,038	72,973
72,986	72,081	72,281	3,00%	-0,500	103+060,000	9.437.914,852	743.111,450		72,287	72,296	72,096	-0,190	0,500	3,00%	72,311	72,111	73,046
73,040	72,135	72,335	3,00%	-0,500	103+074,797	9.437.909,838	743.125,371		72,353	72,350	72,150	-0,202	0,500	3,00%	72,365	72,165	73,100
73,059	72,154	72,354	3,00%	-0,500	103+080,000	9.437.907,988	743.130,234		72,442	72,369	72,169	-0,273	0,500	3,00%	72,384	72,184	73,119
73,132	72,227	72,427	3,00%	-0,500	103+100,000	9.437.900,458	743.148,761		72,603	72,442	72,242	-0,361	0,500	3,00%	72,457	72,257	73,192
73,205	72,300	72,500	3,00%	-0,500	103+120,000	9.437.892,270	743.167,007		72,751	72,515	72,315	-0,436	0,500	3,00%	72,530	72,330	73,265
73,278	72,373	72,573	3,00%	-0,500	103+140,000	9.437.883,437	743.184,950		72,811	72,588	72,388	-0,423	0,500	3,00%	72,603	72,403	73,338
73,315	72,410	72,610	3,00%	-0,500	103+150,147	9.437.878,712	743.193,929	PT	72,857	72,625	72,425	-0,431	0,500	3,00%	72,640	72,440	73,375
73,334	72,429	72,629	3,00%	-0,500	103+155,346	9.437.876,249	743.198,508	PC	72,907	72,644	72,444	-0,463	0,500	3,00%	72,659	72,459	73,394
73,350	72,446	72,646	3,00%	-0,500	103+160,000	9.437.874,029	743.202,598		72,980	72,661	72,461	-0,519	0,500	3,00%	72,676	72,476	73,410
73,423	72,519	72,719	3,00%	-0,500	103+180,000	9.437.864,142	743.219,983		73,062	72,734	72,534	-0,528	0,500	3,00%	72,749	72,549	73,483
73,496	72,592	72,792	3,00%	-0,500	103+200,000	9.437.853,700	743.237,039		73,094	72,807	72,607	-0,487	0,500	3,00%	72,822	72,622	73,556
73,569	72,665	72,865	3,00%	-0,500	103+220,000	9.437.842,713	743.253,750		73,292	72,880	72,680	-0,612	0,500	3,00%	72,895	72,695	73,629
73,642	72,738	72,938	3,00%	-0,500	103+240,000	9.437.831,193	743.270,098		73,301	72,953	72,753	-0,548	0,500	3,00%	72,968	72,768	73,702
73,704	72,800	73,000	3,00%	-0,500	103+260,000	9.437.819,151	743.286,065		73,301	73,015	72,815	-0,486	0,500	3,00%	73,030	72,830	73,764
73,715	72,811	73,011	3,00%	-0,500	103+264,368	9.437.816,453	743.289,500		73,300	73,026	72,826	-0,475	0,500	3,00%	73,041	72,841	73,775
73,744	72,840	73,040	3,00%	-0,500	103+280,000	9.437.806,601	743.301,636		73,318	73,055	72,855	-0,463	0,500	3,00%	73,070	72,870	73,804
73,761	72,857	73,057	3,00%	-0,500	103+300,000	9.437.793,555	743.316,794		73,401	73,072	72,872	-0,529	0,500	3,00%	73,087	72,887	73,821
73,757	72,853	73,053	3,00%	-0,500	103+320,000	9.437.780,027	743.331,524		73,474	73,068	72,868	-0,606	0,500	3,00%	73,083	72,883	73,817
73,730	72,826	73,026	3,00%	-0,500	103+340,000	9.437.766,031	743.345,809		73,407	73,041	72,841	-0,566	0,500	3,00%	73,056	72,856	73,790
73,681	72,777	72,977	3,00%	-0,500	103+360,000	9.437.751,581	743.359,636		73,424	72,992	72,792	-0,632	0,500	3,00%	73,007	72,807	73,741
73,641	72,737	72,937	3,00%	-0,500	103+373,389	9.437.741,662	743.368,629	PT	73,439	72,952	72,752	-0,687	0,500	3,00%	72,967	72,767	73,701
73,623	72,719	72,919	3,00%	-0,500	103+379,479	9.437.737,107	743.372,670	PC	73,433	72,934	72,734	-0,699	0,500	3,00%	72,949	72,749	73,683
73,621	72,717	72,917	3,00%	-0,500	103+380,000	9.437.736,717	743.373,016		73,445	72,932	72,732	-0,713	0,500	3,00%	72,947	72,747	73,681
73,561	72,657	72,857	3,00%	-0,500	103+400,000	9.437.721,480	743.385,970		73,566	72,872	72,672	-0,894	0,500	3,00%	72,887	72,687	73,621
73,514	72,609	72,809	3,00%	-0,500	103+415,905	9.437.709,001	743.395,830		73,478	72,824	72,624	-0,854	0,500	3,00%	72,839	72,639	73,574
73,501	72,597	72,797	3,00%	-0,500	103+420,000	9.437.705,738	743.398,304		73,471	72,812	72,612	-0,859	0,500	3,00%	72,827	72,627	73,561

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
73,441	72,537	72,737	3,00%	-0,500	103+440,000	9.437.689,515	743.409,999		73,496	72,752	72,552	-0,944	0,500	3,00%	72,767	72,567	73,501
73,404	72,500	72,700	3,00%	-0,500	103+452,331	9.437.679,285	743.416,882	PT	73,577	72,715	72,515	-1,062	0,500	3,00%	72,730	72,530	73,464
73,381	72,477	72,677	3,00%	-0,500	103+460,000	9.437.672,870	743.421,085		73,575	72,692	72,492	-1,083	0,500	3,00%	72,707	72,507	73,441
73,342	72,437	72,637	3,00%	-0,500	103+476,730	9.437.658,875	743.430,252	PC	73,564	72,652	72,452	-1,111	0,500	3,00%	72,667	72,467	73,402
73,336	72,432	72,632	3,00%	-0,500	103+480,000	9.437.656,136	743.432,039		73,575	72,647	72,447	-1,128	0,500	3,00%	72,662	72,462	73,396
73,327	72,423	72,623	3,00%	-0,500	103+487,815	9.437.649,564	743.436,266		73,595	72,638	72,438	-1,157	0,500	3,00%	72,653	72,453	73,387
73,321	72,417	72,617	3,00%	-0,500	103+498,899	9.437.640,175	743.442,157	PT	73,591	72,632	72,432	-1,159	0,500	3,00%	72,647	72,447	73,381
73,321	72,417	72,617	3,00%	-0,500	103+500,000	9.437.639,238	743.442,736		73,597	72,632	72,432	-1,165	0,500	3,00%	72,647	72,447	73,381
73,321	72,417	72,617	3,00%	-0,500	103+520,000	9.437.622,228	743.453,256		73,710	72,632	72,432	-1,278	0,500	3,00%	72,647	72,447	73,381
73,321	72,417	72,617	3,00%	-0,500	103+540,000	9.437.605,218	743.463,775		73,720	72,632	72,432	-1,288	0,500	3,00%	72,647	72,447	73,381
73,321	72,417	72,617	3,00%	-0,500	103+560,000	9.437.588,208	743.474,295		73,719	72,632	72,432	-1,287	0,500	3,00%	72,647	72,447	73,381
73,321	72,417	72,617	3,00%	-0,500	103+580,000	9.437.571,198	743.484,814		73,723	72,632	72,432	-1,291	0,500	3,00%	72,647	72,447	73,381
73,321	72,417	72,617	3,00%	-0,500	103+600,000	9.437.554,188	743.495,334		73,719	72,632	72,432	-1,287	0,500	3,00%	72,647	72,447	73,381
73,321	72,417	72,617	3,00%	-0,500	103+620,000	9.437.537,178	743.505,854		73,688	72,632	72,432	-1,256	0,500	3,00%	72,647	72,447	73,381
73,328	72,423	72,623	3,00%	-0,500	103+640,000	9.437.520,169	743.516,373		73,607	72,638	72,438	-1,169	0,500	3,00%	72,653	72,453	73,388
73,337	72,433	72,633	3,00%	-0,500	103+645,935	9.437.515,120	743.519,495	PC	73,606	72,648	72,448	-1,158	0,500	3,00%	72,663	72,463	73,397
73,378	72,474	72,674	3,00%	-0,500	103+660,000	9.437.503,122	743.526,832		73,606	72,689	72,489	-1,117	0,500	3,00%	72,704	72,504	73,438
73,473	72,569	72,769	3,00%	-0,500	103+680,000	9.437.485,933	743.537,058		73,590	72,784	72,584	-1,006	0,500	3,00%	72,799	72,599	73,533
73,494	72,590	72,790	3,00%	-0,500	103+684,221	9.437.482,288	743.539,184		73,590	72,805	72,605	-0,985	0,500	3,00%	72,820	72,620	73,554
73,574	72,670	72,870	3,00%	-0,500	103+700,000	9.437.468,601	743.547,037		73,600	72,885	72,685	-0,915	0,500	3,00%	72,900	72,700	73,634
73,675	72,771	72,971	3,00%	-0,500	103+720,000	9.437.451,128	743.556,767		73,594	72,986	72,786	-0,808	0,500	3,00%	73,001	72,801	73,735
73,688	72,784	72,984	3,00%	-0,500	103+722,506	9.437.448,929	743.557,969	PT	73,591	72,999	72,799	-0,792	0,500	3,00%	73,014	72,814	73,748
73,777	72,872	73,072	3,00%	-0,500	103+740,000	9.437.433,569	743.566,343		73,591	73,087	72,887	-0,704	0,500	3,00%	73,102	72,902	73,837
73,878	72,974	73,174	3,00%	-0,500	103+760,000	9.437.416,010	743.575,917		73,576	73,189	72,989	-0,587	0,500	3,00%	73,204	73,004	73,938
73,894	72,990	73,190	3,00%	-0,500	103+763,207	9.437.413,194	743.577,452	PC	73,576	73,205	73,005	-0,571	0,500	3,00%	73,220	73,020	73,954
73,951	73,047	73,247	3,00%	-0,500	103+774,256	9.437.403,552	743.582,847		73,574	73,262	73,062	-0,512	0,500	3,00%	73,277	73,077	74,011
73,984	73,079	73,279	3,00%	-0,500	103+780,000	9.437.398,587	743.585,735		73,577	73,294	73,094	-0,482	0,500	3,00%	73,309	73,109	74,044
74,016	73,112	73,312	3,00%	-0,500	103+785,305	9.437.394,030	743.588,453	PT	79,648	73,327	73,127	-6,521	0,500	3,00%	73,342	73,142	74,076
74,116	73,211	73,411	3,00%	-0,500	103+800,000	9.437.381,449	743.596,046		80,610	73,426	73,226	-7,384	0,500	3,00%	73,441	73,241	74,176
74,252	73,348	73,548	3,00%	-0,500	103+820,000	9.437.364,326	743.606,380		80,454	73,563	73,363	-7,091	0,500	3,00%	73,578	73,378	74,312
74,389	73,484	73,684	3,00%	-0,500	103+840,000	9.437.347,203	743.616,715		73,574	73,699	73,499	-0,074	0,500	3,00%	73,714	73,514	74,449
74,525	73,621	73,821	3,00%	-0,500	103+860,000	9.437.330,080	743.627,049		73,787	73,836	73,636	-0,151	0,500	3,00%	73,851	73,651	74,585
74,662	73,757	73,957	3,00%	-0,500	103+880,000	9.437.312,957	743.637,383		73,817	73,972	73,772	-0,045	0,500	3,00%	73,987	73,787	74,722
74,805	73,901	74,101	3,00%	-0,500	103+900,000	9.437.295,834	743.647,718		73,877	74,116	73,916	0,039	0,500	3,00%	74,131	73,931	74,865
75,001	74,096	74,296	3,00%	-0,500	103+920,000	9.437.278,711	743.658,052		74,129	74,311	74,111	-0,017	0,500	3,00%	74,326	74,126	75,061
75,188	74,283	74,483	3,00%	-0,500	103+935,302	9.437.265,610	743.665,959	PC	74,265	74,498	74,298	0,033	0,500	3,00%	74,513	74,313	75,248
75,247	74,343	74,543	3,00%	-0,500	103+940,000	9.437.261,598	743.668,403		74,299	74,558	74,358	0,059	0,500	3,00%	74,573	74,373	75,307
75,501	74,597	74,797	3,00%	-0,500	103+960,000	9.437.244,741	743.679,164		74,675	74,812	74,612	-0,063	0,500	3,00%	74,827	74,627	75,561
75,755	74,851	75,051	3,00%	-0,500	103+980,000	9.437.228,262	743.690,497		74,962	75,066	74,866	-0,096	0,500	3,00%	75,081	74,881	75,815
76,009	75,105	75,305	3,00%	-0,500	104+000,000	9.437.212,182	743.702,387		75,297	75,320	75,120	-0,177	0,500	3,00%	75,335	75,135	76,069
76,133	75,228	75,428	3,00%	-0,500	104+009,719	9.437.204,517	743.708,362		75,342	75,443	75,243	-0,098	0,500	3,00%	75,458	75,258	76,193
76,263	75,359	75,559	3,00%	-0,500	104+020,000	9.437.196,518	743.714,820		75,461	75,574	75,374	-0,087	0,500	3,00%	75,589	75,389	76,323
76,517	75,613	75,813	3,00%	-0,500	104+040,000	9.437.181,288	743.727,783		75,723	75,828	75,628	-0,095	0,500	3,00%	75,843	75,643	76,577
76,771	75,867	76,067	3,00%	-0,500	104+060,000	9.437.166,512	743.741,259		75,977	76,082	75,882	-0,095	0,500	3,00%	76,097	75,897	76,831
77,025	76,121	76,321	3,00%	-0,500	104+080,000	9.437.152,205	743.755,234		76,189	76,336	76,136	-0,053	0,500	3,00%	76,351	76,151	77,085
77,078	76,174	76,374	3,00%	-0,500	104+084,135	9.437.149,308	743.758,184	PT	76,241	76,389	76,189	-0,052	0,500	3,00%	76,404	76,204	77,138
77,279	76,375	76,575	3,00%	-0,500	104+100,000	9.437.138,230	743.769,541		76,533	76,590	76,390	-0,143	0,500	3,00%	76,605	76,405	77,339
77,533	76,629	76,829	3,00%	-0,500	104+120,000	9.437.124,266	743.783,858		76,872	76,844	76,644	-0,228	0,500	3,00%	76,859	76,659	77,593
77,787	76,883	77,083	3,00%	-0,500	104+140,000	9.437.110,301	743.798,176		77,086	77,098	76,898	-0,188	0,500	3,00%	77,113	76,913	77,847
77,885	76,981	77,181	3,00%	-0,500	104+147,694	9.437.104,929	743.803,684	PC	77,109	77,196	76,996	-0,114	0,500	3,00%	77,211	77,011	77,945
78,041	77,137	77,337	3,00%	-0,500	104+160,000	9.437.096,454	743.812,606		77,250	77,352	77,152	-0,098	0,500	3,00%	77,367	77,167	78,101
78,295	77,391	77,591	3,00%	-0,500	104+180,000	9.437.083,194	743.827,577		77,510	77,606	77,406	-0,104	0,500	3,00%	77,621	77,421	78,355
78,549	77,645	77,845	3,00%	-0,500	104+200,000	9.437.070,592	743.843,105		78,381	77,860	77,660	-0,721	0,500	3,00%	77,875	77,675	78,609
78,675	77,771	77,971	3,00%	-0,500	104+209,930	9.437.064,587	743.851,013		78,592	77,986	77,786	-0,806	0,500	3,00%	78,001	77,801	78,735
78,803	77,899	78,099	3,00%	-0,500	104+220,000	9.437.058,671	743.859,162		79,282	78,114	77,914	-1,368	0,500	3,00%	78,129	77,929	78,863
79,054	78,150	78,350	3,00%	-0,500	104+240,000	9.437.047,453	743.875,718		79,728	78,365	78,165	-1,563	0,500	3,00%	78,380	78,180	79,114
79,232	78,328	78,528	3,00%	-0,500	104+260,000	9.437.036,958	743.892,741		80,058	78,543	78,343	-1,715	0,500	3,00%	78,558	78,358	79,292

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
79,290	78,386	78,586	3,00%	-0,500	104+272,167	9.437.030,936	743.903,313	PT	79,703	78,601	78,401	-1,302	0,500	3,00%	78,616	78,416	79,350
79,308	78,404	78,604	3,00%	-0,500	104+280,000	9.437.027,149	743.910,169		79,468	78,619	78,419	-1,049	0,500	3,00%	78,634	78,434	79,368
79,311	78,407	78,607	3,00%	-0,500	104+300,000	9.437.017,479	743.927,676		79,682	78,622	78,422	-1,260	0,500	3,00%	78,637	78,437	79,371
79,311	78,407	78,607	3,00%	-0,500	104+320,000	9.437.007,808	743.945,183		79,942	78,622	78,422	-1,520	0,500	3,00%	78,637	78,437	79,371
79,311	78,407	78,607	3,00%	-0,500	104+340,000	9.436.998,138	743.962,690		80,330	78,622	78,422	-1,908	0,500	3,00%	78,637	78,437	79,371
79,322	78,418	78,618	3,00%	-0,500	104+360,000	9.436.988,468	743.980,196		80,817	78,633	78,433	-2,384	0,500	3,00%	78,648	78,448	79,382
79,352	78,448	78,648	3,00%	-0,500	104+369,656	9.436.983,799	743.988,648	PC	81,464	78,663	78,463	-3,002	0,500	3,00%	78,678	78,478	79,412
79,406	78,502	78,702	3,00%	-0,500	104+380,000	9.436.979,012	743.997,817		81,427	78,717	78,517	-2,910	0,500	3,00%	78,732	78,532	79,466
79,576	78,672	78,872	3,00%	-0,500	104+400,000	9.436.971,002	744.016,136		80,871	78,887	78,687	-2,184	0,500	3,00%	78,902	78,702	79,636
79,660	78,755	78,955	3,00%	-0,500	104+407,377	9.436.968,473	744.023,065		80,712	78,970	78,770	-1,941	0,500	3,00%	78,985	78,785	79,720
79,819	78,915	79,115	3,00%	-0,500	104+420,000	9.436.964,689	744.035,106		80,596	79,130	78,930	-1,666	0,500	3,00%	79,145	78,945	79,879
80,081	79,177	79,377	3,00%	-0,500	104+440,000	9.436.960,124	744.054,571		80,349	79,392	79,192	-1,157	0,500	3,00%	79,407	79,207	80,141
80,150	79,246	79,446	3,00%	-0,500	104+445,098	9.436.959,244	744.059,592	PT	80,322	79,461	79,261	-1,062	0,500	3,00%	79,476	79,276	80,210
80,358	79,454	79,654	3,00%	-0,500	104+460,000	9.436.956,844	744.074,300		80,437	79,669	79,469	-0,968	0,500	3,00%	79,684	79,484	80,418
80,650	79,746	79,946	3,00%	-0,500	104+480,000	9.436.953,624	744.094,039		80,775	79,961	79,761	-1,014	0,500	3,00%	79,976	79,776	80,710
80,916	80,012	80,212	3,00%	-0,500	104+500,000	9.436.950,403	744.113,778		80,923	80,227	80,027	-0,896	0,500	3,00%	80,242	80,042	80,976
81,066	80,162	80,362	3,00%	-0,500	104+520,000	9.436.947,182	744.133,517		77,565	80,377	80,177	2,613	0,500	3,00%	80,392	80,192	81,126
81,100	80,196	80,396	3,00%	-0,500	104+536,197	9.436.944,573	744.149,502	PC	76,857	80,411	80,211	3,354	0,500	3,00%	80,426	80,226	81,160
81,100	80,196	80,396	3,00%	-0,500	104+540,000	9.436.943,974	744.153,258		78,072	80,411	80,211	2,139	0,500	3,00%	80,426	80,226	81,160
81,055	80,151	80,351	3,00%	-0,500	104+560,000	9.436.941,259	744.173,071		80,840	80,366	80,166	-0,674	0,500	3,00%	80,381	80,181	81,115
80,920	80,016	80,216	3,00%	-0,500	104+580,000	9.436.939,279	744.192,972		80,621	80,231	80,031	-0,590	0,500	3,00%	80,246	80,046	80,980
80,771	79,867	80,067	3,00%	-0,500	104+596,553	9.436.938,199	744.209,489		80,519	80,082	79,882	-0,637	0,500	3,00%	80,097	79,897	80,831
80,740	79,836	80,036	3,00%	-0,500	104+600,000	9.436.938,038	744.212,932		80,437	80,051	79,851	-0,586	0,500	3,00%	80,066	79,866	80,800
80,560	79,656	79,856	3,00%	-0,500	104+620,000	9.436.937,536	744.232,925		80,383	79,871	79,671	-0,712	0,500	3,00%	79,886	79,686	80,620
80,380	79,476	79,676	3,00%	-0,500	104+640,000	9.436.937,776	744.252,922		80,222	79,691	79,491	-0,731	0,500	3,00%	79,706	79,506	80,440
80,224	79,320	79,520	3,00%	-0,500	104+656,909	9.436.938,556	744.269,813	PT	80,060	79,535	79,335	-0,725	0,500	3,00%	79,550	79,350	80,284
80,193	79,289	79,489	3,00%	-0,500	104+660,000	9.436.938,746	744.272,898		80,030	79,504	79,304	-0,726	0,500	3,00%	79,519	79,319	80,253
79,953	79,049	79,249	3,00%	-0,500	104+680,000	9.436.939,981	744.292,860		79,709	79,264	79,064	-0,645	0,500	3,00%	79,279	79,079	80,013
79,660	78,756	78,956	3,00%	-0,500	104+700,000	9.436.941,217	744.312,821		79,350	78,971	78,771	-0,579	0,500	3,00%	78,986	78,786	79,720
79,360	78,456	78,656	3,00%	-0,500	104+720,000	9.436.942,452	744.332,783		78,983	78,671	78,471	-0,512	0,500	3,00%	78,686	78,486	79,420
79,060	78,156	78,356	3,00%	-0,500	104+740,000	9.436.943,687	744.352,745		74,238	78,371	78,171	3,933	0,500	3,00%	78,386	78,186	79,120
78,760	77,856	78,056	3,00%	-0,500	104+760,000	9.436.944,922	744.372,707		77,815	78,071	77,871	0,056	0,500	3,00%	78,086	77,886	78,820
78,460	77,556	77,756	3,00%	-0,500	104+780,000	9.436.946,157	744.392,669		78,051	77,771	77,571	-0,480	0,500	3,00%	77,786	77,586	78,520
78,160	77,256	77,456	3,00%	-0,500	104+800,000	9.436.947,392	744.412,631		77,890	77,471	77,271	-0,619	0,500	3,00%	77,486	77,286	78,220
77,880	76,976	77,176	3,00%	-0,500	104+820,000	9.436.948,627	744.432,592		77,671	77,191	76,991	-0,680	0,500	3,00%	77,206	77,006	77,940
77,640	76,736	76,936	3,00%	-0,500	104+840,000	9.436.949,862	744.452,554		77,245	76,951	76,751	-0,494	0,500	3,00%	76,966	76,766	77,700
77,440	76,536	76,736	3,00%	-0,500	104+860,000	9.436.951,097	744.472,516		77,014	76,751	76,551	-0,463	0,500	3,00%	76,766	76,566	77,500
77,358	76,453	76,653	3,00%	-0,500	104+869,174	9.436.951,664	744.481,673	PC	76,922	76,668	76,468	-0,454	0,500	3,00%	76,683	76,483	77,418
77,260	76,356	76,556	3,00%	-0,500	104+880,000	9.436.952,226	744.492,484		76,726	76,571	76,371	-0,355	0,500	3,00%	76,586	76,386	77,320
77,080	76,176	76,376	3,00%	-0,500	104+900,000	9.436.952,704	744.512,477		76,498	76,391	76,191	-0,307	0,500	3,00%	76,406	76,206	77,140
76,900	75,996	76,196	3,00%	-0,500	104+920,000	9.436.952,456	744.532,474		76,196	76,211	76,011	-0,185	0,500	3,00%	76,226	76,026	76,960
76,720	75,816	76,016	3,00%	-0,500	104+940,000	9.436.951,480	744.552,449		76,130	76,031	75,831	-0,299	0,500	3,00%	76,046	75,846	76,780
76,540	75,636	75,836	3,00%	-0,500	104+960,000	9.436.949,779	744.572,376		76,018	75,851	75,651	-0,367	0,500	3,00%	75,866	75,666	76,600
76,360	75,456	75,656	3,00%	-0,500	104+980,000	9.436.947,355	744.592,227		75,201	75,671	75,471	0,270	0,500	3,00%	75,686	75,486	76,420
76,180	75,276	75,476	3,00%	-0,500	105+000,000	9.436.944,210	744.611,977		75,194	75,491	75,291	0,097	0,500	3,00%	75,506	75,306	76,240
76,000	75,096	75,296	3,00%	-0,500	105+020,000	9.436.940,350	744.631,600		75,175	75,311	75,111	-0,064	0,500	3,00%	75,326	75,126	76,060
75,820	74,916	75,116	3,00%	-0,500	105+040,000	9.436.935,778	744.651,069		74,756	75,131	74,931	0,175	0,500	3,00%	75,146	74,946	75,880
75,662	74,757	74,957	3,00%	-0,500	105+057,612	9.436.931,169	744.668,067		74,597	74,972	74,772	0,175	0,500	3,00%	74,987	74,787	75,722
75,640	74,736	74,936	3,00%	-0,500	105+060,000	9.436.930,502	744.670,360		74,586	74,951	74,751	0,165	0,500	3,00%	74,966	74,766	75,700
75,460	74,556	74,756	3,00%	-0,500	105+080,000	9.436.924,528	744.689,446		74,899	74,771	74,571	-0,328	0,500	3,00%	74,786	74,586	75,520
75,280	74,376	74,576	3,00%	-0,500	105+100,000	9.436.917,864	744.708,302		74,842	74,591	74,391	-0,451	0,500	3,00%	74,606	74,406	75,340
75,100	74,196	74,396	3,00%	-0,500	105+120,000	9.436.910,519	744.726,903		74,432	74,411	74,211	-0,221	0,500	3,00%	74,426	74,226	75,160
74,920	74,016	74,216	3,00%	-0,500	105+140,000	9.436.902,503	744.745,225		74,186	74,231	74,031	-0,155	0,500	3,00%	74,246	74,046	74,980
74,740	73,836	74,036	3,00%	-0,500	105+160,000	9.436.893,826	744.763,243		73,845	74,051	73,851	0,006	0,500	3,00%	74,066	73,866	74,800
74,560	73,656	73,856	3,00%	-0,500	105+180,000	9.436.884,499	744.780,934		73,513	73,871	73,671	0,158	0,500	3,00%	73,886	73,686	74,620
74,380	73,476	73,676	3,00%	-0,500	105+200,000	9.436.874,536	744.798,275		73,409	73,691	73,491	0,082	0,500	3,00%	73,706	73,506	74,440
74,200	73,296	73,496	3,00%	-0,500	105+220,000	9.436.863,948	744.815,241		73,231	73,511	73,311	0,080	0,500	3,00%	73,526	73,326	74,260

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
74,020	73,116	73,316	3,00%	-0,500	105+240,000	9.436.852,751	744.831,811		72,996	73,331	73,131	0,135	0,500	3,00%	73,346	73,146	74,080
73,966	73,062	73,262	3,00%	-0,500	105+246,050	9.436.849,246	744.836,742	PT	72,975	73,277	73,077	0,102	0,500	3,00%	73,292	73,092	74,026
73,840	72,936	73,136	3,00%	-0,500	105+260,000	9.436.841,102	744.848,068		72,934	73,151	72,951	0,017	0,500	3,00%	73,166	72,966	73,900
73,667	72,763	72,963	3,00%	-0,500	105+280,000	9.436.829,425	744.864,306		72,930	72,978	72,778	-0,152	0,500	3,00%	72,993	72,793	73,727
73,508	72,604	72,804	3,00%	-0,500	105+300,000	9.436.817,749	744.880,543		72,847	72,819	72,619	-0,228	0,500	3,00%	72,834	72,634	73,568
73,363	72,459	72,659	3,00%	-0,500	105+320,000	9.436.806,072	744.896,781		72,713	72,674	72,474	-0,239	0,500	3,00%	72,689	72,489	73,423
73,232	72,328	72,528	3,00%	-0,500	105+340,000	9.436.794,395	744.913,019		72,522	72,543	72,343	-0,179	0,500	3,00%	72,558	72,358	73,292
73,108	72,204	72,404	3,00%	-0,500	105+360,000	9.436.782,719	744.929,256		72,498	72,419	72,219	-0,279	0,500	3,00%	72,434	72,234	73,168
72,984	72,080	72,280	3,00%	-0,500	105+380,000	9.436.771,042	744.945,494		72,466	72,295	72,095	-0,371	0,500	3,00%	72,310	72,110	73,044
72,860	71,956	72,156	3,00%	-0,500	105+400,000	9.436.759,366	744.961,731		72,642	72,171	71,971	-0,671	0,500	3,00%	72,186	71,986	72,920
72,737	71,832	72,032	3,00%	-0,500	105+420,000	9.436.747,689	744.977,969		72,393	72,047	71,847	-0,546	0,500	3,00%	72,062	71,862	72,797
72,613	71,708	71,908	3,00%	-0,500	105+440,000	9.436.736,013	744.994,206		72,339	71,923	71,723	-0,616	0,500	3,00%	71,938	71,738	72,673
72,489	71,584	71,784	3,00%	-0,500	105+460,000	9.436.724,336	745.010,444		72,274	71,799	71,599	-0,674	0,500	3,00%	71,814	71,614	72,549
72,480	71,576	71,776	3,00%	-0,500	105+461,403	9.436.723,517	745.011,583	PC	72,273	71,791	71,591	-0,682	0,500	3,00%	71,806	71,606	72,540
72,365	71,460	71,660	3,00%	-0,500	105+480,000	9.436.712,941	745.026,878		72,092	71,675	71,475	-0,617	0,500	3,00%	71,690	71,490	72,425
72,241	71,337	71,537	3,00%	-0,500	105+500,000	9.436.702,204	745.043,751		71,799	71,552	71,352	-0,447	0,500	3,00%	71,567	71,367	72,301
72,221	71,317	71,517	3,00%	-0,500	105+503,160	9.436.700,570	745.046,455		71,752	71,532	71,332	-0,420	0,500	3,00%	71,547	71,347	72,281
72,117	71,213	71,413	3,00%	-0,500	105+520,000	9.436.692,146	745.061,036		71,689	71,428	71,228	-0,462	0,500	3,00%	71,443	71,243	72,177
71,993	71,089	71,289	3,00%	-0,500	105+540,000	9.436.682,781	745.078,707		71,626	71,304	71,104	-0,523	0,500	3,00%	71,319	71,119	72,053
71,962	71,058	71,258	3,00%	-0,500	105+544,918	9.436.680,587	745.083,107	PT	71,060	71,273	71,073	0,013	0,500	3,00%	71,288	71,088	72,022
71,869	70,965	71,165	3,00%	-0,500	105+560,000	9.436.673,922	745.096,637		65,718	71,180	70,980	5,262	0,500	3,00%	71,195	70,995	71,929
71,785	70,880	71,080	3,00%	-0,500	105+573,599	9.436.667,912	745.108,836	PC	65,726	71,095	70,895	5,169	0,500	3,00%	71,110	70,910	71,845
71,745	70,841	71,041	3,00%	-0,500	105+580,000	9.436.665,144	745.114,608		69,184	71,056	70,856	1,671	0,500	3,00%	71,071	70,871	71,805
71,715	70,811	71,011	3,00%	-0,500	105+584,766	9.436.663,162	745.118,942		71,347	71,026	70,826	-0,521	0,500	3,00%	71,041	70,841	71,775
71,650	70,745	70,945	3,00%	-0,500	105+595,934	9.436.658,786	745.129,216	PT	71,548	70,960	70,760	-0,787	0,500	3,00%	70,975	70,775	71,710
71,628	70,723	70,923	3,00%	-0,500	105+600,000	9.436.657,262	745.132,986		71,553	70,938	70,738	-0,815	0,500	3,00%	70,953	70,753	71,688
71,532	70,628	70,828	3,00%	-0,500	105+620,000	9.436.649,765	745.151,527		71,393	70,843	70,643	-0,750	0,500	3,00%	70,858	70,658	71,592
71,471	70,566	70,766	3,00%	-0,500	105+633,983	9.436.644,523	745.164,490	PC	69,305	70,781	70,581	1,276	0,500	3,00%	70,796	70,596	71,531
71,444	70,540	70,740	3,00%	-0,500	105+640,000	9.436.642,250	745.170,062		70,892	70,755	70,555	-0,337	0,500	3,00%	70,770	70,570	71,504
71,412	70,508	70,708	3,00%	-0,500	105+647,150	9.436.639,506	745.176,665		71,304	70,723	70,523	-0,781	0,500	3,00%	70,738	70,538	71,472
71,355	70,451	70,651	3,00%	-0,500	105+660,000	9.436.634,457	745.188,481		71,272	70,666	70,466	-0,806	0,500	3,00%	70,681	70,481	71,415
71,354	70,450	70,650	3,00%	-0,500	105+660,318	9.436.634,330	745.188,773	PT	71,271	70,665	70,465	-0,806	0,500	3,00%	70,680	70,480	71,414
71,267	70,363	70,563	3,00%	-0,500	105+680,000	9.436.626,474	745.206,818		71,177	70,578	70,378	-0,800	0,500	3,00%	70,593	70,393	71,327
71,178	70,274	70,474	3,00%	-0,500	105+700,000	9.436.618,491	745.225,156		71,079	70,489	70,289	-0,790	0,500	3,00%	70,504	70,304	71,238
71,090	70,186	70,386	3,00%	-0,500	105+720,000	9.436.610,508	745.243,494		71,143	70,401	70,201	-0,943	0,500	3,00%	70,416	70,216	71,150
71,018	70,114	70,314	3,00%	-0,500	105+740,000	9.436.602,525	745.261,831		71,176	70,329	70,129	-1,048	0,500	3,00%	70,344	70,144	71,078
71,001	70,097	70,297	3,00%	-0,500	105+760,000	9.436.594,541	745.280,169		71,200	70,312	70,112	-1,088	0,500	3,00%	70,327	70,127	71,061
71,001	70,097	70,297	3,00%	-0,500	105+780,000	9.436.586,558	745.298,507		71,209	70,312	70,112	-1,097	0,500	3,00%	70,327	70,127	71,061
71,001	70,097	70,297	3,00%	-0,500	105+800,000	9.436.578,575	745.316,844		71,254	70,312	70,112	-1,142	0,500	3,00%	70,327	70,127	71,061
71,001	70,097	70,297	3,00%	-0,500	105+820,000	9.436.570,592	745.335,182		71,197	70,312	70,112	-1,085	0,500	3,00%	70,327	70,127	71,061
71,001	70,097	70,297	3,00%	-0,500	105+840,000	9.436.562,609	745.353,520		71,317	70,312	70,112	-1,205	0,500	3,00%	70,327	70,127	71,061
71,001	70,097	70,297	3,00%	-0,500	105+860,000	9.436.554,626	745.371,857		70,995	70,312	70,112	-0,883	0,500	3,00%	70,327	70,127	71,061
71,001	70,097	70,297	3,00%	-0,500	105+880,000	9.436.546,643	745.390,195		70,951	70,312	70,112	-0,839	0,500	3,00%	70,327	70,127	71,061
70,999	70,094	70,294	3,00%	-0,500	105+891,928	9.436.541,882	745.401,131	PC	70,966	70,309	70,109	-0,857	0,500	3,00%	70,324	70,124	71,059
70,995	70,090	70,290	3,00%	-0,500	105+898,895	9.436.539,129	745.407,531		70,800	70,305	70,105	-0,695	0,500	3,00%	70,320	70,120	71,055
70,994	70,090	70,290	3,00%	-0,500	105+900,000	9.436.538,697	745.408,549		70,724	70,305	70,105	-0,620	0,500	3,00%	70,320	70,120	71,054
70,989	70,084	70,284	3,00%	-0,500	105+905,862	9.436.536,431	745.413,955	PT	70,489	70,299	70,099	-0,390	0,500	3,00%	70,314	70,114	71,049
70,971	70,067	70,267	3,00%	-0,500	105+920,000	9.436.531,015	745.427,014		70,361	70,282	70,082	-0,279	0,500	3,00%	70,297	70,097	71,031
70,934	70,030	70,230	3,00%	-0,500	105+940,000	9.436.523,352	745.445,488		69,951	70,245	70,045	0,094	0,500	3,00%	70,260	70,060	70,994
70,904	70,000	70,200	3,00%	-0,500	105+952,072	9.436.518,727	745.456,640	PC	69,781	70,215	70,015	0,234	0,500	3,00%	70,230	70,030	70,964
70,881	69,977	70,177	3,00%	-0,500	105+960,000	9.436.515,660	745.463,950		69,083	70,192	69,992	0,909	0,500	3,00%	70,207	70,007	70,941
70,881	69,977	70,177	3,00%	-0,500	105+960,158	9.436.515,599	745.464,096		69,065	70,192	69,992	0,927	0,500	3,00%	70,207	70,007	70,941
70,856	69,952	70,152	3,00%	-0,500	105+968,244	9.436.512,411	745.471,526	PT	67,579	70,167	69,967	2,388	0,500	3,00%	70,182	69,982	70,916
70,821	69,917	70,117	3,00%	-0,500	105+980,000	9.436.507,731	745.482,311		67,907	70,132	69,932	2,025	0,500	3,00%	70,147	69,947	70,881
70,761	69,857	70,057	3,00%	-0,500	106+000,000	9.436.499,771	745.500,659		69,978	70,072	69,872	-0,106	0,500	3,00%	70,087	69,887	70,821
70,701	69,797	69,997	3,00%	-0,500	106+020,000	9.436.491,811	745.519,006		70,073	70,012	69,812	-0,261	0,500	3,00%	70,027	69,827	70,761
70,641	69,737	69,937	3,00%	-0,500	106+040,000	9.436.483,851	745.537,354		69,701	69,952	69,752	0,051	0,500	3,00%	69,967	69,767	70,701

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
70,581	69,677	69,877	3,00%	-0,500	106+060,000	9.436.475,890	745.555,702		69,921	69,892	69,692	-0,229	0,500	3,00%	69,907	69,707	70,641
70,521	69,617	69,817	3,00%	-0,500	106+080,000	9.436.467,930	745.574,049		69,974	69,832	69,632	-0,342	0,500	3,00%	69,847	69,647	70,581
70,461	69,557	69,757	3,00%	-0,500	106+100,000	9.436.459,970	745.592,397		70,002	69,772	69,572	-0,430	0,500	3,00%	69,787	69,587	70,521
70,416	69,512	69,712	3,00%	-0,500	106+120,000	9.436.452,010	745.610,744		69,805	69,727	69,527	-0,278	0,500	3,00%	69,742	69,542	70,476
70,401	69,497	69,697	3,00%	-0,500	106+138,968	9.436.444,460	745.628,145	PC	69,859	69,712	69,512	-0,347	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+140,000	9.436.444,049	745.629,092		69,848	69,712	69,512	-0,336	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+147,688	9.436.440,946	745.636,126		69,864	69,712	69,512	-0,352	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+156,408	9.436.437,345	745.644,067	PT	69,867	69,712	69,512	-0,355	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+160,000	9.436.435,844	745.647,331		69,870	69,712	69,512	-0,358	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+180,000	9.436.427,485	745.665,500		69,585	69,712	69,512	-0,073	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+189,268	9.436.423,612	745.673,920	PC	69,510	69,712	69,512	0,002	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+200,000	9.436.419,214	745.683,709		69,559	69,712	69,512	-0,047	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+220,000	9.436.411,484	745.702,154		70,056	69,712	69,512	-0,544	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+240,000	9.436.404,370	745.720,845		69,965	69,712	69,512	-0,453	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+260,000	9.436.397,878	745.739,761		69,871	69,712	69,512	-0,359	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+276,008	9.436.393,135	745.755,051		69,880	69,712	69,512	-0,368	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+280,000	9.436.392,016	745.758,882		69,847	69,712	69,512	-0,335	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+300,000	9.436.386,790	745.778,186		69,756	69,712	69,512	-0,244	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+320,000	9.436.382,206	745.797,653		69,737	69,712	69,512	-0,225	0,500	3,00%	69,727	69,527	70,461
70,401	69,497	69,697	3,00%	-0,500	106+340,000	9.436.378,269	745.817,261		69,742	69,712	69,512	-0,230	0,500	3,00%	69,727	69,527	70,461
70,412	69,507	69,707	3,00%	-0,500	106+360,000	9.436.374,984	745.836,988		69,706	69,722	69,522	-0,184	0,500	3,00%	69,737	69,537	70,472
70,418	69,514	69,714	3,00%	-0,500	106+362,749	9.436.374,583	745.839,708	PT	69,668	69,729	69,529	-0,139	0,500	3,00%	69,744	69,544	70,478
70,494	69,590	69,790	3,00%	-0,500	106+380,000	9.436.372,109	745.856,780		69,653	69,805	69,605	-0,048	0,500	3,00%	69,820	69,620	70,554
70,659	69,755	69,955	3,00%	-0,500	106+400,000	9.436.369,240	745.876,573		69,628	69,970	69,770	0,142	0,500	3,00%	69,985	69,785	70,719
70,896	69,992	70,192	3,00%	-0,500	106+420,000	9.436.366,371	745.896,367		69,245	70,207	70,007	0,762	0,500	3,00%	70,222	70,022	70,956
71,144	70,240	70,440	3,00%	-0,500	106+440,000	9.436.363,503	745.916,160		68,190	70,455	70,255	2,064	0,500	3,00%	70,470	70,270	71,204
71,263	70,359	70,559	3,00%	-0,500	106+449,628	9.436.362,122	745.925,688	PC	66,441	70,574	70,374	3,932	0,500	3,00%	70,589	70,389	71,323
71,391	70,487	70,687	3,00%	-0,500	106+460,000	9.436.360,767	745.935,971		67,517	70,702	70,502	2,985	0,500	3,00%	70,717	70,517	71,451
71,639	70,735	70,935	3,00%	-0,500	106+480,000	9.436.358,910	745.955,883		63,932	70,950	70,750	6,817	0,500	3,00%	70,965	70,765	71,699
71,823	70,919	71,119	3,00%	-0,500	106+494,894	9.436.358,175	745.970,758		67,733	71,134	70,934	3,201	0,500	3,00%	71,149	70,949	71,883
71,886	70,982	71,182	3,00%	-0,500	106+500,000	9.436.358,051	745.975,862		69,263	71,197	70,997	1,734	0,500	3,00%	71,212	71,012	71,946
72,103	71,199	71,399	3,00%	-0,500	106+520,000	9.436.358,191	745.995,860		68,378	71,414	71,214	2,835	0,500	3,00%	71,429	71,229	72,163
72,257	71,353	71,553	3,00%	-0,500	106+540,000	9.436.359,330	746.015,825		66,213	71,568	71,368	5,156	0,500	3,00%	71,583	71,383	72,317
72,258	71,354	71,554	3,00%	-0,500	106+540,160	9.436.359,343	746.015,984	PT	66,151	71,569	71,369	5,219	0,500	3,00%	71,584	71,384	72,318
72,350	71,446	71,646	3,00%	-0,500	106+560,000	9.436.360,976	746.035,757		59,659	71,661	71,461	11,802	0,500	3,00%	71,676	71,476	72,410
72,381	71,477	71,677	3,00%	-0,500	106+580,000	9.436.362,622	746.055,689		56,019	71,692	71,492	15,473	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+600,000	9.436.364,269	746.075,621		54,000	71,692	71,492	17,492	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+620,000	9.436.365,915	746.095,554		54,000	71,692	71,492	17,492	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+640,000	9.436.367,561	746.115,486		54,000	71,692	71,492	17,492	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+660,000	9.436.369,207	746.135,418		54,000	71,692	71,492	17,492	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+680,000	9.436.370,853	746.155,350		54,000	71,692	71,492	17,492	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+700,000	9.436.372,499	746.175,282		54,000	71,692	71,492	17,492	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+720,000	9.436.374,146	746.195,214		54,000	71,692	71,492	17,492	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+740,000	9.436.375,792	746.215,146		62,893	71,692	71,492	8,599	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+760,000	9.436.377,438	746.235,079		63,342	71,692	71,492	8,150	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+780,000	9.436.379,084	746.255,011		63,142	71,692	71,492	8,350	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+800,000	9.436.380,730	746.274,943		62,950	71,692	71,492	8,542	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+820,000	9.436.382,376	746.294,875		62,756	71,692	71,492	8,736	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+840,000	9.436.384,023	746.314,807		62,818	71,692	71,492	8,674	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+860,000	9.436.385,669	746.334,739		62,482	71,692	71,492	9,010	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+880,000	9.436.387,315	746.354,671		62,780	71,692	71,492	8,712	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+900,000	9.436.388,961	746.374,604		62,462	71,692	71,492	9,030	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+920,000	9.436.390,607	746.394,536		62,945	71,692	71,492	8,547	0,500	3,00%	71,707	71,507	72,441
72,381	71,477	71,677	3,00%	-0,500	106+940,000	9.436.392,253	746.414,468		62,595	71,692	71,492	8,897	0,500	3,00%	71,707	71,507	72,441
72,370	71,465	71,665	3,00%	-0,500	106+960,000	9.436.393,900	746.434,400		62,183	71,680	71,480	9,298	0,500	3,00%	71,695	71,495	72,430
72,326	71,422	71,622	3,00%	-0,500	106+971,681	9.436.394,861	746.446,042	PC	62,331	71,637	71,437	9,106	0,500	3,00%	71,652	71,452	72,386
72,276	71,372	71,572	3,00%	-0,500	106+980,000	9.436.395,589	746.454,328		62,332	71,587	71,387	9,055	0,500	3,00%	71,602	71,402	72,336

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
72,118	71,214	71,414	3,00%	-0,500	106+997,478	9.436.397,398	746.471,712		60,719	71,429	71,229	10,510	0,500	3,00%	71,444	71,244	72,178
72,090	71,185	71,385	3,00%	-0,500	107+000,000	9.436.397,691	746.474,217		60,766	71,400	71,200	10,435	0,500	3,00%	71,415	71,215	72,150
71,821	70,917	71,117	3,00%	-0,500	107+020,000	9.436.400,289	746.494,047		61,501	71,132	70,932	9,431	0,500	3,00%	71,147	70,947	71,881
71,775	70,871	71,071	3,00%	-0,500	107+023,275	9.436.400,762	746.497,288	PT	61,641	71,086	70,886	9,245	0,500	3,00%	71,101	70,901	71,835
71,541	70,637	70,837	3,00%	-0,500	107+040,000	9.436.403,210	746.513,833		62,125	70,852	70,652	8,527	0,500	3,00%	70,867	70,667	71,601
71,261	70,357	70,557	3,00%	-0,500	107+060,000	9.436.406,137	746.533,617		62,295	70,572	70,372	8,077	0,500	3,00%	70,587	70,387	71,321
70,981	70,077	70,277	3,00%	-0,500	107+080,000	9.436.409,065	746.553,402		63,412	70,292	70,092	6,680	0,500	3,00%	70,307	70,107	71,041
70,701	69,797	69,997	3,00%	-0,500	107+100,000	9.436.411,992	746.573,186		64,647	70,012	69,812	5,165	0,500	3,00%	70,027	69,827	70,761
70,421	69,517	69,717	3,00%	-0,500	107+120,000	9.436.414,919	746.592,971		65,471	69,732	69,532	4,061	0,500	3,00%	69,747	69,547	70,481
70,141	69,237	69,437	3,00%	-0,500	107+140,000	9.436.417,847	746.612,756		66,530	69,452	69,252	2,722	0,500	3,00%	69,467	69,267	70,201
70,108	69,204	69,404	3,00%	-0,500	107+142,345	9.436.418,190	746.615,075	PC	66,647	69,419	69,219	2,572	0,500	3,00%	69,434	69,234	70,168
69,861	68,957	69,157	3,00%	-0,500	107+160,000	9.436.420,581	746.632,567		66,926	69,172	68,972	2,046	0,500	3,00%	69,187	68,987	69,921
69,747	68,843	69,043	3,00%	-0,500	107+168,142	9.436.421,554	746.640,651		67,189	69,058	68,858	1,669	0,500	3,00%	69,073	68,873	69,807
69,581	68,677	68,877	3,00%	-0,500	107+180,000	9.436.422,823	746.652,441		67,492	68,892	68,692	1,200	0,500	3,00%	68,907	68,707	69,641
69,386	68,482	68,682	3,00%	-0,500	107+193,938	9.436.424,091	746.666,321	PT	67,541	68,697	68,497	0,955	0,500	3,00%	68,712	68,512	69,446
69,301	68,397	68,597	3,00%	-0,500	107+200,000	9.436.424,590	746.672,362		67,549	68,612	68,412	0,863	0,500	3,00%	68,627	68,427	69,361
69,021	68,117	68,317	3,00%	-0,500	107+220,000	9.436.426,236	746.692,294		67,860	68,332	68,132	0,272	0,500	3,00%	68,347	68,147	69,081
68,750	67,846	68,046	3,00%	-0,500	107+240,000	9.436.427,882	746.712,227		67,925	68,061	67,861	-0,064	0,500	3,00%	68,076	67,876	68,810
68,542	67,637	67,837	3,00%	-0,500	107+260,000	9.436.429,528	746.732,159		67,805	67,852	67,652	-0,153	0,500	3,00%	67,867	67,667	68,602
68,405	67,500	67,700	3,00%	-0,500	107+280,000	9.436.431,175	746.752,091		67,702	67,715	67,515	-0,187	0,500	3,00%	67,730	67,530	68,465
68,330	67,426	67,626	3,00%	-0,500	107+300,000	9.436.432,821	746.772,023		67,866	67,641	67,441	-0,425	0,500	3,00%	67,656	67,456	68,390
68,264	67,360	67,560	3,00%	-0,500	107+320,000	9.436.434,467	746.791,955		67,793	67,575	67,375	-0,417	0,500	3,00%	67,590	67,390	68,324
68,209	67,305	67,505	3,00%	-0,500	107+340,000	9.436.436,113	746.811,887		67,910	67,520	67,320	-0,590	0,500	3,00%	67,535	67,335	68,269
68,210	67,305	67,505	3,00%	-0,500	107+351,326	9.436.437,045	746.823,175	PC	67,962	67,520	67,320	-0,641	0,500	3,00%	67,535	67,335	68,270
68,220	67,315	67,515	3,00%	-0,500	107+356,871	9.436.437,500	746.828,701		67,935	67,530	67,330	-0,605	0,500	3,00%	67,545	67,345	68,280
68,228	67,324	67,524	3,00%	-0,500	107+360,000	9.436.437,756	746.831,820		67,955	67,539	67,339	-0,616	0,500	3,00%	67,554	67,354	68,288
68,236	67,332	67,532	3,00%	-0,500	107+362,416	9.436.437,952	746.834,228	PT	67,940	67,547	67,347	-0,593	0,500	3,00%	67,562	67,362	68,296
68,332	67,427	67,627	3,00%	-0,500	107+380,000	9.436.439,380	746.851,754		67,812	67,642	67,442	-0,369	0,500	3,00%	67,657	67,457	68,392
68,509	67,605	67,805	3,00%	-0,500	107+400,000	9.436.441,004	746.871,688		67,806	67,820	67,620	-0,186	0,500	3,00%	67,835	67,635	68,569
68,519	67,615	67,815	3,00%	-0,500	107+401,128	9.436.441,096	746.872,812	PC	67,788	67,830	67,630	-0,158	0,500	3,00%	67,845	67,645	68,579
68,588	67,684	67,884	3,00%	-0,500	107+408,487	9.436.441,696	746.880,147		67,743	67,899	67,699	-0,044	0,500	3,00%	67,914	67,714	68,648
68,658	67,753	67,953	3,00%	-0,500	107+415,847	9.436.442,302	746.887,481	PT	67,992	67,968	67,768	-0,224	0,500	3,00%	67,983	67,783	68,718
68,697	67,792	67,992	3,00%	-0,500	107+420,000	9.436.442,645	746.891,620		68,197	68,007	67,807	-0,389	0,500	3,00%	68,022	67,822	68,757
68,884	67,980	68,180	3,00%	-0,500	107+440,000	9.436.444,298	746.911,552		68,469	68,195	67,995	-0,474	0,500	3,00%	68,210	68,010	68,944
69,072	68,168	68,368	3,00%	-0,500	107+460,000	9.436.445,952	746.931,483		68,341	68,383	68,183	-0,158	0,500	3,00%	68,398	68,198	69,132
69,260	68,356	68,556	3,00%	-0,500	107+480,000	9.436.447,605	746.951,415		68,460	68,571	68,371	-0,089	0,500	3,00%	68,586	68,386	69,320
69,448	68,544	68,744	3,00%	-0,500	107+500,000	9.436.449,259	746.971,346		68,560	68,759	68,559	-0,002	0,500	3,00%	68,774	68,574	69,508
69,636	68,731	68,931	3,00%	-0,500	107+520,000	9.436.450,912	746.991,278		68,508	68,946	68,746	0,239	0,500	3,00%	68,961	68,761	69,696
69,823	68,919	69,119	3,00%	-0,500	107+540,000	9.436.452,565	747.011,209		68,389	69,134	68,934	0,545	0,500	3,00%	69,149	68,949	69,883
70,011	69,107	69,307	3,00%	-0,500	107+560,000	9.436.454,219	747.031,141		68,358	69,322	69,122	0,763	0,500	3,00%	69,337	69,137	70,071
70,199	69,295	69,495	3,00%	-0,500	107+580,000	9.436.455,872	747.051,072		68,513	69,510	69,310	0,797	0,500	3,00%	69,525	69,325	70,259
70,387	69,482	69,682	3,00%	-0,500	107+600,000	9.436.457,525	747.071,004		68,542	69,697	69,497	0,955	0,500	3,00%	69,712	69,512	70,447
70,574	69,670	69,870	3,00%	-0,500	107+620,000	9.436.459,179	747.090,935		68,537	69,885	69,685	1,148	0,500	3,00%	69,900	69,700	70,634
70,762	69,858	70,058	3,00%	-0,500	107+640,000	9.436.460,832	747.110,867		68,474	70,073	69,873	1,399	0,500	3,00%	70,088	69,888	70,822
70,950	70,046	70,246	3,00%	-0,500	107+660,000	9.436.462,486	747.130,799		68,430	70,261	70,061	1,631	0,500	3,00%	70,276	70,076	71,010
71,138	70,234	70,434	3,00%	-0,500	107+680,000	9.436.464,139	747.150,730		68,737	70,449	70,249	1,511	0,500	3,00%	70,464	70,264	71,198
71,326	70,421	70,621	3,00%	-0,500	107+700,000	9.436.465,792	747.170,662		68,620	70,636	70,436	1,817	0,500	3,00%	70,651	70,451	71,386
71,513	70,609	70,809	3,00%	-0,500	107+720,000	9.436.467,446	747.190,593		68,646	70,824	70,624	1,978	0,500	3,00%	70,839	70,639	71,573
71,527	70,623	70,823	3,00%	-0,500	107+721,462	9.436.467,567	747.192,050	PC	68,658	70,838	70,638	1,981	0,500	3,00%	70,853	70,653	71,587
71,581	70,677	70,877	3,00%	-0,500	107+726,834	9.436.468,010	747.197,404		68,718	70,892	70,692	1,973	0,500	3,00%	70,907	70,707	71,641
71,638	70,734	70,934	3,00%	-0,500	107+732,205	9.436.468,452	747.202,757	PT	68,869	70,949	70,749	1,881	0,500	3,00%	70,964	70,764	71,698
71,729	70,825	71,025	3,00%	-0,500	107+740,000	9.436.469,092	747.210,525		69,073	71,040	70,840	1,767	0,500	3,00%	71,055	70,855	71,789
72,001	71,097	71,297	3,00%	-0,500	107+760,000	9.436.470,735	747.230,458		69,222	71,312	71,112	1,890	0,500	3,00%	71,327	71,127	72,061
72,301	71,397	71,597	3,00%	-0,500	107+780,000	9.436.472,378	747.250,390		69,310	71,612	71,412	2,102	0,500	3,00%	71,627	71,427	72,361
72,598	71,694	71,894	3,00%	-0,500	107+800,000	9.436.474,020	747.270,323		69,563	71,909	71,709	2,146	0,500	3,00%	71,924	71,724	72,658
72,837	71,933	72,133	3,00%	-0,500	107+817,436	9.436.475,452	747.287,700	PC	69,943	72,148	71,948	2,005	0,500	3,00%	72,163	71,963	72,897
72,871	71,967	72,167	3,00%	-0,500	107+820,000	9.436.475,652	747.290,256		70,020	72,182	71,982	1,962	0,500	3,00%	72,197	71,997	72,931

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
72,993	72,089	72,289	3,00%	-0,500	107+829,677	9.436.476,209	747.299,916		70,163	72,304	72,104	1,941	0,500	3,00%	72,319	72,119	73,053
73,120	72,216	72,416	3,00%	-0,500	107+840,000	9.436.476,459	747.310,236		70,232	72,431	72,231	1,999	0,500	3,00%	72,446	72,246	73,180
73,144	72,240	72,440	3,00%	-0,500	107+841,917	9.436.476,466	747.312,153	PT	70,238	72,455	72,255	2,017	0,500	3,00%	72,470	72,270	73,204
73,366	72,462	72,662	3,00%	-0,500	107+860,000	9.436.476,477	747.330,236		70,225	72,677	72,477	2,252	0,500	3,00%	72,692	72,492	73,426
73,461	72,557	72,757	3,00%	-0,500	107+867,721	9.436.476,482	747.337,957	PC	70,209	72,772	72,572	2,363	0,500	3,00%	72,787	72,587	73,521
73,604	72,700	72,900	3,00%	-0,500	107+879,962	9.436.476,739	747.350,194		70,224	72,915	72,715	2,491	0,500	3,00%	72,930	72,730	73,664
73,605	72,700	72,900	3,00%	-0,500	107+880,000	9.436.476,741	747.350,232		70,224	72,915	72,715	2,491	0,500	3,00%	72,930	72,730	73,665
73,724	72,820	73,020	3,00%	-0,500	107+892,202	9.436.477,495	747.362,410	PT	70,322	73,035	72,835	2,514	0,500	3,00%	73,050	72,850	73,784
73,789	72,885	73,085	3,00%	-0,500	107+900,000	9.436.478,136	747.370,182		70,427	73,100	72,900	2,473	0,500	3,00%	73,115	72,915	73,849
73,912	73,008	73,208	3,00%	-0,500	107+920,000	9.436.479,779	747.390,114		70,711	73,223	73,023	2,312	0,500	3,00%	73,238	73,038	73,972
73,974	73,069	73,269	3,00%	-0,500	107+940,000	9.436.481,421	747.410,047		71,033	73,284	73,084	2,051	0,500	3,00%	73,299	73,099	74,034
73,981	73,077	73,277	3,00%	-0,500	107+960,000	9.436.483,064	747.429,979		71,055	73,292	73,092	2,037	0,500	3,00%	73,307	73,107	74,041
73,981	73,077	73,277	3,00%	-0,500	107+980,000	9.436.484,707	747.449,911		71,173	73,292	73,092	1,919	0,500	3,00%	73,307	73,107	74,041
74,016	73,112	73,312	3,00%	-0,500	108+000,000	9.436.486,349	747.469,844		71,451	73,327	73,127	1,676	0,500	3,00%	73,342	73,142	74,076
74,112	73,208	73,408	3,00%	-0,500	108+018,718	9.436.487,887	747.488,498	PC	71,814	73,423	73,223	1,409	0,500	3,00%	73,438	73,238	74,172
74,121	73,217	73,417	3,00%	-0,500	108+020,000	9.436.487,993	747.489,776		71,856	73,432	73,232	1,376	0,500	3,00%	73,447	73,247	74,181
74,296	73,392	73,592	3,00%	-0,500	108+040,000	9.436.489,917	747.509,683		72,252	73,607	73,407	1,155	0,500	3,00%	73,622	73,422	74,356
74,305	73,400	73,600	3,00%	-0,500	108+040,795	9.436.490,003	747.510,474		72,270	73,615	73,415	1,146	0,500	3,00%	73,630	73,430	74,365
74,541	73,637	73,837	3,00%	-0,500	108+060,000	9.436.492,337	747.529,535		72,895	73,852	73,652	0,757	0,500	3,00%	73,867	73,667	74,601
74,581	73,677	73,877	3,00%	-0,500	108+062,873	9.436.492,726	747.532,382	PT	72,978	73,892	73,692	0,714	0,500	3,00%	73,907	73,707	74,641
74,821	73,917	74,117	3,00%	-0,500	108+080,000	9.436.495,072	747.549,348		73,314	74,132	73,932	0,618	0,500	3,00%	74,147	73,947	74,881
75,004	74,099	74,299	3,00%	-0,500	108+093,028	9.436.496,857	747.562,252	PC	73,609	74,314	74,114	0,505	0,500	3,00%	74,329	74,129	75,064
75,101	74,197	74,397	3,00%	-0,500	108+100,000	9.436.497,782	747.569,163		73,818	74,412	74,212	0,394	0,500	3,00%	74,427	74,227	75,161
75,313	74,408	74,608	3,00%	-0,500	108+115,105	9.436.499,579	747.584,161		74,196	74,623	74,423	0,228	0,500	3,00%	74,638	74,438	75,373
75,381	74,477	74,677	3,00%	-0,500	108+120,000	9.436.500,100	747.589,028		74,292	74,692	74,492	0,200	0,500	3,00%	74,707	74,507	75,441
75,625	74,721	74,921	3,00%	-0,500	108+137,183	9.436.501,695	747.606,136	PT	74,545	74,936	74,736	0,191	0,500	3,00%	74,951	74,751	75,685
75,666	74,762	74,962	3,00%	-0,500	108+140,000	9.436.501,927	747.608,944		74,564	74,977	74,777	0,213	0,500	3,00%	74,992	74,792	75,726
75,961	75,057	75,257	3,00%	-0,500	108+160,000	9.436.503,570	747.628,876		74,803	75,272	75,072	0,269	0,500	3,00%	75,287	75,087	76,021
76,261	75,357	75,557	3,00%	-0,500	108+180,000	9.436.505,212	747.648,809		75,139	75,572	75,372	0,233	0,500	3,00%	75,587	75,387	76,321
76,561	75,657	75,857	3,00%	-0,500	108+200,000	9.436.506,855	747.668,741		75,579	75,872	75,672	0,093	0,500	3,00%	75,887	75,687	76,621
76,861	75,957	76,157	3,00%	-0,500	108+220,000	9.436.508,498	747.688,673		75,964	76,172	75,972	0,008	0,500	3,00%	76,187	75,987	76,921
77,161	76,257	76,457	3,00%	-0,500	108+240,000	9.436.510,140	747.708,606		76,332	76,472	76,272	-0,060	0,500	3,00%	76,487	76,287	77,221
77,461	76,557	76,757	3,00%	-0,500	108+260,000	9.436.511,783	747.728,538		76,893	76,772	76,572	-0,321	0,500	3,00%	76,787	76,587	77,521
77,761	76,857	77,057	3,00%	-0,500	108+280,000	9.436.513,426	747.748,471		77,077	77,072	76,872	-0,205	0,500	3,00%	77,087	76,887	77,821
78,061	77,157	77,357	3,00%	-0,500	108+300,000	9.436.515,068	747.768,403		77,817	77,372	77,172	-0,645	0,500	3,00%	77,387	77,187	78,121
78,361	77,457	77,657	3,00%	-0,500	108+320,000	9.436.516,711	747.788,335		78,058	77,672	77,472	-0,586	0,500	3,00%	77,687	77,487	78,421
78,661	77,757	77,957	3,00%	-0,500	108+340,000	9.436.518,354	747.808,268		78,493	77,972	77,772	-0,721	0,500	3,00%	77,987	77,787	78,721
78,961	78,057	78,257	3,00%	-0,500	108+360,000	9.436.519,996	747.828,200		78,795	78,272	78,072	-0,723	0,500	3,00%	78,287	78,087	79,021
79,261	78,357	78,557	3,00%	-0,500	108+380,000	9.436.521,639	747.848,133		79,080	78,572	78,372	-0,708	0,500	3,00%	78,587	78,387	79,321
79,561	78,657	78,857	3,00%	-0,500	108+400,000	9.436.523,282	747.868,065		79,347	78,872	78,672	-0,675	0,500	3,00%	78,887	78,687	79,621
79,861	78,957	79,157	3,00%	-0,500	108+420,000	9.436.524,924	747.887,998		79,662	79,172	78,972	-0,690	0,500	3,00%	79,187	78,987	79,921
80,161	79,257	79,457	3,00%	-0,500	108+440,000	9.436.526,567	747.907,930		79,952	79,472	79,272	-0,680	0,500	3,00%	79,487	79,287	80,221
80,461	79,557	79,757	3,00%	-0,500	108+460,000	9.436.528,210	747.927,862		80,221	79,772	79,572	-0,649	0,500	3,00%	79,787	79,587	80,521
80,761	79,857	80,057	3,00%	-0,500	108+480,000	9.436.529,853	747.947,795		80,574	80,072	79,872	-0,702	0,500	3,00%	80,087	79,887	80,821
81,061	80,157	80,357	3,00%	-0,500	108+500,000	9.436.531,495	747.967,727		80,729	80,372	80,172	-0,557	0,500	3,00%	80,387	80,187	81,121
81,361	80,457	80,657	3,00%	-0,500	108+520,000	9.436.533,138	747.987,660		81,069	80,672	80,472	-0,597	0,500	3,00%	80,687	80,487	81,421
81,661	80,757	80,957	3,00%	-0,500	108+540,000	9.436.534,781	748.007,592		81,360	80,972	80,772	-0,588	0,500	3,00%	80,987	80,787	81,721
81,961	81,057	81,257	3,00%	-0,500	108+560,000	9.436.536,423	748.027,525		81,657	81,272	81,072	-0,585	0,500	3,00%	81,287	81,087	82,021
82,261	81,357	81,557	3,00%	-0,500	108+580,000	9.436.538,066	748.047,457		81,982	81,572	81,372	-0,610	0,500	3,00%	81,587	81,387	82,321
82,541	81,637	81,837	3,00%	-0,500	108+600,000	9.436.539,709	748.067,389		82,222	81,852	81,652	-0,570	0,500	3,00%	81,867	81,667	82,601
82,614	81,709	81,909	3,00%	-0,500	108+605,699	9.436.540,177	748.073,069	PC	82,226	81,924	81,724	-0,502	0,500	3,00%	81,939	81,739	82,674
82,675	81,770	81,970	3,00%	-0,500	108+610,693	9.436.540,602	748.078,045		82,167	81,985	81,785	-0,381	0,500	3,00%	82,000	81,800	82,735
82,733	81,829	82,029	3,00%	-0,500	108+615,687	9.436.541,059	748.083,018	PT	82,192	82,044	81,844	-0,348	0,500	3,00%	82,059	81,859	82,793
82,781	81,877	82,077	3,00%	-0,500	108+620,000	9.436.541,466	748.087,312		82,151	82,092	81,892	-0,259	0,500	3,00%	82,107	81,907	82,841
83,001	82,097	82,297	3,00%	-0,500	108+640,000	9.436.543,357	748.107,222		82,632	82,312	82,112	-0,520	0,500	3,00%	82,327	82,127	83,061
83,125	82,221	82,421	3,00%	-0,500	108+651,259	9.436.544,421	748.118,431	PC	82,863	82,436	82,236	-0,628	0,500	3,00%	82,451	82,251	83,185
83,205	82,301	82,501	3,00%	-0,500	108+658,528	9.436.545,236	748.125,653		82,898	82,516	82,316	-0,582	0,500	3,00%	82,531	82,331	83,265

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
83,221	82,317	82,517	3,00%	-0,500	108+660,000	9.436.545,433	748.127,112		82,929	82,532	82,332	-0,597	0,500	3,00%	82,547	82,347	83,281
83,285	82,381	82,581	3,00%	-0,500	108+665,796	9.436.546,309	748.132,842	PT	83,014	82,596	82,396	-0,618	0,500	3,00%	82,611	82,411	83,345
83,441	82,537	82,737	3,00%	-0,500	108+680,000	9.436.548,655	748.146,851		83,179	82,752	82,552	-0,627	0,500	3,00%	82,767	82,567	83,501
83,562	82,658	82,858	3,00%	-0,500	108+690,993	9.436.550,470	748.157,692	PC	83,443	82,873	82,673	-0,770	0,500	3,00%	82,888	82,688	83,622
83,654	82,750	82,950	3,00%	-0,500	108+699,327	9.436.551,675	748.165,939		83,541	82,965	82,765	-0,777	0,500	3,00%	82,980	82,780	83,714
83,661	82,757	82,957	3,00%	-0,500	108+700,000	9.436.551,757	748.166,606		83,549	82,972	82,772	-0,777	0,500	3,00%	82,987	82,787	83,721
83,748	82,844	83,044	3,00%	-0,500	108+707,662	9.436.552,535	748.174,228	PT	83,605	83,059	82,859	-0,746	0,500	3,00%	83,074	82,874	83,808
83,901	82,996	83,196	3,00%	-0,500	108+720,000	9.436.553,553	748.186,524		83,780	83,211	83,011	-0,769	0,500	3,00%	83,226	83,026	83,961
84,179	83,275	83,475	3,00%	-0,500	108+740,000	9.436.555,202	748.206,456		84,097	83,490	83,290	-0,807	0,500	3,00%	83,505	83,305	84,239
84,476	83,572	83,772	3,00%	-0,500	108+760,000	9.436.556,852	748.226,388		84,384	83,787	83,587	-0,797	0,500	3,00%	83,802	83,602	84,536
84,774	83,870	84,070	3,00%	-0,500	108+780,000	9.436.558,501	748.246,320		84,575	84,085	83,885	-0,690	0,500	3,00%	84,100	83,900	84,834
85,071	84,167	84,367	3,00%	-0,500	108+800,000	9.436.560,151	748.266,252		84,826	84,382	84,182	-0,644	0,500	3,00%	84,397	84,197	85,131
85,369	84,465	84,665	3,00%	-0,500	108+820,000	9.436.561,800	748.286,184		85,123	84,680	84,480	-0,643	0,500	3,00%	84,695	84,495	85,429
85,666	84,762	84,962	3,00%	-0,500	108+840,000	9.436.563,450	748.306,116		85,418	84,977	84,777	-0,641	0,500	3,00%	84,992	84,792	85,726
85,964	85,060	85,260	3,00%	-0,500	108+860,000	9.436.565,099	748.326,047		85,651	85,275	85,075	-0,577	0,500	3,00%	85,290	85,090	86,024
86,262	85,357	85,557	3,00%	-0,500	108+880,000	9.436.566,749	748.345,979		85,874	85,572	85,372	-0,502	0,500	3,00%	85,587	85,387	86,322
86,559	85,655	85,855	3,00%	-0,500	108+900,000	9.436.568,398	748.365,911		86,357	85,870	85,670	-0,688	0,500	3,00%	85,885	85,685	86,619
86,857	85,952	86,152	3,00%	-0,500	108+920,000	9.436.570,048	748.385,843		86,572	86,167	85,967	-0,605	0,500	3,00%	86,182	85,982	86,917
87,154	86,250	86,450	3,00%	-0,500	108+940,000	9.436.571,697	748.405,775		86,853	86,465	86,265	-0,589	0,500	3,00%	86,480	86,280	87,214
87,452	86,547	86,747	3,00%	-0,500	108+960,000	9.436.573,347	748.425,707		87,209	86,762	86,562	-0,646	0,500	3,00%	86,777	86,577	87,512
87,749	86,845	87,045	3,00%	-0,500	108+980,000	9.436.574,996	748.445,639		87,553	87,060	86,860	-0,693	0,500	3,00%	87,075	86,875	87,809
88,047	87,143	87,343	3,00%	-0,500	109+000,000	9.436.576,646	748.465,570		87,839	87,358	87,158	-0,681	0,500	3,00%	87,373	87,173	88,107
88,344	87,440	87,640	3,00%	-0,500	109+020,000	9.436.578,295	748.485,502		88,249	87,655	87,455	-0,793	0,500	3,00%	87,670	87,470	88,404
88,642	87,738	87,938	3,00%	-0,500	109+040,000	9.436.579,945	748.505,434		88,471	87,953	87,753	-0,718	0,500	3,00%	87,968	87,768	88,702
88,939	88,035	88,235	3,00%	-0,500	109+060,000	9.436.581,594	748.525,366		88,646	88,250	88,050	-0,595	0,500	3,00%	88,265	88,065	88,999
89,237	88,333	88,533	3,00%	-0,500	109+080,000	9.436.583,244	748.545,298		88,814	88,548	88,348	-0,466	0,500	3,00%	88,563	88,363	89,297
89,534	88,630	88,830	3,00%	-0,500	109+100,000	9.436.584,893	748.565,230		89,037	88,845	88,645	-0,392	0,500	3,00%	88,860	88,660	89,594
89,832	88,928	89,128	3,00%	-0,500	109+120,000	9.436.586,543	748.585,162		89,334	89,143	88,943	-0,392	0,500	3,00%	89,158	88,958	89,892
90,130	89,225	89,425	3,00%	-0,500	109+140,000	9.436.588,192	748.605,093		89,687	89,440	89,240	-0,447	0,500	3,00%	89,455	89,255	90,190
90,427	89,523	89,723	3,00%	-0,500	109+160,000	9.436.589,842	748.625,025		89,958	89,738	89,538	-0,420	0,500	3,00%	89,753	89,553	90,487
90,725	89,820	90,020	3,00%	-0,500	109+180,000	9.436.591,491	748.644,957		90,245	90,035	89,835	-0,410	0,500	3,00%	90,050	89,850	90,785
91,022	90,118	90,318	3,00%	-0,500	109+200,000	9.436.593,141	748.664,889		90,501	90,333	90,133	-0,368	0,500	3,00%	90,348	90,148	91,082
91,320	90,415	90,615	3,00%	-0,500	109+220,000	9.436.594,790	748.684,821		90,858	90,630	90,430	-0,427	0,500	3,00%	90,645	90,445	91,380
91,617	90,713	90,913	3,00%	-0,500	109+240,000	9.436.596,440	748.704,753		91,160	90,928	90,728	-0,432	0,500	3,00%	90,943	90,743	91,677
91,915	91,011	91,211	3,00%	-0,500	109+260,000	9.436.598,089	748.724,685		91,284	91,226	91,026	-0,258	0,500	3,00%	91,241	91,041	91,975
92,212	91,308	91,508	3,00%	-0,500	109+280,000	9.436.599,739	748.744,616		91,807	91,523	91,323	-0,484	0,500	3,00%	91,538	91,338	92,272
92,510	91,606	91,806	3,00%	-0,500	109+300,000	9.436.601,388	748.764,548		92,110	91,821	91,621	-0,489	0,500	3,00%	91,836	91,636	92,570
92,807	91,903	92,103	3,00%	-0,500	109+320,000	9.436.603,038	748.784,480		92,301	92,118	91,918	-0,383	0,500	3,00%	92,133	91,933	92,867
93,075	92,171	92,371	3,00%	-0,500	109+340,000	9.436.604,687	748.804,412		92,651	92,386	92,186	-0,465	0,500	3,00%	92,401	92,201	93,135
93,283	92,379	92,579	3,00%	-0,500	109+360,000	9.436.606,337	748.824,344		92,919	92,594	92,394	-0,524	0,500	3,00%	92,609	92,409	93,343
93,421	92,517	92,717	3,00%	-0,500	109+378,202	9.436.607,838	748.842,484	PC	93,251	92,732	92,532	-0,719	0,500	3,00%	92,747	92,547	93,481
93,432	92,528	92,728	3,00%	-0,500	109+380,000	9.436.607,980	748.844,276		93,278	92,743	92,543	-0,735	0,500	3,00%	92,758	92,558	93,492
93,449	92,545	92,745	3,00%	-0,500	109+382,944	9.436.608,184	748.847,214		93,322	92,760	92,560	-0,762	0,500	3,00%	92,775	92,575	93,509
93,474	92,569	92,769	3,00%	-0,500	109+387,687	9.436.608,441	748.851,949	PT	93,441	92,784	92,584	-0,856	0,500	3,00%	92,799	92,599	93,534
93,521	92,617	92,817	3,00%	-0,500	109+400,000	9.436.608,990	748.864,250		93,666	92,832	92,632	-1,034	0,500	3,00%	92,847	92,647	93,581
93,548	92,644	92,844	3,00%	-0,500	109+413,234	9.436.609,581	748.877,471	PC	93,713	92,859	92,659	-1,055	0,500	3,00%	92,874	92,674	93,608
93,550	92,645	92,845	3,00%	-0,500	109+415,481	9.436.609,687	748.879,716		93,718	92,860	92,660	-1,057	0,500	3,00%	92,875	92,675	93,610
93,551	92,647	92,847	3,00%	-0,500	109+417,729	9.436.609,806	748.881,960	PT	93,728	92,862	92,662	-1,067	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+420,000	9.436.609,933	748.884,227		93,726	92,862	92,662	-1,064	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+440,000	9.436.611,050	748.904,196		93,795	92,862	92,662	-1,133	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+460,000	9.436.612,167	748.924,165		93,845	92,862	92,662	-1,183	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+480,000	9.436.613,283	748.944,134		93,876	92,862	92,662	-1,214	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+500,000	9.436.614,400	748.964,103		93,899	92,862	92,662	-1,237	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+520,000	9.436.615,517	748.984,071		93,862	92,862	92,662	-1,200	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+540,000	9.436.616,634	749.004,040		93,760	92,862	92,662	-1,098	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+546,287	9.436.616,985	749.010,317	PC	93,710	92,862	92,662	-1,048	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+550,691	9.436.617,211	749.014,716		93,693	92,862	92,662	-1,031	0,500	3,00%	92,877	92,677	93,611

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																
Lado Esquerdo					Eixo								Lado Direito			
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
93,551	92,647	92,847	3,00%	-0,500	109+555,096	9.436.617,399	749.019,117	PT	93,641	92,862	92,662	-0,979	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+560,000	9.436.617,586	749.024,017		93,589	92,862	92,662	-0,927	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+580,000	9.436.618,351	749.044,002		93,427	92,862	92,662	-0,765	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+580,365	9.436.618,365	749.044,368	PC	93,421	92,862	92,662	-0,759	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+585,149	9.436.618,571	749.049,147		93,392	92,862	92,662	-0,730	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+589,933	9.436.618,822	749.053,924	PT	93,356	92,862	92,662	-0,694	0,500	3,00%	92,877	92,677	93,611
93,551	92,647	92,847	3,00%	-0,500	109+600,000	9.436.619,400	749.063,974		93,340	92,862	92,662	-0,678	0,500	3,00%	92,877	92,677	93,611
93,538	92,634	92,834	3,00%	-0,500	109+620,000	9.436.620,547	749.083,942		93,296	92,849	92,649	-0,647	0,500	3,00%	92,864	92,664	93,598
93,499	92,595	92,795	3,00%	-0,500	109+640,000	9.436.621,694	749.103,909		93,164	92,810	92,610	-0,554	0,500	3,00%	92,825	92,625	93,559
93,434	92,530	92,730	3,00%	-0,500	109+660,000	9.436.622,841	749.123,876		92,942	92,745	92,545	-0,397	0,500	3,00%	92,760	92,560	93,494
93,343	92,438	92,638	3,00%	-0,500	109+680,000	9.436.623,988	749.143,843		92,692	92,653	92,453	-0,239	0,500	3,00%	92,668	92,468	93,403
93,313	92,409	92,609	3,00%	-0,500	109+685,502	9.436.624,303	749.149,336	PC	92,734	92,624	92,424	-0,310	0,500	3,00%	92,639	92,439	93,373
93,288	92,384	92,584	3,00%	-0,500	109+689,857	9.436.624,552	749.153,684		92,728	92,599	92,399	-0,329	0,500	3,00%	92,614	92,414	93,348
93,262	92,358	92,558	3,00%	-0,500	109+694,213	9.436.624,799	749.158,032	PT	92,662	92,573	92,373	-0,289	0,500	3,00%	92,588	92,388	93,322
93,225	92,321	92,521	3,00%	-0,500	109+700,000	9.436.625,126	749.163,810		92,610	92,536	92,336	-0,274	0,500	3,00%	92,551	92,351	93,285
93,082	92,178	92,378	3,00%	-0,500	109+720,000	9.436.626,256	749.183,778		92,389	92,393	92,193	-0,197	0,500	3,00%	92,408	92,208	93,142
92,912	92,008	92,208	3,00%	-0,500	109+740,000	9.436.627,385	749.203,747		92,146	92,223	92,023	-0,122	0,500	3,00%	92,238	92,038	92,972
92,717	91,813	92,013	3,00%	-0,500	109+760,000	9.436.628,515	749.223,715		92,043	92,028	91,828	-0,215	0,500	3,00%	92,043	91,843	92,777
92,508	91,604	91,804	3,00%	-0,500	109+780,000	9.436.629,644	749.243,683		91,900	91,819	91,619	-0,281	0,500	3,00%	91,834	91,634	92,568
92,300	91,396	91,596	3,00%	-0,500	109+800,000	9.436.630,774	749.263,651		91,714	91,611	91,411	-0,304	0,500	3,00%	91,626	91,426	92,360
92,091	91,187	91,387	3,00%	-0,500	109+820,000	9.436.631,904	749.283,619		91,641	91,402	91,202	-0,439	0,500	3,00%	91,417	91,217	92,151
91,883	90,978	91,178	3,00%	-0,500	109+840,000	9.436.633,033	749.303,587		91,427	91,193	90,993	-0,434	0,500	3,00%	91,208	91,008	91,943
91,674	90,770	90,970	3,00%	-0,500	109+860,000	9.436.634,163	749.323,555		91,196	90,985	90,785	-0,411	0,500	3,00%	91,000	90,800	91,734
91,466	90,561	90,761	3,00%	-0,500	109+880,000	9.436.635,292	749.343,523		90,966	90,776	90,576	-0,389	0,500	3,00%	90,791	90,591	91,526
91,257	90,353	90,553	3,00%	-0,500	109+900,000	9.436.636,422	749.363,491		90,514	90,568	90,368	-0,146	0,500	3,00%	90,583	90,383	91,317
91,048	90,144	90,344	3,00%	-0,500	109+920,000	9.436.637,552	749.383,459		90,329	90,359	90,159	-0,170	0,500	3,00%	90,374	90,174	91,108
90,840	89,936	90,136	3,00%	-0,500	109+940,000	9.436.638,681	749.403,427		90,192	90,151	89,951	-0,242	0,500	3,00%	90,166	89,966	90,900
90,631	89,727	89,927	3,00%	-0,500	109+960,000	9.436.639,811	749.423,395		90,099	89,942	89,742	-0,357	0,500	3,00%	89,957	89,757	90,691
90,423	89,518	89,718	3,00%	-0,500	109+980,000	9.436.640,940	749.443,363		89,960	89,733	89,533	-0,426	0,500	3,00%	89,748	89,548	90,483
90,251	89,346	89,546	3,00%	-0,500	110+000,000	9.436.642,070	749.463,332		89,740	89,561	89,361	-0,379	0,500	3,00%	89,576	89,376	90,311
90,152	89,248	89,448	3,00%	-0,500	110+020,000	9.436.643,200	749.483,300		89,610	89,463	89,263	-0,347	0,500	3,00%	89,478	89,278	90,212
90,108	89,204	89,404	3,00%	-0,500	110+034,226	9.436.644,003	749.497,503	PC	89,360	89,419	89,219	-0,141	0,500	3,00%	89,434	89,234	90,168
90,094	89,190	89,390	3,00%	-0,500	110+038,533	9.436.644,247	749.501,803		89,345	89,405	89,205	-0,139	0,500	3,00%	89,420	89,220	90,154
90,090	89,186	89,386	3,00%	-0,500	110+040,000	9.436.644,331	749.503,268		89,339	89,401	89,201	-0,138	0,500	3,00%	89,416	89,216	90,150
90,081	89,177	89,377	3,00%	-0,500	110+042,841	9.436.644,493	749.506,104	PT	89,325	89,392	89,192	-0,133	0,500	3,00%	89,407	89,207	90,141
90,028	89,124	89,324	3,00%	-0,500	110+060,000	9.436.645,477	749.523,235		89,272	89,339	89,139	-0,133	0,500	3,00%	89,354	89,154	90,088
89,966	89,062	89,262	3,00%	-0,500	110+080,000	9.436.646,624	749.543,202		89,271	89,277	89,077	-0,194	0,500	3,00%	89,292	89,092	90,026
89,904	88,999	89,199	3,00%	-0,500	110+100,000	9.436.647,771	749.563,169		89,274	89,214	89,014	-0,259	0,500	3,00%	89,229	89,029	89,964
89,842	88,937	89,137	3,00%	-0,500	110+120,000	9.436.648,918	749.583,136		89,160	89,152	88,952	-0,207	0,500	3,00%	89,167	88,967	89,902
89,780	88,875	89,075	3,00%	-0,500	110+140,000	9.436.650,065	749.603,103		89,145	89,090	88,890	-0,255	0,500	3,00%	89,105	88,905	89,840
89,754	88,850	89,050	3,00%	-0,500	110+148,268	9.436.650,539	749.611,358	PC	89,181	89,065	88,865	-0,316	0,500	3,00%	89,080	88,880	89,814
89,717	88,813	89,013	3,00%	-0,500	110+160,000	9.436.651,059	749.623,078		89,147	89,028	88,828	-0,319	0,500	3,00%	89,043	88,843	89,777
89,704	88,800	89,000	3,00%	-0,500	110+164,333	9.436.651,173	749.627,409		89,144	89,015	88,815	-0,329	0,500	3,00%	89,030	88,830	89,764
89,655	88,751	88,951	3,00%	-0,500	110+180,000	9.436.651,240	749.643,075		89,169	88,966	88,766	-0,403	0,500	3,00%	88,981	88,781	89,715
89,654	88,750	88,950	3,00%	-0,500	110+180,397	9.436.651,235	749.643,473	PT	89,170	88,965	88,765	-0,405	0,500	3,00%	88,980	88,780	89,714
89,640	88,736	88,936	3,00%	-0,500	110+184,920	9.436.651,171	749.647,995	PC	89,181	88,951	88,751	-0,430	0,500	3,00%	88,966	88,766	89,700
89,593	88,689	88,889	3,00%	-0,500	110+200,000	9.436.650,203	749.663,037		89,164	88,904	88,704	-0,460	0,500	3,00%	88,919	88,719	89,653
89,562	88,658	88,858	3,00%	-0,500	110+220,000	9.436.646,601	749.682,695		89,280	88,873	88,673	-0,608	0,500	3,00%	88,888	88,688	89,622
89,562	88,658	88,858	3,00%	-0,500	110+220,000	9.436.646,601	749.682,695		89,280	88,873	88,673	-0,608	0,500	3,00%	88,888	88,688	89,622
89,591	88,687	88,887	3,00%	-0,500	110+240,000	9.436.640,417	749.701,700		89,348	88,902	88,702	-0,646	0,500	3,00%	88,917	88,717	89,651
89,636	88,732	88,932	3,00%	-0,500	110+255,081	9.436.634,113	749.715,392	PT	89,387	88,947	88,747	-0,640	0,500	3,00%	88,962	88,762	89,696
89,651	88,747	88,947	3,00%	-0,500	110+260,000	9.436.631,834	749.719,752		89,350	88,962	88,762	-0,588	0,500	3,00%	88,977	88,777	89,711
89,677	88,772	88,972	3,00%	-0,500	110+268,436	9.436.627,925	749.727,227	PC	89,370	88,987	88,787	-0,583	0,500	3,00%	89,002	88,802	89,737
89,711	88,807	89,007	3,00%	-0,500	110+280,000	9.436.622,282	749.737,320		89,482	89,022	88,822	-0,660	0,500	3,00%	89,037	88,837	89,771
89,780	88,876	89,076	3,00%	-0,500	110+300,000	9.436.611,218	749.753,971		89,422	89,091	88,891	-0,530	0,500	3,00%	89,106	88,906	89,840
89,915	89,010	89,210	3,00%	-0,500	110+320,000	9.436.598,593	749.769,472		89,512	89,225	89,025	-0,486	0,500	3,00%	89,240	89,040	89,975
90,123	89,219	89,419	3,00%	-0,500	110+340,000	9.436.584,524	749.783,676		89,730	89,434	89,234	-0,497	0,500	3,00%	89,449	89,249	90,183

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
90,190	89,285	89,485	3,00%	-0,500	110+345,244	9.436.580,612	749.787,169		89,834	89,500	89,300	-0,534	0,500	3,00%	89,515	89,315	90,250
90,405	89,501	89,701	3,00%	-0,500	110+360,000	9.436.569,144	749.796,449		90,149	89,716	89,516	-0,633	0,500	3,00%	89,731	89,531	90,465
90,752	89,848	90,048	3,00%	-0,500	110+380,000	9.436.552,599	749.807,672		90,458	90,063	89,863	-0,595	0,500	3,00%	90,078	89,878	90,812
91,108	90,204	90,404	3,00%	-0,500	110+400,000	9.436.535,044	749.817,238		90,768	90,419	90,219	-0,549	0,500	3,00%	90,434	90,234	91,168
91,465	90,561	90,761	3,00%	-0,500	110+420,000	9.436.516,644	749.825,056		91,124	90,776	90,576	-0,549	0,500	3,00%	90,791	90,591	91,525
91,502	90,598	90,798	3,00%	-0,500	110+422,053	9.436.514,715	749.825,757	PT	91,150	90,813	90,613	-0,537	0,500	3,00%	90,828	90,628	91,562
91,857	90,953	91,153	3,00%	-0,500	110+440,000	9.436.497,815	749.831,798		91,429	91,168	90,968	-0,461	0,500	3,00%	91,183	90,983	91,917
92,321	91,417	91,617	3,00%	-0,500	110+460,000	9.436.478,982	749.838,531		91,879	91,632	91,432	-0,447	0,500	3,00%	91,647	91,447	92,381
92,821	91,917	92,117	3,00%	-0,500	110+480,000	9.436.460,149	749.845,263		92,377	92,132	91,932	-0,445	0,500	3,00%	92,147	91,947	92,881
93,321	92,417	92,617	3,00%	-0,500	110+500,000	9.436.441,316	749.851,995		92,826	92,632	92,432	-0,394	0,500	3,00%	92,647	92,447	93,381
93,821	92,917	93,117	3,00%	-0,500	110+520,000	9.436.422,483	749.858,728		93,143	93,132	92,932	-0,211	0,500	3,00%	93,147	92,947	93,881
94,321	93,417	93,617	3,00%	-0,500	110+540,000	9.436.403,651	749.865,460		93,683	93,632	93,432	-0,251	0,500	3,00%	93,647	93,447	94,381
94,821	93,917	94,117	3,00%	-0,500	110+560,000	9.436.384,818	749.872,192		94,296	94,132	93,932	-0,364	0,500	3,00%	94,147	93,947	94,881
95,321	94,417	94,617	3,00%	-0,500	110+580,000	9.436.365,985	749.878,925		94,860	94,632	94,432	-0,428	0,500	3,00%	94,647	94,447	95,381
95,821	94,917	95,117	3,00%	-0,500	110+600,000	9.436.347,152	749.885,657		95,304	95,132	94,932	-0,372	0,500	3,00%	95,147	94,947	95,881
96,321	95,417	95,617	3,00%	-0,500	110+620,000	9.436.328,319	749.892,389		95,898	95,632	95,432	-0,466	0,500	3,00%	95,647	95,447	96,381
96,821	95,917	96,117	3,00%	-0,500	110+640,000	9.436.309,486	749.899,121		96,441	96,132	95,932	-0,509	0,500	3,00%	96,147	95,947	96,881
97,321	96,417	96,617	3,00%	-0,500	110+660,000	9.436.290,653	749.905,854		97,003	96,632	96,432	-0,571	0,500	3,00%	96,647	96,447	97,381
97,821	96,917	97,117	3,00%	-0,500	110+680,000	9.436.271,821	749.912,586		97,517	97,132	96,932	-0,585	0,500	3,00%	97,147	96,947	97,881
98,321	97,417	97,617	3,00%	-0,500	110+700,000	9.436.252,988	749.919,318		98,088	97,632	97,432	-0,656	0,500	3,00%	97,647	97,447	98,381
98,821	97,917	98,117	3,00%	-0,500	110+720,000	9.436.234,155	749.926,051		98,625	98,132	97,932	-0,693	0,500	3,00%	98,147	97,947	98,881
99,321	98,417	98,617	3,00%	-0,500	110+740,000	9.436.215,322	749.932,783		99,036	98,632	98,432	-0,604	0,500	3,00%	98,647	98,447	99,381
99,808	98,904	99,104	3,00%	-0,500	110+760,000	9.436.196,489	749.939,515		99,500	99,119	98,919	-0,581	0,500	3,00%	99,134	98,934	99,868
100,202	99,298	99,498	3,00%	-0,500	110+780,000	9.436.177,656	749.946,248		99,941	99,513	99,313	-0,628	0,500	3,00%	99,528	99,328	100,262
100,490	99,586	99,786	3,00%	-0,500	110+800,000	9.436.158,824	749.952,980		100,338	99,801	99,601	-0,737	0,500	3,00%	99,816	99,616	100,550
100,532	99,628	99,828	3,00%	-0,500	110+803,788	9.436.155,257	749.954,255	PC	100,386	99,843	99,643	-0,742	0,500	3,00%	99,858	99,658	100,592
100,629	99,724	99,924	3,00%	-0,500	110+814,063	9.436.145,572	749.957,689		100,672	99,939	99,739	-0,932	0,500	3,00%	99,954	99,754	100,689
100,672	99,767	99,967	3,00%	-0,500	110+820,000	9.436.139,969	749.959,650		100,785	99,982	99,782	-1,002	0,500	3,00%	99,997	99,797	100,732
100,697	99,793	99,993	3,00%	-0,500	110+824,339	9.436.135,870	749.961,073	PT	100,824	100,008	99,808	-1,016	0,500	3,00%	100,023	99,823	100,757
100,747	99,843	100,043	3,00%	-0,500	110+840,000	9.436.121,069	749.966,193		100,922	100,058	99,858	-1,064	0,500	3,00%	100,073	99,873	100,807
100,717	99,813	100,013	3,00%	-0,500	110+860,000	9.436.102,168	749.972,732		101,125	100,028	99,828	-1,297	0,500	3,00%	100,043	99,843	100,777
100,623	99,719	99,919	3,00%	-0,500	110+875,705	9.436.087,326	749.977,866	PC	101,171	99,934	99,734	-1,437	0,500	3,00%	99,949	99,749	100,683
100,594	99,690	99,890	3,00%	-0,500	110+880,000	9.436.083,248	749.979,212		101,171	99,905	99,705	-1,467	0,500	3,00%	99,920	99,720	100,654
100,575	99,671	99,871	3,00%	-0,500	110+882,713	9.436.080,652	749.980,001		101,164	99,886	99,686	-1,478	0,500	3,00%	99,901	99,701	100,635
100,528	99,623	99,823	3,00%	-0,500	110+889,721	9.436.073,886	749.981,823	PT	101,162	99,838	99,638	-1,524	0,500	3,00%	99,853	99,653	100,588
100,458	99,553	99,753	3,00%	-0,500	110+900,000	9.436.063,900	749.984,262		101,161	99,768	99,568	-1,593	0,500	3,00%	99,783	99,583	100,518
100,361	99,456	99,656	3,00%	-0,500	110+914,817	9.436.049,507	749.987,779	PC	101,202	99,671	99,471	-1,730	0,500	3,00%	99,686	99,486	100,421
100,338	99,434	99,634	3,00%	-0,500	110+920,000	9.436.044,494	749.989,095		101,125	99,649	99,449	-1,676	0,500	3,00%	99,664	99,464	100,398
100,331	99,426	99,626	3,00%	-0,500	110+922,557	9.436.042,038	749.989,809		101,087	99,641	99,441	-1,646	0,500	3,00%	99,656	99,456	100,391
100,321	99,417	99,617	3,00%	-0,500	110+930,297	9.436.034,685	749.992,221	PT	101,044	99,632	99,432	-1,612	0,500	3,00%	99,647	99,447	100,381
100,321	99,417	99,617	3,00%	-0,500	110+940,000	9.436.025,547	749.995,483		101,058	99,632	99,432	-1,626	0,500	3,00%	99,647	99,447	100,381
100,321	99,417	99,617	3,00%	-0,500	110+960,000	9.436.006,710	750.002,205		101,008	99,632	99,432	-1,576	0,500	3,00%	99,647	99,447	100,381
100,321	99,417	99,617	3,00%	-0,500	110+980,000	9.435.987,874	750.008,928		100,751	99,632	99,432	-1,319	0,500	3,00%	99,647	99,447	100,381
100,310	99,406	99,606	3,00%	-0,500	111+000,000	9.435.969,038	750.015,650		100,620	99,621	99,421	-1,199	0,500	3,00%	99,636	99,436	100,370
100,224	99,320	99,520	3,00%	-0,500	111+020,000	9.435.950,201	750.022,373		100,431	99,535	99,335	-1,096	0,500	3,00%	99,550	99,350	100,284
100,050	99,146	99,346	3,00%	-0,500	111+040,000	9.435.931,365	750.029,096		100,211	99,361	99,161	-1,049	0,500	3,00%	99,376	99,176	100,110
99,801	98,897	99,097	3,00%	-0,500	111+060,000	9.435.912,529	750.035,818		99,808	99,112	98,912	-0,896	0,500	3,00%	99,127	98,927	99,861
99,769	98,865	99,065	3,00%	-0,500	111+062,475	9.435.910,198	750.036,650	PC	99,725	99,080	98,880	-0,846	0,500	3,00%	99,095	98,895	99,829
99,679	98,775	98,975	3,00%	-0,500	111+069,418	9.435.903,715	750.039,134		99,529	98,990	98,790	-0,740	0,500	3,00%	99,005	98,805	99,739
99,589	98,684	98,884	3,00%	-0,500	111+076,361	9.435.897,355	750.041,916	PT	99,377	98,899	98,699	-0,678	0,500	3,00%	98,914	98,714	99,649
99,541	98,637	98,837	3,00%	-0,500	111+080,000	9.435.894,055	750.043,451		99,307	98,852	98,652	-0,655	0,500	3,00%	98,867	98,667	99,601
99,281	98,377	98,577	3,00%	-0,500	111+100,000	9.435.875,920	750.051,886		99,025	98,592	98,392	-0,633	0,500	3,00%	98,607	98,407	99,341
99,262	98,358	98,558	3,00%	-0,500	111+101,447	9.435.874,608	750.052,496	PC	99,014	98,573	98,373	-0,641	0,500	3,00%	98,588	98,388	99,322
99,170	98,266	98,466	3,00%	-0,500	111+108,561	9.435.868,089	750.055,342		98,933	98,481	98,281	-0,653	0,500	3,00%	98,496	98,296	99,230
99,077	98,173	98,373	3,00%	-0,500	111+115,675	9.435.861,443	750.057,876	PT	98,844	98,388	98,188	-0,655	0,500	3,00%	98,403	98,203	99,137
99,021	98,117	98,317	3,00%	-0,500	111+120,000	9.435.857,366	750.059,321		98,792	98,332	98,132	-0,660	0,500	3,00%	98,347	98,147	99,081
98,761	97,857	98,057	3,00%	-0,500	111+140,000	9.435.838,515	750.066,001		98,530	98,072	97,872	-0,658	0,500	3,00%	98,087	97,887	98,821

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
98,501	97,597	97,797	3,00%	-0,500	111+160,000	9.435.819,663	750.072,680		98,314	97,812	97,612	-0,702	0,500	3,00%	97,827	97,627	98,561
98,241	97,337	97,537	3,00%	-0,500	111+180,000	9.435.800,811	750.079,360		98,007	97,552	97,352	-0,655	0,500	3,00%	97,567	97,367	98,301
97,981	97,077	97,277	3,00%	-0,500	111+200,000	9.435.781,960	750.086,040		97,716	97,292	97,092	-0,624	0,500	3,00%	97,307	97,107	98,041
97,697	96,793	96,993	3,00%	-0,500	111+220,000	9.435.763,108	750.092,720		97,394	97,008	96,808	-0,586	0,500	3,00%	97,023	96,823	97,757
97,363	96,459	96,659	3,00%	-0,500	111+240,000	9.435.744,257	750.099,399		97,041	96,674	96,474	-0,567	0,500	3,00%	96,689	96,489	97,423
97,005	96,101	96,301	3,00%	-0,500	111+260,000	9.435.725,405	750.106,079		96,835	96,316	96,116	-0,719	0,500	3,00%	96,331	96,131	97,065
96,647	95,743	95,943	3,00%	-0,500	111+280,000	9.435.706,554	750.112,759		96,616	95,958	95,758	-0,858	0,500	3,00%	95,973	95,773	96,707
96,403	95,498	95,698	3,00%	-0,500	111+293,668	9.435.693,670	750.117,324	PC	96,384	95,713	95,513	-0,871	0,500	3,00%	95,728	95,528	96,463
96,289	95,385	95,585	3,00%	-0,500	111+300,000	9.435.687,670	750.119,344		96,300	95,600	95,400	-0,900	0,500	3,00%	95,615	95,415	96,349
95,931	95,027	95,227	3,00%	-0,500	111+320,000	9.435.668,344	750.124,461		95,989	95,242	95,042	-0,947	0,500	3,00%	95,257	95,057	95,991
95,573	94,669	94,869	3,00%	-0,500	111+340,000	9.435.648,604	750.127,624		95,595	94,884	94,684	-0,911	0,500	3,00%	94,899	94,699	95,633
95,215	94,311	94,511	3,00%	-0,500	111+360,000	9.435.628,647	750.128,800		95,341	94,526	94,326	-1,015	0,500	3,00%	94,541	94,341	95,275
94,857	93,953	94,153	3,00%	-0,500	111+380,000	9.435.608,672	750.127,978		94,890	94,168	93,968	-0,922	0,500	3,00%	94,183	93,983	94,917
94,558	93,653	93,853	3,00%	-0,500	111+396,738	9.435.592,087	750.125,760		94,569	93,868	93,668	-0,901	0,500	3,00%	93,883	93,683	94,618
94,499	93,595	93,795	3,00%	-0,500	111+400,000	9.435.588,880	750.125,166		94,552	93,810	93,610	-0,942	0,500	3,00%	93,825	93,625	94,559
94,141	93,237	93,437	3,00%	-0,500	111+420,000	9.435.569,466	750.120,392		94,287	93,452	93,252	-1,035	0,500	3,00%	93,467	93,267	94,201
93,781	92,877	93,077	3,00%	-0,500	111+440,000	9.435.550,627	750.113,704		93,981	93,092	92,892	-1,089	0,500	3,00%	93,107	92,907	93,841
93,421	92,517	92,717	3,00%	-0,500	111+460,000	9.435.532,549	750.105,168		93,585	92,732	92,532	-1,053	0,500	3,00%	92,747	92,547	93,481
93,061	92,157	92,357	3,00%	-0,500	111+480,000	9.435.515,413	750.094,871		93,294	92,372	92,172	-1,122	0,500	3,00%	92,387	92,187	93,121
92,705	91,800	92,000	3,00%	-0,500	111+499,809	9.435.499,539	750.083,036	PT	92,885	92,015	91,815	-1,070	0,500	3,00%	92,030	91,830	92,765
92,701	91,797	91,997	3,00%	-0,500	111+500,000	9.435.499,391	750.082,914		92,883	92,012	91,812	-1,071	0,500	3,00%	92,027	91,827	92,761
92,576	91,671	91,871	3,00%	-0,500	111+506,976	9.435.494,012	750.078,472	PC	92,760	91,886	91,686	-1,073	0,500	3,00%	91,901	91,701	92,636
92,341	91,437	91,637	3,00%	-0,500	111+520,000	9.435.484,341	750.069,755		92,631	91,652	91,452	-1,179	0,500	3,00%	91,667	91,467	92,401
91,981	91,077	91,277	3,00%	-0,500	111+540,000	9.435.471,056	750.054,824		92,258	91,292	91,092	-1,166	0,500	3,00%	91,307	91,107	92,041
91,973	91,069	91,269	3,00%	-0,500	111+540,450	9.435.470,781	750.054,469		92,248	91,284	91,084	-1,164	0,500	3,00%	91,299	91,099	92,033
91,621	90,717	90,917	3,00%	-0,500	111+560,000	9.435.459,874	750.038,260		91,978	90,932	90,732	-1,246	0,500	3,00%	90,947	90,747	91,681
91,371	90,466	90,666	3,00%	-0,500	111+573,923	9.435.453,438	750.025,919	PT	91,656	90,681	90,481	-1,175	0,500	3,00%	90,696	90,496	91,431
91,261	90,357	90,557	3,00%	-0,500	111+580,000	9.435.450,881	750.020,407		91,473	90,572	90,372	-1,101	0,500	3,00%	90,587	90,387	91,321
90,910	90,006	90,206	3,00%	-0,500	111+600,000	9.435.442,466	750.002,264		90,722	90,221	90,021	-0,701	0,500	3,00%	90,236	90,036	90,970
90,622	89,718	89,918	3,00%	-0,500	111+620,000	9.435.434,050	749.984,120		90,473	89,933	89,733	-0,740	0,500	3,00%	89,948	89,748	90,682
90,406	89,502	89,702	3,00%	-0,500	111+640,000	9.435.425,634	749.965,977		90,340	89,717	89,517	-0,823	0,500	3,00%	89,732	89,532	90,466
90,285	89,381	89,581	3,00%	-0,500	111+656,077	9.435.418,869	749.951,392	PC	90,155	89,596	89,396	-0,759	0,500	3,00%	89,611	89,411	90,345
90,262	89,358	89,558	3,00%	-0,500	111+660,000	9.435.417,247	749.947,821		90,105	89,573	89,373	-0,732	0,500	3,00%	89,588	89,388	90,322
90,238	89,333	89,533	3,00%	-0,500	111+664,983	9.435.415,266	749.943,249		90,082	89,548	89,348	-0,734	0,500	3,00%	89,563	89,363	90,298
90,205	89,300	89,500	3,00%	-0,500	111+673,889	9.435.411,956	749.934,981	PT	90,459	89,515	89,315	-1,143	0,500	3,00%	89,530	89,330	90,265
90,190	89,286	89,486	3,00%	-0,500	111+680,000	9.435.409,786	749.929,269		90,170	89,501	89,301	-0,869	0,500	3,00%	89,516	89,316	90,250
90,181	89,277	89,477	3,00%	-0,500	111+700,000	9.435.402,683	749.910,572		90,056	89,492	89,292	-0,764	0,500	3,00%	89,507	89,307	90,241
90,181	89,277	89,477	3,00%	-0,500	111+701,087	9.435.402,297	749.909,556	PC	90,060	89,492	89,292	-0,768	0,500	3,00%	89,507	89,307	90,241
90,181	89,277	89,477	3,00%	-0,500	111+708,172	9.435.399,687	749.902,970		90,060	89,492	89,292	-0,768	0,500	3,00%	89,507	89,307	90,241
90,181	89,277	89,477	3,00%	-0,500	111+715,256	9.435.396,892	749.896,460	PT	90,072	89,492	89,292	-0,780	0,500	3,00%	89,507	89,307	90,241
90,181	89,277	89,477	3,00%	-0,500	111+720,000	9.435.394,959	749.892,128		90,077	89,492	89,292	-0,785	0,500	3,00%	89,507	89,307	90,241
90,181	89,277	89,477	3,00%	-0,500	111+740,000	9.435.386,809	749.873,864		90,050	89,492	89,292	-0,758	0,500	3,00%	89,507	89,307	90,241
90,181	89,277	89,477	3,00%	-0,500	111+760,000	9.435.378,658	749.855,600		89,925	89,492	89,292	-0,633	0,500	3,00%	89,507	89,307	90,241
90,181	89,277	89,477	3,00%	-0,500	111+780,000	9.435.370,508	749.837,337		89,901	89,492	89,292	-0,609	0,500	3,00%	89,507	89,307	90,241
90,181	89,277	89,477	3,00%	-0,500	111+800,000	9.435.362,357	749.819,073		89,987	89,492	89,292	-0,695	0,500	3,00%	89,507	89,307	90,241
90,223	89,319	89,519	3,00%	-0,500	111+820,000	9.435.354,207	749.800,809		90,053	89,534	89,334	-0,719	0,500	3,00%	89,549	89,349	90,283
90,264	89,359	89,559	3,00%	-0,500	111+828,015	9.435.350,941	749.793,490	PC	90,067	89,574	89,374	-0,693	0,500	3,00%	89,589	89,389	90,324
90,303	89,399	89,599	3,00%	-0,500	111+834,058	9.435.348,411	749.788,001		90,111	89,614	89,414	-0,697	0,500	3,00%	89,629	89,429	90,363
90,349	89,445	89,645	3,00%	-0,500	111+840,000	9.435.345,796	749.782,666		90,197	89,660	89,460	-0,737	0,500	3,00%	89,675	89,475	90,409
90,350	89,446	89,646	3,00%	-0,500	111+840,101	9.435.345,750	749.782,576	PT	90,197	89,661	89,461	-0,736	0,500	3,00%	89,676	89,476	90,410
90,559	89,655	89,855	3,00%	-0,500	111+860,000	9.435.336,772	749.764,817		90,277	89,870	89,670	-0,607	0,500	3,00%	89,885	89,685	90,619
90,636	89,731	89,931	3,00%	-0,500	111+865,784	9.435.334,163	749.759,656	PC	90,283	89,946	89,746	-0,537	0,500	3,00%	89,961	89,761	90,696
90,730	89,826	90,026	3,00%	-0,500	111+872,316	9.435.331,292	749.753,788		90,432	90,041	89,841	-0,591	0,500	3,00%	90,056	89,856	90,790
90,834	89,930	90,130	3,00%	-0,500	111+878,848	9.435.328,576	749.747,848	PT	90,593	90,145	89,945	-0,648	0,500	3,00%	90,160	89,960	90,894
90,853	89,949	90,149	3,00%	-0,500	111+880,000	9.435.328,111	749.746,794		90,608	90,164	89,964	-0,644	0,500	3,00%	90,179	89,979	90,913
91,231	90,327	90,527	3,00%	-0,500	111+900,000	9.435.320,032	749.728,499		91,263	90,542	90,342	-0,921	0,500	3,00%	90,557	90,357	91,291
91,651	90,747	90,947	3,00%	-0,500	111+920,000	9.435.311,953	749.710,203		91,844	90,962	90,762	-1,082	0,500	3,00%	90,977	90,777	91,711

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
92,071	91,167	91,367	3,00%	-0,500	111+940,000	9.435.303,874	749.691,907		92,391	91,382	91,182	-1,209	0,500	3,00%	91,397	91,197	92,131
92,491	91,587	91,787	3,00%	-0,500	111+960,000	9.435.295,795	749.673,612		92,863	91,802	91,602	-1,261	0,500	3,00%	91,817	91,617	92,551
92,911	92,007	92,207	3,00%	-0,500	111+980,000	9.435.287,716	749.655,316		93,249	92,222	92,022	-1,227	0,500	3,00%	92,237	92,037	92,971
93,331	92,427	92,627	3,00%	-0,500	112+000,000	9.435.279,637	749.637,021		93,644	92,642	92,442	-1,202	0,500	3,00%	92,657	92,457	93,391
93,751	92,847	93,047	3,00%	-0,500	112+020,000	9.435.271,558	749.618,725		93,956	93,062	92,862	-1,094	0,500	3,00%	93,077	92,877	93,811
94,171	93,267	93,467	3,00%	-0,500	112+040,000	9.435.263,479	749.600,429		94,140	93,482	93,282	-0,858	0,500	3,00%	93,497	93,297	94,231
94,591	93,687	93,887	3,00%	-0,500	112+060,000	9.435.255,400	749.582,134		94,511	93,902	93,702	-0,809	0,500	3,00%	93,917	93,717	94,651
94,987	94,083	94,283	3,00%	-0,500	112+080,000	9.435.247,321	749.563,838		94,849	94,298	94,098	-0,751	0,500	3,00%	94,313	94,113	95,047
95,336	94,432	94,632	3,00%	-0,500	112+100,000	9.435.239,242	749.545,542		95,237	94,647	94,447	-0,790	0,500	3,00%	94,662	94,462	95,396
95,661	94,756	94,956	3,00%	-0,500	112+120,000	9.435.231,163	749.527,247		95,655	94,971	94,771	-0,884	0,500	3,00%	94,986	94,786	95,721
95,985	95,081	95,281	3,00%	-0,500	112+140,000	9.435.223,084	749.508,951		96,012	95,296	95,096	-0,916	0,500	3,00%	95,311	95,111	96,045
96,310	95,406	95,606	3,00%	-0,500	112+160,000	9.435.215,005	749.490,655		96,323	95,621	95,421	-0,902	0,500	3,00%	95,636	95,436	96,370
96,635	95,730	95,930	3,00%	-0,500	112+180,000	9.435.206,926	749.472,360		96,716	95,945	95,745	-0,971	0,500	3,00%	95,960	95,760	96,695
96,959	96,055	96,255	3,00%	-0,500	112+200,000	9.435.198,847	749.454,064		97,112	96,270	96,070	-1,042	0,500	3,00%	96,285	96,085	97,019
97,278	96,374	96,574	3,00%	-0,500	112+220,000	9.435.190,768	749.435,769		97,358	96,589	96,389	-0,969	0,500	3,00%	96,604	96,404	97,338
97,554	96,650	96,850	3,00%	-0,500	112+240,000	9.435.182,689	749.417,473		97,586	96,865	96,665	-0,921	0,500	3,00%	96,880	96,680	97,614
97,782	96,878	97,078	3,00%	-0,500	112+260,000	9.435.174,610	749.399,177		97,748	97,093	96,893	-0,855	0,500	3,00%	97,108	96,908	97,842
97,962	97,058	97,258	3,00%	-0,500	112+280,000	9.435.166,531	749.380,882		97,915	97,273	97,073	-0,842	0,500	3,00%	97,288	97,088	98,022
98,094	97,190	97,390	3,00%	-0,500	112+300,000	9.435.158,452	749.362,586		98,146	97,405	97,205	-0,941	0,500	3,00%	97,420	97,220	98,154
98,177	97,273	97,473	3,00%	-0,500	112+320,000	9.435.150,373	749.344,290		98,158	97,488	97,288	-0,870	0,500	3,00%	97,503	97,303	98,237
98,212	97,308	97,508	3,00%	-0,500	112+340,000	9.435.142,294	749.325,995		98,210	97,523	97,323	-0,887	0,500	3,00%	97,538	97,338	98,272
98,199	97,295	97,495	3,00%	-0,500	112+360,000	9.435.134,215	749.307,699		98,270	97,510	97,310	-0,961	0,500	3,00%	97,525	97,325	98,259
98,137	97,233	97,433	3,00%	-0,500	112+380,000	9.435.126,136	749.289,403		98,227	97,448	97,248	-0,979	0,500	3,00%	97,463	97,263	98,197
98,027	97,123	97,323	3,00%	-0,500	112+400,000	9.435.118,057	749.271,108		98,049	97,338	97,138	-0,910	0,500	3,00%	97,353	97,153	98,087
97,869	96,965	97,165	3,00%	-0,500	112+420,000	9.435.109,978	749.252,812		97,940	97,180	96,980	-0,960	0,500	3,00%	97,195	96,995	97,929
97,801	96,897	97,097	3,00%	-0,500	112+427,180	9.435.107,078	749.246,244	PC	97,846	97,112	96,912	-0,934	0,500	3,00%	97,127	96,927	97,861
97,663	96,759	96,959	3,00%	-0,500	112+440,000	9.435.101,914	749.234,510		97,659	96,974	96,774	-0,885	0,500	3,00%	96,989	96,789	97,723
97,527	96,623	96,823	3,00%	-0,500	112+451,149	9.435.097,448	749.224,295		97,569	96,838	96,638	-0,932	0,500	3,00%	96,853	96,653	97,587
97,408	96,504	96,704	3,00%	-0,500	112+460,000	9.435.093,919	749.216,178		97,491	96,719	96,519	-0,971	0,500	3,00%	96,734	96,534	97,468
97,184	96,280	96,480	3,00%	-0,500	112+475,118	9.435.087,924	749.202,299	PT	97,141	96,495	96,295	-0,846	0,500	3,00%	96,510	96,310	97,244
97,106	96,201	96,401	3,00%	-0,500	112+480,000	9.435.085,995	749.197,814		97,050	96,416	96,216	-0,833	0,500	3,00%	96,431	96,231	97,166
96,754	95,850	96,050	3,00%	-0,500	112+500,000	9.435.078,092	749.179,442		96,685	96,065	95,865	-0,820	0,500	3,00%	96,080	95,880	96,814
96,355	95,451	95,651	3,00%	-0,500	112+520,000	9.435.070,188	749.161,070		96,351	95,666	95,466	-0,886	0,500	3,00%	95,681	95,481	96,415
95,907	95,003	95,203	3,00%	-0,500	112+540,000	9.435.062,285	749.142,698		96,051	95,218	95,018	-1,033	0,500	3,00%	95,233	95,033	95,967
95,417	94,513	94,713	3,00%	-0,500	112+560,000	9.435.054,382	749.124,325		95,501	94,728	94,528	-0,973	0,500	3,00%	94,743	94,543	95,477
94,921	94,017	94,217	3,00%	-0,500	112+580,000	9.435.046,479	749.105,953		94,929	94,232	94,032	-0,897	0,500	3,00%	94,247	94,047	94,981
94,425	93,521	93,721	3,00%	-0,500	112+600,000	9.435.038,576	749.087,581		94,563	93,736	93,536	-1,027	0,500	3,00%	93,751	93,551	94,485
93,929	93,025	93,225	3,00%	-0,500	112+620,000	9.435.030,672	749.069,209		93,973	93,240	93,040	-0,933	0,500	3,00%	93,255	93,055	93,989
93,433	92,529	92,729	3,00%	-0,500	112+640,000	9.435.022,769	749.050,836		93,454	92,744	92,544	-0,910	0,500	3,00%	92,759	92,559	93,493
92,937	92,033	92,233	3,00%	-0,500	112+660,000	9.435.014,866	749.032,464		92,947	92,248	92,048	-0,899	0,500	3,00%	92,263	92,063	92,997
92,470	91,566	91,766	3,00%	-0,500	112+680,000	9.435.006,963	749.014,092		92,304	91,781	91,581	-0,723	0,500	3,00%	91,796	91,596	92,530
92,061	91,157	91,357	3,00%	-0,500	112+700,000	9.434.999,060	748.995,720		91,839	91,372	91,172	-0,667	0,500	3,00%	91,387	91,187	92,121
91,707	90,802	91,002	3,00%	-0,500	112+719,080	9.434.991,520	748.978,193	PC	91,362	91,017	90,817	-0,545	0,500	3,00%	91,032	90,832	91,767
91,691	90,787	90,987	3,00%	-0,500	112+720,000	9.434.991,159	748.977,346		91,350	91,002	90,802	-0,548	0,500	3,00%	91,017	90,817	91,751
91,584	90,680	90,880	3,00%	-0,500	112+726,468	9.434.988,769	748.971,337		91,178	90,895	90,695	-0,483	0,500	3,00%	90,910	90,710	91,644
91,472	90,568	90,768	3,00%	-0,500	112+733,856	9.434.986,359	748.964,354	PT	91,130	90,783	90,583	-0,547	0,500	3,00%	90,798	90,598	91,532
91,387	90,483	90,683	3,00%	-0,500	112+740,000	9.434.984,498	748.958,498		91,071	90,698	90,498	-0,574	0,500	3,00%	90,713	90,513	91,447
91,162	90,257	90,457	3,00%	-0,500	112+759,690	9.434.978,533	748.939,733	PC	91,173	90,472	90,272	-0,901	0,500	3,00%	90,487	90,287	91,222
91,159	90,255	90,455	3,00%	-0,500	112+760,000	9.434.978,439	748.939,438		91,174	90,470	90,270	-0,904	0,500	3,00%	90,485	90,285	91,219
91,094	90,190	90,390	3,00%	-0,500	112+767,342	9.434.976,031	748.932,503		91,129	90,405	90,205	-0,924	0,500	3,00%	90,420	90,220	91,154
91,038	90,133	90,333	3,00%	-0,500	112+774,993	9.434.973,163	748.925,410	PT	90,991	90,348	90,148	-0,843	0,500	3,00%	90,363	90,163	91,098
91,007	90,103	90,303	3,00%	-0,500	112+780,000	9.434.971,168	748.920,818		90,974	90,318	90,118	-0,856	0,500	3,00%	90,333	90,133	91,067
90,931	90,027	90,227	3,00%	-0,500	112+800,000	9.434.963,200	748.902,474		90,828	90,242	90,042	-0,787	0,500	3,00%	90,257	90,057	90,991
90,921	90,017	90,217	3,00%	-0,500	112+820,000	9.434.955,233	748.884,130		90,704	90,232	90,032	-0,672	0,500	3,00%	90,247	90,047	90,981
90,921	90,017	90,217	3,00%	-0,500	112+840,000	9.434.947,265	748.865,785		90,682	90,232	90,032	-0,650	0,500	3,00%	90,247	90,047	90,981
90,921	90,017	90,217	3,00%	-0,500	112+860,000	9.434.939,297	748.847,441		90,488	90,232	90,032	-0,456	0,500	3,00%	90,247	90,047	90,981
90,869	89,965	90,165	3,00%	-0,500	112+880,000	9.434.931,329	748.829,097		89,791	90,180	89,980	0,188	0,500	3,00%	90,195	89,995	90,929

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 01																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
90,814	89,910	90,110	3,00%	-0,500	112+888,617	9.434.927,896	748.821,193	PC	89,447	90,125	89,925	0,477	0,500	3,00%	90,140	89,940	90,874
90,749	89,844	90,044	3,00%	-0,500	112+896,271	9.434.924,669	748.814,254		89,311	90,059	89,859	0,548	0,500	3,00%	90,074	89,874	90,809
90,711	89,807	90,007	3,00%	-0,500	112+900,000	9.434.922,970	748.810,934		89,195	90,022	89,822	0,627	0,500	3,00%	90,037	89,837	90,771
90,668	89,764	89,964	3,00%	-0,500	112+903,925	9.434.921,093	748.807,488	PT	89,099	89,979	89,779	0,680	0,500	3,00%	89,994	89,794	90,728
90,449	89,545	89,745	3,00%	-0,500	112+920,000	9.434.913,220	748.793,472		88,878	89,760	89,560	0,681	0,500	3,00%	89,775	89,575	90,509
90,189	89,285	89,485	3,00%	-0,500	112+934,683	9.434.906,029	748.780,670	PC	88,796	89,500	89,300	0,504	0,500	3,00%	89,515	89,315	90,249
90,081	89,177	89,377	3,00%	-0,500	112+940,000	9.434.903,508	748.775,990		88,888	89,392	89,192	0,304	0,500	3,00%	89,407	89,207	90,141
90,028	89,124	89,324	3,00%	-0,500	112+942,544	9.434.902,360	748.773,719		88,916	89,339	89,139	0,223	0,500	3,00%	89,354	89,154	90,088
89,863	88,958	89,158	3,00%	-0,500	112+950,405	9.434.899,061	748.766,585	PT	88,872	89,173	88,973	0,101	0,500	3,00%	89,188	88,988	89,923
89,658	88,754	88,954	3,00%	-0,500	112+960,000	9.434.895,262	748.757,774		88,722	88,969	88,769	0,047	0,500	3,00%	88,984	88,784	89,718
89,214	88,310	88,510	3,00%	-0,500	112+980,000	9.434.887,345	748.739,408		88,368	88,525	88,325	-0,043	0,500	3,00%	88,540	88,340	89,274
88,746	87,842	88,042	3,00%	-0,500	113+000,000	9.434.879,428	748.721,041		88,075	88,057	87,857	-0,218	0,500	3,00%	88,072	87,872	88,806
88,257	87,353	87,553	3,00%	-0,500	113+020,000	9.434.871,511	748.702,675		87,715	87,568	87,368	-0,347	0,500	3,00%	87,583	87,383	88,317
87,765	86,861	87,061	3,00%	-0,500	113+040,000	9.434.863,594	748.684,309		87,335	87,076	86,876	-0,459	0,500	3,00%	87,091	86,891	87,825
87,273	86,369	86,569	3,00%	-0,500	113+060,000	9.434.855,677	748.665,943		86,926	86,584	86,384	-0,542	0,500	3,00%	86,599	86,399	87,333
86,781	85,877	86,077	3,00%	-0,500	113+080,000	9.434.847,760	748.647,576		86,589	86,092	85,892	-0,697	0,500	3,00%	86,107	85,907	86,841
86,289	85,385	85,585	3,00%	-0,500	113+100,000	9.434.839,843	748.629,210		86,090	85,600	85,400	-0,690	0,500	3,00%	85,615	85,415	86,349
85,797	84,893	85,093	3,00%	-0,500	113+120,000	9.434.831,926	748.610,844		85,462	85,108	84,908	-0,554	0,500	3,00%	85,123	84,923	85,857
85,305	84,401	84,601	3,00%	-0,500	113+140,000	9.434.824,009	748.592,477		85,283	84,616	84,416	-0,867	0,500	3,00%	84,631	84,431	85,365
84,813	83,909	84,109	3,00%	-0,500	113+160,000	9.434.816,092	748.574,111		84,658	84,124	83,924	-0,734	0,500	3,00%	84,139	83,939	84,873
84,321	83,417	83,617	3,00%	-0,500	113+180,000	9.434.808,175	748.555,745		84,064	83,632	83,432	-0,632	0,500	3,00%	83,647	83,447	84,381
83,829	82,925	83,125	3,00%	-0,500	113+200,000	9.434.800,258	748.537,379		83,525	83,140	82,940	-0,585	0,500	3,00%	83,155	82,955	83,889
83,337	82,433	82,633	3,00%	-0,500	113+220,000	9.434.792,341	748.519,012		83,163	82,648	82,448	-0,715	0,500	3,00%	82,663	82,463	83,397
82,845	81,941	82,141	3,00%	-0,500	113+240,000	9.434.784,424	748.500,646		82,785	82,156	81,956	-0,829	0,500	3,00%	82,171	81,971	82,905
82,353	81,449	81,649	3,00%	-0,500	113+260,000	9.434.776,507	748.482,280		82,349	81,664	81,464	-0,885	0,500	3,00%	81,679	81,479	82,413
81,861	80,957	81,157	3,00%	-0,500	113+280,000	9.434.768,590	748.463,913		81,841	81,172	80,972	-0,869	0,500	3,00%	81,187	80,987	81,921
81,369	80,465	80,665	3,00%	-0,500	113+300,000	9.434.760,673	748.445,547		81,417	80,680	80,480	-0,937	0,500	3,00%	80,695	80,495	81,429
80,877	79,973	80,173	3,00%	-0,500	113+320,000	9.434.752,756	748.427,181		81,006	80,188	79,988	-1,018	0,500	3,00%	80,203	80,003	80,937
80,385	79,481	79,681	3,00%	-0,500	113+340,000	9.434.744,839	748.408,815		80,626	79,696	79,496	-1,130	0,500	3,00%	79,711	79,511	80,445
80,194	79,290	79,490	3,00%	-0,500	113+347,776	9.434.741,760	748.401,673	PC	80,455	79,505	79,305	-1,150	0,500	3,00%	79,520	79,320	80,254
80,075	79,170	79,370	3,00%	-0,500	113+352,622	9.434.739,844	748.397,222		80,354	79,385	79,185	-1,168	0,500	3,00%	79,400	79,200	80,135
79,955	79,051	79,251	3,00%	-0,500	113+357,468	9.434.737,932	748.392,769	PT	80,230	79,266	79,066	-1,163	0,500	3,00%	79,281	79,081	80,015
79,893	78,989	79,189	3,00%	-0,500	113+360,000	9.434.736,935	748.390,443		80,166	79,204	79,004	-1,162	0,500	3,00%	79,219	79,019	79,953
79,411	78,506	78,706	3,00%	-0,500	113+380,000	9.434.729,053	748.372,061		79,733	78,721	78,521	-1,212	0,500	3,00%	78,736	78,536	79,471
78,993	78,089	78,289	3,00%	-0,500	113+400,000	9.434.721,172	748.353,679		79,300	78,304	78,104	-1,196	0,500	3,00%	78,319	78,119	79,053
78,651	77,747	77,947	3,00%	-0,500	113+420,000	9.434.713,291	748.335,298		78,870	77,962	77,762	-1,108	0,500	3,00%	77,977	77,777	78,711
78,383	77,479	77,679	3,00%	-0,500	113+440,000	9.434.705,409	748.316,916		78,320	77,694	77,494	-0,826	0,500	3,00%	77,709	77,509	78,443
78,190	77,286	77,486	3,00%	-0,500	113+460,000	9.434.697,528	748.298,535		77,979	77,501	77,301	-0,678	0,500	3,00%	77,516	77,316	78,250
78,072	77,167	77,367	3,00%	-0,500	113+480,000	9.434.689,646	748.280,153		77,816	77,382	77,182	-0,634	0,500	3,00%	77,397	77,197	78,132
78,041	77,137	77,337	3,00%	-0,500	113+489,609	9.434.685,860	748.271,322	PC	77,741	77,352	77,152	-0,589	0,500	3,00%	77,367	77,167	78,101
78,030	77,126	77,326	3,00%	-0,500	113+496,842	9.434.683,171	748.264,608		77,734	77,341	77,141	-0,593	0,500	3,00%	77,356	77,156	78,090
78,028	77,124	77,324	3,00%	-0,500	113+500,000	9.434.682,099	748.261,637		77,773	77,339	77,139	-0,634	0,500	3,00%	77,354	77,154	78,088
78,028	77,124	77,324	3,00%	-0,500	113+504,076	9.434.680,808	748.257,772	PT	77,817	77,339	77,139	-0,678	0,500	3,00%	77,354	77,154	78,088
78,050	77,146	77,346	3,00%	-0,500	113+520,000	9.434.675,971	748.242,600		77,850	77,361	77,161	-0,690	0,500	3,00%	77,376	77,176	78,110
78,065	77,161	77,361	3,00%	-0,500	113+529,735	9.434.673,015	748.233,325	PC	77,909	77,376	77,176	-0,733	0,500	3,00%	77,391	77,191	78,125
78,075	77,171	77,371	3,00%	-0,500	113+537,425	9.434.670,492	748.226,061		78,135	77,386	77,186	-0,949	0,500	3,00%	77,401	77,201	78,135
78,077	77,173	77,373	3,00%	-0,500	113+540,000	9.434.669,565	748.223,659		78,061	77,388	77,188	-0,873	0,500	3,00%	77,403	77,203	78,137
78,080	77,176	77,376	3,00%	-0,500	113+545,116	9.434.667,600	748.218,935	PT	78,122	77,391	77,191	-0,931	0,500	3,00%	77,406	77,206	78,140
78,081	77,177	77,377	3,00%	-0,500	113+560,000	9.434.661,652	748.205,292		78,409	77,392	77,192	-1,217	0,500	3,00%	77,407	77,207	78,141
78,081	77,177	77,377	3,00%	-0,500	113+580,000	9.434.653,658	748.186,958		78,485	77,392	77,192	-1,293	0,500	3,00%	77,407	77,207	78,141
78,081	77,177	77,377	3,00%	-0,500	113+600,000	9.434.645,665	748.168,625		78,509	77,392	77,192	-1,317	0,500	3,00%	77,407	77,207	78,141
78,081	77,177	77,377	3,00%	-0,500	113+620,000	9.434.637,672	748.150,292		78,538	77,392	77,192	-1,346	0,500	3,00%	77,407	77,207	78,141
78,081	77,177	77,377	3,00%	-0,500	113+640,000	9.434.629,678	748.131,959	FIM	78,552	77,392	77,192	-1,360	0,500	3,00%	77,407	77,207	78,141

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
69,118	68,184	68,384	3,00%	-0,500	200+000,000	9.437.723,372	741.395,111	INÍCIO	68,434	68,399	68,199	-0,235	0,500	3,00%	68,414	68,214	69,118
69,266	68,362	68,562	3,00%	-0,500	200+018,768	9.437.741,940	741.397,844	PC	68,441	68,577	68,377	-0,064	0,500	3,00%	68,592	68,392	69,311
69,293	68,373	68,573	3,00%	-0,500	200+020,000	9.437.743,160	741.398,019		68,317	68,588	68,388	0,071	0,500	3,00%	68,603	68,403	69,338
69,340	68,406	68,606	3,00%	-0,500	200+023,449	9.437.746,581	741.398,454		68,131	68,621	68,421	0,290	0,500	3,00%	68,636	68,436	69,340
69,354	68,450	68,650	3,00%	-0,500	200+028,130	9.437.751,239	741.398,918	PT	67,800	68,665	68,465	0,665	0,500	3,00%	68,680	68,480	69,399
69,482	68,563	68,763	3,00%	-0,500	200+040,000	9.437.763,067	741.399,911		68,192	68,778	68,578	0,386	0,500	3,00%	68,793	68,593	69,497
69,592	68,687	68,887	3,00%	-0,500	200+053,194	9.437.776,215	741.401,015	PC	68,350	68,902	68,702	0,353	0,500	3,00%	68,917	68,717	69,652
69,686	68,752	68,952	3,00%	-0,500	200+060,000	9.437.782,982	741.401,738		68,300	68,967	68,767	0,467	0,500	3,00%	68,982	68,782	69,686
69,845	68,941	69,141	3,00%	-0,500	200+080,000	9.437.802,585	741.405,626		68,012	69,156	68,956	0,944	0,500	3,00%	69,171	68,971	69,890
69,903	68,984	69,184	3,00%	-0,500	200+084,570	9.437.806,980	741.406,879		68,081	69,199	68,999	0,918	0,500	3,00%	69,214	69,014	69,933
70,049	69,130	69,330	3,00%	-0,500	200+100,000	9.437.821,498	741.412,086		68,262	69,345	69,145	0,883	0,500	3,00%	69,360	69,160	70,079
70,173	69,254	69,454	3,00%	-0,500	200+115,947	9.437.835,857	741.419,004	PT	68,646	69,469	69,269	0,623	0,500	3,00%	69,484	69,284	70,218
70,210	69,276	69,476	3,00%	-0,500	200+120,000	9.437.839,410	741.420,955		68,774	69,491	69,291	0,516	0,500	3,00%	69,506	69,306	70,210
70,231	69,327	69,527	3,00%	-0,500	200+140,000	9.437.856,942	741.430,580		69,397	69,542	69,342	-0,055	0,500	3,00%	69,557	69,357	70,419
70,389	69,327	69,527	3,00%	-0,500	200+160,000	9.437.874,473	741.440,206		69,795	69,542	69,342	-0,453	0,500	3,00%	69,557	69,357	70,434
70,404	69,327	69,527	3,00%	-0,500	200+180,000	9.437.892,005	741.449,831		69,883	69,542	69,342	-0,541	0,500	3,00%	69,557	69,357	70,404
70,392	69,346	69,546	3,00%	-0,500	200+200,000	9.437.909,536	741.459,457		69,472	69,561	69,361	-0,111	0,500	3,00%	69,576	69,376	70,280
70,258	69,353	69,553	3,00%	-0,500	200+202,560	9.437.911,780	741.460,689	PC	69,425	69,568	69,368	-0,057	0,500	3,00%	69,583	69,383	70,303
70,358	69,439	69,639	3,00%	-0,500	200+220,000	9.437.926,610	741.469,851		69,259	69,654	69,454	0,194	0,500	3,00%	69,669	69,469	70,388
70,482	69,563	69,763	3,00%	-0,500	200+235,293	9.437.938,783	741.479,099		68,982	69,778	69,578	0,596	0,500	3,00%	69,793	69,593	70,497
70,513	69,609	69,809	3,00%	-0,500	200+240,000	9.437.942,358	741.482,162		69,053	69,824	69,624	0,570	0,500	3,00%	69,839	69,639	70,558
70,723	69,804	70,004	3,00%	-0,500	200+260,000	9.437.956,551	741.496,236		69,333	70,019	69,819	0,486	0,500	3,00%	70,034	69,834	70,753
70,802	69,882	70,082	3,00%	-0,500	200+268,025	9.437.961,765	741.502,337	PT	69,706	70,097	69,897	0,191	0,500	3,00%	70,112	69,912	70,112
70,199	69,999	70,199	3,00%	-0,500	200+280,000	9.437.969,328	741.511,620		70,386	70,214	70,014	-0,372	0,500	3,00%	70,229	70,029	70,229
70,337	70,137	70,337	3,00%	-0,500	200+294,136	9.437.978,256	741.522,580	PC	70,978	70,352	70,152	-0,826	0,500	3,00%	70,367	70,167	70,367
70,394	70,194	70,394	3,00%	-0,500	200+300,000	9.437.981,900	741.527,175		71,116	70,409	70,209	-0,907	0,500	3,00%	70,424	70,224	70,424
70,590	70,390	70,590	3,00%	-0,500	200+320,000	9.437.993,399	741.543,530		71,106	70,605	70,405	-0,701	0,500	3,00%	70,620	70,420	70,620
70,597	70,397	70,597	3,00%	-0,500	200+320,758	9.437.993,805	741.544,170		71,132	70,612	70,412	-0,720	0,500	3,00%	70,627	70,427	70,627
70,777	70,577	70,777	3,00%	-0,500	200+340,000	9.438.003,393	741.560,846		71,339	70,792	70,592	-0,747	0,500	3,00%	70,807	70,607	70,807
70,840	70,640	70,840	3,00%	-0,500	200+347,380	9.438.006,685	741.567,451	PT	71,496	70,855	70,655	-0,842	0,500	3,00%	70,870	70,670	70,870
70,939	70,739	70,939	3,00%	-0,500	200+360,000	9.438.012,128	741.578,837		71,694	70,954	70,754	-0,940	0,500	3,00%	70,969	70,769	70,969
71,014	70,814	71,014	3,00%	-0,500	200+370,380	9.438.016,604	741.588,203	PC	71,928	71,029	70,829	-1,099	0,500	3,00%	71,044	70,844	71,044
71,083	70,883	71,083	3,00%	-0,500	200+380,000	9.438.020,627	741.596,940		72,080	71,098	70,898	-1,182	0,500	3,00%	71,113	70,913	71,113
71,226	71,026	71,226	3,00%	-0,500	200+400,000	9.438.028,177	741.615,457		71,975	71,241	71,041	-0,934	0,500	3,00%	71,256	71,056	71,256
71,370	71,170	71,370	3,00%	-0,500	200+420,000	9.438.034,606	741.634,393		71,842	71,385	71,185	-0,657	0,500	3,00%	71,400	71,200	71,400
71,513	71,313	71,513	3,00%	-0,500	200+440,000	9.438.039,889	741.653,679		71,633	71,528	71,328	-0,305	0,500	3,00%	71,543	71,343	71,543
71,643	71,443	71,643	3,00%	-0,500	200+458,134	9.438.043,674	741.671,411		71,227	71,658	71,458	0,231	0,500	3,00%	71,673	71,473	71,673
71,657	71,457	71,657	3,00%	-0,500	200+460,000	9.438.044,009	741.673,247		71,276	71,672	71,472	0,196	0,500	3,00%	71,687	71,487	71,687
71,800	71,600	71,800	3,00%	-0,500	200+480,000	9.438.046,950	741.693,027		71,668	71,815	71,615	-0,052	0,500	3,00%	71,830	71,630	71,830
71,944	71,744	71,944	3,00%	-0,500	200+500,000	9.438.048,703	741.712,947		71,710	71,959	71,759	0,049	0,500	3,00%	71,974	71,774	71,974
72,087	71,887	72,087	3,00%	-0,500	200+520,000	9.438.049,260	741.732,936		71,821	72,102	71,902	0,082	0,500	3,00%	72,117	71,917	72,117
72,244	72,044	72,244	3,00%	-0,500	200+540,000	9.438.048,620	741.752,923		71,830	72,259	72,059	0,229	0,500	3,00%	72,274	72,074	72,274
72,293	72,093	72,293	3,00%	-0,500	200+545,887	9.438.048,204	741.758,795	PT	71,811	72,308	72,108	0,297	0,500	3,00%	72,323	72,123	72,323
72,419	72,219	72,419	3,00%	-0,500	200+560,000	9.438.047,082	741.772,863		71,832	72,434	72,234	0,401	0,500	3,00%	72,449	72,249	72,449
72,612	72,412	72,612	3,00%	-0,500	200+580,000	9.438.045,492	741.792,800		71,804	72,627	72,427	0,623	0,500	3,00%	72,642	72,442	72,642
72,812	72,612	72,812	3,00%	-0,500	200+600,000	9.438.043,902	741.812,737		71,928	72,827	72,627	0,699	0,500	3,00%	72,842	72,642	72,842
73,012	72,812	73,012	3,00%	-0,500	200+620,000	9.438.042,313	741.832,673		72,071	73,027	72,827	0,756	0,500	3,00%	73,042	72,842	73,042
73,211	73,011	73,211	3,00%	-0,500	200+640,000	9.438.040,723	741.852,610		72,044	73,226	73,026	0,982	0,500	3,00%	73,241	73,041	73,241
73,411	73,211	73,411	3,00%	-0,500	200+660,000	9.438.039,133	741.872,547		72,143	73,426	73,226	1,083	0,500	3,00%	73,441	73,241	73,441
73,611	73,411	73,611	3,00%	-0,500	200+680,000	9.438.037,543	741.892,484		72,432	73,626	73,426	0,994	0,500	3,00%	73,641	73,441	73,641
73,790	73,590	73,790	3,00%	-0,500	200+697,920	9.438.036,119	741.910,347	PC	72,429	73,805	73,605	1,176	0,500	3,00%	73,820	73,620	73,820
73,811	73,611	73,811	3,00%	-0,500	200+700,000	9.438.035,964	741.912,421		72,245	73,826	73,626	1,381	0,500	3,00%	73,841	73,641	73,841
73,874	73,674	73,874	3,00%	-0,500	200+706,316	9.438.035,627	741.918,727		72,086	73,889	73,689	1,603	0,500	3,00%	73,904	73,704	73,904
73,954	73,754	73,954	3,00%	-0,500	200+714,711	9.438.035,488	741.927,122	PT	72,382	73,969	73,769	1,387	0,500	3,00%	73,984	73,784	73,984
73,999	73,799	73,999	3,00%	-0,500	200+720,000	9.438.035,511	741.932,410		72,711	74,014	73,814	1,104	0,500	3,00%	74,029	73,829	74,029
74,141	73,941	74,141	3,00%	-0,500	200+740,000	9.438.035,598	741.952,410		74,263	74,156	73,956	-0,307	0,500	3,00%	74,171	73,971	74,171
74,146	73,946	74,146	3,00%	-0,500	200+740,839	9.438.035,602	741.953,248	PC	74,332	74,161	73,961	-0,371	0,500	3,00%	74,176	73,976	74,176

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
74,189	73,989	74,189	3,00%	-0,500	200+749,234	9.438.035,463	741.961,643		74,760	74,204	74,004	-0,756	0,500	3,00%	74,219	74,019	74,219
74,224	74,024	74,224	3,00%	-0,500	200+757,630	9.438.034,971	741.970,023	PT	74,820	74,239	74,039	-0,780	0,500	3,00%	74,254	74,054	74,254
74,233	74,033	74,233	3,00%	-0,500	200+760,000	9.438.034,783	741.972,386		74,791	74,248	74,048	-0,743	0,500	3,00%	74,263	74,063	74,263
74,274	74,074	74,274	3,00%	-0,500	200+780,000	9.438.033,193	741.992,322		74,418	74,289	74,089	-0,329	0,500	3,00%	74,304	74,104	74,304
74,277	74,077	74,277	3,00%	-0,500	200+800,000	9.438.031,603	742.012,259		74,793	74,292	74,092	-0,701	0,500	3,00%	74,307	74,107	74,307
74,277	74,077	74,277	3,00%	-0,500	200+820,000	9.438.030,013	742.032,196		75,900	74,292	74,092	-1,808	0,500	3,00%	74,307	74,107	74,307
74,277	74,077	74,277	3,00%	-0,500	200+840,000	9.438.028,423	742.052,132		76,256	74,292	74,092	-2,164	0,500	3,00%	74,307	74,107	74,307
74,277	74,077	74,277	3,00%	-0,500	200+860,000	9.438.026,833	742.072,069		76,258	74,292	74,092	-2,166	0,500	3,00%	74,307	74,107	74,307
74,277	74,077	74,277	3,00%	-0,500	200+871,682	9.438.025,905	742.083,714	PC	76,408	74,292	74,092	-2,316	0,500	3,00%	74,307	74,107	74,307
74,277	74,077	74,277	3,00%	-0,500	200+880,000	9.438.025,071	742.091,990		76,572	74,292	74,092	-2,480	0,500	3,00%	74,307	74,107	74,307
74,277	74,077	74,277	3,00%	-0,500	200+880,725	9.438.024,982	742.092,709		76,523	74,292	74,092	-2,431	0,500	3,00%	74,307	74,107	74,307
74,277	74,077	74,277	3,00%	-0,500	200+889,768	9.438.023,654	742.101,653	PT	76,115	74,292	74,092	-2,023	0,500	3,00%	74,307	74,107	74,307
74,278	74,078	74,278	3,00%	-0,500	200+900,000	9.438.021,923	742.111,738		75,463	74,293	74,093	-1,370	0,500	3,00%	74,308	74,108	74,308
74,303	74,103	74,303	3,00%	-0,500	200+915,767	9.438.019,256	742.127,278	PC	74,699	74,318	74,118	-0,581	0,500	3,00%	74,333	74,133	74,333
74,316	74,116	74,316	3,00%	-0,500	200+920,000	9.438.018,584	742.131,457		74,644	74,331	74,131	-0,513	0,500	3,00%	74,346	74,146	74,346
74,337	74,137	74,337	3,00%	-0,500	200+925,641	9.438.017,826	742.137,047		74,760	74,352	74,152	-0,608	0,500	3,00%	74,367	74,167	74,367
74,384	74,184	74,384	3,00%	-0,500	200+935,515	9.438.016,880	742.146,875	PT	75,074	74,399	74,199	-0,875	0,500	3,00%	74,414	74,214	74,414
74,410	74,210	74,410	3,00%	-0,500	200+940,000	9.438.016,561	742.151,348		75,143	74,425	74,225	-0,918	0,500	3,00%	74,440	74,240	74,440
74,561	74,361	74,561	3,00%	-0,500	200+960,000	9.438.015,137	742.171,297		74,864	74,576	74,376	-0,488	0,500	3,00%	74,591	74,391	74,591
74,579	74,379	74,579	3,00%	-0,500	200+962,005	9.438.014,994	742.173,297	PC	74,784	74,594	74,394	-0,391	0,500	3,00%	74,609	74,409	74,609
74,692	74,492	74,692	3,00%	-0,500	200+975,283	9.438.013,990	742.186,537		75,167	74,707	74,507	-0,660	0,500	3,00%	74,722	74,522	74,722
74,732	74,532	74,732	3,00%	-0,500	200+980,000	9.438.013,605	742.191,238		75,320	74,747	74,547	-0,773	0,500	3,00%	74,762	74,562	74,762
74,806	74,606	74,806	3,00%	-0,500	200+988,561	9.438.012,869	742.199,767	PT	75,541	74,821	74,621	-0,921	0,500	3,00%	74,836	74,636	74,836
74,903	74,703	74,903	3,00%	-0,500	201+000,000	9.438.011,854	742.211,161		75,586	74,918	74,718	-0,868	0,500	3,00%	74,933	74,733	74,933
75,074	74,874	75,074	3,00%	-0,500	201+020,000	9.438.010,078	742.231,082		75,494	75,089	74,889	-0,605	0,500	3,00%	75,104	74,904	75,104
75,245	75,045	75,245	3,00%	-0,500	201+040,000	9.438.008,302	742.251,003		75,470	75,260	75,060	-0,410	0,500	3,00%	75,275	75,075	75,275
75,416	75,216	75,416	3,00%	-0,500	201+060,000	9.438.006,525	742.270,924		75,871	75,431	75,231	-0,640	0,500	3,00%	75,446	75,246	75,446
75,574	75,374	75,574	3,00%	-0,500	201+080,000	9.438.004,749	742.290,845		75,497	75,589	75,389	-0,108	0,500	3,00%	75,604	75,404	75,604
75,673	75,473	75,673	3,00%	-0,500	201+100,000	9.438.002,973	742.310,766		75,414	75,688	75,488	0,074	0,500	3,00%	75,703	75,503	75,703
75,710	75,510	75,710	3,00%	-0,500	201+120,000	9.438.001,197	742.330,687		75,381	75,725	75,525	0,145	0,500	3,00%	75,740	75,540	75,740
75,686	75,486	75,686	3,00%	-0,500	201+140,000	9.437.999,421	742.350,608		75,373	75,701	75,501	0,127	0,500	3,00%	75,716	75,516	75,716
75,599	75,399	75,599	3,00%	-0,500	201+160,000	9.437.997,645	742.370,529		76,171	75,614	75,414	-0,757	0,500	3,00%	75,629	75,429	75,629
75,451	75,251	75,451	3,00%	-0,500	201+180,000	9.437.995,869	742.390,450		74,994	75,466	75,266	0,272	0,500	3,00%	75,481	75,281	75,481
75,305	75,105	75,305	3,00%	-0,500	201+195,024	9.437.994,535	742.405,415	PC	75,058	75,320	75,120	0,061	0,500	3,00%	75,335	75,135	75,335
75,255	75,055	75,255	3,00%	-0,500	201+200,000	9.437.994,094	742.410,371		75,051	75,270	75,070	0,019	0,500	3,00%	75,285	75,085	75,285
75,055	74,855	75,055	3,00%	-0,500	201+220,000	9.437.992,348	742.430,295		75,136	75,070	74,870	-0,266	0,500	3,00%	75,085	74,885	75,085
75,013	74,813	75,013	3,00%	-0,500	201+224,156	9.437.991,990	742.434,435		75,149	75,028	74,828	-0,321	0,500	3,00%	75,043	74,843	75,043
74,855	74,655	74,855	3,00%	-0,500	201+240,000	9.437.990,642	742.450,222		75,185	74,870	74,670	-0,516	0,500	3,00%	74,885	74,685	74,885
74,722	74,522	74,722	3,00%	-0,500	201+253,288	9.437.989,530	742.463,463	PT	75,594	74,737	74,537	-1,057	0,500	3,00%	74,752	74,552	74,752
74,655	74,455	74,655	3,00%	-0,500	201+260,000	9.437.988,973	742.470,152		75,322	74,670	74,470	-0,853	0,500	3,00%	74,685	74,485	74,685
74,455	74,255	74,455	3,00%	-0,500	201+280,000	9.437.987,313	742.490,083		74,524	74,470	74,270	-0,254	0,500	3,00%	74,485	74,285	74,485
74,255	74,055	74,255	3,00%	-0,500	201+300,000	9.437.985,653	742.510,014		74,311	74,270	74,070	-0,241	0,500	3,00%	74,285	74,085	74,285
74,055	73,855	74,055	3,00%	-0,500	201+320,000	9.437.983,993	742.529,945		74,011	74,070	73,870	-0,141	0,500	3,00%	74,085	73,885	74,085
73,855	73,655	73,855	3,00%	-0,500	201+340,000	9.437.982,333	742.549,876		73,618	73,870	73,670	0,052	0,500	3,00%	73,885	73,685	73,885
73,655	73,455	73,655	3,00%	-0,500	201+360,000	9.437.980,673	742.569,807		73,375	73,670	73,470	0,094	0,500	3,00%	73,685	73,485	73,685
73,455	73,255	73,455	3,00%	-0,500	201+380,000	9.437.979,013	742.589,738		73,134	73,470	73,270	0,135	0,500	3,00%	73,485	73,285	73,485
73,255	73,055	73,255	3,00%	-0,500	201+400,000	9.437.977,353	742.609,669		72,913	73,270	73,070	0,157	0,500	3,00%	73,285	73,085	73,285
73,125	72,925	73,125	3,00%	-0,500	201+413,000	9.437.976,274	742.622,624	PC	72,809	73,140	72,940	0,131	0,500	3,00%	73,155	72,955	73,155
73,055	72,855	73,055	3,00%	-0,500	201+420,000	9.437.975,696	742.629,600		72,772	73,070	72,870	0,097	0,500	3,00%	73,085	72,885	73,085
72,855	72,655	72,855	3,00%	-0,500	201+440,000	9.437.974,070	742.649,534		72,520	72,870	72,670	0,150	0,500	3,00%	72,885	72,685	72,885
72,816	72,616	72,816	3,00%	-0,500	201+443,845	9.437.973,762	742.653,367		72,455	72,831	72,631	0,176	0,500	3,00%	72,846	72,646	72,846
72,655	72,455	72,655	3,00%	-0,500	201+460,000	9.437.972,484	742.669,471		72,251	72,670	72,470	0,218	0,500	3,00%	72,685	72,485	72,685
72,509	72,309	72,509	3,00%	-0,500	201+474,691	9.437.971,344	742.684,118	PT	72,152	72,524	72,324	0,172	0,500	3,00%	72,539	72,339	72,539
72,459	72,259	72,459	3,00%	-0,500	201+480,000	9.437.970,936	742.689,411		72,119	72,474	72,274	0,155	0,500	3,00%	72,489	72,289	72,489
72,281	72,081	72,281	3,00%	-0,500	201+500,000	9.437.969,399	742.709,352		71,988	72,296	72,096	0,108	0,500	3,00%	72,311	72,111	72,311
72,124	71,924	72,124	3,00%	-0,500	201+520,000	9.437.967,862	742.729,293		71,915	72,139	71,939	0,024	0,500	3,00%	72,154	71,954	72,154
71,985	71,785	71,985	3,00%	-0,500	201+540,000	9.437.966,325	742.749,234		71,838	72,000	71,800	-0,038	0,500	3,00%	72,015	71,815	72,015

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
71,866	71,666	71,866	3,00%	-0,500	201+560,000	9.437.964,788	742.769,174		71,695	71,881	71,681	-0,014	0,500	3,00%	71,896	71,696	71,896
71,767	71,567	71,767	3,00%	-0,500	201+580,000	9.437.963,251	742.789,115		71,578	71,782	71,582	0,004	0,500	3,00%	71,797	71,597	71,797
71,687	71,487	71,687	3,00%	-0,500	201+600,000	9.437.961,714	742.809,056		71,638	71,702	71,502	-0,136	0,500	3,00%	71,717	71,517	71,717
71,626	71,426	71,626	3,00%	-0,500	201+620,000	9.437.960,177	742.828,997		71,481	71,641	71,441	-0,039	0,500	3,00%	71,656	71,456	71,656
71,585	71,385	71,585	3,00%	-0,500	201+640,000	9.437.958,640	742.848,938		71,518	71,600	71,400	-0,118	0,500	3,00%	71,615	71,415	71,615
71,564	71,364	71,564	3,00%	-0,500	201+660,000	9.437.957,103	742.868,879		71,446	71,579	71,379	-0,067	0,500	3,00%	71,594	71,394	71,594
71,561	71,361	71,561	3,00%	-0,500	201+680,000	9.437.955,566	742.888,820		71,399	71,576	71,376	-0,023	0,500	3,00%	71,591	71,391	71,591
71,579	71,379	71,579	3,00%	-0,500	201+700,000	9.437.954,029	742.908,760		71,331	71,594	71,394	0,063	0,500	3,00%	71,609	71,409	71,609
71,616	71,416	71,616	3,00%	-0,500	201+720,000	9.437.952,492	742.928,701		71,354	71,631	71,431	0,076	0,500	3,00%	71,646	71,446	71,646
71,672	71,472	71,672	3,00%	-0,500	201+740,000	9.437.950,955	742.948,642		71,442	71,687	71,487	0,045	0,500	3,00%	71,702	71,502	71,702
71,719	71,519	71,719	3,00%	-0,500	201+753,328	9.437.949,931	742.961,931	PC	71,469	71,734	71,534	0,066	0,500	3,00%	71,749	71,549	71,749
71,743	71,543	71,743	3,00%	-0,500	201+760,000	9.437.949,381	742.968,580		71,453	71,758	71,558	0,105	0,500	3,00%	71,773	71,573	71,773
71,816	71,616	71,816	3,00%	-0,500	201+780,000	9.437.947,275	742.988,468		71,502	71,831	71,631	0,129	0,500	3,00%	71,846	71,646	71,846
71,876	71,676	71,876	3,00%	-0,500	201+796,379	9.437.945,044	743.004,694		71,554	71,891	71,691	0,137	0,500	3,00%	71,906	71,706	71,906
71,889	71,689	71,889	3,00%	-0,500	201+800,000	9.437.944,490	743.008,272		71,565	71,904	71,704	0,139	0,500	3,00%	71,919	71,719	71,919
71,961	71,761	71,961	3,00%	-0,500	201+820,000	9.437.941,028	743.027,969		71,732	71,976	71,776	0,044	0,500	3,00%	71,991	71,791	71,991
72,032	71,832	72,032	3,00%	-0,500	201+839,430	9.437.937,021	743.046,981	PT	71,656	72,047	71,847	0,191	0,500	3,00%	72,062	71,862	72,062
72,034	71,834	72,034	3,00%	-0,500	201+840,000	9.437.936,895	743.047,536		71,668	72,049	71,849	0,181	0,500	3,00%	72,064	71,864	72,064
72,058	71,858	72,058	3,00%	-0,500	201+846,781	9.437.935,386	743.054,148	PC	71,827	72,073	71,873	0,047	0,500	3,00%	72,088	71,888	72,088
72,106	71,906	72,106	3,00%	-0,500	201+860,000	9.437.932,294	743.066,999		71,865	72,121	71,921	0,056	0,500	3,00%	72,136	71,936	72,136
72,179	71,979	72,179	3,00%	-0,500	201+880,000	9.437.927,046	743.086,297		71,987	72,194	71,994	0,007	0,500	3,00%	72,209	72,009	72,209
72,252	72,052	72,252	3,00%	-0,500	201+900,000	9.437.921,117	743.105,397		72,145	72,267	72,067	-0,078	0,500	3,00%	72,282	72,082	72,282
72,324	72,124	72,324	3,00%	-0,500	201+920,000	9.437.914,515	743.124,275		72,185	72,339	72,139	-0,045	0,500	3,00%	72,354	72,154	72,354
72,334	72,134	72,334	3,00%	-0,500	201+922,669	9.437.913,583	743.126,777		72,211	72,349	72,149	-0,062	0,500	3,00%	72,364	72,164	72,364
72,397	72,197	72,397	3,00%	-0,500	201+940,000	9.437.907,247	743.142,907		72,371	72,412	72,212	-0,159	0,500	3,00%	72,427	72,227	72,427
72,470	72,270	72,470	3,00%	-0,500	201+960,000	9.437.899,324	743.161,269		72,608	72,485	72,285	-0,324	0,500	3,00%	72,500	72,300	72,500
72,542	72,342	72,542	3,00%	-0,500	201+980,000	9.437.890,754	743.179,339		72,938	72,557	72,357	-0,581	0,500	3,00%	72,572	72,372	72,572
72,610	72,410	72,610	3,00%	-0,500	201+998,557	9.437.882,234	743.195,824	PT	72,922	72,625	72,425	-0,497	0,500	3,00%	72,640	72,440	72,640
72,615	72,415	72,615	3,00%	-0,500	202+000,000	9.437.881,551	743.197,095		72,941	72,630	72,430	-0,511	0,500	3,00%	72,645	72,445	72,645
72,628	72,428	72,628	3,00%	-0,500	202+003,757	9.437.879,772	743.200,403	PC	72,868	72,643	72,443	-0,425	0,500	3,00%	72,658	72,458	72,658
72,687	72,487	72,687	3,00%	-0,500	202+020,000	9.437.871,892	743.214,607		72,988	72,702	72,502	-0,485	0,500	3,00%	72,717	72,517	72,717
72,760	72,560	72,760	3,00%	-0,500	202+040,000	9.437.861,687	743.231,806		73,007	72,775	72,575	-0,432	0,500	3,00%	72,790	72,590	72,790
72,833	72,633	72,833	3,00%	-0,500	202+060,000	9.437.850,935	743.248,670		73,030	72,848	72,648	-0,383	0,500	3,00%	72,863	72,663	72,863
72,905	72,705	72,905	3,00%	-0,500	202+080,000	9.437.839,649	743.265,180		73,153	72,920	72,720	-0,433	0,500	3,00%	72,935	72,735	72,935
72,975	72,775	72,975	3,00%	-0,500	202+100,000	9.437.827,840	743.281,320		73,157	72,990	72,790	-0,367	0,500	3,00%	73,005	72,805	73,005
73,011	72,811	73,011	3,00%	-0,500	202+113,481	9.437.819,590	743.291,982		73,171	73,026	72,826	-0,345	0,500	3,00%	73,041	72,841	73,041
73,025	72,825	73,025	3,00%	-0,500	202+120,000	9.437.815,519	743.297,073		73,611	73,040	72,840	-0,771	0,500	3,00%	73,055	72,855	73,055
73,052	72,852	73,052	3,00%	-0,500	202+140,000	9.437.802,700	743.312,424		73,699	73,067	72,867	-0,832	0,500	3,00%	73,082	72,882	73,082
73,058	72,858	73,058	3,00%	-0,500	202+160,000	9.437.789,396	743.327,355		73,677	73,073	72,873	-0,804	0,500	3,00%	73,088	72,888	73,088
73,042	72,842	73,042	3,00%	-0,500	202+180,000	9.437.775,620	743.341,853		73,702	73,057	72,857	-0,845	0,500	3,00%	73,072	72,872	73,072
73,004	72,804	73,004	3,00%	-0,500	202+200,000	9.437.761,386	743.355,902		73,729	73,019	72,819	-0,910	0,500	3,00%	73,034	72,834	73,034
72,946	72,746	72,946	3,00%	-0,500	202+220,000	9.437.746,709	743.369,487		73,687	72,961	72,761	-0,926	0,500	3,00%	72,976	72,776	72,976
72,937	72,737	72,937	3,00%	-0,500	202+223,206	9.437.744,317	743.371,621	PT	73,717	72,952	72,752	-0,965	0,500	3,00%	72,967	72,767	72,967
72,916	72,716	72,916	3,00%	-0,500	202+230,176	9.437.739,103	743.376,247	PC	73,682	72,931	72,731	-0,951	0,500	3,00%	72,946	72,746	72,946
72,887	72,687	72,887	3,00%	-0,500	202+240,000	9.437.731,707	743.382,713		73,680	72,902	72,702	-0,978	0,500	3,00%	72,917	72,717	72,917
72,827	72,627	72,827	3,00%	-0,500	202+260,000	9.437.716,365	743.395,543		73,599	72,842	72,642	-0,956	0,500	3,00%	72,857	72,657	72,857
72,809	72,609	72,809	3,00%	-0,500	202+266,045	9.437.711,655	743.399,331		73,598	72,824	72,624	-0,974	0,500	3,00%	72,839	72,639	72,839
72,768	72,568	72,768	3,00%	-0,500	202+280,000	9.437.700,653	743.407,916		73,522	72,783	72,583	-0,940	0,500	3,00%	72,798	72,598	72,798
72,708	72,508	72,708	3,00%	-0,500	202+300,000	9.437.684,584	743.419,823		73,439	72,723	72,523	-0,916	0,500	3,00%	72,738	72,538	72,738
72,702	72,502	72,702	3,00%	-0,500	202+301,914	9.437.683,028	743.420,937	PT	73,413	72,717	72,517	-0,896	0,500	3,00%	72,732	72,532	72,732
72,652	72,452	72,652	3,00%	-0,500	202+320,000	9.437.668,310	743.431,448		73,327	72,667	72,467	-0,860	0,500	3,00%	72,682	72,482	72,682
72,621	72,421	72,621	3,00%	-0,500	202+339,800	9.437.652,197	743.442,955	PC	73,344	72,636	72,436	-0,907	0,500	3,00%	72,651	72,451	72,651
72,621	72,421	72,621	3,00%	-0,500	202+340,000	9.437.652,034	743.443,071		73,355	72,636	72,436	-0,919	0,500	3,00%	72,651	72,451	72,651
72,617	72,417	72,617	3,00%	-0,500	202+356,372	9.437.638,554	743.452,360		73,332	72,632	72,432	-0,900	0,500	3,00%	72,647	72,447	72,647
72,617	72,417	72,617	3,00%	-0,500	202+360,000	9.437.635,526	743.454,359		73,332	72,632	72,432	-0,900	0,500	3,00%	72,647	72,447	72,647
72,617	72,417	72,617	3,00%	-0,500	202+372,944	9.437.624,607	743.461,309	PT	73,439	72,632	72,432	-1,007	0,500	3,00%	72,647	72,447	72,647
72,617	72,417	72,617	3,00%	-0,500	202+380,000	9.437.618,605	743.465,020		73,582	72,632	72,432	-1,150	0,500	3,00%	72,647	72,447	72,647

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
72,617	72,417	72,617	3,00%	-0,500	202+400,000	9.437.601,595	743.475,540		73,667	72,632	72,432	-1,235	0,500	3,00%	72,647	72,447	72,647
72,617	72,417	72,617	3,00%	-0,500	202+420,000	9.437.584,585	743.486,059		73,775	72,632	72,432	-1,343	0,500	3,00%	72,647	72,447	72,647
72,617	72,417	72,617	3,00%	-0,500	202+440,000	9.437.567,575	743.496,579		73,631	72,632	72,432	-1,199	0,500	3,00%	72,647	72,447	72,647
72,617	72,417	72,617	3,00%	-0,500	202+460,000	9.437.550,565	743.507,099		73,622	72,632	72,432	-1,190	0,500	3,00%	72,647	72,447	72,647
72,617	72,417	72,617	3,00%	-0,500	202+480,000	9.437.533,555	743.517,618		73,578	72,632	72,432	-1,146	0,500	3,00%	72,647	72,447	72,647
72,631	72,431	72,631	3,00%	-0,500	202+495,825	9.437.520,096	743.525,942	PC	73,462	72,646	72,446	-1,015	0,500	3,00%	72,661	72,461	72,661
72,640	72,440	72,640	3,00%	-0,500	202+500,000	9.437.516,523	743.528,100		73,399	72,655	72,455	-0,943	0,500	3,00%	72,670	72,470	72,670
72,659	72,459	72,659	3,00%	-0,500	202+506,644	9.437.510,745	743.531,381		73,342	72,674	72,474	-0,868	0,500	3,00%	72,689	72,489	72,689
72,702	72,502	72,702	3,00%	-0,500	202+517,464	9.437.501,113	743.536,307	PT	73,337	72,717	72,517	-0,820	0,500	3,00%	72,732	72,532	72,732
72,714	72,514	72,714	3,00%	-0,500	202+520,000	9.437.498,825	743.537,400		73,339	72,729	72,529	-0,810	0,500	3,00%	72,744	72,544	72,744
72,815	72,615	72,815	3,00%	-0,500	202+540,000	9.437.480,778	743.546,021		73,377	72,830	72,630	-0,747	0,500	3,00%	72,845	72,645	72,845
72,860	72,660	72,860	3,00%	-0,500	202+548,788	9.437.472,849	743.549,809	PC	73,421	72,875	72,675	-0,746	0,500	3,00%	72,890	72,690	72,890
72,887	72,687	72,887	3,00%	-0,500	202+554,138	9.437.468,052	743.552,179		73,402	72,902	72,702	-0,701	0,500	3,00%	72,917	72,717	72,917
72,914	72,714	72,914	3,00%	-0,500	202+559,489	9.437.463,321	743.554,678	PT	73,400	72,929	72,729	-0,671	0,500	3,00%	72,944	72,744	72,944
72,916	72,716	72,916	3,00%	-0,500	202+560,000	9.437.462,872	743.554,922		73,403	72,931	72,731	-0,672	0,500	3,00%	72,946	72,746	72,946
73,017	72,817	73,017	3,00%	-0,500	202+580,000	9.437.445,313	743.564,496		73,341	73,032	72,832	-0,509	0,500	3,00%	73,047	72,847	73,047
73,118	72,918	73,118	3,00%	-0,500	202+600,000	9.437.427,753	743.574,070		73,338	73,133	72,933	-0,405	0,500	3,00%	73,148	72,948	73,148
73,191	72,991	73,191	3,00%	-0,500	202+614,400	9.437.415,110	743.580,963	PC	73,350	73,206	73,006	-0,345	0,500	3,00%	73,221	73,021	73,221
73,219	73,019	73,219	3,00%	-0,500	202+620,000	9.437.410,208	743.583,672		73,337	73,234	73,034	-0,303	0,500	3,00%	73,249	73,049	73,249
73,247	73,047	73,247	3,00%	-0,500	202+625,361	9.437.405,545	743.586,316		73,349	73,262	73,062	-0,288	0,500	3,00%	73,277	73,077	73,277
73,312	73,112	73,312	3,00%	-0,500	202+636,323	9.437.396,099	743.591,876	PT	78,977	73,327	73,127	-5,850	0,500	3,00%	73,342	73,142	73,342
73,336	73,136	73,336	3,00%	-0,500	202+640,000	9.437.392,950	743.593,777		80,294	73,351	73,151	-7,143	0,500	3,00%	73,366	73,166	73,366
73,472	73,272	73,472	3,00%	-0,500	202+660,000	9.437.375,827	743.604,111		80,593	73,487	73,287	-7,306	0,500	3,00%	73,502	73,302	73,502
73,609	73,409	73,609	3,00%	-0,500	202+680,000	9.437.358,704	743.614,445		80,265	73,624	73,424	-6,841	0,500	3,00%	73,639	73,439	73,639
73,745	73,545	73,745	3,00%	-0,500	202+700,000	9.437.341,581	743.624,780		73,618	73,760	73,560	-0,058	0,500	3,00%	73,775	73,575	73,775
73,882	73,682	73,882	3,00%	-0,500	202+720,000	9.437.324,458	743.635,114		73,690	73,897	73,697	0,007	0,500	3,00%	73,912	73,712	73,912
74,019	73,819	74,019	3,00%	-0,500	202+740,000	9.437.307,335	743.645,449		73,761	74,034	73,834	0,073	0,500	3,00%	74,049	73,849	74,049
74,182	73,982	74,182	3,00%	-0,500	202+760,000	9.437.290,212	743.655,783		73,895	74,197	73,997	0,102	0,500	3,00%	74,212	74,012	74,212
74,405	74,205	74,405	3,00%	-0,500	202+780,000	9.437.273,089	743.666,118		74,116	74,420	74,220	0,104	0,500	3,00%	74,435	74,235	74,435
74,485	74,285	74,485	3,00%	-0,500	202+786,321	9.437.267,677	743.669,384	PC	74,190	74,500	74,300	0,111	0,500	3,00%	74,515	74,315	74,515
74,660	74,460	74,660	3,00%	-0,500	202+800,000	9.437.256,050	743.676,589		74,421	74,675	74,475	0,055	0,500	3,00%	74,690	74,490	74,690
74,916	74,716	74,916	3,00%	-0,500	202+820,000	9.437.239,364	743.687,614		74,712	74,931	74,731	0,019	0,500	3,00%	74,946	74,746	74,946
75,172	74,972	75,172	3,00%	-0,500	202+840,000	9.437.223,068	743.699,206		74,913	75,187	74,987	0,074	0,500	3,00%	75,202	75,002	75,202
75,427	75,227	75,427	3,00%	-0,500	202+860,000	9.437.207,181	743.711,354		75,181	75,442	75,242	0,061	0,500	3,00%	75,457	75,257	75,457
75,430	75,230	75,430	3,00%	-0,500	202+860,228	9.437.207,002	743.711,496		75,184	75,445	75,245	0,061	0,500	3,00%	75,460	75,260	75,460
75,683	75,483	75,683	3,00%	-0,500	202+880,000	9.437.191,722	743.724,042		75,474	75,698	75,498	0,024	0,500	3,00%	75,713	75,513	75,713
75,939	75,739	75,939	3,00%	-0,500	202+900,000	9.437.176,710	743.737,256		75,688	75,954	75,754	0,065	0,500	3,00%	75,969	75,769	75,969
76,194	75,994	76,194	3,00%	-0,500	202+920,000	9.437.162,163	743.750,980		75,879	76,209	76,009	0,130	0,500	3,00%	76,224	76,024	76,224
76,375	76,175	76,375	3,00%	-0,500	202+934,135	9.437.152,171	743.760,977	PT	76,057	76,390	76,190	0,133	0,500	3,00%	76,405	76,205	76,405
76,450	76,250	76,450	3,00%	-0,500	202+940,000	9.437.148,076	743.765,176		76,121	76,465	76,265	0,144	0,500	3,00%	76,480	76,280	76,480
76,706	76,506	76,706	3,00%	-0,500	202+960,000	9.437.134,111	743.779,493		76,236	76,721	76,521	0,284	0,500	3,00%	76,736	76,536	76,736
76,961	76,761	76,961	3,00%	-0,500	202+980,000	9.437.120,146	743.793,810		76,573	76,976	76,776	0,203	0,500	3,00%	76,991	76,791	76,991
77,162	76,962	77,162	3,00%	-0,500	202+995,719	9.437.109,171	743.805,063	PC	76,866	77,177	76,977	0,111	0,500	3,00%	77,192	76,992	77,192
77,217	77,017	77,217	3,00%	-0,500	203+000,000	9.437.106,200	743.808,145		76,977	77,232	77,032	0,054	0,500	3,00%	77,247	77,047	77,247
77,473	77,273	77,473	3,00%	-0,500	203+020,000	9.437.092,816	743.823,004		77,308	77,488	77,288	-0,021	0,500	3,00%	77,503	77,303	77,503
77,728	77,528	77,728	3,00%	-0,500	203+040,000	9.437.080,277	743.838,582		77,865	77,743	77,543	-0,322	0,500	3,00%	77,758	77,558	77,758
77,779	77,579	77,779	3,00%	-0,500	203+044,006	9.437.077,871	743.841,784		77,934	77,794	77,594	-0,339	0,500	3,00%	77,809	77,609	77,809
77,984	77,784	77,984	3,00%	-0,500	203+060,000	9.437.068,623	743.854,832		78,099	77,999	77,799	-0,300	0,500	3,00%	78,014	77,814	78,014
78,240	78,040	78,240	3,00%	-0,500	203+080,000	9.437.057,889	743.871,705		78,405	78,255	78,055	-0,351	0,500	3,00%	78,270	78,070	78,270
78,387	78,187	78,387	3,00%	-0,500	203+092,293	9.437.051,763	743.882,362	PT	78,612	78,402	78,202	-0,410	0,500	3,00%	78,417	78,217	78,417
78,461	78,261	78,461	3,00%	-0,500	203+100,000	9.437.048,036	743.889,108		78,583	78,476	78,276	-0,307	0,500	3,00%	78,491	78,291	78,491
78,583	78,383	78,583	3,00%	-0,500	203+120,000	9.437.038,366	743.906,615		78,810	78,598	78,398	-0,412	0,500	3,00%	78,613	78,413	78,613
78,607	78,407	78,607	3,00%	-0,500	203+140,000	9.437.028,696	743.924,121		79,244	78,622	78,422	-0,822	0,500	3,00%	78,637	78,437	78,637
78,607	78,407	78,607	3,00%	-0,500	203+160,000	9.437.019,026	743.941,628		79,155	78,622	78,422	-0,733	0,500	3,00%	78,637	78,437	78,637
78,607	78,407	78,607	3,00%	-0,500	203+180,000	9.437.009,355	743.959,135		79,840	78,622	78,422	-1,418	0,500	3,00%	78,637	78,437	78,637
78,607	78,407	78,607	3,00%	-0,500	203+200,000	9.436.999,685	743.976,641		80,158	78,622	78,422	-1,735	0,500	3,00%	78,637	78,437	78,637
78,619	78,419	78,619	3,00%	-0,500	203+208,589	9.436.995,532	743.984,159	PC	80,822	78,634	78,434	-2,388	0,500	3,00%	78,649	78,449	78,649

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
78,660	78,460	78,660	3,00%	-0,500	203+220,000	9.436.990,254	743.994,276		80,789	78,675	78,475	-2,314	0,500	3,00%	78,690	78,490	78,690
78,800	78,600	78,800	3,00%	-0,500	203+240,000	9.436.982,184	744.012,569		80,657	78,815	78,615	-2,042	0,500	3,00%	78,830	78,630	78,830
78,898	78,698	78,898	3,00%	-0,500	203+249,569	9.436.978,869	744.021,545		80,654	78,913	78,713	-1,941	0,500	3,00%	78,928	78,728	78,928
79,028	78,828	79,028	3,00%	-0,500	203+260,000	9.436.975,665	744.031,471		80,601	79,043	78,843	-1,758	0,500	3,00%	79,058	78,858	79,058
79,296	79,096	79,296	3,00%	-0,500	203+280,000	9.436.970,742	744.050,849		80,353	79,311	79,111	-1,243	0,500	3,00%	79,326	79,126	79,326
79,441	79,241	79,441	3,00%	-0,500	203+290,549	9.436.968,800	744.061,218	PT	80,145	79,456	79,256	-0,889	0,500	3,00%	79,471	79,271	79,471
79,575	79,375	79,575	3,00%	-0,500	203+300,000	9.436.967,265	744.070,543		80,317	79,590	79,390	-0,927	0,500	3,00%	79,605	79,405	79,605
79,866	79,666	79,866	3,00%	-0,500	203+320,000	9.436.964,016	744.090,277		80,455	79,881	79,681	-0,775	0,500	3,00%	79,896	79,696	79,896
80,151	79,951	80,151	3,00%	-0,500	203+340,000	9.436.960,767	744.110,011		80,373	80,166	79,966	-0,407	0,500	3,00%	80,181	79,981	80,181
80,334	80,134	80,334	3,00%	-0,500	203+360,000	9.436.957,519	744.129,746		77,007	80,349	80,149	3,141	0,500	3,00%	80,364	80,164	80,364
80,396	80,196	80,396	3,00%	-0,500	203+380,000	9.436.954,270	744.149,480		79,099	80,411	80,211	1,112	0,500	3,00%	80,426	80,226	80,426
80,370	80,170	80,370	3,00%	-0,500	203+400,000	9.436.951,021	744.169,214		80,158	80,385	80,185	0,027	0,500	3,00%	80,400	80,200	80,400
80,350	80,150	80,350	3,00%	-0,500	203+405,150	9.436.950,184	744.174,296	PC	80,165	80,365	80,165	0,000	0,500	3,00%	80,380	80,180	80,380
80,257	80,057	80,257	3,00%	-0,500	203+420,000	9.436.947,975	744.188,980		80,164	80,272	80,072	-0,092	0,500	3,00%	80,287	80,087	80,287
80,078	79,878	80,078	3,00%	-0,500	203+440,000	9.436.945,645	744.208,843		79,707	80,093	79,893	0,186	0,500	3,00%	80,108	79,908	80,108
79,896	79,696	79,896	3,00%	-0,500	203+460,000	9.436.944,057	744.228,779		79,810	79,911	79,711	-0,100	0,500	3,00%	79,926	79,726	79,926
79,846	79,646	79,846	3,00%	-0,500	203+465,438	9.436.943,754	744.234,208		79,791	79,861	79,661	-0,130	0,500	3,00%	79,876	79,676	79,876
79,714	79,514	79,714	3,00%	-0,500	203+480,000	9.436.943,214	744.248,760		79,711	79,729	79,529	-0,182	0,500	3,00%	79,744	79,544	79,744
79,529	79,329	79,529	3,00%	-0,500	203+500,000	9.436.943,116	744.268,758		79,621	79,544	79,344	-0,276	0,500	3,00%	79,559	79,359	79,559
79,300	79,100	79,300	3,00%	-0,500	203+520,000	9.436.943,765	744.288,747		79,480	79,315	79,115	-0,365	0,500	3,00%	79,330	79,130	79,330
79,223	79,023	79,223	3,00%	-0,500	203+525,727	9.436.944,088	744.294,464	PT	79,343	79,238	79,038	-0,305	0,500	3,00%	79,253	79,053	79,253
79,014	78,814	79,014	3,00%	-0,500	203+540,000	9.436.944,970	744.308,710		79,151	79,029	78,829	-0,322	0,500	3,00%	79,044	78,844	79,044
78,714	78,514	78,714	3,00%	-0,500	203+560,000	9.436.946,205	744.328,672		78,326	78,729	78,529	0,203	0,500	3,00%	78,744	78,544	78,744
78,414	78,214	78,414	3,00%	-0,500	203+580,000	9.436.947,440	744.348,634		74,729	78,429	78,229	3,500	0,500	3,00%	78,444	78,244	78,444
78,114	77,914	78,114	3,00%	-0,500	203+600,000	9.436.948,675	744.368,596		75,770	78,129	77,929	2,159	0,500	3,00%	78,144	77,944	78,144
77,814	77,614	77,814	3,00%	-0,500	203+620,000	9.436.949,910	744.388,557		76,900	77,829	77,629	0,729	0,500	3,00%	77,844	77,644	77,844
77,514	77,314	77,514	3,00%	-0,500	203+640,000	9.436.951,145	744.408,519		77,257	77,529	77,329	0,072	0,500	3,00%	77,544	77,344	77,544
77,227	77,027	77,227	3,00%	-0,500	203+660,000	9.436.952,380	744.428,481		77,038	77,242	77,042	0,005	0,500	3,00%	77,257	77,057	77,257
76,980	76,780	76,980	3,00%	-0,500	203+680,000	9.436.953,615	744.448,443		76,681	76,995	76,795	0,114	0,500	3,00%	77,010	76,810	77,010
76,773	76,573	76,773	3,00%	-0,500	203+700,000	9.436.954,850	744.468,405		76,489	76,788	76,588	0,099	0,500	3,00%	76,803	76,603	76,803
76,655	76,455	76,655	3,00%	-0,500	203+713,046	9.436.955,656	744.481,426	PC	76,399	76,670	76,470	0,071	0,500	3,00%	76,685	76,485	76,685
76,593	76,393	76,593	3,00%	-0,500	203+720,000	9.436.956,042	744.488,369		76,279	76,608	76,408	0,129	0,500	3,00%	76,623	76,423	76,623
76,414	76,214	76,414	3,00%	-0,500	203+740,000	9.436.956,666	744.508,358		76,187	76,429	76,229	0,043	0,500	3,00%	76,444	76,244	76,444
76,235	76,035	76,235	3,00%	-0,500	203+760,000	9.436.956,567	744.528,357		76,441	76,250	76,050	-0,391	0,500	3,00%	76,265	76,065	76,265
76,056	75,856	76,056	3,00%	-0,500	203+780,000	9.436.955,747	744.548,339		76,020	76,071	75,871	-0,148	0,500	3,00%	76,086	75,886	76,086
75,877	75,677	75,877	3,00%	-0,500	203+800,000	9.436.954,207	744.568,279		75,682	75,892	75,692	0,010	0,500	3,00%	75,907	75,707	75,907
75,698	75,498	75,698	3,00%	-0,500	203+820,000	9.436.951,947	744.588,149		75,575	75,713	75,513	-0,062	0,500	3,00%	75,728	75,528	75,728
75,520	75,320	75,520	3,00%	-0,500	203+840,000	9.436.948,972	744.607,926		75,375	75,535	75,335	-0,040	0,500	3,00%	75,550	75,350	75,550
75,341	75,141	75,341	3,00%	-0,500	203+860,000	9.436.945,285	744.627,582		75,228	75,356	75,156	-0,073	0,500	3,00%	75,371	75,171	75,371
75,162	74,962	75,162	3,00%	-0,500	203+880,000	9.436.940,891	744.647,092		75,027	75,177	74,977	-0,050	0,500	3,00%	75,192	74,992	75,192
74,983	74,783	74,983	3,00%	-0,500	203+900,000	9.436.935,796	744.666,431		75,038	74,998	74,798	-0,241	0,500	3,00%	75,013	74,813	75,013
74,957	74,757	74,957	3,00%	-0,500	203+902,854	9.436.935,012	744.669,175		75,009	74,972	74,772	-0,237	0,500	3,00%	74,987	74,787	74,987
74,804	74,604	74,804	3,00%	-0,500	203+920,000	9.436.930,006	744.685,574		74,853	74,819	74,619	-0,235	0,500	3,00%	74,834	74,634	74,834
74,625	74,425	74,625	3,00%	-0,500	203+940,000	9.436.923,529	744.704,495		74,640	74,640	74,440	-0,201	0,500	3,00%	74,655	74,455	74,655
74,446	74,246	74,446	3,00%	-0,500	203+960,000	9.436.916,373	744.723,169		74,426	74,461	74,261	-0,165	0,500	3,00%	74,476	74,276	74,476
74,267	74,067	74,267	3,00%	-0,500	203+980,000	9.436.908,548	744.741,574		74,284	74,282	74,082	-0,203	0,500	3,00%	74,297	74,097	74,297
74,088	73,888	74,088	3,00%	-0,500	204+000,000	9.436.900,064	744.759,684		74,066	74,103	73,903	-0,163	0,500	3,00%	74,118	73,918	74,118
73,909	73,709	73,909	3,00%	-0,500	204+020,000	9.436.890,931	744.777,476		73,891	73,924	73,724	-0,167	0,500	3,00%	73,939	73,739	73,939
73,730	73,530	73,730	3,00%	-0,500	204+040,000	9.436.881,163	744.794,927		73,720	73,745	73,545	-0,175	0,500	3,00%	73,760	73,560	73,760
73,551	73,351	73,551	3,00%	-0,500	204+060,000	9.436.870,770	744.812,013		73,529	73,566	73,366	-0,163	0,500	3,00%	73,581	73,381	73,581
73,372	73,172	73,372	3,00%	-0,500	204+080,000	9.436.859,768	744.828,714		73,271	73,387	73,187	-0,084	0,500	3,00%	73,402	73,202	73,402
73,259	73,059	73,259	3,00%	-0,500	204+092,662	9.436.852,494	744.839,078	PT	73,280	73,274	73,074	-0,206	0,500	3,00%	73,289	73,089	73,289
73,193	72,993	73,193	3,00%	-0,500	204+100,000	9.436.848,210	744.845,035		73,270	73,208	73,008	-0,262	0,500	3,00%	73,223	73,023	73,223
73,017	72,817	73,017	3,00%	-0,500	204+120,000	9.436.836,533	744.861,273		73,134	73,032	72,832	-0,302	0,500	3,00%	73,047	72,847	73,047
72,854	72,654	72,854	3,00%	-0,500	204+140,000	9.436.824,857	744.877,510		73,099	72,869	72,669	-0,430	0,500	3,00%	72,884	72,684	72,884
72,705	72,505	72,705	3,00%	-0,500	204+160,000	9.436.813,180	744.893,748		72,999	72,720	72,520	-0,479	0,500	3,00%	72,735	72,535	72,735
72,569	72,369	72,569	3,00%	-0,500	204+180,000	9.436.801,504	744.909,985		72,811	72,584	72,384	-0,427	0,500	3,00%	72,599	72,399	72,599

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																
Lado Esquerdo					Eixo								Lado Direito			
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
72,444	72,244	72,444	3,00%	-0,500	204+200,000	9.436.789,827	744.926,223		72,705	72,459	72,259	-0,447	0,500	3,00%	72,474	72,274	72,474
72,319	72,119	72,319	3,00%	-0,500	204+220,000	9.436.778,151	744.942,460		72,687	72,334	72,134	-0,552	0,500	3,00%	72,349	72,149	72,349
72,195	71,995	72,195	3,00%	-0,500	204+240,000	9.436.766,474	744.958,698		72,622	72,210	72,010	-0,612	0,500	3,00%	72,225	72,025	72,225
72,070	71,870	72,070	3,00%	-0,500	204+260,000	9.436.754,797	744.974,936		72,444	72,085	71,885	-0,559	0,500	3,00%	72,100	71,900	72,100
71,946	71,746	71,946	3,00%	-0,500	204+280,000	9.436.743,121	744.991,173		72,385	71,961	71,761	-0,624	0,500	3,00%	71,976	71,776	71,976
71,851	71,651	71,851	3,00%	-0,500	204+295,306	9.436.734,185	745.003,600	PC	72,418	71,866	71,666	-0,752	0,500	3,00%	71,881	71,681	71,881
71,821	71,621	71,821	3,00%	-0,500	204+300,000	9.436.731,462	745.007,423		72,423	71,836	71,636	-0,786	0,500	3,00%	71,851	71,651	71,851
71,697	71,497	71,697	3,00%	-0,500	204+320,000	9.436.720,251	745.023,984		72,440	71,712	71,512	-0,928	0,500	3,00%	71,727	71,527	71,727
71,584	71,384	71,584	3,00%	-0,500	204+338,223	9.436.710,600	745.039,441		72,253	71,599	71,399	-0,854	0,500	3,00%	71,614	71,414	71,614
71,573	71,373	71,573	3,00%	-0,500	204+340,000	9.436.709,688	745.040,966		72,270	71,588	71,388	-0,882	0,500	3,00%	71,603	71,403	71,603
71,448	71,248	71,448	3,00%	-0,500	204+360,000	9.436.699,788	745.058,342		72,078	71,463	71,263	-0,815	0,500	3,00%	71,478	71,278	71,478
71,324	71,124	71,324	3,00%	-0,500	204+380,000	9.436.690,567	745.076,088		71,767	71,339	71,139	-0,629	0,500	3,00%	71,354	71,154	71,354
71,317	71,117	71,317	3,00%	-0,500	204+381,140	9.436.690,062	745.077,111	PT	71,750	71,332	71,132	-0,618	0,500	3,00%	71,347	71,147	71,347
71,199	70,999	71,199	3,00%	-0,500	204+400,000	9.436.681,728	745.094,029		65,746	71,214	71,014	5,268	0,500	3,00%	71,229	71,029	71,229
71,075	70,875	71,075	3,00%	-0,500	204+420,000	9.436.672,889	745.111,970		67,308	71,090	70,890	3,582	0,500	3,00%	71,105	70,905	71,105
71,027	70,827	71,027	3,00%	-0,500	204+427,744	9.436.669,467	745.118,917	PC	71,298	71,042	70,842	-0,457	0,500	3,00%	71,057	70,857	71,057
70,983	70,783	70,983	3,00%	-0,500	204+434,814	9.436.666,418	745.125,296		71,539	70,998	70,798	-0,741	0,500	3,00%	71,013	70,813	71,013
70,953	70,753	70,953	3,00%	-0,500	204+440,000	9.436.664,277	745.130,019		71,599	70,968	70,768	-0,831	0,500	3,00%	70,983	70,783	70,983
70,943	70,743	70,943	3,00%	-0,500	204+441,885	9.436.663,519	745.131,744	PT	71,595	70,958	70,758	-0,838	0,500	3,00%	70,973	70,773	70,973
70,852	70,652	70,852	3,00%	-0,500	204+460,000	9.436.656,289	745.148,354		71,510	70,867	70,667	-0,843	0,500	3,00%	70,882	70,682	70,882
70,764	70,564	70,764	3,00%	-0,500	204+480,000	9.436.648,305	745.166,692		71,303	70,779	70,579	-0,724	0,500	3,00%	70,794	70,594	70,794
70,675	70,475	70,675	3,00%	-0,500	204+500,000	9.436.640,322	745.185,029		71,244	70,690	70,490	-0,753	0,500	3,00%	70,705	70,505	70,705
70,587	70,387	70,587	3,00%	-0,500	204+520,000	9.436.632,339	745.203,367		71,172	70,602	70,402	-0,770	0,500	3,00%	70,617	70,417	70,617
70,499	70,299	70,499	3,00%	-0,500	204+540,000	9.436.624,356	745.221,705		71,213	70,514	70,314	-0,900	0,500	3,00%	70,529	70,329	70,529
70,440	70,240	70,440	3,00%	-0,500	204+553,276	9.436.619,057	745.233,877	PC	71,267	70,455	70,255	-1,012	0,500	3,00%	70,470	70,270	70,470
70,410	70,210	70,410	3,00%	-0,500	204+560,000	9.436.616,477	745.240,086		71,276	70,425	70,225	-1,051	0,500	3,00%	70,440	70,240	70,440
70,399	70,199	70,399	3,00%	-0,500	204+562,585	9.436.615,541	745.242,496		71,271	70,414	70,214	-1,057	0,500	3,00%	70,429	70,229	70,429
70,358	70,158	70,358	3,00%	-0,500	204+571,894	9.436.612,430	745.251,269	PT	71,211	70,373	70,173	-1,038	0,500	3,00%	70,388	70,188	70,388
70,328	70,128	70,328	3,00%	-0,500	204+580,000	9.436.609,899	745.258,970		70,736	70,343	70,143	-0,593	0,500	3,00%	70,358	70,158	70,358
70,298	70,098	70,298	3,00%	-0,500	204+597,369	9.436.604,477	745.275,471	PC	70,179	70,313	70,113	-0,066	0,500	3,00%	70,328	70,128	70,328
70,297	70,097	70,297	3,00%	-0,500	204+600,000	9.436.603,639	745.277,964		70,095	70,312	70,112	0,017	0,500	3,00%	70,327	70,127	70,327
70,297	70,097	70,297	3,00%	-0,500	204+606,678	9.436.601,366	745.284,244		69,763	70,312	70,112	0,349	0,500	3,00%	70,327	70,127	70,327
70,297	70,097	70,297	3,00%	-0,500	204+615,987	9.436.597,850	745.292,862	PT	69,618	70,312	70,112	0,494	0,500	3,00%	70,327	70,127	70,327
70,297	70,097	70,297	3,00%	-0,500	204+620,000	9.436.596,248	745.296,541		69,638	70,312	70,112	0,474	0,500	3,00%	70,327	70,127	70,327
70,297	70,097	70,297	3,00%	-0,500	204+640,000	9.436.588,265	745.314,879		69,759	70,312	70,112	0,353	0,500	3,00%	70,327	70,127	70,327
70,297	70,097	70,297	3,00%	-0,500	204+660,000	9.436.580,282	745.333,217		69,073	70,312	70,112	1,039	0,500	3,00%	70,327	70,127	70,327
70,297	70,097	70,297	3,00%	-0,500	204+680,000	9.436.572,299	745.351,554		69,243	70,312	70,112	0,869	0,500	3,00%	70,327	70,127	70,327
70,297	70,097	70,297	3,00%	-0,500	204+700,000	9.436.564,316	745.369,892		69,093	70,312	70,112	1,019	0,500	3,00%	70,327	70,127	70,327
70,297	70,097	70,297	3,00%	-0,500	204+720,000	9.436.556,332	745.388,230		69,214	70,312	70,112	0,898	0,500	3,00%	70,327	70,127	70,327
70,295	70,095	70,295	3,00%	-0,500	204+735,098	9.436.550,306	745.402,072	PC	69,221	70,310	70,110	0,889	0,500	3,00%	70,325	70,125	70,325
70,293	70,093	70,293	3,00%	-0,500	204+740,000	9.436.548,294	745.406,543		69,812	70,308	70,108	0,296	0,500	3,00%	70,323	70,123	70,323
70,292	70,092	70,292	3,00%	-0,500	204+742,598	9.436.547,184	745.408,892		69,901	70,307	70,107	0,206	0,500	3,00%	70,322	70,122	70,322
70,286	70,086	70,286	3,00%	-0,500	204+750,098	9.436.543,809	745.415,589	PT	70,150	70,301	70,101	-0,050	0,500	3,00%	70,316	70,116	70,316
70,275	70,075	70,275	3,00%	-0,500	204+760,000	9.436.539,187	745.424,346		70,645	70,290	70,090	-0,555	0,500	3,00%	70,305	70,105	70,305
70,250	70,050	70,250	3,00%	-0,500	204+775,815	9.436.531,806	745.438,333	PC	70,597	70,265	70,065	-0,532	0,500	3,00%	70,280	70,080	70,280
70,242	70,042	70,242	3,00%	-0,500	204+780,000	9.436.529,891	745.442,054		70,644	70,257	70,057	-0,588	0,500	3,00%	70,272	70,072	70,272
70,234	70,034	70,234	3,00%	-0,500	204+783,440	9.436.528,376	745.445,143		70,674	70,249	70,049	-0,625	0,500	3,00%	70,264	70,064	70,264
70,217	70,017	70,217	3,00%	-0,500	204+791,065	9.436.525,209	745.452,078	PT	70,699	70,232	70,032	-0,667	0,500	3,00%	70,247	70,047	70,247
70,193	69,993	70,193	3,00%	-0,500	204+800,000	9.436.521,652	745.460,275		70,649	70,208	70,008	-0,641	0,500	3,00%	70,223	70,023	70,223
70,134	69,934	70,134	3,00%	-0,500	204+820,000	9.436.513,692	745.478,622		69,157	70,149	69,949	0,792	0,500	3,00%	70,164	69,964	70,164
70,074	69,874	70,074	3,00%	-0,500	204+840,000	9.436.505,732	745.496,970		70,032	70,089	69,889	-0,143	0,500	3,00%	70,104	69,904	70,104
70,014	69,814	70,014	3,00%	-0,500	204+860,000	9.436.497,772	745.515,317		70,450	70,029	69,829	-0,621	0,500	3,00%	70,044	69,844	70,044
69,954	69,754	69,954	3,00%	-0,500	204+880,000	9.436.489,811	745.533,665		70,205	69,969	69,769	-0,436	0,500	3,00%	69,984	69,784	69,984
69,894	69,694	69,894	3,00%	-0,500	204+900,000	9.436.481,851	745.552,013		70,113	69,909	69,709	-0,404	0,500	3,00%	69,924	69,724	69,924
69,834	69,634	69,834	3,00%	-0,500	204+920,000	9.436.473,891	745.570,360		70,243	69,849	69,649	-0,594	0,500	3,00%	69,864	69,664	69,864
69,774	69,574	69,774	3,00%	-0,500	204+940,000	9.436.465,931	745.588,708		70,179	69,789	69,589	-0,589	0,500	3,00%	69,804	69,604	69,804
69,722	69,522	69,722	3,00%	-0,500	204+960,000	9.436.457,970	745.607,055		70,060	69,737	69,537	-0,523	0,500	3,00%	69,752	69,552	69,752

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
69,698	69,498	69,698	3,00%	-0,500	204+980,000	9.436.450,010	745.625,403		69,988	69,713	69,513	-0,475	0,500	3,00%	69,728	69,528	69,728
69,697	69,497	69,697	3,00%	-0,500	204+984,725	9.436.448,129	745.629,737	PC	69,940	69,712	69,512	-0,427	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	204+993,488	9.436.444,598	745.637,758		69,922	69,712	69,512	-0,410	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+000,000	9.436.441,917	745.643,692		69,868	69,712	69,512	-0,356	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+002,251	9.436.440,979	745.645,739	PT	69,866	69,712	69,512	-0,354	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+020,000	9.436.433,562	745.661,863		69,824	69,712	69,512	-0,312	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+035,111	9.436.427,246	745.675,591	PC	69,749	69,712	69,512	-0,237	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+040,000	9.436.425,221	745.680,041		69,802	69,712	69,512	-0,290	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+060,000	9.436.417,317	745.698,412		69,944	69,712	69,512	-0,432	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+080,000	9.436.410,029	745.717,036		69,809	69,712	69,512	-0,297	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+100,000	9.436.403,366	745.735,892		69,704	69,712	69,512	-0,192	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+120,000	9.436.397,335	745.754,960		69,576	69,712	69,512	-0,064	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+121,278	9.436.396,971	745.756,185		69,568	69,712	69,512	-0,056	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+140,000	9.436.391,942	745.774,218		69,471	69,712	69,512	0,041	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+160,000	9.436.387,195	745.793,646		69,242	69,712	69,512	0,270	0,500	3,00%	69,727	69,527	69,727
69,697	69,497	69,697	3,00%	-0,500	205+180,000	9.436.383,098	745.813,221		69,450	69,712	69,512	0,062	0,500	3,00%	69,727	69,527	69,727
69,696	69,496	69,696	3,00%	-0,500	205+200,000	9.436.379,655	745.832,921		69,172	69,711	69,511	0,339	0,500	3,00%	69,726	69,526	69,726
69,693	69,493	69,693	3,00%	-0,500	205+207,444	9.436.378,542	745.840,282	PT	68,970	69,708	69,508	0,539	0,500	3,00%	69,723	69,523	69,723
69,685	69,485	69,685	3,00%	-0,500	205+217,573	9.436.377,089	745.850,306	PC	68,781	69,700	69,500	0,719	0,500	3,00%	69,715	69,515	69,715
69,683	69,483	69,683	3,00%	-0,500	205+220,000	9.436.376,745	745.852,708		68,609	69,698	69,498	0,889	0,500	3,00%	69,713	69,513	69,713
69,652	69,452	69,652	3,00%	-0,500	205+240,000	9.436.374,262	745.872,553		68,626	69,667	69,467	0,841	0,500	3,00%	69,682	69,482	69,682
69,603	69,403	69,603	3,00%	-0,500	205+260,000	9.436.372,399	745.892,465		68,652	69,618	69,418	0,766	0,500	3,00%	69,633	69,433	69,633
69,550	69,350	69,550	3,00%	-0,500	205+280,000	9.436.371,160	745.912,426		68,656	69,565	69,365	0,709	0,500	3,00%	69,580	69,380	69,580
69,523	69,323	69,523	3,00%	-0,500	205+289,999	9.436.370,774	745.922,417		68,954	69,538	69,338	0,384	0,500	3,00%	69,553	69,353	69,553
69,497	69,297	69,497	3,00%	-0,500	205+300,000	9.436.370,545	745.932,415		68,891	69,512	69,312	0,421	0,500	3,00%	69,527	69,327	69,527
69,443	69,243	69,443	3,00%	-0,500	205+320,000	9.436.370,554	745.952,415		69,589	69,458	69,258	-0,331	0,500	3,00%	69,473	69,273	69,473
69,390	69,190	69,390	3,00%	-0,500	205+340,000	9.436.371,189	745.972,404		69,702	69,405	69,205	-0,497	0,500	3,00%	69,420	69,220	69,420
69,342	69,142	69,342	3,00%	-0,500	205+360,000	9.436.372,448	745.992,363		69,630	69,357	69,157	-0,473	0,500	3,00%	69,372	69,172	69,372
69,337	69,137	69,337	3,00%	-0,500	205+362,424	9.436.372,643	745.994,779	PT	69,659	69,352	69,152	-0,507	0,500	3,00%	69,367	69,167	69,367
69,307	69,107	69,307	3,00%	-0,500	205+380,000	9.436.374,090	746.012,296		69,472	69,322	69,122	-0,350	0,500	3,00%	69,337	69,137	69,337
69,285	69,085	69,285	3,00%	-0,500	205+400,000	9.436.375,736	746.032,228		59,586	69,300	69,100	9,514	0,500	3,00%	69,315	69,115	69,315
69,277	69,077	69,277	3,00%	-0,500	205+420,000	9.436.377,382	746.052,160		54,000	69,292	69,092	15,092	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+440,000	9.436.379,028	746.072,092		54,000	69,292	69,092	15,092	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+460,000	9.436.380,674	746.092,024		54,000	69,292	69,092	15,092	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+480,000	9.436.382,320	746.111,956		54,000	69,292	69,092	15,092	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+500,000	9.436.383,967	746.131,889		54,000	69,292	69,092	15,092	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+520,000	9.436.385,613	746.151,821		54,000	69,292	69,092	15,092	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+540,000	9.436.387,259	746.171,753		54,000	69,292	69,092	15,092	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+560,000	9.436.388,905	746.191,685		54,196	69,292	69,092	14,896	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+580,000	9.436.390,551	746.211,617		69,574	69,292	69,092	-0,482	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+600,000	9.436.392,197	746.231,549		69,508	69,292	69,092	-0,416	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+620,000	9.436.393,844	746.251,481		69,543	69,292	69,092	-0,451	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+640,000	9.436.395,490	746.271,414		69,502	69,292	69,092	-0,410	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+660,000	9.436.397,136	746.291,346		69,439	69,292	69,092	-0,347	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+680,000	9.436.398,782	746.311,278		69,357	69,292	69,092	-0,265	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+700,000	9.436.400,428	746.331,210		69,311	69,292	69,092	-0,219	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+720,000	9.436.402,074	746.351,142		69,205	69,292	69,092	-0,113	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+740,000	9.436.403,721	746.371,074		62,696	69,292	69,092	6,396	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+760,000	9.436.405,367	746.391,006		63,088	69,292	69,092	6,004	0,500	3,00%	69,307	69,107	69,307
69,277	69,077	69,277	3,00%	-0,500	205+780,000	9.436.407,013	746.410,938		68,722	69,292	69,092	0,370	0,500	3,00%	69,307	69,107	69,307
69,274	69,074	69,274	3,00%	-0,500	205+800,000	9.436.408,659	746.430,871		69,173	69,289	69,089	-0,083	0,500	3,00%	69,304	69,104	69,304
69,243	69,043	69,243	3,00%	-0,500	205+820,000	9.436.410,305	746.450,803		69,225	69,258	69,058	-0,168	0,500	3,00%	69,273	69,073	69,273
69,175	68,975	69,175	3,00%	-0,500	205+840,000	9.436.411,951	746.470,735		68,614	69,190	68,990	0,375	0,500	3,00%	69,205	69,005	69,205
69,073	68,873	69,073	3,00%	-0,500	205+860,000	9.436.413,598	746.490,667		68,439	69,088	68,888	0,449	0,500	3,00%	69,103	68,903	69,103
68,964	68,764	68,964	3,00%	-0,500	205+880,000	9.436.415,244	746.510,599		68,482	68,979	68,779	0,298	0,500	3,00%	68,994	68,794	68,994
68,856	68,656	68,856	3,00%	-0,500	205+900,000	9.436.416,890	746.530,531		68,527	68,871	68,671	0,144	0,500	3,00%	68,886	68,686	68,886
68,747	68,547	68,747	3,00%	-0,500	205+920,000	9.436.418,536	746.550,463		68,501	68,762	68,562	0,061	0,500	3,00%	68,777	68,577	68,777

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
68,638	68,438	68,638	3,00%	-0,500	205+940,000	9.436.420,182	746.570,396		68,504	68,653	68,453	-0,051	0,500	3,00%	68,668	68,468	68,668
68,530	68,330	68,530	3,00%	-0,500	205+960,000	9.436.421,828	746.590,328		68,581	68,545	68,345	-0,236	0,500	3,00%	68,560	68,360	68,560
68,421	68,221	68,421	3,00%	-0,500	205+980,000	9.436.423,475	746.610,260		68,638	68,436	68,236	-0,402	0,500	3,00%	68,451	68,251	68,451
68,312	68,112	68,312	3,00%	-0,500	206+000,000	9.436.425,121	746.630,192		68,681	68,327	68,127	-0,554	0,500	3,00%	68,342	68,142	68,342
68,204	68,004	68,204	3,00%	-0,500	206+020,000	9.436.426,767	746.650,124		68,637	68,219	68,019	-0,619	0,500	3,00%	68,234	68,034	68,234
68,095	67,895	68,095	3,00%	-0,500	206+040,000	9.436.428,413	746.670,056		68,567	68,110	67,910	-0,656	0,500	3,00%	68,125	67,925	68,125
67,987	67,787	67,987	3,00%	-0,500	206+060,000	9.436.430,059	746.689,988		68,591	68,002	67,802	-0,789	0,500	3,00%	68,017	67,817	68,017
67,879	67,679	67,879	3,00%	-0,500	206+080,000	9.436.431,705	746.709,921		68,543	67,894	67,694	-0,849	0,500	3,00%	67,909	67,709	67,909
67,783	67,583	67,783	3,00%	-0,500	206+100,000	9.436.433,352	746.729,853		68,509	67,798	67,598	-0,911	0,500	3,00%	67,813	67,613	67,813
67,701	67,501	67,701	3,00%	-0,500	206+120,000	9.436.434,998	746.749,785		68,582	67,716	67,516	-1,066	0,500	3,00%	67,731	67,531	67,731
67,633	67,433	67,633	3,00%	-0,500	206+140,000	9.436.436,644	746.769,717		68,637	67,648	67,448	-1,189	0,500	3,00%	67,663	67,463	67,663
67,567	67,367	67,567	3,00%	-0,500	206+160,000	9.436.438,290	746.789,649		68,624	67,582	67,382	-1,242	0,500	3,00%	67,597	67,397	67,597
67,508	67,308	67,508	3,00%	-0,500	206+180,000	9.436.439,936	746.809,581		68,697	67,523	67,323	-1,374	0,500	3,00%	67,538	67,338	67,538
67,506	67,306	67,506	3,00%	-0,500	206+193,310	9.436.441,032	746.822,846	PC	68,691	67,521	67,321	-1,370	0,500	3,00%	67,536	67,336	67,536
67,516	67,316	67,516	3,00%	-0,500	206+198,857	9.436.441,487	746.828,374		68,623	67,531	67,331	-1,293	0,500	3,00%	67,546	67,346	67,546
67,518	67,318	67,518	3,00%	-0,500	206+200,000	9.436.441,580	746.829,514		68,623	67,533	67,333	-1,290	0,500	3,00%	67,548	67,348	67,548
67,532	67,332	67,532	3,00%	-0,500	206+204,404	9.436.441,939	746.833,903	PT	68,683	67,547	67,347	-1,336	0,500	3,00%	67,562	67,362	67,562
67,613	67,413	67,613	3,00%	-0,500	206+220,000	9.436.443,205	746.849,447		68,681	67,628	67,428	-1,253	0,500	3,00%	67,643	67,443	67,643
67,786	67,586	67,786	3,00%	-0,500	206+240,000	9.436.444,829	746.869,381		68,702	67,801	67,601	-1,101	0,500	3,00%	67,816	67,616	67,816
67,815	67,615	67,815	3,00%	-0,500	206+243,116	9.436.445,082	746.872,487	PC	68,648	67,830	67,630	-1,018	0,500	3,00%	67,845	67,645	67,845
67,884	67,684	67,884	3,00%	-0,500	206+250,472	9.436.445,682	746.879,819		68,685	67,899	67,699	-0,985	0,500	3,00%	67,914	67,714	67,914
67,953	67,753	67,953	3,00%	-0,500	206+257,829	9.436.446,288	746.887,151	PT	68,615	67,968	67,768	-0,847	0,500	3,00%	67,983	67,783	67,983
67,974	67,774	67,974	3,00%	-0,500	206+260,000	9.436.446,467	746.889,314		68,644	67,989	67,789	-0,855	0,500	3,00%	68,004	67,804	68,004
68,162	67,962	68,162	3,00%	-0,500	206+280,000	9.436.448,121	746.909,246		68,564	68,177	67,977	-0,588	0,500	3,00%	68,192	67,992	68,192
68,349	68,149	68,349	3,00%	-0,500	206+300,000	9.436.449,774	746.929,177		68,504	68,364	68,164	-0,340	0,500	3,00%	68,379	68,179	68,379
68,537	68,337	68,537	3,00%	-0,500	206+320,000	9.436.451,428	746.949,109		68,416	68,552	68,352	-0,064	0,500	3,00%	68,567	68,367	68,567
68,725	68,525	68,725	3,00%	-0,500	206+340,000	9.436.453,081	746.969,040		68,395	68,740	68,540	0,145	0,500	3,00%	68,755	68,555	68,755
68,913	68,713	68,913	3,00%	-0,500	206+360,000	9.436.454,734	746.988,972		68,341	68,928	68,728	0,387	0,500	3,00%	68,943	68,743	68,943
69,100	68,900	69,100	3,00%	-0,500	206+380,000	9.436.456,388	747.008,903		68,251	69,115	68,915	0,665	0,500	3,00%	69,130	68,930	69,130
69,288	69,088	69,288	3,00%	-0,500	206+400,000	9.436.458,041	747.028,835		68,190	69,303	69,103	0,913	0,500	3,00%	69,318	69,118	69,318
69,476	69,276	69,476	3,00%	-0,500	206+420,000	9.436.459,695	747.048,767		68,180	69,491	69,291	1,111	0,500	3,00%	69,506	69,306	69,506
69,664	69,464	69,664	3,00%	-0,500	206+440,000	9.436.461,348	747.068,698		68,435	69,679	69,479	1,044	0,500	3,00%	69,694	69,494	69,694
69,852	69,652	69,852	3,00%	-0,500	206+460,000	9.436.463,001	747.088,630		68,464	69,867	69,667	1,203	0,500	3,00%	69,882	69,682	69,882
70,039	69,839	70,039	3,00%	-0,500	206+480,000	9.436.464,655	747.108,561		68,480	70,054	69,854	1,374	0,500	3,00%	70,069	69,869	70,069
70,227	70,027	70,227	3,00%	-0,500	206+500,000	9.436.466,308	747.128,493		68,488	70,242	70,042	1,554	0,500	3,00%	70,257	70,057	70,257
70,415	70,215	70,415	3,00%	-0,500	206+520,000	9.436.467,961	747.148,424		68,724	70,430	70,230	1,506	0,500	3,00%	70,445	70,245	70,445
70,603	70,403	70,603	3,00%	-0,500	206+540,000	9.436.469,615	747.168,356		68,681	70,618	70,418	1,736	0,500	3,00%	70,633	70,433	70,633
70,791	70,591	70,791	3,00%	-0,500	206+560,000	9.436.471,268	747.188,287		68,791	70,806	70,606	1,815	0,500	3,00%	70,821	70,621	70,821
70,823	70,623	70,823	3,00%	-0,500	206+563,445	9.436.471,553	747.191,721	PC	68,806	70,838	70,638	1,832	0,500	3,00%	70,853	70,653	70,853
70,877	70,677	70,877	3,00%	-0,500	206+568,816	9.436.471,996	747.197,073		68,878	70,892	70,692	1,814	0,500	3,00%	70,907	70,707	70,907
70,934	70,734	70,934	3,00%	-0,500	206+574,186	9.436.472,438	747.202,425	PT	68,968	70,949	70,749	1,781	0,500	3,00%	70,964	70,764	70,964
71,001	70,801	71,001	3,00%	-0,500	206+580,000	9.436.472,916	747.208,219		69,169	71,016	70,816	1,647	0,500	3,00%	71,031	70,831	71,031
71,268	71,068	71,268	3,00%	-0,500	206+600,000	9.436.474,558	747.228,152		69,334	71,283	71,083	1,749	0,500	3,00%	71,298	71,098	71,298
71,567	71,367	71,567	3,00%	-0,500	206+620,000	9.436.476,201	747.248,084		69,472	71,582	71,382	1,910	0,500	3,00%	71,597	71,397	71,597
71,865	71,665	71,865	3,00%	-0,500	206+640,000	9.436.477,844	747.268,017		69,763	71,880	71,680	1,917	0,500	3,00%	71,895	71,695	71,895
72,141	71,941	72,141	3,00%	-0,500	206+660,000	9.436.479,486	747.287,949		70,206	72,156	71,956	1,750	0,500	3,00%	72,171	71,971	72,171
72,392	72,192	72,392	3,00%	-0,500	206+680,000	9.436.481,129	747.307,881		70,456	72,407	72,207	1,751	0,500	3,00%	72,422	72,222	72,422
72,638	72,438	72,638	3,00%	-0,500	206+700,000	9.436.482,772	747.327,814		70,603	72,653	72,453	1,850	0,500	3,00%	72,668	72,468	72,668
72,880	72,680	72,880	3,00%	-0,500	206+720,000	9.436.484,414	747.347,746		70,881	72,895	72,695	1,813	0,500	3,00%	72,910	72,710	72,910
73,070	72,870	73,070	3,00%	-0,500	206+740,000	9.436.486,057	747.367,679		71,228	73,085	72,885	1,657	0,500	3,00%	73,100	72,900	73,100
73,199	72,999	73,199	3,00%	-0,500	206+760,000	9.436.487,700	747.387,611		71,508	73,214	73,014	1,506	0,500	3,00%	73,229	73,029	73,229
73,266	73,066	73,266	3,00%	-0,500	206+780,000	9.436.489,343	747.407,544		71,635	73,281	73,081	1,446	0,500	3,00%	73,296	73,096	73,296
73,277	73,077	73,277	3,00%	-0,500	206+800,000	9.436.490,985	747.427,476		71,955	73,292	73,092	1,137	0,500	3,00%	73,307	73,107	73,307
73,277	73,077	73,277	3,00%	-0,500	206+820,000	9.436.492,628	747.447,408		72,399	73,292	73,092	0,693	0,500	3,00%	73,307	73,107	73,307
73,306	73,106	73,306	3,00%	-0,500	206+840,000	9.436.494,271	747.467,341		72,626	73,321	73,121	0,495	0,500	3,00%	73,336	73,136	73,336
73,405	73,205	73,405	3,00%	-0,500	206+860,000	9.436.495,913	747.487,273		73,048	73,420	73,220	0,171	0,500	3,00%	73,435	73,235	73,435
73,573	73,373	73,573	3,00%	-0,500	206+880,000	9.436.497,556	747.507,206		73,423	73,588	73,388	-0,034	0,500	3,00%	73,603	73,403	73,603

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
73,812	73,612	73,812	3,00%	-0,500	206+900,000	9.436.499,199	747.527,138		73,702	73,827	73,627	-0,075	0,500	3,00%	73,842	73,642	73,842
74,092	73,892	74,092	3,00%	-0,500	206+920,000	9.436.500,841	747.547,071		73,999	74,107	73,907	-0,092	0,500	3,00%	74,122	73,922	74,122
74,372	74,172	74,372	3,00%	-0,500	206+940,000	9.436.502,484	747.567,003		74,366	74,387	74,187	-0,179	0,500	3,00%	74,402	74,202	74,402
74,652	74,452	74,652	3,00%	-0,500	206+960,000	9.436.504,127	747.586,935		74,707	74,667	74,467	-0,239	0,500	3,00%	74,682	74,482	74,682
74,937	74,737	74,937	3,00%	-0,500	206+980,000	9.436.505,769	747.606,868		75,016	74,952	74,752	-0,264	0,500	3,00%	74,967	74,767	74,967
75,231	75,031	75,231	3,00%	-0,500	207+000,000	9.436.507,412	747.626,800		75,277	75,246	75,046	-0,231	0,500	3,00%	75,261	75,061	75,261
75,531	75,331	75,531	3,00%	-0,500	207+020,000	9.436.509,055	747.646,733		75,643	75,546	75,346	-0,298	0,500	3,00%	75,561	75,361	75,561
75,831	75,631	75,831	3,00%	-0,500	207+040,000	9.436.510,697	747.666,665		75,957	75,846	75,646	-0,311	0,500	3,00%	75,861	75,661	75,861
76,131	75,931	76,131	3,00%	-0,500	207+060,000	9.436.512,340	747.686,598		76,284	76,146	75,946	-0,338	0,500	3,00%	76,161	75,961	76,161
76,431	76,231	76,431	3,00%	-0,500	207+080,000	9.436.513,983	747.706,530		76,661	76,446	76,246	-0,415	0,500	3,00%	76,461	76,261	76,461
76,731	76,531	76,731	3,00%	-0,500	207+100,000	9.436.515,625	747.726,462		76,869	76,746	76,546	-0,323	0,500	3,00%	76,761	76,561	76,761
77,031	76,831	77,031	3,00%	-0,500	207+120,000	9.436.517,268	747.746,395		77,252	77,046	76,846	-0,406	0,500	3,00%	77,061	76,861	77,061
77,331	77,131	77,331	3,00%	-0,500	207+140,000	9.436.518,911	747.766,327		77,609	77,346	77,146	-0,463	0,500	3,00%	77,361	77,161	77,361
77,631	77,431	77,631	3,00%	-0,500	207+160,000	9.436.520,554	747.786,260		77,940	77,646	77,446	-0,495	0,500	3,00%	77,661	77,461	77,661
77,931	77,731	77,931	3,00%	-0,500	207+180,000	9.436.522,196	747.806,192		78,292	77,946	77,746	-0,546	0,500	3,00%	77,961	77,761	77,961
78,231	78,031	78,231	3,00%	-0,500	207+200,000	9.436.523,839	747.826,125		78,596	78,246	78,046	-0,551	0,500	3,00%	78,261	78,061	78,261
78,531	78,331	78,531	3,00%	-0,500	207+220,000	9.436.525,482	747.846,057		78,964	78,546	78,346	-0,619	0,500	3,00%	78,561	78,361	78,561
78,831	78,631	78,831	3,00%	-0,500	207+240,000	9.436.527,124	747.865,989		79,312	78,846	78,646	-0,666	0,500	3,00%	78,861	78,661	78,861
79,131	78,931	79,131	3,00%	-0,500	207+260,000	9.436.528,767	747.885,922		79,607	79,146	78,946	-0,661	0,500	3,00%	79,161	78,961	79,161
79,431	79,231	79,431	3,00%	-0,500	207+280,000	9.436.530,410	747.905,854		79,933	79,446	79,246	-0,687	0,500	3,00%	79,461	79,261	79,461
79,731	79,531	79,731	3,00%	-0,500	207+300,000	9.436.532,052	747.925,787		80,157	79,746	79,546	-0,612	0,500	3,00%	79,761	79,561	79,761
80,031	79,831	80,031	3,00%	-0,500	207+320,000	9.436.533,695	747.945,719		80,579	80,046	79,846	-0,733	0,500	3,00%	80,061	79,861	80,061
80,331	80,131	80,331	3,00%	-0,500	207+340,000	9.436.535,338	747.965,652		80,871	80,346	80,146	-0,725	0,500	3,00%	80,361	80,161	80,361
80,631	80,431	80,631	3,00%	-0,500	207+360,000	9.436.536,980	747.985,584		81,022	80,646	80,446	-0,577	0,500	3,00%	80,661	80,461	80,661
80,931	80,731	80,931	3,00%	-0,500	207+380,000	9.436.538,623	748.005,516		81,526	80,946	80,746	-0,780	0,500	3,00%	80,961	80,761	80,961
81,231	81,031	81,231	3,00%	-0,500	207+400,000	9.436.540,266	748.025,449		81,737	81,246	81,046	-0,691	0,500	3,00%	81,261	81,061	81,261
81,531	81,331	81,531	3,00%	-0,500	207+420,000	9.436.541,908	748.045,381		81,786	81,546	81,346	-0,441	0,500	3,00%	81,561	81,361	81,561
81,814	81,614	81,814	3,00%	-0,500	207+440,000	9.436.543,551	748.065,314		82,166	81,829	81,629	-0,537	0,500	3,00%	81,844	81,644	81,844
81,909	81,709	81,909	3,00%	-0,500	207+447,452	9.436.544,163	748.072,741	PC	82,310	81,924	81,724	-0,585	0,500	3,00%	81,939	81,739	81,939
81,970	81,770	81,970	3,00%	-0,500	207+452,421	9.436.544,587	748.077,692		82,380	81,985	81,785	-0,595	0,500	3,00%	82,000	81,800	82,000
82,028	81,828	82,028	3,00%	-0,500	207+457,390	9.436.545,041	748.082,640	PT	82,461	82,043	81,843	-0,618	0,500	3,00%	82,058	81,858	82,058
82,058	81,858	82,058	3,00%	-0,500	207+460,000	9.436.545,288	748.085,238		82,491	82,073	81,873	-0,619	0,500	3,00%	82,088	81,888	82,088
82,278	82,078	82,278	3,00%	-0,500	207+480,000	9.436.547,178	748.105,148		82,766	82,293	82,093	-0,673	0,500	3,00%	82,308	82,108	82,308
82,420	82,220	82,420	3,00%	-0,500	207+492,962	9.436.548,403	748.118,053	PC	82,898	82,435	82,235	-0,662	0,500	3,00%	82,450	82,250	82,450
82,498	82,298	82,498	3,00%	-0,500	207+500,000	9.436.549,191	748.125,046		83,003	82,513	82,313	-0,690	0,500	3,00%	82,528	82,328	82,528
82,499	82,299	82,499	3,00%	-0,500	207+500,089	9.436.549,203	748.125,134		83,005	82,514	82,314	-0,691	0,500	3,00%	82,529	82,329	82,529
82,577	82,377	82,577	3,00%	-0,500	207+507,215	9.436.550,254	748.132,181	PT	83,175	82,592	82,392	-0,783	0,500	3,00%	82,607	82,407	82,607
82,718	82,518	82,718	3,00%	-0,500	207+520,000	9.436.552,365	748.144,791		83,648	82,733	82,533	-1,115	0,500	3,00%	82,748	82,548	82,748
82,854	82,654	82,854	3,00%	-0,500	207+532,411	9.436.554,415	748.157,032	PC	83,992	82,869	82,669	-1,323	0,500	3,00%	82,884	82,684	82,884
82,938	82,738	82,938	3,00%	-0,500	207+540,000	9.436.555,529	748.164,538		84,091	82,953	82,753	-1,338	0,500	3,00%	82,968	82,768	82,968
82,948	82,748	82,948	3,00%	-0,500	207+540,912	9.436.555,644	748.165,443		84,110	82,963	82,763	-1,348	0,500	3,00%	82,978	82,778	82,978
83,044	82,844	83,044	3,00%	-0,500	207+549,414	9.436.556,522	748.173,898	PT	84,121	83,059	82,859	-1,262	0,500	3,00%	83,074	82,874	83,074
83,174	82,974	83,174	3,00%	-0,500	207+560,000	9.436.557,395	748.184,449		84,164	83,189	82,989	-1,175	0,500	3,00%	83,204	83,004	83,204
83,449	83,249	83,449	3,00%	-0,500	207+580,000	9.436.559,044	748.204,380		84,451	83,464	83,264	-1,187	0,500	3,00%	83,479	83,279	83,479
83,746	83,546	83,746	3,00%	-0,500	207+600,000	9.436.560,694	748.224,312		84,577	83,761	83,561	-1,016	0,500	3,00%	83,776	83,576	83,776
84,044	83,844	84,044	3,00%	-0,500	207+620,000	9.436.562,343	748.244,244		84,637	84,059	83,859	-0,779	0,500	3,00%	84,074	83,874	84,074
84,341	84,141	84,341	3,00%	-0,500	207+640,000	9.436.563,993	748.264,176		84,714	84,356	84,156	-0,558	0,500	3,00%	84,371	84,171	84,371
84,639	84,439	84,639	3,00%	-0,500	207+660,000	9.436.565,642	748.284,108		84,840	84,654	84,454	-0,386	0,500	3,00%	84,669	84,469	84,669
84,936	84,736	84,936	3,00%	-0,500	207+680,000	9.436.567,292	748.304,040		85,336	84,951	84,751	-0,584	0,500	3,00%	84,966	84,766	84,966
85,234	85,034	85,234	3,00%	-0,500	207+700,000	9.436.568,941	748.323,972		85,429	85,249	85,049	-0,380	0,500	3,00%	85,264	85,064	85,264
85,531	85,331	85,531	3,00%	-0,500	207+720,000	9.436.570,591	748.343,903		85,398	85,546	85,346	-0,052	0,500	3,00%	85,561	85,361	85,561
85,829	85,629	85,829	3,00%	-0,500	207+740,000	9.436.572,240	748.363,835		86,219	85,844	85,644	-0,576	0,500	3,00%	85,859	85,659	85,859
86,126	85,926	86,126	3,00%	-0,500	207+760,000	9.436.573,890	748.383,767		86,399	86,141	85,941	-0,458	0,500	3,00%	86,156	85,956	86,156
86,424	86,224	86,424	3,00%	-0,500	207+780,000	9.436.575,539	748.403,699		86,513	86,439	86,239	-0,274	0,500	3,00%	86,454	86,254	86,454
86,721	86,521	86,721	3,00%	-0,500	207+800,000	9.436.577,189	748.423,631		87,123	86,736	86,536	-0,586	0,500	3,00%	86,751	86,551	86,751
87,019	86,819	87,019	3,00%	-0,500	207+820,000	9.436.578,838	748.443,563		87,258	87,034	86,834	-0,424	0,500	3,00%	87,049	86,849	87,049
87,316	87,116	87,316	3,00%	-0,500	207+840,000	9.436.580,488	748.463,495		87,388	87,331	87,131	-0,256	0,500	3,00%	87,346	87,146	87,346

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																
Lado Esquerdo					Eixo								Lado Direito			
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
87,614	87,414	87,614	3,00%	-0,500	207+860,000	9.436.582,137	748.483,427		88,005	87,629	87,429	-0,576	0,500	3,00%	87,644	87,444	87,644
87,912	87,712	87,912	3,00%	-0,500	207+880,000	9.436.583,786	748.503,358		88,148	87,927	87,727	-0,421	0,500	3,00%	87,942	87,742	87,942
88,209	88,009	88,209	3,00%	-0,500	207+900,000	9.436.585,436	748.523,290		88,308	88,224	88,024	-0,284	0,500	3,00%	88,239	88,039	88,239
88,507	88,307	88,507	3,00%	-0,500	207+920,000	9.436.587,085	748.543,222		88,357	88,522	88,322	-0,036	0,500	3,00%	88,537	88,337	88,537
88,804	88,604	88,804	3,00%	-0,500	207+940,000	9.436.588,735	748.563,154		88,600	88,819	88,619	0,019	0,500	3,00%	88,834	88,634	88,834
89,102	88,902	89,102	3,00%	-0,500	207+960,000	9.436.590,384	748.583,086		88,905	89,117	88,917	0,012	0,500	3,00%	89,132	88,932	89,132
89,399	89,199	89,399	3,00%	-0,500	207+980,000	9.436.592,034	748.603,018		89,233	89,414	89,214	-0,019	0,500	3,00%	89,429	89,229	89,429
89,697	89,497	89,697	3,00%	-0,500	208+000,000	9.436.593,683	748.622,950		89,582	89,712	89,512	-0,070	0,500	3,00%	89,727	89,527	89,727
89,994	89,794	89,994	3,00%	-0,500	208+020,000	9.436.595,333	748.642,881		89,812	90,009	89,809	-0,002	0,500	3,00%	90,024	89,824	90,024
90,292	90,092	90,292	3,00%	-0,500	208+040,000	9.436.596,982	748.662,813		89,935	90,307	90,107	0,172	0,500	3,00%	90,322	90,122	90,322
90,589	90,389	90,589	3,00%	-0,500	208+060,000	9.436.598,632	748.682,745		90,225	90,604	90,404	0,180	0,500	3,00%	90,619	90,419	90,619
90,887	90,687	90,887	3,00%	-0,500	208+080,000	9.436.600,281	748.702,677		90,529	90,902	90,702	0,173	0,500	3,00%	90,917	90,717	90,917
91,184	90,984	91,184	3,00%	-0,500	208+100,000	9.436.601,931	748.722,609		90,914	91,199	90,999	0,085	0,500	3,00%	91,214	91,014	91,214
91,482	91,282	91,482	3,00%	-0,500	208+120,000	9.436.603,580	748.742,541		91,246	91,497	91,297	0,051	0,500	3,00%	91,512	91,312	91,512
91,780	91,580	91,780	3,00%	-0,500	208+140,000	9.436.605,230	748.762,473		91,406	91,795	91,595	0,189	0,500	3,00%	91,810	91,610	91,810
92,077	91,877	92,077	3,00%	-0,500	208+160,000	9.436.606,879	748.782,404		91,671	92,092	91,892	0,221	0,500	3,00%	92,107	91,907	92,107
92,350	92,150	92,350	3,00%	-0,500	208+180,000	9.436.608,529	748.802,336		92,081	92,365	92,165	0,084	0,500	3,00%	92,380	92,180	92,380
92,563	92,363	92,563	3,00%	-0,500	208+200,000	9.436.610,178	748.822,268		92,415	92,578	92,378	-0,036	0,500	3,00%	92,593	92,393	92,593
92,632	92,432	92,632	3,00%	-0,500	208+208,036	9.436.610,841	748.830,277	PC	92,830	92,647	92,447	-0,382	0,500	3,00%	92,662	92,462	92,662
92,684	92,484	92,684	3,00%	-0,500	208+214,932	9.436.611,528	748.837,138		92,877	92,699	92,499	-0,378	0,500	3,00%	92,714	92,514	92,714
92,717	92,517	92,717	3,00%	-0,500	208+220,000	9.436.612,184	748.842,163		92,977	92,732	92,532	-0,445	0,500	3,00%	92,747	92,547	92,747
92,728	92,528	92,728	3,00%	-0,500	208+221,827	9.436.612,451	748.843,971	PT	92,969	92,743	92,543	-0,426	0,500	3,00%	92,758	92,558	92,758
92,812	92,612	92,812	3,00%	-0,500	208+240,000	9.436.615,194	748.861,936		93,334	92,827	92,627	-0,707	0,500	3,00%	92,842	92,642	92,842
92,831	92,631	92,831	3,00%	-0,500	208+247,203	9.436.616,282	748.869,056	PC	93,381	92,846	92,646	-0,735	0,500	3,00%	92,861	92,661	92,861
92,845	92,645	92,845	3,00%	-0,500	208+256,769	9.436.617,499	748.878,543		93,431	92,860	92,660	-0,771	0,500	3,00%	92,875	92,675	92,875
92,847	92,647	92,847	3,00%	-0,500	208+260,000	9.436.617,807	748.881,760		93,456	92,862	92,662	-0,794	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+266,335	9.436.618,261	748.888,078	PT	93,558	92,862	92,662	-0,896	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+280,000	9.436.619,024	748.901,722		93,613	92,862	92,662	-0,951	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+300,000	9.436.620,141	748.921,690		93,654	92,862	92,662	-0,992	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+320,000	9.436.621,258	748.941,659		93,982	92,862	92,662	-1,320	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+340,000	9.436.622,374	748.961,628		94,207	92,862	92,662	-1,545	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+360,000	9.436.623,491	748.981,597		94,143	92,862	92,662	-1,481	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+380,000	9.436.624,608	749.001,566		94,073	92,862	92,662	-1,411	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+392,380	9.436.625,299	749.013,927	PC	94,118	92,862	92,662	-1,456	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+400,000	9.436.625,580	749.021,541		94,149	92,862	92,662	-1,487	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+402,615	9.436.625,609	749.024,156		93,993	92,862	92,662	-1,331	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+412,851	9.436.625,395	749.034,388	PT	93,775	92,862	92,662	-1,113	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+420,000	9.436.625,063	749.041,529		93,670	92,862	92,662	-1,008	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+437,969	9.436.624,228	749.059,479	PC	93,666	92,862	92,662	-1,004	0,500	3,00%	92,877	92,677	92,877
92,847	92,647	92,847	3,00%	-0,500	208+440,000	9.436.624,144	749.061,508		93,638	92,862	92,662	-0,976	0,500	3,00%	92,877	92,677	92,877
92,846	92,646	92,846	3,00%	-0,500	208+448,356	9.436.624,015	749.069,862		93,365	92,861	92,661	-0,704	0,500	3,00%	92,876	92,676	92,876
92,838	92,638	92,838	3,00%	-0,500	208+458,742	9.436.624,341	749.080,243	PT	93,317	92,853	92,653	-0,664	0,500	3,00%	92,868	92,668	92,868
92,837	92,637	92,837	3,00%	-0,500	208+460,000	9.436.624,413	749.081,498		93,304	92,852	92,652	-0,652	0,500	3,00%	92,867	92,667	92,867
92,800	92,600	92,800	3,00%	-0,500	208+480,000	9.436.625,560	749.101,465		93,437	92,815	92,615	-0,822	0,500	3,00%	92,830	92,630	92,830
92,738	92,538	92,738	3,00%	-0,500	208+500,000	9.436.626,707	749.121,432		94,055	92,753	92,553	-1,501	0,500	3,00%	92,768	92,568	92,768
92,650	92,450	92,650	3,00%	-0,500	208+520,000	9.436.627,854	749.141,400		92,798	92,665	92,465	-0,333	0,500	3,00%	92,680	92,480	92,680
92,609	92,409	92,609	3,00%	-0,500	208+527,718	9.436.628,297	749.149,105	PC	92,659	92,624	92,424	-0,235	0,500	3,00%	92,639	92,439	92,639
92,584	92,384	92,584	3,00%	-0,500	208+532,075	9.436.628,546	749.153,455		92,642	92,599	92,399	-0,243	0,500	3,00%	92,614	92,414	92,614
92,558	92,358	92,558	3,00%	-0,500	208+536,432	9.436.628,793	749.157,805	PT	92,578	92,573	92,373	-0,205	0,500	3,00%	92,588	92,388	92,588
92,535	92,335	92,535	3,00%	-0,500	208+540,000	9.436.628,994	749.161,367		92,568	92,550	92,350	-0,218	0,500	3,00%	92,565	92,365	92,565
92,395	92,195	92,395	3,00%	-0,500	208+560,000	9.436.630,124	749.181,335		92,382	92,410	92,210	-0,172	0,500	3,00%	92,425	92,225	92,425
92,228	92,028	92,228	3,00%	-0,500	208+580,000	9.436.631,253	749.201,303		92,246	92,243	92,043	-0,202	0,500	3,00%	92,258	92,058	92,258
92,036	91,836	92,036	3,00%	-0,500	208+600,000	9.436.632,383	749.221,271		91,983	92,051	91,851	-0,132	0,500	3,00%	92,066	91,866	92,066
91,827	91,627	91,827	3,00%	-0,500	208+620,000	9.436.633,513	749.241,239		91,789	91,842	91,642	-0,147	0,500	3,00%	91,857	91,657	91,857
91,619	91,419	91,619	3,00%	-0,500	208+640,000	9.436.634,642	749.261,207		91,558	91,634	91,434	-0,124	0,500	3,00%	91,649	91,449	91,649
91,410	91,210	91,410	3,00%	-0,500	208+660,000	9.436.635,772	749.281,175		91,413	91,425	91,225	-0,188	0,500	3,00%	91,440	91,240	91,440
91,202	91,002	91,202	3,00%	-0,500	208+680,000	9.436.636,901	749.301,144		91,253	91,217	91,017	-0,236	0,500	3,00%	91,232	91,032	91,232

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
90,993	90,793	90,993	3,00%	-0,500	208+700,000	9.436.638,031	749.321,112		91,101	91,008	90,808	-0,293	0,500	3,00%	91,023	90,823	91,023
90,784	90,584	90,784	3,00%	-0,500	208+720,000	9.436.639,161	749.341,080		90,851	90,799	90,599	-0,252	0,500	3,00%	90,814	90,614	90,814
90,576	90,376	90,576	3,00%	-0,500	208+740,000	9.436.640,290	749.361,048		90,472	90,591	90,391	-0,081	0,500	3,00%	90,606	90,406	90,606
90,367	90,167	90,367	3,00%	-0,500	208+760,000	9.436.641,420	749.381,016		90,301	90,382	90,182	-0,118	0,500	3,00%	90,397	90,197	90,397
90,159	89,959	90,159	3,00%	-0,500	208+780,000	9.436.642,549	749.400,984		90,025	90,174	89,974	-0,051	0,500	3,00%	90,189	89,989	90,189
89,950	89,750	89,950	3,00%	-0,500	208+800,000	9.436.643,679	749.420,952		89,902	89,965	89,765	-0,137	0,500	3,00%	89,980	89,780	89,980
89,742	89,542	89,742	3,00%	-0,500	208+820,000	9.436.644,809	749.440,920		89,705	89,757	89,557	-0,148	0,500	3,00%	89,772	89,572	89,772
89,562	89,362	89,562	3,00%	-0,500	208+840,000	9.436.645,938	749.460,888		89,349	89,577	89,377	0,028	0,500	3,00%	89,592	89,392	89,592
89,455	89,255	89,455	3,00%	-0,500	208+860,000	9.436.647,068	749.480,856		89,259	89,470	89,270	0,011	0,500	3,00%	89,485	89,285	89,485
89,404	89,204	89,404	3,00%	-0,500	208+876,445	9.436.647,997	749.497,275	PC	89,250	89,419	89,219	-0,030	0,500	3,00%	89,434	89,234	89,434
89,393	89,193	89,393	3,00%	-0,500	208+880,000	9.436.648,198	749.500,824		89,230	89,408	89,208	-0,022	0,500	3,00%	89,423	89,223	89,423
89,391	89,191	89,391	3,00%	-0,500	208+880,754	9.436.648,241	749.501,577		89,228	89,406	89,206	-0,022	0,500	3,00%	89,421	89,221	89,421
89,378	89,178	89,378	3,00%	-0,500	208+885,064	9.436.648,487	749.505,880	PT	89,235	89,393	89,193	-0,042	0,500	3,00%	89,408	89,208	89,408
89,332	89,132	89,332	3,00%	-0,500	208+900,000	9.436.649,344	749.520,791		89,232	89,347	89,147	-0,085	0,500	3,00%	89,362	89,162	89,362
89,270	89,070	89,270	3,00%	-0,500	208+920,000	9.436.650,490	749.540,759		89,041	89,285	89,085	0,044	0,500	3,00%	89,300	89,100	89,300
89,208	89,008	89,208	3,00%	-0,500	208+940,000	9.436.651,637	749.560,726		89,072	89,223	89,023	-0,049	0,500	3,00%	89,238	89,038	89,238
89,146	88,946	89,146	3,00%	-0,500	208+960,000	9.436.652,784	749.580,693		88,953	89,161	88,961	0,009	0,500	3,00%	89,176	88,976	89,176
89,085	88,885	89,085	3,00%	-0,500	208+980,000	9.436.653,931	749.600,660		88,903	89,100	88,900	-0,004	0,500	3,00%	89,115	88,915	89,115
89,023	88,823	89,023	3,00%	-0,500	209+000,000	9.436.655,078	749.620,627		88,983	89,038	88,838	-0,146	0,500	3,00%	89,053	88,853	89,053
89,002	88,802	89,002	3,00%	-0,500	209+006,700	9.436.655,462	749.627,316		88,982	89,017	88,817	-0,165	0,500	3,00%	89,032	88,832	89,032
88,961	88,761	88,961	3,00%	-0,500	209+020,000	9.436.655,275	749.640,615		89,066	88,976	88,776	-0,290	0,500	3,00%	88,991	88,791	88,991
88,938	88,738	88,938	3,00%	-0,500	209+027,437	9.436.655,171	749.648,051	PC	89,014	88,953	88,753	-0,261	0,500	3,00%	88,968	88,768	88,968
88,899	88,699	88,899	3,00%	-0,500	209+040,000	9.436.654,483	749.660,592		88,902	88,914	88,714	-0,187	0,500	3,00%	88,929	88,729	88,929
88,858	88,658	88,858	3,00%	-0,500	209+060,000	9.436.651,288	749.680,320		88,591	88,873	88,673	0,082	0,500	3,00%	88,888	88,688	88,888
88,857	88,657	88,857	3,00%	-0,500	209+063,453	9.436.650,478	749.683,677		88,611	88,872	88,672	0,061	0,500	3,00%	88,887	88,687	88,887
88,877	88,677	88,877	3,00%	-0,500	209+080,000	9.436.645,565	749.699,470		88,347	88,892	88,692	0,345	0,500	3,00%	88,907	88,707	88,907
88,933	88,733	88,933	3,00%	-0,500	209+099,468	9.436.637,658	749.717,246	PT	88,244	88,948	88,748	0,504	0,500	3,00%	88,963	88,763	88,963
88,935	88,735	88,935	3,00%	-0,500	209+100,000	9.436.637,411	749.717,717		88,257	88,950	88,750	0,493	0,500	3,00%	88,965	88,765	88,965
88,972	88,772	88,972	3,00%	-0,500	209+112,824	9.436.631,470	749.729,081	PC	88,491	88,987	88,787	0,297	0,500	3,00%	89,002	88,802	89,002
88,993	88,793	88,993	3,00%	-0,500	209+120,000	9.436.628,037	749.735,382		88,815	89,008	88,808	-0,007	0,500	3,00%	89,023	88,823	89,023
89,054	88,854	89,054	3,00%	-0,500	209+140,000	9.436.617,357	749.752,283		89,113	89,069	88,869	-0,244	0,500	3,00%	89,084	88,884	89,084
89,166	88,966	89,166	3,00%	-0,500	209+160,000	9.436.605,118	749.768,092		89,275	89,181	88,981	-0,294	0,500	3,00%	89,196	88,996	89,196
89,350	89,150	89,350	3,00%	-0,500	209+180,000	9.436.591,432	749.782,665		89,314	89,365	89,165	-0,149	0,500	3,00%	89,380	89,180	89,380
89,484	89,284	89,484	3,00%	-0,500	209+191,123	9.436.583,238	749.790,186		89,430	89,499	89,299	-0,131	0,500	3,00%	89,514	89,314	89,514
89,607	89,407	89,607	3,00%	-0,500	209+200,000	9.436.576,421	749.795,870		89,425	89,622	89,422	-0,002	0,500	3,00%	89,637	89,437	89,637
89,936	89,736	89,936	3,00%	-0,500	209+220,000	9.436.560,223	749.807,589		90,069	89,951	89,751	-0,318	0,500	3,00%	89,966	89,766	89,966
90,286	90,086	90,286	3,00%	-0,500	209+240,000	9.436.542,984	749.817,714		90,324	90,301	90,101	-0,223	0,500	3,00%	90,316	90,116	90,316
90,637	90,437	90,637	3,00%	-0,500	209+260,000	9.436.524,861	749.826,154		90,800	90,652	90,452	-0,348	0,500	3,00%	90,667	90,467	90,667
90,803	90,603	90,803	3,00%	-0,500	209+269,423	9.436.516,061	749.829,524	PT	91,106	90,818	90,618	-0,488	0,500	3,00%	90,833	90,633	90,833
91,003	90,803	91,003	3,00%	-0,500	209+280,000	9.436.506,102	749.833,084		91,223	91,018	90,818	-0,406	0,500	3,00%	91,033	90,833	91,033
91,438	91,238	91,438	3,00%	-0,500	209+300,000	9.436.487,269	749.839,816		91,694	91,453	91,253	-0,441	0,500	3,00%	91,468	91,268	91,468
91,933	91,733	91,933	3,00%	-0,500	209+320,000	9.436.468,436	749.846,548		91,976	91,948	91,748	-0,229	0,500	3,00%	91,963	91,763	91,963
92,433	92,233	92,433	3,00%	-0,500	209+340,000	9.436.449,603	749.853,281		92,651	92,448	92,248	-0,403	0,500	3,00%	92,463	92,263	92,463
92,933	92,733	92,933	3,00%	-0,500	209+360,000	9.436.430,770	749.860,013		93,160	92,948	92,748	-0,412	0,500	3,00%	92,963	92,763	92,963
93,433	93,233	93,433	3,00%	-0,500	209+380,000	9.436.411,938	749.866,745		93,502	93,448	93,248	-0,254	0,500	3,00%	93,463	93,263	93,463
93,933	93,733	93,933	3,00%	-0,500	209+400,000	9.436.393,105	749.873,478		94,018	93,948	93,748	-0,271	0,500	3,00%	93,963	93,763	93,963
94,433	94,233	94,433	3,00%	-0,500	209+420,000	9.436.374,272	749.880,210		94,233	94,448	94,248	0,015	0,500	3,00%	94,463	94,263	94,463
94,933	94,733	94,933	3,00%	-0,500	209+440,000	9.436.355,439	749.886,942		94,910	94,948	94,748	-0,163	0,500	3,00%	94,963	94,763	94,963
95,433	95,233	95,433	3,00%	-0,500	209+460,000	9.436.336,606	749.893,675		95,144	95,448	95,248	0,104	0,500	3,00%	95,463	95,263	95,463
95,933	95,733	95,933	3,00%	-0,500	209+480,000	9.436.317,773	749.900,407		95,831	95,948	95,748	-0,083	0,500	3,00%	95,963	95,763	95,963
96,433	96,233	96,433	3,00%	-0,500	209+500,000	9.436.298,941	749.907,139		96,306	96,448	96,248	-0,059	0,500	3,00%	96,463	96,263	96,463
96,933	96,733	96,933	3,00%	-0,500	209+520,000	9.436.280,108	749.913,871		97,124	96,948	96,748	-0,376	0,500	3,00%	96,963	96,763	96,963
97,433	97,233	97,433	3,00%	-0,500	209+540,000	9.436.261,275	749.920,604		97,823	97,448	97,248	-0,575	0,500	3,00%	97,463	97,263	97,463
97,933	97,733	97,933	3,00%	-0,500	209+560,000	9.436.242,442	749.927,336		98,406	97,948	97,748	-0,658	0,500	3,00%	97,963	97,763	97,963
98,432	98,232	98,432	3,00%	-0,500	209+580,000	9.436.223,609	749.934,068		98,686	98,447	98,247	-0,439	0,500	3,00%	98,462	98,262	98,462
98,932	98,732	98,932	3,00%	-0,500	209+600,000	9.436.204,776	749.940,801		99,038	98,947	98,747	-0,291	0,500	3,00%	98,962	98,762	98,962
99,365	99,165	99,365	3,00%	-0,500	209+620,000	9.436.185,943	749.947,533		99,495	99,380	99,180	-0,315	0,500	3,00%	99,395	99,195	99,395

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																
Lado Esquerdo					Eixo								Lado Direito			
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
99,692	99,492	99,692	3,00%	-0,500	209+640,000	9.436.167,111	749.954,265		99,998	99,707	99,507	-0,491	0,500	3,00%	99,722	99,522	99,722
99,828	99,628	99,828	3,00%	-0,500	209+651,158	9.436.156,603	749.958,021	PC	100,168	99,843	99,643	-0,524	0,500	3,00%	99,858	99,658	99,858
99,913	99,713	99,913	3,00%	-0,500	209+660,000	9.436.148,271	749.960,979		100,500	99,928	99,728	-0,772	0,500	3,00%	99,943	99,743	99,943
99,925	99,725	99,925	3,00%	-0,500	209+661,455	9.436.146,899	749.961,462		100,562	99,940	99,740	-0,822	0,500	3,00%	99,955	99,755	99,955
99,993	99,793	99,993	3,00%	-0,500	209+671,751	9.436.137,177	749.964,853	PT	100,842	100,008	99,808	-1,034	0,500	3,00%	100,023	99,823	100,023
100,028	99,828	100,028	3,00%	-0,500	209+680,000	9.436.129,382	749.967,550		100,914	100,043	99,843	-1,071	0,500	3,00%	100,058	99,858	100,058
100,037	99,837	100,037	3,00%	-0,500	209+700,000	9.436.110,480	749.974,089		101,044	100,052	99,852	-1,192	0,500	3,00%	100,067	99,867	100,067
99,941	99,741	99,941	3,00%	-0,500	209+720,000	9.436.091,579	749.980,627		101,117	99,956	99,756	-1,361	0,500	3,00%	99,971	99,771	99,971
99,937	99,737	99,937	3,00%	-0,500	209+720,703	9.436.090,915	749.980,857	PC	101,134	99,952	99,752	-1,383	0,500	3,00%	99,967	99,767	99,967
99,870	99,670	99,870	3,00%	-0,500	209+730,448	9.436.081,713	749.984,065		101,143	99,885	99,685	-1,458	0,500	3,00%	99,900	99,700	99,900
99,805	99,605	99,805	3,00%	-0,500	209+740,000	9.436.072,709	749.987,253		101,132	99,820	99,620	-1,511	0,500	3,00%	99,835	99,635	99,835
99,804	99,604	99,804	3,00%	-0,500	209+740,193	9.436.072,527	749.987,318	PT	101,132	99,819	99,619	-1,513	0,500	3,00%	99,834	99,634	99,834
99,670	99,470	99,670	3,00%	-0,500	209+760,000	9.436.053,873	749.993,976		101,137	99,685	99,485	-1,652	0,500	3,00%	99,700	99,500	99,700
99,617	99,417	99,617	3,00%	-0,500	209+780,000	9.436.035,036	750.000,698		101,088	99,632	99,432	-1,656	0,500	3,00%	99,647	99,447	99,647
99,617	99,417	99,617	3,00%	-0,500	209+800,000	9.436.016,200	750.007,420		100,903	99,632	99,432	-1,471	0,500	3,00%	99,647	99,447	99,647
99,617	99,417	99,617	3,00%	-0,500	209+820,000	9.435.997,363	750.014,143		100,771	99,632	99,432	-1,339	0,500	3,00%	99,647	99,447	99,647
99,616	99,416	99,616	3,00%	-0,500	209+840,000	9.435.978,527	750.020,865		100,655	99,631	99,431	-1,224	0,500	3,00%	99,646	99,446	99,646
99,561	99,361	99,561	3,00%	-0,500	209+860,000	9.435.959,691	750.027,587		100,403	99,576	99,376	-1,027	0,500	3,00%	99,591	99,391	99,591
99,418	99,218	99,418	3,00%	-0,500	209+880,000	9.435.940,854	750.034,310		100,215	99,433	99,233	-0,982	0,500	3,00%	99,448	99,248	99,448
99,345	99,145	99,345	3,00%	-0,500	209+887,241	9.435.934,034	750.036,743	PC	100,196	99,360	99,160	-1,035	0,500	3,00%	99,375	99,175	99,375
99,304	99,104	99,304	3,00%	-0,500	209+890,913	9.435.930,573	750.037,970		100,137	99,319	99,119	-1,018	0,500	3,00%	99,334	99,134	99,334
99,260	99,060	99,260	3,00%	-0,500	209+894,585	9.435.927,106	750.039,180	PT	100,049	99,275	99,075	-0,974	0,500	3,00%	99,290	99,090	99,290
99,190	98,990	99,190	3,00%	-0,500	209+900,000	9.435.921,990	750.040,953		99,941	99,205	99,005	-0,936	0,500	3,00%	99,220	99,020	99,220
98,930	98,730	98,930	3,00%	-0,500	209+920,000	9.435.903,093	750.047,502		99,447	98,945	98,745	-0,702	0,500	3,00%	98,960	98,760	98,960
98,772	98,572	98,772	3,00%	-0,500	209+932,171	9.435.891,593	750.051,488	PC	99,192	98,787	98,587	-0,605	0,500	3,00%	98,802	98,602	98,802
98,682	98,482	98,682	3,00%	-0,500	209+939,091	9.435.885,058	750.053,765		99,098	98,697	98,497	-0,601	0,500	3,00%	98,712	98,512	98,712
98,670	98,470	98,670	3,00%	-0,500	209+940,000	9.435.884,200	750.054,066		99,086	98,685	98,485	-0,601	0,500	3,00%	98,700	98,500	98,700
98,592	98,392	98,592	3,00%	-0,500	209+946,011	9.435.878,531	750.056,065	PT	99,029	98,607	98,407	-0,623	0,500	3,00%	98,622	98,422	98,622
98,410	98,210	98,410	3,00%	-0,500	209+960,000	9.435.865,346	750.060,737		98,890	98,425	98,225	-0,666	0,500	3,00%	98,440	98,240	98,440
98,149	97,949	98,149	3,00%	-0,500	209+980,000	9.435.846,494	750.067,417		98,642	98,164	97,964	-0,678	0,500	3,00%	98,179	97,979	98,179
97,889	97,689	97,889	3,00%	-0,500	210+000,000	9.435.827,643	750.074,097		98,421	97,904	97,704	-0,717	0,500	3,00%	97,919	97,719	97,919
97,629	97,429	97,629	3,00%	-0,500	210+020,000	9.435.808,791	750.080,776		98,156	97,644	97,444	-0,712	0,500	3,00%	97,659	97,459	97,659
97,369	97,169	97,369	3,00%	-0,500	210+040,000	9.435.789,940	750.087,456		97,829	97,384	97,184	-0,645	0,500	3,00%	97,399	97,199	97,399
97,099	96,899	97,099	3,00%	-0,500	210+060,000	9.435.771,088	750.094,136		97,547	97,114	96,914	-0,633	0,500	3,00%	97,129	96,929	97,129
96,785	96,585	96,785	3,00%	-0,500	210+080,000	9.435.752,237	750.100,815		97,153	96,800	96,600	-0,553	0,500	3,00%	96,815	96,615	96,815
96,435	96,235	96,435	3,00%	-0,500	210+100,000	9.435.733,385	750.107,495		96,776	96,450	96,250	-0,526	0,500	3,00%	96,465	96,265	96,465
96,081	95,881	96,081	3,00%	-0,500	210+120,000	9.435.714,533	750.114,175		96,576	96,096	95,896	-0,680	0,500	3,00%	96,111	95,911	96,111
95,727	95,527	95,727	3,00%	-0,500	210+140,000	9.435.695,682	750.120,855		95,963	95,742	95,542	-0,421	0,500	3,00%	95,757	95,557	95,757
95,715	95,515	95,715	3,00%	-0,500	210+140,717	9.435.695,006	750.121,094	PC	95,956	95,730	95,530	-0,426	0,500	3,00%	95,745	95,545	95,745
95,374	95,174	95,374	3,00%	-0,500	210+160,000	9.435.676,553	750.126,666		95,611	95,389	95,189	-0,423	0,500	3,00%	95,404	95,204	95,404
95,020	94,820	95,020	3,00%	-0,500	210+180,000	9.435.656,948	750.130,579		95,456	95,035	94,835	-0,621	0,500	3,00%	95,050	94,850	95,050
94,667	94,467	94,667	3,00%	-0,500	210+200,000	9.435.637,054	750.132,554		95,203	94,682	94,482	-0,721	0,500	3,00%	94,697	94,497	94,697
94,313	94,113	94,313	3,00%	-0,500	210+220,000	9.435.617,062	750.132,572		94,763	94,328	94,128	-0,635	0,500	3,00%	94,343	94,143	94,343
93,960	93,760	93,960	3,00%	-0,500	210+240,000	9.435.597,164	750.130,633		94,287	93,975	93,775	-0,512	0,500	3,00%	93,990	93,790	93,990
93,856	93,656	93,856	3,00%	-0,500	210+245,848	9.435.591,391	750.129,699		94,182	93,871	93,671	-0,511	0,500	3,00%	93,886	93,686	93,886
93,606	93,406	93,606	3,00%	-0,500	210+260,000	9.435.577,551	750.126,756		93,922	93,621	93,421	-0,501	0,500	3,00%	93,636	93,436	93,636
93,252	93,052	93,252	3,00%	-0,500	210+280,000	9.435.558,413	750.120,978		93,496	93,267	93,067	-0,429	0,500	3,00%	93,282	93,082	93,282
92,898	92,698	92,898	3,00%	-0,500	210+300,000	9.435.539,931	750.113,354		93,582	92,913	92,713	-0,869	0,500	3,00%	92,928	92,728	92,928
92,543	92,343	92,543	3,00%	-0,500	210+320,000	9.435.522,285	750.103,958		92,916	92,558	92,358	-0,558	0,500	3,00%	92,573	92,373	92,573
92,189	91,989	92,189	3,00%	-0,500	210+340,000	9.435.505,643	750.092,880		92,779	92,204	92,004	-0,776	0,500	3,00%	92,219	92,019	92,219
91,994	91,794	91,994	3,00%	-0,500	210+350,980	9.435.496,992	750.086,120	PT	92,485	92,009	91,809	-0,676	0,500	3,00%	92,024	91,824	92,024
91,867	91,667	91,867	3,00%	-0,500	210+358,147	9.435.491,465	750.081,557	PC	92,013	91,882	91,682	-0,331	0,500	3,00%	91,897	91,697	91,897
91,834	91,634	91,834	3,00%	-0,500	210+360,000	9.435.490,044	750.080,369		91,958	91,849	91,649	-0,309	0,500	3,00%	91,864	91,664	91,864
91,479	91,279	91,479	3,00%	-0,500	210+380,000	9.435.475,656	750.066,497		91,668	91,494	91,294	-0,373	0,500	3,00%	91,509	91,309	91,509
91,258	91,058	91,258	3,00%	-0,500	210+392,514	9.435.467,615	750.056,913		91,805	91,273	91,073	-0,732	0,500	3,00%	91,288	91,088	91,288
91,125	90,925	91,125	3,00%	-0,500	210+400,000	9.435.463,186	750.050,879		92,016	91,140	90,940	-1,077	0,500	3,00%	91,155	90,955	91,155
90,770	90,570	90,770	3,00%	-0,500	210+420,000	9.435.452,843	750.033,777		91,862	90,785	90,585	-1,277	0,500	3,00%	90,800	90,600	90,800

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
90,648	90,448	90,648	3,00%	-0,500	210+426,880	9.435.449,810	750.027,603	PT	91,681	90,663	90,463	-1,218	0,500	3,00%	90,678	90,478	90,678
90,416	90,216	90,416	3,00%	-0,500	210+440,000	9.435.444,289	750.015,701		91,322	90,431	90,231	-1,091	0,500	3,00%	90,446	90,246	90,446
90,087	89,887	90,087	3,00%	-0,500	210+460,000	9.435.435,873	749.997,557		90,997	90,102	89,902	-1,095	0,500	3,00%	90,117	89,917	90,117
89,828	89,628	89,828	3,00%	-0,500	210+480,000	9.435.427,458	749.979,414		90,677	89,843	89,643	-1,034	0,500	3,00%	89,858	89,658	89,858
89,641	89,441	89,641	3,00%	-0,500	210+500,000	9.435.419,042	749.961,271		90,457	89,656	89,456	-1,001	0,500	3,00%	89,671	89,471	89,671
89,524	89,324	89,524	3,00%	-0,500	210+520,000	9.435.410,626	749.943,128		90,314	89,539	89,339	-0,975	0,500	3,00%	89,554	89,354	89,554
89,522	89,322	89,522	3,00%	-0,500	210+520,337	9.435.410,484	749.942,822	PC	90,309	89,537	89,337	-0,971	0,500	3,00%	89,552	89,352	89,552
89,507	89,307	89,507	3,00%	-0,500	210+524,532	9.435.408,693	749.939,029		90,300	89,522	89,322	-0,978	0,500	3,00%	89,537	89,337	89,537
89,495	89,295	89,495	3,00%	-0,500	210+528,727	9.435.406,848	749.935,261	PT	90,285	89,510	89,310	-0,975	0,500	3,00%	89,525	89,325	89,525
89,478	89,278	89,478	3,00%	-0,500	210+540,000	9.435.401,820	749.925,171		90,167	89,493	89,293	-0,874	0,500	3,00%	89,508	89,308	89,508
89,477	89,277	89,477	3,00%	-0,500	210+554,778	9.435.395,229	749.911,944	PC	90,060	89,492	89,292	-0,768	0,500	3,00%	89,507	89,307	89,507
89,477	89,277	89,477	3,00%	-0,500	210+560,000	9.435.392,941	749.907,251		90,006	89,492	89,292	-0,714	0,500	3,00%	89,507	89,307	89,507
89,477	89,277	89,477	3,00%	-0,500	210+561,159	9.435.392,445	749.906,203		89,997	89,492	89,292	-0,705	0,500	3,00%	89,507	89,307	89,507
89,477	89,277	89,477	3,00%	-0,500	210+567,540	9.435.389,782	749.900,404	PT	89,928	89,492	89,292	-0,636	0,500	3,00%	89,507	89,307	89,507
89,477	89,277	89,477	3,00%	-0,500	210+580,000	9.435.384,705	749.889,026		89,793	89,492	89,292	-0,501	0,500	3,00%	89,507	89,307	89,507
89,477	89,277	89,477	3,00%	-0,500	210+600,000	9.435.376,554	749.870,762		89,624	89,492	89,292	-0,332	0,500	3,00%	89,507	89,307	89,507
89,477	89,277	89,477	3,00%	-0,500	210+620,000	9.435.368,404	749.852,498		89,417	89,492	89,292	-0,125	0,500	3,00%	89,507	89,307	89,507
89,477	89,277	89,477	3,00%	-0,500	210+640,000	9.435.360,253	749.834,234		89,384	89,492	89,292	-0,092	0,500	3,00%	89,507	89,307	89,507
89,483	89,283	89,483	3,00%	-0,500	210+660,000	9.435.352,103	749.815,971		89,446	89,498	89,298	-0,149	0,500	3,00%	89,513	89,313	89,513
89,554	89,354	89,554	3,00%	-0,500	210+679,819	9.435.344,026	749.797,872	PC	89,805	89,569	89,369	-0,435	0,500	3,00%	89,584	89,384	89,584
89,555	89,355	89,555	3,00%	-0,500	210+680,000	9.435.343,953	749.797,707		89,806	89,570	89,370	-0,435	0,500	3,00%	89,585	89,385	89,585
89,601	89,401	89,601	3,00%	-0,500	210+687,045	9.435.341,177	749.791,231		89,920	89,616	89,416	-0,505	0,500	3,00%	89,631	89,431	89,631
89,658	89,458	89,658	3,00%	-0,500	210+694,272	9.435.338,521	749.784,511	PT	89,960	89,673	89,473	-0,487	0,500	3,00%	89,688	89,488	89,688
89,712	89,512	89,712	3,00%	-0,500	210+700,000	9.435.336,493	749.779,154		90,043	89,727	89,527	-0,517	0,500	3,00%	89,742	89,542	89,742
89,942	89,742	89,942	3,00%	-0,500	210+719,314	9.435.329,654	749.761,091	PC	90,563	89,957	89,757	-0,806	0,500	3,00%	89,972	89,772	89,972
89,952	89,752	89,952	3,00%	-0,500	210+720,000	9.435.329,410	749.760,450		90,575	89,967	89,767	-0,808	0,500	3,00%	89,982	89,782	89,982
90,041	89,841	90,041	3,00%	-0,500	210+726,052	9.435.327,184	749.754,823		90,666	90,056	89,856	-0,810	0,500	3,00%	90,071	89,871	90,071
90,150	89,950	90,150	3,00%	-0,500	210+732,789	9.435.324,546	749.748,624	PT	90,832	90,165	89,965	-0,867	0,500	3,00%	90,180	89,980	90,180
90,276	90,076	90,276	3,00%	-0,500	210+740,000	9.435.321,633	749.742,027		90,945	90,291	90,091	-0,854	0,500	3,00%	90,306	90,106	90,306
90,679	90,479	90,679	3,00%	-0,500	210+760,000	9.435.313,554	749.723,731		91,306	90,694	90,494	-0,812	0,500	3,00%	90,709	90,509	90,709
91,098	90,898	91,098	3,00%	-0,500	210+780,000	9.435.305,475	749.705,436		91,877	91,113	90,913	-0,963	0,500	3,00%	91,128	90,928	91,128
91,518	91,318	91,518	3,00%	-0,500	210+800,000	9.435.297,396	749.687,140		92,328	91,533	91,333	-0,996	0,500	3,00%	91,548	91,348	91,548
91,937	91,737	91,937	3,00%	-0,500	210+820,000	9.435.289,317	749.668,845		92,744	91,952	91,752	-0,992	0,500	3,00%	91,967	91,767	91,967
92,356	92,156	92,356	3,00%	-0,500	210+840,000	9.435.281,238	749.650,549		93,163	92,371	92,171	-0,992	0,500	3,00%	92,386	92,186	92,386
92,776	92,576	92,776	3,00%	-0,500	210+860,000	9.435.273,159	749.632,253		93,543	92,791	92,591	-0,952	0,500	3,00%	92,806	92,606	92,806
93,195	92,995	93,195	3,00%	-0,500	210+880,000	9.435.265,080	749.613,958		93,859	93,210	93,010	-0,849	0,500	3,00%	93,225	93,025	93,225
93,615	93,415	93,615	3,00%	-0,500	210+900,000	9.435.257,001	749.595,662		94,121	93,630	93,430	-0,691	0,500	3,00%	93,645	93,445	93,645
94,031	93,831	94,031	3,00%	-0,500	210+920,000	9.435.248,922	749.577,366		94,526	94,046	93,846	-0,680	0,500	3,00%	94,061	93,861	94,061
94,410	94,210	94,410	3,00%	-0,500	210+940,000	9.435.240,843	749.559,071		94,961	94,425	94,225	-0,736	0,500	3,00%	94,440	94,240	94,440
94,745	94,545	94,745	3,00%	-0,500	210+960,000	9.435.232,764	749.540,775		95,270	94,760	94,560	-0,710	0,500	3,00%	94,775	94,575	94,775
95,070	94,870	95,070	3,00%	-0,500	210+980,000	9.435.224,685	749.522,480		95,733	95,085	94,885	-0,848	0,500	3,00%	95,100	94,900	95,100
95,394	95,194	95,394	3,00%	-0,500	211+000,000	9.435.216,606	749.504,184		96,016	95,409	95,209	-0,807	0,500	3,00%	95,424	95,224	95,424
95,719	95,519	95,719	3,00%	-0,500	211+020,000	9.435.208,527	749.485,888		96,279	95,734	95,534	-0,745	0,500	3,00%	95,749	95,549	95,749
96,044	95,844	96,044	3,00%	-0,500	211+040,000	9.435.200,448	749.467,593		96,600	96,059	95,859	-0,741	0,500	3,00%	96,074	95,874	96,074
96,368	96,168	96,368	3,00%	-0,500	211+060,000	9.435.192,369	749.449,297		96,943	96,383	96,183	-0,760	0,500	3,00%	96,398	96,198	96,398
96,676	96,476	96,676	3,00%	-0,500	211+080,000	9.435.184,290	749.431,001		97,469	96,691	96,491	-0,978	0,500	3,00%	96,706	96,506	96,706
96,935	96,735	96,935	3,00%	-0,500	211+100,000	9.435.176,211	749.412,706		97,936	96,950	96,750	-1,186	0,500	3,00%	96,965	96,765	96,965
97,146	96,946	97,146	3,00%	-0,500	211+120,000	9.435.168,132	749.394,410		98,097	97,161	96,961	-1,136	0,500	3,00%	97,176	96,976	97,176
97,309	97,109	97,309	3,00%	-0,500	211+140,000	9.435.160,053	749.376,114		98,232	97,324	97,124	-1,108	0,500	3,00%	97,339	97,139	97,339
97,424	97,224	97,424	3,00%	-0,500	211+160,000	9.435.151,974	749.357,819		97,810	97,439	97,239	-0,571	0,500	3,00%	97,454	97,254	97,454
97,491	97,291	97,491	3,00%	-0,500	211+180,000	9.435.143,895	749.339,523		97,928	97,506	97,306	-0,622	0,500	3,00%	97,521	97,321	97,521
97,509	97,309	97,509	3,00%	-0,500	211+200,000	9.435.135,816	749.321,228		98,081	97,524	97,324	-0,757	0,500	3,00%	97,539	97,339	97,539
97,479	97,279	97,479	3,00%	-0,500	211+220,000	9.435.127,737	749.302,932		98,140	97,494	97,294	-0,847	0,500	3,00%	97,509	97,309	97,509
97,400	97,200	97,400	3,00%	-0,500	211+240,000	9.435.119,658	749.284,636		98,115	97,415	97,215	-0,899	0,500	3,00%	97,430	97,230	97,430
97,274	97,074	97,274	3,00%	-0,500	211+260,000	9.435.111,580	749.266,341		97,950	97,289	97,089	-0,861	0,500	3,00%	97,304	97,104	97,304
97,099	96,899	97,099	3,00%	-0,500	211+280,000	9.435.103,501	749.248,045		97,776	97,114	96,914	-0,862	0,500	3,00%	97,129	96,929	97,129
97,097	96,897	97,097	3,00%	-0,500	211+280,203	9.435.103,419	749.247,860	PC	97,770	97,112	96,912	-0,858	0,500	3,00%	97,127	96,927	97,127

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
96,876	96,676	96,876	3,00%	-0,500	211+300,000	9.435.095,457	749.229,734		97,526	96,891	96,691	-0,835	0,500	3,00%	96,906	96,706	96,906
96,823	96,623	96,823	3,00%	-0,500	211+304,191	9.435.093,781	749.225,893		97,494	96,838	96,638	-0,856	0,500	3,00%	96,853	96,653	96,853
96,604	96,404	96,604	3,00%	-0,500	211+320,000	9.435.087,488	749.211,390		97,262	96,619	96,419	-0,843	0,500	3,00%	96,634	96,434	96,634
96,479	96,279	96,479	3,00%	-0,500	211+328,179	9.435.084,250	749.203,880	PT	97,080	96,494	96,294	-0,786	0,500	3,00%	96,509	96,309	96,509
96,285	96,085	96,285	3,00%	-0,500	211+340,000	9.435.079,578	749.193,021		96,799	96,300	96,100	-0,699	0,500	3,00%	96,315	96,115	96,315
95,917	95,717	95,917	3,00%	-0,500	211+360,000	9.435.071,675	749.174,648		96,610	95,932	95,732	-0,879	0,500	3,00%	95,947	95,747	95,947
95,500	95,300	95,500	3,00%	-0,500	211+380,000	9.435.063,772	749.156,276		96,264	95,515	95,315	-0,949	0,500	3,00%	95,530	95,330	95,530
95,036	94,836	95,036	3,00%	-0,500	211+400,000	9.435.055,869	749.137,904		95,881	95,051	94,851	-1,030	0,500	3,00%	95,066	94,866	95,066
94,541	94,341	94,541	3,00%	-0,500	211+420,000	9.435.047,965	749.119,532		95,276	94,556	94,356	-0,920	0,500	3,00%	94,571	94,371	94,571
94,045	93,845	94,045	3,00%	-0,500	211+440,000	9.435.040,062	749.101,159		94,814	94,060	93,860	-0,954	0,500	3,00%	94,075	93,875	94,075
93,549	93,349	93,549	3,00%	-0,500	211+460,000	9.435.032,159	749.082,787		94,435	93,564	93,364	-1,071	0,500	3,00%	93,579	93,379	93,579
93,053	92,853	93,053	3,00%	-0,500	211+480,000	9.435.024,256	749.064,415		93,889	93,068	92,868	-1,021	0,500	3,00%	93,083	92,883	93,083
92,557	92,357	92,557	3,00%	-0,500	211+500,000	9.435.016,353	749.046,043		93,506	92,572	92,372	-1,134	0,500	3,00%	92,587	92,387	92,587
92,064	91,864	92,064	3,00%	-0,500	211+520,000	9.435.008,449	749.027,670		92,861	92,079	91,879	-0,982	0,500	3,00%	92,094	91,894	92,094
91,619	91,419	91,619	3,00%	-0,500	211+540,000	9.435.000,546	749.009,298		92,425	91,634	91,434	-0,991	0,500	3,00%	91,649	91,449	91,649
91,229	91,029	91,229	3,00%	-0,500	211+560,000	9.434.992,643	748.990,926		92,025	91,244	91,044	-0,981	0,500	3,00%	91,259	91,059	91,259
90,877	90,677	90,877	3,00%	-0,500	211+580,000	9.434.984,740	748.972,554		91,546	90,892	90,692	-0,854	0,500	3,00%	90,907	90,707	90,907
90,820	90,620	90,820	3,00%	-0,500	211+583,684	9.434.983,284	748.969,169	PC	91,478	90,835	90,635	-0,843	0,500	3,00%	90,850	90,650	90,850
90,626	90,426	90,626	3,00%	-0,500	211+597,751	9.434.977,714	748.956,252		91,458	90,641	90,441	-1,017	0,500	3,00%	90,656	90,456	90,656
90,599	90,399	90,599	3,00%	-0,500	211+600,000	9.434.976,821	748.954,188		91,463	90,614	90,414	-1,049	0,500	3,00%	90,629	90,429	90,629
90,470	90,270	90,470	3,00%	-0,500	211+611,818	9.434.972,121	748.943,345	PT	91,434	90,485	90,285	-1,149	0,500	3,00%	90,500	90,300	90,500
90,397	90,197	90,397	3,00%	-0,500	211+620,000	9.434.968,862	748.935,840		91,462	90,412	90,212	-1,251	0,500	3,00%	90,427	90,227	90,427
90,270	90,070	90,270	3,00%	-0,500	211+640,000	9.434.960,894	748.917,496		91,176	90,285	90,085	-1,091	0,500	3,00%	90,300	90,100	90,300
90,218	90,018	90,218	3,00%	-0,500	211+660,000	9.434.952,926	748.899,151		91,033	90,233	90,033	-1,000	0,500	3,00%	90,248	90,048	90,248
90,217	90,017	90,217	3,00%	-0,500	211+680,000	9.434.944,958	748.880,807		90,987	90,232	90,032	-0,955	0,500	3,00%	90,247	90,047	90,247
90,217	90,017	90,217	3,00%	-0,500	211+700,000	9.434.936,991	748.862,463		90,951	90,232	90,032	-0,919	0,500	3,00%	90,247	90,047	90,247
90,209	90,009	90,209	3,00%	-0,500	211+720,000	9.434.929,023	748.844,118		90,791	90,224	90,024	-0,767	0,500	3,00%	90,239	90,039	90,239
90,117	89,917	90,117	3,00%	-0,500	211+740,000	9.434.921,055	748.825,774		90,333	90,132	89,932	-0,401	0,500	3,00%	90,147	89,947	90,147
90,063	89,863	90,063	3,00%	-0,500	211+746,637	9.434.918,411	748.819,686	PC	90,217	90,078	89,878	-0,339	0,500	3,00%	90,093	89,893	90,093
90,006	89,806	90,006	3,00%	-0,500	211+752,444	9.434.916,078	748.814,369		90,108	90,021	89,821	-0,287	0,500	3,00%	90,036	89,836	90,036
89,941	89,741	89,941	3,00%	-0,500	211+758,250	9.434.913,707	748.809,069	PT	90,011	89,956	89,756	-0,255	0,500	3,00%	89,971	89,771	89,971
89,919	89,719	89,919	3,00%	-0,500	211+760,000	9.434.912,987	748.807,474		89,985	89,934	89,734	-0,251	0,500	3,00%	89,949	89,749	89,949
89,618	89,418	89,618	3,00%	-0,500	211+780,000	9.434.904,754	748.789,247		89,690	89,633	89,433	-0,257	0,500	3,00%	89,648	89,448	89,648
89,502	89,302	89,502	3,00%	-0,500	211+786,255	9.434.902,179	748.783,547	PC	89,600	89,517	89,317	-0,283	0,500	3,00%	89,532	89,332	89,532
89,326	89,126	89,326	3,00%	-0,500	211+794,894	9.434.898,657	748.775,658		89,415	89,341	89,141	-0,274	0,500	3,00%	89,356	89,156	89,356
89,219	89,019	89,219	3,00%	-0,500	211+800,000	9.434.896,607	748.770,982		89,276	89,234	89,034	-0,242	0,500	3,00%	89,249	89,049	89,249
89,146	88,946	89,146	3,00%	-0,500	211+803,533	9.434.895,202	748.767,740	PT	89,213	89,161	88,961	-0,252	0,500	3,00%	89,176	88,976	89,176
88,792	88,592	88,792	3,00%	-0,500	211+820,000	9.434.888,684	748.752,618		88,960	88,807	88,607	-0,352	0,500	3,00%	88,822	88,622	88,822
88,341	88,141	88,341	3,00%	-0,500	211+840,000	9.434.880,767	748.734,252		88,624	88,356	88,156	-0,469	0,500	3,00%	88,371	88,171	88,371
87,864	87,664	87,864	3,00%	-0,500	211+860,000	9.434.872,850	748.715,886		88,334	87,879	87,679	-0,655	0,500	3,00%	87,894	87,694	87,894
87,372	87,172	87,372	3,00%	-0,500	211+880,000	9.434.864,933	748.697,519		87,888	87,387	87,187	-0,701	0,500	3,00%	87,402	87,202	87,402
86,880	86,680	86,880	3,00%	-0,500	211+900,000	9.434.857,016	748.679,153		87,473	86,895	86,695	-0,778	0,500	3,00%	86,910	86,710	86,910
86,389	86,189	86,389	3,00%	-0,500	211+920,000	9.434.849,099	748.660,787		87,110	86,404	86,204	-0,906	0,500	3,00%	86,419	86,219	86,419
85,897	85,697	85,897	3,00%	-0,500	211+940,000	9.434.841,182	748.642,420		86,646	85,912	85,712	-0,934	0,500	3,00%	85,927	85,727	85,927
85,405	85,205	85,405	3,00%	-0,500	211+960,000	9.434.833,265	748.624,054		86,221	85,420	85,220	-1,002	0,500	3,00%	85,435	85,235	85,435
84,913	84,713	84,913	3,00%	-0,500	211+980,000	9.434.825,348	748.605,688		85,833	84,928	84,728	-1,105	0,500	3,00%	84,943	84,743	84,943
84,421	84,221	84,421	3,00%	-0,500	212+000,000	9.434.817,431	748.587,322		85,546	84,436	84,236	-1,311	0,500	3,00%	84,451	84,251	84,451
83,929	83,729	83,929	3,00%	-0,500	212+020,000	9.434.809,514	748.568,955		84,996	83,944	83,744	-1,253	0,500	3,00%	83,959	83,759	83,959
83,437	83,237	83,437	3,00%	-0,500	212+040,000	9.434.801,597	748.550,589		84,470	83,452	83,252	-1,219	0,500	3,00%	83,467	83,267	83,467
82,945	82,745	82,945	3,00%	-0,500	212+060,000	9.434.793,680	748.532,223		84,010	82,960	82,760	-1,251	0,500	3,00%	82,975	82,775	82,975
82,453	82,253	82,453	3,00%	-0,500	212+080,000	9.434.785,763	748.513,856		83,629	82,468	82,268	-1,361	0,500	3,00%	82,483	82,283	82,483
81,961	81,761	81,961	3,00%	-0,500	212+100,000	9.434.777,846	748.495,490		83,195	81,976	81,776	-1,419	0,500	3,00%	81,991	81,791	81,991
81,469	81,269	81,469	3,00%	-0,500	212+120,000	9.434.769,929	748.477,124		82,743	81,484	81,284	-1,460	0,500	3,00%	81,499	81,299	81,499
80,977	80,777	80,977	3,00%	-0,500	212+140,000	9.434.762,012	748.458,758		82,370	80,992	80,792	-1,578	0,500	3,00%	81,007	80,807	81,007
80,485	80,285	80,485	3,00%	-0,500	212+160,000	9.434.754,094	748.440,391		81,856	80,500	80,300	-1,556	0,500	3,00%	80,515	80,315	80,515
79,993	79,793	79,993	3,00%	-0,500	212+180,000	9.434.746,177	748.422,025		81,418	80,008	79,808	-1,611	0,500	3,00%	80,023	79,823	80,023
79,501	79,301	79,501	3,00%	-0,500	212+200,000	9.434.738,260	748.403,659		81,063	79,516	79,316	-1,747	0,500	3,00%	79,531	79,331	79,531

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 02																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
79,490	79,290	79,490	3,00%	-0,500	212+200,437	9.434.738,087	748.403,257	PC	81,057	79,505	79,305	-1,752	0,500	3,00%	79,520	79,320	79,520
79,371	79,171	79,371	3,00%	-0,500	212+205,287	9.434.736,170	748.398,802		80,980	79,386	79,186	-1,794	0,500	3,00%	79,401	79,201	79,401
79,251	79,051	79,251	3,00%	-0,500	212+210,137	9.434.734,256	748.394,346	PT	80,891	79,266	79,066	-1,825	0,500	3,00%	79,281	79,081	79,281
79,009	78,809	79,009	3,00%	-0,500	212+220,000	9.434.730,370	748.385,281		80,675	79,024	78,824	-1,851	0,500	3,00%	79,039	78,839	79,039
78,545	78,345	78,545	3,00%	-0,500	212+240,000	9.434.722,488	748.366,900		80,189	78,560	78,360	-1,830	0,500	3,00%	78,575	78,375	78,575
78,155	77,955	78,155	3,00%	-0,500	212+260,000	9.434.714,607	748.348,518		79,718	78,170	77,970	-1,748	0,500	3,00%	78,185	77,985	78,185
77,840	77,640	77,840	3,00%	-0,500	212+280,000	9.434.706,725	748.330,136		79,395	77,855	77,655	-1,740	0,500	3,00%	77,870	77,670	77,870
77,599	77,399	77,599	3,00%	-0,500	212+300,000	9.434.698,844	748.311,755		78,972	77,614	77,414	-1,558	0,500	3,00%	77,629	77,429	77,629
77,434	77,234	77,434	3,00%	-0,500	212+320,000	9.434.690,962	748.293,373		78,701	77,449	77,249	-1,453	0,500	3,00%	77,464	77,264	77,464
77,343	77,143	77,343	3,00%	-0,500	212+340,000	9.434.683,081	748.274,992		78,586	77,358	77,158	-1,428	0,500	3,00%	77,373	77,173	77,373
77,326	77,126	77,326	3,00%	-0,500	212+349,451	9.434.679,357	748.266,306	PC	78,570	77,341	77,141	-1,429	0,500	3,00%	77,356	77,156	77,356
77,325	77,125	77,325	3,00%	-0,500	212+358,597	9.434.675,740	748.257,905		78,582	77,340	77,140	-1,441	0,500	3,00%	77,355	77,155	77,355
77,327	77,127	77,327	3,00%	-0,500	212+360,000	9.434.675,183	748.256,617		78,586	77,342	77,142	-1,445	0,500	3,00%	77,357	77,157	77,357
77,338	77,138	77,338	3,00%	-0,500	212+367,744	9.434.672,097	748.249,515	PT	78,620	77,353	77,153	-1,467	0,500	3,00%	77,368	77,168	77,368
77,357	77,157	77,357	3,00%	-0,500	212+380,000	9.434.667,198	748.238,280		78,607	77,372	77,172	-1,435	0,500	3,00%	77,387	77,187	77,387
77,377	77,177	77,377	3,00%	-0,500	212+400,000	9.434.659,205	748.219,947		78,609	77,392	77,192	-1,417	0,500	3,00%	77,407	77,207	77,407
77,377	77,177	77,377	3,00%	-0,500	212+420,000	9.434.651,212	748.201,614		78,634	77,392	77,192	-1,442	0,500	3,00%	77,407	77,207	77,407
77,377	77,177	77,377	3,00%	-0,500	212+440,000	9.434.643,218	748.183,280		78,641	77,392	77,192	-1,449	0,500	3,00%	77,407	77,207	77,407
77,377	77,177	77,377	3,00%	-0,500	212+460,000	9.434.635,225	748.164,947		78,638	77,392	77,192	-1,446	0,500	3,00%	77,407	77,207	77,407
77,377	77,177	77,377	3,00%	-0,500	212+480,000	9.434.627,232	748.146,614		78,758	77,392	77,192	-1,566	0,500	3,00%	77,407	77,207	77,407
77,377	77,177	77,377	3,00%	-0,500	212+492,456	9.434.622,253	748.135,196	FIM	78,569	77,392	77,192	-1,377	0,500	3,00%	77,407	77,207	77,407

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 03																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
69,841	68,907	69,107	3,00%	-0,500	300+000,000	9.436.452,457	747.009,907	INÍCIO	68,198	69,122	68,922	0,724	0,500	3,00%	69,137	68,937	69,841
69,998	69,094	69,294	3,00%	-0,500	300+020,000	9.436.452,686	747.029,906		68,224	69,309	69,109	0,886	0,500	3,00%	69,324	69,124	70,043
70,201	69,281	69,481	3,00%	-0,500	300+040,000	9.436.452,915	747.049,905		67,914	69,496	69,296	1,382	0,500	3,00%	69,511	69,311	70,216
70,270	69,366	69,566	3,00%	-0,500	300+049,002	9.436.453,018	747.058,906	PC	67,777	69,581	69,381	1,604	0,500	3,00%	69,596	69,396	70,330
70,367	69,433	69,633	3,00%	-0,500	300+056,134	9.436.453,227	747.066,034		67,662	69,648	69,448	1,786	0,500	3,00%	69,663	69,463	70,367
70,373	69,469	69,669	3,00%	-0,500	300+060,000	9.436.453,446	747.069,894		67,637	69,684	69,484	1,847	0,500	3,00%	69,699	69,499	70,418
70,419	69,499	69,699	3,00%	-0,500	300+063,265	9.436.453,690	747.073,150	PT	67,627	69,714	69,514	1,887	0,500	3,00%	69,729	69,529	70,449
70,575	69,656	69,856	3,00%	-0,500	300+080,000	9.436.455,073	747.089,828		67,730	69,871	69,671	1,941	0,500	3,00%	69,886	69,686	70,605
70,763	69,843	70,043	3,00%	-0,500	300+100,000	9.436.456,727	747.109,759		68,045	70,058	69,858	1,814	0,500	3,00%	70,073	69,873	70,808
70,792	69,858	70,058	3,00%	-0,500	300+101,530	9.436.456,853	747.111,284	PC	68,078	70,073	69,873	1,794	0,500	3,00%	70,088	69,888	70,792
70,922	70,018	70,218	3,00%	-0,500	300+120,000	9.436.457,545	747.129,735		68,576	70,233	70,033	1,457	0,500	3,00%	70,248	70,048	71,109
71,182	70,120	70,320	3,00%	-0,500	300+140,000	9.436.456,410	747.149,695		68,926	70,335	70,135	1,209	0,500	3,00%	70,350	70,150	71,227
71,219	70,142	70,342	3,00%	-0,500	300+150,298	9.436.455,065	747.159,904		69,007	70,357	70,157	1,150	0,500	3,00%	70,372	70,172	71,219
71,203	70,157	70,357	3,00%	-0,500	300+160,000	9.436.453,327	747.169,448		69,113	70,372	70,172	1,059	0,500	3,00%	70,387	70,187	71,091
71,090	70,186	70,386	3,00%	-0,500	300+180,000	9.436.448,325	747.188,804		69,320	70,401	70,201	0,881	0,500	3,00%	70,416	70,216	71,135
71,133	70,214	70,414	3,00%	-0,500	300+199,067	9.436.441,814	747.206,717	PT	69,670	70,429	70,229	0,559	0,500	3,00%	70,444	70,244	71,163
71,135	70,215	70,415	3,00%	-0,500	300+200,000	9.436.441,455	747.207,578		69,674	70,430	70,230	0,556	0,500	3,00%	70,445	70,245	71,150
71,149	70,245	70,445	3,00%	-0,500	300+220,000	9.436.433,752	747.226,035		69,926	70,460	70,260	0,334	0,500	3,00%	70,475	70,275	71,194
71,171	70,251	70,451	3,00%	-0,500	300+224,453	9.436.432,037	747.230,145	PC	69,999	70,466	70,266	0,268	0,500	3,00%	70,481	70,281	71,201
71,193	70,274	70,474	3,00%	-0,500	300+240,000	9.436.425,548	747.244,269		69,966	70,489	70,289	0,323	0,500	3,00%	70,504	70,304	70,504
70,499	70,299	70,499	3,00%	-0,500	300+256,944	9.436.417,359	747.259,098		70,011	70,514	70,314	0,303	0,500	3,00%	70,529	70,329	70,529
70,504	70,304	70,504	3,00%	-0,500	300+260,000	9.436.415,762	747.261,703		69,981	70,519	70,319	0,337	0,500	3,00%	70,534	70,334	70,534
70,533	70,333	70,533	3,00%	-0,500	300+280,000	9.436.404,433	747.278,177		70,336	70,548	70,348	0,011	0,500	3,00%	70,563	70,363	70,563
70,547	70,347	70,547	3,00%	-0,500	300+289,435	9.436.398,580	747.285,576	PT	70,533	70,562	70,362	-0,171	0,500	3,00%	70,577	70,377	70,577
70,562	70,362	70,562	3,00%	-0,500	300+300,000	9.436.391,849	747.293,720		70,707	70,577	70,377	-0,329	0,500	3,00%	70,592	70,392	70,592
70,562	70,362	70,562	3,00%	-0,500	300+300,059	9.436.391,811	747.293,765	FIM	70,706	70,577	70,377	-0,329	0,500	3,00%	70,592	70,392	70,592

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 04																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
70,639	69,735	69,935	3,00%	-0,500	400+000,000	9.436.455,760	747.098,107	INÍCIO	67,985	69,950	69,750	1,764	0,500	3,00%	69,965	69,765	70,699
70,857	69,922	70,122	3,00%	-0,500	400+020,000	9.436.454,919	747.118,089		67,066	70,137	69,937	2,871	0,500	3,00%	70,152	69,952	70,857
70,872	69,968	70,168	3,00%	-0,500	400+025,083	9.436.454,705	747.123,168	PC	67,040	70,183	69,983	2,943	0,500	3,00%	70,198	69,998	70,917
70,931	70,012	70,212	3,00%	-0,500	400+030,777	9.436.454,384	747.128,853		67,310	70,227	70,027	2,718	0,500	3,00%	70,242	70,042	70,961
70,970	70,050	70,250	3,00%	-0,500	400+036,472	9.436.453,902	747.134,526	PT	67,638	70,265	70,065	2,427	0,500	3,00%	70,280	70,080	71,000
70,990	70,071	70,271	3,00%	-0,500	400+040,000	9.436.453,553	747.138,038		67,707	70,286	70,086	2,379	0,500	3,00%	70,301	70,101	71,035
71,022	70,088	70,288	3,00%	-0,500	400+043,381	9.436.453,219	747.141,402	PC	67,861	70,303	70,103	2,243	0,500	3,00%	70,318	70,118	71,022
71,045	70,140	70,340	3,00%	-0,500	400+060,000	9.436.450,885	747.157,851		67,889	70,355	70,155	2,266	0,500	3,00%	70,370	70,170	71,232
71,221	70,159	70,359	3,00%	-0,500	400+072,719	9.436.448,171	747.170,275		68,040	70,374	70,174	2,135	0,500	3,00%	70,389	70,189	71,266
71,247	70,170	70,370	3,00%	-0,500	400+080,000	9.436.446,260	747.177,300		68,121	70,385	70,185	2,064	0,500	3,00%	70,400	70,200	71,247
71,247	70,200	70,400	3,00%	-0,500	400+100,000	9.436.439,697	747.196,184		67,721	70,415	70,215	2,495	0,500	3,00%	70,430	70,230	71,135
71,108	70,203	70,403	3,00%	-0,500	400+102,056	9.436.438,915	747.198,086	PT	67,716	70,418	70,218	2,502	0,500	3,00%	70,433	70,233	71,153
71,150	70,230	70,430	3,00%	-0,500	400+120,000	9.436.432,004	747.214,645		67,865	70,445	70,245	2,380	0,500	3,00%	70,460	70,260	71,180
71,169	70,250	70,450	3,00%	-0,500	400+132,917	9.436.427,029	747.226,566	PC	67,825	70,465	70,265	2,440	0,500	3,00%	70,480	70,280	71,184
71,165	70,260	70,460	3,00%	-0,500	400+140,000	9.436.424,194	747.233,056		67,959	70,475	70,275	2,316	0,500	3,00%	70,490	70,290	71,210
71,210	70,290	70,490	3,00%	-0,500	400+160,000	9.436.415,047	747.250,834		69,256	70,505	70,305	1,049	0,500	3,00%	70,520	70,320	71,240
71,216	70,297	70,497	3,00%	-0,500	400+164,522	9.436.412,751	747.254,729		69,346	70,512	70,312	0,966	0,500	3,00%	70,527	70,327	70,527
70,520	70,320	70,520	3,00%	-0,500	400+180,000	9.436.404,281	747.267,680		68,459	70,535	70,335	1,876	0,500	3,00%	70,550	70,350	70,550
70,544	70,344	70,544	3,00%	-0,500	400+196,126	9.436.394,485	747.280,485	PT	69,196	70,559	70,359	1,164	0,500	3,00%	70,574	70,374	70,574
70,550	70,350	70,550	3,00%	-0,500	400+200,000	9.436.392,017	747.283,471		69,095	70,565	70,365	1,271	0,500	3,00%	70,580	70,380	70,580
70,569	70,369	70,569	3,00%	-0,500	400+212,039	9.436.384,347	747.292,750	PC	69,228	70,584	70,384	1,156	0,500	3,00%	70,599	70,399	70,599
70,589	70,389	70,589	3,00%	-0,500	400+220,000	9.436.379,195	747.298,820		69,594	70,604	70,404	0,810	0,500	3,00%	70,619	70,419	70,619
70,690	70,490	70,690	3,00%	-0,500	400+240,000	9.436.365,567	747.313,453		69,993	70,705	70,505	0,513	0,500	3,00%	70,720	70,520	70,720
70,863	70,663	70,863	3,00%	-0,500	400+260,000	9.436.351,007	747.327,159		70,291	70,878	70,678	0,387	0,500	3,00%	70,893	70,693	70,893
71,098	70,898	71,098	3,00%	-0,500	400+280,000	9.436.335,577	747.339,879		70,298	71,113	70,913	0,615	0,500	3,00%	71,128	70,928	71,128
71,342	71,142	71,342	3,00%	-0,500	400+300,000	9.436.319,345	747.351,556		71,944	71,357	71,157	-0,787	0,500	3,00%	71,372	71,172	71,372
71,586	71,386	71,586	3,00%	-0,500	400+320,000	9.436.302,380	747.362,141		73,545	71,601	71,401	-2,145	0,500	3,00%	71,616	71,416	71,616
71,829	71,629	71,829	3,00%	-0,500	400+340,000	9.436.284,755	747.371,588		74,017	71,844	71,644	-2,373	0,500	3,00%	71,859	71,659	71,859
72,073	71,873	72,073	3,00%	-0,500	400+360,000	9.436.266,548	747.379,855		74,423	72,088	71,888	-2,535	0,500	3,00%	72,103	71,903	72,103
72,317	72,117	72,317	3,00%	-0,500	400+380,000	9.436.247,837	747.386,908		74,827	72,332	72,132	-2,695	0,500	3,00%	72,347	72,147	72,347
72,561	72,361	72,561	3,00%	-0,500	400+400,000	9.436.228,702	747.392,715		75,125	72,576	72,376	-2,749	0,500	3,00%	72,591	72,391	72,591
72,759	72,559	72,759	3,00%	-0,500	400+416,257	9.436.212,894	747.396,501		75,069	72,774	72,574	-2,495	0,500	3,00%	72,789	72,589	72,789
72,805	72,605	72,805	3,00%	-0,500	400+420,000	9.436.209,227	747.397,252		75,054	72,820	72,620	-2,435	0,500	3,00%	72,835	72,635	72,835
73,048	72,848	73,048	3,00%	-0,500	400+440,000	9.436.189,496	747.400,499		75,100	73,063	72,863	-2,237	0,500	3,00%	73,078	72,878	73,078
73,292	73,092	73,292	3,00%	-0,500	400+460,000	9.436.169,595	747.402,441		75,186	73,307	73,107	-2,078	0,500	3,00%	73,322	73,122	73,322
73,536	73,336	73,536	3,00%	-0,500	400+480,000	9.436.149,608	747.403,071		75,215	73,551	73,351	-1,864	0,500	3,00%	73,566	73,366	73,566
73,780	73,580	73,780	3,00%	-0,500	400+500,000	9.436.129,623	747.402,386		75,246	73,795	73,595	-1,651	0,500	3,00%	73,810	73,610	73,810
74,024	73,824	74,024	3,00%	-0,500	400+520,000	9.436.109,727	747.400,388		75,294	74,039	73,839	-1,456	0,500	3,00%	74,054	73,854	74,054
74,267	74,067	74,267	3,00%	-0,500	400+540,000	9.436.090,005	747.397,087		75,494	74,282	74,082	-1,412	0,500	3,00%	74,297	74,097	74,297
74,504	74,304	74,504	3,00%	-0,500	400+560,000	9.436.070,543	747.392,496		75,489	74,519	74,319	-1,170	0,500	3,00%	74,534	74,334	74,534
74,687	74,487	74,687	3,00%	-0,500	400+580,000	9.436.051,425	747.386,636		75,465	74,702	74,502	-0,964	0,500	3,00%	74,717	74,517	74,717
74,808	74,608	74,808	3,00%	-0,500	400+600,000	9.436.032,733	747.379,531		75,467	74,823	74,623	-0,843	0,500	3,00%	74,838	74,638	74,838
74,869	74,669	74,869	3,00%	-0,500	400+620,000	9.436.014,549	747.371,213		75,475	74,884	74,684	-0,790	0,500	3,00%	74,899	74,699	74,899
74,870	74,670	74,870	3,00%	-0,500	400+620,476	9.436.014,123	747.371,001	PT	75,482	74,885	74,685	-0,797	0,500	3,00%	74,900	74,700	74,900
74,877	74,677	74,877	3,00%	-0,500	400+640,000	9.435.996,658	747.362,272		75,783	74,892	74,692	-1,091	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+660,000	9.435.978,768	747.353,331		75,822	74,892	74,692	-1,130	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+674,502	9.435.965,796	747.346,848	PC	75,841	74,892	74,692	-1,149	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+680,000	9.435.960,913	747.344,322		75,845	74,892	74,692	-1,153	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+700,000	9.435.943,776	747.334,027		75,851	74,892	74,692	-1,159	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+716,210	9.435.930,695	747.324,460		75,851	74,892	74,692	-1,159	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+720,000	9.435.927,752	747.322,073		75,849	74,892	74,692	-1,157	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+740,000	9.435.913,002	747.308,578		75,840	74,892	74,692	-1,148	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+757,919	9.435.900,989	747.295,291	PT	75,820	74,892	74,692	-1,128	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+760,000	9.435.899,664	747.293,686		75,810	74,892	74,692	-1,118	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+780,000	9.435.886,930	747.278,264		75,716	74,892	74,692	-1,024	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+790,430	9.435.880,289	747.270,221		75,778	74,892	74,692	-1,086	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+800,000	9.435.875,162	747.262,141		75,699	74,892	74,692	-1,007	0,500	3,00%	74,907	74,707	74,907

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 04																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
74,877	74,677	74,877	3,00%	-0,500	400+820,000	9.435.864,447	747.245,253		75,638	74,892	74,692	-0,946	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+837,685	9.435.854,972	747.230,320	PC	75,598	74,892	74,692	-0,906	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+840,000	9.435.853,717	747.228,375		75,588	74,892	74,692	-0,896	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+840,947	9.435.853,194	747.227,585		75,586	74,892	74,692	-0,894	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+844,210	9.435.851,358	747.224,889	PT	75,579	74,892	74,692	-0,887	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+860,000	9.435.842,326	747.211,936		75,526	74,892	74,692	-0,834	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+880,000	9.435.830,887	747.195,531		75,449	74,892	74,692	-0,757	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+900,000	9.435.819,448	747.179,125		75,419	74,892	74,692	-0,727	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+920,000	9.435.808,009	747.162,719		75,440	74,892	74,692	-0,748	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+940,000	9.435.796,569	747.146,314		75,444	74,892	74,692	-0,752	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+960,000	9.435.785,130	747.129,908		75,329	74,892	74,692	-0,637	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	400+980,000	9.435.773,691	747.113,502		75,135	74,892	74,692	-0,443	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+000,000	9.435.762,252	747.097,097		75,096	74,892	74,692	-0,404	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+011,953	9.435.755,415	747.087,292	PC	75,098	74,892	74,692	-0,406	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+020,000	9.435.750,638	747.080,818		75,013	74,892	74,692	-0,321	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+040,000	9.435.737,322	747.065,915		73,626	74,892	74,692	1,066	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+051,013	9.435.729,178	747.058,505		73,449	74,892	74,692	1,243	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+060,000	9.435.722,143	747.052,914		74,824	74,892	74,692	-0,132	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+080,000	9.435.705,371	747.042,047		75,878	74,892	74,692	-1,186	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+090,074	9.435.696,413	747.037,443	PT	76,137	74,892	74,692	-1,445	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+100,000	9.435.687,437	747.033,206		75,769	74,892	74,692	-1,077	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+120,000	9.435.669,351	747.024,667		75,237	74,892	74,692	-0,545	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+140,000	9.435.651,265	747.016,128		75,997	74,892	74,692	-1,305	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+160,000	9.435.633,179	747.007,590		76,007	74,892	74,692	-1,315	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+180,000	9.435.615,094	746.999,051		76,022	74,892	74,692	-1,330	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+200,000	9.435.597,008	746.990,513		77,149	74,892	74,692	-2,457	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+220,000	9.435.578,922	746.981,974		76,967	74,892	74,692	-2,275	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+240,000	9.435.560,837	746.973,436		76,730	74,892	74,692	-2,038	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+260,000	9.435.542,751	746.964,897		76,404	74,892	74,692	-1,712	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+280,000	9.435.524,665	746.956,358		76,223	74,892	74,692	-1,531	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+300,000	9.435.506,580	746.947,820		75,801	74,892	74,692	-1,109	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	401+314,541	9.435.493,431	746.941,612	FIM	75,588	74,892	74,692	-0,896	0,500	3,00%	74,907	74,707	74,907

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 05																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
75,596	74,677	74,877	3,00%	-0,500	500+000,000	9.435.769,733	747.107,826	INÍCIO	74,767	74,892	74,692	-0,075	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	500+014,873	9.435.759,773	747.096,780	PC	74,845	74,892	74,692	-0,153	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	500+020,000	9.435.756,275	747.093,031		74,876	74,892	74,692	-0,184	0,500	3,00%	74,907	74,707	75,641
75,611	74,677	74,877	3,00%	-0,500	500+040,000	9.435.741,466	747.079,612		74,803	74,892	74,692	-0,111	0,500	3,00%	74,907	74,707	75,611
75,581	74,677	74,877	3,00%	-0,500	500+044,570	9.435.737,840	747.076,830		74,803	74,892	74,692	-0,111	0,500	3,00%	74,907	74,707	75,769
75,739	74,677	74,877	3,00%	-0,500	500+060,000	9.435.725,004	747.068,280		74,840	74,892	74,692	-0,148	0,500	3,00%	74,907	74,707	75,784
75,754	74,677	74,877	3,00%	-0,500	500+074,268	9.435.712,411	747.061,584	PT	74,814	74,892	74,692	-0,122	0,500	3,00%	74,907	74,707	75,754
75,724	74,677	74,877	3,00%	-0,500	500+080,000	9.435.707,227	747.059,137		74,813	74,892	74,692	-0,121	0,500	3,00%	74,907	74,707	75,611
75,581	74,677	74,877	3,00%	-0,500	500+100,000	9.435.689,142	747.050,598		74,886	74,892	74,692	-0,194	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	500+120,000	9.435.671,056	747.042,060		74,926	74,892	74,692	-0,234	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	500+140,000	9.435.652,970	747.033,521		74,946	74,892	74,692	-0,254	0,500	3,00%	74,907	74,707	75,611
75,581	74,677	74,877	3,00%	-0,500	500+160,000	9.435.634,885	747.024,983		74,961	74,892	74,692	-0,269	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	500+180,000	9.435.616,799	747.016,444			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	500+200,000	9.435.598,713	747.007,905			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	500+220,000	9.435.580,628	746.999,367			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	500+240,000	9.435.562,542	746.990,828			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	500+260,000	9.435.544,456	746.982,290			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	500+280,000	9.435.526,370	746.973,751			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	500+300,000	9.435.508,285	746.965,212			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	500+320,000	9.435.490,199	746.956,674			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	500+323,508	9.435.487,027	746.955,176	FIM		74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 06																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
75,611	74,677	74,877	3,00%	-0,500	600+000,000	9.435.687,249	747.049,705	INÍCIO	74,886	74,892	74,692	-0,194	0,500	3,00%	74,907	74,707	75,611
75,581	74,677	74,877	3,00%	-0,500	600+020,000	9.435.670,367	747.038,981		74,863	74,892	74,692	-0,171	0,500	3,00%	74,907	74,707	75,769
75,739	74,677	74,877	3,00%	-0,500	600+038,812	9.435.654,488	747.028,894	PC	74,547	74,892	74,692	0,145	0,500	3,00%	74,907	74,707	75,784
75,754	74,677	74,877	3,00%	-0,500	600+040,000	9.435.653,483	747.028,261		74,482	74,892	74,692	0,210	0,500	3,00%	74,907	74,707	75,754
75,724	74,677	74,877	3,00%	-0,500	600+048,175	9.435.646,434	747.024,123		74,145	74,892	74,692	0,547	0,500	3,00%	74,907	74,707	75,611
75,581	74,677	74,877	3,00%	-0,500	600+057,538	9.435.638,097	747.019,864	PT	74,111	74,892	74,692	0,581	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	600+060,000	9.435.635,870	747.018,813		74,139	74,892	74,692	0,553	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	600+080,000	9.435.617,785	747.010,274			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	75,611
75,581	74,677	74,877	3,00%	-0,500	600+100,000	9.435.599,699	747.001,736			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	600+120,000	9.435.581,613	746.993,197			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	600+140,000	9.435.563,528	746.984,659			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	600+160,000	9.435.545,442	746.976,120			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	600+180,000	9.435.527,356	746.967,581			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	600+200,000	9.435.509,271	746.959,043			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	600+220,000	9.435.491,185	746.950,504			74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	600+221,766	9.435.489,588	746.949,750	FIM		74,892	74,692	74,692	0,500	3,00%	74,907	74,707	74,907

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 07																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
75,754	74,677	74,877	3,00%	-0,500	700+000,000	9.435.869,543	747.253,285	INÍCIO	75,657	74,892	74,692	-0,965	0,500	3,00%	74,907	74,707	75,754
75,724	74,677	74,877	3,00%	-0,500	700+011,606	9.435.862,153	747.244,335	PC	75,652	74,892	74,692	-0,960	0,500	3,00%	74,907	74,707	75,611
75,581	74,677	74,877	3,00%	-0,500	700+018,346	9.435.857,746	747.239,236		75,650	74,892	74,692	-0,958	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	700+020,000	9.435.856,630	747.238,016		75,650	74,892	74,692	-0,958	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	700+025,086	9.435.853,115	747.234,340	PT	75,648	74,892	74,692	-0,956	0,500	3,00%	74,907	74,707	75,611
75,581	74,677	74,877	3,00%	-0,500	700+040,000	9.435.842,625	747.223,739		75,641	74,892	74,692	-0,949	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	700+060,000	9.435.828,558	747.209,522		75,634	74,892	74,692	-0,942	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	700+080,000	9.435.814,491	747.195,305		75,637	74,892	74,692	-0,945	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+100,000	9.435.800,424	747.181,088		75,638	74,892	74,692	-0,946	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+120,000	9.435.786,357	747.166,872		75,643	74,892	74,692	-0,951	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+140,000	9.435.772,290	747.152,655		75,679	74,892	74,692	-0,987	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+160,000	9.435.758,223	747.138,438		75,462	74,892	74,692	-0,770	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+180,000	9.435.744,156	747.124,221		75,236	74,892	74,692	-0,544	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+194,899	9.435.733,676	747.113,630	PC	75,176	74,892	74,692	-0,484	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+200,000	9.435.730,028	747.110,066		75,217	74,892	74,692	-0,525	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+220,000	9.435.714,615	747.097,344		75,172	74,892	74,692	-0,480	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+221,002	9.435.713,799	747.096,762		75,195	74,892	74,692	-0,503	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+240,000	9.435.697,647	747.086,784		75,498	74,892	74,692	-0,806	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+247,105	9.435.691,301	747.083,590	PT	75,582	74,892	74,692	-0,890	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+260,000	9.435.679,649	747.078,067		75,688	74,892	74,692	-0,996	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+280,000	9.435.661,577	747.069,500		75,937	74,892	74,692	-1,245	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+300,000	9.435.643,504	747.060,933		76,016	74,892	74,692	-1,324	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+320,000	9.435.625,432	747.052,366		76,112	74,892	74,692	-1,420	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+340,000	9.435.607,360	747.043,800		76,128	74,892	74,692	-1,436	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+360,000	9.435.589,287	747.035,233		76,119	74,892	74,692	-1,427	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+380,000	9.435.571,215	747.026,666		76,118	74,892	74,692	-1,426	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+400,000	9.435.553,143	747.018,099		76,104	74,892	74,692	-1,412	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+420,000	9.435.535,070	747.009,533		76,093	74,892	74,692	-1,401	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+440,000	9.435.516,998	747.000,966		76,085	74,892	74,692	-1,393	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+460,000	9.435.498,925	746.992,399		76,091	74,892	74,692	-1,399	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	700+473,704	9.435.486,542	746.986,529	FIM	76,049	74,892	74,692	-1,357	0,500	3,00%	74,907	74,707	74,907

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 08																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
75,596	74,677	74,877	3,00%	-0,500	800+000,000	9.435.668,169	747.072,625	INÍCIO	75,810	74,892	74,692	-1,118	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	800+020,000	9.435.651,304	747.061,875		76,019	74,892	74,692	-1,327	0,500	3,00%	74,907	74,707	75,611
75,581	74,677	74,877	3,00%	-0,500	800+032,788	9.435.640,520	747.055,001	PC	76,081	74,892	74,692	-1,389	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	800+040,000	9.435.634,348	747.051,272		76,088	74,892	74,692	-1,396	0,500	3,00%	74,907	74,707	75,626
75,596	74,677	74,877	3,00%	-0,500	800+042,151	9.435.632,473	747.050,217		76,083	74,892	74,692	-1,391	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+051,514	9.435.624,143	747.045,946	PT	76,117	74,892	74,692	-1,425	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+060,000	9.435.616,475	747.042,311		76,086	74,892	74,692	-1,394	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+080,000	9.435.598,403	747.033,744		76,111	74,892	74,692	-1,419	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+100,000	9.435.580,331	747.025,177		76,114	74,892	74,692	-1,422	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+120,000	9.435.562,258	747.016,610		76,128	74,892	74,692	-1,436	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+140,000	9.435.544,186	747.008,044		76,133	74,892	74,692	-1,441	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+160,000	9.435.526,114	746.999,477		76,110	74,892	74,692	-1,418	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+180,000	9.435.508,041	746.990,910		76,139	74,892	74,692	-1,447	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+200,000	9.435.489,969	746.982,343		76,069	74,892	74,692	-1,377	0,500	3,00%	74,907	74,707	74,907
74,877	74,677	74,877	3,00%	-0,500	800+201,303	9.435.488,791	746.981,785	FIM	76,026	74,892	74,692	-1,334	0,500	3,00%	74,907	74,707	74,907

NOTA DE SERVIÇO DE SUPERESTRUTURA - LINHA 09																	
Lado Esquerdo					Eixo								Lado Direito				
Cota (m)			Declividade (m)	Afastamento (m)	km	Coordenada		Pontos Notáveis da Geometria	Terreno Natural (m)	Topo do Sublastro (m)	Terraplenagem (m)	Vermelha (m)	Afastamento (m)	Declividade (m)	Cota (m)		
Topo do boleto (m)	Terraplenagem (m)	Topo do Sublastro (m)				Norte (N)	Leste (E)								Topo do Sublastro (m)	Terraplenagem (m)	Topo do boleto (m)
78,003	77,084	77,284	3,00%	-0,500	900+000,000	9.436.484,645	747.706,794	INÍCIO	77,423	77,299	77,099	-0,324	0,500	3,00%	77,314	77,114	78,033
78,049	77,130	77,330	3,00%	-0,500	900+015,417	9.436.491,216	747.720,741	PC	77,552	77,345	77,145	-0,407	0,500	3,00%	77,360	77,160	77,360
77,344	77,144	77,344	3,00%	-0,500	900+020,000	9.436.493,131	747.724,904		77,462	77,359	77,159	-0,303	0,500	3,00%	77,374	77,174	77,374
77,404	77,204	77,404	3,00%	-0,500	900+040,000	9.436.500,584	747.743,458		77,679	77,419	77,219	-0,460	0,500	3,00%	77,434	77,234	77,434
77,508	77,308	77,508	3,00%	-0,500	900+060,000	9.436.506,531	747.762,548		77,945	77,523	77,323	-0,622	0,500	3,00%	77,538	77,338	77,538
77,509	77,309	77,509	3,00%	-0,500	900+060,177	9.436.506,577	747.762,719		77,950	77,524	77,324	-0,625	0,500	3,00%	77,539	77,339	77,539
77,700	77,500	77,700	3,00%	-0,500	900+080,000	9.436.510,933	747.782,052		77,969	77,715	77,515	-0,454	0,500	3,00%	77,730	77,530	77,730
77,936	77,736	77,936	3,00%	-0,500	900+100,000	9.436.513,762	747.801,846		78,139	77,951	77,751	-0,388	0,500	3,00%	77,966	77,766	77,966
77,996	77,796	77,996	3,00%	-0,500	900+104,937	9.436.514,216	747.806,762	PT	78,215	78,011	77,811	-0,403	0,500	3,00%	78,026	77,826	78,026
78,204	78,004	78,204	3,00%	-0,500	900+120,000	9.436.515,453	747.821,774		78,441	78,219	78,019	-0,422	0,500	3,00%	78,234	78,034	78,234
78,504	78,304	78,504	3,00%	-0,500	900+140,000	9.436.517,096	747.841,706		78,794	78,519	78,319	-0,475	0,500	3,00%	78,534	78,334	78,534
78,804	78,604	78,804	3,00%	-0,500	900+160,000	9.436.518,739	747.861,639		79,253	78,819	78,619	-0,634	0,500	3,00%	78,834	78,634	78,834
79,104	78,904	79,104	3,00%	-0,500	900+180,000	9.436.520,381	747.881,571		79,344	79,119	78,919	-0,425	0,500	3,00%	79,134	78,934	79,134
79,404	79,204	79,404	3,00%	-0,500	900+200,000	9.436.522,024	747.901,503		79,818	79,419	79,219	-0,599	0,500	3,00%	79,434	79,234	79,434
79,704	79,504	79,704	3,00%	-0,500	900+220,000	9.436.523,667	747.921,436		80,013	79,719	79,519	-0,494	0,500	3,00%	79,734	79,534	79,734
80,004	79,804	80,004	3,00%	-0,500	900+240,000	9.436.525,309	747.941,368		80,592	80,019	79,819	-0,773	0,500	3,00%	80,034	79,834	80,034
80,304	80,104	80,304	3,00%	-0,500	900+260,000	9.436.526,952	747.961,301		80,728	80,319	80,119	-0,609	0,500	3,00%	80,334	80,134	80,334
80,594	80,394	80,594	3,00%	-0,500	900+280,000	9.436.528,595	747.981,233		80,886	80,609	80,409	-0,477	0,500	3,00%	80,624	80,424	80,624
80,632	80,432	80,632	3,00%	-0,500	900+283,028	9.436.528,843	747.984,251	PC	80,913	80,647	80,447	-0,466	0,500	3,00%	80,662	80,462	80,662
80,824	80,624	80,824	3,00%	-0,500	900+300,000	9.436.530,524	748.001,139		81,120	80,839	80,639	-0,482	0,500	3,00%	80,854	80,654	80,854
80,833	80,633	80,833	3,00%	-0,500	900+300,857	9.436.530,624	748.001,989		81,135	80,848	80,648	-0,487	0,500	3,00%	80,863	80,663	80,863
81,029	80,829	81,029	3,00%	-0,500	900+318,685	9.436.533,036	748.019,653	PT	81,660	81,044	80,844	-0,817	0,500	3,00%	81,059	80,859	81,059
81,043	80,843	81,043	3,00%	-0,500	900+320,000	9.436.533,237	748.020,952		81,674	81,058	80,858	-0,815	0,500	3,00%	81,073	80,873	81,073
81,360	81,160	81,360	3,00%	-0,500	900+340,000	9.436.536,296	748.040,717		81,940	81,375	81,175	-0,765	0,500	3,00%	81,390	81,190	81,390
81,695	81,495	81,695	3,00%	-0,500	900+356,986	9.436.538,894	748.057,503	FIM	81,883	81,710	81,510	-0,374	0,500	3,00%	81,725	81,525	81,725