

REPÚBLICA FEDERATIVA DO BRASIL
GOVERNO DO ESTADO DE SANTA CATARINA

MUNICÍPIO DE FORQUILHINHA



Projeto: PAVIMENTAÇÃO ASFÁLTICA DE CICLOFAIXA NA RM LINHA EYNG – LINHA EYNG - FORQUILHINHA/SC

				Extensão
Estacas Ciclofaixa	0+0,00	+	73+0,00	1.460 m
	73+0,00	+	88+0,00	300 m
Extensão Total da Ciclofaixa:	1.760,00 m			

Volume 2:

**PROJETO EXECUTIVO DE ENGENHARIA RODOVIÁRIA
PARA IMPLANTAÇÃO E PAVIMENTAÇÃO.**

Elaborado por:

IDEALIZE Documentos e Projetos Ltda.

Julho de 2025.

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- NOTAS DE SERVIÇO
 - Pavimento Acabado
 - Drenagem
 - Obs: Demais notas de serviço encontram-se no Volume 01- Relatório de Projeto

MAPA DE LOCALIZAÇÃO

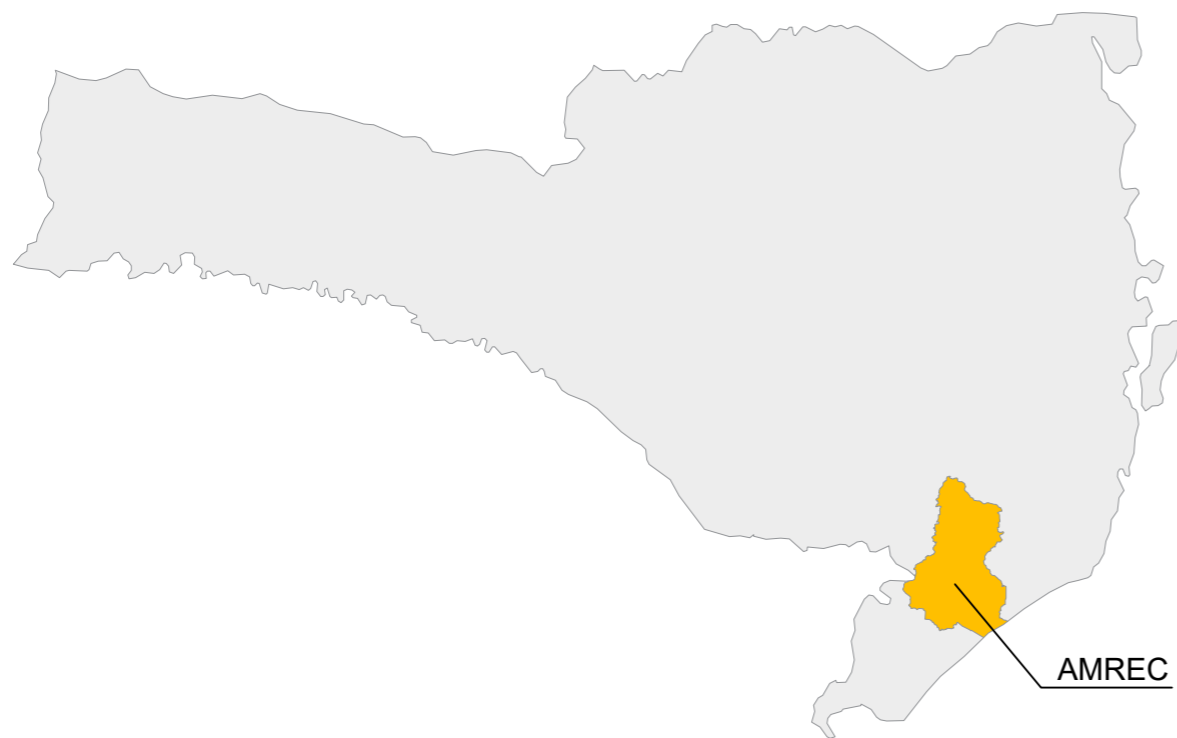
- Localização Geral
- Localização da Obra
- Localização com Entorno Imediato

Brasil



Santa Catarina

Santa Catarina



AMREC

Localização de Forquilha na AMREC



Orleans

Lauro Müller

Treviso

Urussanga

Siderópolis

Cocal do Sul

Morro da Fumaça

Nova Veneza

Criciúma

Forquilha

Içara

Balneário Rincão

IDEALIZE
ARQUITETURA, ENGENHARIA E AGRIMENSURA
CREA/SC - 169873-0



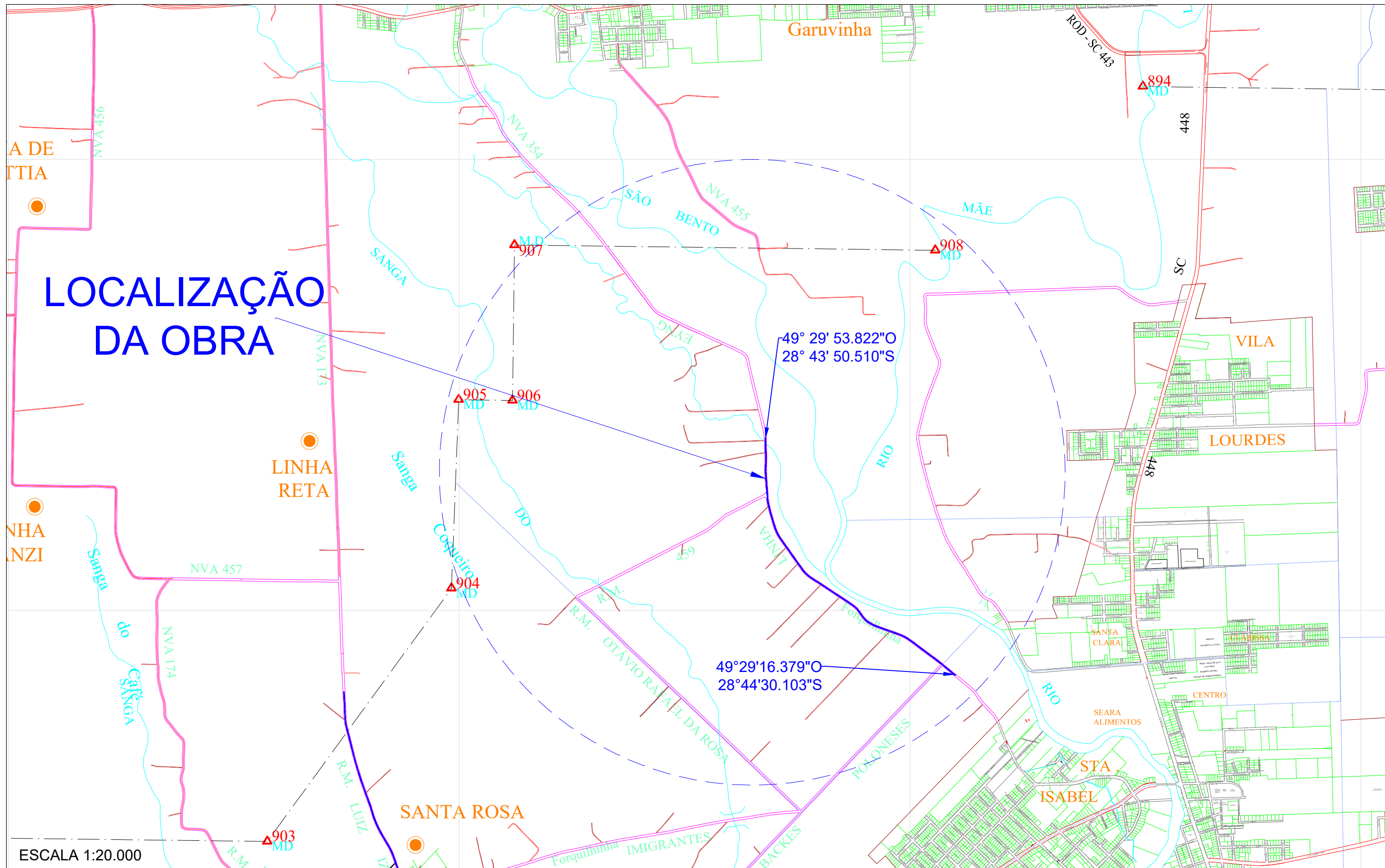
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
01/01

Obra
R.M. LINHA EYNG

Conteúdo
MAPA DE LOCALIZAÇÃO

Local
R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC



LOCALIZAÇÃO DA OBRA

ESCALA 1:20.000



Autor do projeto: BRUNO FRIGO PASINI ENGENHEIRO CIVIL - CREA/SC 137.007-9		Obra R.M. LINHA EYNG
Prancha: 01/01		Conteúdo LOCALIZAÇÃO DA OBRA
Local R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC		

A3 (297mm X 420mm)



ESCALA 1/500



Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

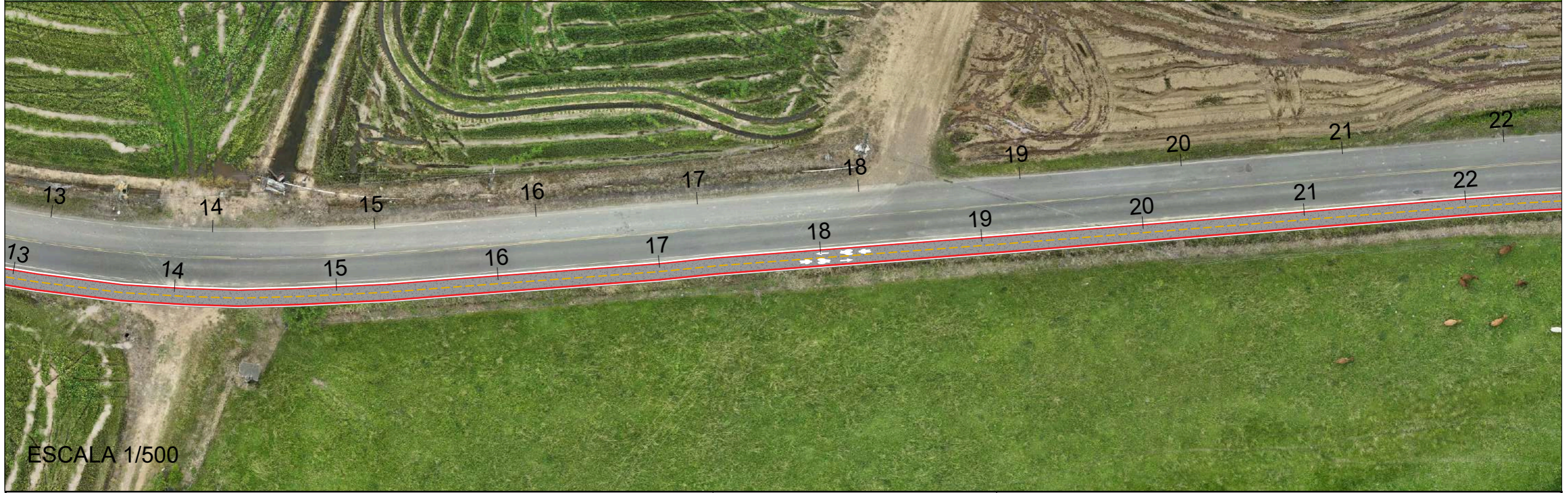
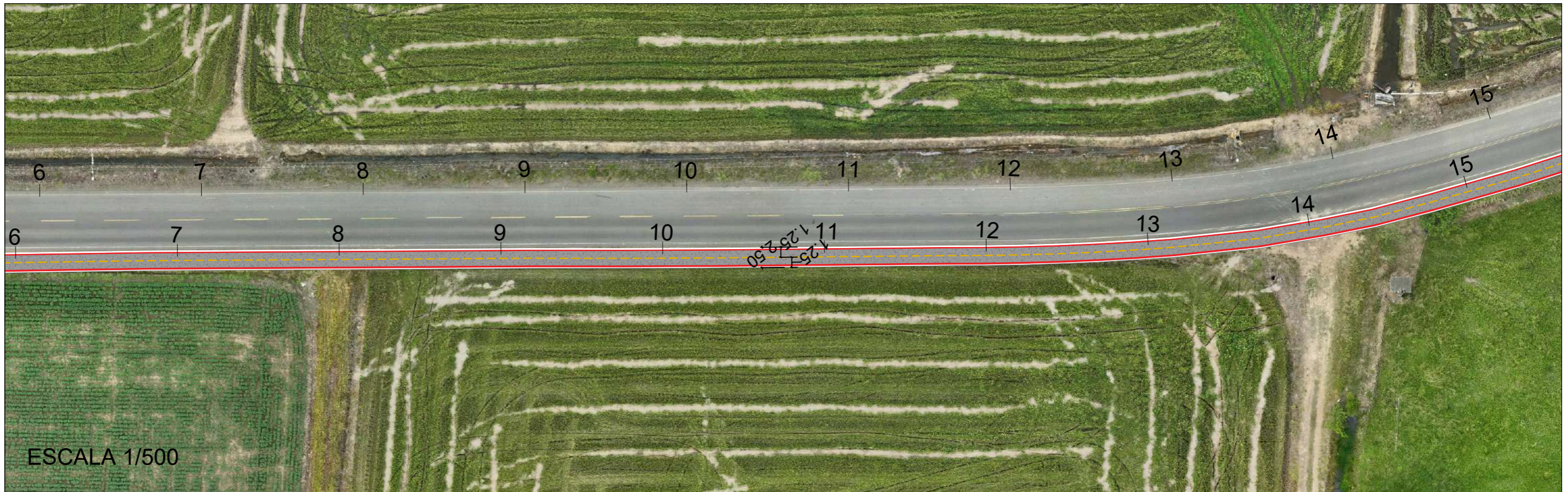
Prancha:
 01/07

Obra
R.M. LINHA EYNG

Conteúdo
LOCALIZAÇÃO COM ENTORNO IMEDIATO

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

A3 (297mm X 420mm)



IDEALIZE
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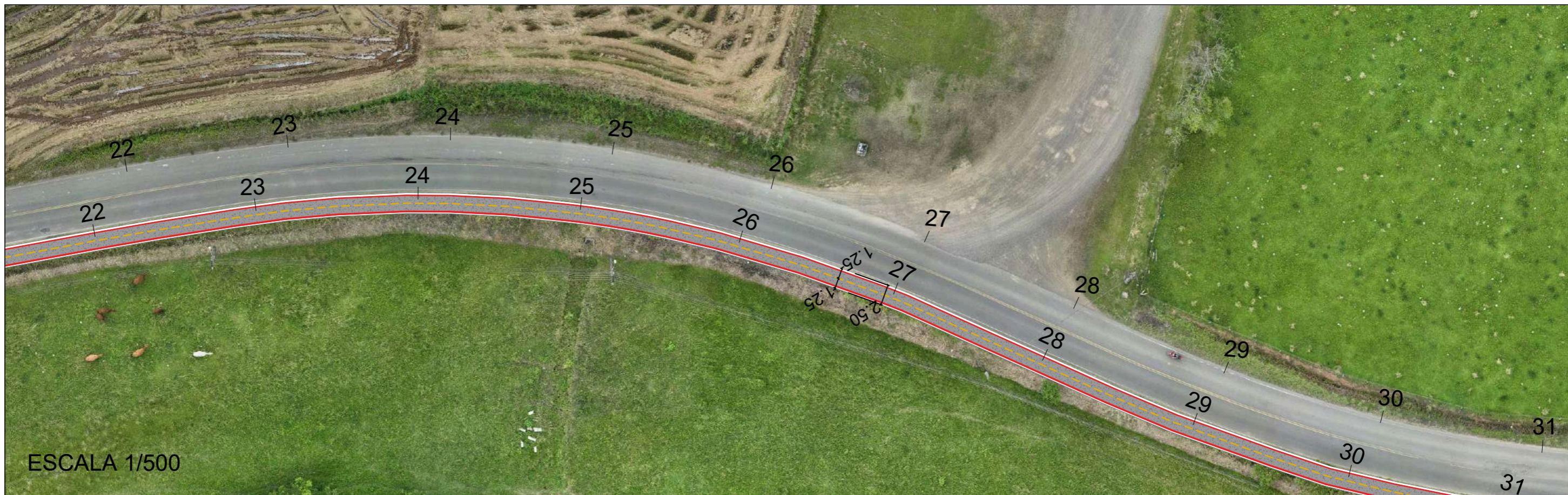
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
02/07

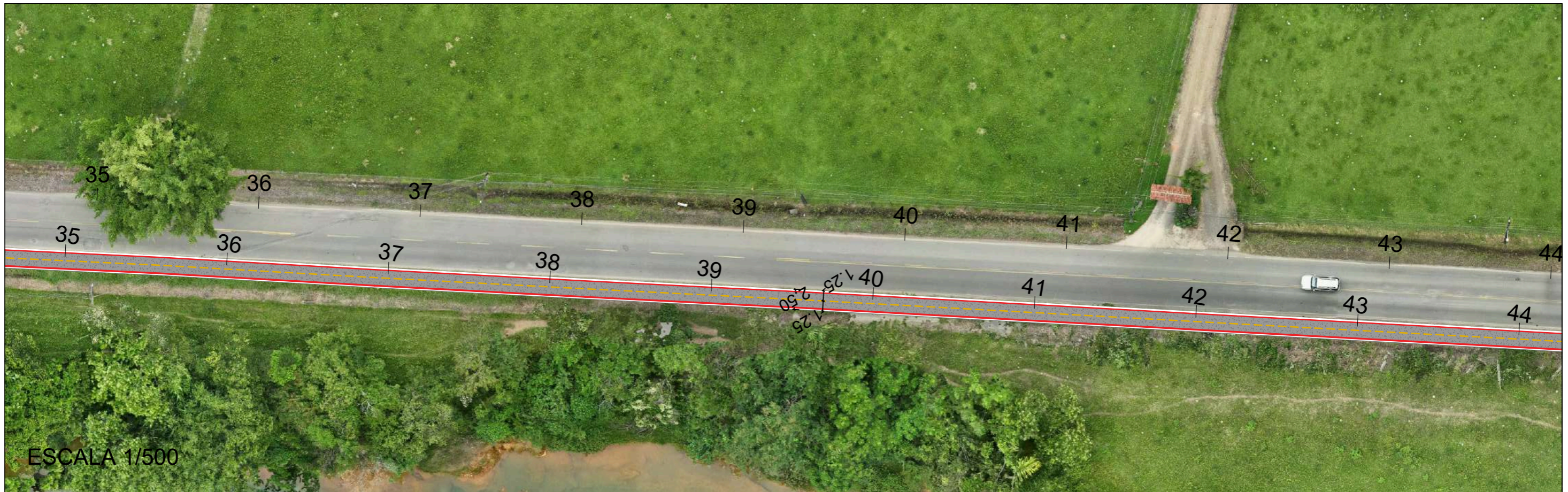
Obra
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		Autor do projeto: BRUNO FRIGO PASINI ENGENHEIRO CIVIL - CREA/SC 137.007-9		Obra R.M. LINHA EYNG
		Prancha: 03/07	Conteúdo LOCALIZAÇÃO COM ENTORNO IMEDIATO	
		Local R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC		



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CREA/SC - 169873-0



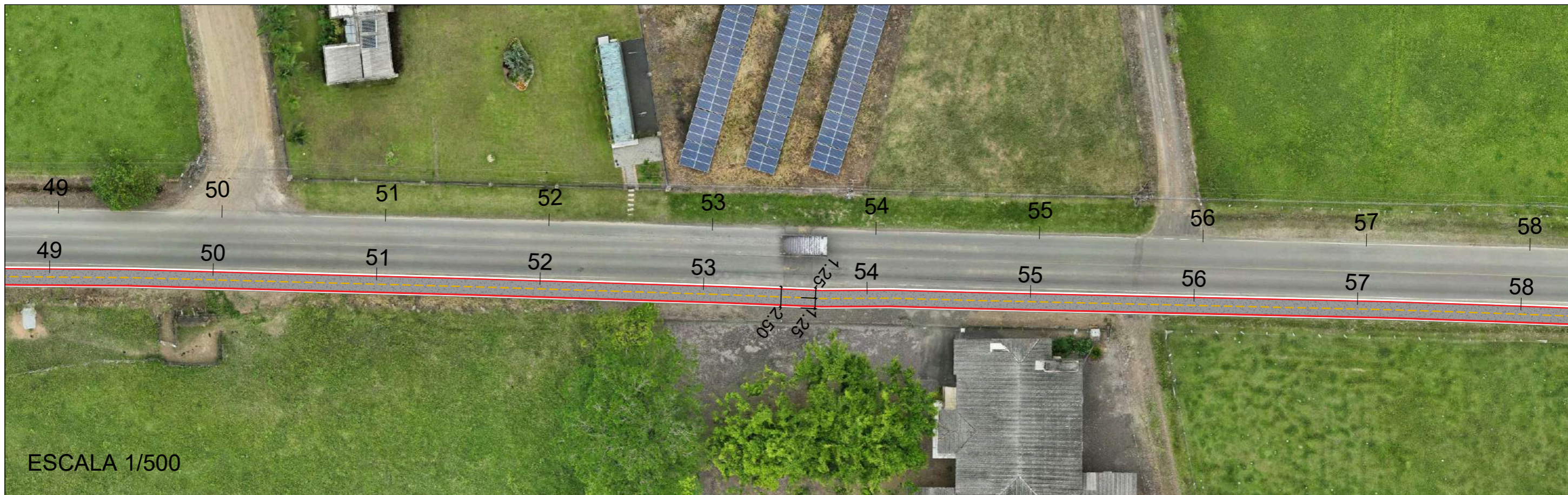
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
04/07

Obra
R.M. LINHA EYNG

Conteúdo
LOCALIZAÇÃO COM ENTORNO IMEDIATO

Local
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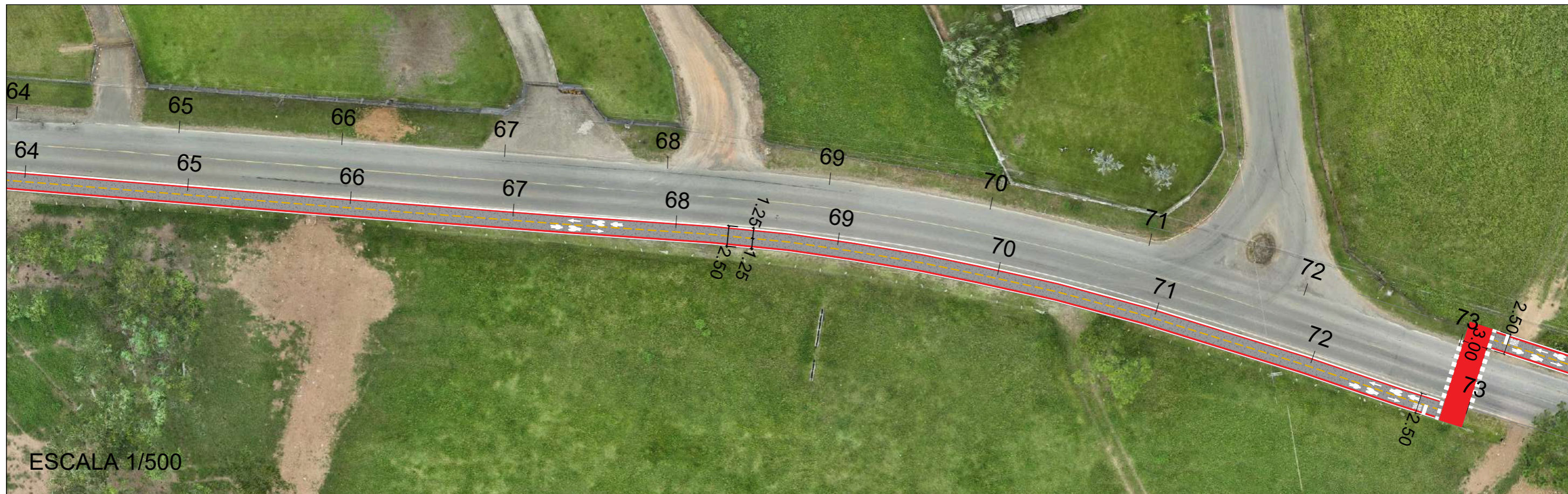
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
 05/07

Obra
R.M. LINHA EYNG

Conteúdo
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IDEALIZE
ARQUITETURA, ENGENHARIA E AGRIMENSURA
CREA/SC - 169873-0



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
06/07

Obra
R.M. LINHA EYNG

Conteúdo
LOCALIZAÇÃO COM ENTORNO IMEDIATO

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



		Autor do projeto: BRUNO FRIGO PASINI ENGENHEIRO CIVIL - CREA/SC 137.007-9		Obra R.M. LINHA EYNG
		Prancha: 07/07	Conteúdo LOCALIZAÇÃO COM ENTORNO IMEDIATO	
		Local R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC		

CONVENÇÕES DE PROJETO

CONVENÇÕES DO PROJETO

CONVENÇÕES TOPOGRÁFICAS

SÍMBOLO	DESCRIÇÃO	SÍMBOLO	DESCRIÇÃO	SÍMBOLO	DESCRIÇÃO
	FAIXA DE PEDESTRE EXISTENTE		FAIXA DE PEDESTRES		RIO
	FAIXA AMARELA EXISTENTE		QUEBRA MOLA		RIO
	FAIXA BRANCA EXISTENTE		EDIFICAÇÃO		AÇUDE
	ALINHAMENTO DE MURO		CALÇADA		LAGOA
	BORDO ESTRADA CHÃO EXISTENTE		PAVER		BANHADO
	EIXO ESTRADA CHÃO EXISTENTE		CALÇAMENTO		ALAGADO
	BORDO ESTRADA PAVIMENTADA EXISTENTE		ASFALTO EXISTENTE		PISCINA
	EIXO ESTRADA PAVIMENTADA EXISTENTE		ACOSTAMENTO EXISTENTE		ESTRADA DE PEDRA
	FIM ACOSTAMENTO		PASSEIO DE CONCRETO		TERRENO SEM COBERTURA DE VEGETAÇÃO
	EIXO PROJETO PRIMITIVO		VEGETAÇÃO		TANQUE TRAT. ÁGUA
	CERCA		MATA		CAPOEIRA
	VALA		PINUS		GRAMADO
	FUNDO DA VALA		EUCALIPITO		MAR
	GUARDA CORPO		ARAUCÁRIA		ROCHA APARENTE
	MEIO FIO		PLANTAÇÃO		VEGETAÇÃO BAIXA
	CRISTA		ARROZ		ÁRVORES
	LOTE		PASTAGEM		
	DEFENSA METÁLICA				
	REDE DE ALTA TENSÃO				
	OUTDOOR				
	PONTE				
	PONTE PEDESTRES				
	MINERAÇÃO				
	NÃO EDIFICANTE				
	CAMPO DE FUTEBOL				
	CORREGO				
	CANALETA				
	ALA				
	PLACAS				
	MATA BURRO				
	DIVISA				
	FERROVIA				
	CAPELA				

CONVENÇÕES PROJETO DE SINALIZAÇÃO E INFRAESTRUTURA

SÍMBOLO	DESCRIÇÃO
	LINHAS BASE
	PISO TÁTIL
	FAIXA AMARELA
	FAIXA BRANCA
	DEFENSA METÁLICA
	FAIXA DE PEDESTRES
	RAMPA ACESSÍVEL TIPO 1
	RAMPA ACESSÍVEL TIPO 2
	MEIA RAMPA ACESSÍVEL TIPO 2
	MEIA RAMPA ACESSÍVEL FINAL DE CALÇADA
	ACESSO 3M VEÍCULOS LEVES
	ACESSO 4M VEÍCULOS LEVES
	ACESSO 6M VEÍCULOS LEVES
	ACESSO 8M VEÍCULOS LEVES
	ACESSO 4M VEÍCULOS PESADOS
	ACESSO 6M VEÍCULOS PESADOS
	ACESSO 8M VEÍCULOS PESADOS
	ACESSO 6M VEÍCULOS LEVES com, calçada, ciclo faixa, acostamento
	ACESSO 10M VEÍCULOS LEVES com, calçada, ciclo faixa, acostamento
	ACESSO 10M VEÍCULOS PESADO com, calçada, ciclo faixa, acostamento
	ACESSO 6M VEÍCULOS com, faixa compartilhada 2,0m e acostamento
	ACESSO 10M VEÍCULOS com, faixa compartilhada 2,0m e acostamento
	ACESSO 6M VEÍCULOS com, faixa compartilhada 2,4m e acostamento
	ACESSO 10M VEÍCULOS com, faixa compartilhada 2,4m e acostamento
	ASFALTO
	CANTEIRO GRAMA
	CALÇADA
	PINTURA CICLOVIA
	CICLOVIA
	ACOSTAMENTOS

CONVENÇÕES PROJETO DRENAGEM

	CAIXA COLETORA DE SARGETA
	ALA - BOCA
	CAIXA COLETORA DE TALVEGUE
	DESCIDA D'ÁGUA
	BOCA DE LOBO EXISTENTE
	CAIXA DE LIGAÇÃO / PASSAGEM EXISTENTE
	BOCA DE LOBO GRELHA EXISTENTE
	DRENO PROFUNDO
	DRENO LONGITUDINAL RASO
	DRENO TRANSVERSAL RASO
	SARJETA PROT. TALUDE
	SARJETA TIPO TRIANGULAR DE CONCRETO
	SARJETA TIPO MEIA CALHA
	SARJETA TIPO RETANGULAR CONCRETO
	SARJETA TIPO TRAPEZ. DE CONCRETO
	SAÍDA PARA DRENO PROFUNDO - BSD 03
	DRENAGEM EXISTENTE
	TUBO EXISTENTE Ø20cm
	TUBO EXISTENTE Ø30cm
	TUBO EXISTENTE Ø40cm
	TUBO EXISTENTE Ø50cm
	TUBO EXISTENTE Ø60cm
	TUBO EXISTENTE Ø80cm
	TUBO EXISTENTE Ø1m
	TUBO EXISTENTE Ø1,2m
	TUBO EXISTENTE Ø1,5m
	CAIXAS
	SARGETAS
	TRAVESSIA DE SARGETA
	FAIXA DE DOMÍNIO
	VALA EXISTENTE
	VALA LIMPEZA
	VALA NOVA
	VALETÃO
	RÁPIDO - RAP
	REDE EXISTENTE (Ø INDICADO)
	REDE NOVA (Ø INDICADO)
	BOCA DE LOBO GRELHA
	BUEIRO PROJETADO - REDE
	CAIXA DE LIGAÇÃO / PASSAGEM
	BOCA DE LOBO GUIA SIMPLES
	BOCA DE LOBO GUIA DUPLA
	POÇO DE VISITA
	BOCA DE LOBO COM GRELHA
	BANQUETA DE CONDUÇÃO

OBS.: Itens em magenta são referentes à rede existente; itens em azul são referentes à rede nova.

CONVENÇÕES PROJETO GEOMÉTRICO

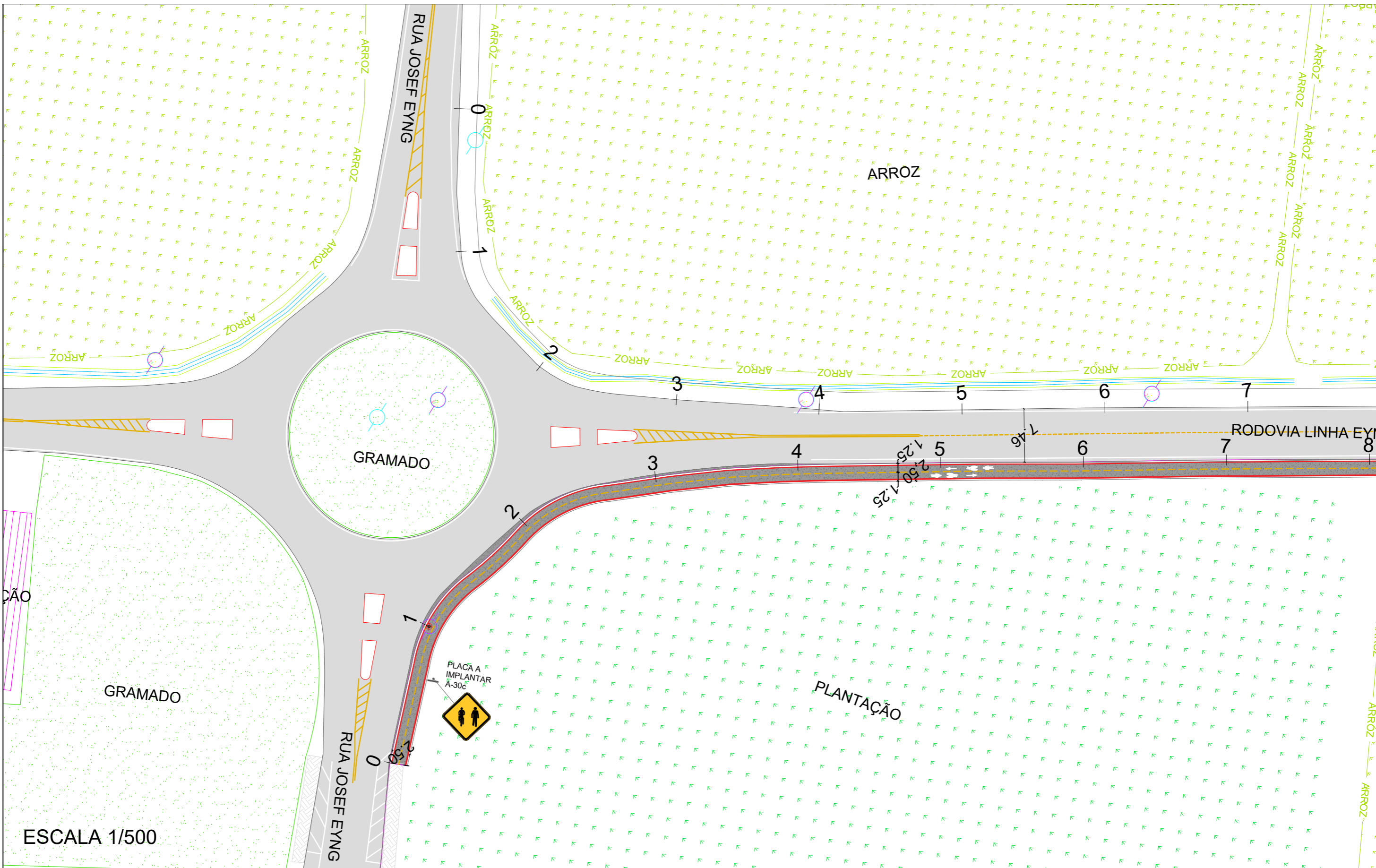
SÍMBOLO	DESCRIÇÃO
	GREIDE DE PAVIMENTAÇÃO
	PERFIL DO TERRENO
	EIXO PISTA
	MEIO FIO
	ALINHAMENTO CALÇADAS
	CURVAS DE NÍVEL
	OFF-SET CORTE
	OFF-SET ATERRO
	POSTE LEVANTAMENTO
	MARCOS
	FAIXA NON AEDIFICANDI
	FAIXA DE DOMÍNIO
	- COTA TERRENO (EIXO)
	- COTA PROJETO PAVIMENTO (EIXO)
	- COTA PROJETO TERRAPLENAGEM (EIXO)

CONVENÇÕES PROJETO DE SINALIZAÇÃO E INFRAESTRUTURA

SÍMBOLO	DESCRIÇÃO
	MEIO FIO 12cm
	MEIO FIO 15cm
	MEIO FIO 25cm
	GUIA REBAIXADA 12cm
	GUIA REBAIXADA 15cm
	POSTE A REMOVER - 40cm
	POSTE 40cm
	ÁRVORE À REMOVER
	PISTA EXISTENTE
	ACOSTAMENTO

PROJETO DE INFRAESTRUTURA E SINALIZAÇÃO

-- Planta e Detalhes



ESCALA 1/500

IDEALIZE
ARQUITETURA, ENGENHARIA E AGRIMENSURA
CREA/SC - 169873-0



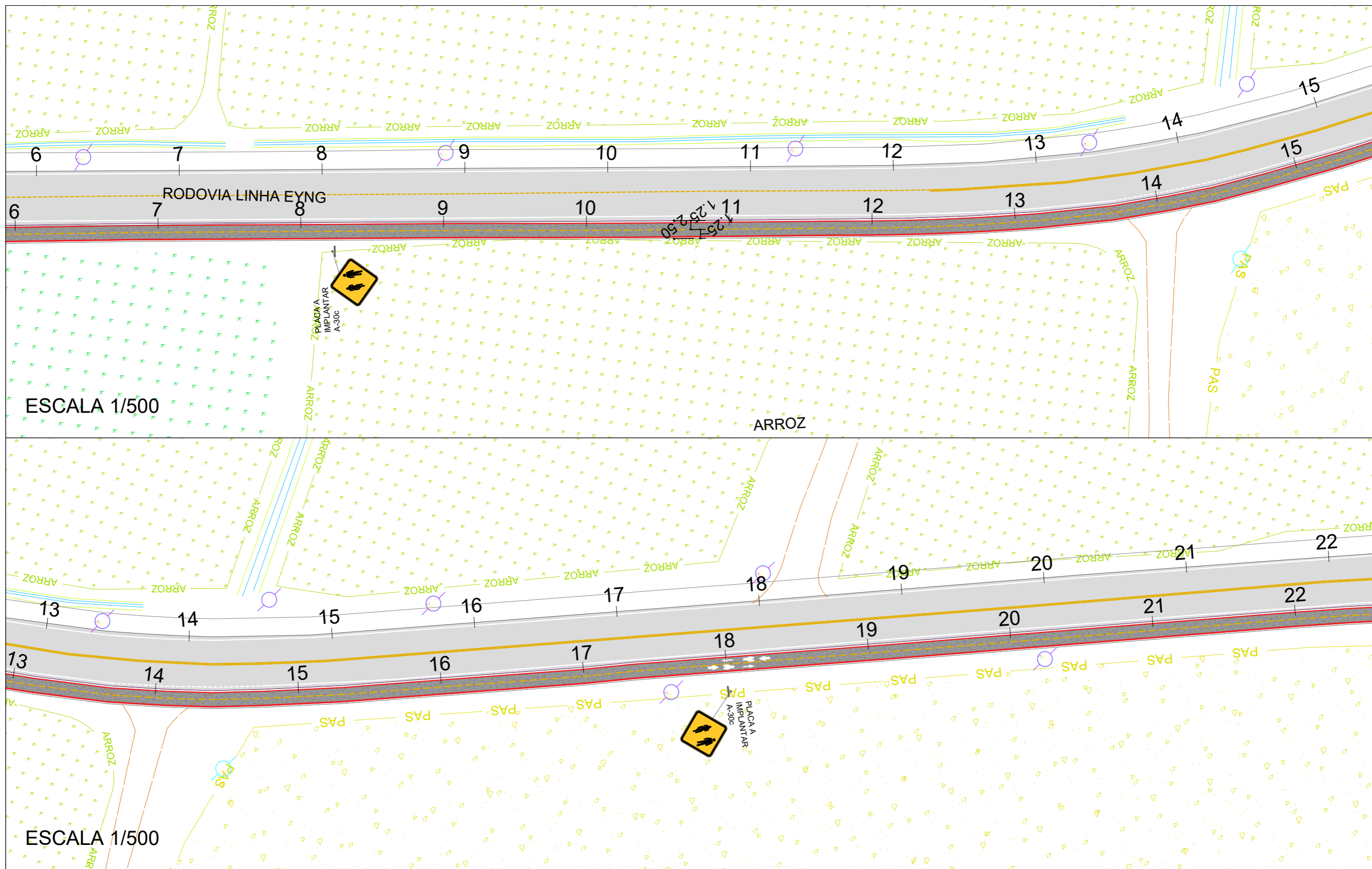
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
01/07

Obra
R.M. LINHA EYNG

Conteúdo
INFRAESTRUTURA E SINALIZAÇÃO

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINA/SC



ESCALA 1/500

ESCALA 1/500

IDEALIZE
ARQUITETURA, ENGENHARIA E AGRIMENSURA
CREA/SC - 169873-0



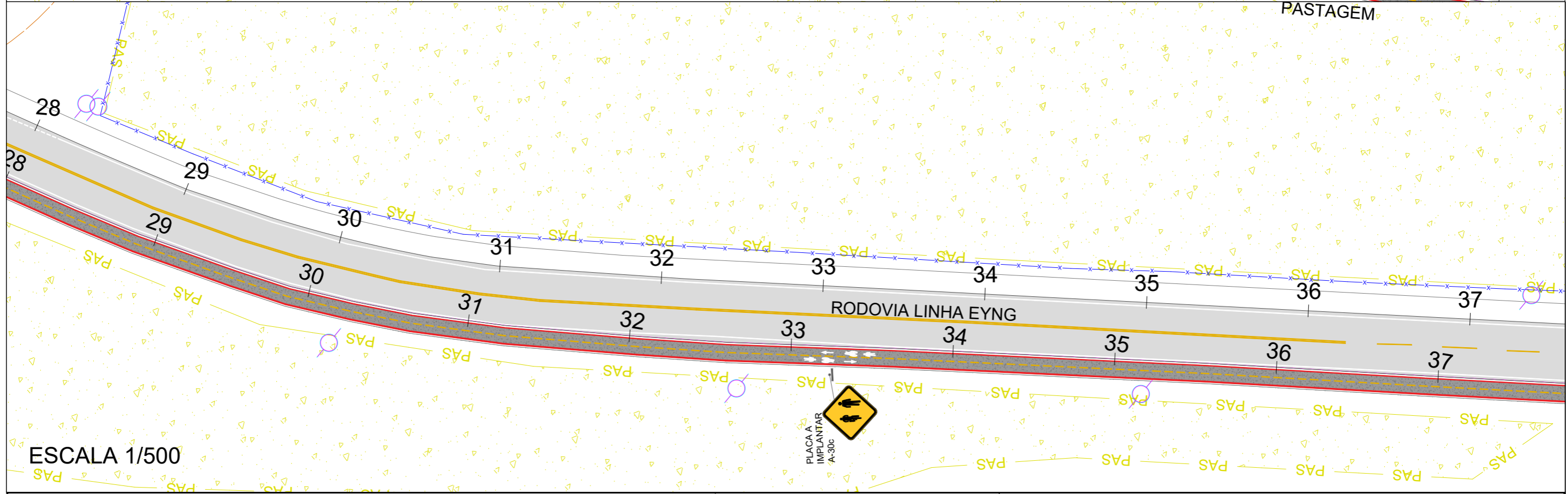
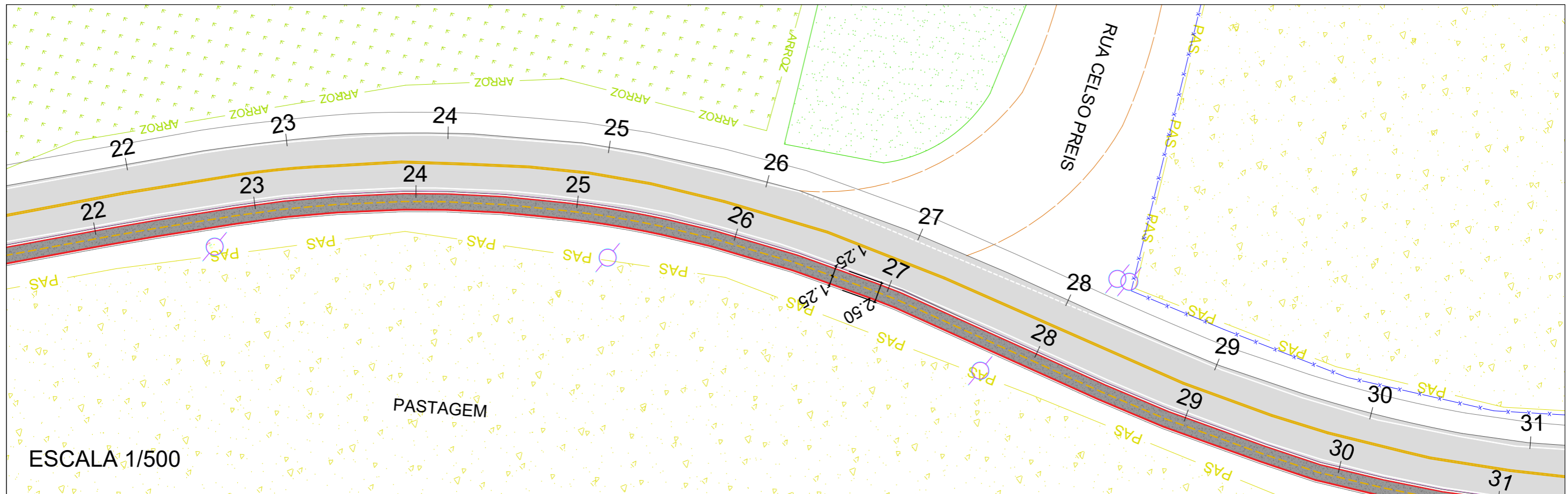
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
02/07

Obra
R.M. LINHA EYNG

Conteúdo
INFRAESTRUTURA E SINALIZAÇÃO

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



IDEALIZE
ARQUITETURA, ENGENHARIA E AGRIMENSURA
CREA/SC - 169873-0



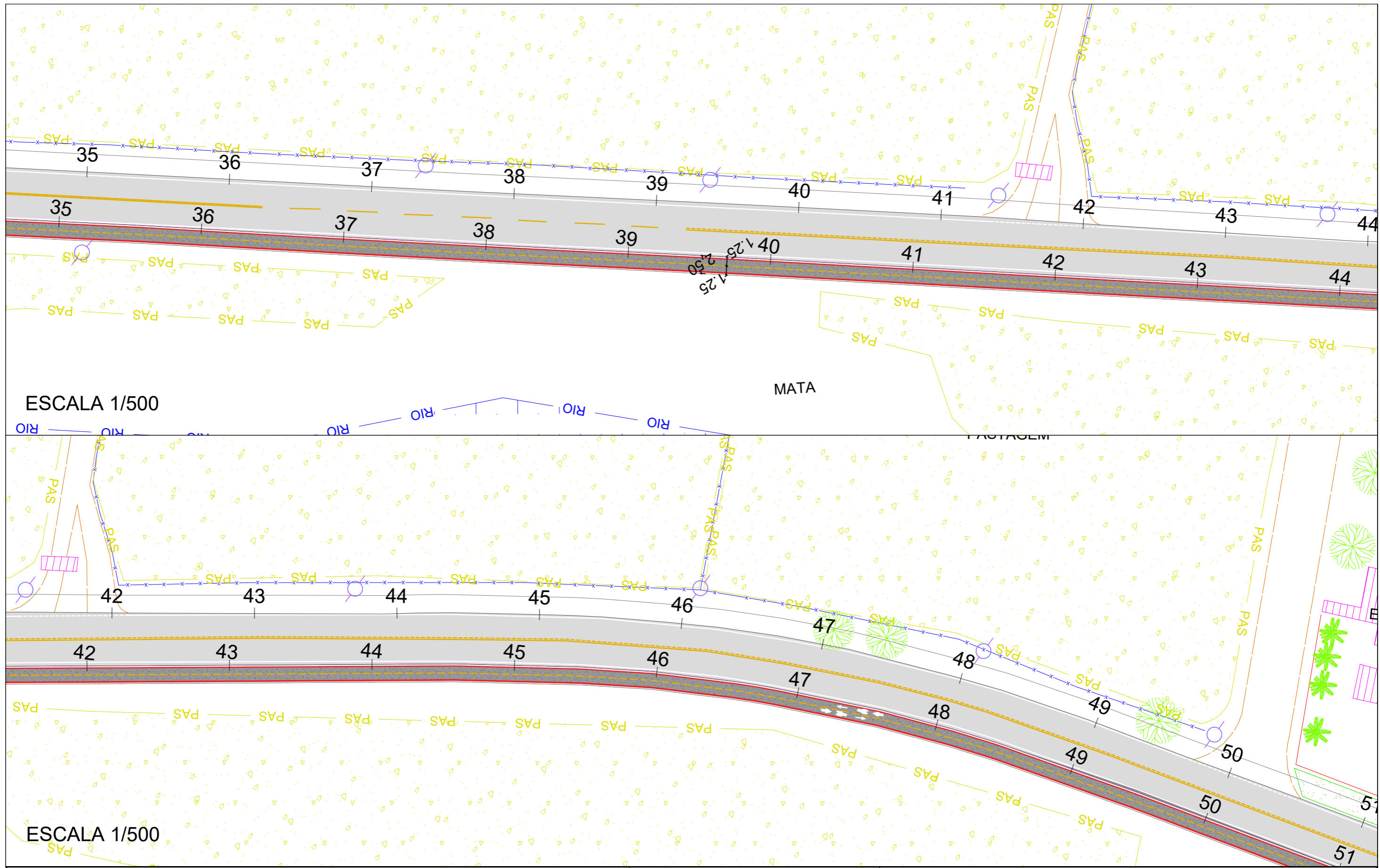
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
03/07

Obra
R.M. LINHA EYNG

Conteúdo
INFRAESTRUTURA E SINALIZAÇÃO

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINA/SC



ESCALA 1/500

ESCALA 1/500

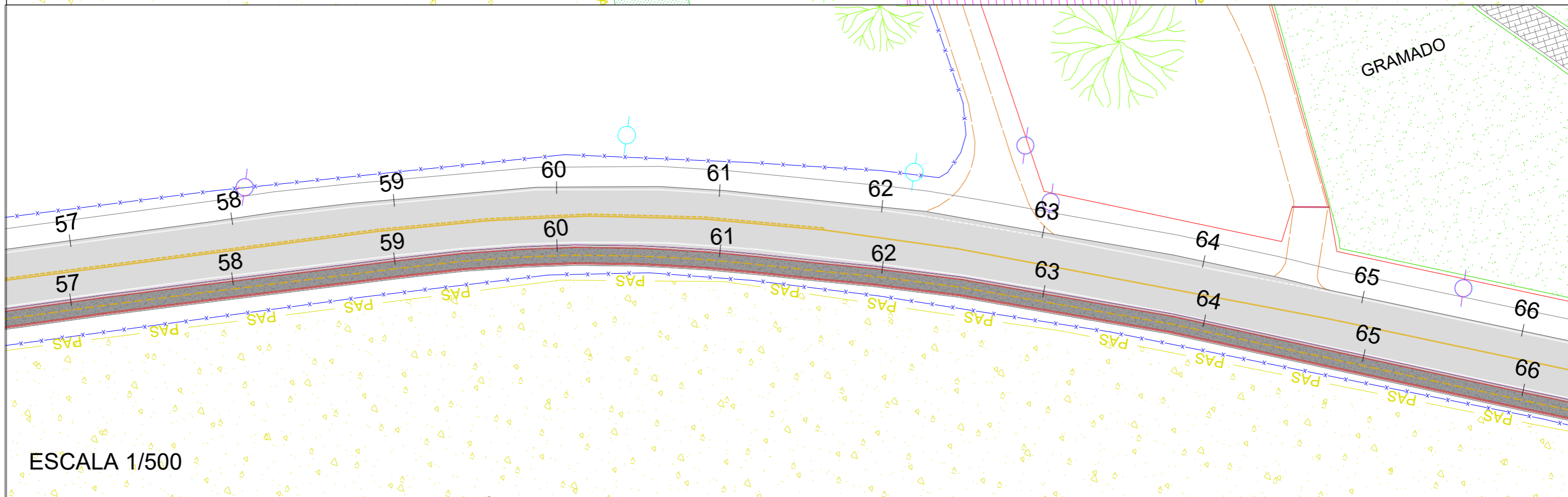
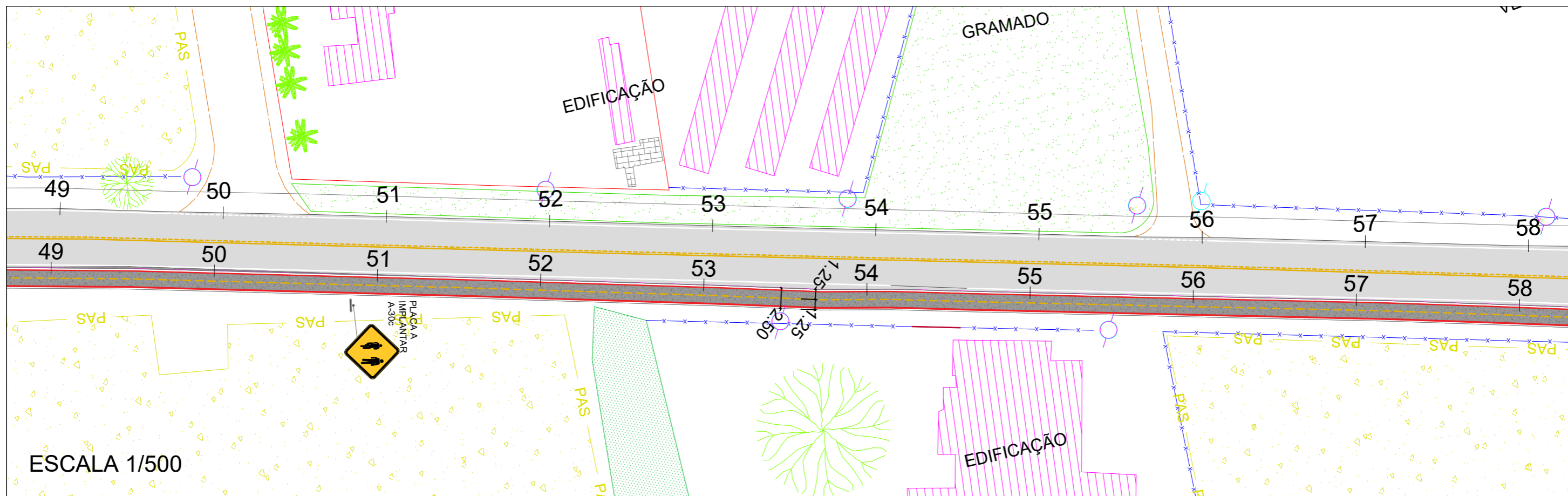
MATA

IDEALIZE
 ARQUITETURA, ENGENHARIA E AGRIMENSURA
 CREA/SC - 169873-0



Autor do projeto: BRUNO FRIGO PASINI ENGENHEIRO CIVIL - CREA/SC 137.007-9		Obra R.M. LINHA EYNG
Prancha: 04/07		Conteúdo INFRAESTRUTURA E SINALIZAÇÃO
		Local R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

A3 (297mm X 420mm)



IDEALIZE
ARQUITETURA, ENGENHARIA E AGRIMENSURA
CREA/SC - 169873-0



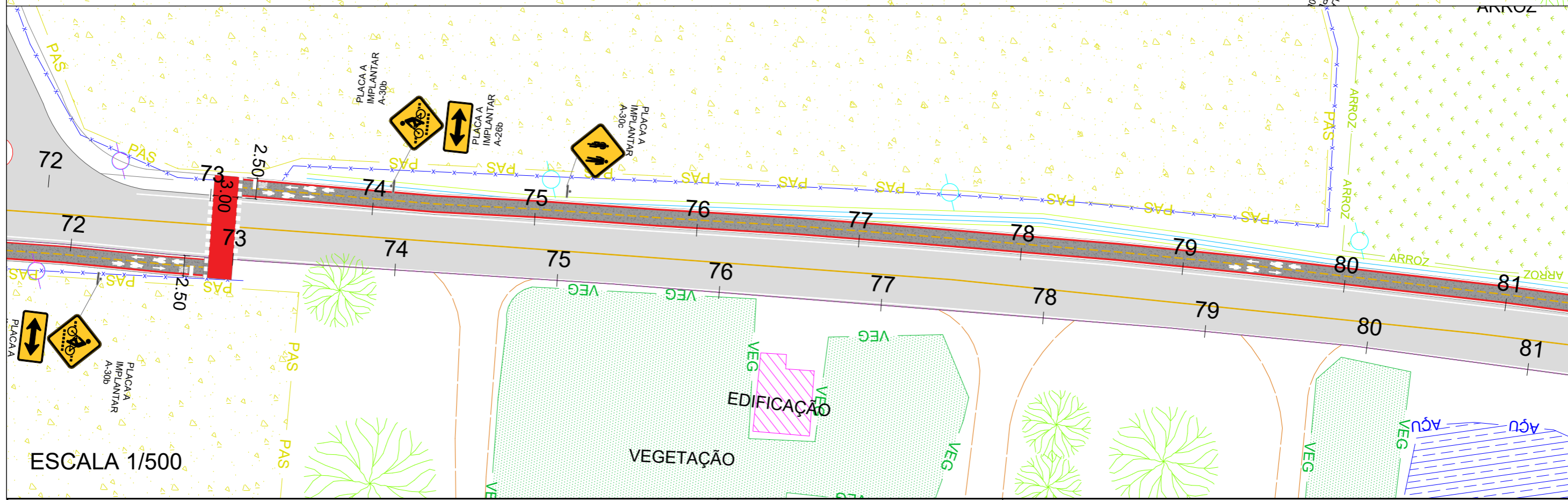
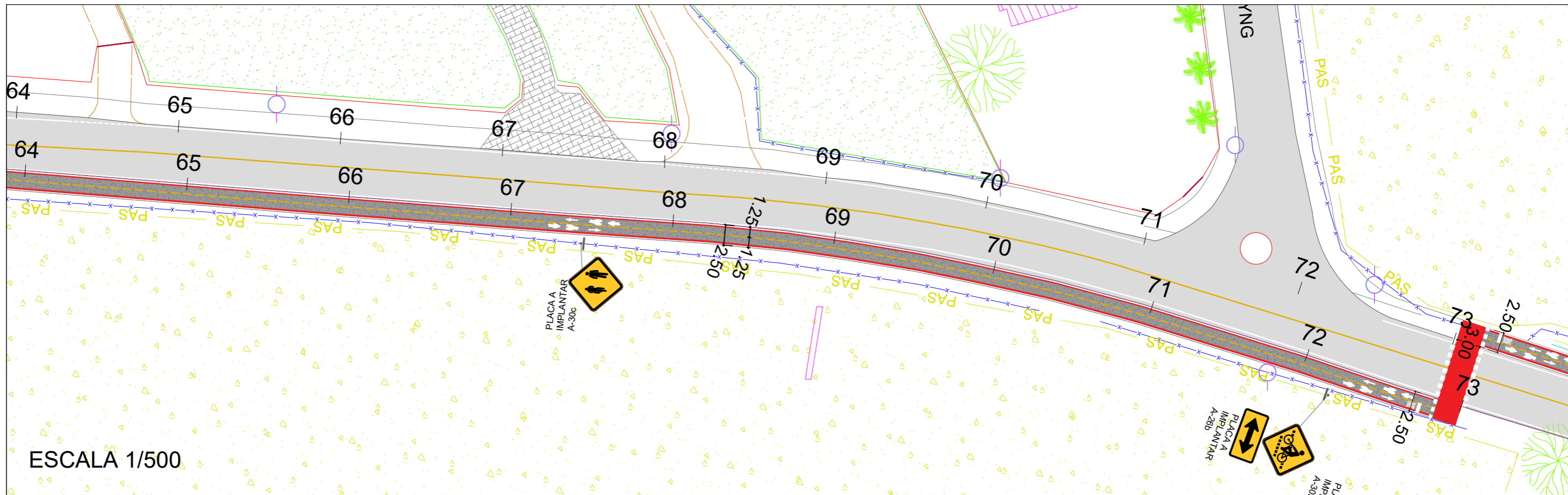
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
05/07

Obra
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 CREA/SC - 169873-0




Autor do projeto:
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 ENGENHEIRO CIVIL - CREA/SC 137.007-9


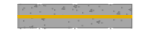
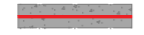
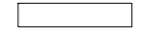

Prancha:
 07/07


Obra
R.M. LINHA EYNG




Conteúdo
INFRAESTRUTURA E SINALIZAÇÃO


Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

TABELA DE QUANTIDADES		
SÍMBOLO	DESCRIÇÃO	QUANTID.
	CBUQ - CICLOFAIXA (M²)	4.383,12

LEGENDA SINALIZAÇÃO		
SÍMBOLO	DESCRIÇÃO	QUANTID.
SINALIZAÇÃO HORIZONTAL		
	FAIXA BRANCA - CICLOFAIXA (Eps. 12 cm) (M)	3.504,50
	FAIXA AMARELA - CICLOFAIXA (Eps. 12 cm) (M)	876,16
	FAIXA VERMELHA - CICLOFAIXA (Eps. 15 cm) (M)	3.504,50
	PINTURA GERAL BRANCA - Símbolos (M²)	23,10
	PINTURA GERAL VERMELHA - CICLOFAIXA (M²)	37,96

SINALIZAÇÃO HORIZONTAL COM TACHAS		
	TACHÃO CICLOFAIXA (UNI)	880,00

SINALIZAÇÃO VERTICAL DE ADVERTÊNCIA		
	A-30c Trânsito compartilhado por ciclistas e pedestres	8
	A-30b Passagem Sinalizada de Ciclistas	2
	A-26b Sentido duplo	2

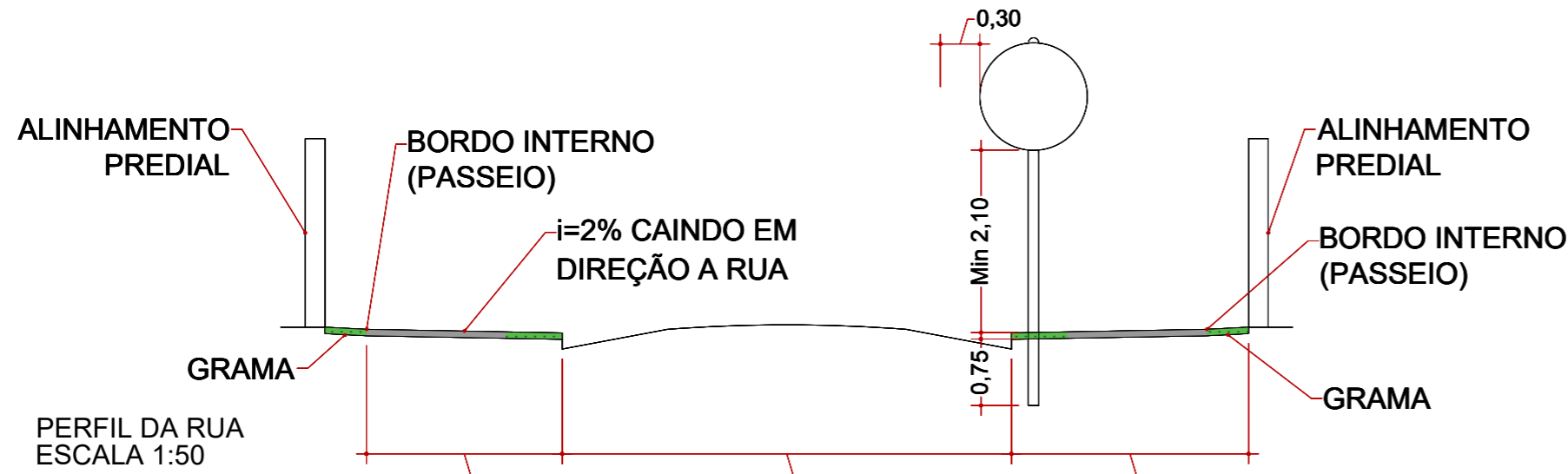
SÍMBOLO	DESCRIÇÃO	QUANTID.
INTERFERENCIAS		
	Poste a ser removido/relocado (UN.)	1

PASSEIOS E CICLOFAIXA RM LINHA EYNG - CICLOFAIXA - ESTACA 0+0,00 A 88+0,00											
TACHÃO-CICLOFAIXA											
LOCAL	CADENCIA	ESTACA INICIAL			ESTACA FINAL			DIST.	UN. PADRÃO	UN. NÃO PADRÃO	TOTAL
B.ACOST.LD	2 x 2	0	+	0,00	73	+	0,00	1460	730		730
B.ACOST.LE	2 x 2	73	+	0,00	88	+	0,00	300	150		150
NUMERO DE FAIXA (Qty.)		BORDO LE	0	EIXO	0	BORDO LD	1	TOTAL 1 FAIXA			880
										TOTAL (Unidades)	880

REMOÇÃO DE POSTE	
PASSEIOS E CICLOFAIXA RM LINHA EYNG - CICLOFAIXA - ESTACA 0+0,00 A 88+0,00	
ESTACA	LADO
1+0,00	LD
TOTAL [un]	1

DETALHE DAS ALTURAS E POSICIONAMENTOS DE PLACAS

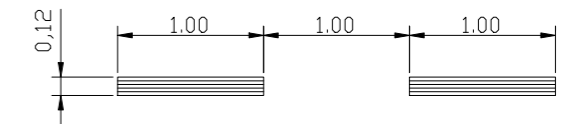
FIXAÇÃO EM POSTES METÁLICOS (SUPORTE EM AÇO GALVANIZADO, DIÂMETRO E ALTURA CONFORME ORÇAMENTO)



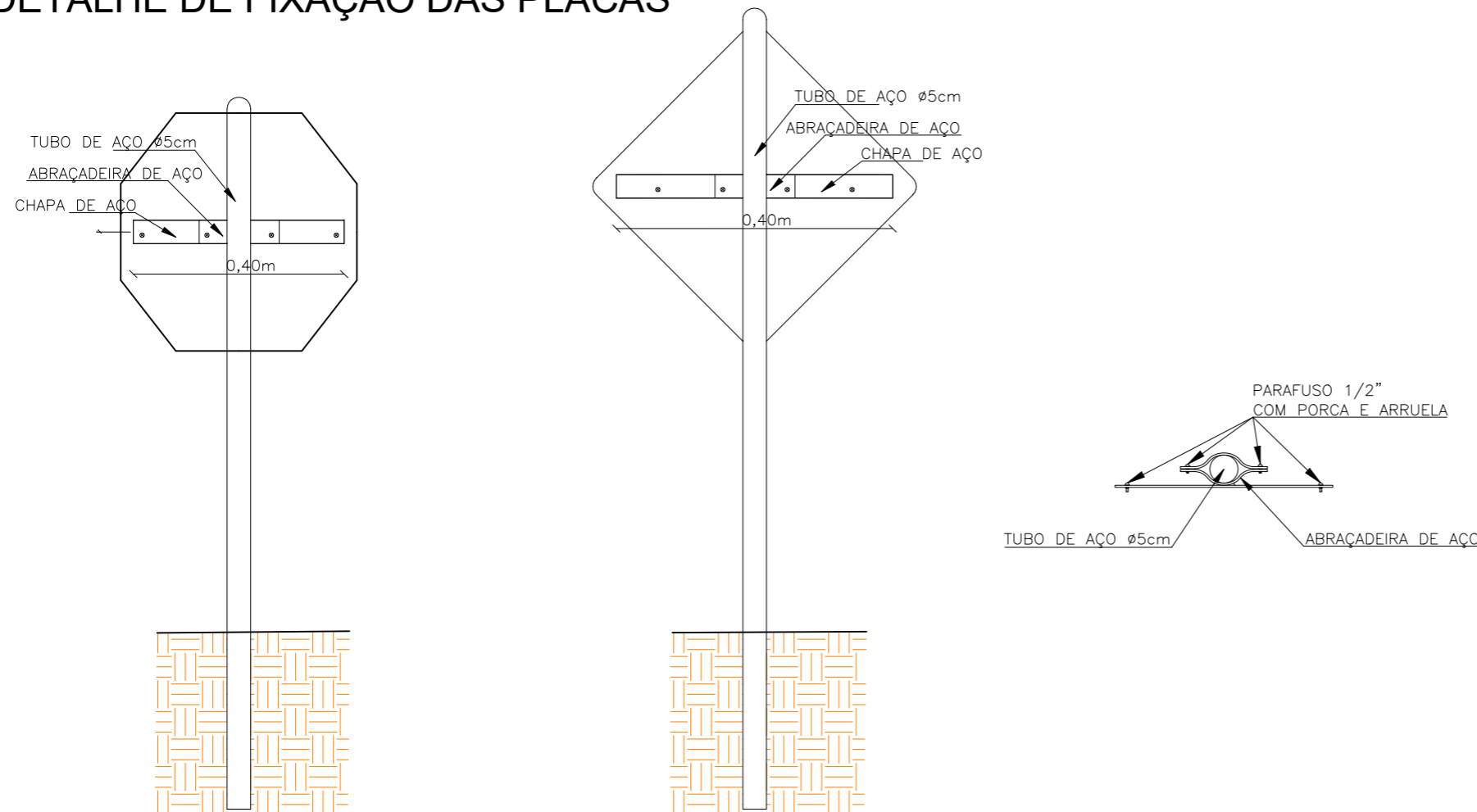
SINALIZAÇÃO VERTICAL PLACAS DE REGULAÇÃO, ADVERTÊNCIA E INDICAÇÃO

MODELO DAS PLACAS	CÓDIGO	PINTURAS	DIMEN.
	A-30c	FUNDO AMARELO ORLA PRETA SIMBOLO PRETO	L=0,60

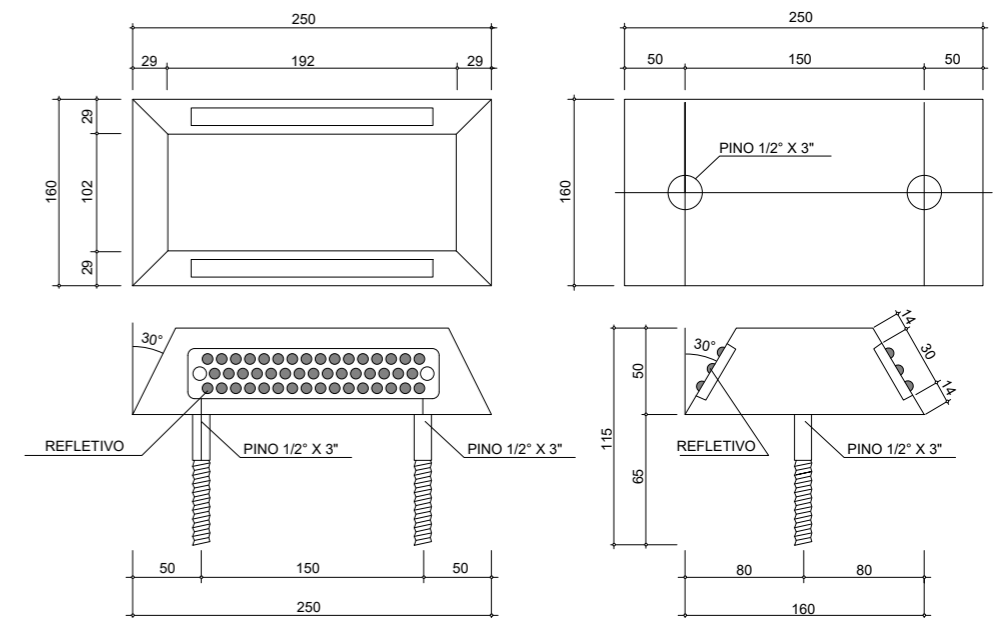
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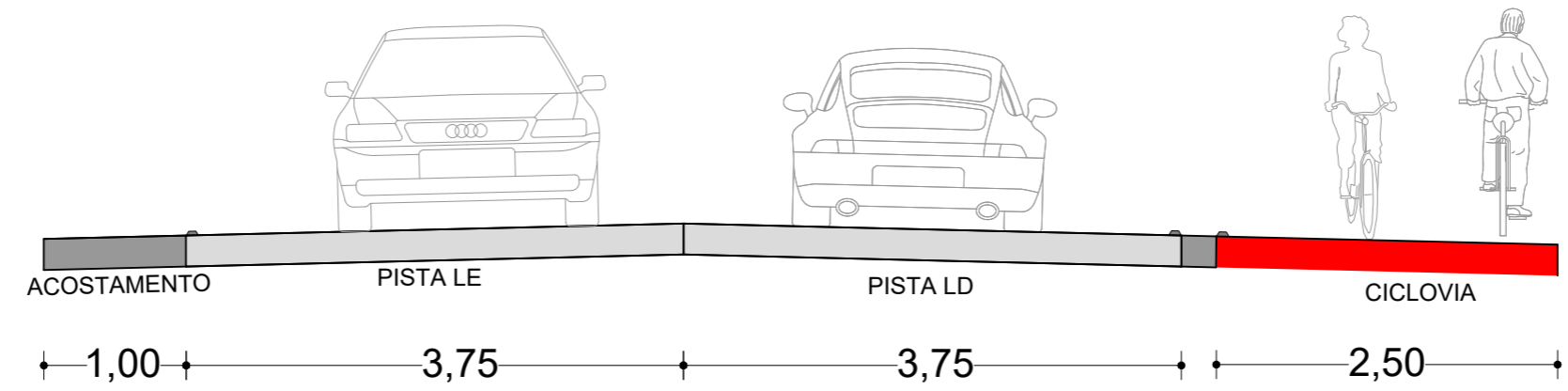
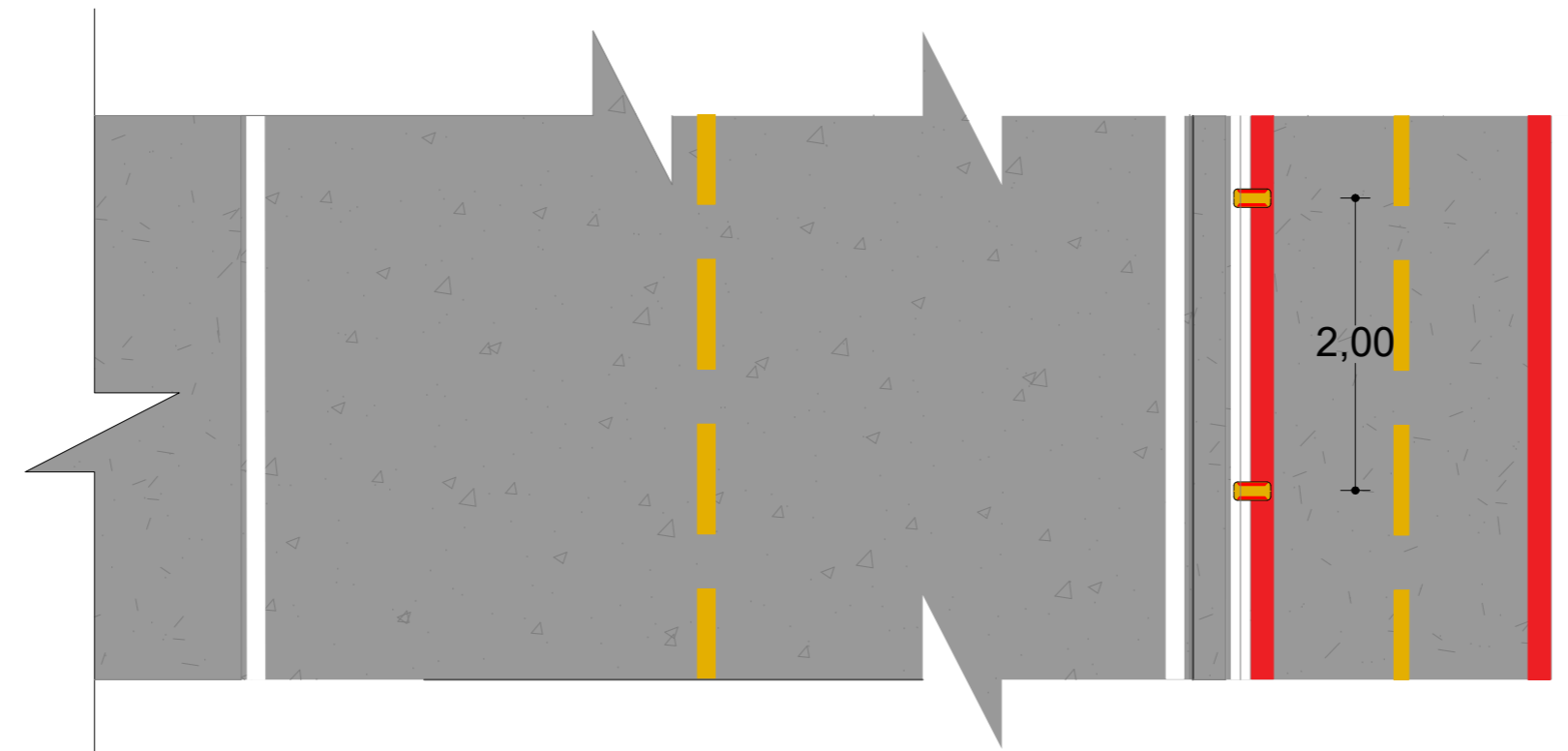


DETALHE DE FIXAÇÃO DAS PLACAS

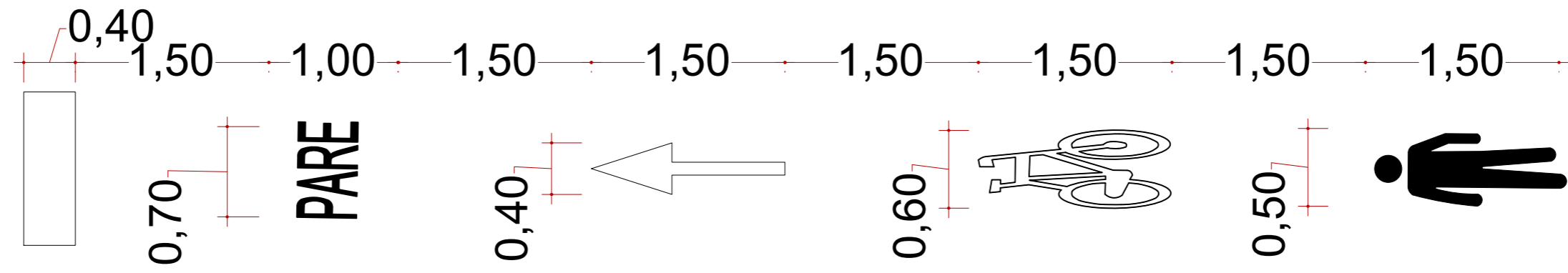


DETALHE TACHÃO CICLOVIA





DETALHE SINALIZAÇÃO HORIZONTAL DA CICLOVIA



PROJETO GEOMÉTRICO

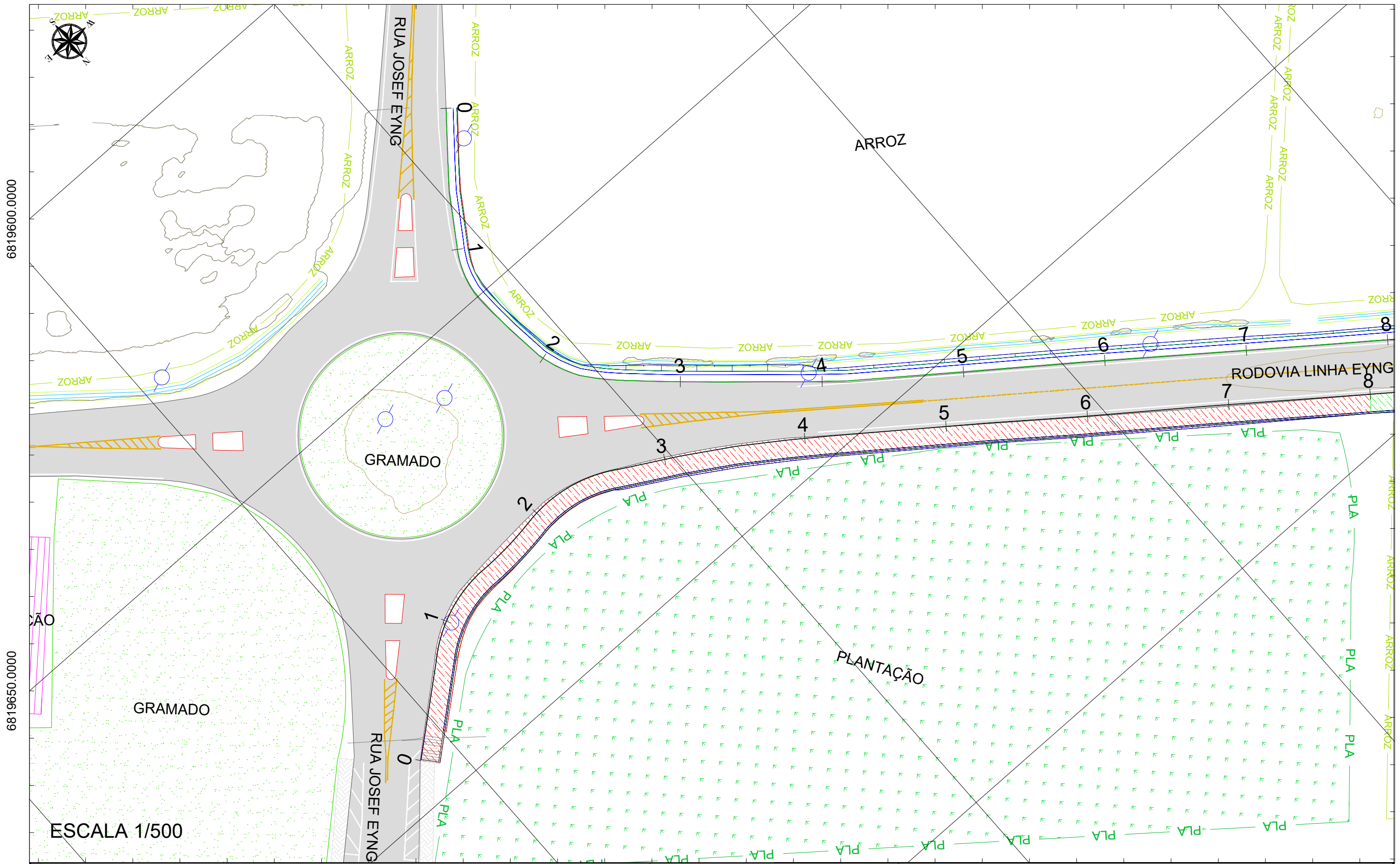
-- Planta e Perfil Longitudinal

-- Tabelas de Volumes e Elementos Geométricos

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A3 (297mm X 420mm)

ESCALA 1/500

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IDEALIZE
 ARQUITETURA, ENGENHARIA E AGRIMENSURA
 CREA/SC - 169873-0



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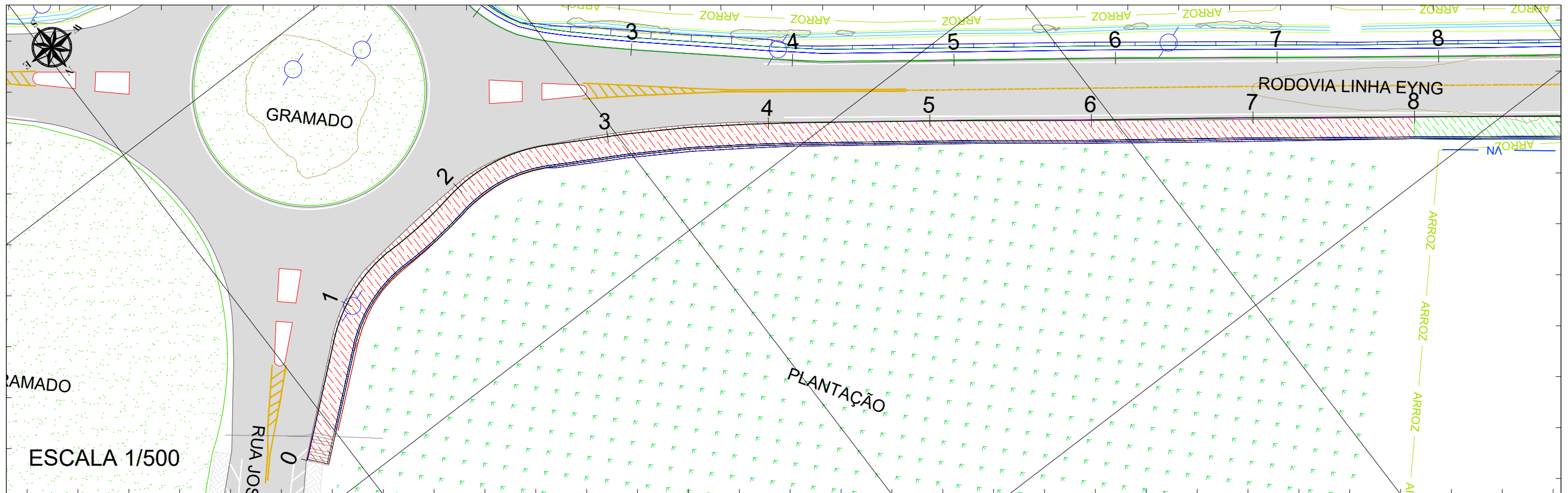
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
 01/12

Obra
 R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

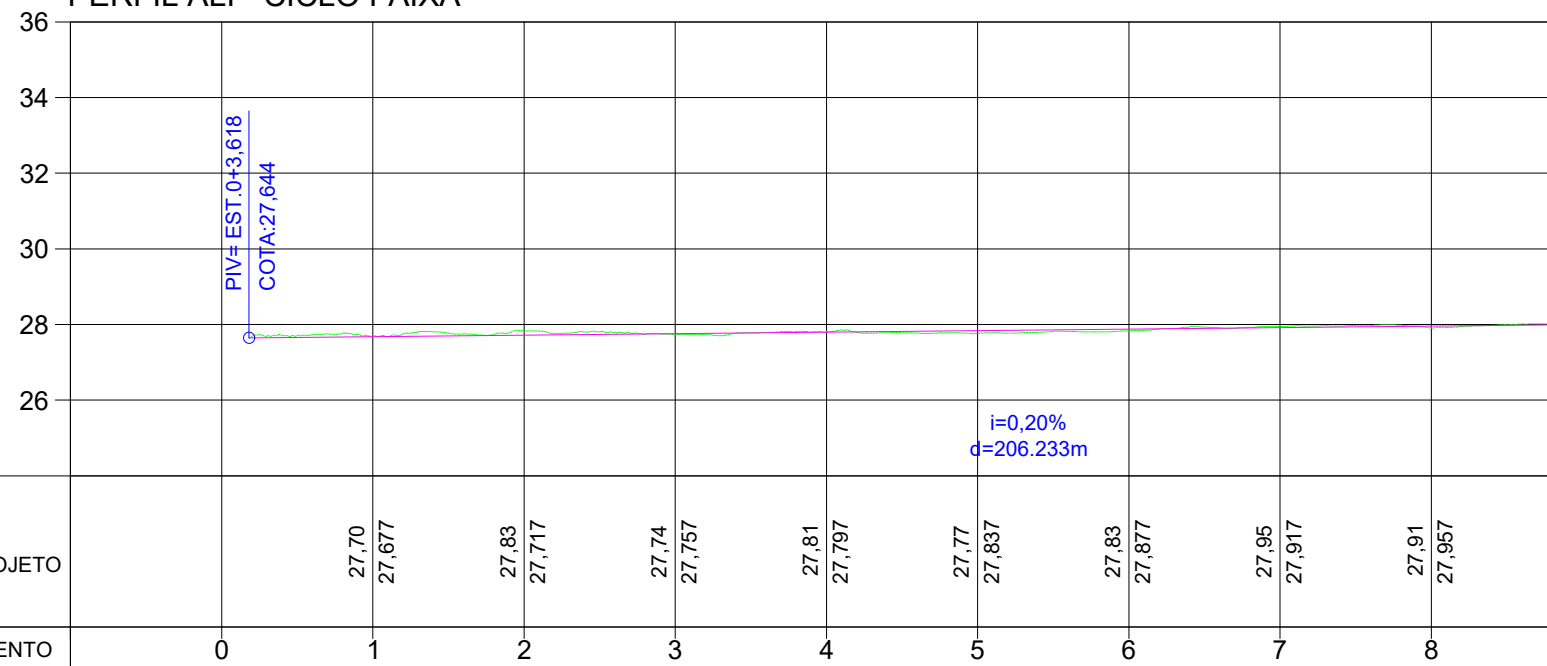


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PERFIL ALI - CICLO FAIXA



ESCALA 1/1000



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
02/12

Obra
R.M. LINHA EYNG

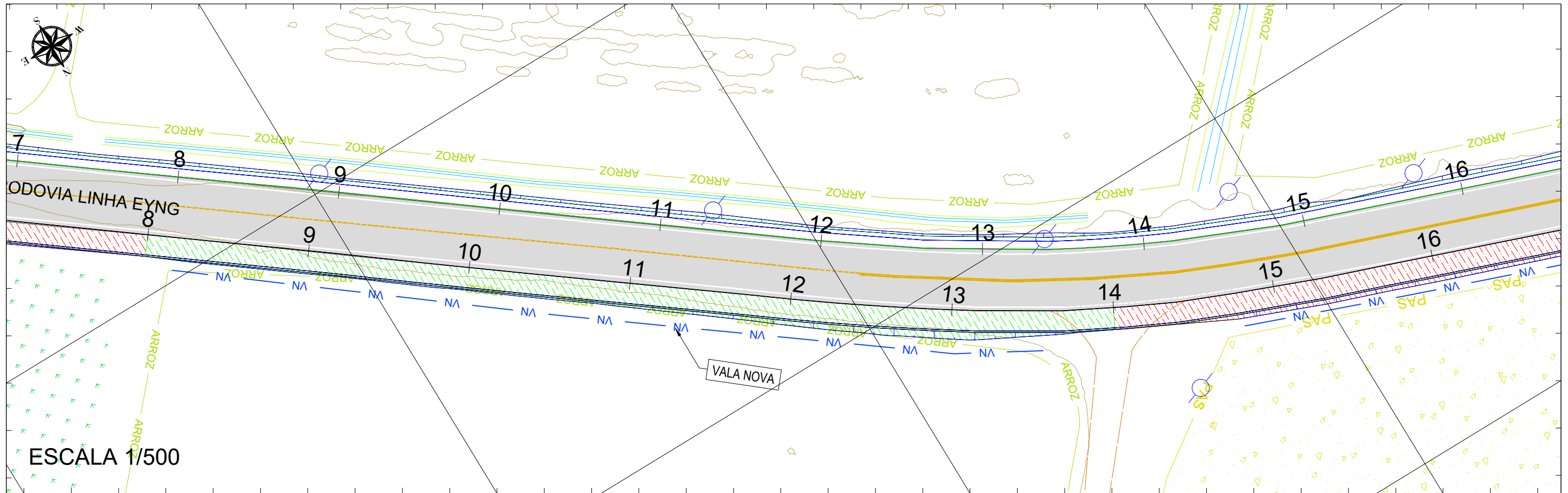
Conteúdo
PROJETO GEOMETRICO

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

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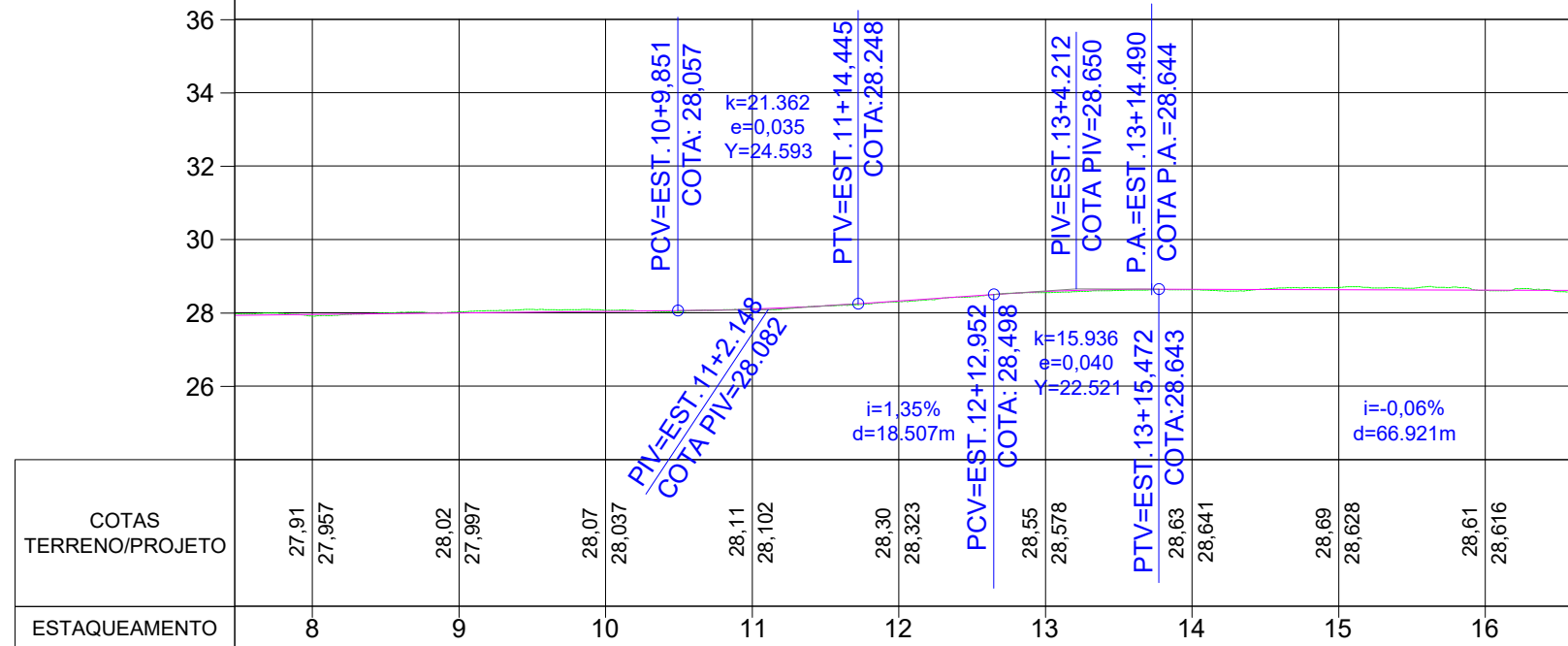
ESCALA 1/500

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COTAS TERRENO/PROJETO	27,91	27,957	28,02	27,997	28,07	28,037	28,11	28,102	28,30	28,323	28,55	28,578	28,63	28,641	28,69	28,628	28,61	28,616
ESTAQUEAMENTO	8	9	10	11	12	13	14	15	16									

ESCALA 1/1000



Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
03/12

Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
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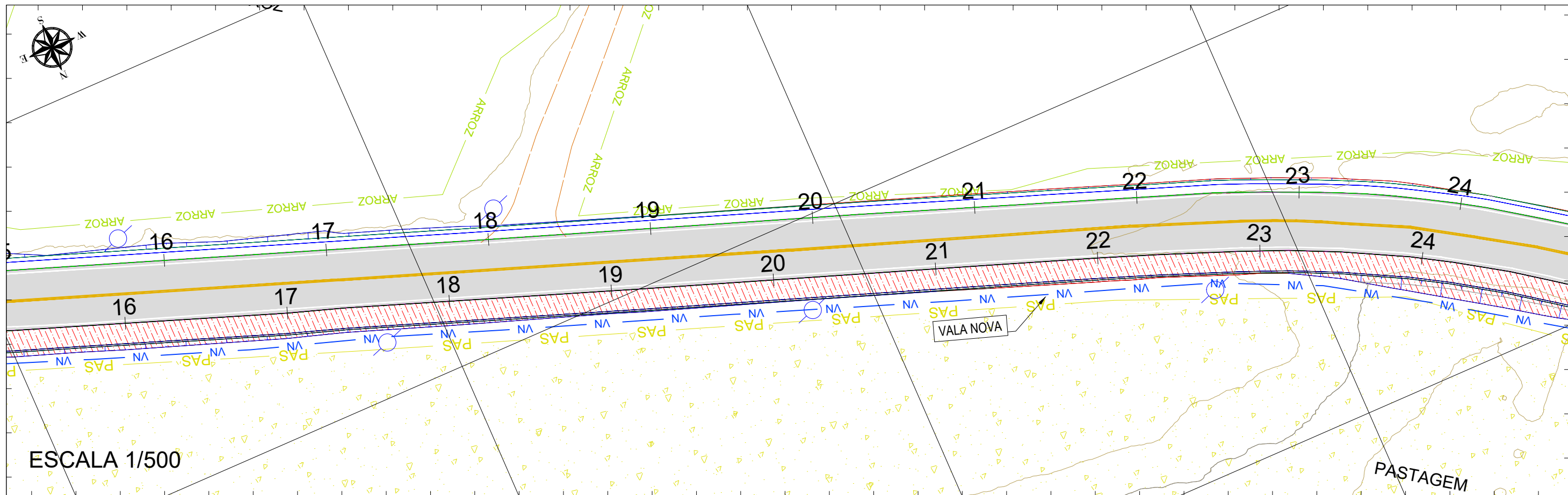
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ESCALA 1/500

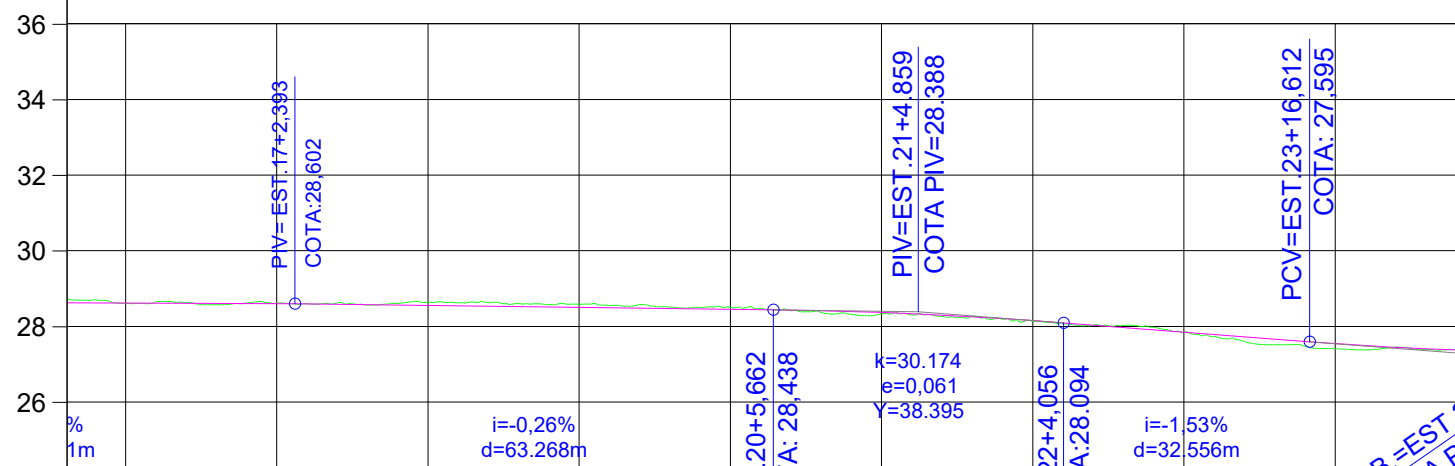
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COTAS TERRENO/PROJETO	28,61 28,616	28,61 28,604	28,64 28,556	28,58 28,504	28,51 28,452	28,33 28,366	28,13 28,056	27,83 27,849	27,41 27,545
ESTAQUEAMENTO	16	17	18	19	20	21	22	23	24

ESCALA 1/1000



Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
04/12

Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

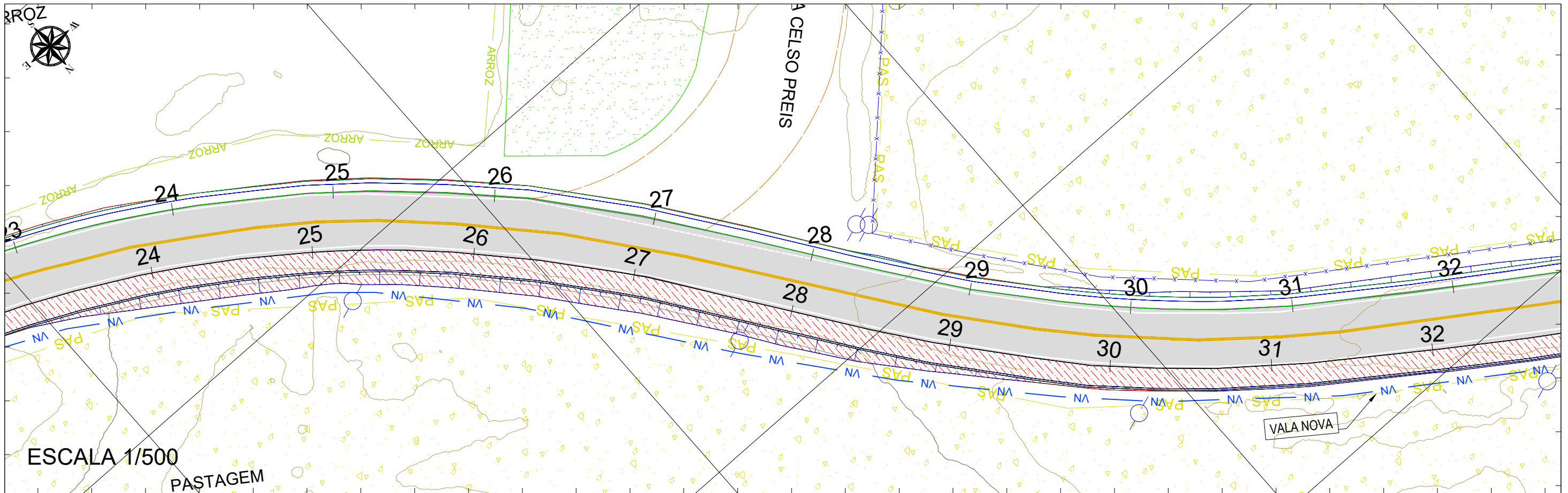
A3 (297mm X 420mm)

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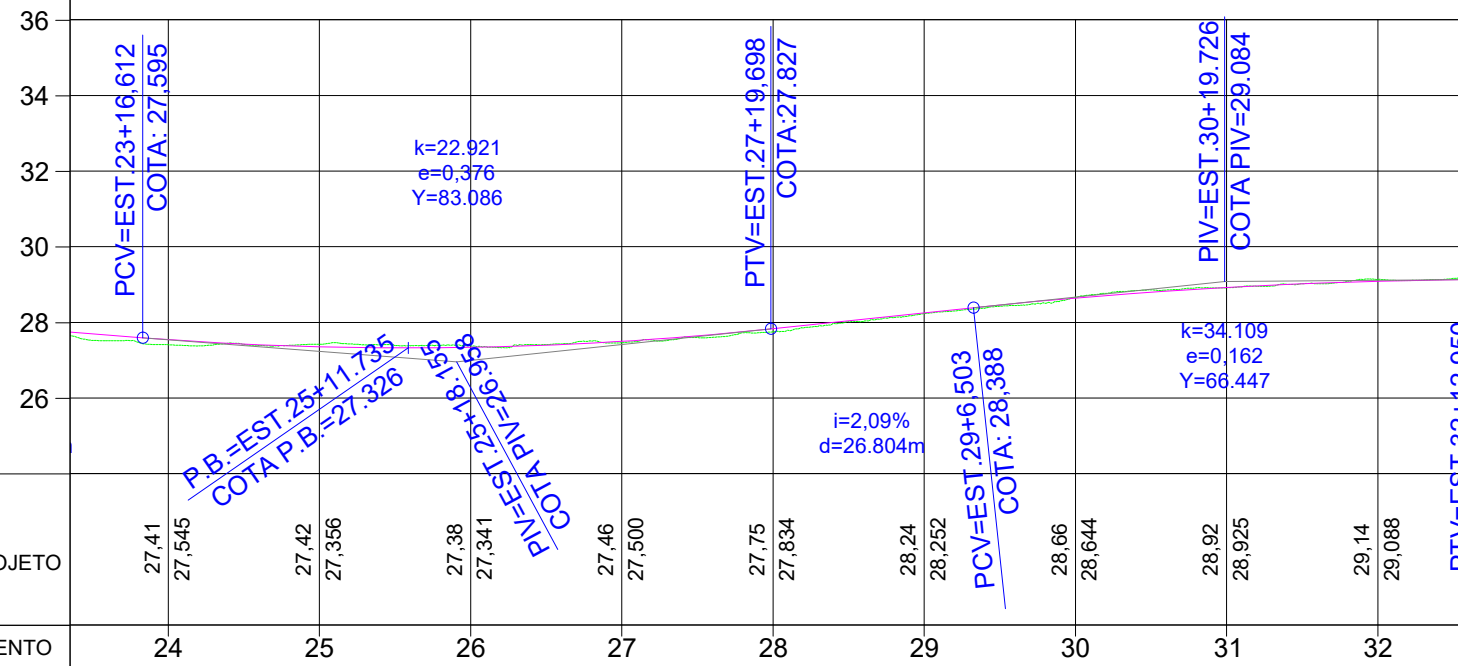
ESCALA 1/500

PASTAGEM

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COTAS TERRENO/PROJETO	27,41	27,545	27,42	27,356	27,38	27,341	27,46	27,500	27,75	27,834	28,24	28,252	28,66	28,644	28,92	28,925	29,14	29,088
ESTAQUEAMENTO	24	25	26	27	28	29	30	31	32									

ESCALA 1/1000



Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
05/12

Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

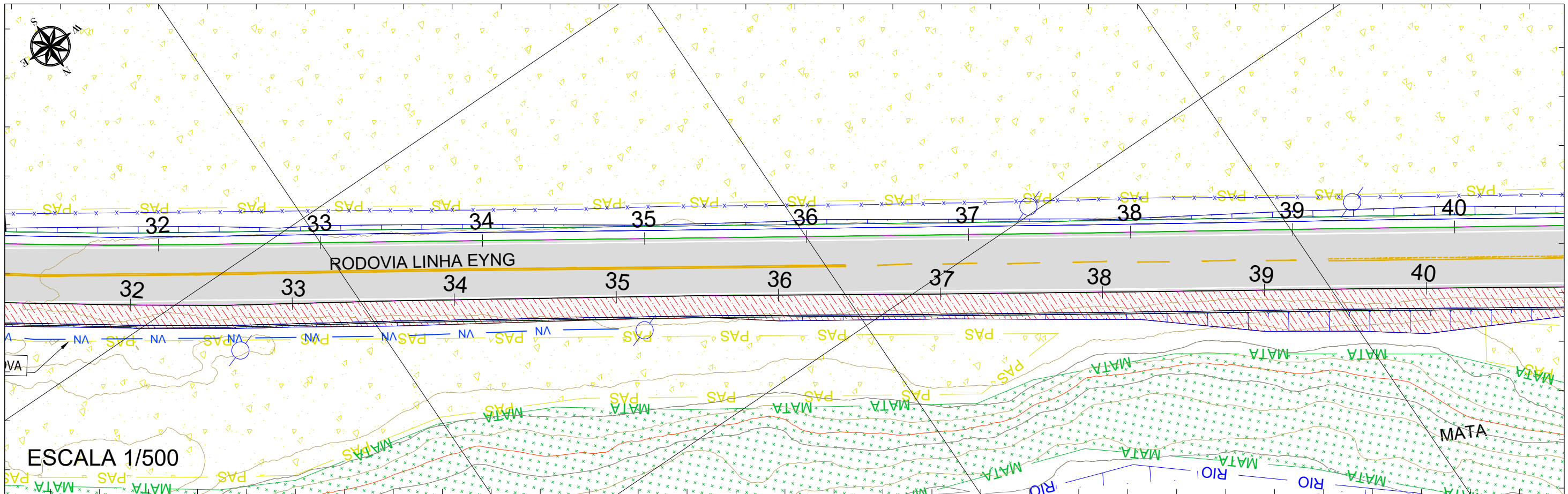
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A3 (297mm X 420mm)

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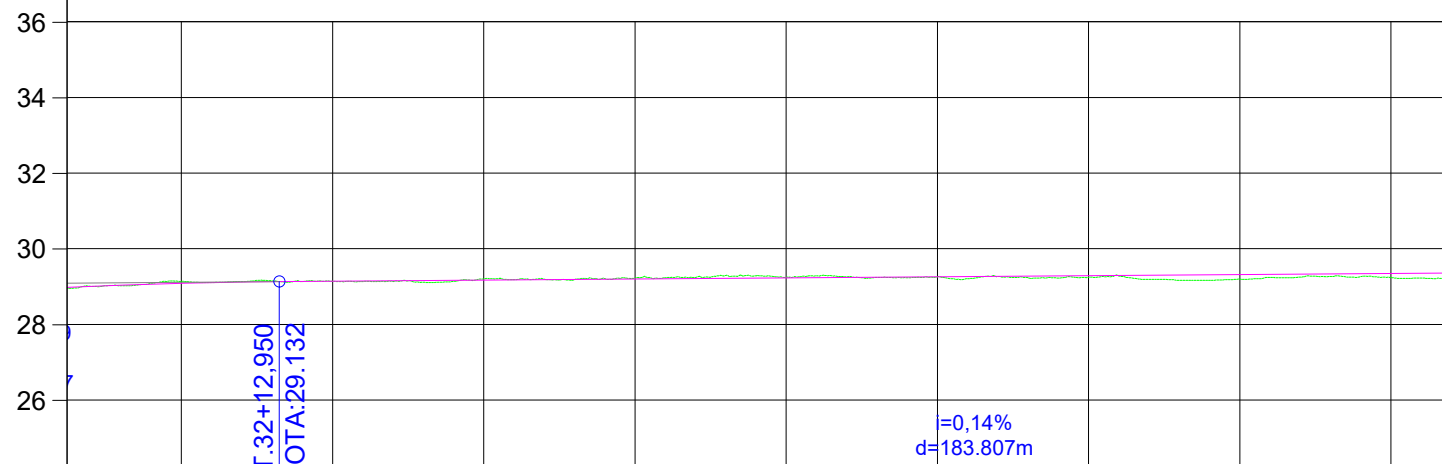
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ESCALA 1/500

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COTAS TERRENO/PROJETO	29,14 29,088	PTV=EST.32+12,950 COTA:29,132	29,14 29,142	29,20 29,171	29,23 29,200	29,25 29,228	29,25 29,257	29,25 29,286	29,20 29,315	29,24 29,344
ESTAQUEAMENTO	32	33	34	35	36	37	38	39	40	

ESCALA 1/1000



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
06/12

Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

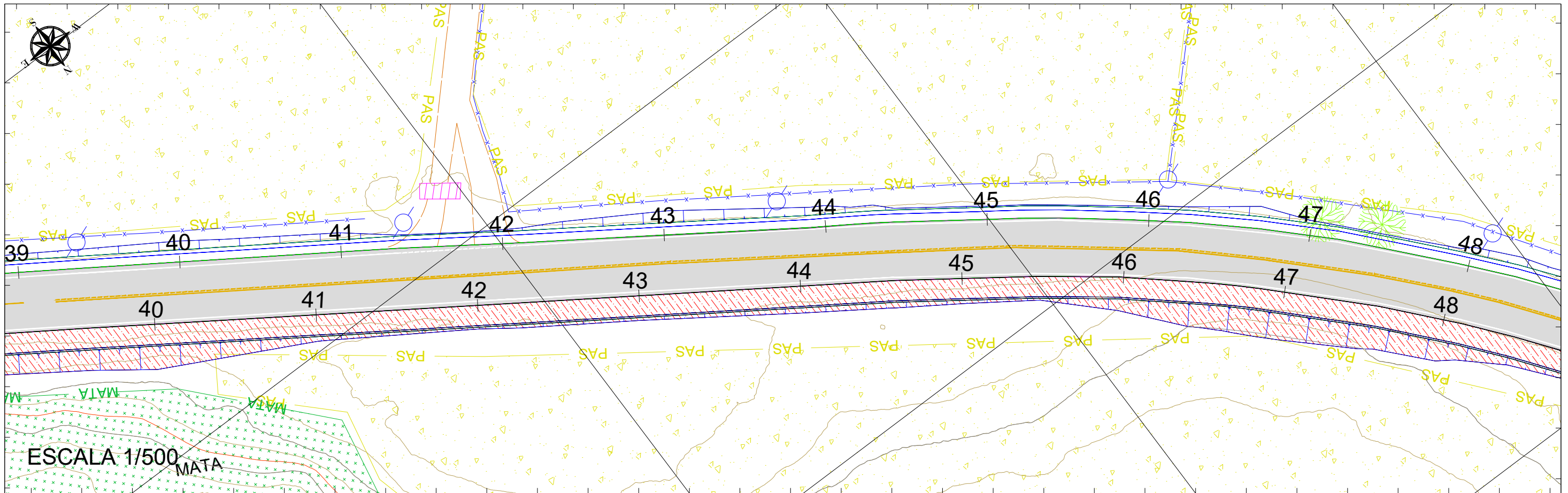
Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

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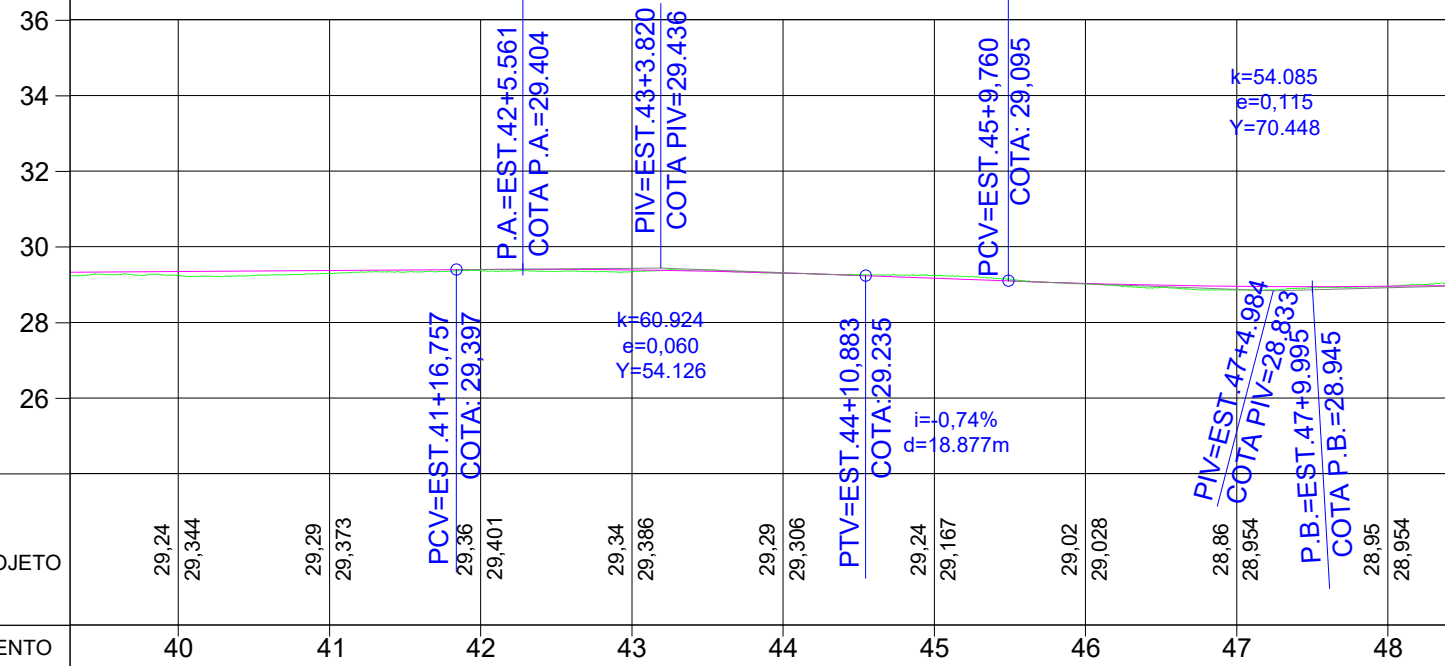


ESCALA 1/500

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COTAS TERRENO/PROJETO	29,24 29,344	29,29 29,373	PCV=EST.41+16,757 29,36 29,401	P.A.=EST.42+5,561 COTA P.A.=29,404	29,34 29,386	PTV=EST.44+10,883 COTA:29,235	29,24 29,167	PCV=EST.45+9,760 COTA: 29,095	29,02 29,028	28,86 28,954	28,95 28,954
ESTAQUEAMENTO	40	41	42	43	44	45	46	47	48		

ESCALA 1/1000



Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

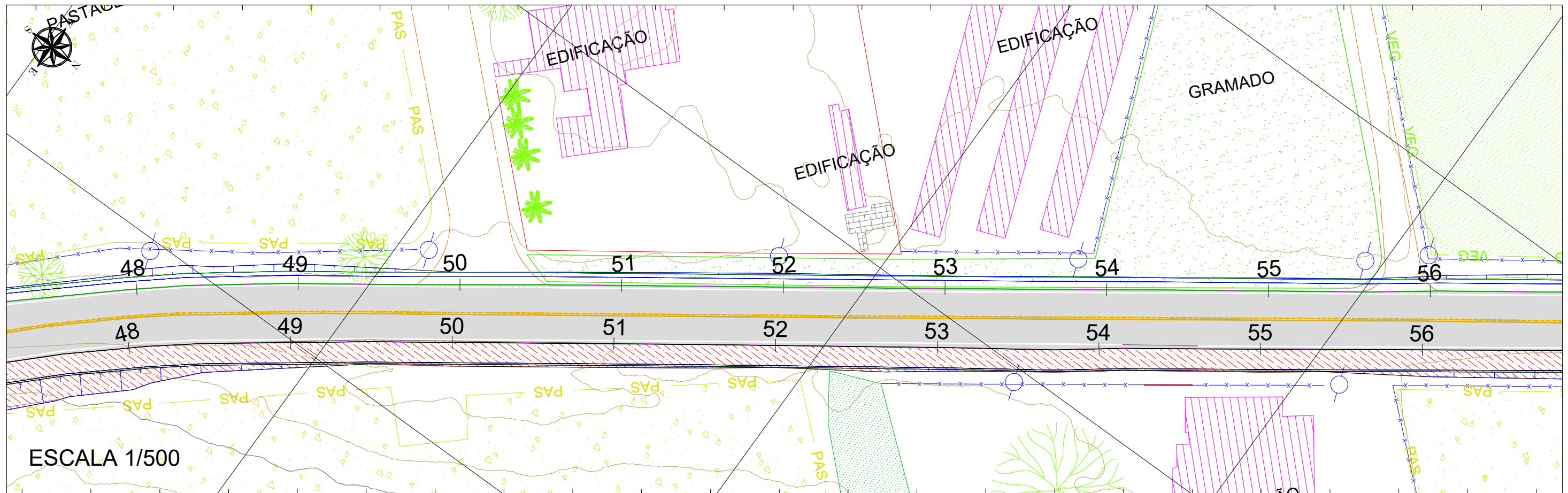
Prancha:
 07/12

Obra
R.M. LINHA EYNG

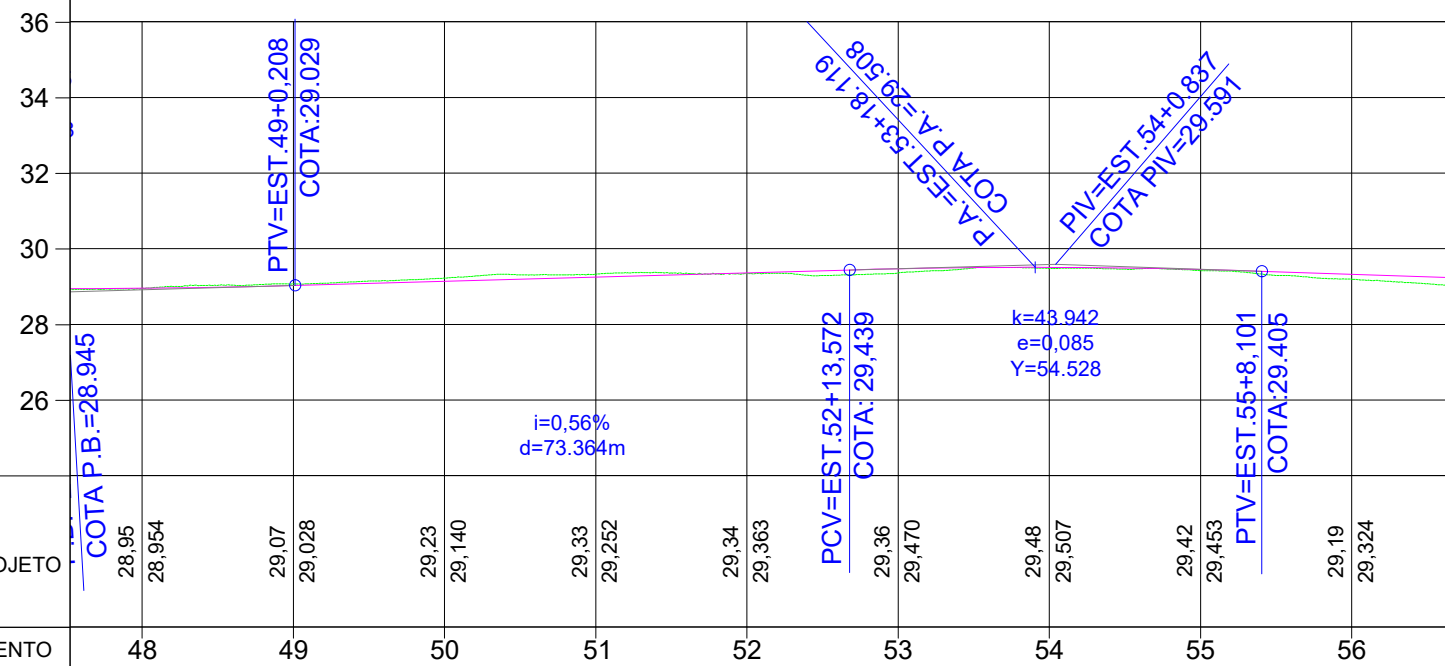
Conteúdo
PROJETO GEOMETRICO

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

A3 (297mm X 420mm)



ESCALA 1/500



ESCALA 1/1000



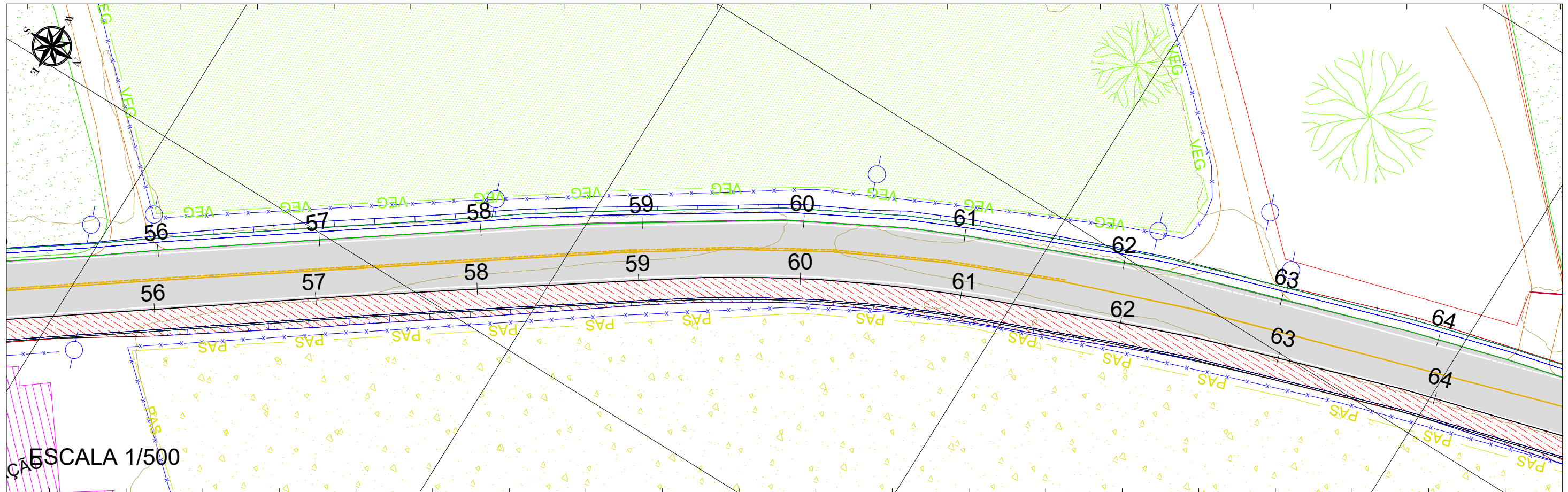
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
08/12

Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



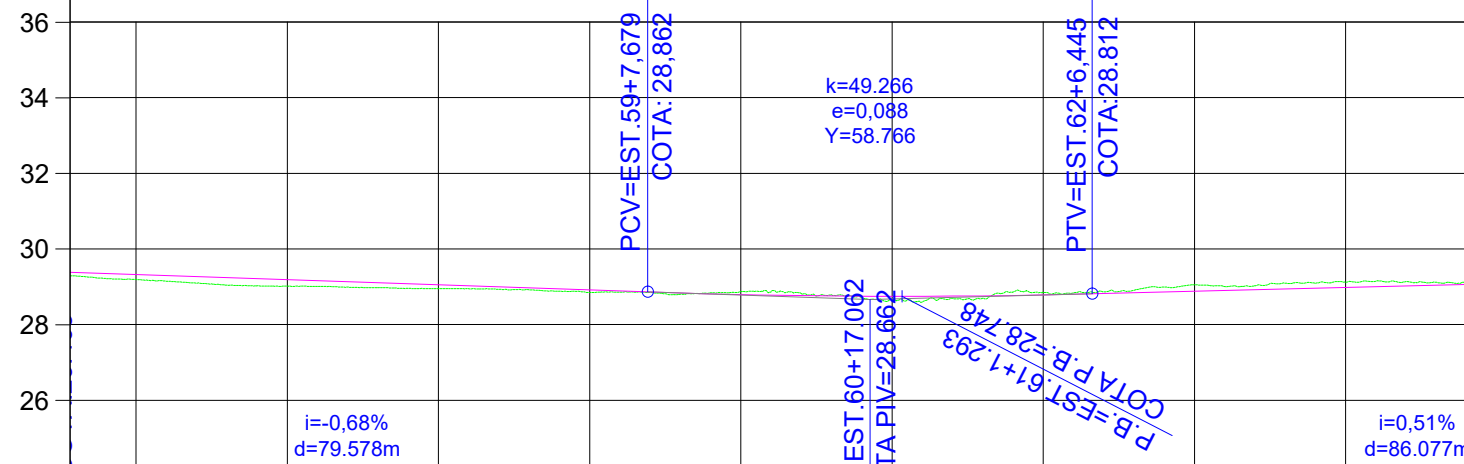
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ESCALA 1/500

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COTAS TERRENO/PROJETO	29,19 29,324	29,01 29,188	28,95 29,051	28,85 28,915	28,87 28,794	28,67 28,748	28,85 28,783	29,05 28,881	29,12 28,983
ESTAQUEAMENTO	56	57	58	59	60	61	62	63	64

ESCALA 1/1000



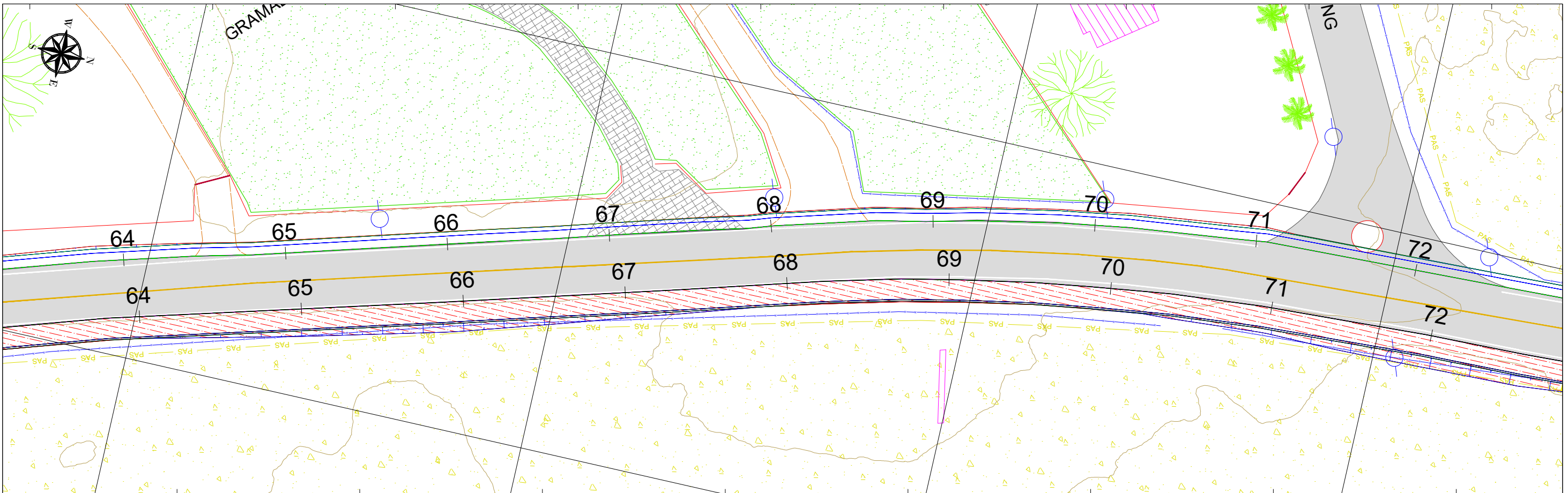
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
09/12

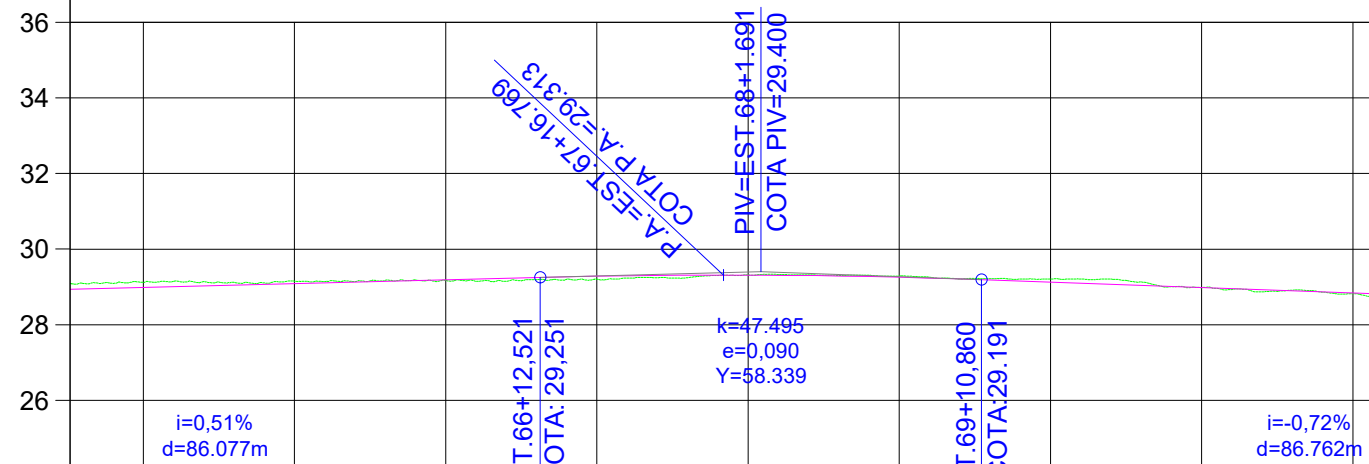
Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



646700.0000



COTAS TERRENO/PROJETO	29,12 28,983	29,15 29,085	29,17 29,187	29,20 29,284	29,32 29,312	29,29 29,256	29,21 29,125	28,98 28,982	28,82 28,838
ESTAQUEAMENTO	64	65	66	67	68	69	70	71	72

ESCALA 1/1000



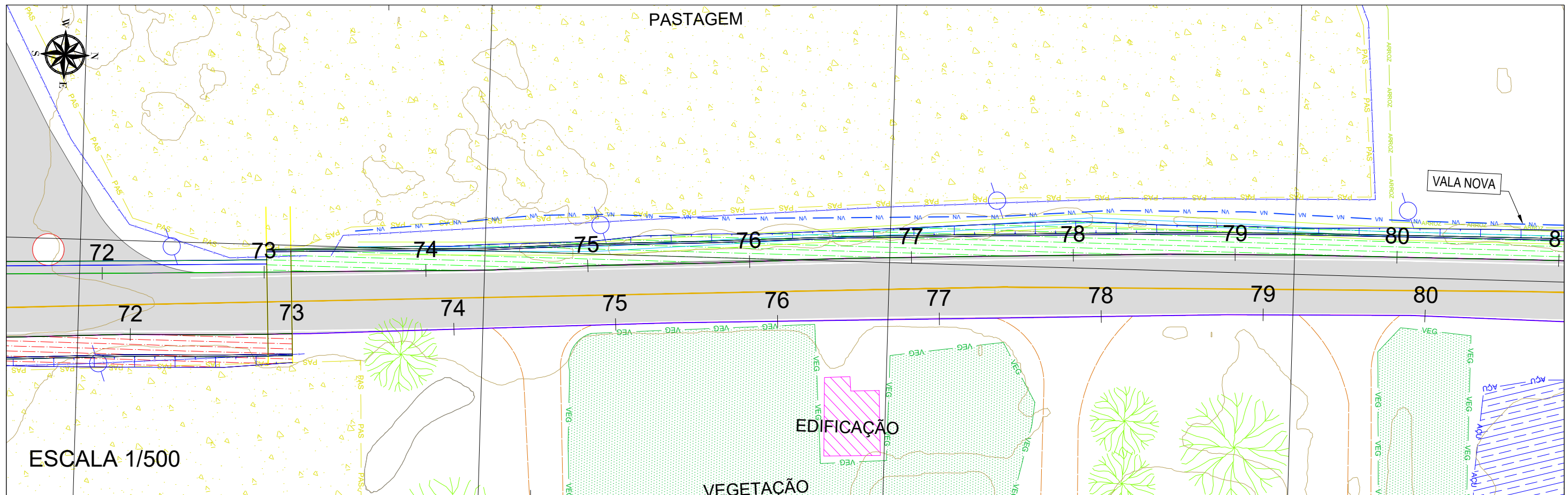
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
10/12

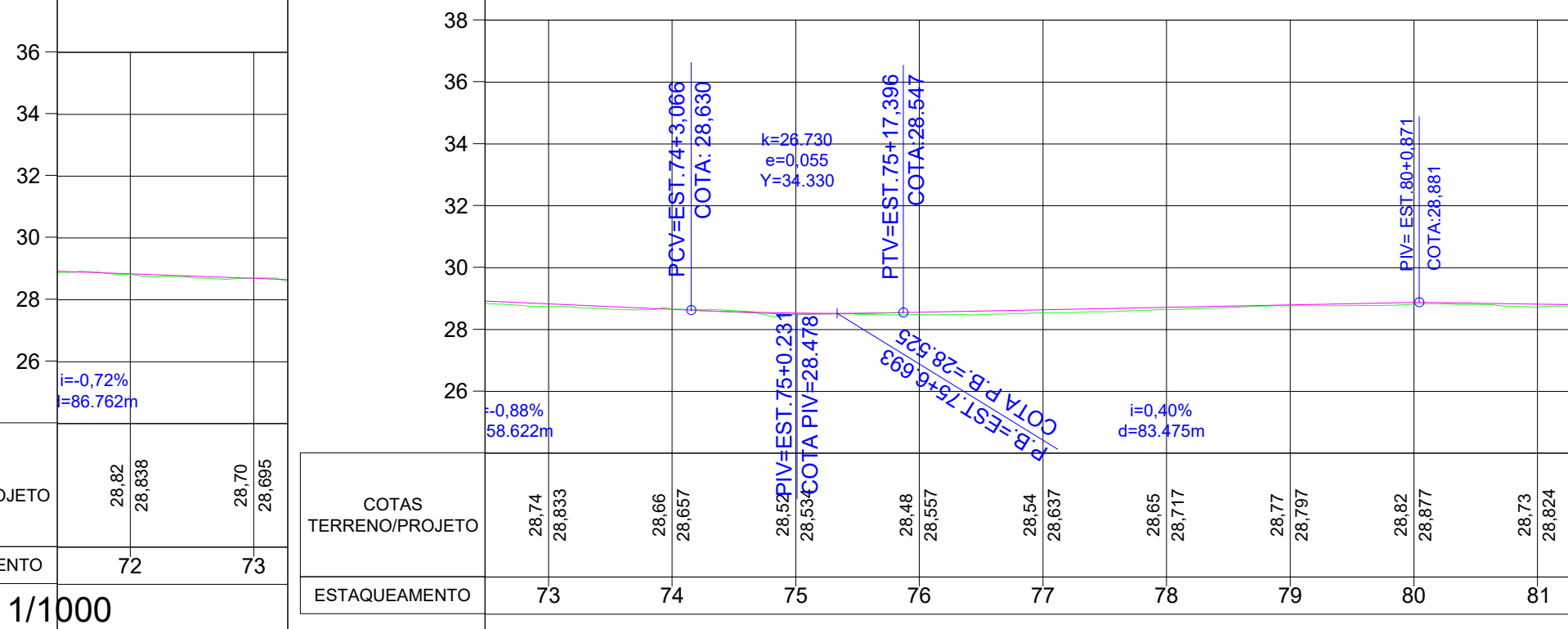
Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



ESCALA 1/500



COTAS TERRENO/PROJETO	28,82	28,838	28,70	28,695
ESTAQUEAMENTO	72	73		

COTAS TERRENO/PROJETO	28,74	28,833	28,66	28,657	28,52	PIV=EST.75+0.231	28,53	COTA PIV=28.478	28,48	28,557	28,54	28,637	28,65	28,717	28,77	28,797	28,82	28,877	28,73	28,824	
ESTAQUEAMENTO	73	74	75	76	77	78	79	80	81												

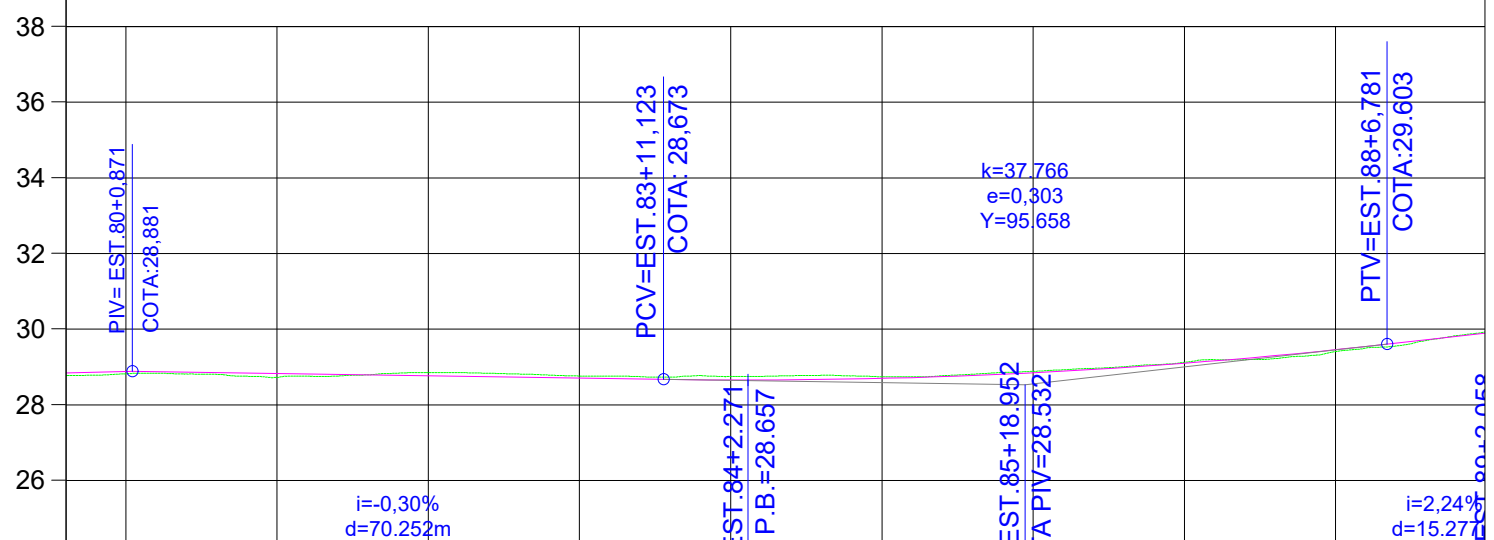
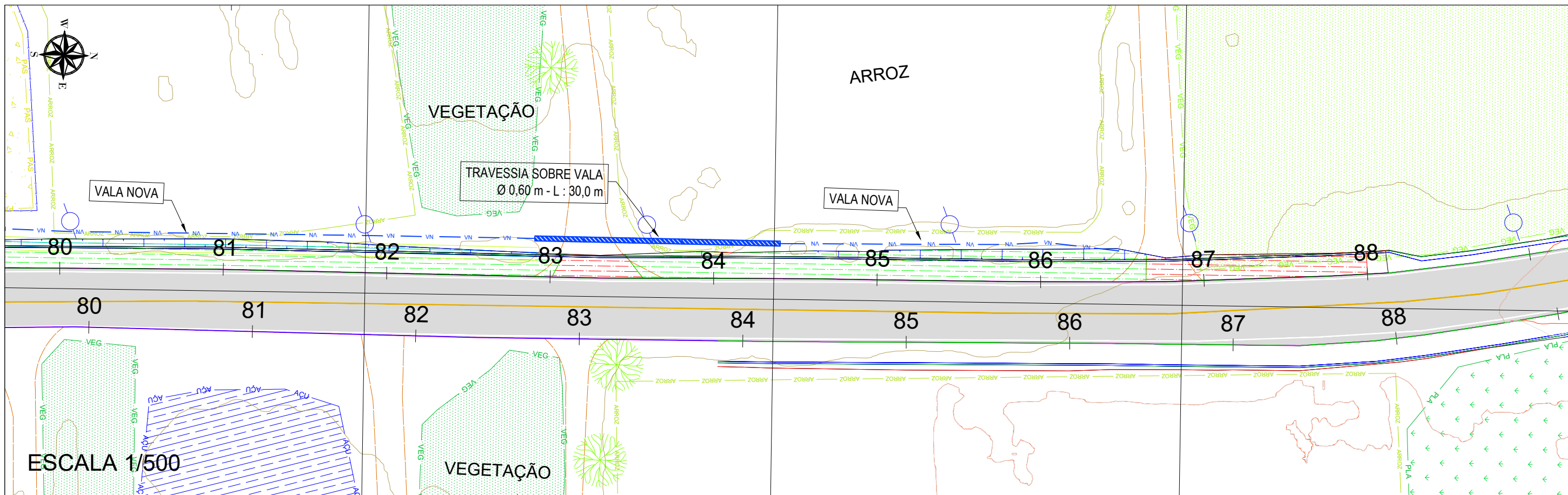
ESCALA 1/1000



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
11/12

Obra
R.M. LINHA EYNG
Conteúdo
PROJETO GEOMETRICO
Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



COTAS TERRENO/PROJETO	28,82 28,877	28,73 28,824	28,85 28,765	28,76 28,706	28,75 28,698	28,74 28,699	28,89 28,846	29,12 29,098	29,41 29,457	29,93 29,903
ESTAQUEAMENTO	80	81	82	83	84	85	86	87	88	8

ESCALA 1/1000



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
12/12

Obra	R.M. LINHA EYNG
Conteúdo	PROJETO GEOMETRICO
Local	R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

A3 (297mm X 420mm)

LADO DIREITO

VOLUME TOTAL

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m3)	Volume de Aterro (m3)	Volum. Corte Acum. (m3)	Volum Aterro Acum. (m3)	Volume Líquido (m3)
0+0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00
0+14,26	2,53	0,00	18,00	0,00	18,00	0,00	18,00
1+0,00	2,27	0,00	12,95	0,00	30,95	0,00	30,95
1+1,30	2,24	0,00	2,73	0,00	33,69	0,00	33,69
1+8,35	2,28	0,00	14,82	0,00	48,50	0,00	48,50
1+10,00	2,18	0,00	3,68	0,00	52,18	0,00	52,18
1+13,61	2,03	0,00	7,79	0,00	59,98	0,00	59,98
1+18,87	2,18	0,00	11,36	0,00	71,33	0,00	71,33
2+0,00	2,18	0,00	2,22	0,00	73,56	0,00	73,56
2+6,09	2,04	0,00	12,00	0,00	85,56	0,00	85,56
2+10,00	2,14	0,00	7,65	0,00	93,20	0,00	93,20
2+13,31	1,88	0,01	6,21	0,01	99,42	0,01	99,40
3+0,00	1,58	0,02	11,70	0,10	111,12	0,11	111,00
3+2,02	1,57	0,02	3,19	0,04	114,31	0,15	114,15
3+10,20	1,56	0,03	12,72	0,20	127,02	0,35	126,67
3+17,57	1,66	0,02	11,77	0,18	138,80	0,53	138,26
4+0,00	1,67	0,02	4,00	0,04	142,79	0,58	142,21
4+3,32	1,75	0,01	5,69	0,05	148,48	0,62	147,85
5+0,00	1,52	0,01	27,29	0,21	175,77	0,83	174,94
5+5,91	1,56	0,01	9,09	0,06	184,86	0,89	183,96
5+18,86	1,54	0,01	20,01	0,13	204,87	1,03	203,84
6+0,00	1,54	0,01	1,75	0,01	206,62	1,04	205,59
6+16,29	1,78	0,02	27,05	0,24	233,67	1,28	232,39
7+0,00	1,88	0,01	6,78	0,06	240,45	1,34	239,11
8+0,00	1,74	0,00	36,17	0,14	276,63	1,48	275,14
8+5,39	1,73	0,00	9,36	0,01	285,98	1,50	284,49
9+0,00	1,72	0,01	25,19	0,11	311,17	1,60	309,57
9+3,41	1,81	0,00	6,01	0,02	317,18	1,63	315,56
9+10,00	1,85	0,01	12,07	0,04	329,25	1,67	327,58
10+0,00	1,76	0,00	18,02	0,06	347,27	1,73	345,54
10+1,04	1,75	0,01	1,82	0,00	349,09	1,74	347,35
10+10,00	1,62	0,01	15,13	0,09	364,22	1,83	362,39
10+18,67	1,62	0,02	14,03	0,14	378,25	1,97	376,28

VOLUME TOTAL

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m3)	Volume de Aterro (m3)	Volum. Corte Acum. (m3)	Volum Aterro Acum. (m3)	Volume Líquido (m3)
11+0,00	1,62	0,02	2,16	0,03	380,41	2,00	378,41
11+14,69	1,42	0,06	22,30	0,59	402,71	2,59	400,12
12+0,00	1,41	0,09	7,51	0,41	410,22	3,00	407,22
12+8,85	1,27	0,15	11,89	1,10	422,11	4,10	418,01
12+10,00	1,26	0,16	1,45	0,18	423,56	4,28	419,28
13+0,00	1,29	0,24	12,77	2,02	436,33	6,29	430,04
13+3,01	1,37	0,22	4,00	0,70	440,33	7,00	433,34
13+13,65	1,58	0,01	15,80	1,26	456,14	8,26	447,88
14+0,00	1,78	0,00	10,83	0,04	466,97	8,30	458,67
14+1,55	1,77	0,00	2,75	0,00	469,71	8,30	461,42
14+7,90	1,80	0,00	11,39	0,00	481,10	8,30	472,80
14+15,16	1,42	0,09	11,80	0,33	492,90	8,63	484,27
15+0,00	1,53	0,09	7,17	0,44	500,07	9,07	491,00
15+6,18	1,62	0,10	9,72	0,57	509,79	9,64	500,15
15+13,95	1,72	0,08	13,02	0,71	522,81	10,35	512,45
16+0,00	1,43	0,11	9,55	0,58	532,36	10,93	521,43
16+19,91	1,65	0,06	30,69	1,62	563,05	12,55	550,50
17+0,00	1,65	0,06	0,20	0,01	563,25	12,56	550,69
17+7,03	1,76	0,03	11,99	0,30	575,24	12,86	562,39
18+0,00	1,89	0,03	23,56	0,37	598,81	13,23	585,58
19+0,00	1,93	0,00	38,19	0,30	636,99	13,53	623,47
19+3,39	1,95	0,01	6,58	0,01	643,58	13,54	630,03
20+0,00	1,97	0,00	32,54	0,06	676,11	13,60	662,51
21+0,00	1,79	0,00	37,58	0,02	713,70	13,62	700,07
21+6,94	2,16	0,00	13,71	0,00	727,40	13,63	713,78
22+0,00	2,22	0,00	28,63	0,00	756,04	13,63	742,41
22+0,44	2,20	0,00	0,98	0,00	757,02	13,63	743,39
22+7,36	2,02	0,00	14,59	0,00	771,61	13,63	757,98
22+17,14	2,20	0,00	20,67	0,00	792,28	13,63	778,65
23+0,00	1,92	0,00	5,82	0,00	798,10	13,63	784,48
23+3,57	1,71	0,00	6,48	0,01	804,59	13,64	790,95
23+10,11	1,04	0,12	8,92	0,41	813,51	14,05	799,46
23+18,51	0,78	0,73	7,61	3,53	821,12	17,58	803,54

LADO DIREITO

VOLUME TOTAL							
Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m3)	Volume de Aterro (m3)	Volum. Corte Acum. (m3)	Volum Aterro Acum. (m3)	Volume Líquido (m3)
24+0,00	0,81	0,82	1.15	1,04	822,27	18,61	803,66
24+3,89	0,78	1,06	3.08	3,65	825,35	22,26	803,09
24+10,93	1,11	0,87	6.60	6,65	831,95	28,91	803,04
24+16,21	1,07	0,88	5.70	4,48	837,65	33,39	804,26
25+0,00	1,50	0,41	4.83	2,39	842,48	35,78	806,70
25+3,70	1,52	0,46	5.53	1,56	848,00	37,33	810,67
25+10,00	1,09	0,80	8.15	3,85	856,15	41,19	814,96
25+11,19	0,97	0,83	1.23	0,97	857,38	42,16	815,22
25+17,45	0,81	1,19	5.57	6,30	862,95	48,46	814,49
26+0,00	0,66	1,26	1.85	2,91	864,80	51,37	813,43
26+8,05	1,05	1,01	6.88	9,14	871,69	60,51	811,18
26+18,40	1,23	0,86	11.71	9,53	883,40	70,04	813,36
27+0,00	1,21	0,84	1.92	1,29	885,31	71,33	813,99
27+1,68	1,38	0,88	2.18	1,44	887,50	72,77	814,72
27+13,55	1,04	0,73	14.29	9,41	901,78	82,18	819,60
28+0,00	0,69	1,06	5.58	5,78	907,36	87,96	819,41
28+9,32	0,67	0,85	6.34	8,91	913,71	96,87	816,84
28+17,85	0,79	0,26	6.25	4,79	919,95	101,66	818,30
29+0,00	0,99	0,19	1.96	0,52	921,91	102,18	819,73
29+10,50	1,15	0,04	11.21	1,21	933,12	103,39	829,73
29+17,59	1,34	0,00	8.83	0,13	941,96	103,52	838,44
30+0,00	1,98	0,00	4.21	0,00	946,17	103,52	842,65
30+5,65	1,81	0,00	10.70	0,00	956,87	103,52	853,35
30+13,08	1,44	0,01	12.12	0,02	968,99	103,54	865,45
31+0,00	1,40	0,02	9.91	0,09	978,90	103,63	875,28
31+4,60	1,41	0,02	6.47	0,08	985,37	103,71	881,66
32+0,00	1,85	0,00	25.19	0,18	1010,56	103,89	906,67
32+1,01	1,74	0,01	1.81	0,01	1012,36	103,90	908,46
32+12,01	1,73	0,01	19.07	0,11	1031,43	104,01	927,42
33+0,00	1,67	0,01	13.64	0,08	1045,08	104,08	940,99
33+12,59	1,55	0,06	20.29	0,44	1065,37	104,52	960,85
34+0,00	1,75	0,03	12.23	0,32	1077,60	104,84	972,75
35+0,00	2,06	0,00	38.04	0,30	1115,64	105,14	1010,49

VOLUME TOTAL							
Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m3)	Volume de Aterro (m3)	Volum. Corte Acum. (m3)	Volum Aterro Acum. (m3)	Volume Líquido (m3)
35+11,69	2,20	0,00	24.90	0,00	1140,54	105,14	1035,39
36+0,00	1,77	0,05	16.49	0,22	1157,03	105,36	1051,66
36+18,40	1,64	0,04	31.35	0,88	1188,38	106,25	1082,13
37+0,00	1,67	0,04	2.65	0,06	1191,03	106,31	1084,72
38+0,00	1,42	0,12	30.92	1,55	1221,95	107,86	1114,09
38+4,48	1,48	0,14	6.50	0,59	1228,45	108,45	1120,00
39+0,00	0,83	0,56	17.93	5,48	1246,38	113,93	1132,45
39+11,86	1,23	0,59	12.19	6,86	1258,56	120,79	1137,78
40+0,00	0,89	1,02	8.61	6,56	1267,18	127,34	1139,83
41+0,00	0,98	0,13	18.68	11,42	1285,86	138,77	1147,09
41+1,60	1,05	0,10	1.63	0,18	1287,48	138,95	1148,53
42+0,00	1,37	0,02	22.33	1,09	1309,81	140,04	1169,77
42+5,19	1,27	0,06	6.87	0,20	1316,68	140,24	1176,44
43+0,00	1,38	0,04	19.67	0,76	1336,35	141,00	1195,35
44+0,00	1,37	0,14	27.51	1,80	1363,86	142,80	1221,06
44+11,66	1,32	0,17	15.68	1,81	1379,54	144,60	1234,94
45+0,00	1,46	0,05	11.57	0,94	1391,11	145,54	1245,57
45+9,23	1,50	0,02	13.64	0,35	1404,76	145,89	1258,86
45+19,40	1,11	0,57	13.22	2,95	1417,97	148,84	1269,13
46+0,00	1,09	0,61	0.60	0,24	1418,58	149,08	1269,49
46+8,26	0,86	1,97	8.06	10,66	1426,64	159,74	1266,89
46+10,00	0,87	2,01	1.51	3,46	1428,14	163,20	1264,95
46+12,65	0,87	2,05	2.29	5,20	1430,44	168,40	1262,04
46+17,05	0,71	2,35	3.43	9,33	1433,87	177,73	1256,14
47+0,00	0,72	2,49	2.11	7,14	1435,98	184,87	1251,11
47+11,83	0,89	1,70	9.54	24,76	1445,52	209,63	1235,89
48+0,00	0,80	1,02	6.89	10,82	1452,41	220,45	1231,96
48+2,37	0,81	0,59	1.91	1,91	1454,32	222,36	1231,96
48+9,02	1,16	0,18	6.54	2,53	1460,86	224,89	1235,97
49+0,00	1,79	0,04	16.14	1,22	1476,99	226,11	1250,89
49+9,71	1,94	0,00	18.08	0,21	1495,08	226,32	1268,76
50+0,00	2,09	0,00	20.67	0,00	1515,75	226,32	1289,43
51+0,00	1,45	0,02	35.48	0,18	1551,23	226,49	1324,74



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
02/03

Obra
R.M. LINHA EYNG

Conteúdo
VOLUME TOTAL

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

LADO DIREITO

VOLUME TOTAL							
Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m3)	Volume de Aterro (m3)	Volum. Corte Acum. (m3)	Volum Aterro Acum. (m3)	Volume Líquido (m3)
51+11,60	1,46	0,01	16,91	0,17	1568,15	226,67	1341,48
52+0,00	1,77	0,00	13,58	0,05	1581,72	226,72	1355,01
53+0,00	1,42	0,02	31,91	0,18	1613,64	226,90	1386,74
53+2,64	1,51	0,01	3,87	0,04	1617,50	226,94	1390,57
53+14,49	1,92	0,00	20,29	0,07	1637,79	227,00	1410,78
54+0,00	1,84	0,00	10,48	0,00	1648,27	227,00	1421,26
54+2,85	1,83	0,00	5,25	0,00	1653,51	227,00	1426,51
54+12,22	1,87	0,00	17,23	0,00	1670,75	227,00	1443,74
55+0,00	1,91	0,00	14,70	0,00	1685,44	227,00	1458,44
56+0,00	1,10	0,12	30,12	1,16	1715,56	228,16	1487,40
56+1,05	1,07	0,13	1,14	0,13	1716,70	228,29	1488,41
57+0,00	0,76	0,27	17,33	3,86	1734,03	232,15	1501,88
57+3,82	0,87	0,25	3,11	0,99	1737,14	233,14	1503,99
57+16,96	0,95	0,21	11,92	2,99	1749,06	236,13	1512,93
58+0,00	0,96	0,20	2,90	0,62	1751,96	236,75	1515,20
59+0,00	1,10	0,06	20,55	2,59	1772,51	239,34	1533,17
59+0,48	1,09	0,05	0,53	0,03	1773,03	239,37	1533,67
59+8,32	1,13	0,06	8,71	0,44	1781,74	239,81	1541,93
59+15,74	0,82	0,06	7,20	0,42	1788,95	240,23	1548,72
60+0,00	0,89	0,05	3,61	0,22	1792,56	240,45	1552,11
60+2,13	0,85	0,10	1,85	0,16	1794,41	240,61	1553,80
60+9,74	0,62	0,05	5,55	0,58	1799,97	241,19	1558,77
60+13,58	0,65	0,08	2,41	0,24	1802,37	241,44	1560,94
60+18,63	0,37	0,08	2,58	0,40	1804,96	241,83	1563,12
61+0,00	0,49	0,07	0,57	0,10	1805,53	241,93	1563,60
61+4,38	0,71	0,06	2,63	0,27	1808,16	242,20	1565,96
61+12,41	1,26	0,04	7,92	0,39	1816,08	242,59	1573,48
61+18,99	1,22	0,04	8,17	0,26	1824,24	242,85	1581,39
62+0,00	1,32	0,02	1,24	0,03	1825,48	242,88	1582,60
62+9,92	1,45	0,00	13,72	0,14	1839,20	243,02	1596,18
63+0,00	1,98	0,00	17,17	0,02	1856,38	243,04	1613,34
63+15,94	1,82	0,00	30,27	0,00	1886,65	243,04	1643,61
64+0,00	1,68	0,00	7,01	0,00	1893,66	243,04	1650,63

VOLUME TOTAL							
Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m3)	Volume de Aterro (m3)	Volum. Corte Acum. (m3)	Volum Aterro Acum. (m3)	Volume Líquido (m3)
65+0,00	0,97	0,16	26,49	1,56	1920,15	244,60	1675,56
65+17,44	0,64	0,30	14,04	3,99	1934,20	248,59	1685,61
66+0,00	0,67	0,31	1,68	0,78	1935,87	249,37	1686,51
67+0,00	1,04	0,06	17,13	3,63	1953,01	253,00	1700,01
67+6,33	1,37	0,03	7,63	0,26	1960,63	253,25	1707,38
68+0,00	1,82	0,00	21,78	0,18	1982,42	253,44	1728,98
68+4,51	1,92	0,00	8,42	0,00	1990,84	253,44	1737,40
68+14,06	2,12	0,00	19,23	0,00	2010,07	253,44	1756,63
69+0,00	2,04	0,00	12,24	0,00	2022,30	253,44	1768,87
69+1,82	1,99	0,00	3,67	0,00	2025,97	253,44	1772,54
69+10,48	1,86	0,00	16,63	0,00	2042,60	253,44	1789,16
69+17,61	1,83	0,00	13,09	0,00	2055,69	253,44	1802,25
70+0,00	1,82	0,00	4,37	0,00	2060,06	253,44	1806,62
70+4,18	1,93	0,00	7,85	0,00	2067,91	253,44	1814,47
70+7,60	1,81	0,03	6,38	0,05	2074,29	253,49	1820,80
70+18,84	1,03	0,09	15,88	0,65	2090,17	254,14	1836,03
71+0,00	1,02	0,09	1,15	0,09	2091,32	254,23	1837,09
71+8,43	0,42	0,35	6,08	1,87	2097,41	256,11	1841,30
71+19,29	0,35	0,84	4,21	6,46	2101,61	262,56	1839,05
72+0,00	0,32	0,84	0,23	0,53	2101,85	263,09	1838,75
72+11,67	0,40	0,72	4,19	9,05	2106,04	272,14	1833,90
73+0,00	1,07	0,22	6,14	3,92	2112,18	276,06	1836,12



Autor do projeto: BRUNO FRIGO PASINI ENGENHEIRO CIVIL - CREA/SC 137.007-9		Obra R.M. LINHA EYNG
Prancha: 03/03		Conteúdo VOLUME TOTAL
		Local R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

LADO ESQUERDO

VOLUME TOTAL

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m3)	Volume de Aterro (m3)	Volum. Corte Acum. (m3)	Volum Aterro Acum. (m3)	Volume Líquido (m3)
73+0,00	0,91	0,00	7,60	0,00	1415,17	53,22	1361,95
74+0,00	1,26	0,05	21,67	0,47	1436,84	53,70	1383,14
74+7,57	1,35	0,08	9,87	0,47	1446,71	54,16	1392,55
75+0,00	0,95	0,04	14,26	0,73	1460,97	54,90	1406,07
75+0,33	1,05	0,04	0,33	0,01	1461,30	54,91	1406,39
75+15,01	0,77	0,34	13,38	2,84	1474,68	57,76	1416,93
76+0,00	0,77	0,19	3,85	1,34	1478,53	59,09	1419,44
76+12,33	0,60	0,25	8,46	2,74	1486,99	61,84	1425,16
77+0,00	0,81	0,30	5,44	2,12	1492,43	63,96	1428,48
77+8,91	0,78	0,48	7,10	3,47	1499,53	67,43	1432,10
78+0,00	1,07	0,41	10,30	4,96	1509,83	72,39	1437,44
78+11,82	1,21	0,18	13,50	3,50	1523,34	75,89	1447,44
79+0,00	1,04	0,25	9,21	1,77	1532,55	77,66	1454,88
79+8,13	1,19	0,12	9,05	1,51	1541,60	79,17	1462,43
80+0,00	0,70	0,37	11,18	2,89	1552,78	82,06	1470,72
80+3,60	0,71	0,31	2,53	1,22	1555,31	83,27	1472,03
80+19,21	0,29	0,84	7,84	8,94	1563,14	92,21	1470,94
81+0,00	0,27	0,99	0,22	0,72	1563,37	92,93	1470,44
81+12,99	0,63	0,47	5,81	9,48	1569,18	102,40	1466,77
82+0,00	1,05	0,16	5,90	2,20	1575,07	104,60	1470,47
83+0,00	1,77	0,01	28,18	1,65	1603,25	106,26	1496,99
83+6,03	2,00	0,00	11,35	0,02	1614,60	106,27	1508,33
83+18,53	2,44	0,00	27,66	0,00	1642,26	106,27	1535,99
84+0,00	2,24	0,00	3,45	0,00	1645,71	106,27	1539,44
84+12,16	1,60	0,14	23,32	0,85	1669,03	107,12	1561,91
85+0,00	1,47	0,17	12,02	1,20	1681,05	108,32	1572,73

VOLUME TOTAL

Estaca	Área de Corte (m²)	Área de Aterro (m²)	Volume de Corte (m3)	Volume de Aterro (m3)	Volum. Corte Acum. (m3)	Volum Aterro Acum. (m3)	Volume Líquido (m3)
85+0,91	1,42	0,30	1,31	0,21	1682,36	108,53	1573,82
85+17,71	0,86	0,63	19,09	7,83	1701,45	116,36	1585,09
86+0,00	0,87	0,68	1,97	1,50	1703,42	117,86	1585,56
86+9,35	1,31	0,42	10,21	5,15	1713,64	123,01	1590,63
86+15,38	1,66	0,01	8,96	1,30	1722,60	124,31	1598,29
87+0,00	1,60	0,05	7,45	0,13	1730,04	124,44	1605,60
87+15,57	1,81	0,00	26,55	0,36	1756,60	124,80	1631,80
88+0,00	1,81	0,00	7,98	0,00	1764,58	124,80	1639,78

R.M. LINHA EYNG - CICLOFAIXA - ESTACA 0+0,00 A 88+0,00

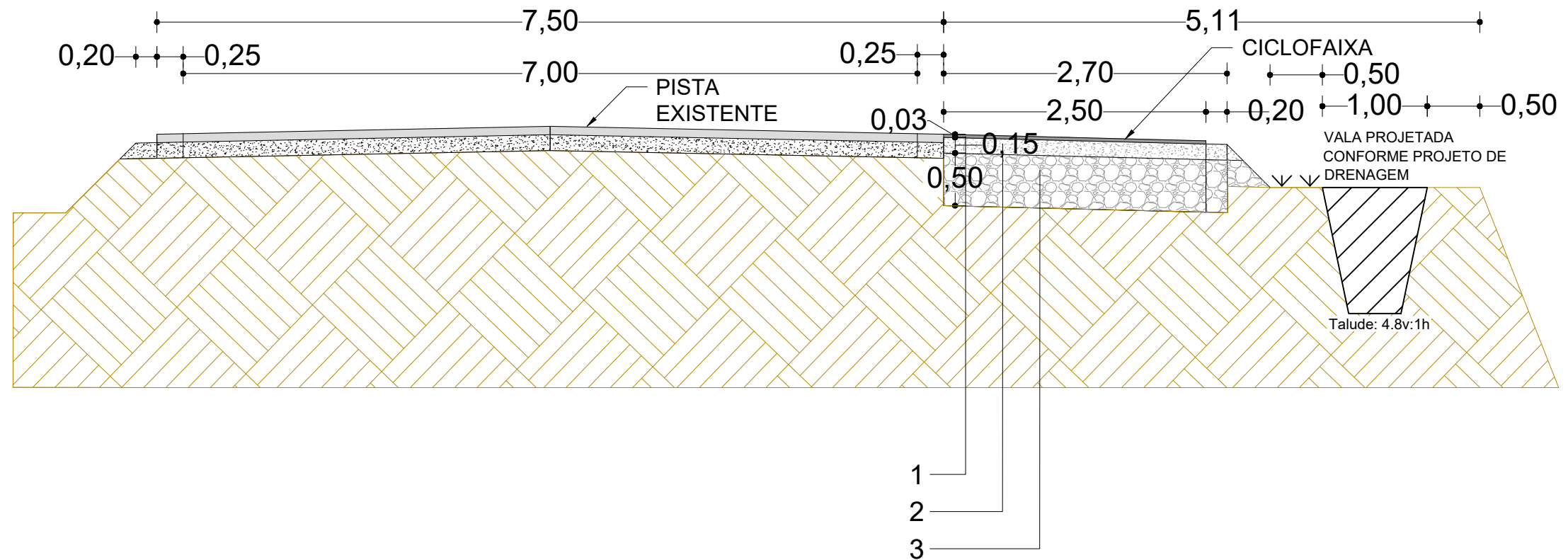
LADO ESQUERDO						LADO DIREITO					
EST	EST	ÁREA	ESP.	TIPO	ESCAV.	EST	EST	ÁREA	ESP.	TIPO	ESCAV.
Início	Fim	[m ²]	[M]	[-]	[m ³]	Início	Fim	[m ²]	[M]	[-]	[m ³]
73+0,00	83+1,00	686,20	0,50	GRANJA	343,1	0+0,00	8+0,00	471,75	0,30	LOMBA	141,525
83+1,00	83+11,00	26,264	0,30	LOMBA	7,8792	8+0,00	14+0,00	364,72	0,50	GRANJA	182,36
83+11,00	86+13,00	223,93	0,50	GRANJA	111,965	14+0,00	73+0,00	3941,5	0,30	LOMBA	1182,45
86+13,00	88+0,00	79,53	0,30	LOMBA	23,859						
ÁREA TOTAL DE ESCAVAÇÃO (LD/LE) (m ²)					5793,89	Espessura de remoção adicional nas Áreas de Cultivo de Arroz/Banhado/Fora do Leito Existente/Implantação Nova					
VOLUME TOTAL DE ESCAVAÇÃO (m ³)					1993,14						

PROJETO DE PAVIMENTAÇÃO
-- Seção Tipo de Pavimentação

SEÇÃO TIPO DE PAVIMENTAÇÃO

EST. 0+0,00 m

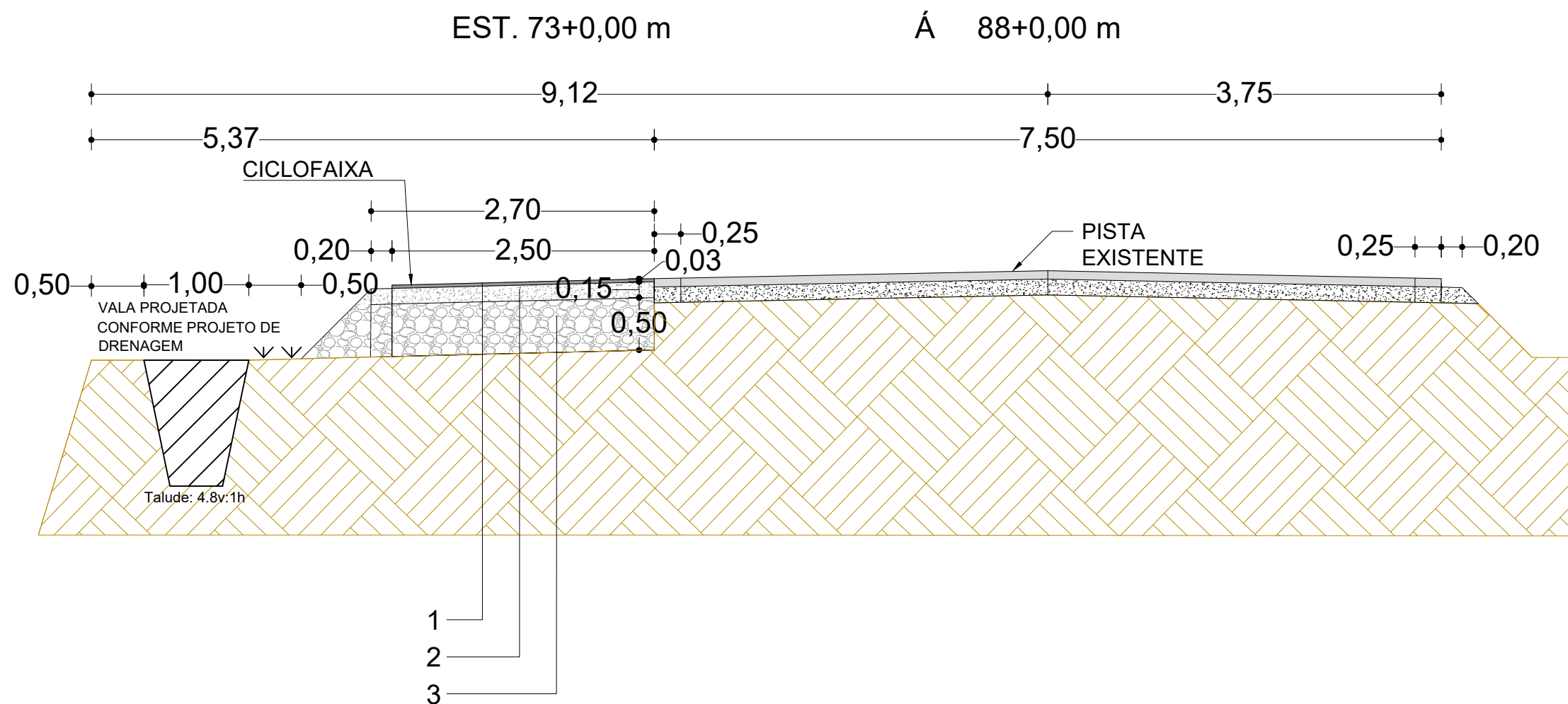
Á 73+0,00 m



LEGENDA			LADO ESQUERDO		LADO DIREITO	
			LARGURA (m)	ESPESSURA (m)	LARGURA (m)	ESPESSURA (m)
01	REVESTIMENTO PISTA	CONCRETO ASFALTICO USINADO A QUENTE (CAUQ)	1,00	0,03	2,50	0,03
-	PINTURA DE LIGAÇÃO	RR-1C	1,00	0,8 L/m ²	2,50	0,8 L/m ²
-	IMPRIMAÇÃO	EAI	1,00	1,2 L/m ²	2,50	1,2 L/m ²
02	BASE	BRITA GRADUADA	1,50	0,15	2,70	0,15
03	SUB-BASE	SEIXO ROLADO	1,50	0,50	2,70	0,50

Obs: ao longo do estaqueamento foi quantificado uma regularização do encontro da capa existente com a capa nova com uma largura de 15cm.

SEÇÃO TIPO DE PAVIMENTAÇÃO



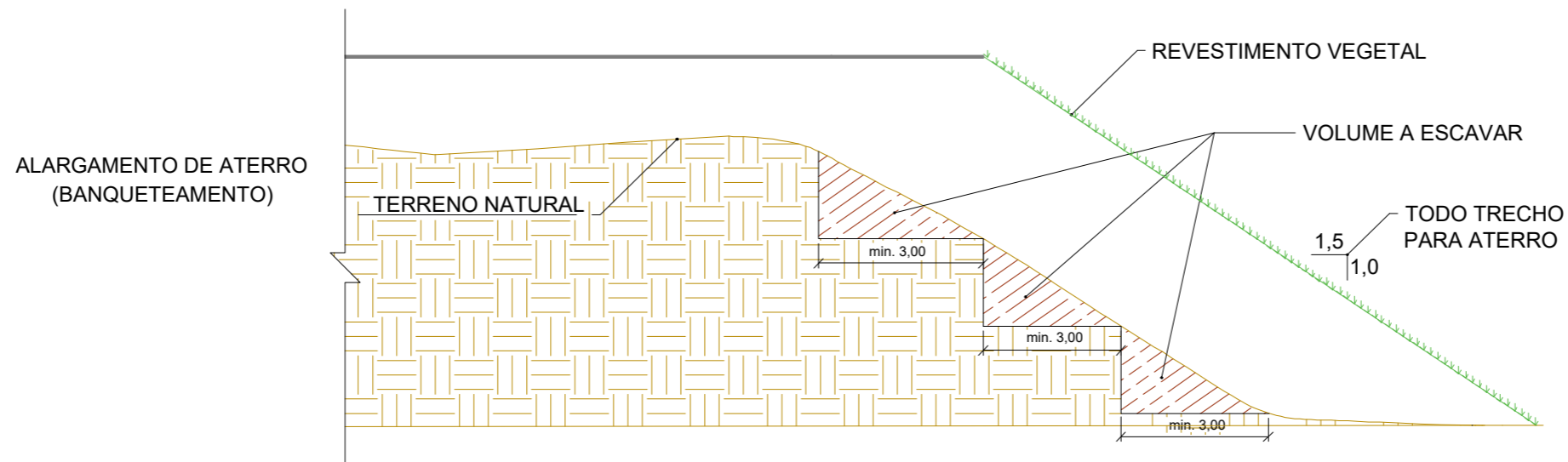
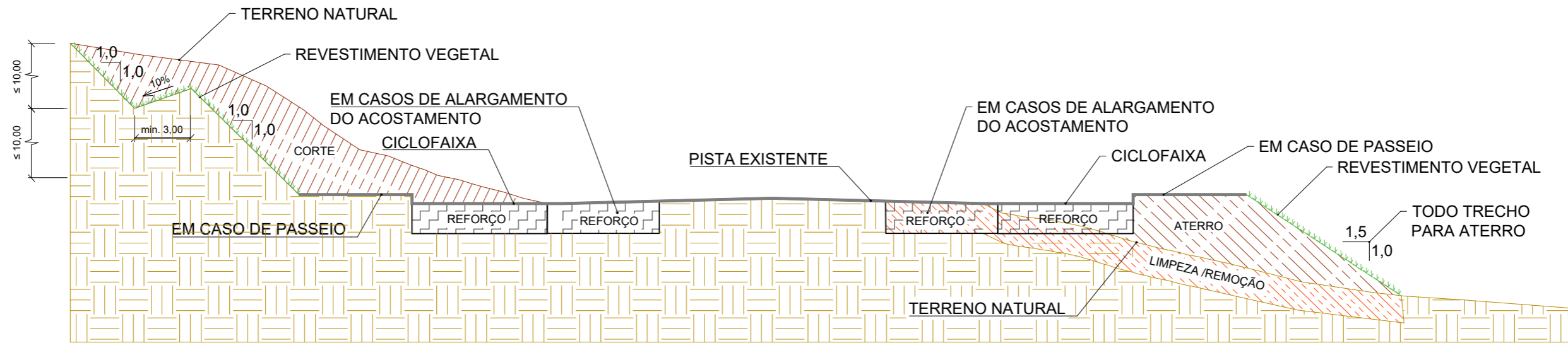
LEGENDA			DIMENSÕES	
			LARGURA (m)	ESPESSURA (m)
01	REVESTIMENTO PISTA	CONCRETO ASFALTICO USINADO A QUENTE (CAUQ)	2,50	0,03
-	PINTURA DE LIGAÇÃO	RR-1C	2,50	0,8 L/m ²
-	IMPRIMAÇÃO	EAI	2,50	1,2 L/m ²
02	BASE	BRITA GRADUADA	2,70	0,15
03	SUB-BASE	SEIXO ROLADO	2,70	0,50

Obs: ao longo do estaqueamento foi quantificado uma regularização do encontro da capa existente com a capa nova com uma largura de 15cm.

PROJETO DE TERRAPLENAGEM

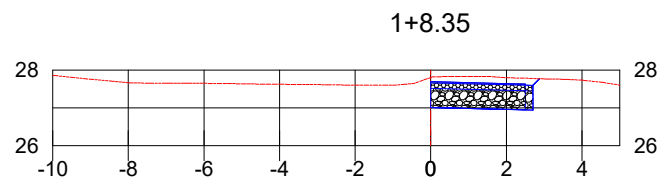
-- Seções Tipo

-- Seções de projeto

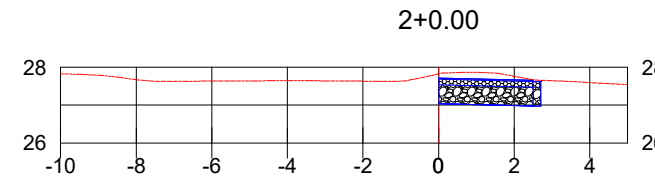




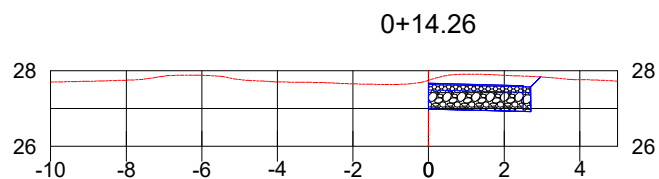
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CPP:
CPT:



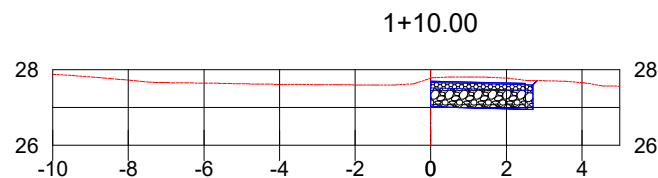
CT: 27.81
CPP: 27.69
CPT: 27.01



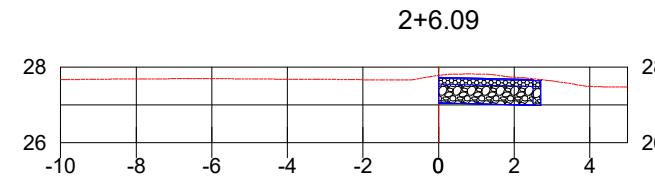
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CPP: 27.72
CPT: 27.04



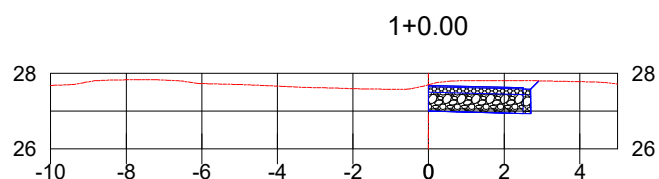
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CPT: 26.99



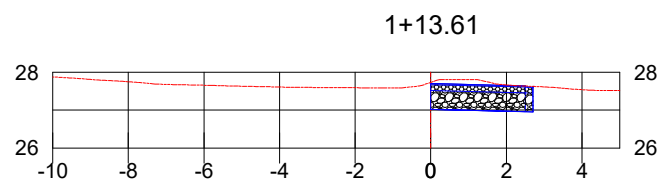
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CPP: 27.70
CPT: 27.02



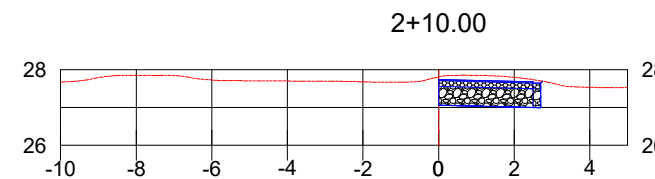
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CPT: 27.05



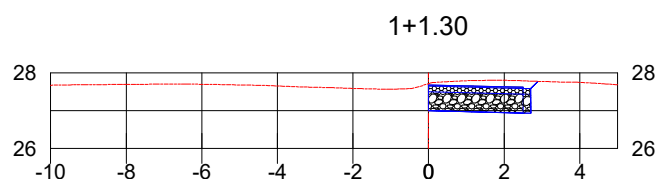
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CPP: 27.68
CPT: 27.00



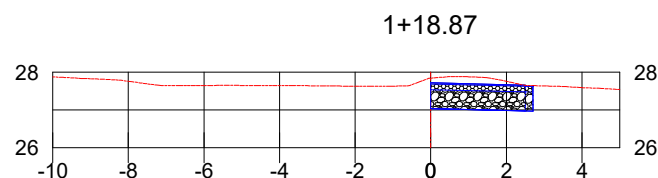
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CPT: 27.02



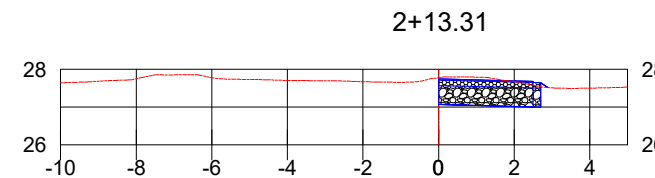
CT: 27.80
CPP: 27.74
CPT: 27.06



CT: 27.72
CPP: 27.68
CPT: 27.00



CT: 27.84
CPP: 27.71
CPT: 27.03



CT: 27.77
CPP: 27.74
CPT: 27.06

ESCALA: 1/200



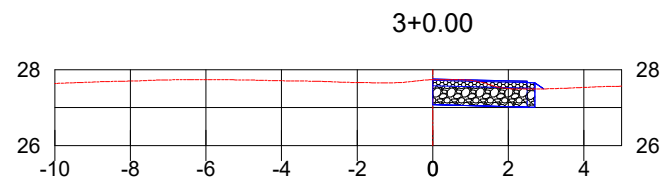
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

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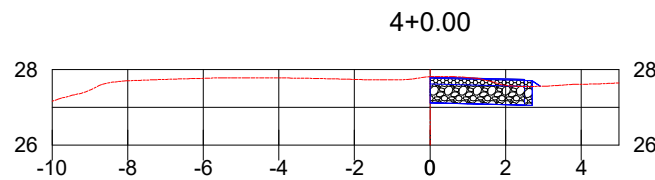
Obra
R.M. LINHA EYNG

Conteúdo
SEÇÕES DE TERRAPLENAGEM

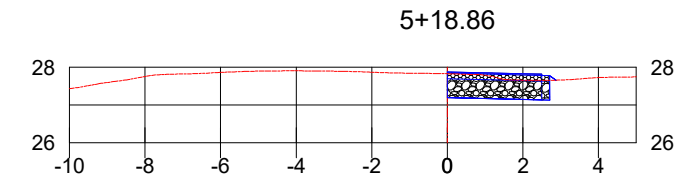
Local
R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC



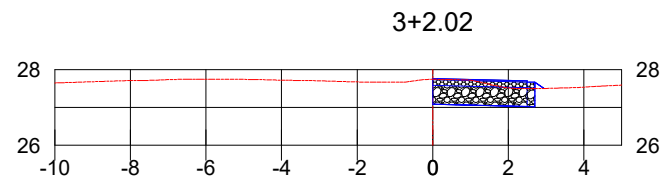
CT: 27.74
 CPP: 27.76
 CPT: 27.08



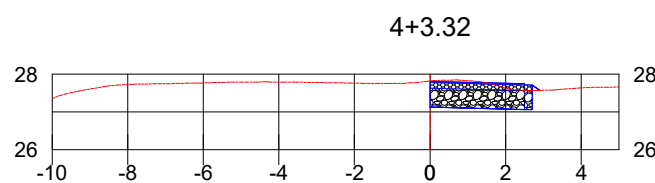
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 CPP: 27.80
 CPT: 27.12



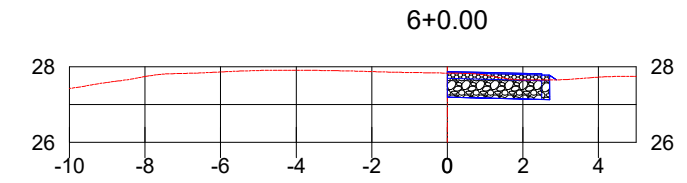
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 CPT: 27.19



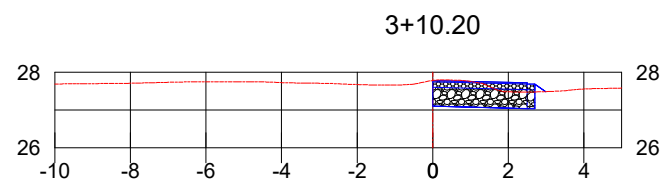
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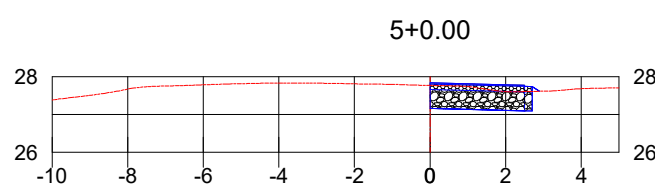
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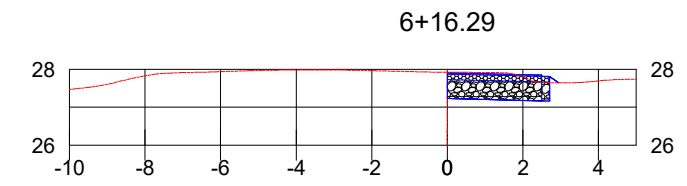
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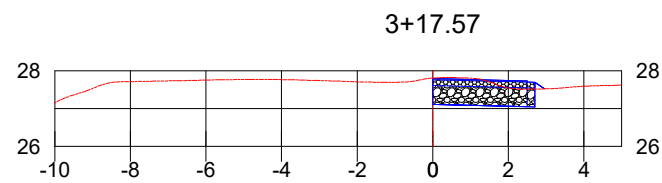
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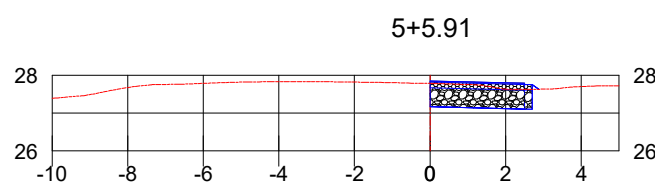
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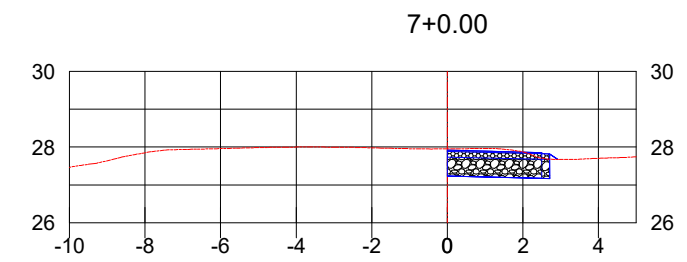
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 CPP: 27.91
 CPT: 27.23



CT: 27.81
 CPP: 27.79
 CPT: 27.11

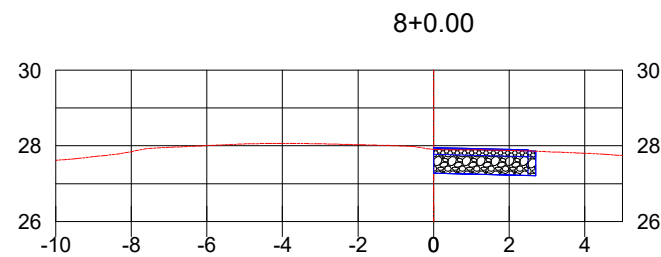


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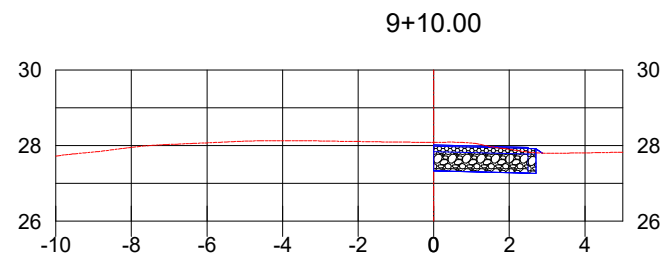


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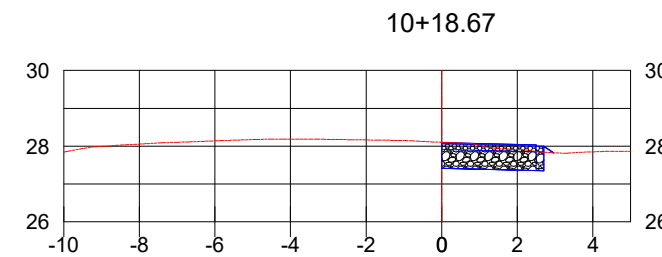
ESCALA: 1/200



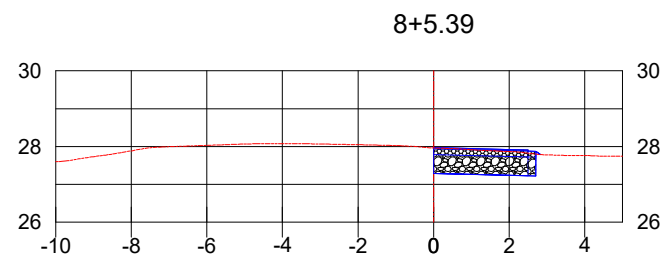
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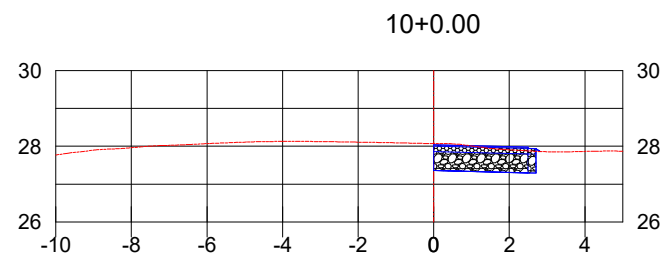
CT: 28.09
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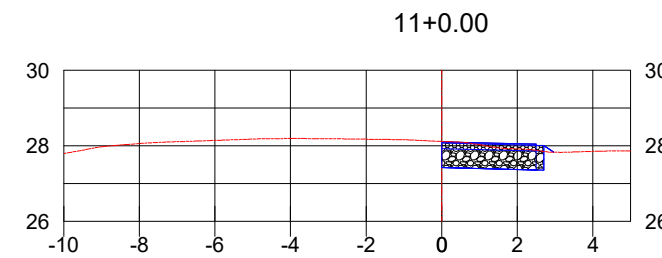
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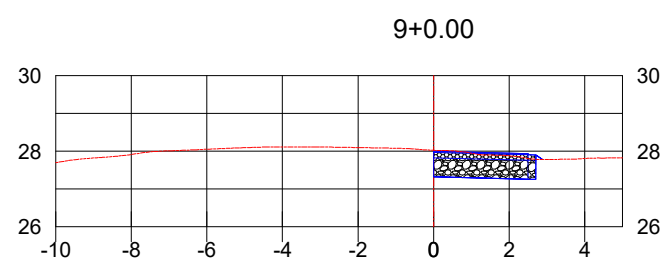
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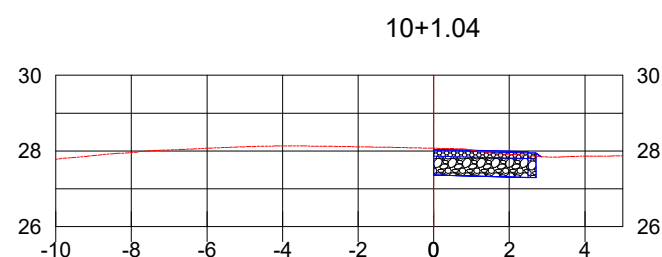
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 CPP: 28.04
 CPT: 27.36



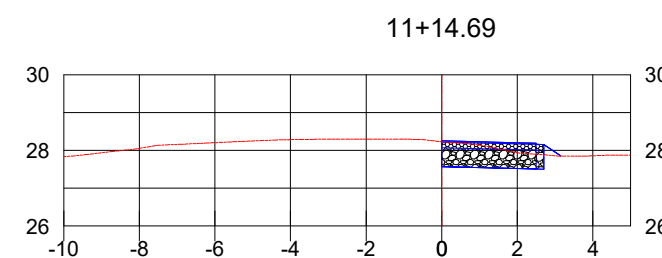
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 CPT: 27.42



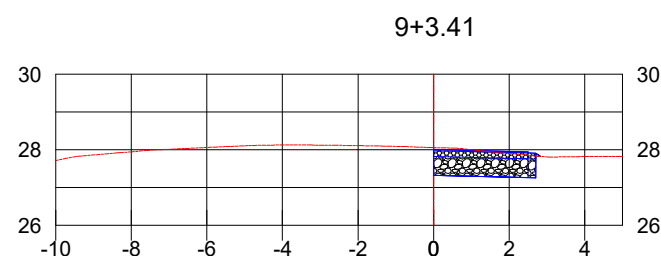
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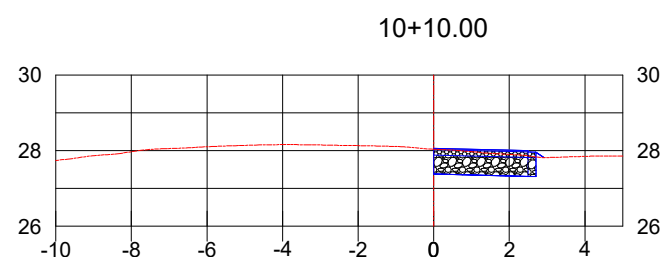
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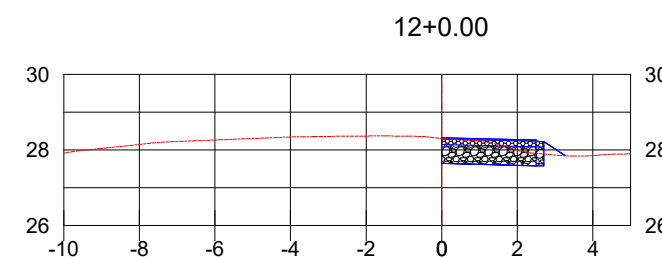
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 CPT: 27.57



CT: 28.06
 CPP: 28.00
 CPT: 27.32



CT: 28.04
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 CPT: 27.38



CT: 28.30
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 CPT: 27.64

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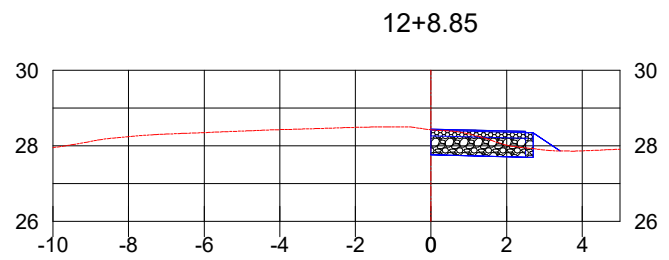
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

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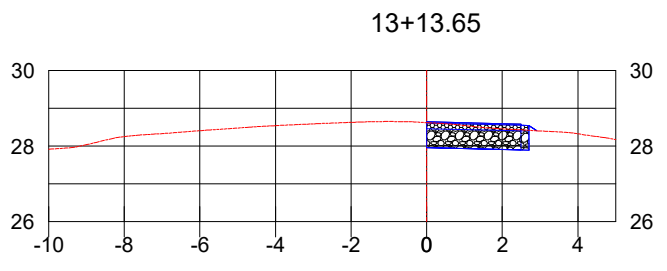
Obra
R.M. LINHA EYNG

Conteúdo
SEÇÕES DE TERRAPLENAGEM

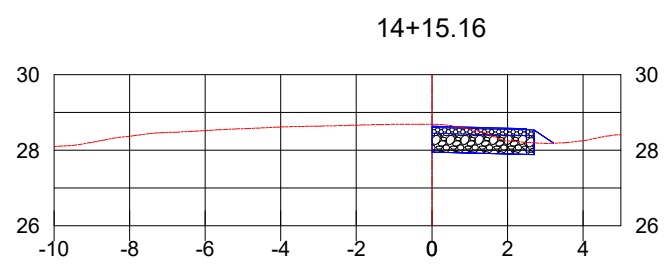
Local
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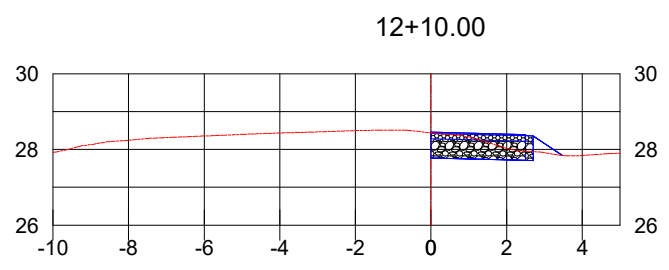
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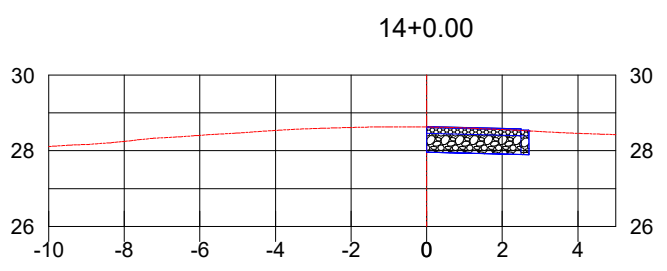
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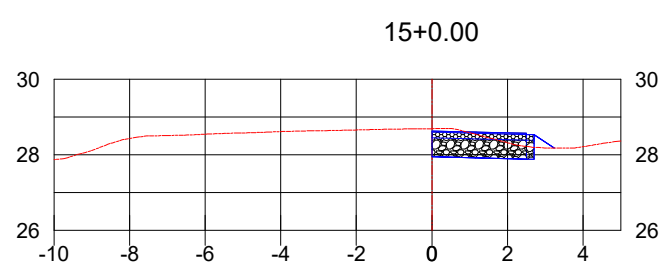
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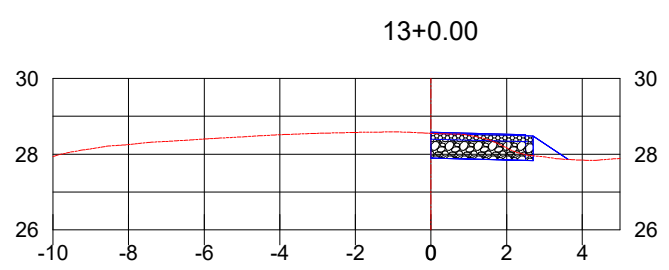
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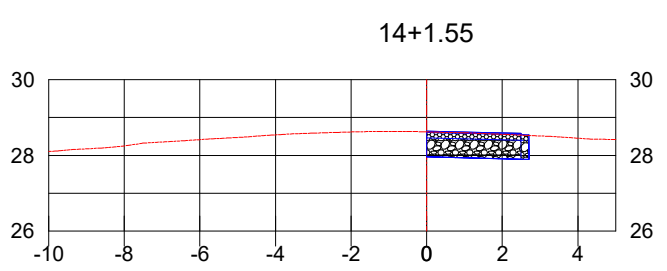
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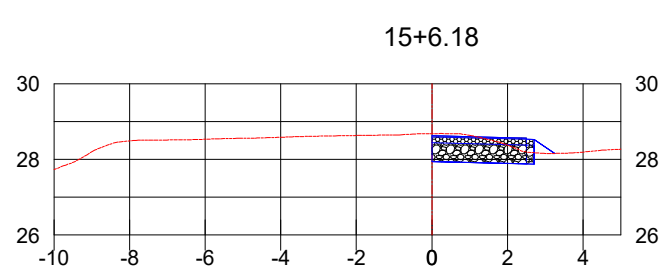
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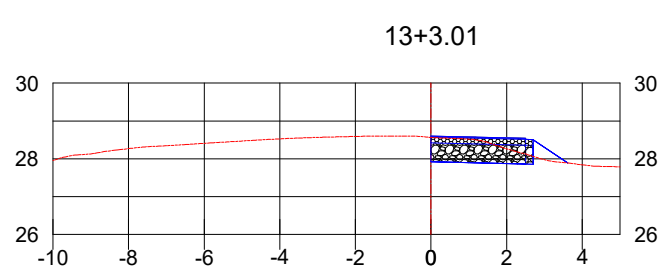
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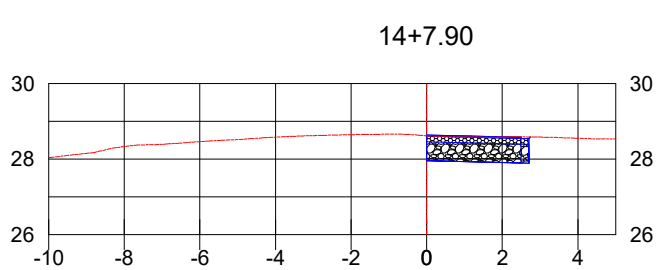
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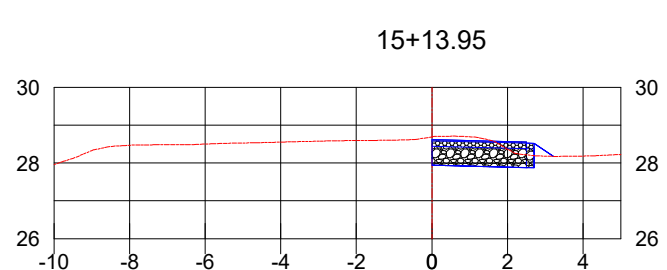
CT: 28.68
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 CPT: 27.94



CT: 28.56
 CPP: 28.60
 CPT: 27.92



CT: 28.61
 CPP: 28.64
 CPT: 27.96



CT: 28.69
 CPP: 28.62
 CPT: 27.94

ESCALA: 1/200



Autor do projeto:
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 ENGENHEIRO CIVIL - CREA/SC 137.007-9

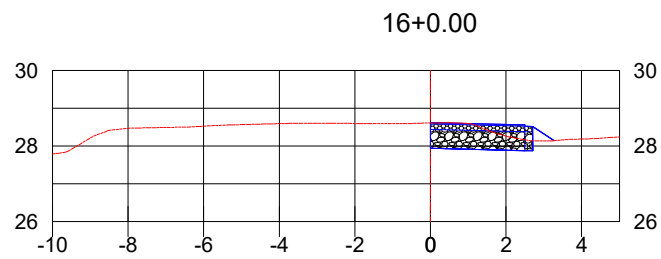
Prancha:
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Obra
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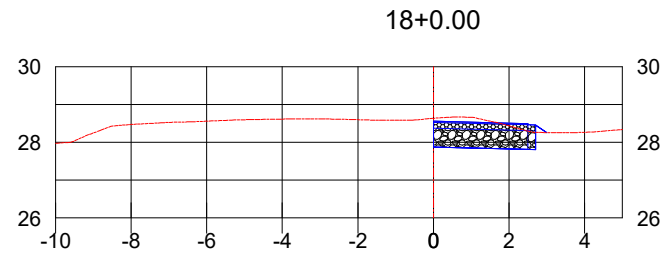
Conteúdo
SEÇÕES DE TERRAPLENAGEM

Local
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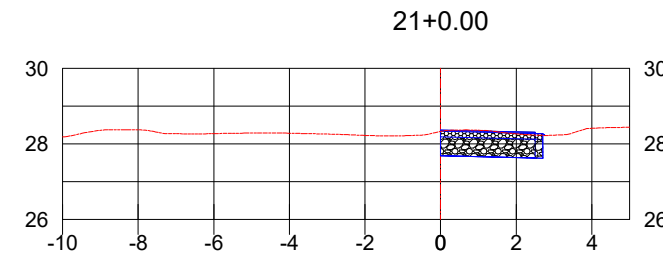
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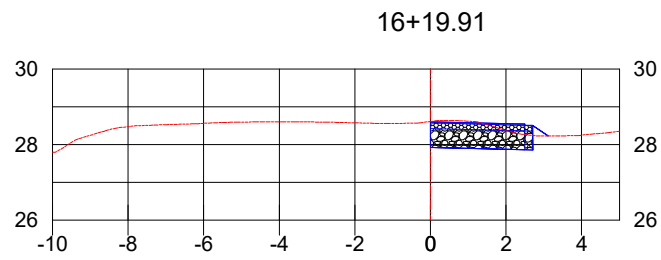
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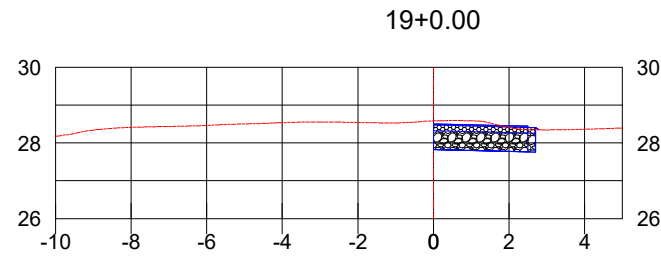
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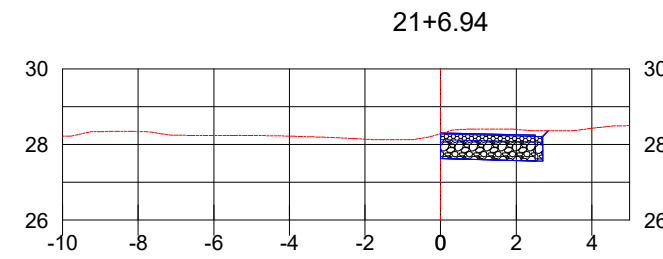
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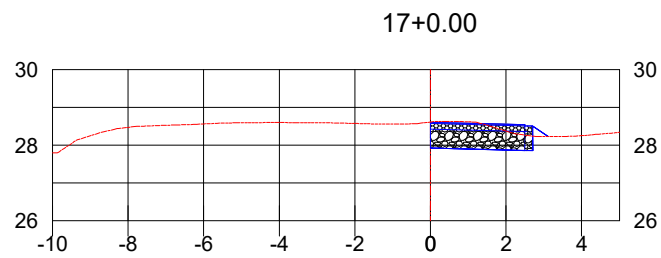
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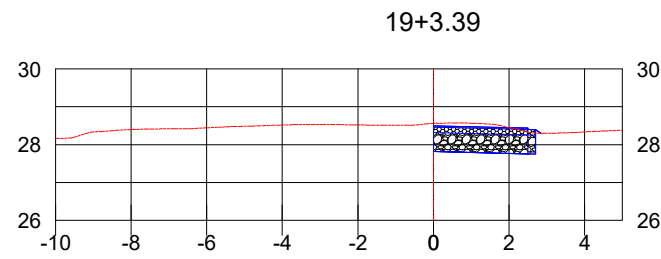
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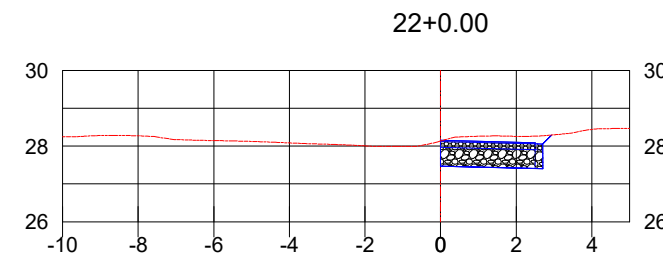
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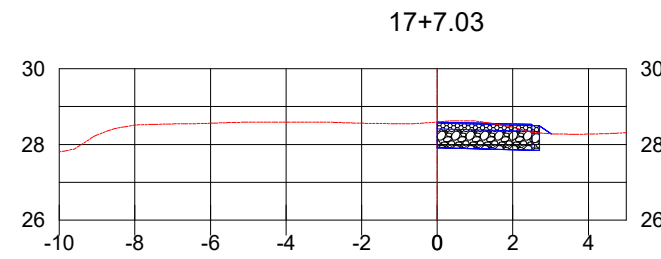
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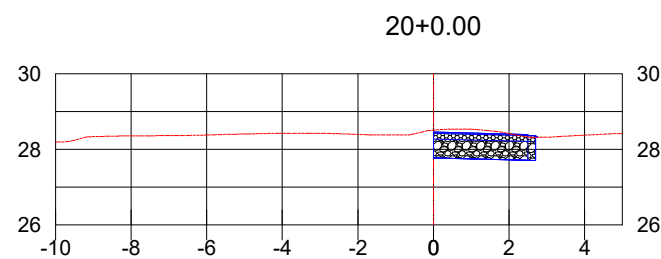
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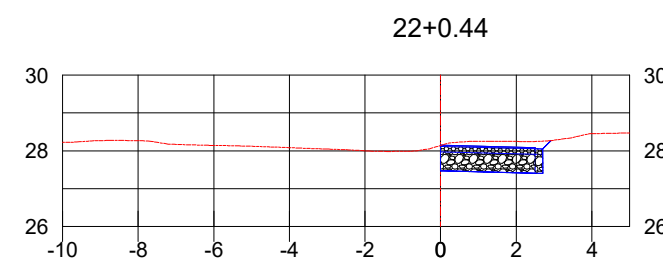
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CT: 28.60
 CPP: 28.59
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 CPT: 27.77



CT: 28.14
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 CPT: 27.47

ESCALA: 1/200



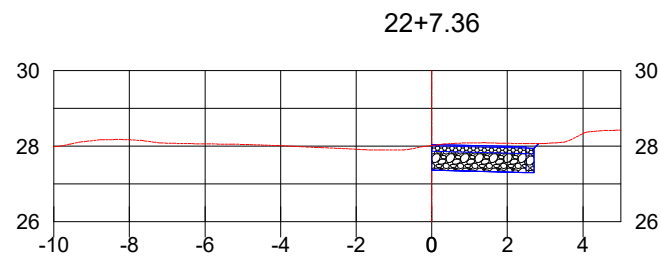
Autor do projeto:
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 ENGENHEIRO CIVIL - CREA/SC 137.007-9

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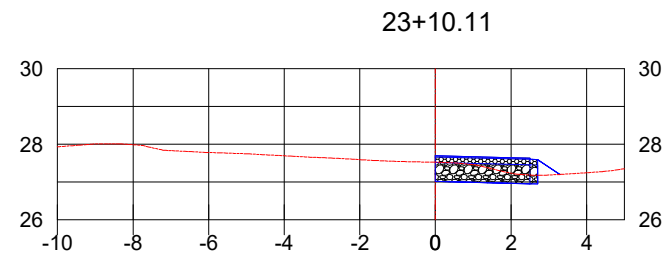
Obra
R.M. LINHA EYNG

Conteúdo
SEÇÕES DE TERRAPLENAGEM

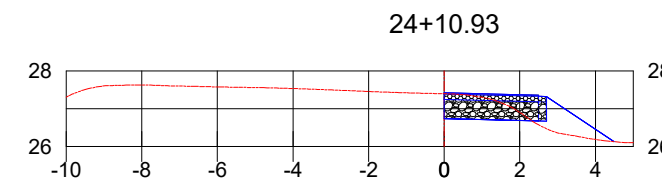
Local
 R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC



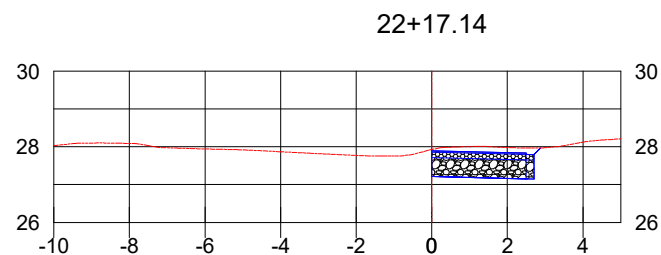
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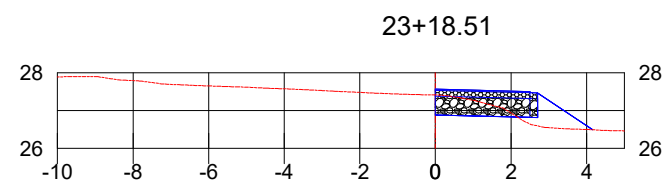
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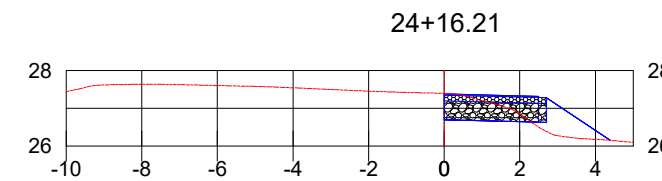
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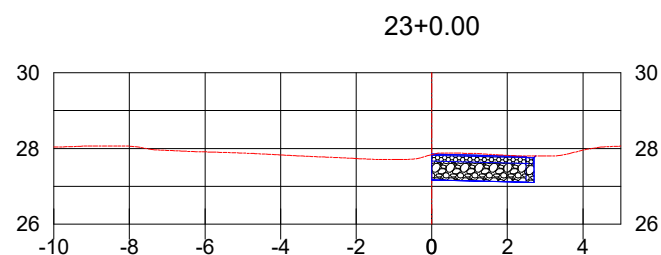
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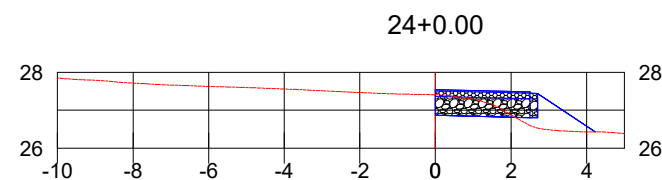
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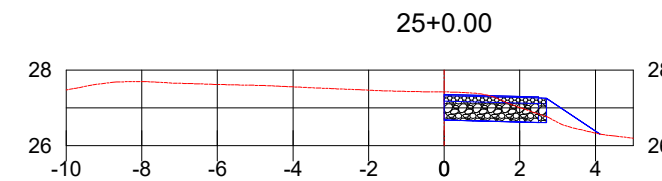
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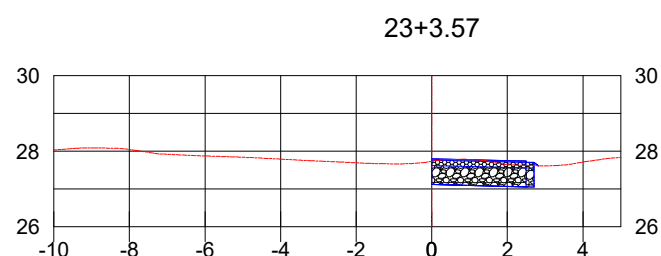
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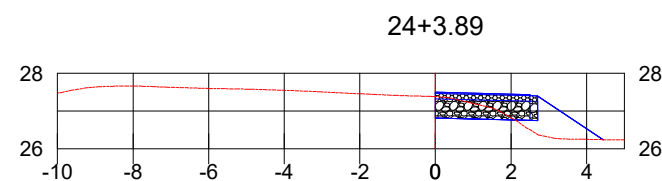
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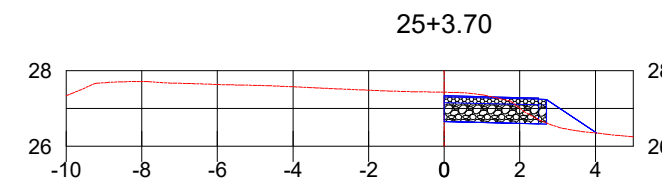
CT: 27.42
 CPP: 27.36
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CT: 27.73
 CPP: 27.79
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CT: 27.38
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CT: 27.43
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ESCALA: 1/200



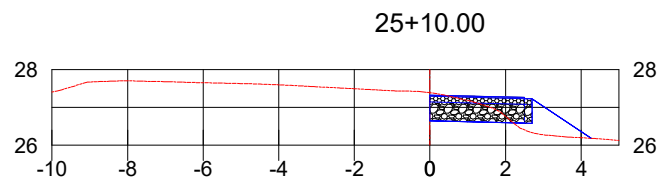
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
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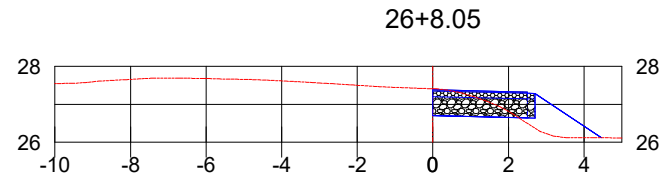
Obra
R.M. LINHA EYNG

Conteúdo
SEÇÕES DE TERRAPLENAGEM

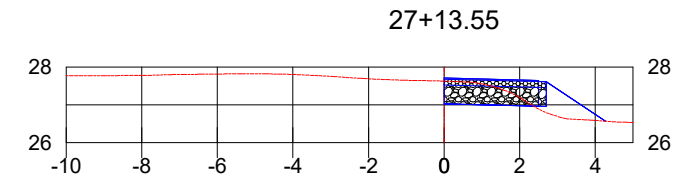
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 R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC



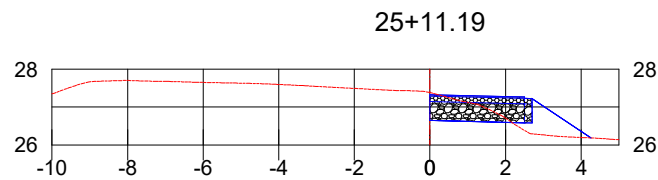
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 CPT: 26.65



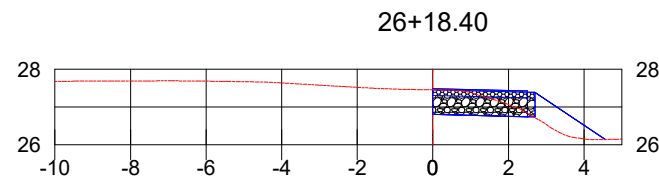
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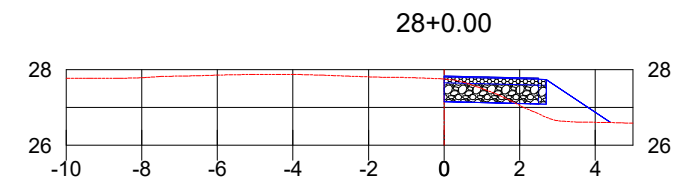
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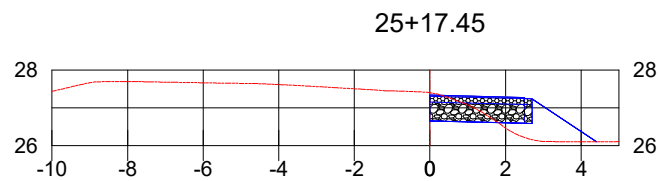
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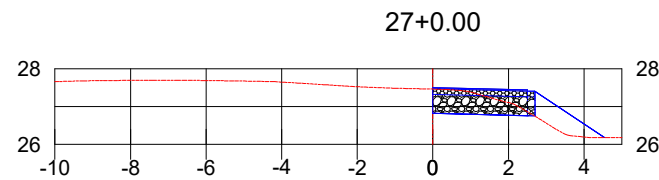
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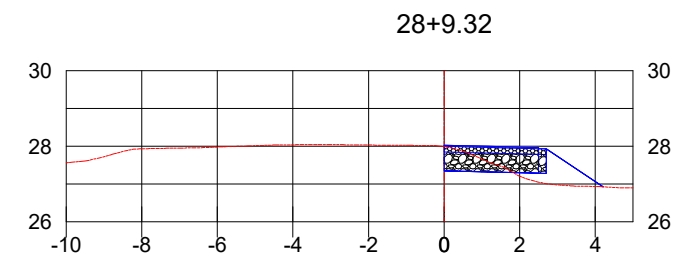
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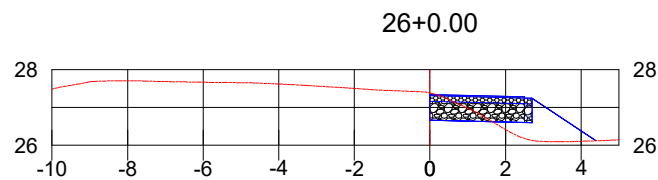
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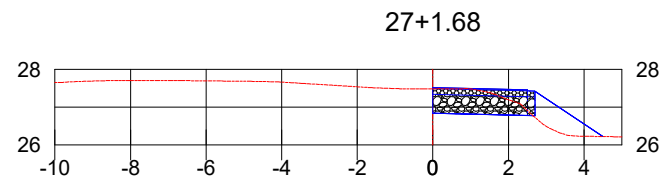
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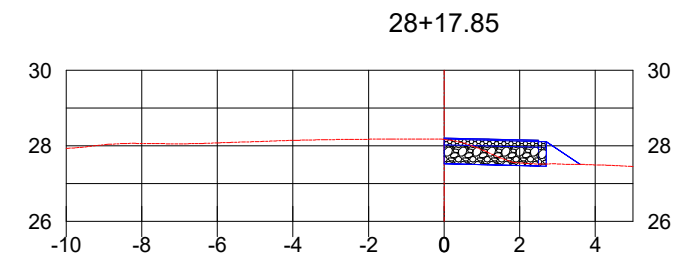
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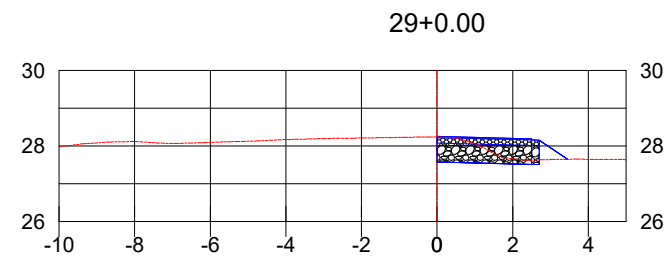


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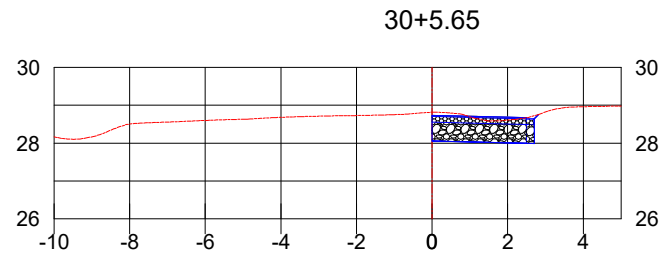


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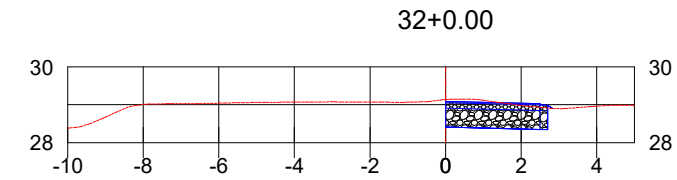
ESCALA: 1/200



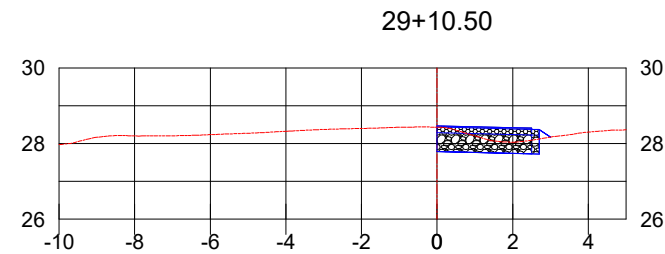
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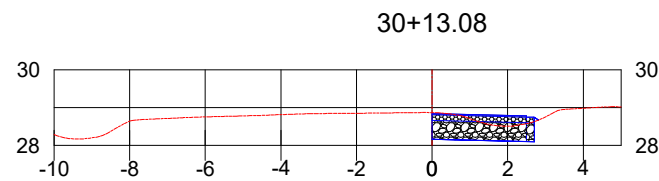
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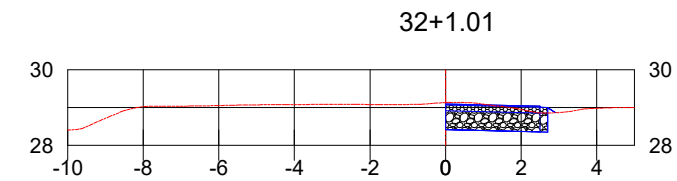
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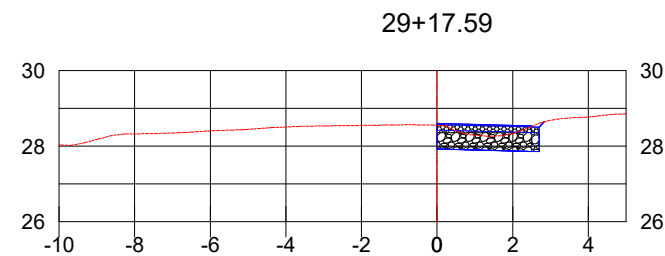
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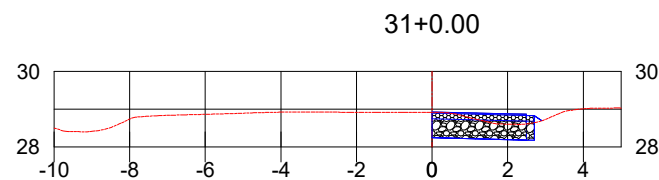
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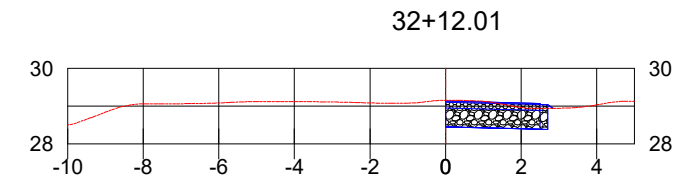
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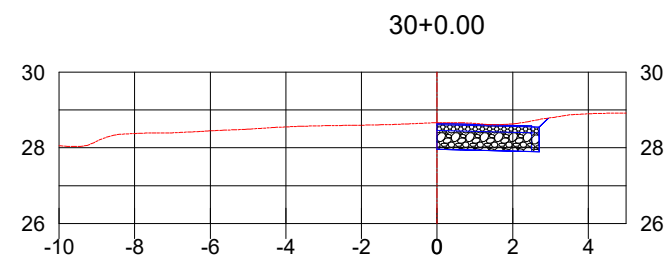
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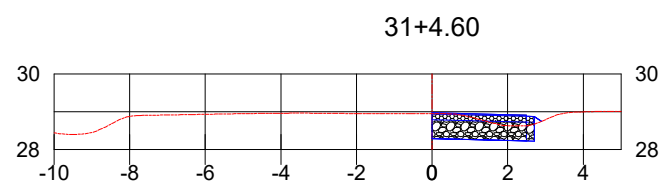
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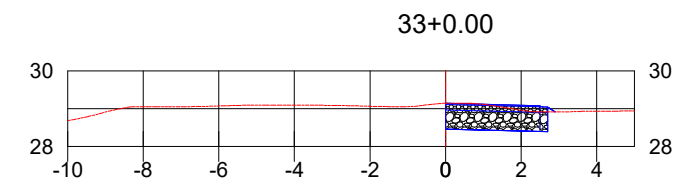
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CT: 28.66
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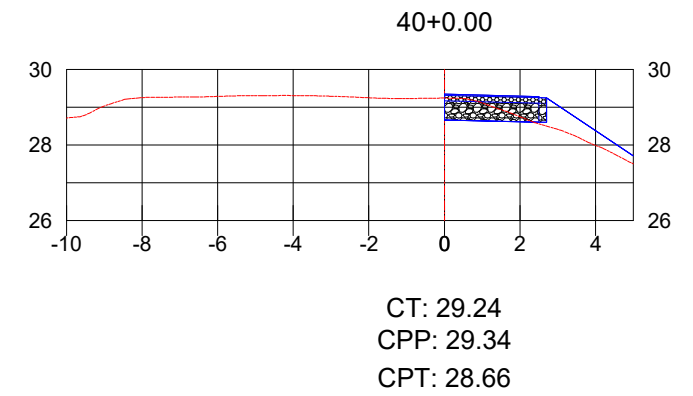
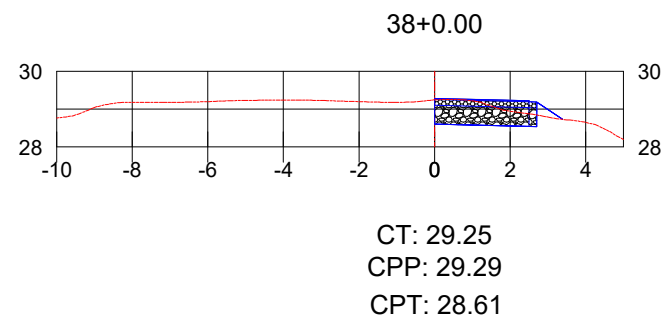
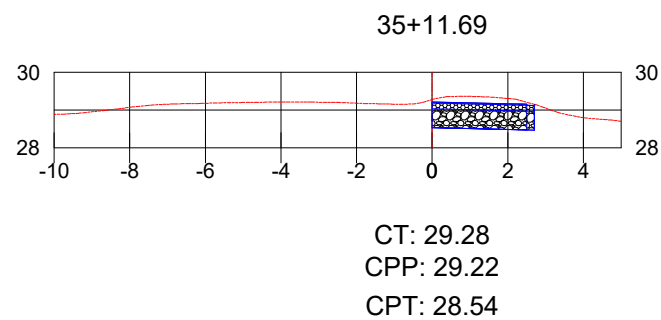
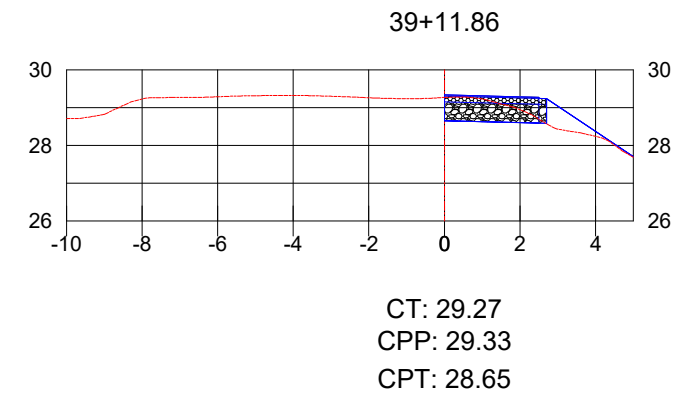
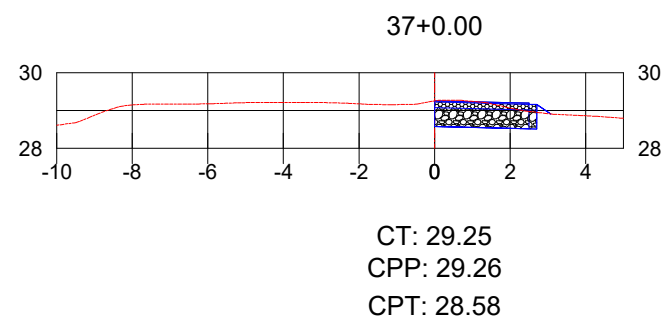
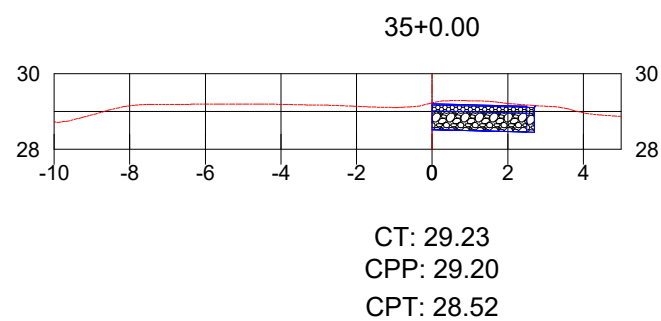
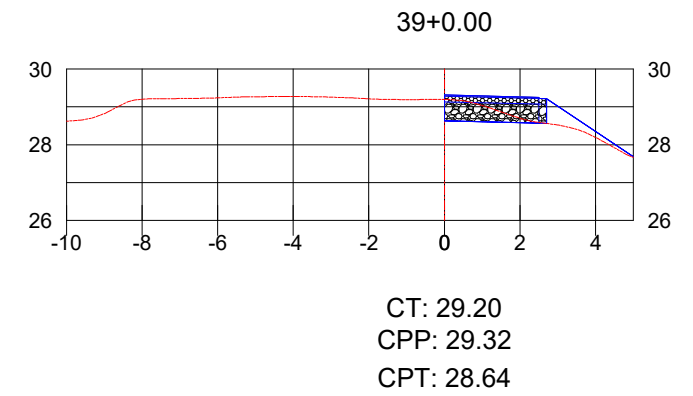
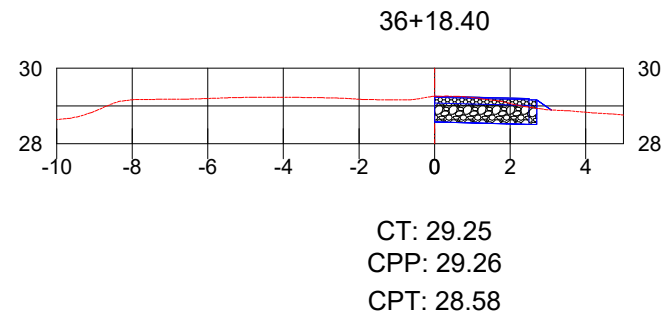
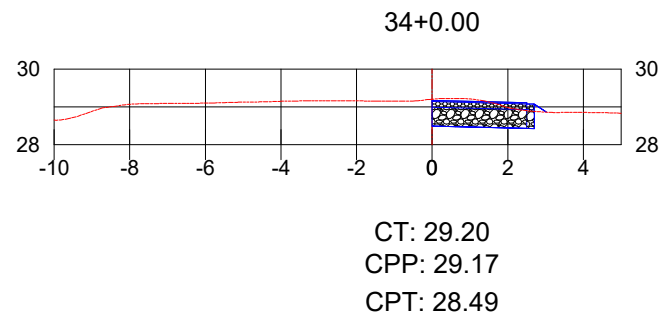
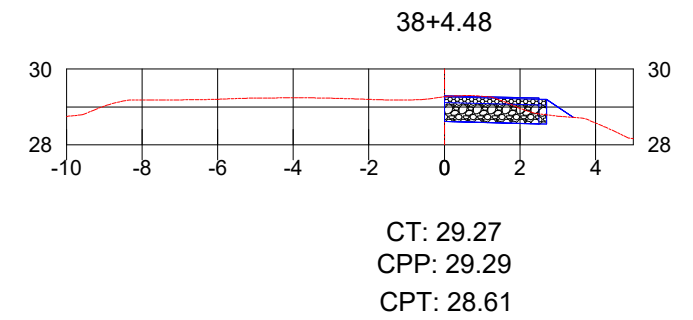
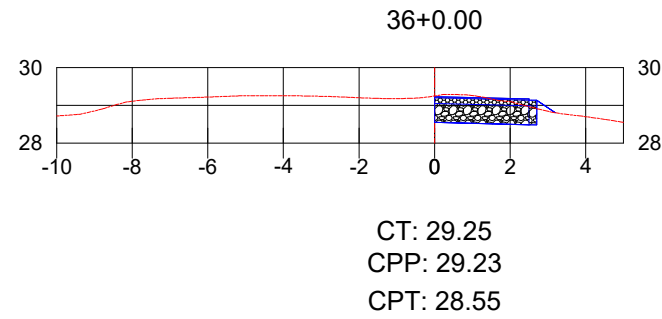
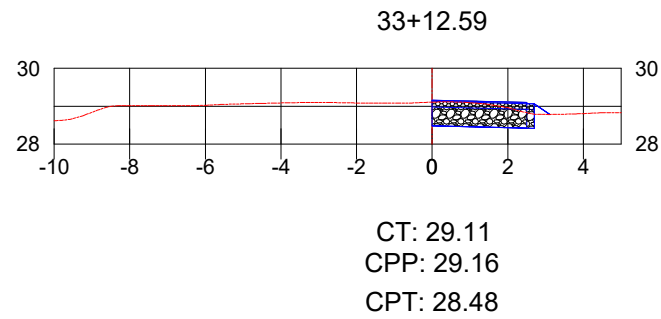


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 CPT: 28.29



CT: 29.14
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 CPT: 28.46

ESCALA: 1/200



ESCALA: 1/200



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

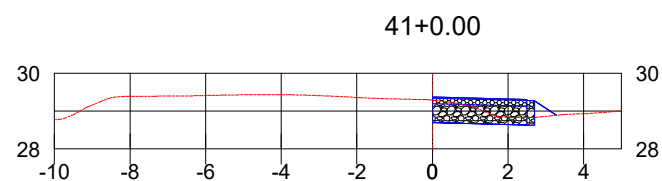
Prancha:
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Obra
R.M. LINHA EYNG

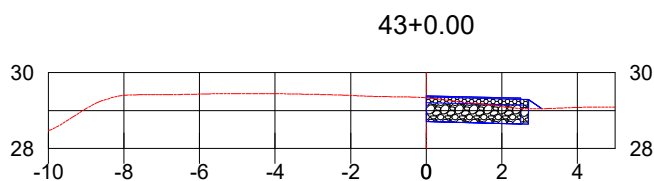
Conteúdo
SEÇÕES DE TERRAPLENAGEM

Local
R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC

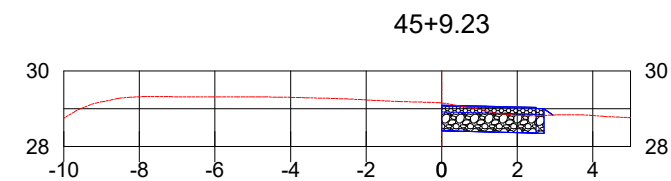
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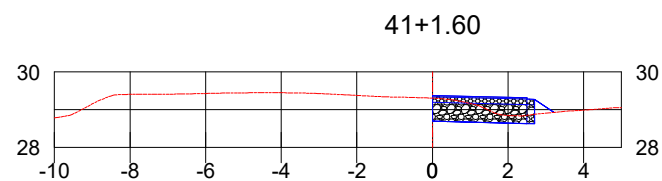
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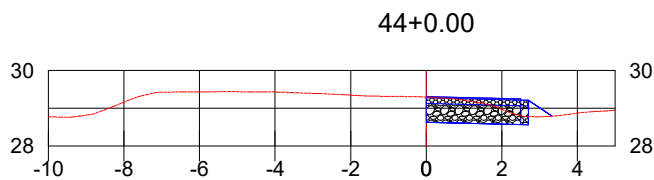
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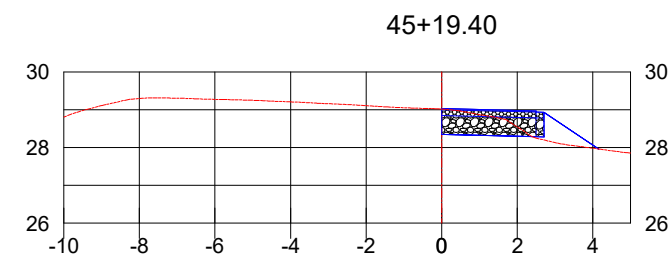
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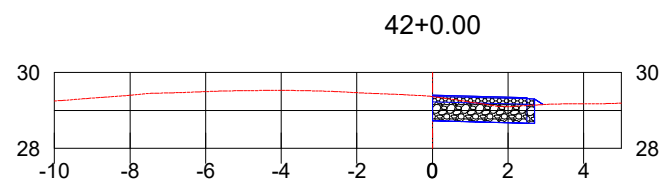
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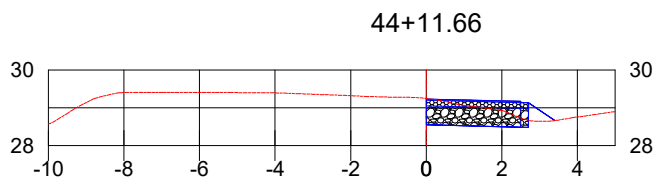
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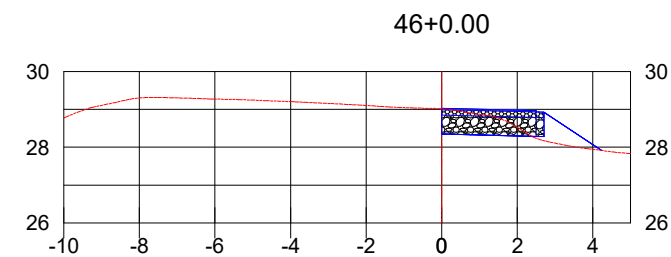
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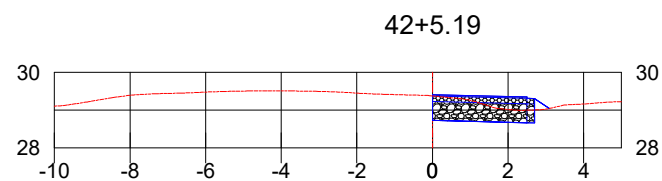
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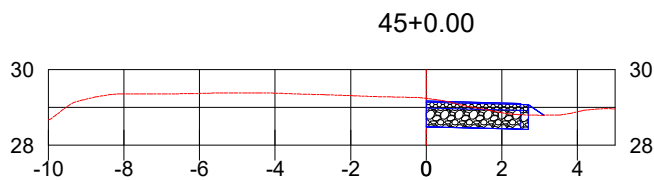
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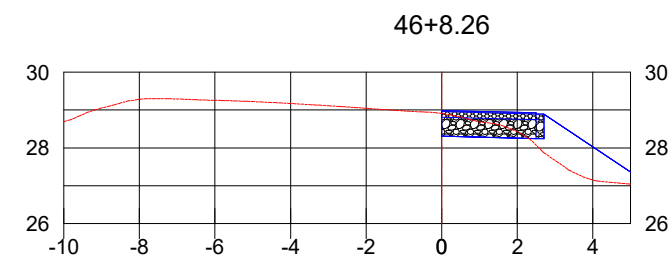
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 CPT: 28.35



CT: 29.37
 CPP: 29.40
 CPT: 28.72



CT: 29.24
 CPP: 29.17
 CPT: 28.49



CT: 28.91
 CPP: 28.99
 CPT: 28.31

ESCALA: 1/200



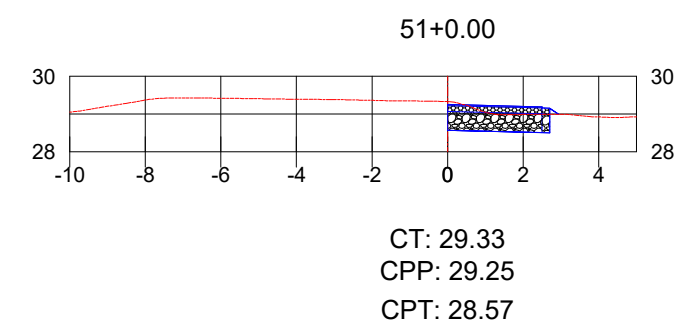
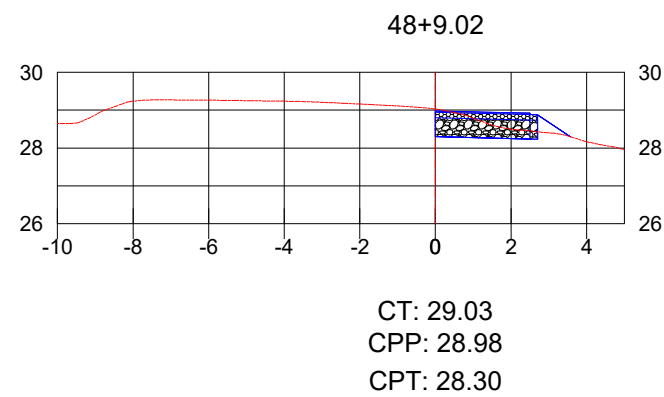
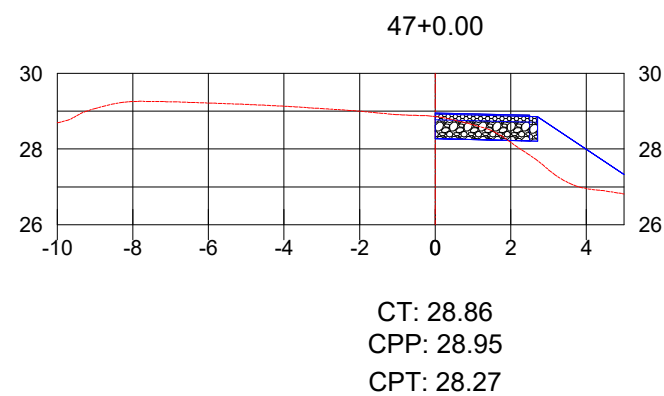
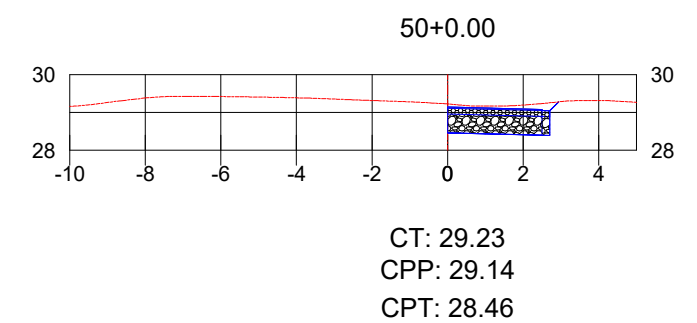
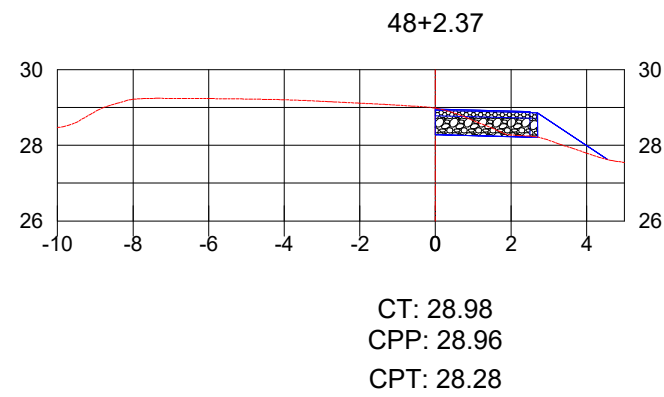
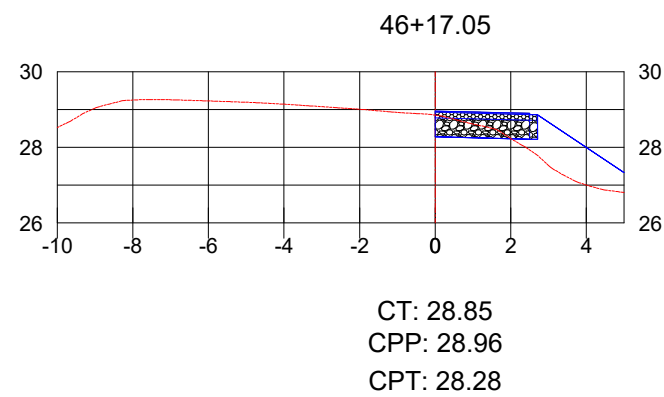
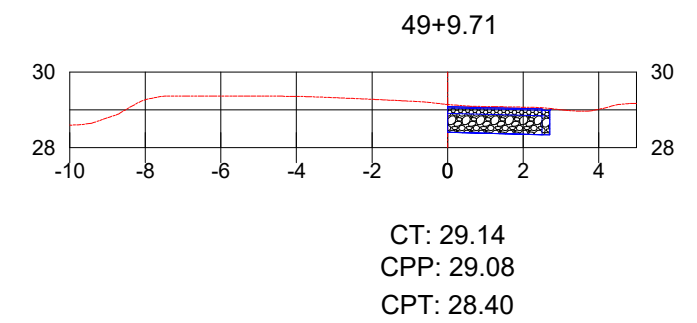
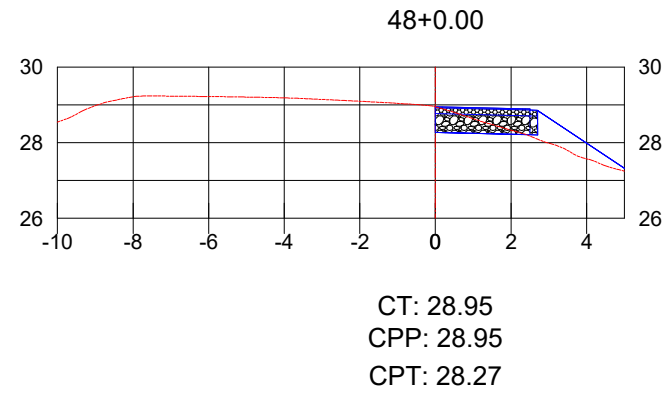
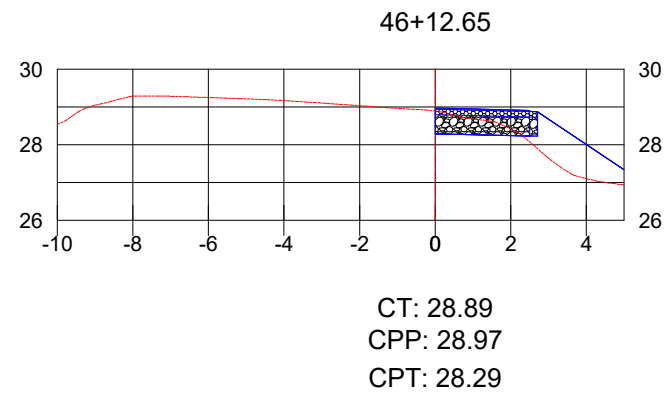
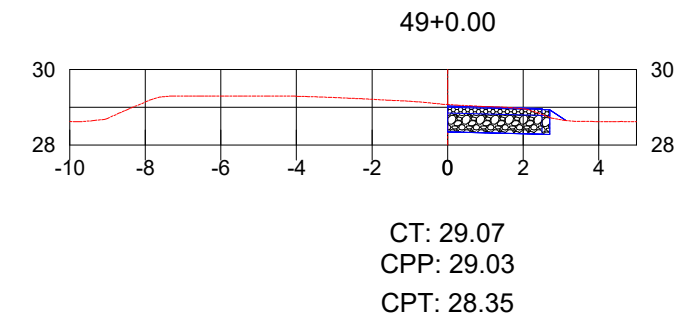
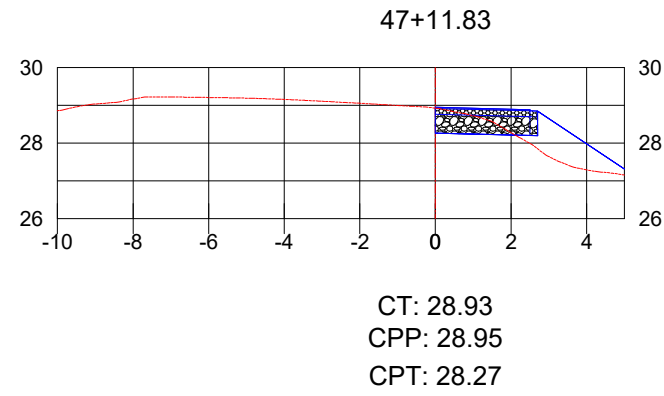
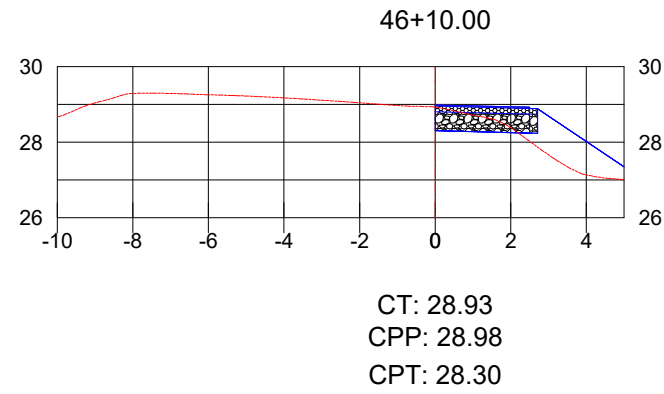
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
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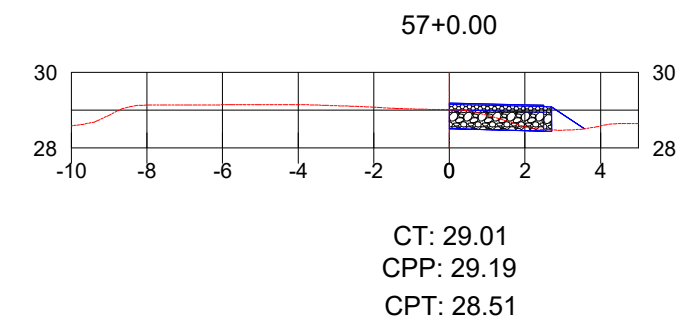
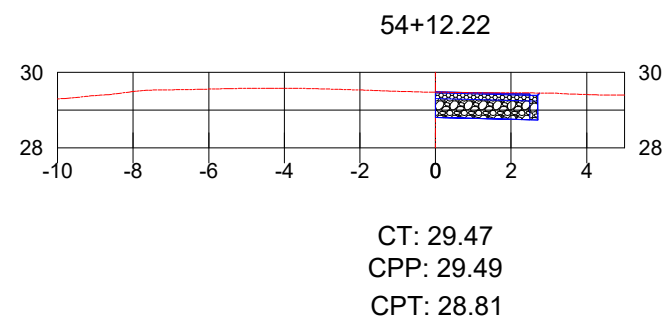
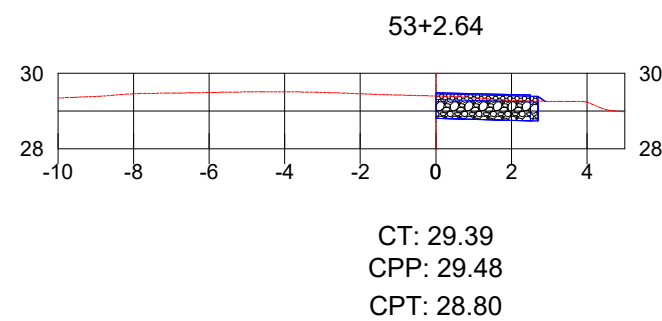
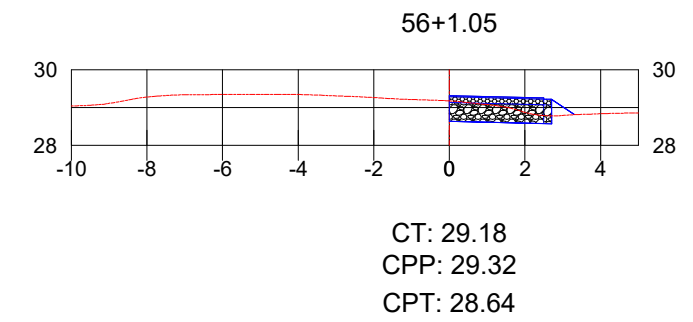
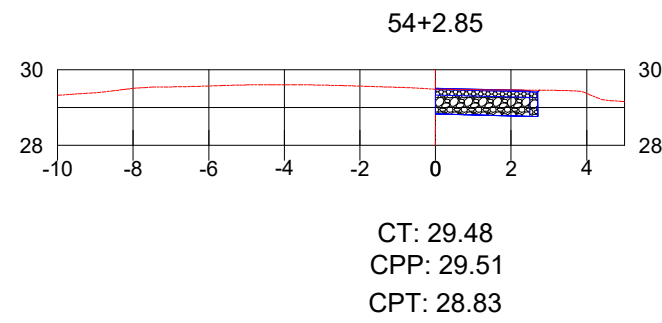
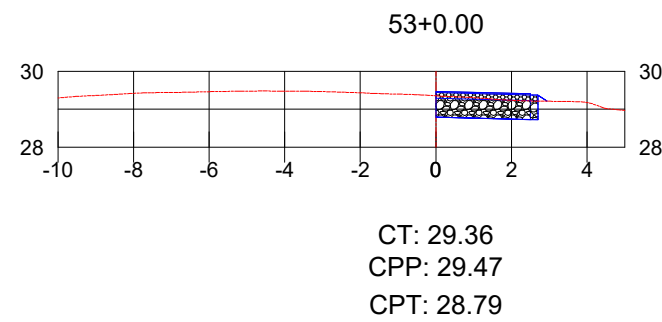
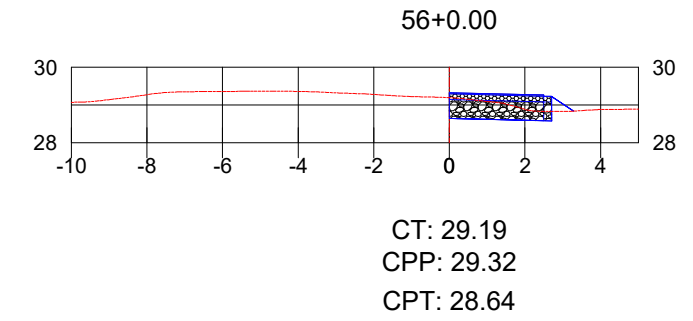
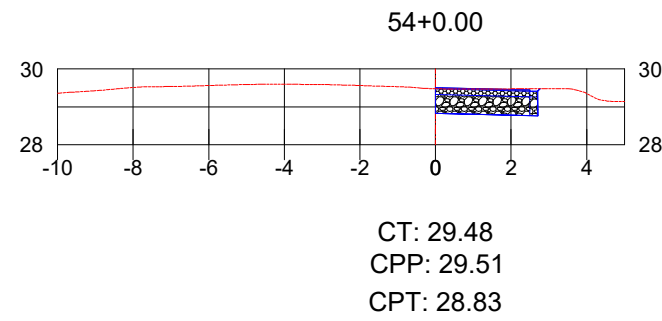
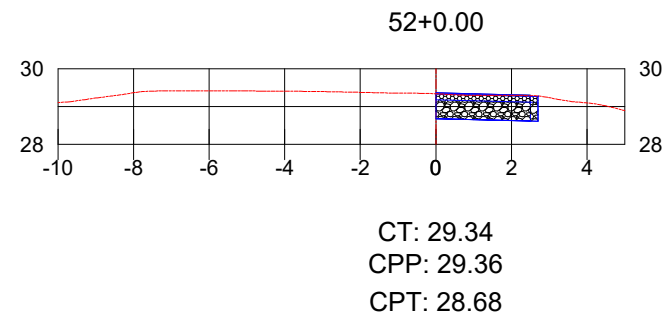
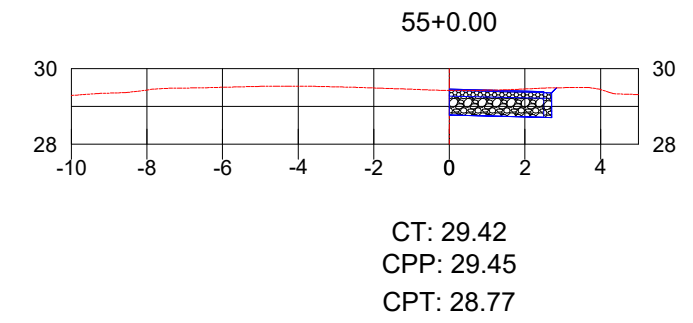
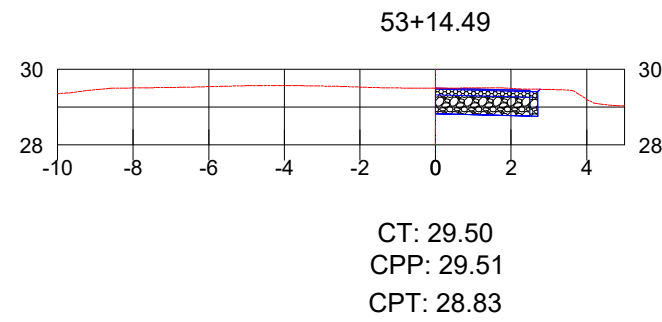
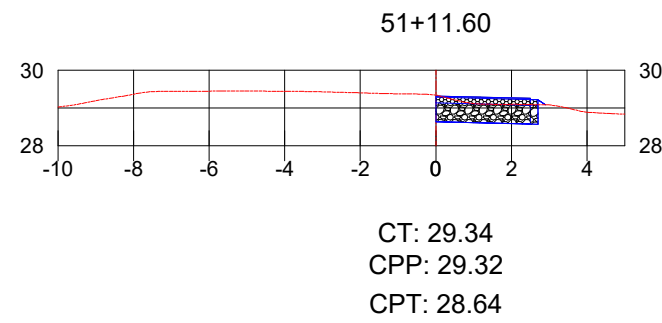
Obra
R.M. LINHA EYNG

Conteúdo
SEÇÕES DE TERRAPLENAGEM

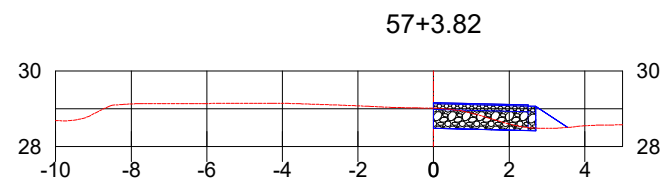
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 R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC



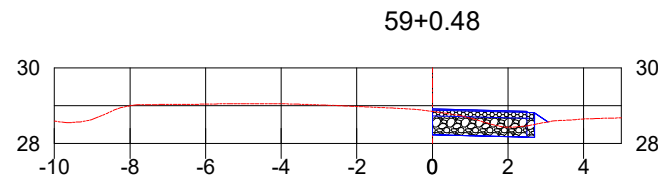
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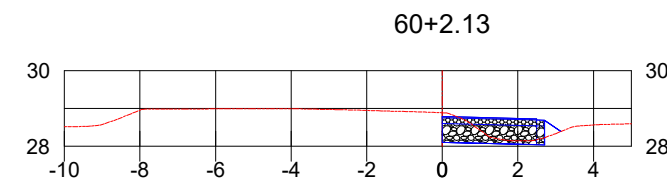
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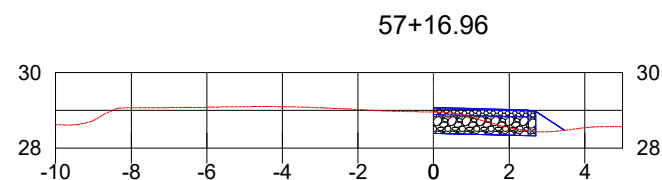
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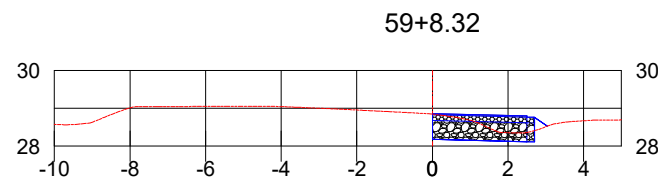
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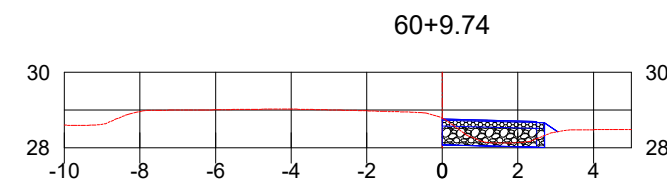
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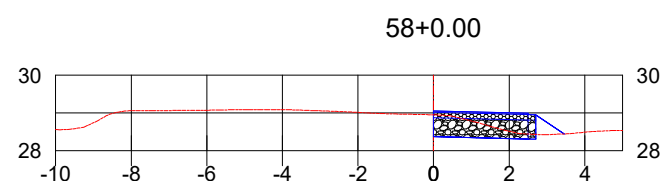
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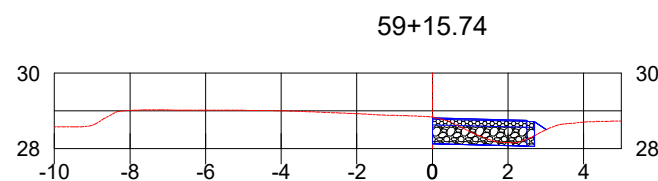
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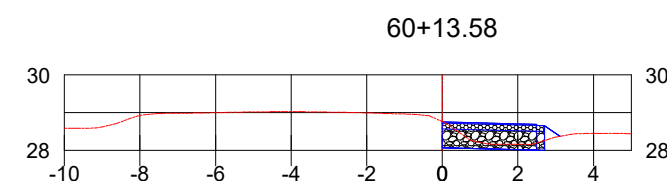
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 CPP: 28.76
 CPT: 28.08



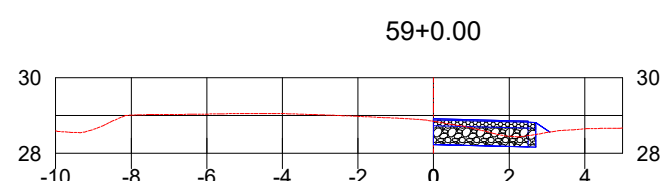
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 CPT: 28.37



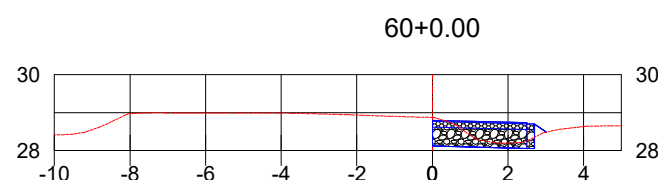
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 CPT: 28.13



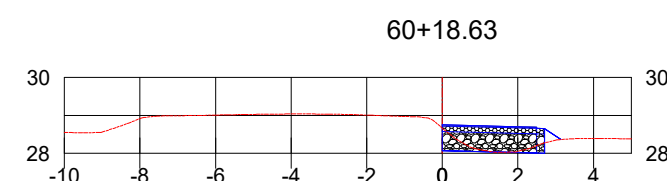
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 CPP: 28.75
 CPT: 28.07



CT: 28.85
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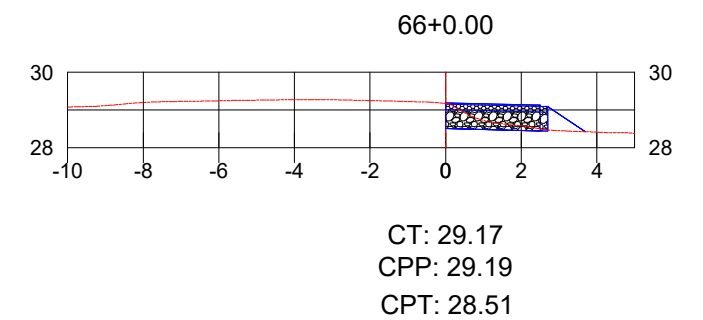
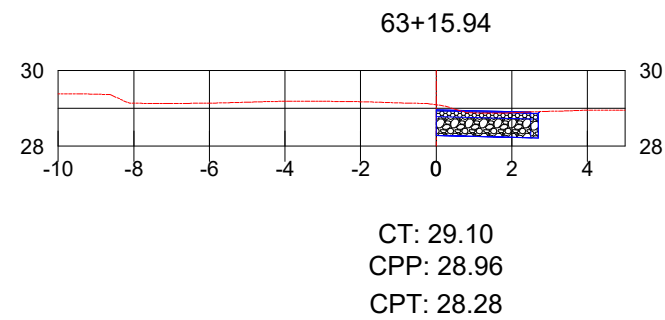
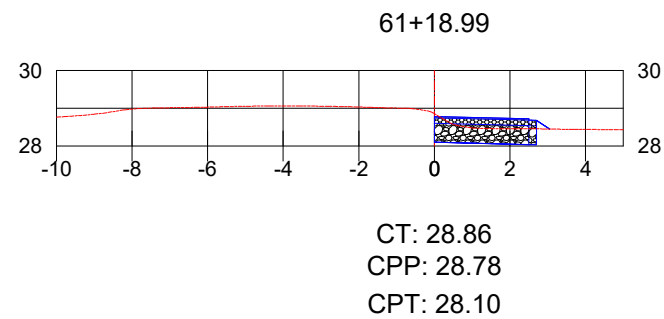
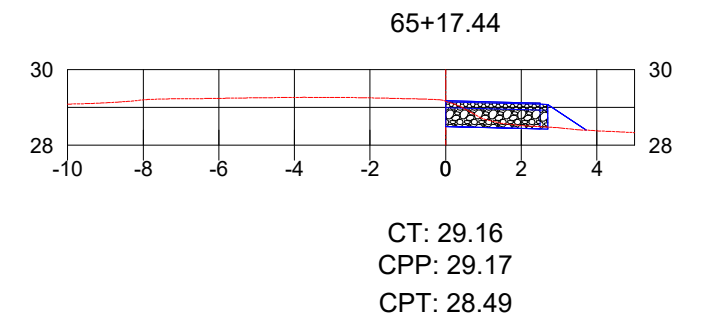
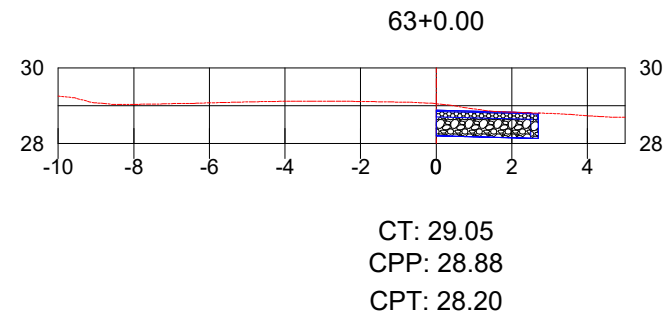
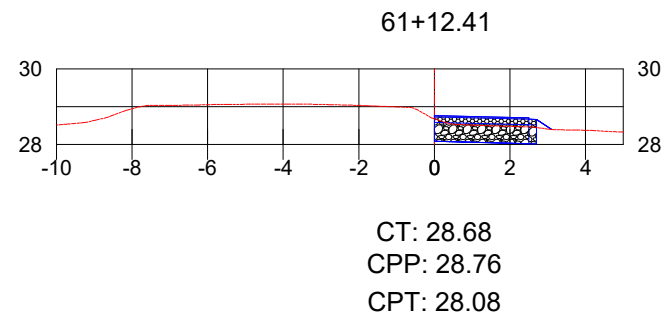
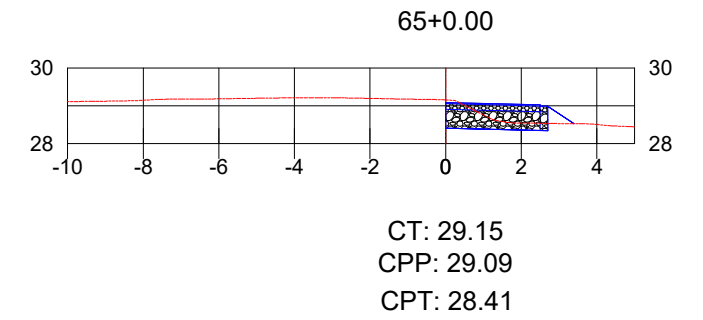
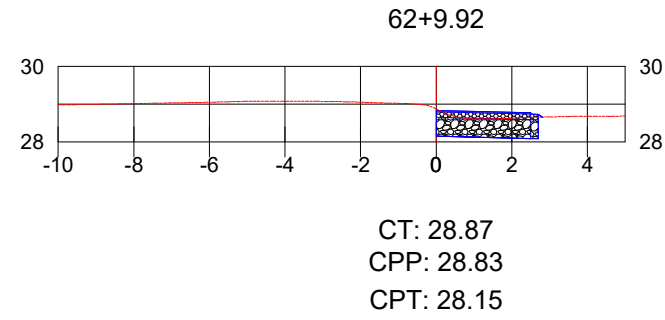
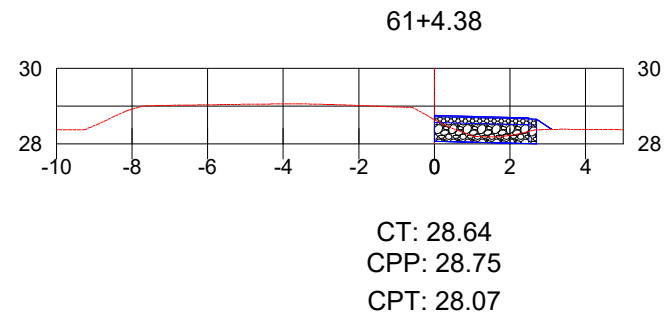
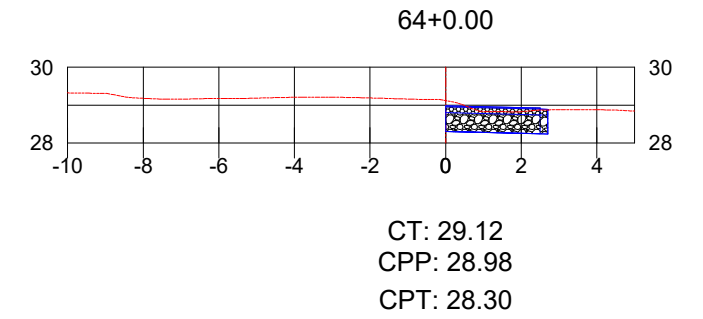
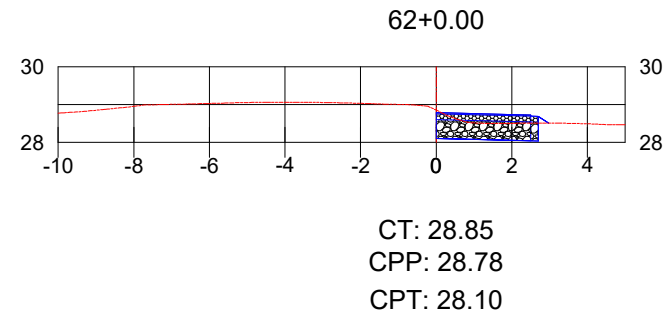
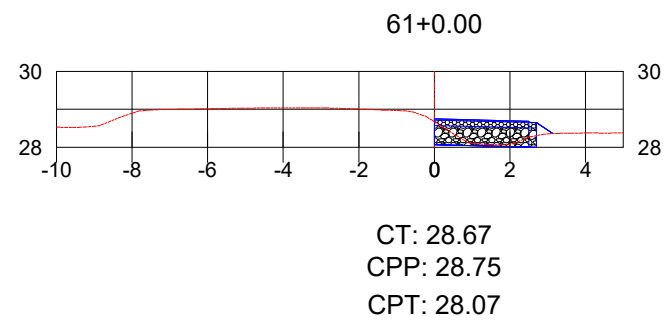


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 CPT: 28.11

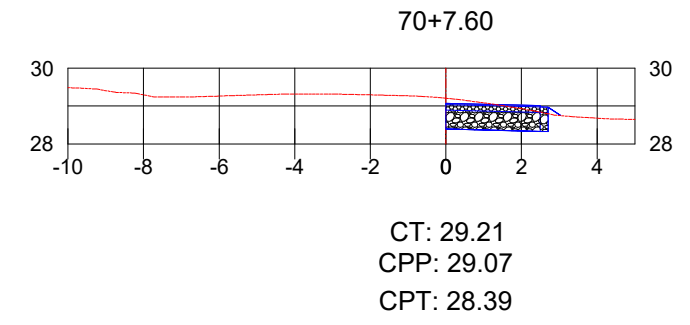
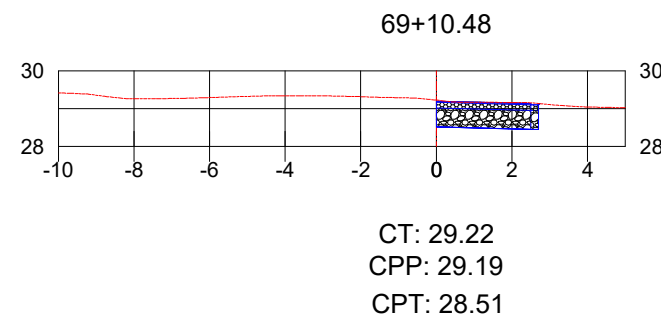
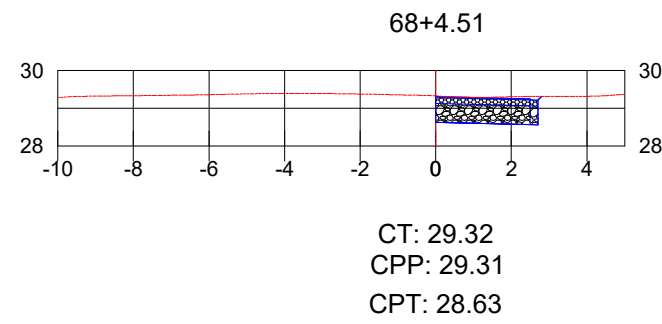
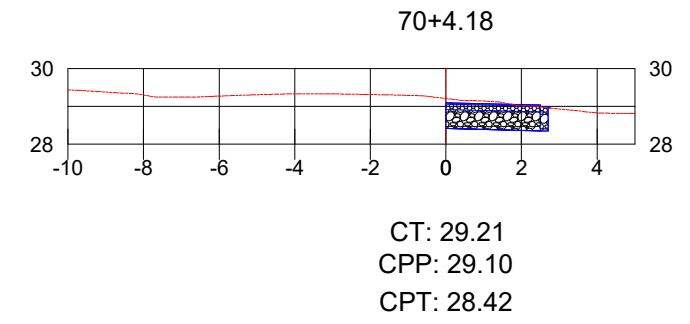
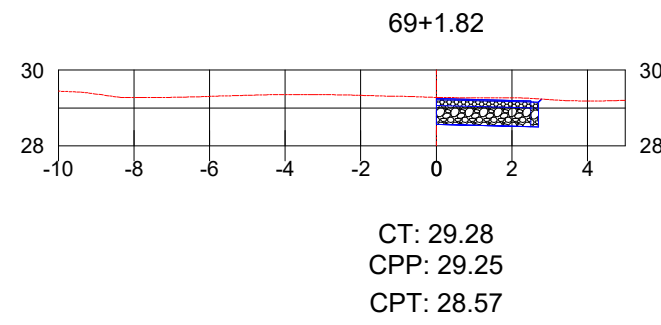
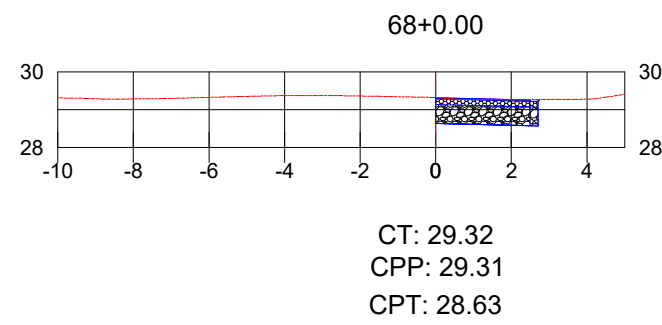
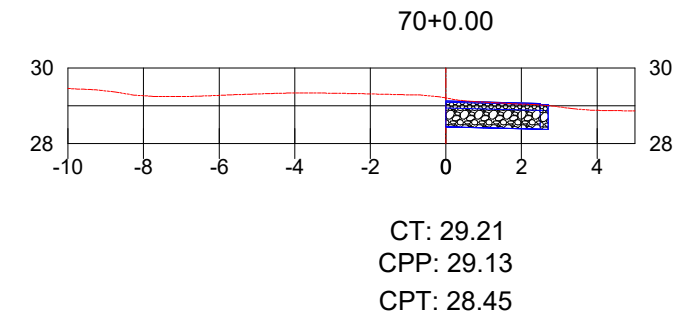
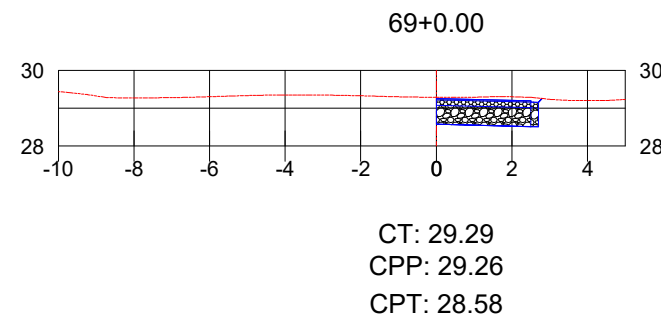
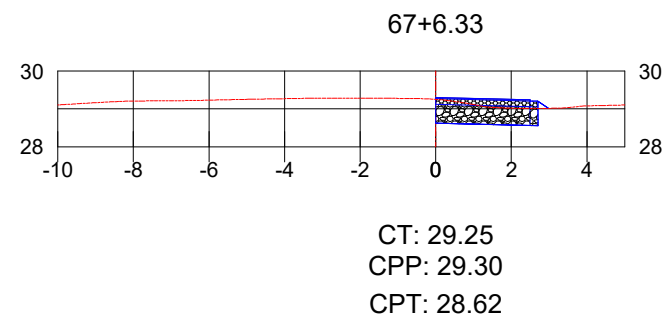
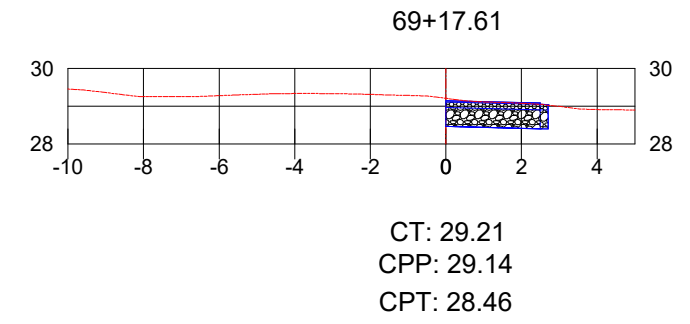
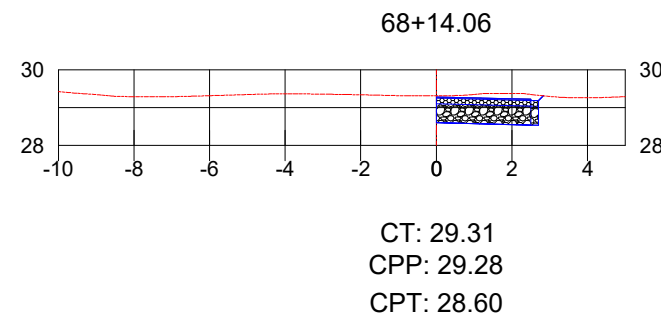
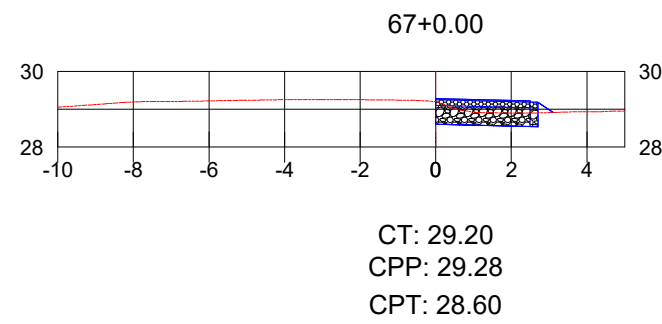


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 CPT: 28.07

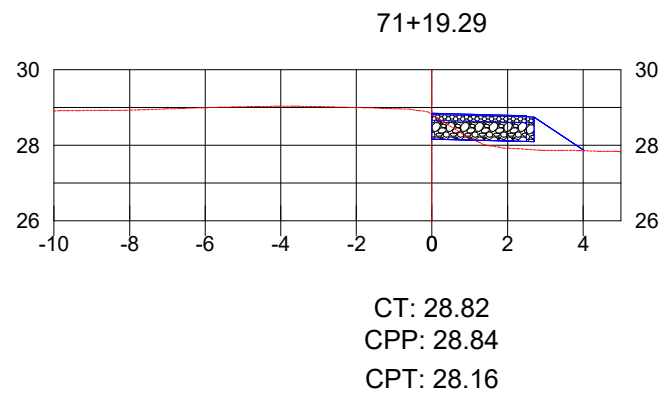
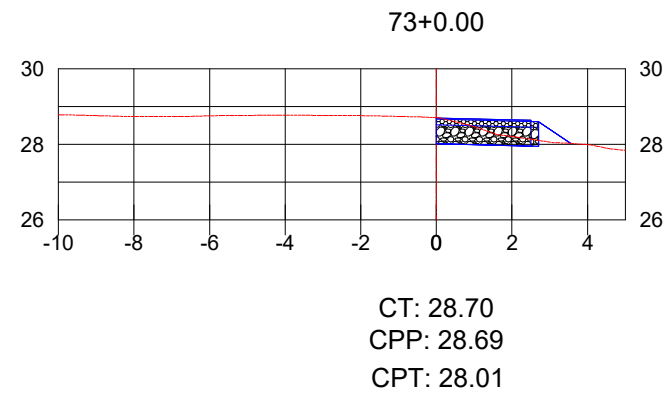
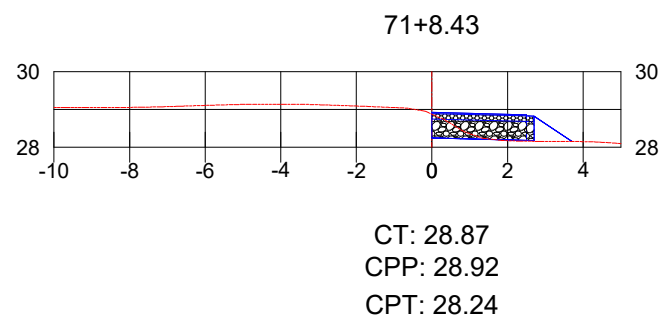
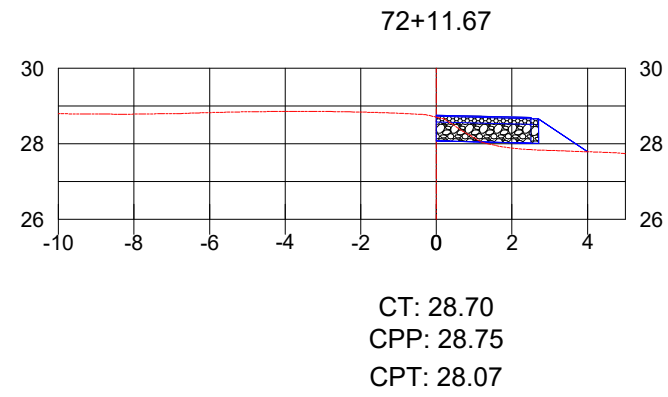
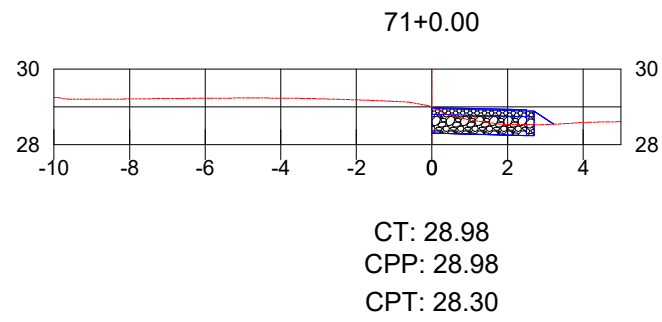
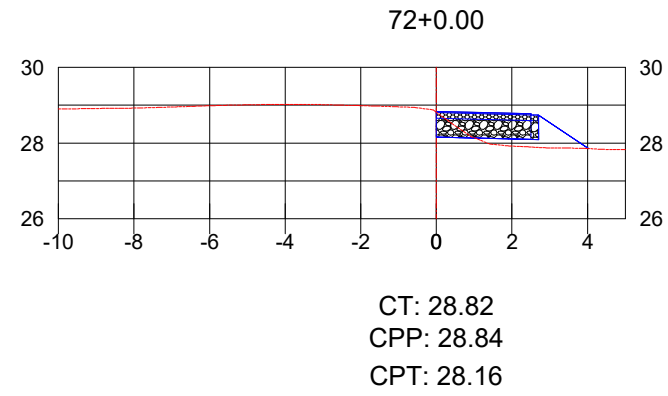
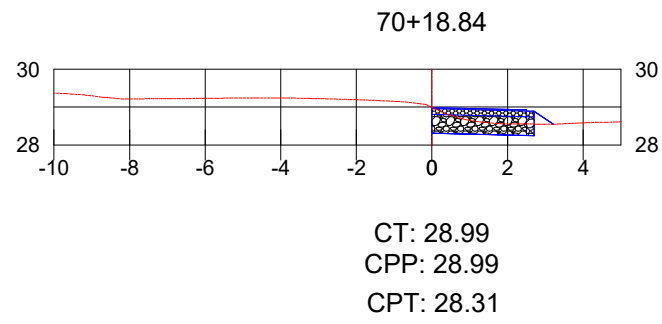
ESCALA: 1/200



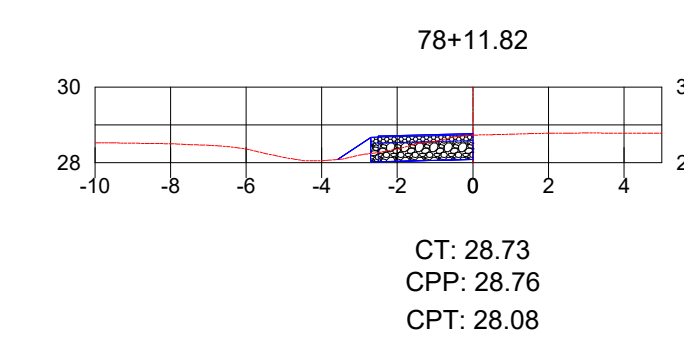
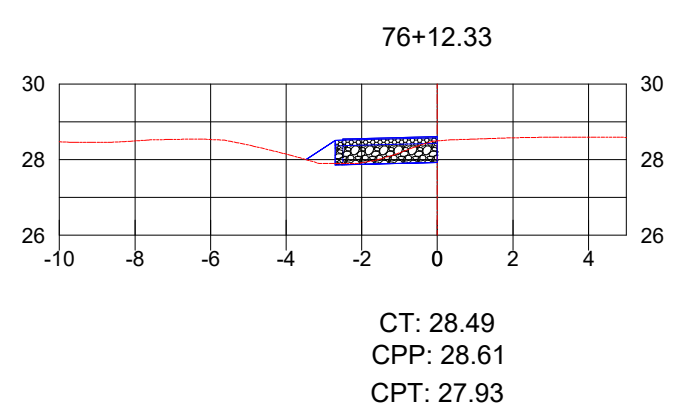
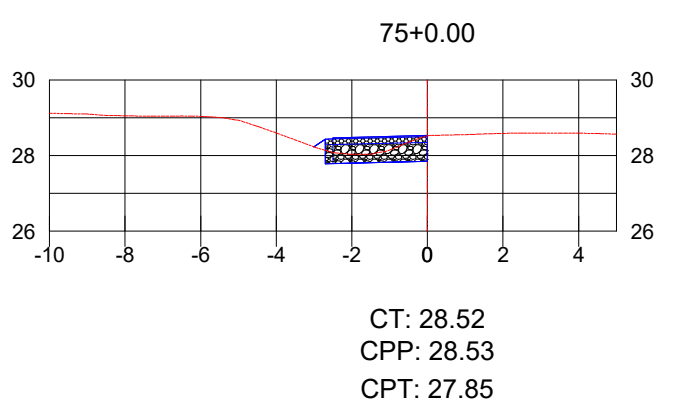
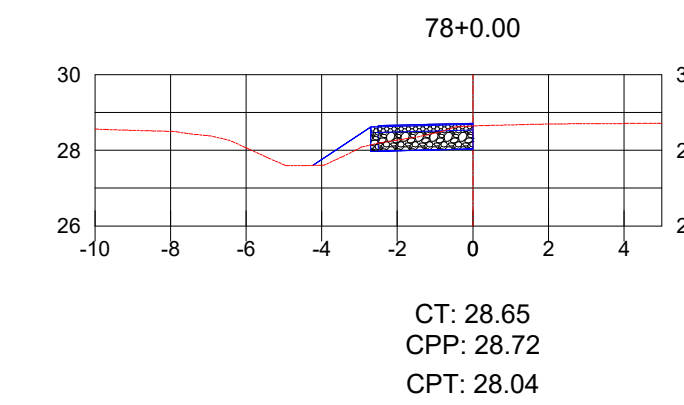
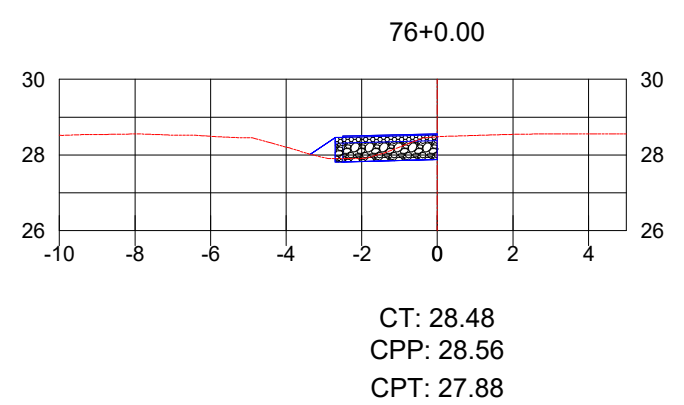
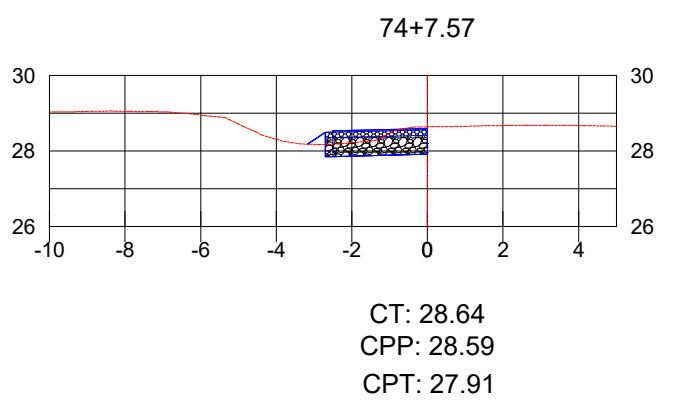
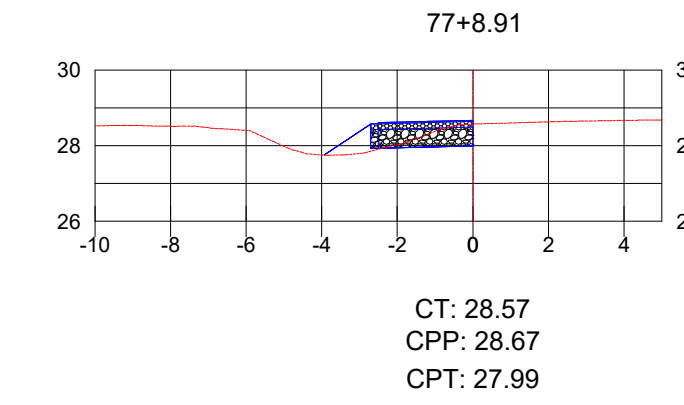
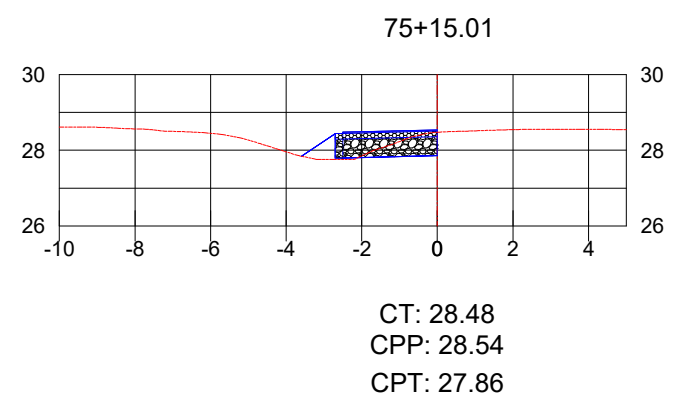
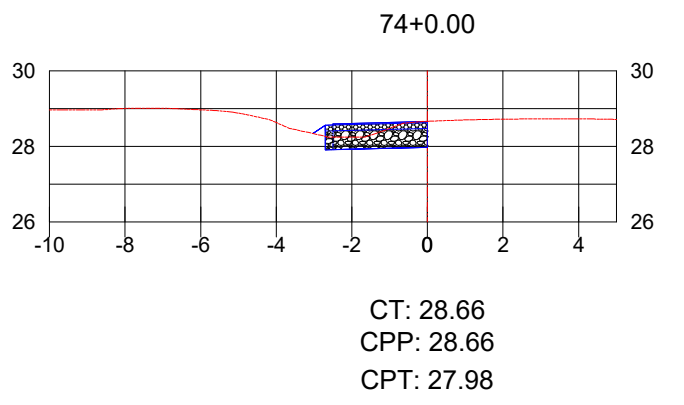
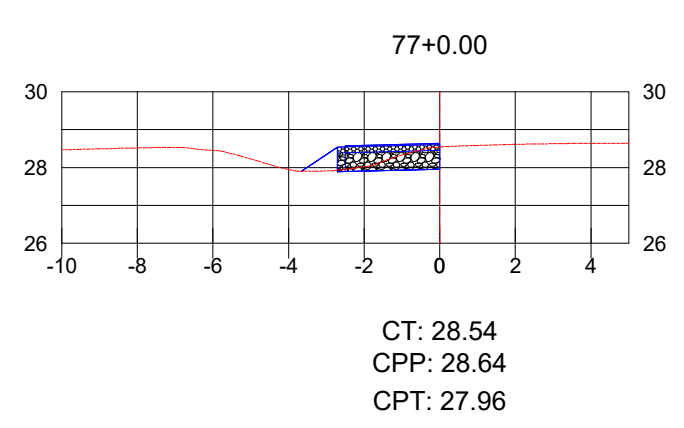
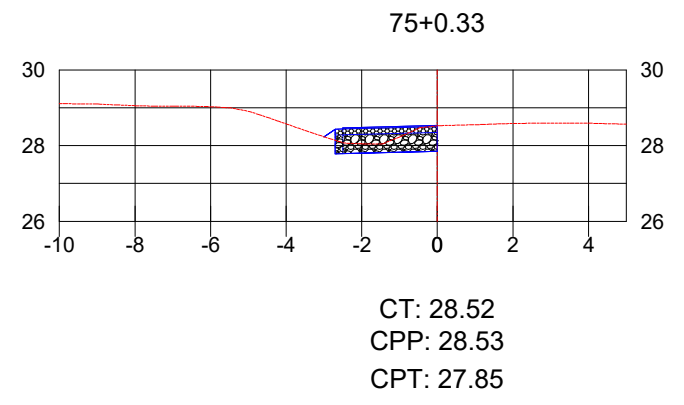
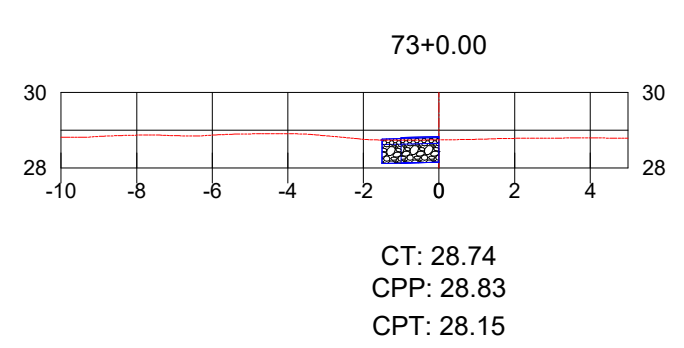
ESCALA: 1/200



ESCALA: 1/200



ESCALA: 1/200



ESCALA: 1/200



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

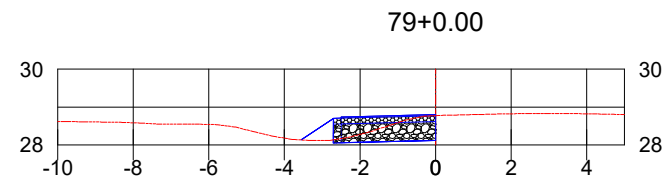
Prancha:
1 / 03

Obra
R.M. LINHA EYNG

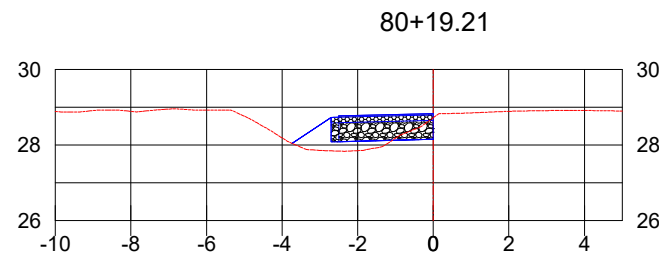
Conteúdo
SEÇÕES DE TERRAPLENAGEM

Local
R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC

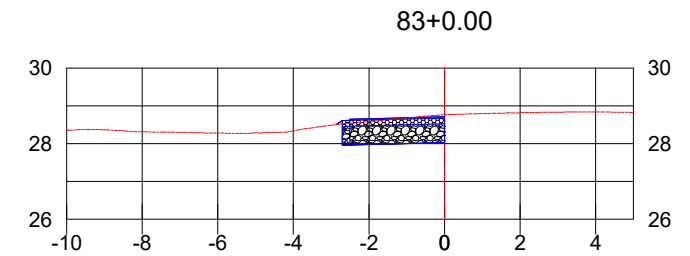
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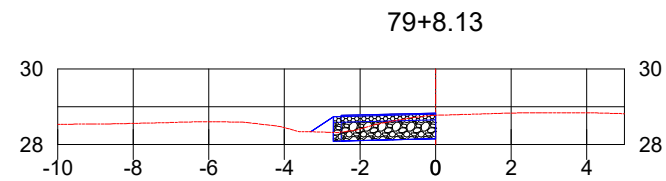
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 CPT: 28.12



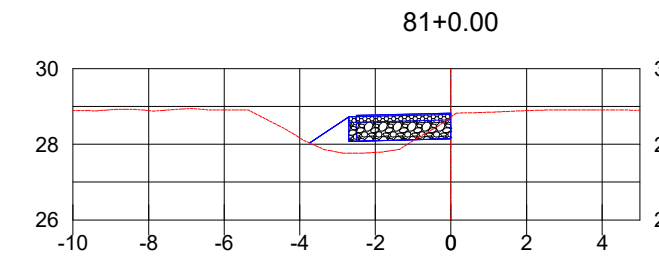
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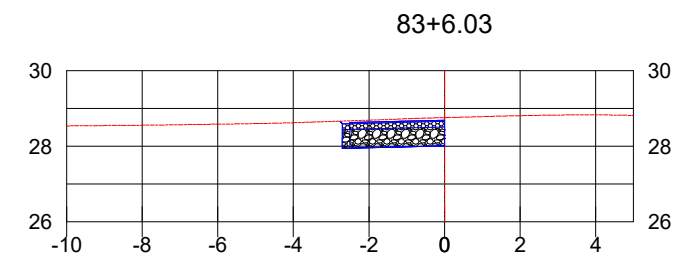
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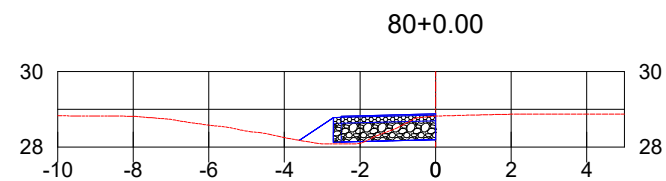
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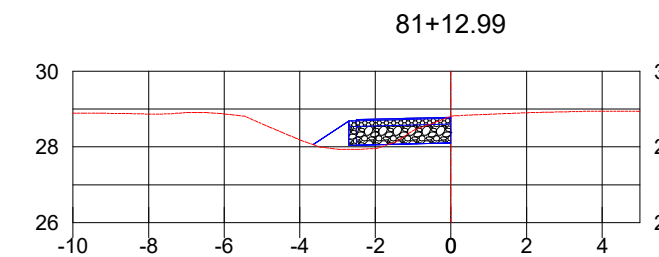
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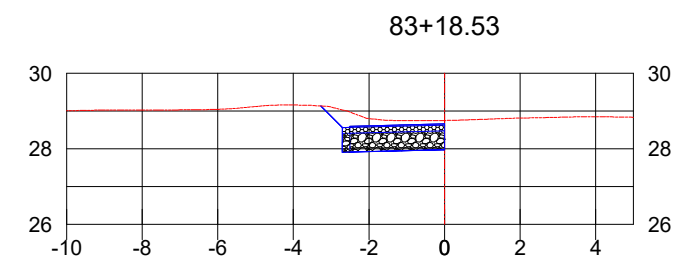
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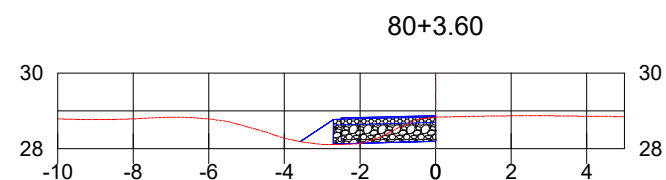
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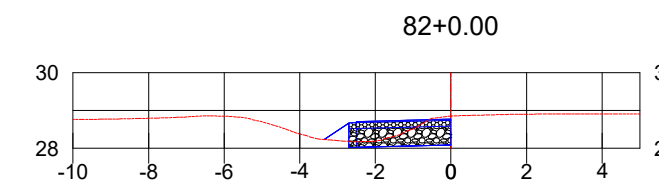
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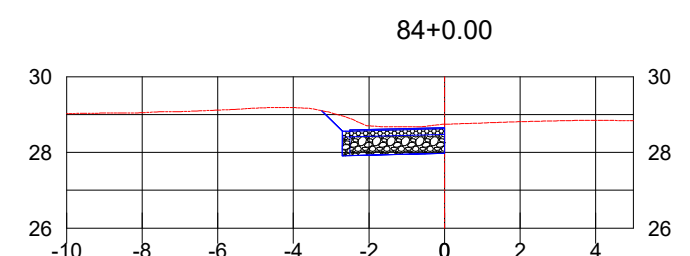
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 CPP: 28.66
 CPT: 27.98



CT: 28.83
 CPP: 28.87
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CT: 28.85
 CPP: 28.77
 CPT: 28.09



CT: 28.75
 CPP: 28.66
 CPT: 27.98

ESCALA: 1/200



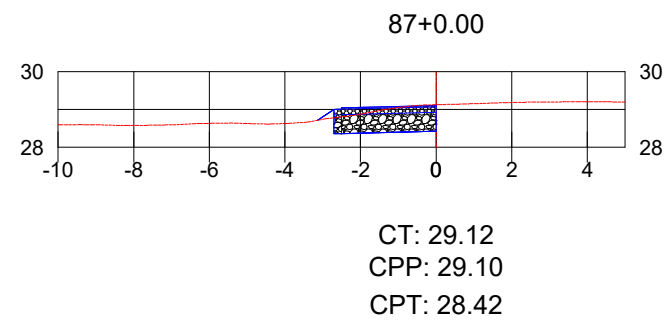
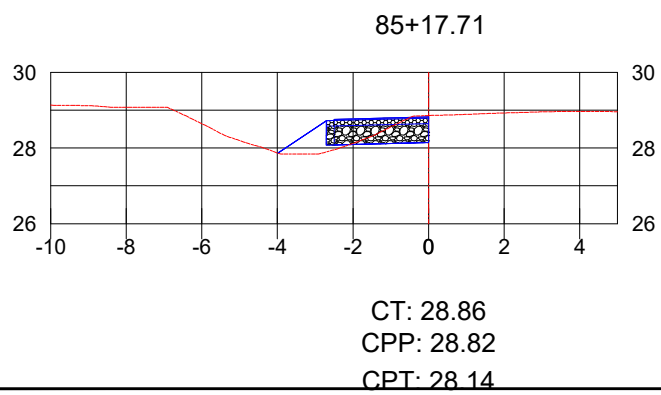
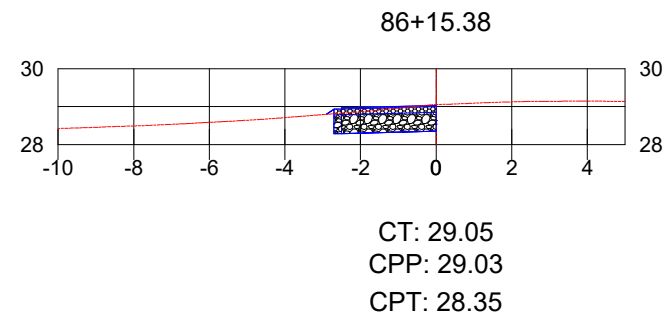
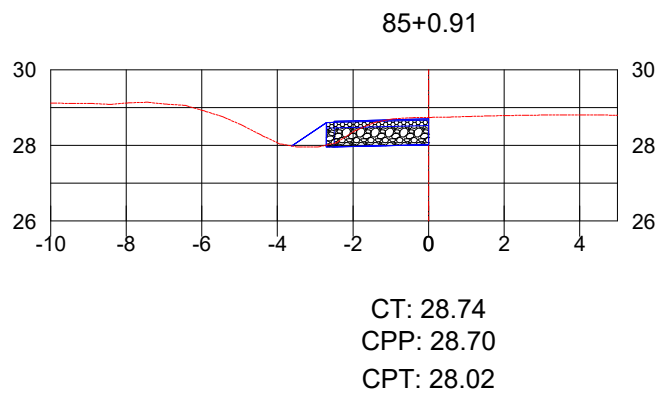
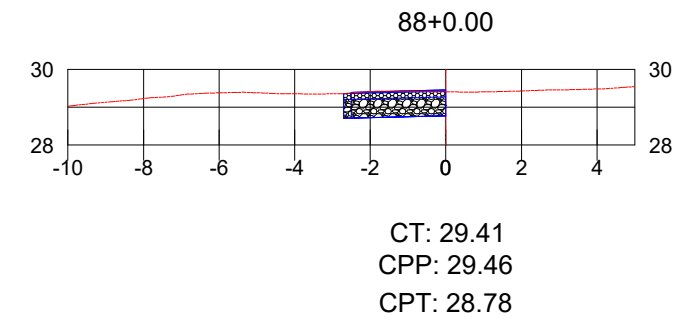
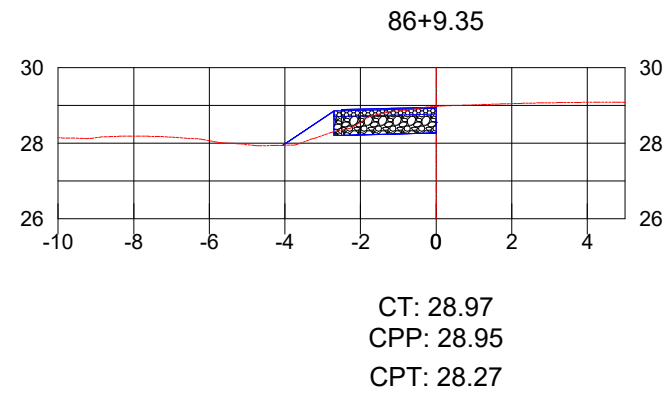
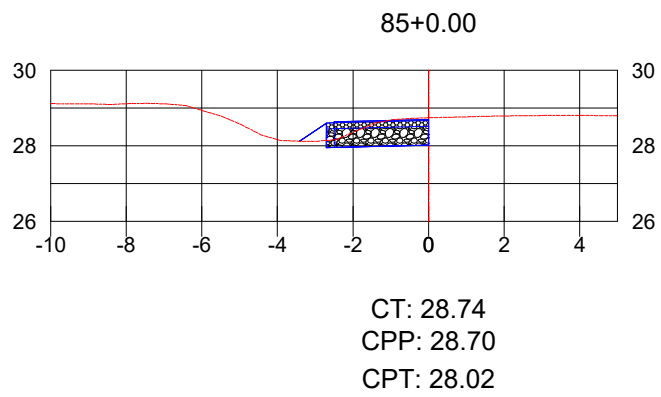
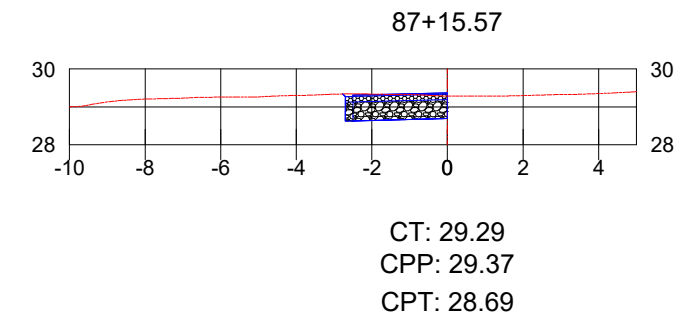
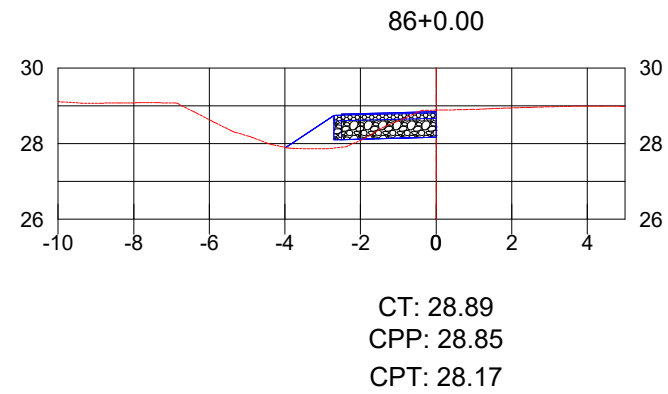
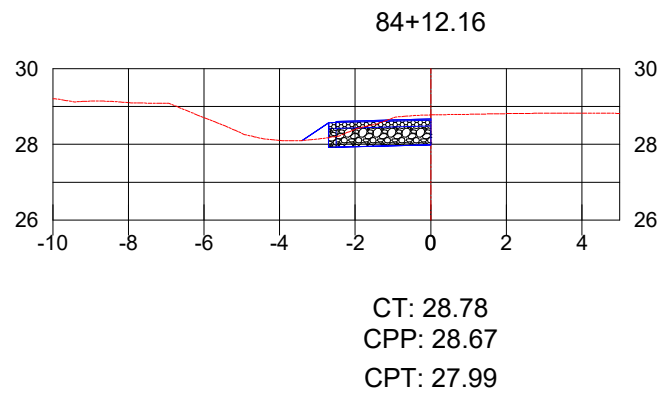
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
2 / 03

Obra
R.M. LINHA EYNG

Conteúdo
SEÇÕES DE TERRAPLENAGEM

Local
 R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC



ESCALA: 1/200



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
3 / 03

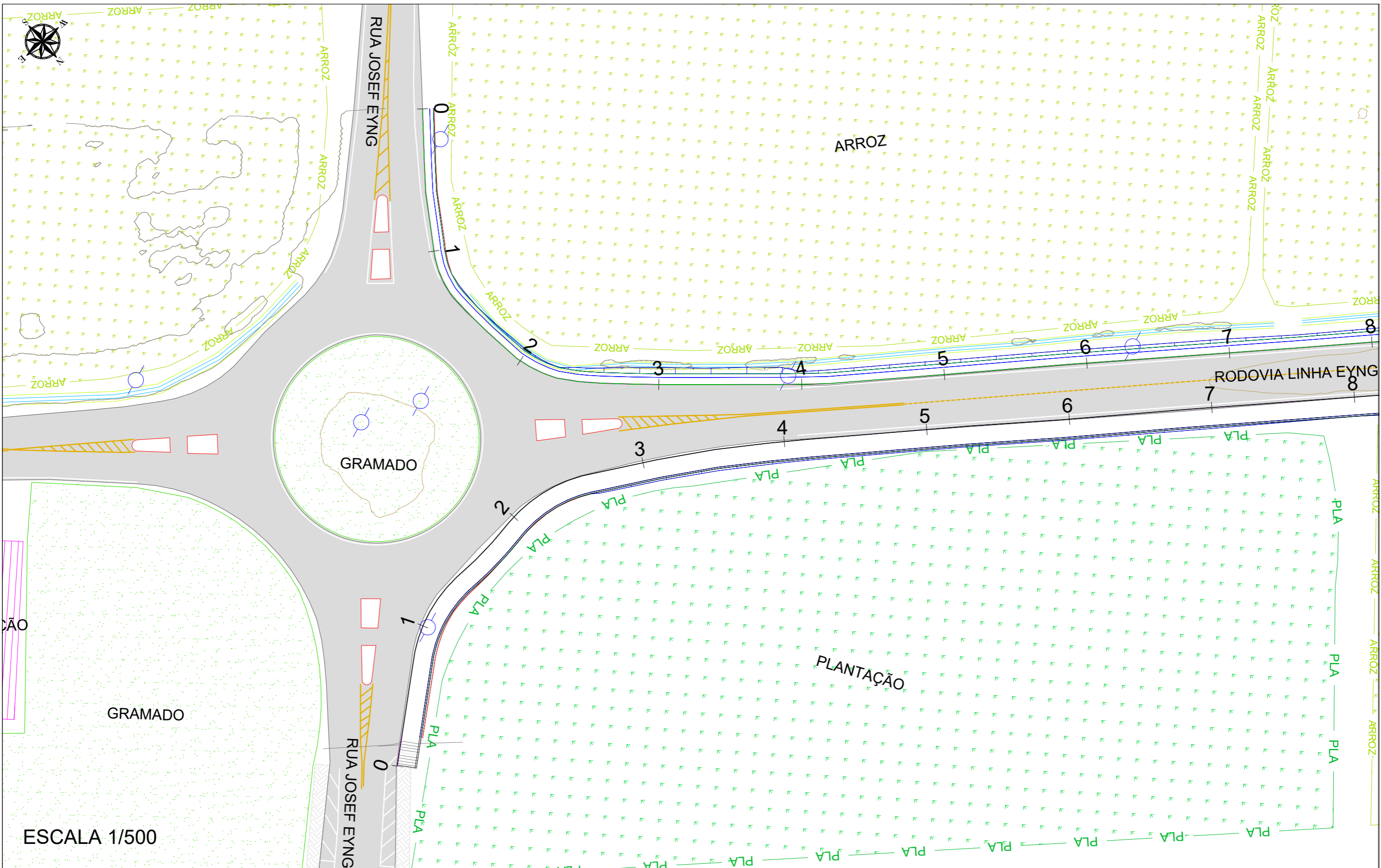
Obra
R.M. LINHA EYNG

Conteúdo
SEÇÕES DE TERRAPLENAGEM

Local
R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC

PROJETO DE DRENAGEM

-- Planta e Detalhes

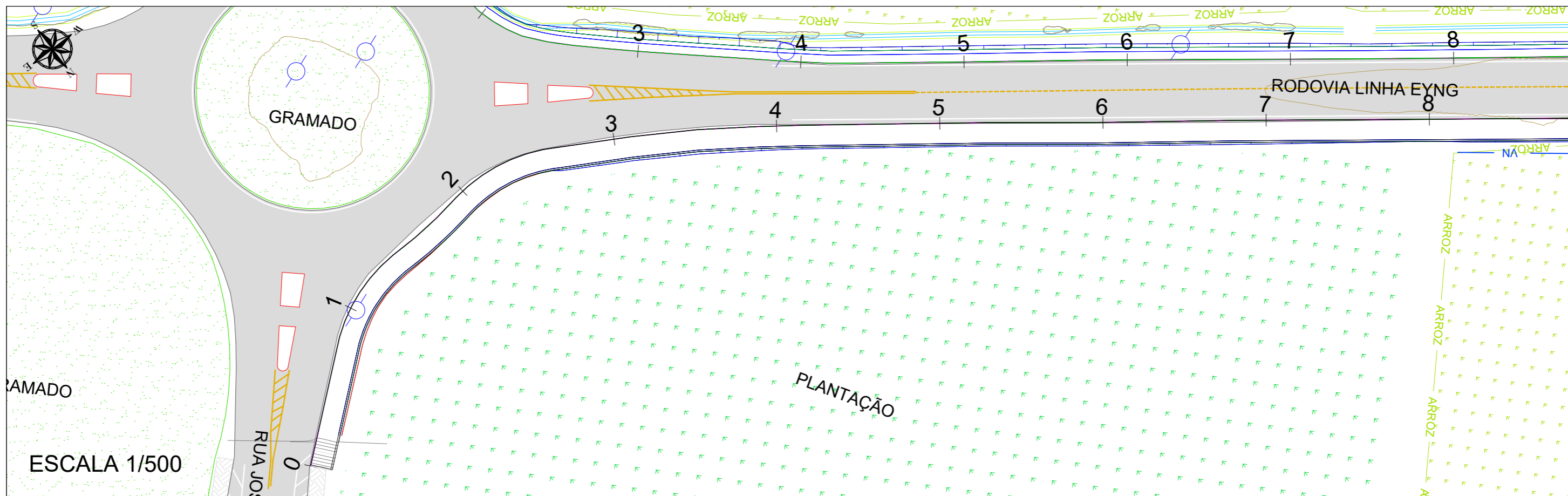


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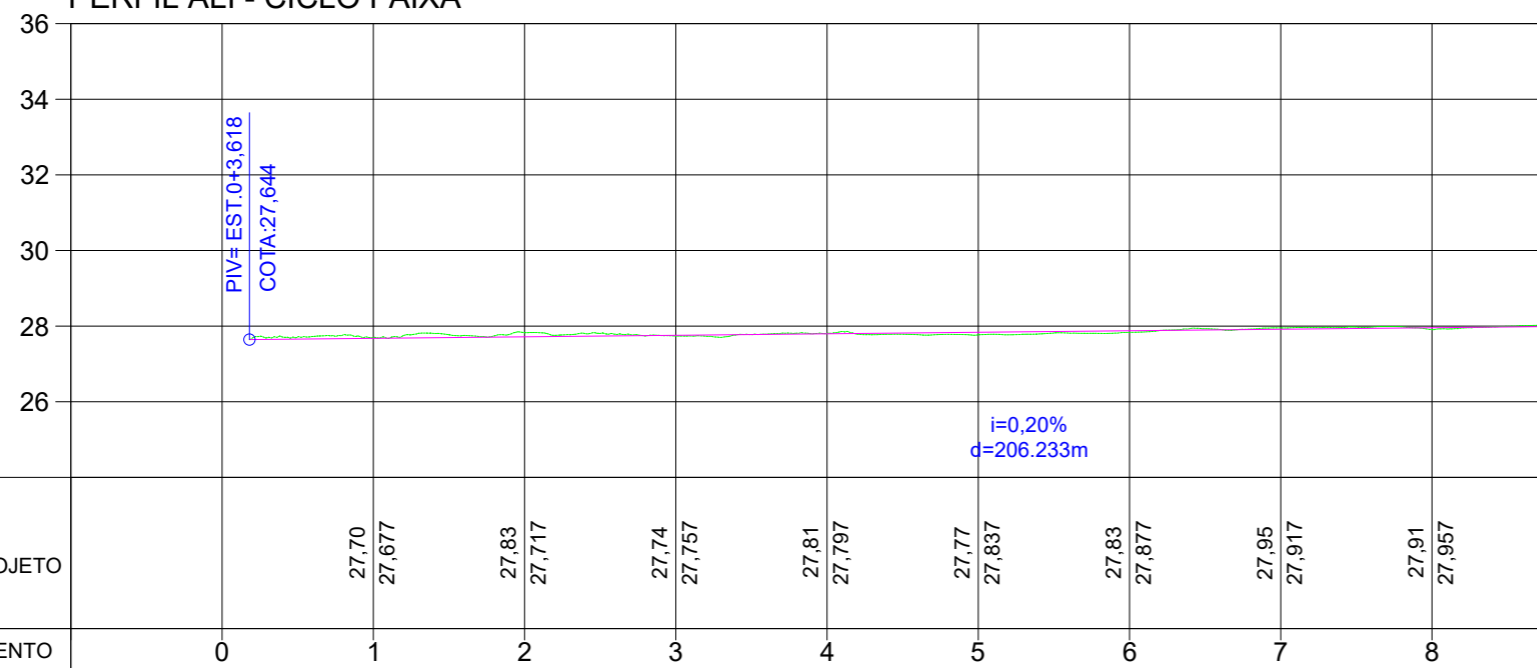
IDEALIZE
 ARQUITETURA, ENGENHARIA E AGRIMENSURA
 CREA/SC - 169873-0



Autor do projeto: BRUNO FRIGO PASINI ENGENHEIRO CIVIL - CREA/SC 137.007-9		Obra R.M. LINHA EYNG
Prancha: 01/12		Conteúdo PROJETO GEOMETRICO
		Local R.M. LINHA EYNG - LINHA EYNG - FORQUILHINA/SC



PERFIL ALI - CICLO FAIXA



ESCALA 1/1000



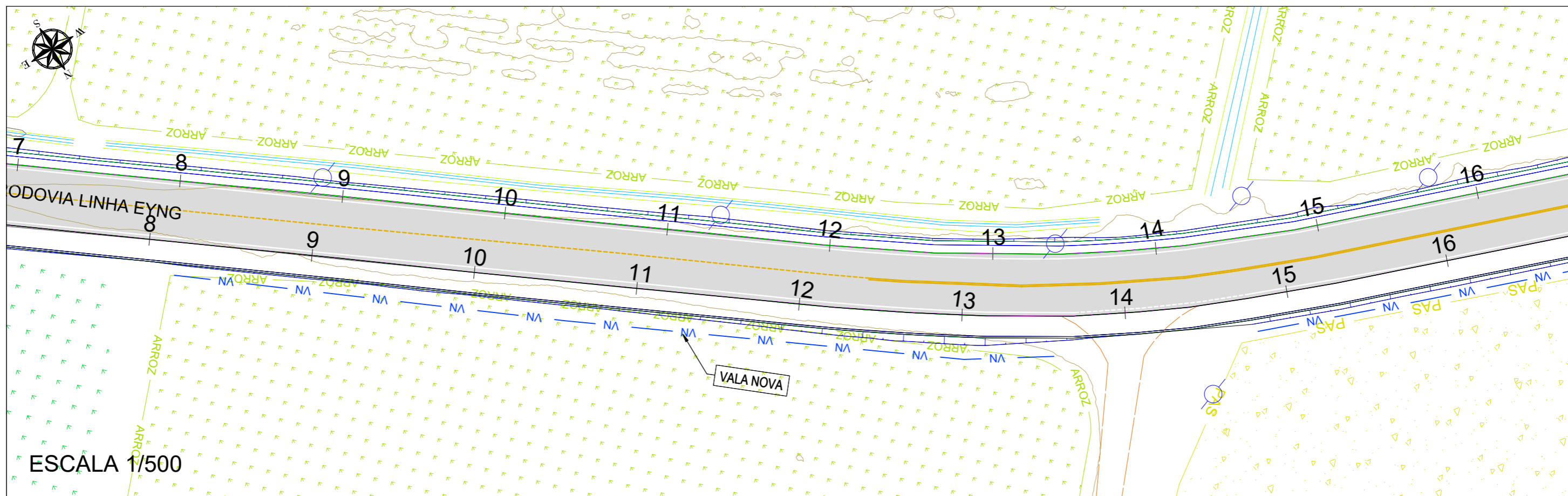
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
 02/12

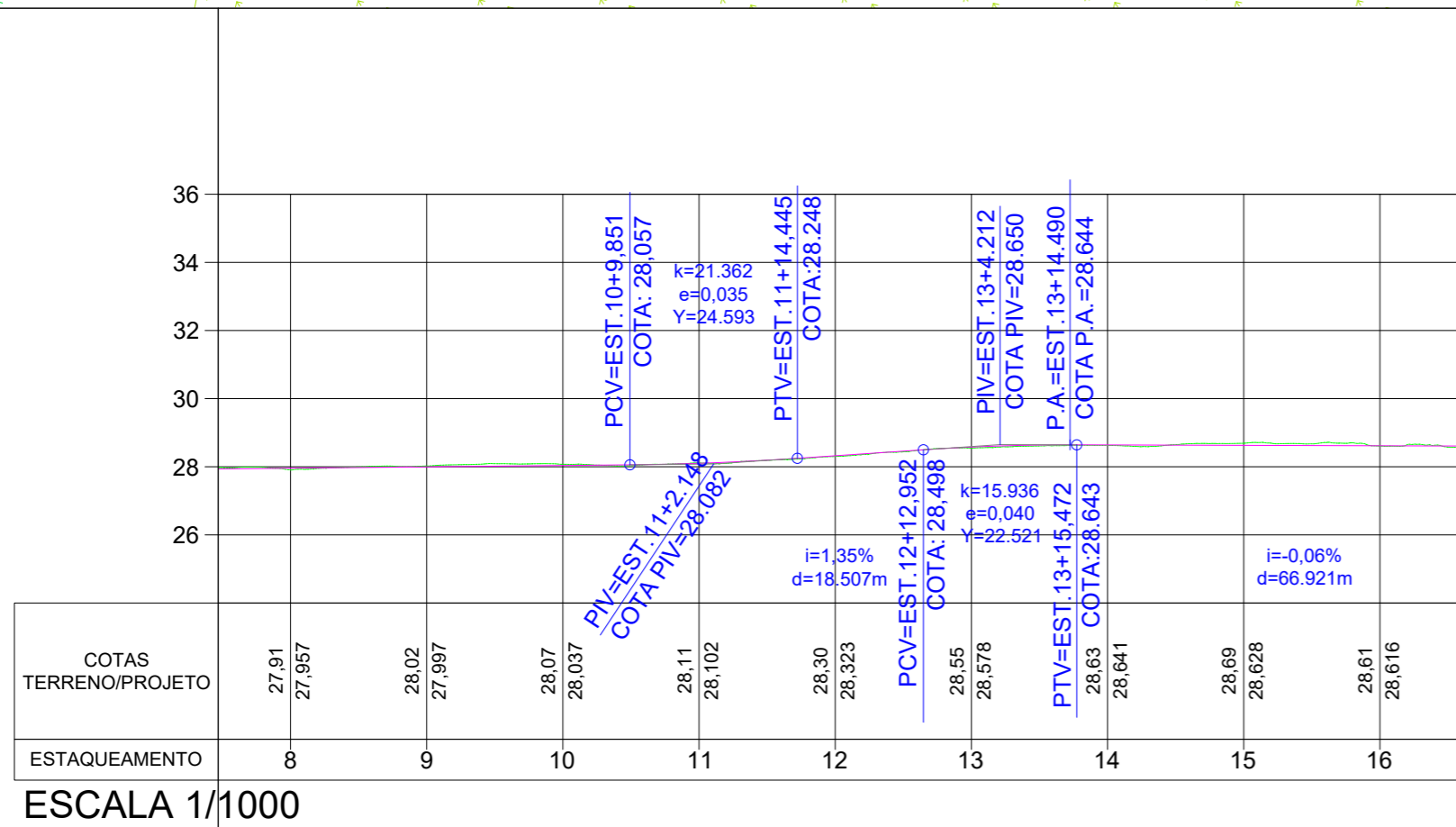
Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



ESCALA 1/500



ESCALA 1/1000



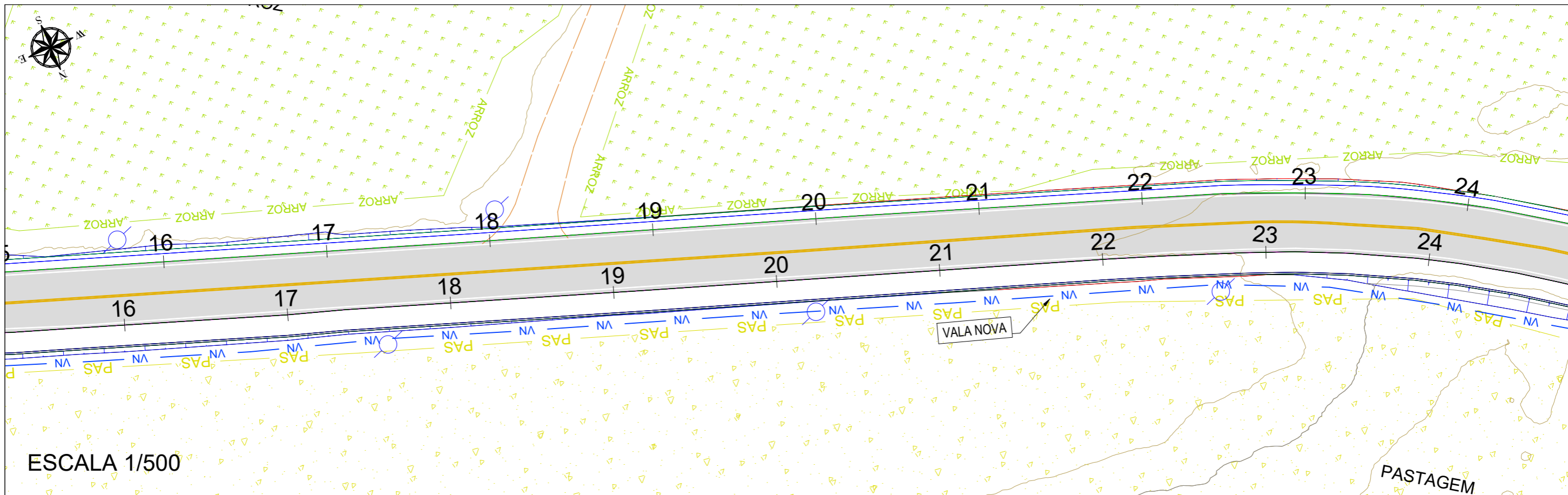
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BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
03/12

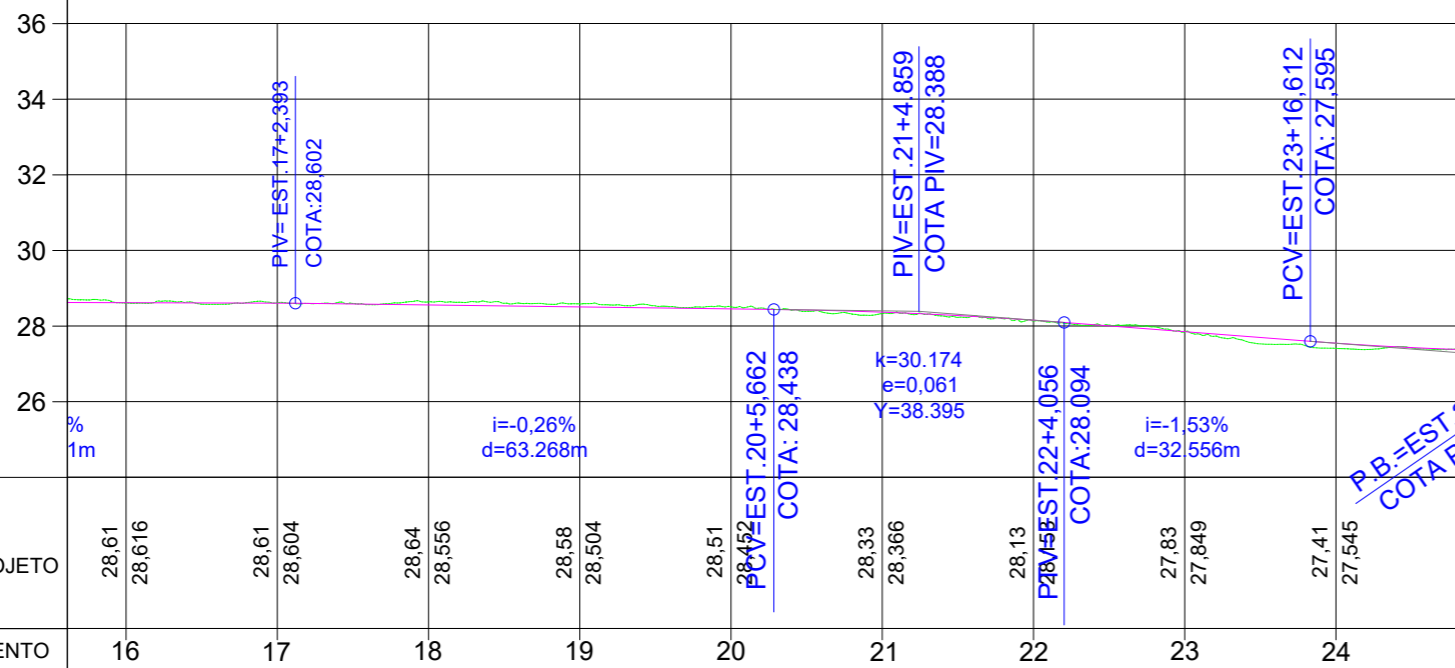
Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



ESCALA 1/500



COTAS TERRENO/PROJETO	16	17	18	19	20	21	22	23	24
28,61	28,616	28,61	28,64	28,58	28,51	28,33	28,13	27,83	27,41
28,616	28,604	28,556	28,504	28,452	28,366	28,056	27,849	27,545	
ESTAQUEAMENTO	16	17	18	19	20	21	22	23	24

ESCALA 1/1000



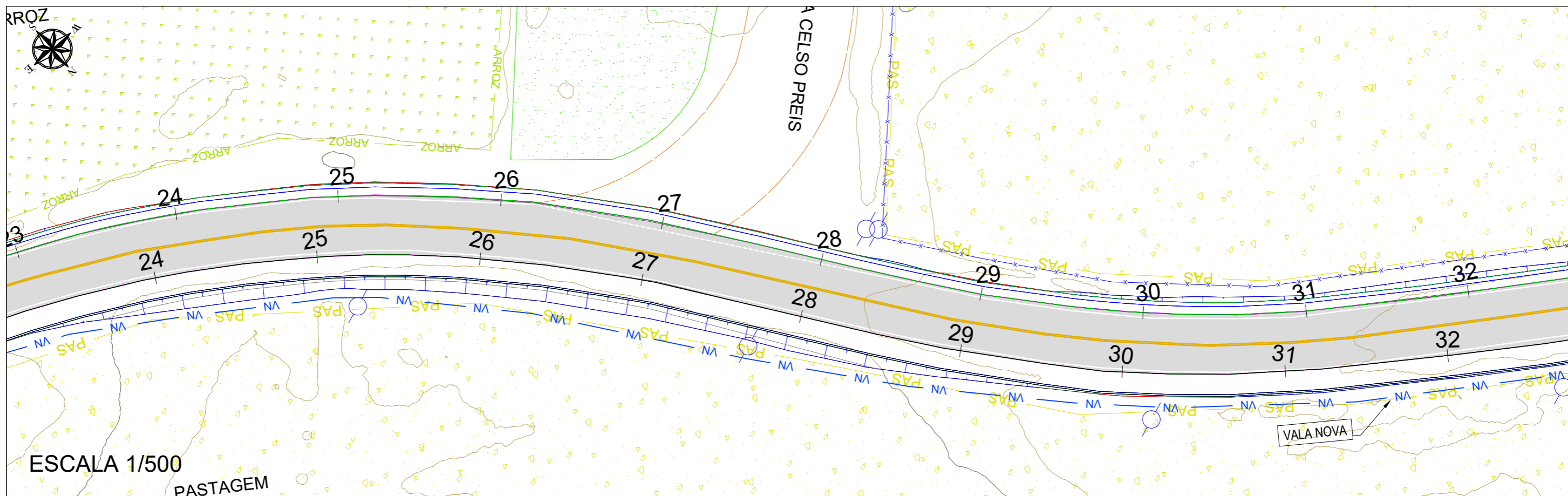
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
 04/12

Obra
R.M. LINHA EYNG

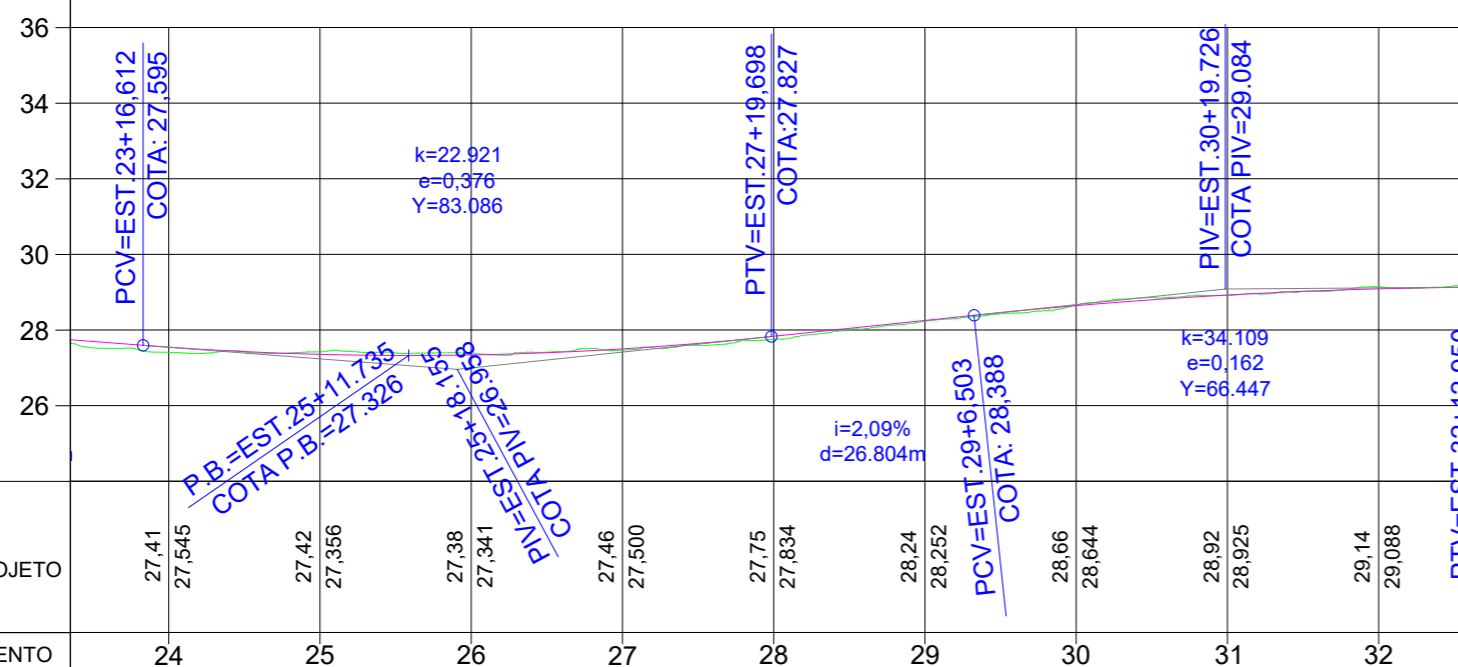
Conteúdo
PROJETO GEOMETRICO

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



ESCALA 1/500

PASTAGEM



ESCALA 1/1000

IDEALIZE
ARQUITETURA, ENGENHARIA E AGRIMENSURA
CREA/SC - 169873-0



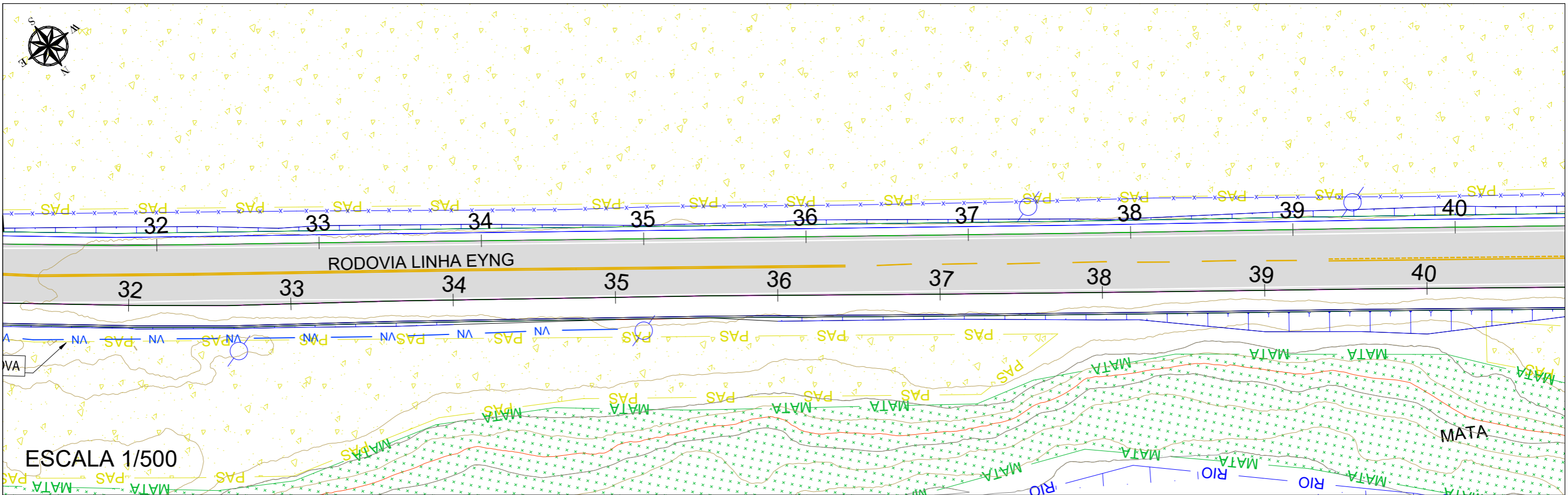
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
05/12

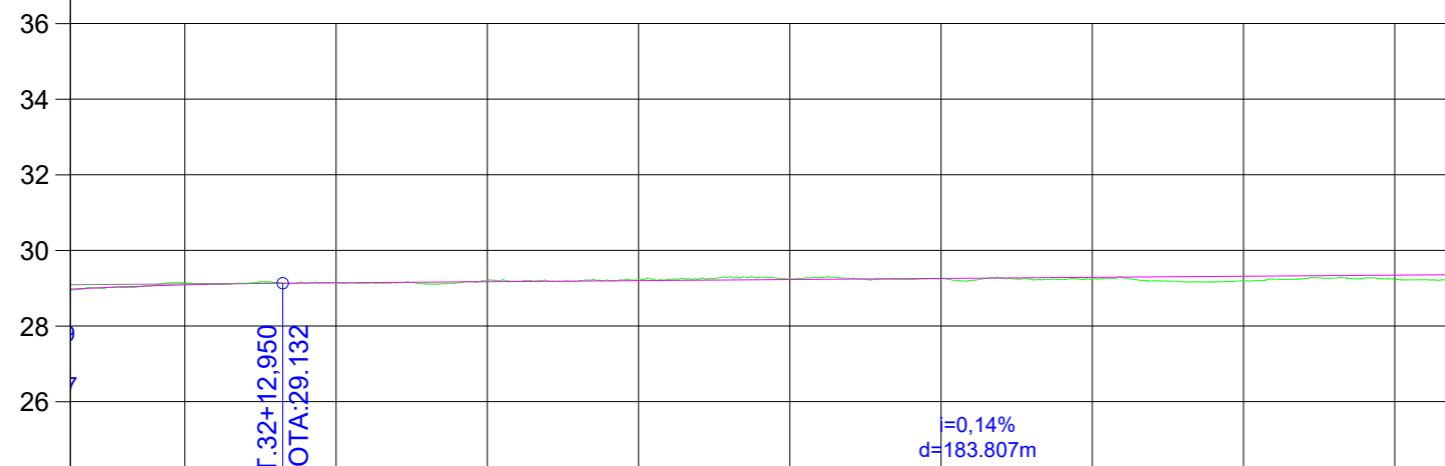
Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
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ESCALA 1/500



COTAS TERRENO/PROJETO	29,14 29,088	PTV=EST.32+12,950 COTA:29,132	29,14 29,142	29,20 29,171	29,23 29,200	29,25 29,228	29,25 29,257	29,25 29,286	29,20 29,315	29,24 29,344
ESTAQUEAMENTO	32	33	34	35	36	37	38	39	40	

ESCALA 1/1000



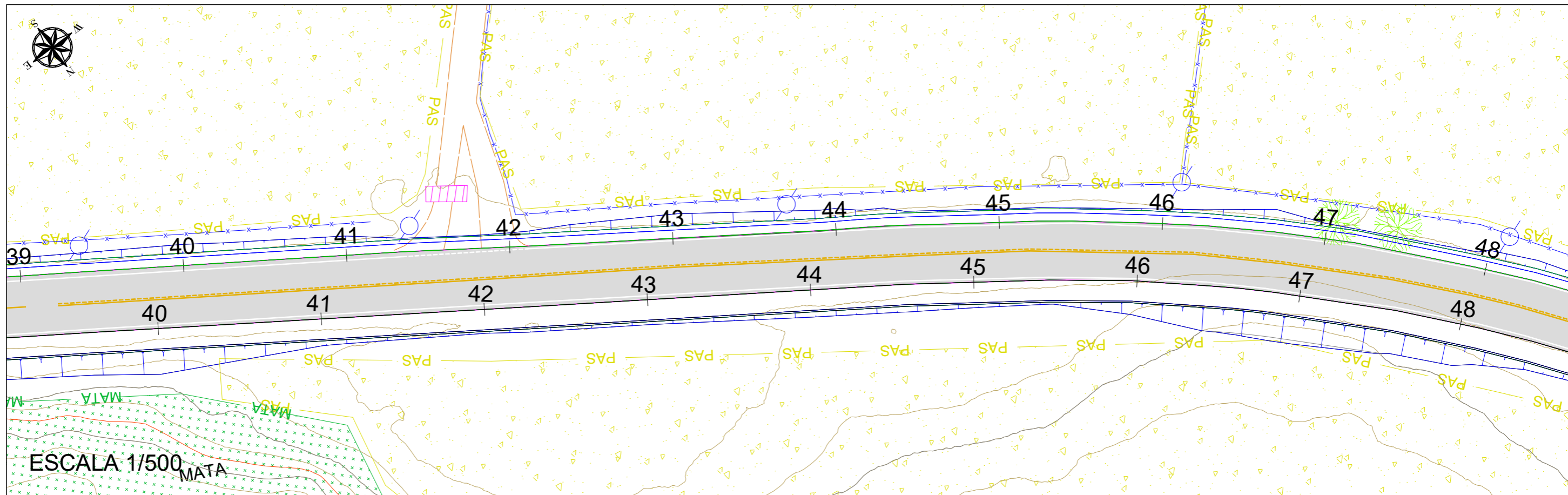
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
06/12

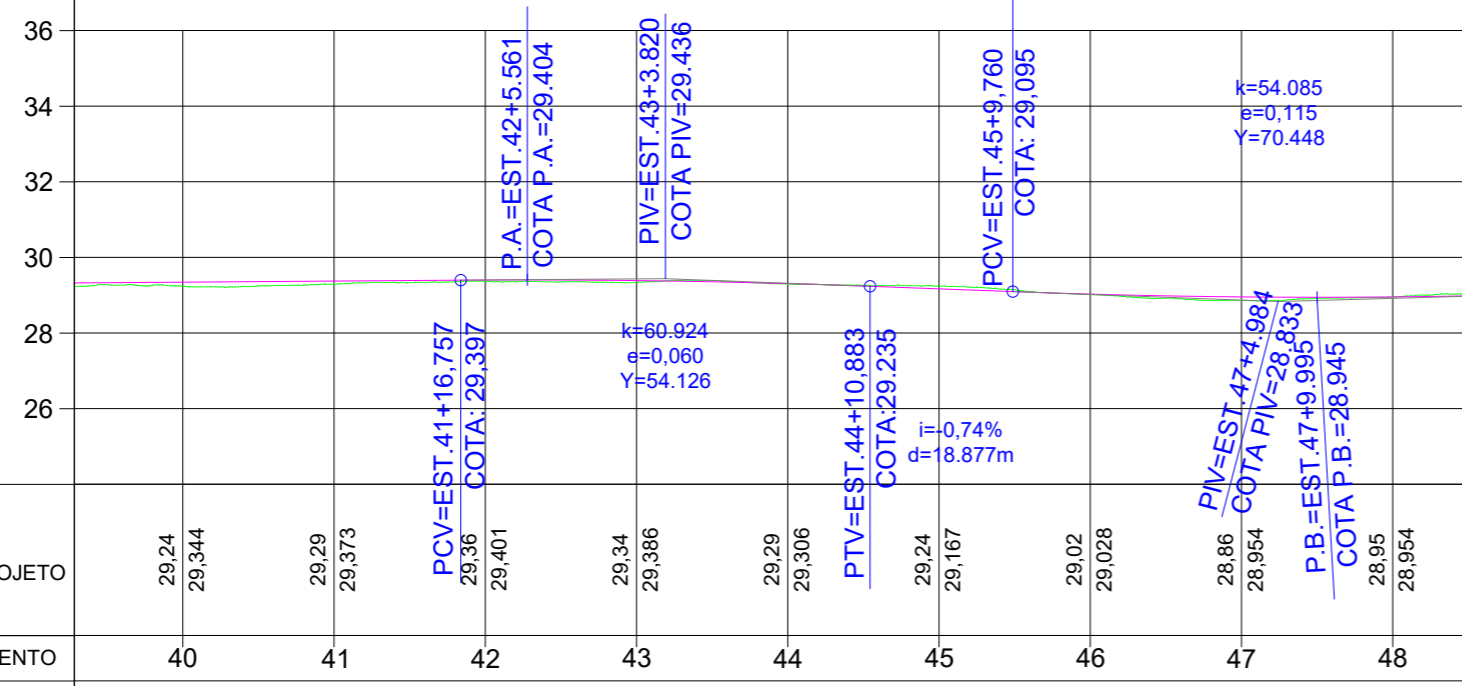
Obra
R.M. LINHA EYNG

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ESCALA 1/500



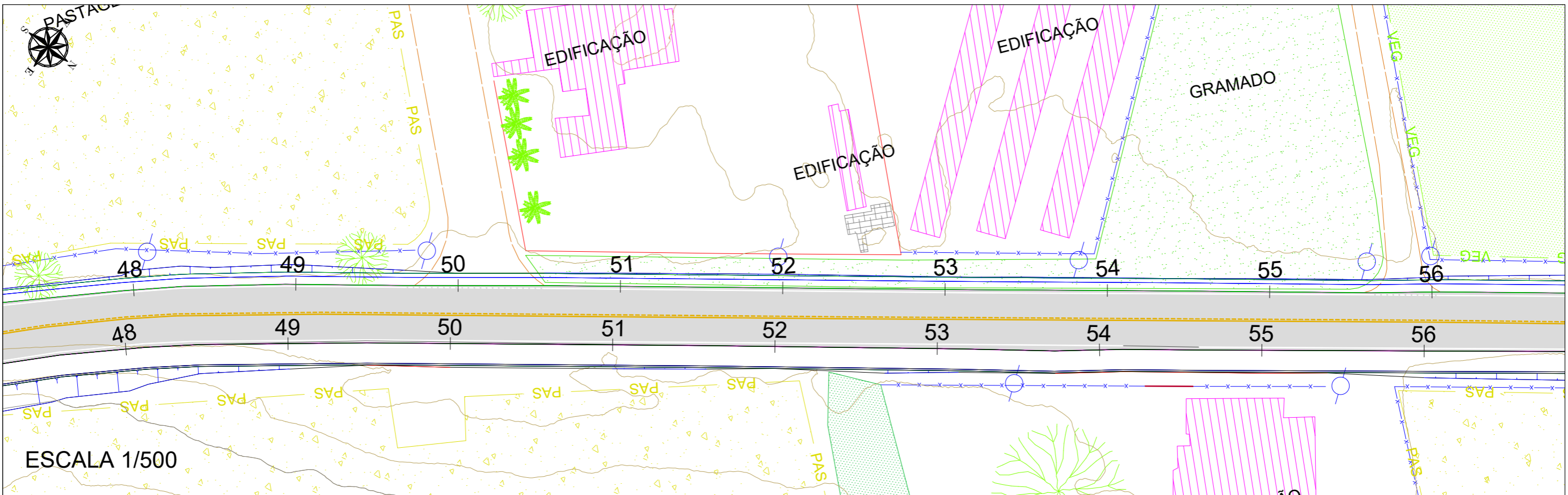
ESTAQUEAMENTO	40	41	42	43	44	45	46	47	48
COTAS TERRENO/PROJETO	29,24 29,344	29,29 29,373	PCV=EST.41+16,757 29,36 29,401	P.A.=EST.42+5,561 COTA P.A.=29,404 29,34 29,386	29,29 29,306	PTV=EST.44+10,883 COTA:29,235 29,24 29,167	29,02 29,028	PIV=EST.47+4,984 COTA PIV=28,833 28,86 28,954	P.B.=EST.47+9,995 COTA P.B.=28,945 28,95 28,954

ESCALA 1/1000

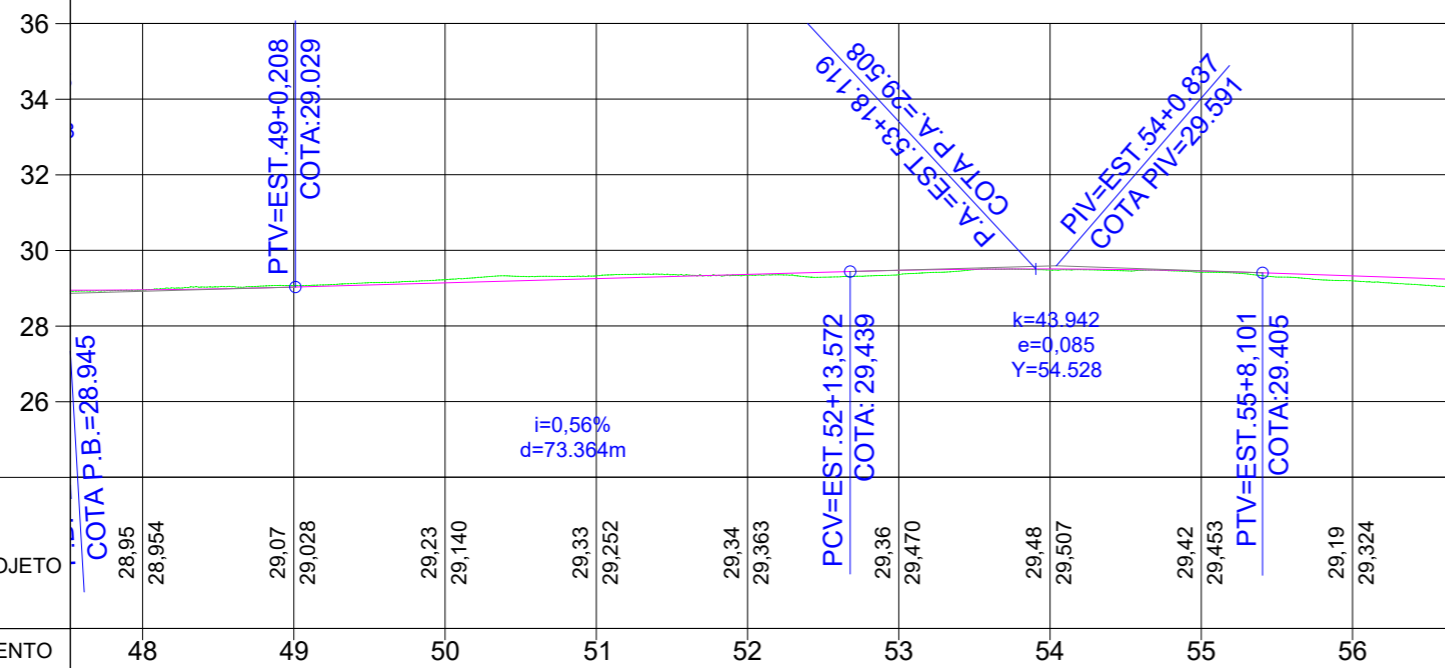


Autor do projeto: BRUNO FRIGO PASINI ENGENHEIRO CIVIL - CREA/SC 137.007-9		Obra R.M. LINHA EYNG
Prancha: 07/12		Conteúdo PROJETO GEOMETRICO
		Local R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

A3 (297mm X 420mm)



ESCALA 1/500



COTAS TERRENO/PROJETO	28,95	28,954	29,07	29,028	29,23	29,140	29,33	29,252	29,34	29,363	29,36	29,470	29,48	29,507	29,42	29,453	29,19	29,324
ESTAQUEAMENTO	48	49	50	51	52	53	54	55	56									

ESCALA 1/1000



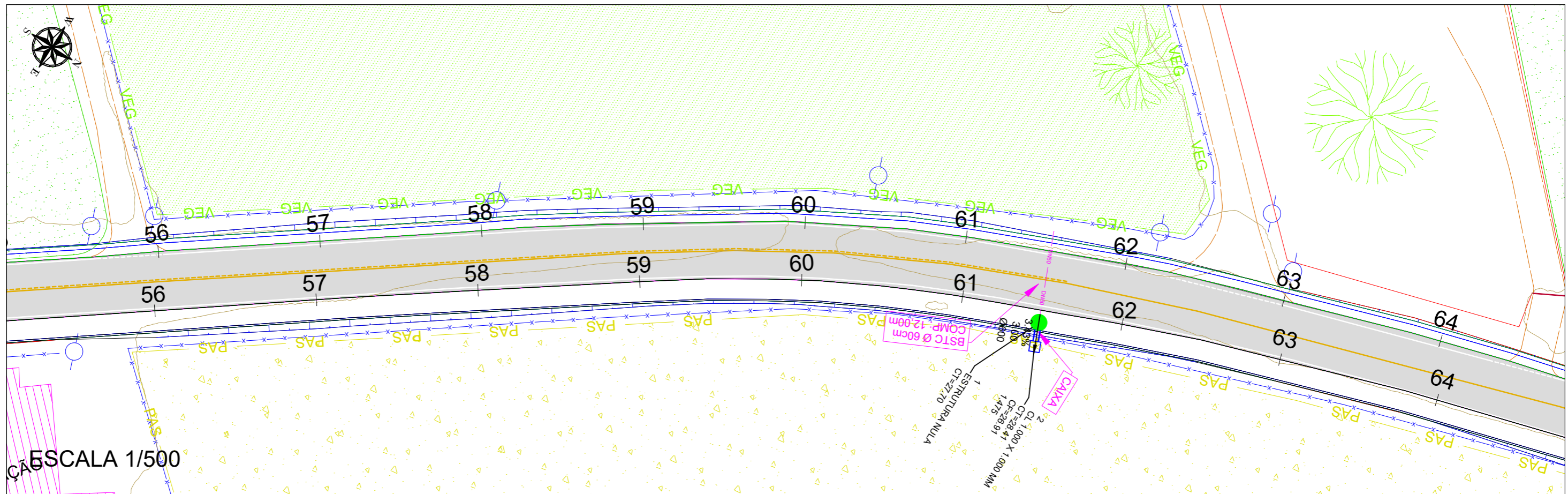
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
 08/12

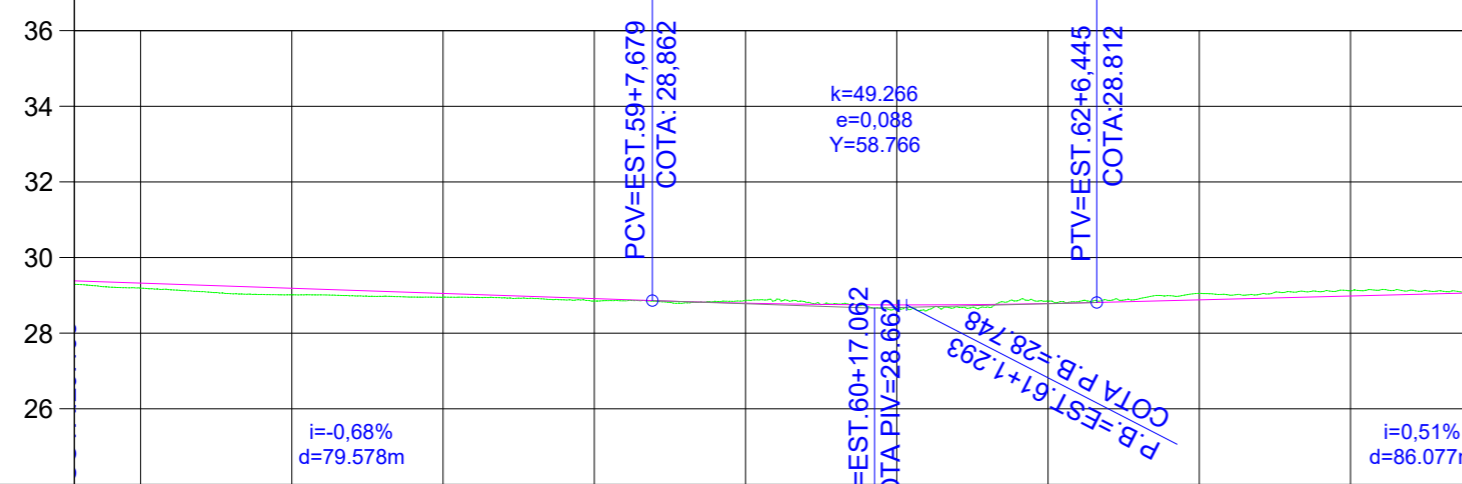
Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



ESCALA 1/500



COTAS TERRENO/PROJETO	29,19 29,324	29,01 29,188	28,95 29,051	28,85 28,915	28,87 28,794	28,67 28,748	28,85 28,783	29,05 28,881	29,12 28,983
ESTAQUEAMENTO	56	57	58	59	60	61	62	63	64

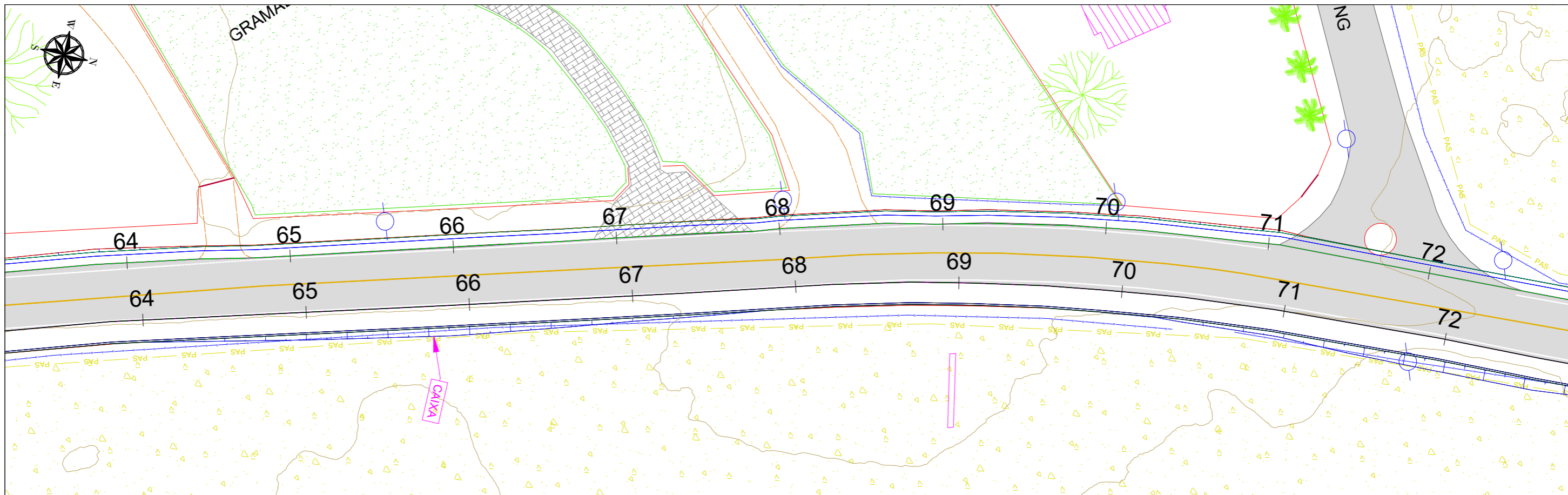
ESCALA 1/1000



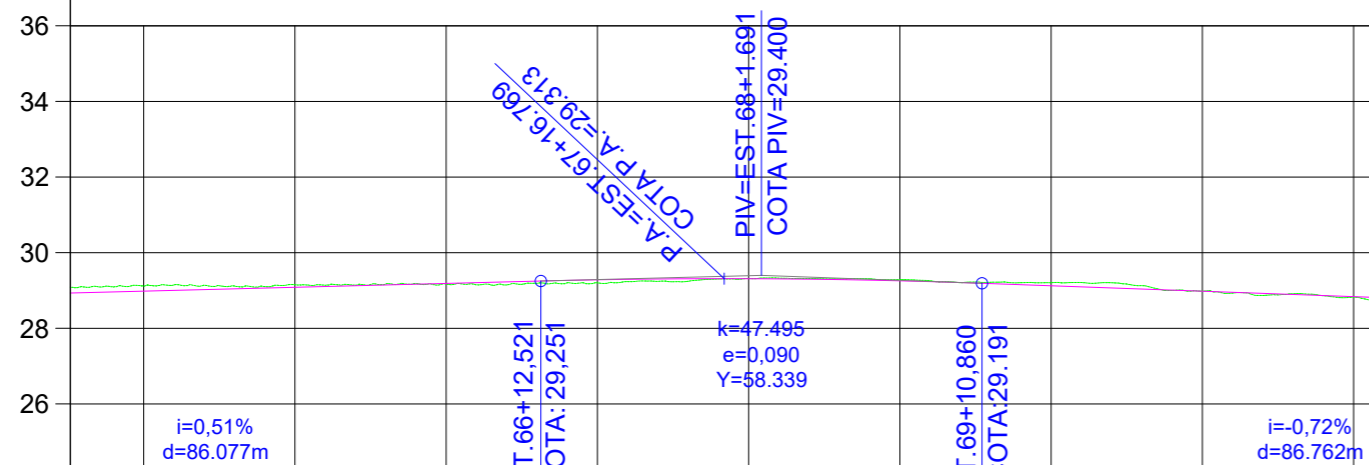
Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
09/12

Obra	R.M. LINHA EYNG
Conteúdo	PROJETO GEOMETRICO
Local	R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



646700.0000



COTAS TERRENO/PROJETO	29,12 28,983	29,15 29,085	29,17 29,187	29,20 29,284	29,32 29,312	29,29 29,256	29,21 29,125	28,98 28,982	28,82 28,838
ESTAQUEAMENTO	64	65	66	67	68	69	70	71	72

ESCALA 1/1000



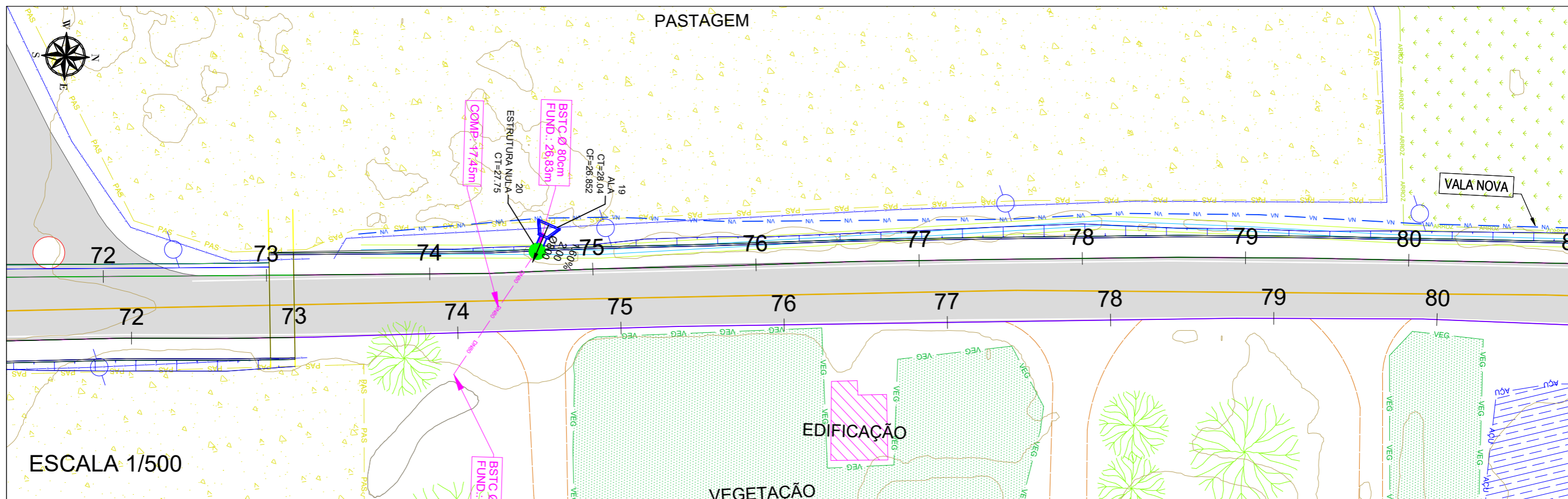
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
 10/12

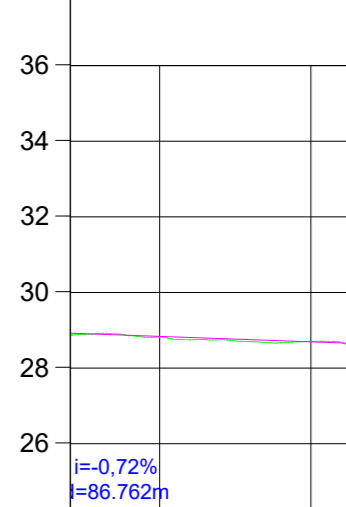
Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

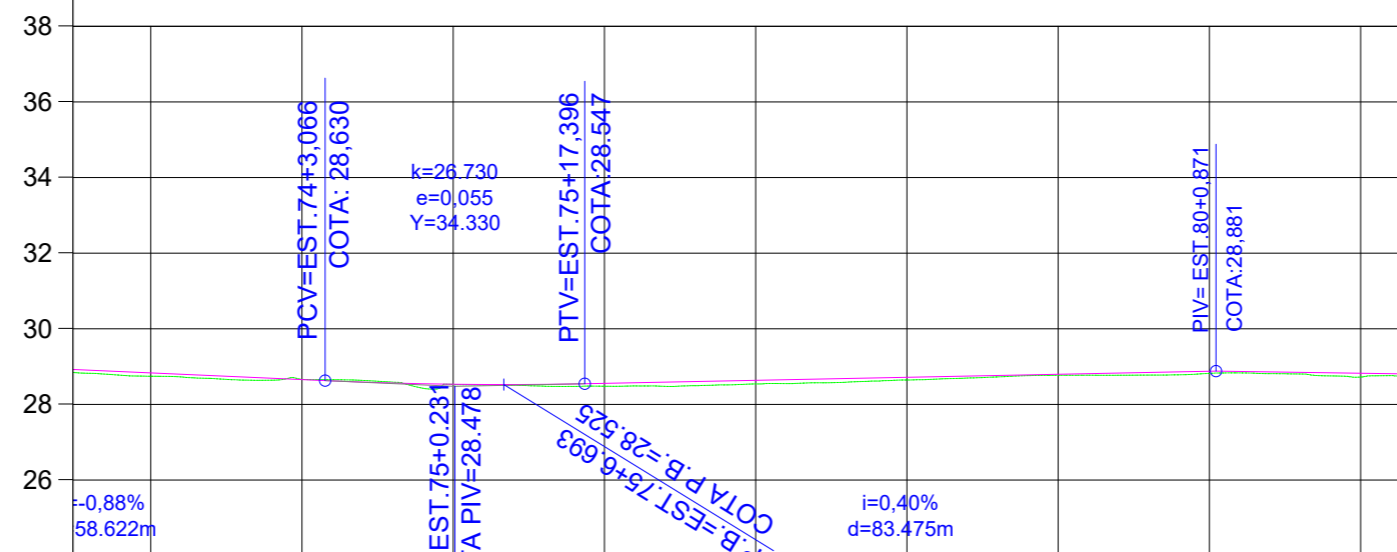
Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



ESCALA 1/500



COTAS TERRENO/PROJETO	28,82	28,838	28,70	28,695
ESTAQUEAMENTO	72	73		



COTAS TERRENO/PROJETO	28,74	28,833	28,66	28,657	28,52	PIV=EST.75+0,281	28,53	COTA PIV=28,478	28,48	28,557	28,54	28,637	28,65	28,717	28,77	28,797	28,82	28,877	28,73	28,824	
ESTAQUEAMENTO	73	74	75	76	77	78	79	80	81												

ESCALA 1/1000



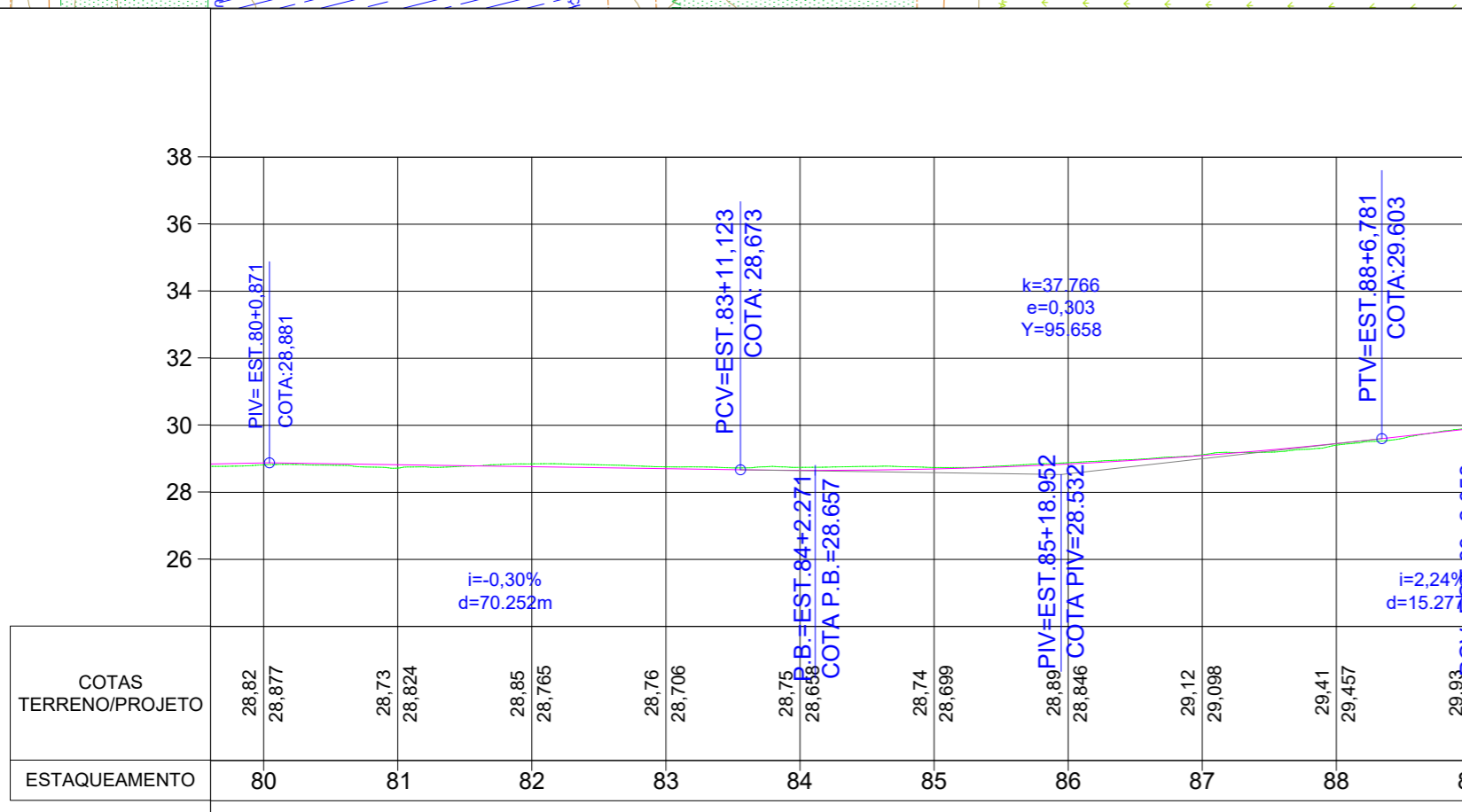
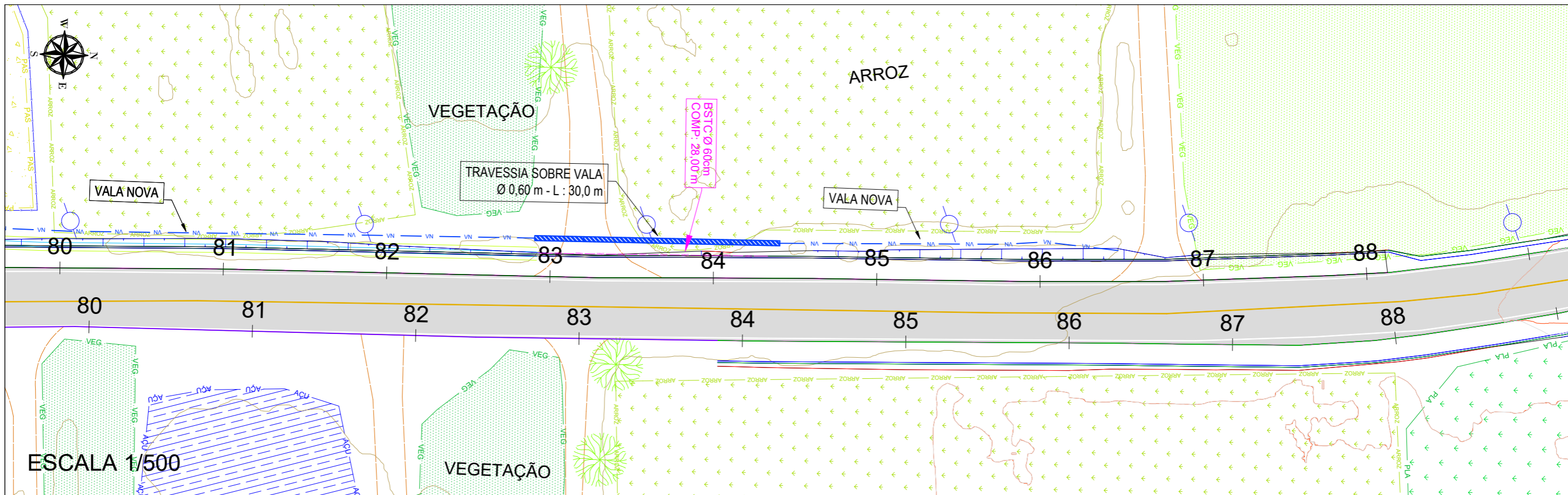
Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
 11/12

Obra
R.M. LINHA EYNG

Conteúdo
PROJETO GEOMETRICO

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC



ESCALA 1/1000



Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
 12/12

Obra	R.M. LINHA EYNG
Conteúdo	PROJETO GEOMETRICO
Local	R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

A3 (297mm X 420mm)

VALA LONGITUDINAL NOVA ESCAVAÇÃO (ARROZAL)																			
R.M. LINHA EYNG CICLOFAIXA - 0+0,00 A 88+0,00																			
LADO ESQUERDO									LADO DIREITO										
EST [00+00,00]						EXTENSÃO	SEÇÃO	ESCAV.	EST [00+00,00]						EXTENSÃO	SEÇÃO	ESCAV.		
Início		Fim		Comple.	[m]	[TIPO]	[m³]	Início		Fim		Comple.	[m]	[TIPO]	[m³]				
73	+	11,50	83	+	18,00		206,50	1	185,85	8	+	4,00	13	+	12,00		108,00	1	97,20
84	+	8,00	86	+	9,50		41,50	1	37,35	14	+	16,00	35	+	0,00		404,00	1	363,60
COMPRIMENTO TOTAL VALAS (m)									Vala Conforme de talhe de Projeto: A.seção TIPO 1: 0,90 m² - A.seção TIPO 2:										
VOLUME TOTAL DE ESCAVAÇÃO (m³)									1,72 m²										

TRAVESSIAS ACESSO SECUNDÁRIO					
R.M. LINHA EYNG CICLOFAIXA - 0+0,00 A 88+0,00					
EST	TIPO	Ø EXISTENTE	EXTENSÃO EXISTENTE	BSTC Ø PROJETADO	EXTENSÃO PROJETADA
	[LD/LE]	[Cm]	[m]	[Cm]	[m]
83+4,50	LE			60	30

TRAVESSIAS ACESSO SECUNDÁRIO					
Ø	EXTENSÃO REMOÇÃO	Ø PROJETADO	EXTENSÃO PROJETADA	ESCAVAÇÃO TRAVESSIAS	REATERRO TRAVESSIAS
[Cm]	[m]	[Cm]	[m]	(m³)	(m³)
20	0	20	0	0	0
30	0	30	0	0	0
40	0	40	0	0	0
50	0	50	0	0	0
60	0	60	30	27	16,2
80	0	80	0	0	0
				ESCAVAÇÃO TRAVESSIAS	REATERRO TRAVESSIAS
				TOTAL	27
					16,2

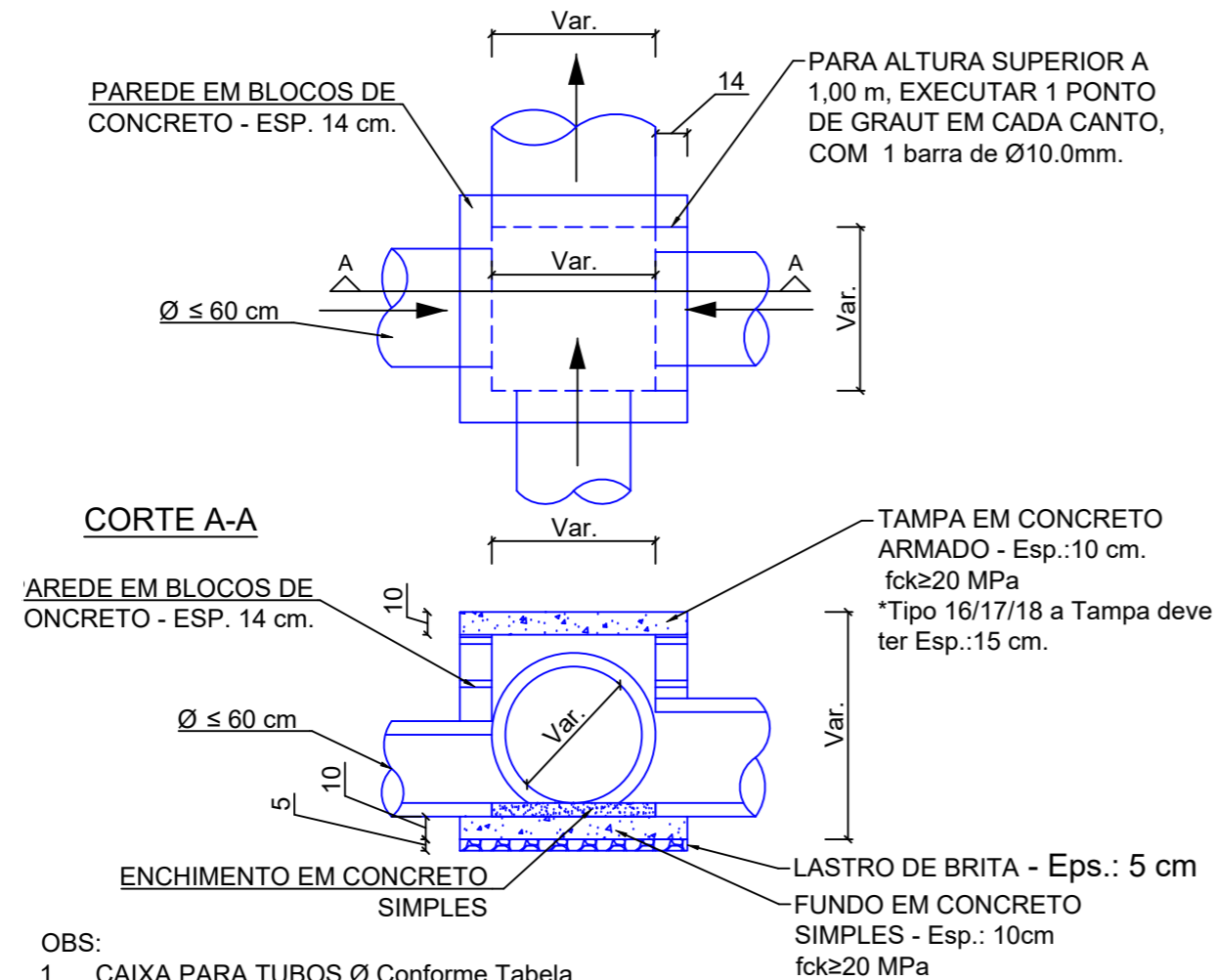
 <p>ARQUITETURA, ENGENHARIA E AGRIMENSURA CREA/SC - 169873-0</p>		Obra		R.M. LINHA EYNG	
		Autor do projeto:		Conteúdo	NOTAS DE SERVIÇO
		BRUNO FRIGO PASINI ENGENHEIRO CIVIL - CREA/SC 137.007-9		Local	R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC
		Prancha:	01/02		

Planilha de cálculo: REDE - CICLO FAIXA LINHA EYNG

Segmento	Nome	Tipo de estrutura à montante	Seção do tubo	Declividade do tubo	Extensão	Largura do fundo da vala	Altura do corpo da estrutura, sem o cone ou pescoço	Cota de topo da estrutura de montante	Cota do fundo da estrutura de montante	Cota de topo da estrutura de jusante	Cota do fundo da estrutura de jusante	Cota da geratriz interna inferior do tubo à montante	Cota da geratriz interna inferior do tubo à jusante	Profundidade da geratriz de montante do tubo	Profundidade da geratriz de jusante do tubo	Profundidade da estrutura de montante	Altura da estrutura de jusante	Cota de terreno à montante	Cota de terreno à jusante	Cobrimento máximo acima do tubo	X	Y
1->2	1	Structure Null	BSTC 600 x 55 mm	3.43 %	3.000 m	1.000 m	0.000 m	27.700 m	27.700 m	28.414 m	26.907 m	27.010 m	26.907 m	1.708 m	1.475 m	0.000 m	1.507 m	28.718 m	28.382 m	1.062 m	646,712.458 m	6,820,403.714 m
2->	2	CL 1.000 x 1.000 mm					1.507 m	28.414 m	26.907 m						1.507 m						646,715.231 m	6,820,404.860 m
19->20	19	BBT_1 x 800 x 0°	BSTC 800 x 75 mm	1.60 %	2.000 m	1.000 m	0.000 m	28.037 m	26.852 m	27.752 m	27.752 m	26.862 m	26.830 m	1.643 m	1.675 m	1.185 m	0.000 m	28.505 m	28.505 m	0.800 m	646,647.641 m	6,820,656.613 m
20->	20	Structure Null					0.000 m	27.752 m	27.752 m						0.000 m						646,649.502 m	6,820,655.874 m

Resumo: REDE - CICLO FAIXA LINHA EYNG		
Item	Quantidade	Unidade
Escavação		
Escavação mecânica	13.000 m³	m³
Escavação manual	0.254 m³	m³
Recobrimento manual	2.666 m³	m³
Recobrimento mecânico	7.728 m³	m³
Estruturas		
Estrutura nula - Representação de Ligação		
Structure Null	2	und
0.000 m <= h < 1.000 m	2	und
Caixa de Ligação		
CL 1.000 x 1.000 mm	1	und
TIPO 9 1.000 m <= h < 2.000 m	1	und
Boca de Bueiro Tubular		
BBT_1 x 800 x 0°	1	und
Geral	1	und
Tubos		
BSTC - Berço de Concreto		
BSTC 600 x 55 mm	3.000 m	m
BSTC 800 x 75 mm	2.000 m	m

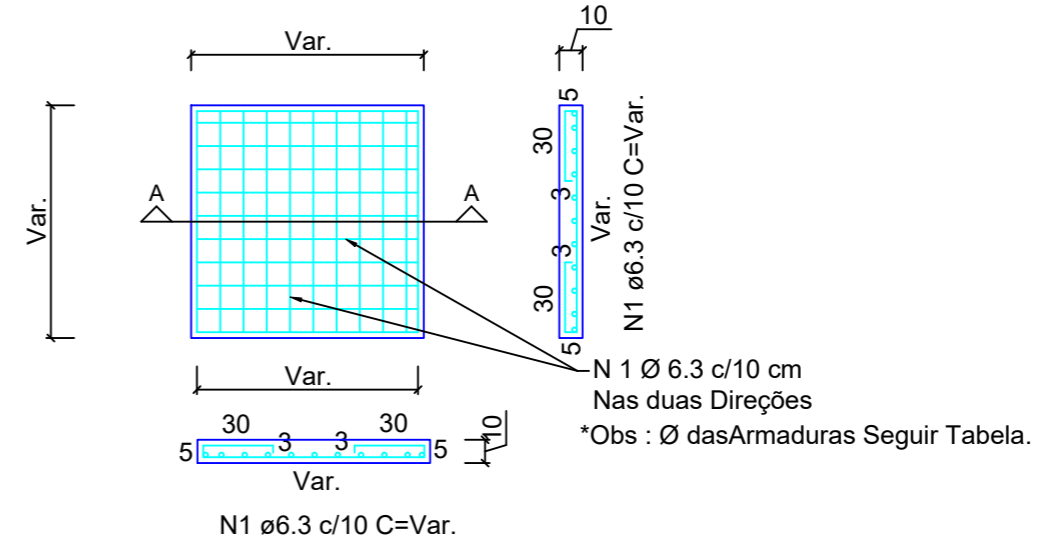
DETALHE CAIXA LIGAÇÃO



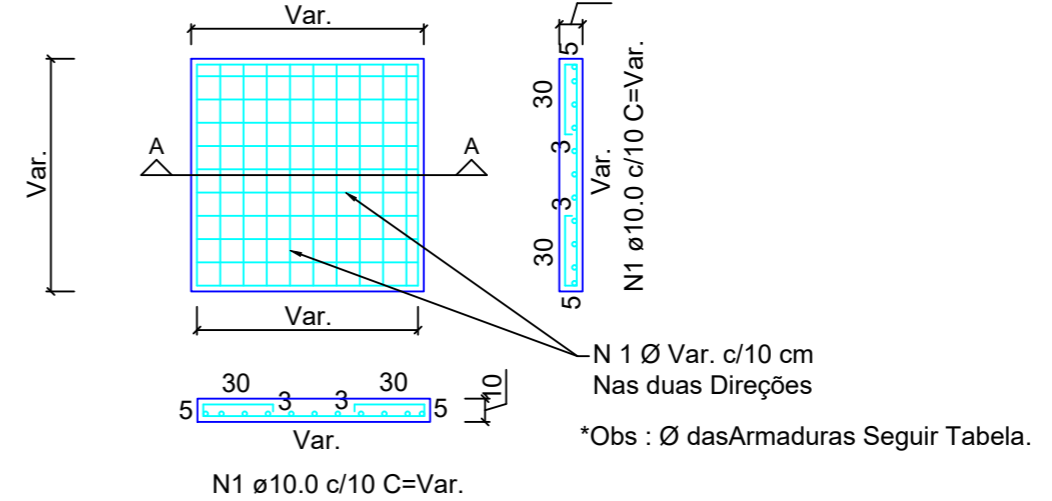
OBS:

1. CAIXA PARA TUBOS Ø Conforme Tabela.
2. O VOLUME DE CONCRETO FOI CALCULADO PELA MÉDIA DO DIÂMETRO EXTERNO DOS TUBOS.
3. FOI ACRESCENTADO UMA PERDA DE 5% NO VOLUME DE CONCRETO.
4. PARA ALTURAS ACIMA DE 1,00 m DEVE-SE EFETUAR CINTA DE AMARRAÇÃO COM 1 Ø10.0mm, E NO MÍNIMO 1 PONTO DE GRAUT EM CADA CANTO DA ALVENARIA COM 1Ø10.00mm.

Detalhe da tampa TIPO 1 A TIPO 6

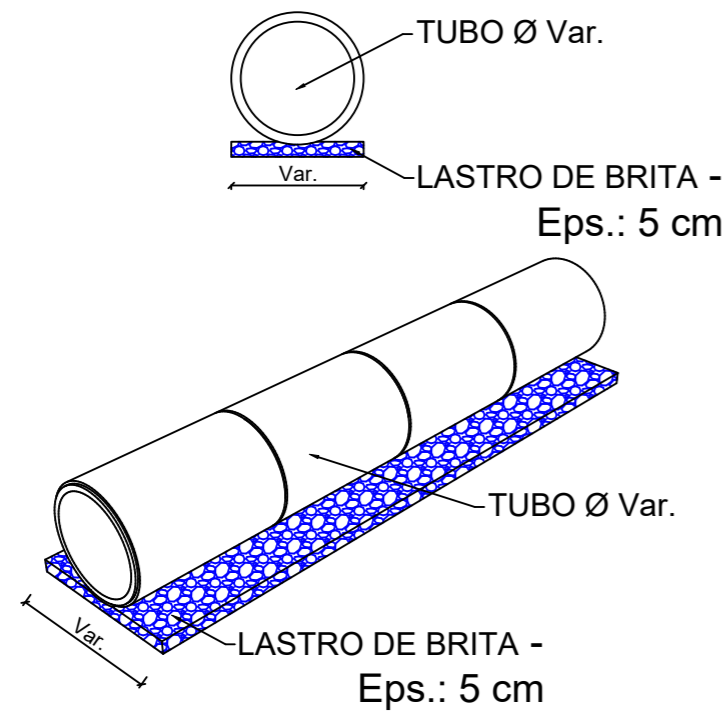


Detalhe da tampa TIPO 7 A TIPO 9

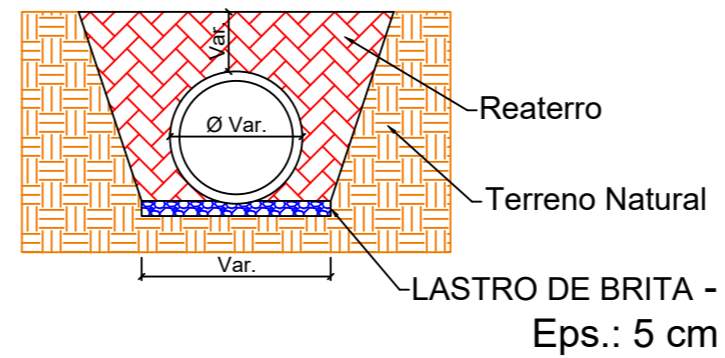


MOD.	Ø	Larg.xComp.xAlt.(m) *medidas internas	Volume de Concreto (m³)	Área de Forma (m²)	Área de Alvenaria em blocos (m²)	Aço Tampa (Kg)	Aço Cinta (Kg)	Aço Graut (Kg)	Lastro de Brita (m³)
TIPO 1	Ø ≤50	0,60x0,60x1,00	0,15	1,34	2,11	CA50 6.3 - 6.6 kg	-	-	0,03
TIPO 2	Ø ≤50	0,60x0,60x1,50	0,27	1,34	3,43	CA50 6.3 - 6.6 kg	CA50 10 - 3.9 kg	CA50 10 - 4.4 kg	0,03
TIPO 3	Ø ≤50	0,60x0,60x2,00	0,30	1,34	4,75	CA50 6.3 - 6.6 kg	CA50 10 - 3.9 kg	CA50 10 - 5.6kg	0,03
TIPO 4	Ø ≤60	0,80x0,80x1,00	0,24	1,89	2,75	CA50 6.3 - 9.2 kg	-	-	0,05
TIPO 5	Ø ≤60	0,80x0,80x1,50	0,38	1,89	4,47	CA50 6.3 - 9.2 kg	CA50 10 - 3.9 kg	CA50 10 - 4.4 kg	0,05
TIPO 6	Ø ≤60	0,80x0,80x2,00	0,41	1,89	6,19	CA50 6.3 - 9.2 kg	CA50 10 - 3.9 kg	CA50 10 - 5.6kg	0,05
TIPO 7	Ø ≤100	1,30x1,30x1,00	0,67	3,62	4,35	CA50 10 - 42.9 kg	CA50 10 - 3.9 kg	-	0,11
TIPO 8	Ø ≤100	1,30x1,30x1,50	0,74	3,62	7,07	CA50 10 - 42.9 kg	CA50 10 - 3.9 kg	CA50 10 - 4.4 kg	0,11
TIPO 9	Ø ≤100	1,30x1,30x2,00	0,76	3,62	9,79	CA50 10 - 42.9 kg	CA50 10 - 3.9 kg	CA50 10 - 5.6kg	0,11

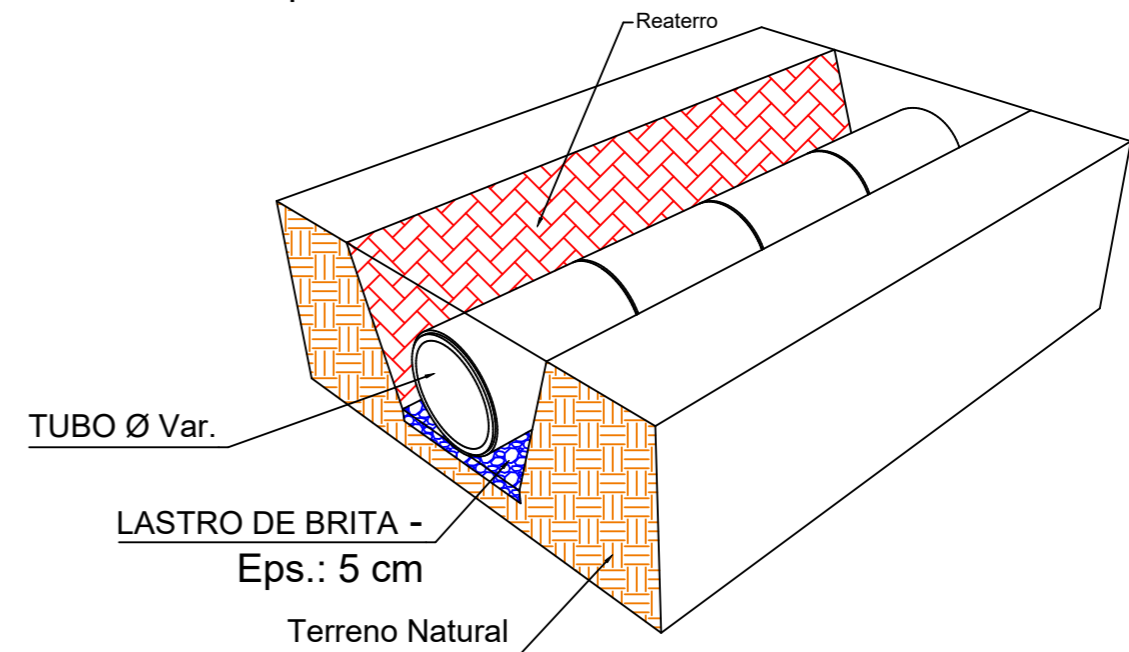
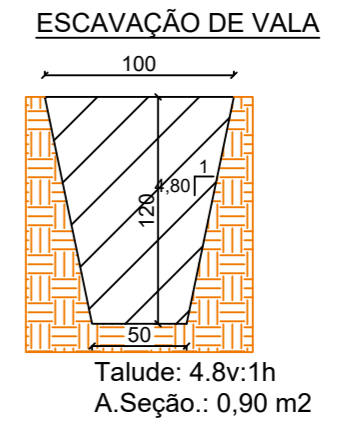
**ASSENTAMENTO DE TUBO EM REDE/TRAVESSIA
SOBRE BERÇO DE BRITA**



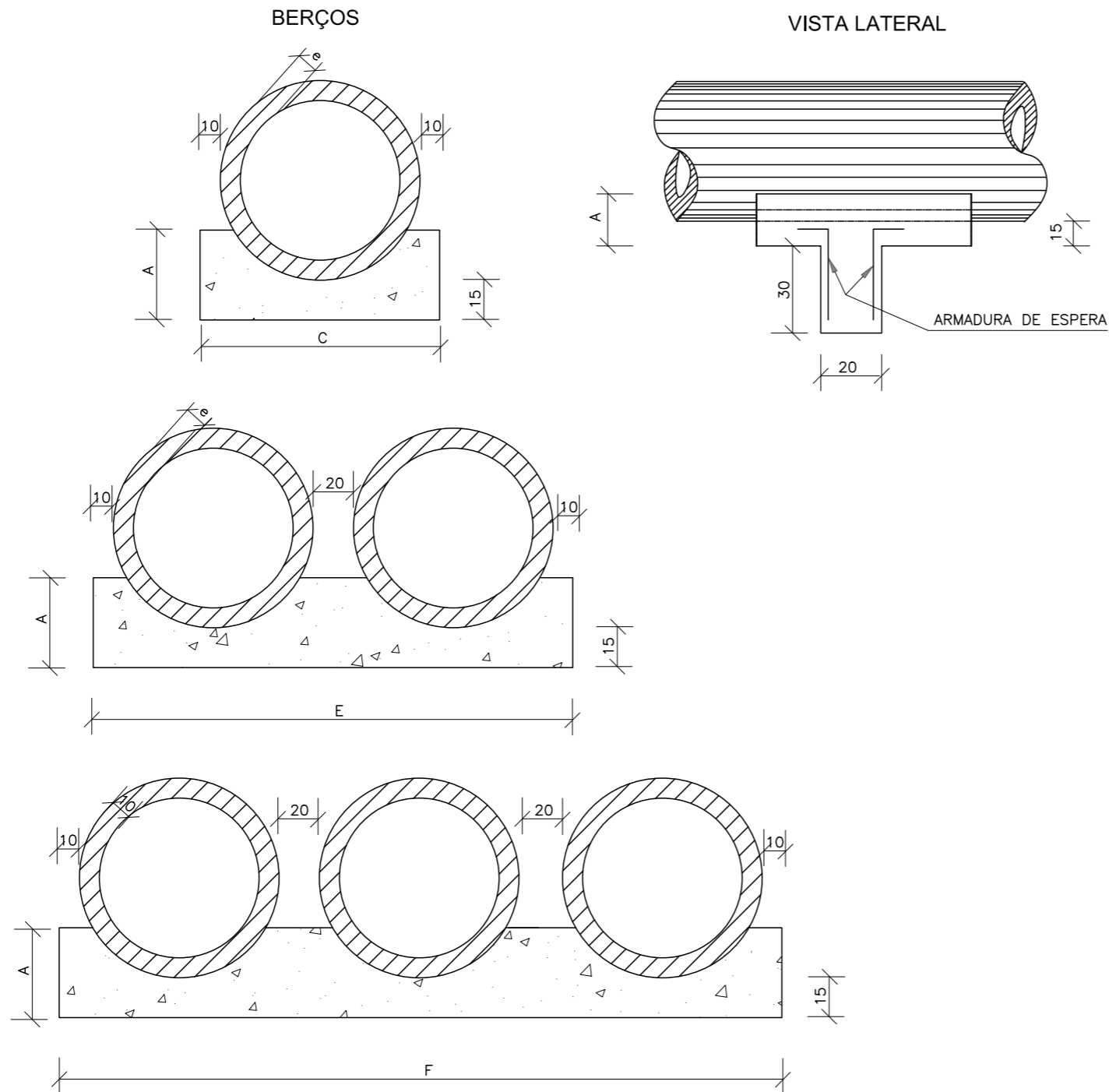
TRAVESSIA ACESSO SECUNDÁRIO



DETALHE ESCAVAÇÃO DE VALA



BERÇOS PARA ASSENTAMENTOS DE BUEIROS



DIÂMETRO	A	C	E	F	e
40	25	72	-	-	6
60	30	96	-	-	8
80	35	120	240	-	10
100	40	144	288	432	12
120	45	166	332	498	13
150	50	198	396	594	14

DIÂMETRO (cm)	SIMPLES		DUPLA		TRIPLO	
	CONCRETO (m³)	ARMADURA (kg)	CONCRETO (m³)	ARMADURA (kg)	CONCRETO (m³)	ARMADURA (kg)
40	0,029	0,500	-	-	-	-
60	0,038	0,500	-	-	-	-
80	0,048	0,750	0,096	1,250	-	-
100	0,058	0,750	0,115	1,500	0,173	2,250
120	0,066	1,000	0,133	1,750	0,199	2,500
150	0,079	1,000	0,158	2,000	0,238	3,000

DIÂMETRO (m)	SIMPLES		DUPLA		TRIPLO	
	CONCRETO (m³)	FORMA (m²)	CONCRETO (m³)	FORMA (m²)	CONCRETO (m³)	FORMA (m²)
40	0,151	0,50	-	-	-	-
60	0,225	0,60	-	-	-	-
80	0,308	0,70	0,616	0,70	-	-
100	0,402	0,80	0,804	0,80	1,206	0,80
120	0,499	0,90	0,998	0,90	1,498	0,90
150	0,644	1,00	1,288	1,00	1,933	1,00

NOTAS:

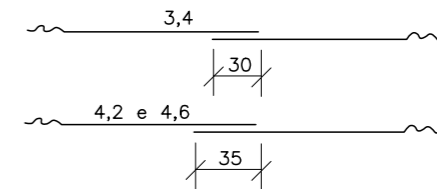
- 1 - Dimensões em cm.
- 2 - Os dentes deverão ser construídos em todos os bueiros cuja declividade de instalação for superior a 4% e ser espaçados de cinco em cinco metros na projeção horizontal;
- 3 - Nos dentes serão colocadas armaduras de espera: 2 ferros de 6,3mm a cada 50 com comprimento de 50;
- 4 - Utilizar nos berços concreto ciclópico fck > 15MPa;
- 6 - No caso de colocação de tubo em valas, poderá ser executado o berço de material granular adequado, adotando-se a espessura mínima de 15 cm, dimensionando-se os tubos em função da carga e das condições de apoio, de acordo com as normas existentes.

TUBOS DE CONCRETO ARMADO

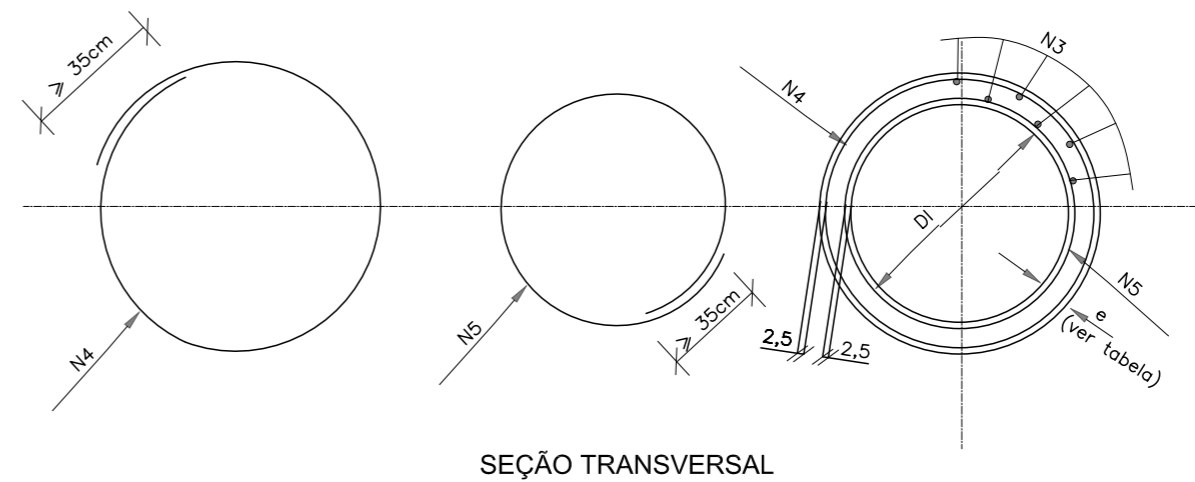
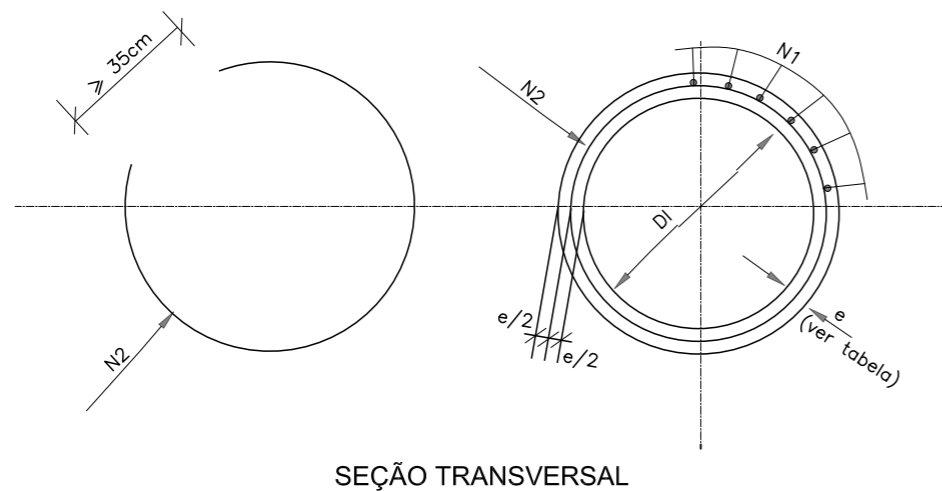
TABELA DE ARMADURAS (POR METRO DE TUBO)																											
TUBOS TIPO CA-1 (ABNT)						TUBOS TIPO CA-2 (ABNT)						TUBOS TIPO CA-3 (ABNT)						TUBOS TIPO CA-4 (ABNT)									
FORMAS		ARMADURAS (CA-60B)				FORMAS		ARMADURAS (CA-60B)				FORMAS		ARMADURAS (CA-60B)				FORMAS		ARMADURAS (CA-60B)							
DI(cm)	e(cm)	N	Ø	ESP.	Q.	COMP.	DI(cm)	e(cm)	N	Ø	ESP.	Q.	COMP.	DI(cm)	e(cm)	N	Ø	ESP.	Q.	COMP.	DI(cm)	e(cm)	N	Ø	ESP.	Q.	COMP.
60	8	1	3,4	15	14	corr.	60	8	1	3,4	15	14	corr.	60	8	3	3,4	15	29	corr.	60	8	3	3,4	15	29	corr.
		2	4,6	10	10	240			2	5,0	9	11	240			4	5,0	10	10	260			4	6,0	10	10	260
80	10	1	3,4	15	18	corr.	80	10	1	4,2	20	14	corr.	80	10	3	4,2	20	28	corr.	80	10	3	4,2	20	28	corr.
		2	5,0	10	10	315			2	6,0	9	11	315			4	6,0	10	10	335			4	7,0	11	9	335
100	12	3	3,4	15	46	corr.	100	12	3	4,2	20	35	corr.	100	12	3	4,2	20	35	corr.	100	12	3	4,2	20	35	corr.
		4	4,6	10	10	405			4	6,0	12	8	405			4	6,0	9	11	405			4	7,0	9	11	405
		5	4,6	10	10	365			5	6,0	12	8	365			5	6,0	9	11	365			5	7,0	9	11	365
120	13	3	3,4	15	56	corr.	120	13	3	4,2	20	42	corr.	120	13	3	4,2	20	42	corr.	120	13	3	4,2	20	42	corr.
		4	5,0	10	10	475			4	6,0	9	11	475			4	7,0	9	11	475			4	8,0	9	11	475
		5	5,0	10	10	425			5	6,0	9	11	425			5	7,0	9	11	425			5	8,0	9	11	425
150	14	3	4,2	20	51	corr.	150	14	3	4,6	20	51	corr.	150	14	3	4,6	20	51	corr.	150	14	3	4,6	20	51	corr.
		4	6,0	10	10	580			4	7,0	9	11	580			4	8,0	8	12	580			4	8,0	6	16	580
		5	6,0	10	10	520			5	7,0	9	11	520			5	8,0	8	12	520			5	8,0	6	16	520

fck ≥ 15 MPa
AÇO CA-60B

DET. DE EMENDA
(EMENDAR EM POSIÇÕES DIFERENTES)

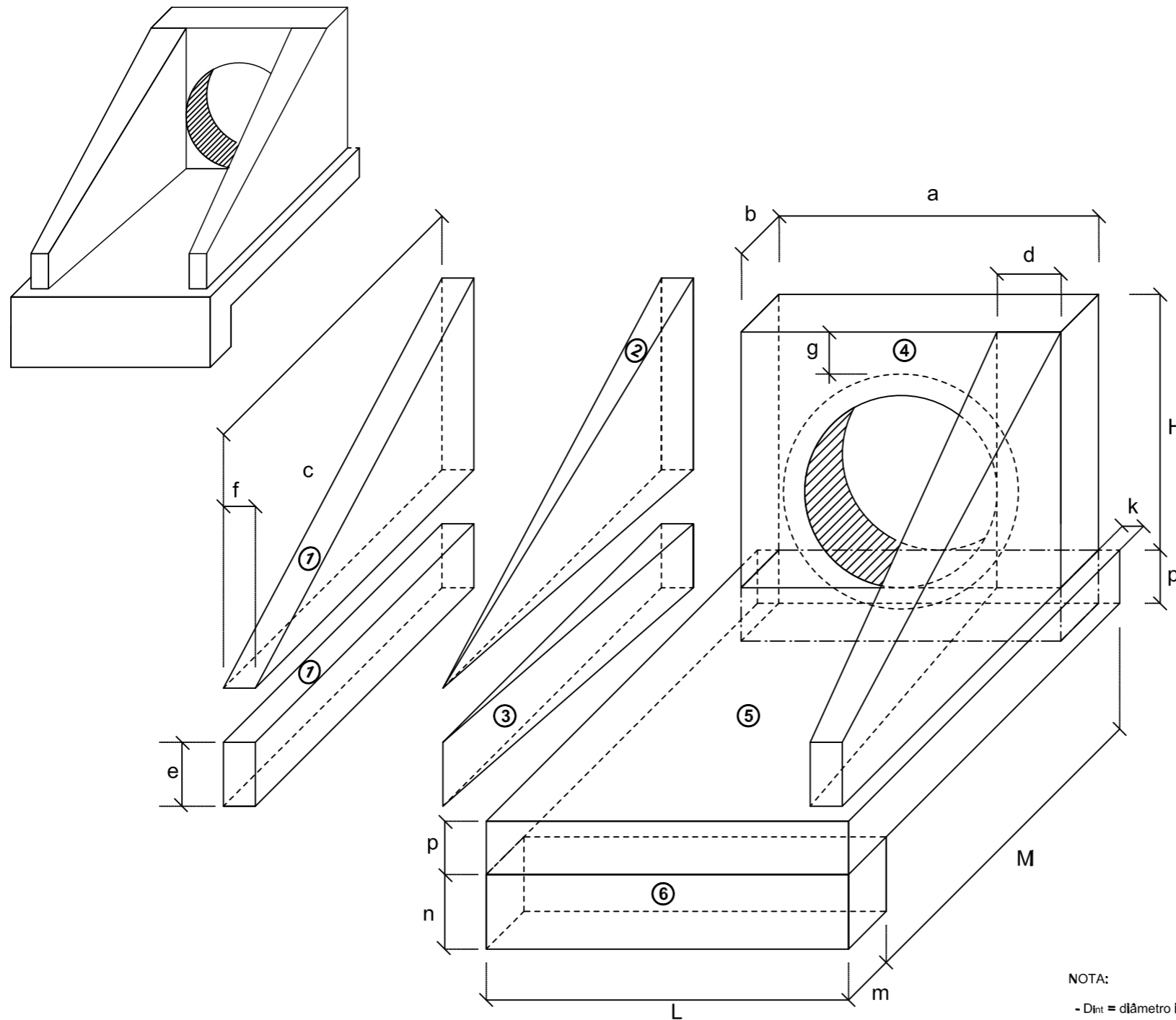


CA-1(ALTURA DE ATERRO) 1,0 ≤ h ≤ 3,5m						CA-2(ALTURA DE ATERRO) ≤ 5,0m						CA-3(ALTURA DE ATERRO) ≤ 7,0m						CA-4(ALTURA DE ATERRO) ≤ 8,5m									
RESUMO DE AÇO						RESUMO DE AÇO						RESUMO DE AÇO						RESUMO DE AÇO									
BITOLA	60	80	100	120	150	BITOLA	60	80	100	120	150	BITOLA	60	80	100	120	150	BITOLA	60	80	100	120	150				
Ø	kg/m	PESO(kg)	PESO(kg)	PESO(kg)	PESO(kg)	Ø	kg/m	PESO(kg)	PESO(kg)	PESO(kg)	PESO(kg)	Ø	kg/m	PESO(kg)	PESO(kg)	PESO(kg)	PESO(kg)	Ø	kg/m	PESO(kg)	PESO(kg)	PESO(kg)	PESO(kg)				
3,4	0,071	1	4	6	10	3,4	0,071	1	2	4	5	3,4	0,071	2	3	4	5	3,4	0,071	2	3	4	5				
4,2	0,109	-	-	-	6	4,2	0,109	-	2	4	5	4,2	0,109	-	3	4	-	4,2	0,109	-	3	-	-				
4,6	0,130	3	-	10	-	4,6	0,130	-	-	-	7	4,6	0,130	-	-	6	7	4,6	0,130	-	-	5	6	7			
5,0	0,154	-	5	-	14	5,0	0,154	4	-	-	-	5,0	0,154	8	-	-	-	6,0	0,222	11	-	-	-				
6,0	0,222	-	-	-	24	6,0	0,222	-	8	14	22	6,0	0,222	-	14	19	-	7,0	0,302	-	17	26	-	-			
						7,0	0,302	-	-	-	37	7,0	0,302	-	-	30	-	8,0	0,393	-	-	-	39	69			
TOTAIS		4	6	14	18	30	TOTAIS		5	10	18	27	44	TOTAIS		10	17	23	36	59	TOTAIS		13	20	31	45	76



NOTAS:
1 - Dimensões em cm;

BUEIRO SIMPLES TUBULAR DE CONCRETO BOCAS NORMAIS E ESCONSAS (I)



1-VOLUMES

a) ALAS

① PRISMAS : $V = c f (h + e)$

② PIRÂMIDES : $V = 2/3 c [(d - f) (h - e)]$

③ CUNHAS : $V = c e (d - f)$

b) TESTA

④ TESTA : $V = b [a (h + p) - \frac{D_{ext}^2}{4}]$

c) CALÇADA

⑤ CALÇADA : $V = p c L + [L (b + k) - a b]$

⑥ DENTE : $V = L m n$

2-ÁREA DAS FORMAS

a) ALAS

Partes Laterais : $A = (h + e) (c + \sqrt{c^2 + (d - f)^2})$

Extremidades : $A = 2 e f$

b) TESTA

Parte Posterior : $A = \frac{1}{\cos e} (a h - \frac{\pi D_{int}^2}{4})$

Parte Anterior : $A = \frac{1}{\cos e} (D_{int} h - \frac{\pi D_{int}^2}{4})$

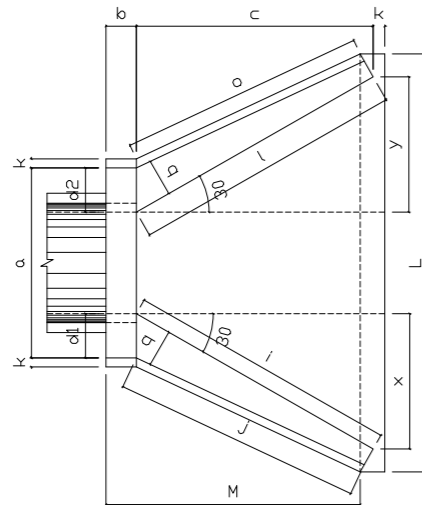
Partes Laterais : $A = 2 b h$

NOTA:

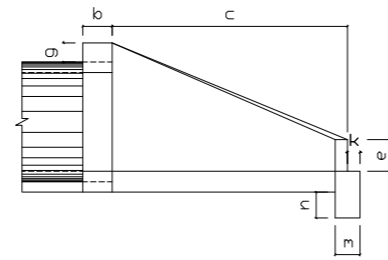
- D_{int} = diâmetro interno e D_{ext} = diâmetro externo

BUEIRO SIMPLES TUBULAR DE CONCRETO - BOCAS NORMAIS E ESCONSAS (III)

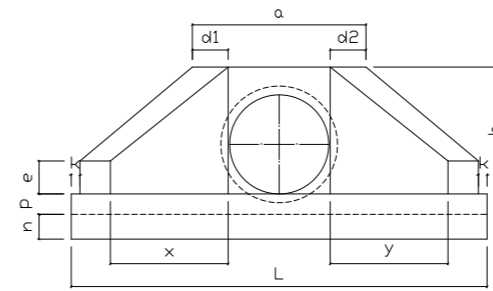
PLANTA NORMAL



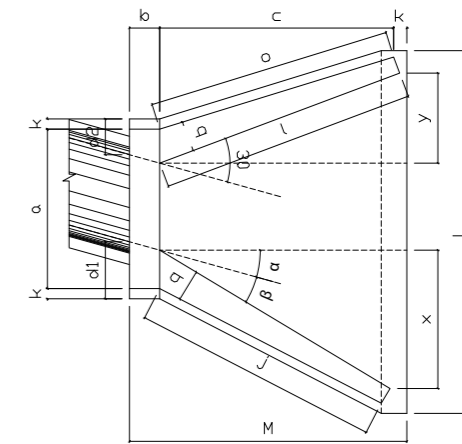
VISTA LATERAL



VISTA FRONTAL



PLANTA ESCONSO



DIMENSÕES E CONSUMOS MÉDIOS PARA UMA UNIDADE																				Formas	Concreto	Cimento	Areia	Brita 1	Brita 2	Água	Madeira														
Esc	?	a	b	c	d1	d2	e	f	g	h	i	j	k	l	m	n	o	p	q	x	y	L	M	(m ²)	(m ³)																
BUEIRO SIMPLES TUBULAR Ø 60																																									
0	30	106	20	125	23	23	15	10	30	98	144	133	10	144	20	20	133	23	20	72	72	242	155	7,45	1,153	5,649	0,784	0,853	0,184	0,186											
15	20	111			28	21					177	157		129			124			125	33	257		125	179	0	286	268	-33	353	125	33	257	4,82	1,218	5,967	0,828	0,901	0,195	0,121	
30	25	130			35	26					218	190		125			125			179	0	286		125	179	0	286	125	179	0	286	179	0	286	8,71	1,380	6,761	0,939	1,021	0,221	0,218
45	20	168			47	36					296	253		129			135			268	-33	353		129	135	268	-33	353	129	135	268	-33	353	10,68	1,722	8,437	1,171	1,274	0,276	0,267	
BUEIRO SIMPLES TUBULAR Ø 80																																									
0	30	138	25	145	29	29	20	15	30	120	167	153	10	167	25	35	153	30	25	84	84	293	180	11,17	2,140	10,485	1,456	1,583	0,342	0,279											
15	30	144			35	26					205	180		150			144			145	39	312		145	207	0	243	145	207	0	243	145	39	312	11,73	2,262	11,082	1,539	1,674	0,362	0,293
30	25	167			44	31					253	218		145			145			207	0	243		145	207	0	243	145	207	0	243	207	0	243	13,03	2,539	12,439	1,727	1,879	0,406	0,326
45	20	216			59	44					343	290		150			157			311	-39	462		150	311	-39	462	150	311	-39	462	311	-39	462	15,97	3,188	15,619	2,168	2,359	0,510	0,399
BUEIRO SIMPLES TUBULAR Ø 100																																									
0	30	170	30	165	35	35	25	20	30	142	191	174	10	191	30	40	174	37	30	95	95	345	205	15,68	3,567	17,476	2,426	2,639	0,571	0,392											
15	30	177			42	31					233	203		171			163			165	44	366		165	236	0	403	165	236	0	403	165	44	366	16,41	3,757	18,407	2,555	2,780	0,601	0,410
30	25	203			52	36					288	245		165			165			236	0	403		165	236	0	403	165	236	0	403	236	0	403	18,19	4,205	20,602	2,860	3,111	0,673	0,455
45	20	264			71	52					390	326		171			179			354	-44	499		171	179	354	-44	499	171	179	354	-44	499	20,30	5,293	25,932	3,600	3,916	0,847	0,558	
BUEIRO SIMPLES TUBULAR Ø 120																																									
0	30	200	40	180	40	40	30	25	30	163	208	188	10	208	40	45	188	43	35	104	104	391	230	20,65	5,506	26,976	3,745	4,074	0,881	0,516											
15	30	210			50	36					255	220		186			177			180	48	414		180	257	0	455	180	257	0	455	180	48	414	21,63	5,819	28,509	3,958	4,305	0,931	0,541
30	25	243			61	43					314	264		180			180			257	0	455		180	257	0	455	180	257	0	455	257	0	455	24,00	6,536	32,022	4,446	4,836	1,046	0,600
45	20	316			83	63					426	351		186			196			386	-48	562		186	196	386	-48	562	186	196	386	-48	562	29,34	8,243	40,385	5,607	6,099	1,319	0,734	
BUEIRO SIMPLES TUBULAR Ø 150																																									
0	30	242	50	260	46	46	35	30	30	194	300	277	10	300	40	45	277	52	40	150	150	522	320	32,54	10,810	52,961	7,353	7,998	1,730	0,814											
15	30	53			57	41					368	328		269			258			260	70	555		260	371	0	612	260	371	0	612	260	70	555	34,15	11,431	56,004	7,775	8,458	1,829	0,854
30	25	293			70	50					453	396		260			260			371	0	612		260	371	0	612	260	371	0	612	371	0	612	37,95	12,868	63,004	8,753	9,521	2,059	0,949
45	20	382			95	75					615	530		269			280			558	-70	762		269	280	558	-70	762	269	280	558	-70	762	46,60	16,303	79,873	11,089	12,063	2,608	1,165	



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
07/13

Obra
R.M. LINHA EYNG

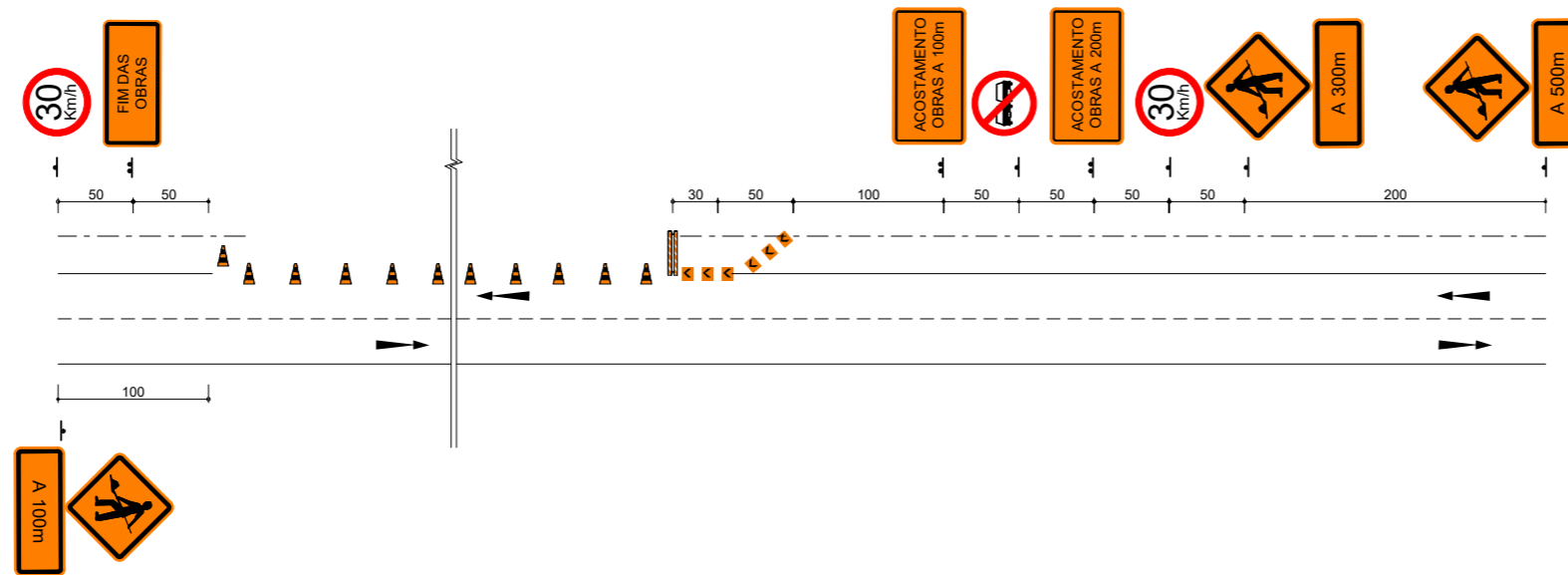
Conteúdo
DETALHES DE DRENAGEM

Local
R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

PROJETO DE SINALIZAÇÃO DE OBRAS

PROJETO TIPO 1

SINALIZAÇÃO DE OBRAS
 PISTA SIMPLES - 1 FAIXA POR SENTIDO
 BLOQUEIO DO ACOSTAMENTO



LEGENDA:

- CONE OU BALIZADOR (PIQUETE)
- BARREIRA
- PLACA
- DELINEADOR

MATERIAIS PARA SINALIZAÇÃO DE OBRAS			
TIPOS (EX.)	DIMENSÕES	TIPOS (EX.)	DIMENSÕES
	1,50 x 1,00m		0,33 x 0,40m
	1,50 x 0,70m		h - 0,75m Base - 0,40 x 0,40m
	1,50 x 0,50m		L - 2,00m h - 1,20m
	Ø - 0,80m		0,60 x 0,60m
	0,80 x 0,80m		Ø - 0,30m h - 0,30m
	L - 0,25m		

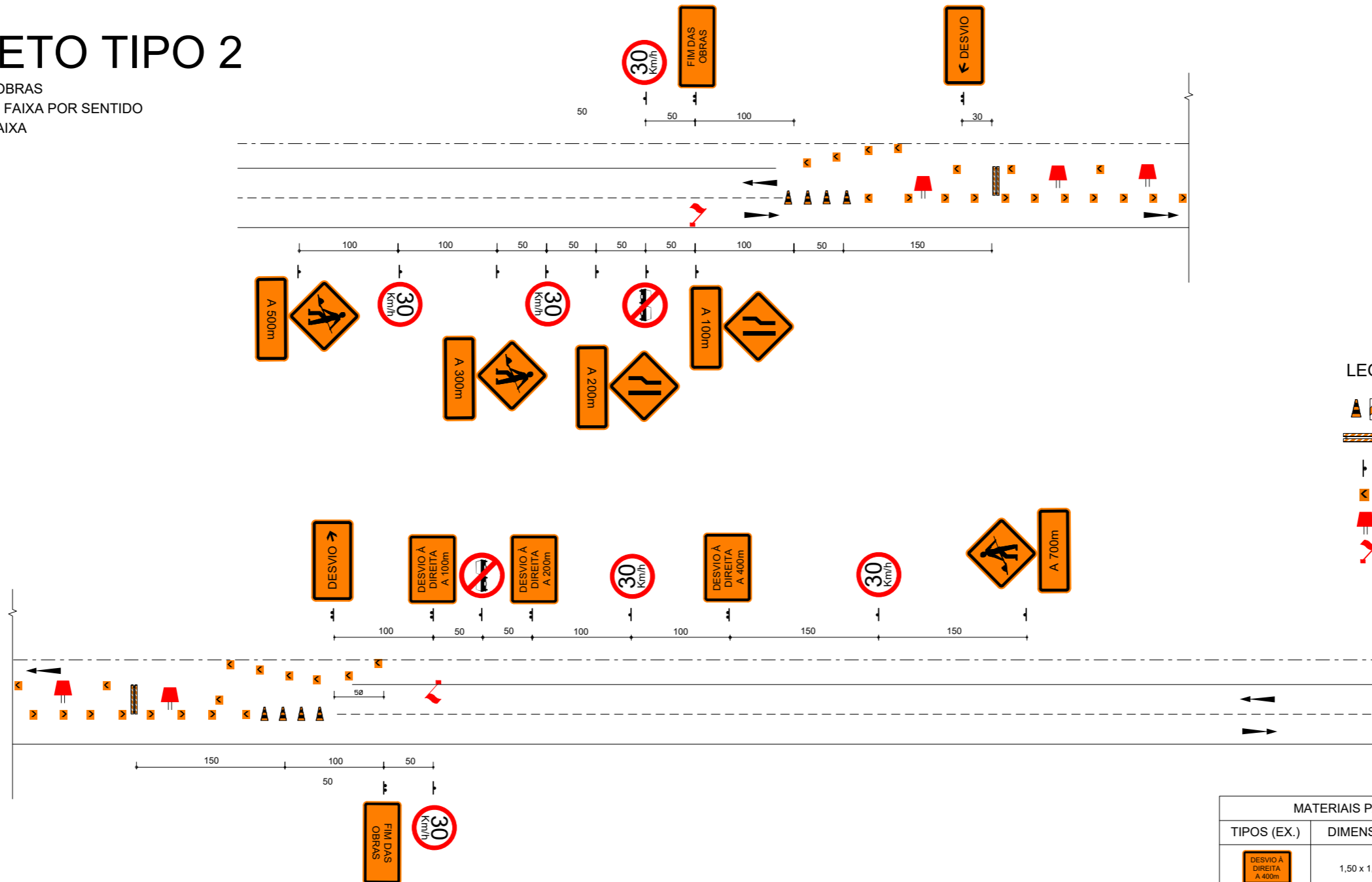
MATERIAIS PARA SINALIZAÇÃO DE OBRAS
ESPECIFICAÇÕES
- TODAS AS PLACAS DE ADVERTÊNCIAS, BALIZADORES, (PIQUETE) E DELINEADORES DEVERÃO SER CONFECCIONADOS COM CHAPA ZINCADA, O REVESTIMENTO DA FACE PRINCIPAL COM PELÍCULA REFLETIVA (TIPO I-A) NA COR LARANJA, E AOUTRA FACE PINTADA EM COR PRETA. AS LETRAS, SETAS, NÚMEROS, TARJAS E SÍMBOLOS COM PELÍCULA (TIPO IV-B) NA COR PRETA.
- AS PLACAS DE REGULAMENTAÇÃO SERÃO CONFECCIONADAS NAS CORES PADRÕES (BRANCO, VERMELHO E PRETO), REVESTIDAS COM PELÍCULA REFLETIVA TIPO I-A (BRANCA E VERMELHA), TIPO IV-B (PRETA) E A CHAPA DEVERÁ SER ZINCADA.
- OS DISPOSITIVOS LUMINOSOS DEVERÃO TER LÂMPADAS ELÉTRICAS PROTEGIDAS POR CÚPULAS TRANSLUCIDAS (BALDES) NA COR LARANJA.
- OS SINAIS PARE - PORTÁTEIS DEVERÃO SER CONFECCIONADOS COM MATERIAL RÍGIDO PRESO A SUPORTE, QUE DEVERÃO SER TRANSPORTADOS POR UM OPERADOR.

- AS BARREIRAS DEVERÃO SER DE MADEIRA NAS CORES BRANCAS COM BARRAS LARANJA ALTERNADAMENTE E REFLETIVAS (NA COR LARANJA).
- AS BANDEIRAS DEVERÃO SER CONFECCIONADAS EM TECIDO OU PLÁSTICO FLEXÍVEL PRESO A SUPORTE RÍGIDO QUE DEVERÃO SER TRANSPORTADOS POR UM OPERADOR.
- OS OPERADORES DE SINAL PARE - PORTÁTIL E BANDEIRAS DEVERÃO USAR COLETES NAS CORES LARANJA E BRANCA, CONFECCIONADAS COM MATERIAL REFLETIVO.
- OS SUPORTES DAS PLACAS DE ADVERTÊNCIA, REGULAMENTAÇÃO, DELINEADORES E BALIZADORES DEVERÃO SER DE MADEIRA.
- AS NORMAS QUE FIXAM OS TIPOS DE CHAPA E PELÍCULAS SÃO, RESPECTIVAMENTE, A NBR 11904E NBR 14644

		Autor do projeto: BRUNO FRIGO PASINI ENGENHEIRO CIVIL - CREA/SC 137.007-9	Obra R.M. LINHA EYNG
		Prancha: 01/02	Conteúdo SINALIZAÇÃO DE OBRAS
		Local R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC	

PROJETO TIPO 2

SINALIZAÇÃO DE OBRAS
 PISTA SIMPLES - 1 FAIXA POR SENTIDO
 BLOQUEIO DE 1 FAIXA



LEGENDA:

- CONE OU BALIZADOR (PIQUETE)
- BARREIRA
- PLACA
- DELINEADOR
- BALDES COM ILUMINAÇÃO
- BANDEIRAS

MATERIAIS PARA SINALIZAÇÃO DE OBRAS ESPECIFICAÇÕES

- TODAS AS PLACAS DE ADVERTÊNCIAS, BALIZADORES, (PIQUETE) E DELINEADORES DEVERÃO SER CONFECCIONADOS COM CHAPA ZINCADA, O REVESTIMENTO DA FACE PRINCIPAL COM PELÍCULA REFLETIVA (TIPO I-A) NA COR LARANJA, E AOUTRA FACE PINTADA EM COR PRETA. AS LETRAS, SETAS, NÚMEROS, TARJAS E SÍMBOLOS COM PELÍCULA (TIPO IV-B) NA COR PRETA.
- AS PLACAS DE REGULAMENTAÇÃO SERÃO CONFECCIONADAS NAS CORES PADRÕES (BRANCO, VERMELHO E PRETO), REVESTIDAS COM PELÍCULA REFLETIVA TIPO I-A (BRANCA E VERMELHA), TIPO IV-B (PRETA) E A CHAPA DEVERÁ SER ZINCADA.
- OS DISPOSITIVOS LUMINOSOS DEVERÃO TER LÂMPADAS ELÉTRICAS PROTEGIDAS POR CÚPULAS TRANSLUCIDAS (BALDES) NA COR LARANJA.
- OS SINAIS PARE - PORTÁTEIS DEVERÃO SER CONFECCIONADOS COM MATERIAL RÍGIDO PRESO A SUPORTE, QUE DEVERÃO SER TRANSPORTADOS POR UM OPERADOR.

- AS BARREIRAS DEVERÃO SER DE MADEIRA NAS CORES BRANCAS COM BARRAS LARANJA ALTERNADAMENTE E REFLETIVAS (NA COR LARANJA).
- AS BANDEIRAS DEVERÃO SER CONFECCIONADAS EM TECIDO OU PLÁSTICO FLEXÍVEL PRESO A SUPORTE RÍGIDO QUE DEVERÃO SER TRANSPORTADOS POR UM OPERADOR.
- OS OPERADORES DE SINAL PARE - PORTÁTIL E BANDEIRAS DEVERÃO USAR COLETES NAS CORES LARANJA E BRANCA, CONFECCIONADAS COM MATERIAL REFLETIVO.
- OS SUPORTES DAS PLACAS DE ADVERTÊNCIA, REGULAMENTAÇÃO, DELINEADORES E BALIZADORES DEVERÃO SER DE MADEIRA.
- AS NORMAS QUE FIXAM OS TIPOS DE CHAPA E PELÍCULAS SÃO, RESPECTIVAMENTE, A NBR 11904E NBR 14644

MATERIAIS PARA SINALIZAÇÃO DE OBRAS

TIPOS (EX.)	DIMENSÕES	TIPOS (EX.)	DIMENSÕES
	1,50 x 1,00m		0,33 x 0,40m
	1,50 x 0,70m		0,75 x 0,15m
	1,50 x 0,50m		L - 2,00m h - 1,20m
	Ø - 0,80m		0,60 x 0,60m
	0,80 x 0,80m		h - 0,75m Base - 0,40 x 0,40m
	L - 0,25m		Ø - 0,30m h - 0,30m

IDEALIZE
 ARQUITETURA, ENGENHARIA E AGRIMENSURA
 CREA/SC - 169873-0



Autor do projeto:
BRUNO FRIGO PASINI
 ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
 02/02

Obra
R.M. LINHA EYNG

Conteúdo
SINALIZAÇÃO DE OBRAS

Local
 R.M. LINHA EYNG - LINHA EYNG - FORQUILHINHA/SC

NOTAS DE SERVIÇO

-- Pavimento acabado

Nota de Serviço Tabela																	
CORREDOR - CICLO FAIXA ALI - CICLO FAIXA0+0.000 164+0.002																	
Eixo						Lado Direito											
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Cota Vermelha	BORDO_FISTA			ACOSTAMENTO			OFFSET_SUB			OFFSET		
						Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)	Afast. (m)	Cota (m)	Incl. (%)
0+0.000			0.000		0.000	2.500	-0.063	-2.50	2.700	-0.097	-17.50	2.707	-0.748	-10,000.00			
0+14.258	PC		27.665	27.745	-0.079	2.500	27.603	-2.50	2.700	27.568	-17.50	2.707	26.918	-10,000.00	2.966	27.834	352.59
1+0.000			27.677	27.698	-0.021	2.500	27.614	-2.50	2.700	27.579	-17.50	2.707	26.929	-10,000.00	2.920	27.799	407.92
1+1.304			27.679	27.715	-0.036	2.500	27.617	-2.50	2.700	27.582	-17.50	2.707	26.932	-10,000.00	2.894	27.776	450.71
1+8.350	FRC		27.694	27.805	-0.112	2.500	27.631	-2.50	2.700	27.596	-17.50	2.707	26.946	-10,000.00	2.875	27.771	489.31
1+10.000			27.697	27.773	-0.076	2.500	27.634	-2.50	2.700	27.599	-17.50	2.707	26.949	-10,000.00	2.813	27.713	715.92
1+13.608			27.704	27.735	-0.031	2.500	27.642	-2.50	2.700	27.607	-17.50	2.707	26.956	-10,000.00	2.721	27.628	4,502.69
1+18.865	FRC		27.715	27.838	-0.123	2.500	27.652	-2.50	2.700	27.617	-17.50	2.707	26.967	-10,000.00	2.722	27.639	4,428.09
2+0.000			27.717	27.826	-0.109	2.500	27.654	-2.50	2.700	27.619	-17.50	2.707	26.969	-10,000.00	2.735	27.655	2,369.54
2+6.085			27.729	27.774	-0.045	2.500	27.667	-2.50	2.700	27.632	-17.50	2.707	26.981	-10,000.00	2.732	27.663	2,702.31
2+10.000			27.737	27.805	-0.068	2.500	27.674	-2.50	2.700	27.639	-17.50	2.707	26.989	-10,000.00	2.752	27.692	1,541.28
2+13.305	PT		27.744	27.773	-0.029	2.500	27.681	-2.50	2.700	27.646	-17.50	2.707	26.996	-10,000.00	2.894	27.516	276.91
3+0.000			27.757	27.738	0.019	2.500	27.694	-2.50	2.700	27.659	-17.50	2.707	27.009	-10,000.00	2.943	27.498	206.90
3+2.025			27.761	27.738	0.023	2.500	27.699	-2.50	2.700	27.664	-17.50	2.707	27.013	-10,000.00	2.947	27.499	201.59
3+10.203			27.777	27.777	0.000	2.500	27.715	-2.50	2.700	27.680	-17.50	2.707	27.030	-10,000.00	2.993	27.484	158.58
3+17.575			27.792	27.807	-0.015	2.500	27.730	-2.50	2.700	27.695	-17.50	2.707	27.045	-10,000.00	2.960	27.521	188.06
4+0.000			27.797	27.809	-0.012	2.500	27.735	-2.50	2.700	27.700	-17.50	2.707	27.049	-10,000.00	2.919	27.553	236.99
4+3.319			27.804	27.818	-0.014	2.500	27.741	-2.50	2.700	27.706	-17.50	2.707	27.056	-10,000.00	2.907	27.568	255.86
5+0.000			27.837	27.769	0.068	2.500	27.775	-2.50	2.700	27.740	-17.50	2.707	27.089	-10,000.00	2.888	27.614	289.49
5+5.915			27.849	27.785	0.064	2.500	27.786	-2.50	2.700	27.751	-17.50	2.707	27.101	-10,000.00	2.881	27.631	302.83
5+18.861			27.875	27.827	0.048	2.500	27.812	-2.50	2.700	27.777	-17.50	2.707	27.127	-10,000.00	2.881	27.657	302.88
6+0.000			27.877	27.834	0.043	2.500	27.815	-2.50	2.700	27.780	-17.50	2.707	27.129	-10,000.00	2.884	27.657	296.31
6+16.291			27.910	27.924	-0.014	2.500	27.847	-2.50	2.700	27.812	-17.50	2.707	27.162	-10,000.00	2.949	27.647	200.14
7+0.000			27.917	27.951	-0.034	2.500	27.855	-2.50	2.700	27.820	-17.50	2.707	27.170	-10,000.00	2.917	27.675	239.90
8+0.000			27.957	27.907	0.050	2.500	27.895	-2.50	2.700	27.860	-17.50	2.707	27.210	-10,000.00			
8+5.392			27.968	27.960	0.008	2.500	27.906	-2.50	2.700	27.871	-17.50	2.707	27.220	-10,000.00	2.830	27.784	456.80
9+0.000			27.997	28.021	-0.024	2.500	27.935	-2.50	2.700	27.900	-17.50	2.707	27.250	-10,000.00	2.882	27.778	300.39
9+3.408	PC		28.004	28.056	-0.052	2.500	27.942	-2.50	2.700	27.907	-17.50	2.707	27.256	-10,000.00	2.828	27.821	463.33
9+10.000			28.017	28.090	-0.073	2.500	27.955	-2.50	2.700	27.920	-17.50	2.707	27.270	-10,000.00	2.876	27.803	314.98
10+0.000			28.037	28.072	-0.035	2.500	27.975	-2.50	2.700	27.940	-17.50	2.707	27.290	-10,000.00	2.820	27.860	501.35
10+1.037		BVC	28.039	28.070	-0.031	2.500	27.977	-2.50	2.700	27.942	-17.50	2.707	27.292	-10,000.00	2.842	27.848	411.19
10+10.000			28.057	28.035	0.022	2.500	27.995	-2.50	2.700	27.960	-17.50	2.707	27.310	-10,000.00	2.919	27.814	237.39
10+18.665	PT		28.093	28.102	-0.009	2.500	28.030	-2.50	2.700	27.995	-17.50	2.707	27.345	-10,000.00	2.962	27.821	185.69
11+0.000		EVC	28.102	28.114	-0.013	2.500	28.039	-2.50	2.700	28.004	-17.50	2.707	27.354	-10,000.00	2.967	27.826	181.01
11+14.692	PC		28.251	28.227	0.025	2.500	28.189	-2.50	2.700	28.154	-17.50	2.707	27.504	-10,000.00	3.158	27.848	76.38
12+0.000			28.323	28.304	0.019	2.500	28.261	-2.50	2.700	28.226	-17.50	2.707	27.575	-10,000.00	3.268	27.847	48.31
12+8.849			28.443	28.426	0.016	2.500	28.380	-2.50	2.700	28.345	-17.50	2.707	27.695	-10,000.00	3.420	27.865	23.85
12+10.000		BVC	28.458	28.438	0.020	2.500	28.396	-2.50	2.700	28.361	-17.50	2.707	27.711	-10,000.00	3.479	27.842	16.98
13+0.000			28.578	28.548	0.029	2.500	28.515	-2.50	2.700	28.480	-17.50	2.707	27.830	-10,000.00	3.631	27.859	3.18
13+3.005	PT		28.602	28.564	0.038	2.500	28.540	-2.50	2.700	28.505	-17.50	2.707	27.855	-10,000.00	3.624	27.888	3.69
13+13.654		EVC	28.643	28.621	0.023	2.500	28.581	-2.50	2.700	28.546	-17.50	2.707	27.896	-10,000.00	2.912	28.405	248.28

Nota de Serviço Tabela																	
CORREDOR-CICLO FAIXAALI - CICLO FAIXA0+0.000 164+0.002																	
Eixo						Lado Direito											
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Vermelha	BORDO_PISTA			ACOSTAMENTO			OFFSET_SUB			OFFSET		
						Afast.	Cota	Incl.	Afast.	Cota (m)	Incl. (%)	Afast.	Cota	Incl. (%)	Afast.	Cota (m)	Incl. (%)
14+0.000			28.641	28.627	0.013	2.500	28.578	-2.50	2.700	28.543	-17.50	2.707	27.893	-10,000.00	2.731	28.523	2,593.79
14+1.547			28.640	28.621	0.019	2.500	28.577	-2.50	2.700	28.542	-17.50	2.707	27.892	-10,000.00	2.726	28.525	3,315.61
14+7.896			28.636	28.614	0.022	2.500	28.573	-2.50	2.700	28.538	-17.50	2.707	27.888	-10,000.00	2.746	28.584	1,754.79
14+15.158			28.631	28.682	-0.051	2.500	28.569	-2.50	2.700	28.534	-17.50	2.707	27.884	-10,000.00	3.224	28.184	58.18
15+0.000			28.628	28.690	-0.061	2.500	28.566	-2.50	2.700	28.531	-17.50	2.707	27.881	-10,000.00	3.234	28.175	55.80
15+6.184			28.624	28.682	-0.057	2.500	28.562	-2.50	2.700	28.527	-17.50	2.707	27.877	-10,000.00	3.254	28.158	51.31
15+13.949			28.620	28.693	-0.073	2.500	28.557	-2.50	2.700	28.522	-17.50	2.707	27.872	-10,000.00	3.219	28.176	59.35
16+0.000			28.616	28.611	0.005	2.500	28.553	-2.50	2.700	28.518	-17.50	2.707	27.868	-10,000.00	3.266	28.141	48.69
16+19.908			28.604	28.612	-0.009	2.500	28.541	-2.50	2.700	28.506	-17.50	2.707	27.856	-10,000.00	3.119	28.227	90.03
17+0.000			28.604	28.614	-0.011	2.500	28.541	-2.50	2.700	28.506	-17.50	2.707	27.856	-10,000.00	3.119	28.227	90.06
17+7.033			28.590	28.596	-0.006	2.500	28.528	-2.50	2.700	28.493	-17.50	2.707	27.842	-10,000.00	3.020	28.279	139.27
18+0.000			28.556	28.638	-0.082	2.500	28.494	-2.50	2.700	28.459	-17.50	2.707	27.809	-10,000.00	3.001	28.258	152.32
19+0.000			28.504	28.583	-0.079	2.500	28.442	-2.50	2.700	28.407	-17.50	2.707	27.757	-10,000.00	2.789	28.347	712.47
19+3.389			28.496	28.562	-0.066	2.500	28.433	-2.50	2.700	28.398	-17.50	2.707	27.748	-10,000.00	2.841	28.304	413.23
20+0.000		BVC	28.452	28.506	-0.053	2.500	28.390	-2.50	2.700	28.355	-17.50	2.707	27.705	-10,000.00	2.760	28.315	1,146.21
21+0.000			28.366	28.327	0.039	2.500	28.304	-2.50	2.700	28.269	-17.50	2.707	27.619	-10,000.00	2.769	28.223	970.23
21+6.937			28.307	28.288	0.019	2.500	28.245	-2.50	2.700	28.210	-17.50	2.707	27.560	-10,000.00	2.854	28.363	546.43
22+0.000			28.153	28.135	0.018	2.500	28.091	-2.50	2.700	28.056	-17.50	2.707	27.405	-10,000.00	2.939	28.295	382.41
22+0.445		EVC	28.147	28.140	0.006	2.500	28.084	-2.50	2.700	28.049	-17.50	2.707	27.399	-10,000.00	2.919	28.268	409.62
22+7.357			28.043	28.018	0.025	2.500	27.981	-2.50	2.700	27.946	-17.50	2.707	27.295	-10,000.00	2.821	28.067	673.22
22+17.145			27.893	27.927	-0.034	2.500	27.831	-2.50	2.700	27.796	-17.50	2.707	27.145	-10,000.00	2.876	27.971	487.50
23+0.000			27.849	27.834	0.016	2.500	27.787	-2.50	2.700	27.752	-17.50	2.707	27.102	-10,000.00	2.746	27.798	1,745.39
23+3.570			27.795	27.727	0.068	2.500	27.732	-2.50	2.700	27.697	-17.50	2.707	27.047	-10,000.00	2.831	27.610	453.00
23+10.106		BVC	27.694	27.525	0.169	2.500	27.632	-2.50	2.700	27.597	-17.50	2.707	26.947	-10,000.00	3.295	27.200	43.00
23+18.507			27.566	27.415	0.151	2.500	27.504	-2.50	2.700	27.469	-17.50	2.707	26.819	-10,000.00	4.163	26.494	-22.33
24+0.000			27.545	27.408	0.137	2.500	27.483	-2.50	2.700	27.448	-17.50	2.707	26.798	-10,000.00	4.230	26.428	-24.28
24+3.887			27.495	27.377	0.117	2.500	27.432	-2.50	2.700	27.397	-17.50	2.707	26.747	-10,000.00	4.438	26.238	-29.38
24+10.929			27.420	27.395	0.025	2.500	27.358	-2.50	2.700	27.323	-17.50	2.707	26.672	-10,000.00	4.504	26.120	-30.73
24+16.212	PC		27.378	27.394	-0.016	2.500	27.316	-2.50	2.700	27.281	-17.50	2.707	26.631	-10,000.00	4.391	26.153	-28.32
25+0.000			27.356	27.422	-0.067	2.500	27.293	-2.50	2.700	27.258	-17.50	2.707	26.608	-10,000.00	4.123	26.309	-21.08
25+3.703			27.340	27.433	-0.094	2.500	27.277	-2.50	2.700	27.242	-17.50	2.707	26.592	-10,000.00	4.034	26.353	-18.03
25+10.000			27.326	27.392	-0.066	2.500	27.264	-2.50	2.700	27.229	-17.50	2.707	26.579	-10,000.00	4.268	26.184	-25.30
25+11.193	PT		27.326	27.385	-0.059	2.500	27.263	-2.50	2.700	27.228	-17.50	2.707	26.578	-10,000.00	4.262	26.187	-25.16
25+17.452			27.333	27.397	-0.065	2.500	27.270	-2.50	2.700	27.235	-17.50	2.707	26.585	-10,000.00	4.406	26.098	-28.66
26+0.000			27.341	27.379	-0.039	2.500	27.278	-2.50	2.700	27.243	-17.50	2.707	26.593	-10,000.00	4.395	26.113	-28.41
26+8.046			27.384	27.412	-0.028	2.500	27.321	-2.50	2.700	27.286	-17.50	2.707	26.636	-10,000.00	4.461	26.112	-29.87
26+18.401			27.481	27.454	0.026	2.500	27.418	-2.50	2.700	27.383	-17.50	2.707	26.733	-10,000.00	4.571	26.136	-32.03
27+0.000			27.500	27.461	0.039	2.500	27.437	-2.50	2.700	27.402	-17.50	2.707	26.752	-10,000.00	4.540	26.176	-31.44
27+1.683			27.521	27.487	0.035	2.500	27.459	-2.50	2.700	27.424	-17.50	2.707	26.774	-10,000.00	4.504	26.221	-30.74
27+13.549		EVC	27.707	27.626	0.081	2.500	27.645	-2.50	2.700	27.610	-17.50	2.707	26.959	-10,000.00	4.265	26.566	-25.22
28+0.000			27.834	27.753	0.081	2.500	27.771	-2.50	2.700	27.736	-17.50	2.707	27.086	-10,000.00	4.404	26.601	-28.61

Nota de Serviço Tabela																	
CORREDOR- CICLO FAIXAALI - CICLO FAIXA0+0.000 164+0.002																	
Eixo						Lado Direito											
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Vermelha	BORDO_FISTA			ACOSTAMENTO			OFFSET_SUB			OFFSET		
						Afast.	Cota	Incl.	Afast.	Cota (m)	Incl. (%)	Afast.	Cota	Incl. (%)	Afast.	Cota (m)	Incl. (%)
28+9.322			28.029	27.987	0.042	2.500	27.966	-2.50	2.700	27.931	-17.50	2.707	27.281	-10,000.00	4.209	26.925	-23.68
28+17.851			28.207	28.170	0.037	2.500	28.145	-2.50	2.700	28.110	-17.50	2.707	27.460	-10,000.00	3.600	27.510	5.64
29+0.000		BVC	28.252	28.235	0.017	2.500	28.190	-2.50	2.700	28.155	-17.50	2.707	27.505	-10,000.00	3.462	27.647	18.80
29+10.498			28.470	28.435	0.035	2.500	28.407	-2.50	2.700	28.372	-17.50	2.707	27.722	-10,000.00	2.999	28.173	154.04
29+17.585			28.602	28.552	0.050	2.500	28.540	-2.50	2.700	28.505	-17.50	2.707	27.855	-10,000.00	2.837	28.642	602.17
30+0.000			28.644	28.663	-0.019	2.500	28.582	-2.50	2.700	28.547	-17.50	2.707	27.896	-10,000.00	2.934	28.781	388.37
30+5.647			28.735	28.816	-0.080	2.500	28.673	-2.50	2.700	28.638	-17.50	2.707	27.988	-10,000.00	2.822	28.759	670.14
30+13.079			28.841	28.867	-0.026	2.500	28.778	-2.50	2.700	28.743	-17.50	2.707	28.093	-10,000.00	2.816	28.666	524.11
31+0.000			28.925	28.916	0.009	2.500	28.862	-2.50	2.700	28.827	-17.50	2.707	28.177	-10,000.00	2.902	28.693	263.50
31+4.600			28.973	28.950	0.023	2.500	28.910	-2.50	2.700	28.875	-17.50	2.707	28.225	-10,000.00	2.898	28.743	270.56
32+0.000			29.088	29.136	-0.048	2.500	29.026	-2.50	2.700	28.991	-17.50	2.707	28.341	-10,000.00	2.832	28.903	446.18
32+1.008			29.093	29.127	-0.033	2.500	29.031	-2.50	2.700	28.996	-17.50	2.707	28.346	-10,000.00	2.904	28.860	260.60
32+12.013		EVC	29.130	29.151	-0.021	2.500	29.068	-2.50	2.700	29.033	-17.50	2.707	28.382	-10,000.00	2.844	28.936	401.89
33+0.000			29.142	29.143	-0.002	2.500	29.079	-2.50	2.700	29.044	-17.50	2.707	28.394	-10,000.00	2.898	28.912	270.32
33+12.587			29.160	29.106	0.054	2.500	29.097	-2.50	2.700	29.062	-17.50	2.707	28.412	-10,000.00	3.123	28.781	88.43
34+0.000			29.171	29.202	-0.031	2.500	29.108	-2.50	2.700	29.073	-17.50	2.707	28.423	-10,000.00	3.022	28.859	138.15
35+0.000			29.200	29.227	-0.027	2.500	29.137	-2.50	2.700	29.102	-17.50	2.707	28.452	-10,000.00	2.745	29.147	1,822.51
35+11.690			29.216	29.280	-0.064	2.500	29.154	-2.50	2.700	29.119	-17.50	2.707	28.469	-10,000.00	2.727	29.146	3,367.13
36+0.000			29.228	29.248	-0.019	2.500	29.166	-2.50	2.700	29.131	-17.50	2.707	28.481	-10,000.00	3.190	28.804	66.84
36+18.399			29.255	29.254	0.001	2.500	29.193	-2.50	2.700	29.158	-17.50	2.707	28.507	-10,000.00	3.096	28.894	99.17
37+0.000			29.257	29.255	0.003	2.500	29.195	-2.50	2.700	29.160	-17.50	2.707	28.510	-10,000.00	3.073	28.911	109.60
38+0.000			29.286	29.248	0.038	2.500	29.224	-2.50	2.700	29.189	-17.50	2.707	28.539	-10,000.00	3.386	28.732	28.44
38+4.477			29.293	29.270	0.023	2.500	29.230	-2.50	2.700	29.195	-17.50	2.707	28.545	-10,000.00	3.411	28.722	25.06
39+0.000			29.315	29.197	0.118	2.500	29.253	-2.50	2.700	29.218	-17.50	2.707	28.568	-10,000.00	5.114	27.609	-39.84
39+11.860			29.332	29.268	0.064	2.500	29.270	-2.50	2.700	29.235	-17.50	2.707	28.585	-10,000.00	5.233	27.546	-41.11
40+0.000			29.344	29.241	0.103	2.500	29.282	-2.50	2.700	29.247	-17.50	2.707	28.596	-10,000.00	5.609	27.307	-44.42
41+0.000			29.373	29.290	0.083	2.500	29.311	-2.50	2.700	29.276	-17.50	2.707	28.625	-10,000.00	3.278	28.890	46.41
41+1.597		BVC	29.375	29.308	0.067	2.500	29.313	-2.50	2.700	29.278	-17.50	2.707	28.628	-10,000.00	3.218	28.933	59.68
42+0.000			29.401	29.364	0.037	2.500	29.339	-2.50	2.700	29.304	-17.50	2.707	28.653	-10,000.00	2.918	29.158	239.17
42+5.190			29.404	29.372	0.031	2.500	29.341	-2.50	2.700	29.306	-17.50	2.707	28.656	-10,000.00	3.098	29.041	98.21
43+0.000			29.386	29.337	0.050	2.500	29.324	-2.50	2.700	29.289	-17.50	2.707	28.639	-10,000.00	3.058	29.050	116.99
44+0.000		EVC	29.306	29.293	0.013	2.500	29.244	-2.50	2.700	29.209	-17.50	2.707	28.559	-10,000.00	3.332	28.787	36.52
44+11.657			29.229	29.245	-0.016	2.500	29.167	-2.50	2.700	29.132	-17.50	2.707	28.482	-10,000.00	3.404	28.662	25.86
45+0.000			29.167	29.239	-0.072	2.500	29.105	-2.50	2.700	29.070	-17.50	2.707	28.420	-10,000.00	3.115	28.793	91.52
45+9.226		BVC	29.099	29.155	-0.057	2.500	29.036	-2.50	2.700	29.001	-17.50	2.707	28.351	-10,000.00	2.950	28.834	198.73
45+19.396			29.031	29.021	0.010	2.500	28.969	-2.50	2.700	28.934	-17.50	2.707	28.284	-10,000.00	4.159	27.962	-22.19
46+0.000			29.028	29.017	0.011	2.500	28.966	-2.50	2.700	28.931	-17.50	2.707	28.280	-10,000.00	4.222	27.916	-24.06
46+8.260	PC		28.989	28.910	0.078	2.500	28.926	-2.50	2.700	28.891	-17.50	2.707	28.241	-10,000.00	5.532	27.003	-43.81
46+10.000			28.982	28.928	0.053	2.500	28.919	-2.50	2.700	28.884	-17.50	2.707	28.234	-10,000.00	5.578	26.966	-44.17
46+12.654			28.973	28.892	0.081	2.500	28.910	-2.50	2.700	28.875	-17.50	2.707	28.225	-10,000.00	5.719	26.863	-45.23
46+17.048	PT		28.960	28.854	0.107	2.500	28.898	-2.50	2.700	28.863	-17.50	2.707	28.213	-10,000.00	5.977	26.679	-46.92

Nota de Serviço Tabela

CORREDOR- CICLO FAIXAALI - CICLO FAIXA0+0.000 164+0.002

Eixo						Lado Direito											
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Vermelha	BORDO_PISTA			ACOSTAMENTO			OFFSET_SUB			OFFSET		
						Afast.	Cota	Incl.	Afast.	Cota (m)	Incl. (%)	Afast.	Cota	Incl. (%)	Afast.	Cota (m)	Incl. (%)
47+0.000			28.954	28.861	0.093	2.500	28.892	-2.50	2.700	28.857	-17.50	2.707	28.206	-10,000.00	5.941	26.696	-46.70
47+11.827			28.945	28.925	0.020	2.500	28.883	-2.50	2.700	28.848	-17.50	2.707	28.198	-10,000.00	5.328	27.096	-42.03
48+0.000			28.954	28.947	0.007	2.500	28.892	-2.50	2.700	28.857	-17.50	2.707	28.206	-10,000.00	5.176	27.206	-40.52
48+2.370			28.959	28.985	-0.026	2.500	28.897	-2.50	2.700	28.862	-17.50	2.707	28.211	-10,000.00	4.556	27.624	-31.75
48+9.022			28.978	29.033	-0.054	2.500	28.916	-2.50	2.700	28.881	-17.50	2.707	28.231	-10,000.00	3.573	28.299	7.86
49+0.000		EVC	29.028	29.070	-0.042	2.500	28.966	-2.50	2.700	28.931	-17.50	2.707	28.280	-10,000.00	3.125	28.647	87.61
49+9.712			29.082	29.141	-0.059	2.500	29.020	-2.50	2.700	28.985	-17.50	2.707	28.335	-10,000.00	2.744	29.029	1,844.77
50+0.000			29.140	29.225	-0.085	2.500	29.077	-2.50	2.700	29.042	-17.50	2.707	28.392	-10,000.00	2.938	29.280	383.76
51+0.000			29.252	29.328	-0.077	2.500	29.189	-2.50	2.700	29.154	-17.50	2.707	28.504	-10,000.00	2.939	28.995	210.81
51+11.599			29.316	29.339	-0.022	2.500	29.254	-2.50	2.700	29.219	-17.50	2.707	28.569	-10,000.00	2.899	29.086	268.67
52+0.000		BVC	29.363	29.343	0.020	2.500	29.301	-2.50	2.700	29.266	-17.50	2.707	28.616	-10,000.00	2.724	29.290	3,870.20
53+0.000			29.470	29.356	0.115	2.500	29.408	-2.50	2.700	29.373	-17.50	2.707	28.723	-10,000.00	2.940	29.213	209.86
53+2.641			29.480	29.395	0.086	2.500	29.418	-2.50	2.700	29.383	-17.50	2.707	28.733	-10,000.00	2.892	29.255	282.02
53+14.489			29.506	29.504	0.003	2.500	29.444	-2.50	2.700	29.409	-17.50	2.707	28.759	-10,000.00	2.765	29.473	1,227.13
54+0.000			29.507	29.479	0.028	2.500	29.445	-2.50	2.700	29.410	-17.50	2.707	28.760	-10,000.00	2.768	29.478	1,162.09
54+2.854			29.505	29.483	0.022	2.500	29.443	-2.50	2.700	29.408	-17.50	2.707	28.757	-10,000.00	2.750	29.458	1,600.02
54+12.218			29.485	29.472	0.013	2.500	29.423	-2.50	2.700	29.388	-17.50	2.707	28.737	-10,000.00	2.762	29.450	1,274.79
55+0.000		EVC	29.453	29.421	0.032	2.500	29.391	-2.50	2.700	29.356	-17.50	2.707	28.706	-10,000.00	2.835	29.491	610.35
56+0.000			29.324	29.192	0.132	2.500	29.262	-2.50	2.700	29.227	-17.50	2.707	28.577	-10,000.00	3.288	28.835	44.46
56+1.051			29.317	29.177	0.140	2.500	29.255	-2.50	2.700	29.220	-17.50	2.707	28.569	-10,000.00	3.310	28.813	40.34
57+0.000			29.188	29.015	0.173	2.500	29.125	-2.50	2.700	29.090	-17.50	2.707	28.440	-10,000.00	3.574	28.507	7.74
57+3.821			29.162	29.013	0.148	2.500	29.099	-2.50	2.700	29.064	-17.50	2.707	28.414	-10,000.00	3.540	28.504	10.80
57+16.957			29.072	28.953	0.119	2.500	29.010	-2.50	2.700	28.975	-17.50	2.707	28.324	-10,000.00	3.456	28.470	19.47
58+0.000			29.051	28.950	0.101	2.500	28.989	-2.50	2.700	28.954	-17.50	2.707	28.304	-10,000.00	3.462	28.446	18.80
59+0.000			28.915	28.848	0.067	2.500	28.852	-2.50	2.700	28.817	-17.50	2.707	28.167	-10,000.00	3.078	28.565	107.20
59+0.480		BVC	28.912	28.850	0.061	2.500	28.849	-2.50	2.700	28.814	-17.50	2.707	28.164	-10,000.00	3.063	28.572	114.58
59+8.316			28.858	28.847	0.012	2.500	28.796	-2.50	2.700	28.761	-17.50	2.707	28.110	-10,000.00	3.017	28.549	141.28
59+15.742			28.814	28.835	-0.021	2.500	28.752	-2.50	2.700	28.717	-17.50	2.707	28.066	-10,000.00	3.016	28.506	142.18
60+0.000			28.794	28.871	-0.077	2.500	28.731	-2.50	2.700	28.696	-17.50	2.707	28.046	-10,000.00	3.021	28.482	138.85
60+2.134			28.785	28.884	-0.099	2.500	28.723	-2.50	2.700	28.688	-17.50	2.707	28.037	-10,000.00	3.140	28.394	82.35
60+9.744			28.761	28.785	-0.024	2.500	28.699	-2.50	2.700	28.664	-17.50	2.707	28.014	-10,000.00	3.056	28.427	118.19
60+13.579			28.754	28.768	-0.014	2.500	28.691	-2.50	2.700	28.656	-17.50	2.707	28.006	-10,000.00	3.118	28.378	90.29
60+18.629			28.748	28.661	0.088	2.500	28.686	-2.50	2.700	28.651	-17.50	2.707	28.001	-10,000.00	3.138	28.359	82.87
61+0.000			28.748	28.674	0.074	2.500	28.685	-2.50	2.700	28.650	-17.50	2.707	28.000	-10,000.00	3.137	28.359	83.39
61+4.376			28.749	28.637	0.112	2.500	28.686	-2.50	2.700	28.651	-17.50	2.707	28.001	-10,000.00	3.107	28.380	94.56
61+12.408			28.760	28.678	0.083	2.500	28.698	-2.50	2.700	28.663	-17.50	2.707	28.013	-10,000.00	3.097	28.398	98.72
61+18.993			28.780	28.859	-0.079	2.500	28.717	-2.50	2.700	28.682	-17.50	2.707	28.032	-10,000.00	3.048	28.450	122.42
62+0.000		EVC	28.783	28.852	-0.068	2.500	28.721	-2.50	2.700	28.686	-17.50	2.707	28.036	-10,000.00	2.972	28.505	176.81
62+9.917			28.830	28.874	-0.044	2.500	28.767	-2.50	2.700	28.732	-17.50	2.707	28.082	-10,000.00	2.814	28.656	536.43
63+0.000			28.881	29.054	-0.173	2.500	28.819	-2.50	2.700	28.784	-17.50	2.707	28.134	-10,000.00	2.722	28.805	4,387.86
63+15.941			28.963	29.096	-0.134	2.500	28.900	-2.50	2.700	28.865	-17.50	2.707	28.215	-10,000.00	2.750	28.915	1,602.12



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
4 / 9

Obra
R.M. LINHA EYNG

Conteúdo
NOTAS DE SERVIÇO - CICLOFAIXA

Local
R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC

Nota de Serviço Tabela																	
CORREDOR- CICLO FAIXAALJ - CICLO FAIXA0+0.000 164+0.002																	
Eixo						Lado Direito											
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Verme lha	BORDO_PISTA			ACOSTAMENTO			OFFSET SUB			OFFSET		
						Afast.	Cota	Incl.	Afast.	Cota (m)	Incl. (%)	Afast.	Cota	Incl. (%)	Afast.	Cota (m)	Incl. (%)
64+0.000			28.983	29.120	-0.136	2.500	28.921	-2.50	2.700	28.886	-17.50	2.707	28.236	-10,000.00	2.719	28.873	5,261.78
65+0.000			29.085	29.152	-0.067	2.500	29.023	-2.50	2.700	28.988	-17.50	2.707	28.338	-10,000.00	3.392	28.527	27.57
65+17.445			29.174	29.160	0.014	2.500	29.112	-2.50	2.700	29.077	-17.50	2.707	28.427	-10,000.00	3.721	28.396	-3.01
66+0.000		BVC	29.187	29.174	0.013	2.500	29.125	-2.50	2.700	29.090	-17.50	2.707	28.440	-10,000.00	3.696	28.426	-1.40
67+0.000			29.284	29.203	0.081	2.500	29.221	-2.50	2.700	29.186	-17.50	2.707	28.536	-10,000.00	3.106	28.915	94.83
67+6.331			29.302	29.252	0.050	2.500	29.239	-2.50	2.700	29.204	-17.50	2.707	28.554	-10,000.00	2.986	29.014	164.29
68+0.000			29.312	29.318	-0.005	2.500	29.250	-2.50	2.700	29.215	-17.50	2.707	28.565	-10,000.00	2.750	29.264	1,619.33
68+4.507			29.307	29.324	-0.017	2.500	29.244	-2.50	2.700	29.209	-17.50	2.707	28.559	-10,000.00	2.799	29.308	810.88
68+14.064			29.282	29.312	-0.030	2.500	29.219	-2.50	2.700	29.184	-17.50	2.707	28.534	-10,000.00	2.826	29.310	651.53
69+0.000			29.256	29.289	-0.033	2.500	29.194	-2.50	2.700	29.159	-17.50	2.707	28.509	-10,000.00	2.799	29.258	808.62
69+1.820			29.247	29.279	-0.031	2.500	29.185	-2.50	2.700	29.150	-17.50	2.707	28.500	-10,000.00	2.785	29.234	939.38
69+10.481		EVC	29.194	29.223	-0.029	2.500	29.131	-2.50	2.700	29.096	-17.50	2.707	28.446	-10,000.00	2.734	29.130	2,494.55
69+17.612			29.142	29.209	-0.067	2.500	29.080	-2.50	2.700	29.045	-17.50	2.707	28.395	-10,000.00	2.732	29.024	2,494.57
70+0.000			29.125	29.207	-0.082	2.500	29.063	-2.50	2.700	29.028	-17.50	2.707	28.378	-10,000.00	2.742	29.000	1,764.28
70+4.183			29.095	29.209	-0.114	2.500	29.033	-2.50	2.700	28.998	-17.50	2.707	28.348	-10,000.00	2.759	28.958	1,156.85
70+7.598			29.071	29.209	-0.138	2.500	29.008	-2.50	2.700	28.973	-17.50	2.707	28.323	-10,000.00	3.041	28.746	126.54
70+18.837			28.990	28.993	-0.003	2.500	28.928	-2.50	2.700	28.893	-17.50	2.707	28.242	-10,000.00	3.213	28.551	60.80
71+0.000			28.982	28.984	-0.002	2.500	28.919	-2.50	2.700	28.884	-17.50	2.707	28.234	-10,000.00	3.220	28.538	59.19
71+8.432			28.921	28.875	0.046	2.500	28.859	-2.50	2.700	28.824	-17.50	2.707	28.174	-10,000.00	3.708	28.151	-2.21
71+19.294			28.843	28.818	0.025	2.500	28.781	-2.50	2.700	28.746	-17.50	2.707	28.096	-10,000.00	4.038	27.854	-18.15
72+0.000			28.838	28.819	0.019	2.500	28.776	-2.50	2.700	28.741	-17.50	2.707	28.091	-10,000.00	4.030	27.854	-17.86
72+11.670			28.754	28.700	0.054	2.500	28.692	-2.50	2.700	28.657	-17.50	2.707	28.007	-10,000.00	4.006	27.786	-16.99
73+0.000			28.695	28.705	-0.010	2.500	28.632	-2.50	2.700	28.597	-17.50	2.707	27.947	-10,000.00	3.557	28.026	9.24
73+2.334		BVC	28.678	28.705	-0.027	2.500	28.615	-2.50	2.700	28.580	-17.50	2.707	27.930	-10,000.00	3.557	28.009	9.24
74+0.000			28.552	28.566	-0.014	2.500	28.489	-2.50	2.700	28.454	-17.50	2.707	27.804	-10,000.00	3.557	27.883	9.24
74+2.532			28.536	28.576	-0.040	2.500	28.473	-2.50	2.700	28.438	-17.50	2.707	27.788	-10,000.00	3.557	27.867	9.24
75+0.000			28.469	28.447	0.022	2.500	28.407	-2.50	2.700	28.372	-17.50	2.707	27.721	-10,000.00	3.557	27.800	9.24
75+7.042			28.463	28.445	0.019	2.500	28.401	-2.50	2.700	28.366	-17.50	2.707	27.716	-10,000.00	3.557	27.794	9.24
76+0.000		EVC	28.485	28.470	0.015	2.500	28.422	-2.50	2.700	28.387	-17.50	2.707	27.737	-10,000.00	3.557	27.815	9.24
77+0.000			28.563	28.536	0.027	2.500	28.500	-2.50	2.700	28.465	-17.50	2.707	27.815	-10,000.00	3.557	27.894	9.24
78+0.000			28.642	28.690	-0.048	2.500	28.580	-2.50	2.700	28.545	-17.50	2.707	27.895	-10,000.00	3.557	27.973	9.24
78+15.459			28.704	28.721	-0.018	2.500	28.641	-2.50	2.700	28.606	-17.50	2.707	27.956	-10,000.00	3.557	28.034	9.24
79+0.000			28.722	28.711	0.010	2.500	28.659	-2.50	2.700	28.624	-17.50	2.707	27.974	-10,000.00	3.557	28.053	9.24
79+18.275			28.794	28.792	0.002	2.500	28.732	-2.50	2.700	28.697	-17.50	2.707	28.046	-10,000.00	3.557	28.125	9.24
80+0.000			28.798	28.784	0.014	2.500	28.735	-2.50	2.700	28.700	-17.50	2.707	28.050	-10,000.00	3.557	28.129	9.24
81+0.000			28.781	28.828	-0.047	2.500	28.718	-2.50	2.700	28.683	-17.50	2.707	28.033	-10,000.00	3.557	28.112	9.24
82+0.000			28.764	28.759	0.005	2.500	28.701	-2.50	2.700	28.666	-17.50	2.707	28.016	-10,000.00	3.557	28.095	9.24
82+7.371			28.758	28.704	0.054	2.500	28.695	-2.50	2.700	28.660	-17.50	2.707	28.010	-10,000.00	3.557	28.089	9.24
83+0.000		BVC	28.747	28.705	0.042	2.500	28.684	-2.50	2.700	28.649	-17.50	2.707	27.999	-10,000.00	3.557	28.078	9.24
84+0.000			28.731	28.728	0.004	2.500	28.669	-2.50	2.700	28.634	-17.50	2.707	27.984	-10,000.00	3.187	29.121	236.58
84+3.171			28.734	28.750	-0.016	2.500	28.671	-2.50	2.700	28.636	-17.50	2.707	27.986	-10,000.00	3.233	29.170	224.61

Nota de Serviço Tabela																		
CORREDOR - CICLO FAIXA A1 - CICLO FAIXA A0+0.000 164+0.002																		
Eixo						Lado Direito												
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Vermelha	BORDO_PISTA			ACOSTAMENTO			OFFSET_SUB			OFFSET			
						Afast.	Cota	Incl.	Afast.	Cota (m)	Incl. (%)	Afast.	Cota	Incl. (%)	Afast.	Cota (m)	Incl. (%)	
85+0.000			28.800	28.793	0.007	2.500	28.738	-2.50	2.700	28.703	-17.50	2.707	28.053	-10,000.00	3.399	29.402	194.78	
86+0.000			29.000	29.062	-0.062	2.500	28.938	-2.50	2.700	28.903	-17.50	2.707	28.252	-10,000.00	3.383	29.586	197.07	
86+5.006			29.071	29.065	0.005	2.500	29.008	-2.50	2.700	28.973	-17.50	2.707	28.323	-10,000.00	3.184	29.457	237.44	
86+13.371		EVC	29.207	29.198	0.009	2.500	29.144	-2.50	2.700	29.109	-17.50	2.707	28.459	-10,000.00	3.105	29.514	264.88	
87+0.000			29.331	29.287	0.043	2.500	29.268	-2.50	2.700	29.233	-17.50	2.707	28.583	-10,000.00	3.060	29.593	285.84	
87+8.152			29.487	29.475	0.012	2.500	29.425	-2.50	2.700	29.390	-17.50	2.707	28.739	-10,000.00	3.070	29.760	280.55	
87+17.478			29.666	29.745	-0.079	2.500	29.604	-2.50	2.700	29.569	-17.50	2.707	28.918	-10,000.00	2.839	29.707	596.20	
88+0.000			29.714	29.774	-0.060	2.500	29.652	-2.50	2.700	29.617	-17.50	2.707	28.967	-10,000.00	2.927	29.843	398.48	
88+3.438		BVC	29.780	29.840	-0.060	2.500	29.718	-2.50	2.700	29.683	-17.50	2.707	29.033	-10,000.00	2.902	29.885	435.55	
88+12.432			29.953	29.979	-0.026	2.500	29.890	-2.50	2.700	29.855	-17.50	2.707	29.205	-10,000.00	2.758	29.913	1,387.56	
89+0.000			30.082	30.099	-0.017	2.500	30.020	-2.50	2.700	29.985	-17.50	2.707	29.334	-10,000.00	2.951	29.817	197.71	
89+0.457			30.089	30.106	-0.017	2.500	30.027	-2.50	2.700	29.992	-17.50	2.707	29.341	-10,000.00	2.954	29.823	194.63	
89+15.019			30.268	30.267	0.001	2.500	30.206	-2.50	2.700	30.171	-17.50	2.707	29.520	-10,000.00	2.978	29.985	171.07	
90+0.000			30.309	30.315	-0.006	2.500	30.246	-2.50	2.700	30.211	-17.50	2.707	29.561	-10,000.00	3.230	29.858	56.64	
90+12.781		EVC	30.366	30.360	0.006	2.500	30.304	-2.50	2.700	30.269	-17.50	2.707	29.619	-10,000.00	3.018	30.057	140.84	
91+0.000			30.369	30.355	0.014	2.500	30.306	-2.50	2.700	30.271	-17.50	2.707	29.621	-10,000.00	3.149	29.972	79.44	
92+0.000			30.358	30.289	0.069	2.500	30.296	-2.50	2.700	30.261	-17.50	2.707	29.610	-10,000.00	3.233	29.905	56.07	
92+16.545			30.349	30.321	0.028	2.500	30.286	-2.50	2.700	30.251	-17.50	2.707	29.601	-10,000.00	3.286	29.861	44.73	
93+0.000			30.347	30.292	0.055	2.500	30.285	-2.50	2.700	30.250	-17.50	2.707	29.599	-10,000.00	3.239	29.890	54.65	
94+0.000			30.336	30.349	-0.013	2.500	30.274	-2.50	2.700	30.239	-17.50	2.707	29.588	-10,000.00	3.228	29.887	57.15	
94+19.382			30.326	30.373	-0.047	2.500	30.263	-2.50	2.700	30.228	-17.50	2.707	29.578	-10,000.00	3.340	29.801	35.26	
95+0.000			30.325	30.358	-0.033	2.500	30.263	-2.50	2.700	30.228	-17.50	2.707	29.578	-10,000.00	3.335	29.805	36.13	
96+0.000			30.314	30.304	0.010	2.500	30.252	-2.50	2.700	30.217	-17.50	2.707	29.567	-10,000.00	3.693	29.555	-1.18	
97+0.000			30.394	30.360	0.034	2.500	30.332	-2.50	2.700	30.297	-17.50	2.707	29.647	-10,000.00	3.760	29.590	-5.34	
97+8.118			30.440	30.374	0.066	2.500	30.378	-2.50	2.700	30.343	-17.50	2.707	29.693	-10,000.00	3.766	29.632	-5.70	
98+0.000			30.508	30.448	0.060	2.500	30.445	-2.50	2.700	30.410	-17.50	2.707	29.760	-10,000.00	3.806	29.672	-7.95	
98+12.288			30.577	30.522	0.055	2.500	30.515	-2.50	2.700	30.480	-17.50	2.707	29.830	-10,000.00	3.937	29.655	-14.17	
99+0.000			30.621	30.453	0.168	2.500	30.558	-2.50	2.700	30.523	-17.50	2.707	29.873	-10,000.00	3.985	29.667	-16.16	
99+7.253			30.662	30.478	0.184	2.500	30.599	-2.50	2.700	30.564	-17.50	2.707	29.914	-10,000.00	4.036	29.674	-18.08	
100+0.000			30.734	30.650	0.084	2.500	30.672	-2.50	2.700	30.637	-17.50	2.707	29.987	-10,000.00	4.098	29.705	-20.26	
100+8.103			30.780	30.592	0.188	2.500	30.718	-2.50	2.700	30.683	-17.50	2.707	30.032	-10,000.00	4.281	29.628	-25.65	
101+0.000			30.848	30.659	0.188	2.500	30.785	-2.50	2.700	30.750	-17.50	2.707	30.100	-10,000.00	4.293	29.688	-25.96	
101+0.208			30.849	30.667	0.182	2.500	30.786	-2.50	2.700	30.751	-17.50	2.707	30.101	-10,000.00	4.288	29.692	-25.84	
101+8.119			30.894	30.993	-0.099	2.500	30.831	-2.50	2.700	30.796	-17.50	2.707	30.146	-10,000.00	3.303	30.394	41.52	
102+0.000			30.961	31.117	-0.156	2.500	30.898	-2.50	2.700	30.863	-17.50	2.707	30.213	-10,000.00	3.075	30.613	108.36	
103+0.000			31.074	31.131	-0.057	2.500	31.012	-2.50	2.700	30.977	-17.50	2.707	30.327	-10,000.00	3.114	30.701	91.80	
104+0.000			31.142	31.130	0.012	2.500	31.079	-2.50	2.700	31.044	-17.50	2.707	30.394	-10,000.00	3.295	30.648	43.12	
104+9.252			31.170	31.077	0.093	2.500	31.107	-2.50	2.700	31.072	-17.50	2.707	30.422	-10,000.00	3.377	30.621	29.70	
105+0.000			31.202	31.091	0.111	2.500	31.139	-2.50	2.700	31.104	-17.50	2.707	30.454	-10,000.00	3.403	30.635	26.00	
106+0.000			31.262	31.065	0.197	2.500	31.199	-2.50	2.700	31.164	-17.50	2.707	30.514	-10,000.00	3.541	30.604	10.73	
107+0.000			31.322	31.146	0.176	2.500	31.259	-2.50	2.700	31.224	-17.50	2.707	30.574	-10,000.00	3.681	30.571	-0.37	

Nota de Serviço Tabela																	
CORREDOR - CICLO FAIXAALI - CICLO FAIXA0+0.000 164+0.002																	
Eixo						Lado Direito											
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Vermelha	BORDO_PISTA			ACOSTAMENTO			OFFSET_SUB			OFFSET		
						Afast.	Cota	Incl.	Afast.	Cota (m)	Incl. (%)	Afast.	Cota	Incl. (%)	Afast.	Cota (m)	Incl. (%)
107+8.376			31.347	31.239	0.108	2.500	31.284	-2.50	2.700	31.249	-17.50	2.707	30.599	-10,000.00	3.873	30.467	-11.31
108+0.000			31.382	31.405	-0.023	2.500	31.319	-2.50	2.700	31.284	-17.50	2.707	30.634	-10,000.00	3.874	30.501	-11.36
108+13.474			31.422	31.467	-0.045	2.500	31.360	-2.50	2.700	31.325	-17.50	2.707	30.674	-10,000.00	4.148	30.360	-21.85
109+0.000			31.442	31.468	-0.027	2.500	31.379	-2.50	2.700	31.344	-17.50	2.707	30.694	-10,000.00	4.291	30.283	-25.92
109+15.217			31.487	31.463	0.025	2.500	31.425	-2.50	2.700	31.390	-17.50	2.707	30.740	-10,000.00	4.197	30.392	-23.33
109+18.631			31.498	31.542	-0.044	2.500	31.435	-2.50	2.700	31.400	-17.50	2.707	30.750	-10,000.00	4.046	30.502	-18.47
110+0.000			31.502	31.561	-0.059	2.500	31.439	-2.50	2.700	31.404	-17.50	2.707	30.754	-10,000.00	4.204	30.402	-23.53
110+2.793			31.510	31.524	-0.014	2.500	31.448	-2.50	2.700	31.413	-17.50	2.707	30.762	-10,000.00	4.159	30.440	-22.20
110+7.202			31.523	31.486	0.037	2.500	31.461	-2.50	2.700	31.426	-17.50	2.707	30.776	-10,000.00	4.193	30.431	-23.21
110+11.421			31.536	31.636	-0.100	2.500	31.473	-2.50	2.700	31.438	-17.50	2.707	30.788	-10,000.00	4.104	30.502	-20.47
110+17.130			31.553	31.618	-0.065	2.500	31.490	-2.50	2.700	31.455	-17.50	2.707	30.805	-10,000.00	3.517	30.911	13.02
111+0.000			31.562	31.626	-0.065	2.500	31.499	-2.50	2.700	31.464	-17.50	2.707	30.814	-10,000.00	3.360	31.024	32.13
111+3.692			31.573	31.611	-0.038	2.500	31.510	-2.50	2.700	31.475	-17.50	2.707	30.825	-10,000.00	3.955	30.639	-14.93
111+7.943			31.585	31.596	-0.010	2.500	31.523	-2.50	2.700	31.488	-17.50	2.707	30.838	-10,000.00	4.154	30.518	-22.06
111+12.858			31.600	31.602	-0.002	2.500	31.538	-2.50	2.700	31.503	-17.50	2.707	30.852	-10,000.00	3.319	31.090	38.75
111+16.769			31.612	31.602	0.010	2.500	31.549	-2.50	2.700	31.514	-17.50	2.707	30.864	-10,000.00	3.206	31.177	62.71
112+0.000			31.621	31.597	0.024	2.500	31.559	-2.50	2.700	31.524	-17.50	2.707	30.873	-10,000.00	3.384	31.067	28.59
112+3.552	PC		31.619	31.572	0.046	2.500	31.556	-2.50	2.700	31.521	-17.50	2.707	30.871	-10,000.00	3.393	31.059	27.43
112+10.000			31.614	31.551	0.063	2.500	31.552	-2.50	2.700	31.517	-17.50	2.707	30.866	-10,000.00	3.560	30.943	8.99
112+11.201			31.613	31.553	0.061	2.500	31.551	-2.50	2.700	31.516	-17.50	2.707	30.866	-10,000.00	3.546	30.952	10.25
112+18.849	PT		31.608	31.503	0.105	2.500	31.545	-2.50	2.700	31.510	-17.50	2.707	30.860	-10,000.00	3.386	31.053	28.32
113+0.000			31.607	31.508	0.099	2.500	31.545	-2.50	2.700	31.510	-17.50	2.707	30.859	-10,000.00	3.360	31.069	32.13
113+5.503			31.603	31.558	0.045	2.500	31.541	-2.50	2.700	31.506	-17.50	2.707	30.856	-10,000.00	3.373	31.057	30.29
114+0.000			31.593	31.526	0.067	2.500	31.531	-2.50	2.700	31.496	-17.50	2.707	30.845	-10,000.00	3.294	31.099	43.18
114+3.013			31.591	31.532	0.059	2.500	31.529	-2.50	2.700	31.494	-17.50	2.707	30.843	-10,000.00	3.320	31.080	38.52
115+0.000			31.579	31.573	0.006	2.500	31.517	-2.50	2.700	31.482	-17.50	2.707	30.832	-10,000.00	3.234	31.126	55.85
116+0.000			31.565	31.510	0.056	2.500	31.503	-2.50	2.700	31.468	-17.50	2.707	30.818	-10,000.00	3.303	31.065	41.53
116+6.011			31.561	31.408	0.153	2.500	31.499	-2.50	2.700	31.464	-17.50	2.707	30.813	-10,000.00	3.340	31.037	35.33
117+0.000			31.551	31.513	0.039	2.500	31.489	-2.50	2.700	31.454	-17.50	2.707	30.804	-10,000.00	3.293	31.058	43.44
118+0.000			31.537	31.500	0.037	2.500	31.475	-2.50	2.700	31.440	-17.50	2.707	30.790	-10,000.00	3.209	31.100	61.79
118+16.188			31.526	31.564	-0.038	2.500	31.464	-2.50	2.700	31.429	-17.50	2.707	30.778	-10,000.00	3.171	31.115	72.52
119+0.000		BVC	31.523	31.542	-0.018	2.500	31.461	-2.50	2.700	31.426	-17.50	2.707	30.776	-10,000.00	3.125	31.142	87.49
120+0.000			31.511	31.630	-0.118	2.500	31.449	-2.50	2.700	31.414	-17.50	2.707	30.763	-10,000.00	3.246	31.050	53.15
121+0.000			31.537	31.545	-0.009	2.500	31.474	-2.50	2.700	31.439	-17.50	2.707	30.789	-10,000.00	3.324	31.023	37.86
121+0.162			31.537	31.538	-0.001	2.500	31.475	-2.50	2.700	31.440	-17.50	2.707	30.789	-10,000.00	3.323	31.024	38.04
122+0.000		EVC	31.615	31.634	-0.019	2.500	31.553	-2.50	2.700	31.518	-17.50	2.707	30.867	-10,000.00	4.345	30.421	-27.24
122+10.415			31.675	31.720	-0.045	2.500	31.613	-2.50	2.700	31.578	-17.50	2.707	30.927	-10,000.00	2.829	31.492	462.29
123+0.000			31.732	31.769	-0.037	2.500	31.670	-2.50	2.700	31.635	-17.50	2.707	30.985	-10,000.00	3.398	31.169	26.68
123+2.454			31.747	31.798	-0.051	2.500	31.685	-2.50	2.700	31.650	-17.50	2.707	30.999	-10,000.00	3.442	31.155	21.12
124+0.000		BVC	31.852	31.764	0.088	2.500	31.789	-2.50	2.700	31.754	-17.50	2.707	31.104	-10,000.00	3.520	31.208	12.76
125+0.000			31.975	31.892	0.083	2.500	31.912	-2.50	2.700	31.877	-17.50	2.707	31.227	-10,000.00	3.568	31.299	8.34

Nota de Serviço Tabela																	
CORREDOR - CICLO FAIXAALI - CICLO FAIXA0+0.000 164+0.002																	
Eixo						Lado Direito											
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Vermelha	BORDO PISTA			ACOSTAMENTO			OFFSET SUB			OFFSET		
						Afast.	Cota	Incl.	Afast.	Cota (m)	Incl. (%)	Afast.	Cota	Incl. (%)	Afast.	Cota (m)	Incl. (%)
125+9.349			32.040	31.709	0.331	2.500	31.978	-2.50	2.700	31.943	-17.50	2.707	31.293	-10,000.00	3.351	31.509	33.56
126+0.000		EVC	32.122	32.151	-0.030	2.500	32.059	-2.50	2.700	32.024	-17.50	2.707	31.374	-10,000.00	3.071	31.777	110.62
126+18.934			32.284	32.253	0.031	2.500	32.221	-2.50	2.700	32.186	-17.50	2.707	31.536	-10,000.00	3.147	31.888	79.82
127+0.000			32.293	32.275	0.018	2.500	32.231	-2.50	2.700	32.196	-17.50	2.707	31.546	-10,000.00	3.140	31.903	82.37
128+0.000		BVC	32.472	32.524	-0.052	2.500	32.409	-2.50	2.700	32.374	-17.50	2.707	31.724	-10,000.00	2.955	32.204	192.97
129+0.000			32.650	32.594	0.056	2.500	32.588	-2.50	2.700	32.553	-17.50	2.707	31.902	-10,000.00	3.255	32.183	51.10
129+5.384			32.694	32.776	-0.082	2.500	32.631	-2.50	2.700	32.596	-17.50	2.707	31.946	-10,000.00	3.171	32.282	72.42
130+0.000			32.784	32.787	-0.003	2.500	32.722	-2.50	2.700	32.687	-17.50	2.707	32.037	-10,000.00	3.062	32.446	115.04
130+0.618			32.787	32.781	0.006	2.500	32.725	-2.50	2.700	32.690	-17.50	2.707	32.040	-10,000.00	3.189	32.364	67.31
131+0.000		EVC	32.844	32.885	-0.041	2.500	32.781	-2.50	2.700	32.746	-17.50	2.707	32.096	-10,000.00	3.116	32.469	91.15
132+0.000			32.829	32.901	-0.071	2.500	32.767	-2.50	2.700	32.732	-17.50	2.707	32.082	-10,000.00	3.147	32.434	79.85
132+15.558			32.799	32.801	-0.002	2.500	32.737	-2.50	2.700	32.702	-17.50	2.707	32.052	-10,000.00	3.252	32.333	51.64
133+0.000			32.791	32.816	-0.025	2.500	32.728	-2.50	2.700	32.693	-17.50	2.707	32.043	-10,000.00	3.292	32.299	43.72
133+17.236			32.757	32.685	0.072	2.500	32.695	-2.50	2.700	32.660	-17.50	2.707	32.009	-10,000.00	3.192	32.331	66.30
134+0.000			32.752	32.676	0.076	2.500	32.689	-2.50	2.700	32.654	-17.50	2.707	32.004	-10,000.00	3.024	32.439	136.99
134+19.391			32.714	32.666	0.048	2.500	32.652	-2.50	2.700	32.617	-17.50	2.707	31.966	-10,000.00	3.116	32.339	91.04
135+0.000			32.713	32.667	0.046	2.500	32.650	-2.50	2.700	32.615	-17.50	2.707	31.965	-10,000.00	3.074	32.366	109.05
136+0.000			32.674	32.691	-0.017	2.500	32.612	-2.50	2.700	32.577	-17.50	2.707	31.926	-10,000.00	2.849	32.477	385.98
136+0.727			32.673	32.713	-0.040	2.500	32.610	-2.50	2.700	32.575	-17.50	2.707	31.925	-10,000.00	2.882	32.454	302.21
137+0.000			32.635	32.666	-0.030	2.500	32.573	-2.50	2.700	32.538	-17.50	2.707	31.888	-10,000.00	2.790	32.478	710.77
137+12.728			32.610	32.623	-0.012	2.500	32.548	-2.50	2.700	32.513	-17.50	2.707	31.863	-10,000.00	3.247	32.149	52.88
138+0.000			32.596	32.519	0.078	2.500	32.534	-2.50	2.700	32.499	-17.50	2.707	31.849	-10,000.00	3.122	32.218	88.80
138+0.524	PC		32.595	32.512	0.083	2.500	32.533	-2.50	2.700	32.498	-17.50	2.707	31.848	-10,000.00	3.120	32.218	89.56
138+8.636			32.580	32.634	-0.055	2.500	32.517	-2.50	2.700	32.482	-17.50	2.707	31.832	-10,000.00	3.095	32.219	99.43
138+10.000			32.577	32.636	-0.059	2.500	32.514	-2.50	2.700	32.479	-17.50	2.707	31.829	-10,000.00	3.056	32.242	117.97
138+16.747	PT		32.564	32.625	-0.061	2.500	32.501	-2.50	2.700	32.466	-17.50	2.707	31.816	-10,000.00	3.120	32.186	89.48
139+0.000		BVC	32.558	32.599	-0.041	2.500	32.495	-2.50	2.700	32.460	-17.50	2.707	31.810	-10,000.00	3.064	32.218	114.23
139+4.834			32.549	32.594	-0.045	2.500	32.486	-2.50	2.700	32.451	-17.50	2.707	31.801	-10,000.00	3.178	32.133	70.40
139+16.419			32.534	32.594	-0.060	2.500	32.471	-2.50	2.700	32.436	-17.50	2.707	31.786	-10,000.00	2.997	32.238	155.34
140+0.000			32.531	32.558	-0.027	2.500	32.469	-2.50	2.700	32.434	-17.50	2.707	31.784	-10,000.00	3.017	32.222	141.04
141+0.000			32.532	32.345	0.187	2.500	32.469	-2.50	2.700	32.434	-17.50	2.707	31.784	-10,000.00	3.358	31.995	32.43
142+0.000			32.559	32.679	-0.120	2.500	32.497	-2.50	2.700	32.462	-17.50	2.707	31.812	-10,000.00	3.116	32.184	90.92
142+0.456			32.560	32.676	-0.116	2.500	32.498	-2.50	2.700	32.463	-17.50	2.707	31.812	-10,000.00	3.133	32.174	84.92
142+12.437		EVC	32.590	32.560	0.030	2.500	32.527	-2.50	2.700	32.492	-17.50	2.707	31.842	-10,000.00	2.851	32.392	381.52
143+0.000			32.613	32.561	0.052	2.500	32.551	-2.50	2.700	32.516	-17.50	2.707	31.866	-10,000.00	2.868	32.403	332.13
144+0.000			32.677	32.536	0.141	2.500	32.614	-2.50	2.700	32.579	-17.50	2.707	31.929	-10,000.00	2.904	32.443	259.94
144+1.609			32.682	32.494	0.188	2.500	32.620	-2.50	2.700	32.585	-17.50	2.707	31.934	-10,000.00	3.020	32.371	139.46
145+0.000			32.741	32.685	0.056	2.500	32.678	-2.50	2.700	32.643	-17.50	2.707	31.993	-10,000.00	2.779	32.591	825.79
145+6.782			32.762	32.631	0.131	2.500	32.700	-2.50	2.700	32.665	-17.50	2.707	32.015	-10,000.00	2.856	32.561	364.41
146+0.000			32.805	32.829	-0.024	2.500	32.742	-2.50	2.700	32.707	-17.50	2.707	32.057	-10,000.00	2.752	32.672	1,349.24
146+12.926			32.846	32.884	-0.038	2.500	32.783	-2.50	2.700	32.748	-17.50	2.707	32.098	-10,000.00	2.735	32.783	2,410.96

Nota de Serviço Tabela																	
CORREDOR- CICLO FAIXAALJ - CICLO FAIXA0+0.000 164+0.002																	
Eixo						Lado Direito											
Estaca	Pontos Notáveis da Geometria Horizontal	Pontos Notáveis da Geometria Vertical	Cota Projeto	Cota Terreno	Vermelha	BORDO_PISTA			ACOSTAMENTO			OFFSET_SUB			OFFSET		
						Afast.	Cota	Incl.	Afast.	Cota (m)	Incl. (%)	Afast.	Cota	Incl. (%)	Afast.	Cota (m)	Incl. (%)
147+0.000			32.868	32.904	-0.036	2.500	32.806	-2.50	2.700	32.771	-17.50	2.707	32.121	-10,000.00	2.909	32.631	251.62
147+18.777			32.928	32.914	0.014	2.500	32.866	-2.50	2.700	32.831	-17.50	2.707	32.180	-10,000.00	2.754	32.884	1,496.57
148+0.000			32.932	32.953	-0.021	2.500	32.870	-2.50	2.700	32.835	-17.50	2.707	32.184	-10,000.00	2.722	32.820	4,162.39
149+0.000			32.996	33.022	-0.026	2.500	32.933	-2.50	2.700	32.898	-17.50	2.707	32.248	-10,000.00	2.923	32.750	232.03
150+0.000			33.060	32.959	0.101	2.500	32.997	-2.50	2.700	32.962	-17.50	2.707	32.312	-10,000.00			
151+0.000			33.123	33.126	-0.002	2.500	33.061	-2.50	2.700	33.026	-17.50	2.707	32.376	-10,000.00	2.941	32.865	208.70
151+7.177			33.146	33.158	-0.012	2.500	33.084	-2.50	2.700	33.049	-17.50				2.705	33.054	100.00
152+0.000			33.187	33.168	0.019	2.500	33.125	-2.50	2.700	33.090	-17.50	2.707	32.439	-10,000.00	3.091	32.829	101.35
153+0.000			33.251	33.205	0.046	2.500	33.188	-2.50	2.700	33.153	-17.50	2.707	32.503	-10,000.00	3.009	32.948	147.10
154+0.000			33.315	33.204	0.111	2.500	33.252	-2.50	2.700	33.217	-17.50	2.707	32.567	-10,000.00	3.122	32.936	88.76
155+0.000			33.378	33.291	0.087	2.500	33.316	-2.50	2.700	33.281	-17.50	2.707	32.631	-10,000.00	3.048	33.049	122.44
156+0.000			33.442	33.446	-0.003	2.500	33.380	-2.50	2.700	33.345	-17.50	2.707	32.694	-10,000.00	3.013	33.136	144.31
156+3.097			33.452	33.445	0.007	2.500	33.390	-2.50	2.700	33.355	-17.50	2.707	32.704	-10,000.00	2.951	33.187	197.26
156+15.078			33.491	33.479	0.012	2.500	33.428	-2.50	2.700	33.393	-17.50	2.707	32.743	-10,000.00	2.868	33.281	334.27
157+0.000			33.507	33.545	-0.038	2.500	33.444	-2.50	2.700	33.409	-17.50	2.707	32.759	-10,000.00	2.832	33.321	448.86
158+0.000			33.571	33.621	-0.050	2.500	33.509	-2.50	2.700	33.474	-17.50	2.707	32.823	-10,000.00	2.945	33.310	204.11
159+0.000			33.636	33.687	-0.051	2.500	33.573	-2.50	2.700	33.538	-17.50	2.707	32.888	-10,000.00	3.004	33.336	150.59
159+4.670			33.651	33.704	-0.053	2.500	33.588	-2.50	2.700	33.553	-17.50	2.707	32.903	-10,000.00	3.006	33.349	149.06
160+0.000			33.700	33.662	0.038	2.500	33.638	-2.50	2.700	33.603	-17.50	2.707	32.952	-10,000.00	2.954	33.433	194.52
161+0.000			33.765	33.723	0.041	2.500	33.702	-2.50	2.700	33.667	-17.50	2.707	33.017	-10,000.00	3.081	33.413	105.71
162+0.000			33.829	33.842	-0.013	2.500	33.767	-2.50	2.700	33.732	-17.50	2.707	33.081	-10,000.00	3.141	33.438	81.98
162+10.772			33.864	33.863	0.001	2.500	33.801	-2.50	2.700	33.766	-17.50	2.707	33.116	-10,000.00	2.989	33.573	161.69
163+0.000			33.894	33.969	-0.075	2.500	33.831	-2.50	2.700	33.796	-17.50	2.707	33.146	-10,000.00	2.906	33.659	257.11
164+0.000			33.958	33.958	0.000	2.500	33.896	-2.50	2.700	33.861	-17.50	2.707	33.210	-10,000.00	2.821	33.780	497.35

Relatório de Alinhamento Horizontal por Estaca			
Alinhamento: ALI - CICLO FAIXA			
Estaca	Norte	Este	Cota
0+0,000	6819693,8224	647654,9012	27,6454
0+14,258 PC	6819684,6715	647643,9671	27,6654
1+0,000	6819681,4520	647639,2367	27,6769
1+8,350 PCR	6819679,4540	647631,1925	27,6936
1+18,865 PCR	6819678,5534	647620,7336	27,7147
2+0,000	6819678,4083	647619,6084	27,7169
2+13,305 PT	6819681,3812	647606,8858	27,7436
3+0,000	6819684,6454	647601,0405	27,7570
3+2,025 PI	6819685,6325	647599,2727	27,7610
3+10,203 PI	6819689,8870	647592,2881	27,7774
3+17,575 PI	6819694,0607	647586,2117	27,7922
4+0,000	6819695,4789	647584,2444	27,7970
4+3,319 PI	6819697,4200	647581,5520	27,8037
5+0,000	6819707,3715	647568,1648	27,8371
5+5,915 PI	6819710,9002	647563,4178	27,8490
5+18,861 PI	6819718,7700	647553,1379	27,8749
6+0,000	6819719,4486	647552,2235	27,8772
6+16,291 PI	6819729,1577	647539,1420	27,9098
7+0,000	6819731,3958	647536,1842	27,9172
8+0,000	6819743,4636	647520,2353	27,9573
8+5,392 PI	6819746,7170	647515,9356	27,9681
9+0,000	6819755,5205	647504,2781	27,9973
9+3,408 PC	6819757,5743	647501,5585	28,0042
10+0,000	6819767,6578	647488,3821	28,0374
10+18,665 PT	6819778,8859	647473,4720	28,0929
11+0,000	6819779,6868	647472,4040	28,1015
11+14,692 PC	6819788,5020	647460,6505	28,2513
12+0,000	6819791,7144	647456,4248	28,3230
13+0,000	6819803,2400	647440,0831	28,5777
13+3,005 PT	6819804,8915	647437,5721	28,6022
13+13,654 PI	6819810,4568	647428,4938	28,6434
14+0,000	6819813,4112	647422,8773	28,6405
14+1,547 PI	6819814,1316	647421,5078	28,6396
14+7,896 PI	6819816,9257	647415,8072	28,6357
14+15,158 PI	6819819,7378	647409,1116	28,6312
15+0,000	6819821,5205	647404,6098	28,6282
15+6,184 PI	6819823,7973	647398,8600	28,6244
15+13,949 PI	6819826,4320	647391,5562	28,6196
16+0,000	6819828,5058	647385,8713	28,6159
16+19,908 PI	6819835,3282	647367,1688	28,6036
17+0,000	6819835,3575	647367,0816	28,6035

Relatório de Alinhamento Horizontal por Estaca			
Alinhamento: ALI - CICLO FAIXA			
Estaca	Norte	Este	Cota
17+7,033 PI	6819837,5942	647360,4136	28,5900
18+0,000	6819842,0182	647348,2247	28,5563
19+0,000	6819848,8416	647329,4247	28,5043
19+3,389 PI	6819849,9978	647326,2391	28,4955
20+0,000	6819855,6071	647310,6038	28,4524
21+0,000	6819862,3609	647291,7786	28,3663
21+6,937 PI	6819864,7034	647285,2491	28,3073
22+0,000	6819869,1325	647272,9599	28,1530
22+0,445 PI	6819869,2833	647272,5416	28,1468
22+7,357 PI	6819871,6971	647266,0647	28,0430
22+17,145 PI	6819875,2504	647256,9444	27,8930
23+0,000	6819876,3425	647254,3063	27,8493
23+3,570 PI	6819877,7079	647251,0081	27,7946
23+10,106 PI	6819880,4978	647245,0967	27,6944
23+18,507 PI	6819884,4154	647237,6651	27,5665
24+0,000	6819885,1763	647236,3809	27,5453
24+3,887 PI	6819887,1574	647233,0371	27,4948
24+10,929 PI	6819891,0042	647227,1385	27,4201
24+16,212 PC	6819894,1001	647222,8575	27,3782
25+0,000	6819896,3467	647219,8076	27,3557
25+11,193 PT	6819903,5314	647211,2298	27,3257
25+17,452 PI	6819907,8484	647206,6988	27,3328
26+0,000	6819909,7027	647204,9507	27,3405
26+8,046 PI	6819915,5574	647199,4314	27,3837
26+18,401 PI	6819923,4812	647192,7651	27,4807
27+0,000	6819924,7309	647191,7677	27,4999
27+1,683 PI	6819926,0462	647190,7178	27,5213
27+13,549 PI	6819935,7169	647183,8412	27,7070
28+0,000	6819940,9686	647180,0954	27,8338
28+9,322 PI	6819948,5581	647174,6821	28,0289
28+17,851 PI	6819955,3777	647169,5608	28,2073
29+0,000	6819957,0248	647168,1801	28,2523
29+10,498 PI	6819965,0701	647161,4362	28,4696
29+17,585 PI	6819970,4006	647156,7653	28,6023
30+0,000	6819972,0697	647155,0204	28,6441
30+5,647 PI	6819975,9732	647150,9394	28,7353
30+13,079 PI	6819980,9132	647145,3867	28,8410
31+0,000	6819985,1817	647139,9392	28,9248
31+4,600 PI	6819988,0187	647136,3187	28,9728
32+0,000	6819996,8929	647123,7323	29,0883
32+1,008 PI	6819997,4737	647122,9086	29,0934

Relatório de Alinhamento Horizontal por Estaca			
Alinhamento: ALI - CICLO FAIXA			
Estaca	Norte	Este	Cota
32+12,013 PI	6820003,6748	647113,8168	29,1301
33+0,000	6820007,9764	647107,0871	29,1418
33+12,587 PI	6820014,7556	647096,4812	29,1600
34+0,000	6820018,8168	647090,2802	29,1707
35+0,000	6820029,7745	647073,5491	29,1996
35+11,690 PI	6820036,1790	647063,7702	29,2165
36+0,000	6820040,7993	647056,8624	29,2285
36+18,399 PI	6820051,0284	647041,5690	29,2551
37+0,000	6820051,9132	647040,2347	29,2574
38+0,000	6820062,9662	647023,5665	29,2863
38+4,477 PI	6820065,4402	647019,8356	29,2928
39+0,000	6820073,9845	647006,8753	29,3152
39+11,860 PI	6820080,5124	646996,9735	29,3323
40+0,000	6820085,0235	646990,1978	29,3441
41+0,000	6820096,1072	646973,5499	29,3730
41+1,597 PI	6820096,9922	646972,2206	29,3753
42+0,000	6820107,1973	646956,9063	29,4010
42+5,190 PI	6820110,0755	646952,5871	29,4036
43+0,000	6820118,2699	646940,2510	29,3865
44+0,000	6820129,3362	646923,5916	29,3062
44+11,657 PI	6820135,7863	646913,8814	29,2292
45+0,000	6820140,6126	646907,0764	29,1672
45+9,226 PI	6820145,9499	646899,5508	29,0985
45+19,396 PI	6820152,1356	646891,4779	29,0315
46+0,000	6820152,5305	646891,0214	29,0281
46+8,260 PC	6820157,9353	646884,7748	28,9886
46+17,048 PT	6820163,8822	646878,3081	28,9604
47+0,000	6820165,9879	646876,2393	28,9541
47+11,827 PI	6820174,4241	646867,9508	28,9452
48+0,000	6820180,5825	646862,5770	28,9542
48+2,370 PI	6820182,3682	646861,0188	28,9591
48+9,022 PI	6820187,5424	646856,8375	28,9784
49+0,000	6820196,3599	646850,2984	29,0281
49+9,712 PI	6820204,1608	646844,5133	29,0824
50+0,000	6820212,5375	646838,5404	29,1399
51+0,000	6820228,8218	646826,9291	29,2516
51+11,599 PI	6820238,2660	646820,1950	29,3164
52+0,000	6820245,1290	646815,3502	29,3633
53+0,000	6820261,4680	646803,8160	29,4703
53+2,641 PI	6820263,6254	646802,2931	29,4804
53+14,489 PI	6820273,3620	646795,5421	29,5062

Relatório de Alinhamento Horizontal por Estaca

Alinhamento: ALI - CICLO FAIXA			
Estaca	Norte	Este	Cota
54+0,000	6820277,7463	646792,2029	29,5073
54+2,854 PI	6820280,0168	646790,4737	29,5051
54+12,218 PI	6820287,6421	646785,0392	29,4851
55+0,000	6820293,9609	646780,4964	29,4532
56+0,000	6820310,1999	646768,8218	29,3242
56+1,051 PI	6820311,0531	646768,2083	29,3170
57+0,000	6820326,4312	646757,1365	29,1878
57+3,821 PI	6820329,5319	646754,9040	29,1617
57+16,957 PI	6820340,2785	646747,3495	29,0721
58+0,000	6820342,7748	646745,6093	29,0513
59+0,000	6820359,1817	646734,1719	28,9148
59+0,480 PI	6820359,5751	646733,8977	28,9116
59+8,316 PI	6820366,0529	646729,4885	28,8581
59+15,742 PI	6820372,3723	646725,5867	28,8140
60+0,000	6820376,0623	646723,4630	28,7938
60+2,134 PI	6820377,9122	646722,3984	28,7850
60+9,744 PI	6820384,6872	646718,9326	28,7613
60+13,579 PI	6820388,1610	646717,3095	28,7538
60+18,629 PI	6820392,7614	646715,2244	28,7485
61+0,000	6820394,0285	646714,7022	28,7479
61+4,376 PI	6820398,0747	646713,0347	28,7487
61+12,408 PI	6820405,5346	646710,0586	28,7603
61+18,993 PI	6820411,6306	646707,5672	28,7796
62+0,000	6820412,5723	646707,2116	28,7833
62+9,917 PI	6820421,8493	646703,7078	28,8297
63+0,000	6820431,4458	646700,6123	28,8812
63+15,941 PI	6820446,6168	646695,7187	28,9625
64+0,000	6820450,5276	646694,6311	28,9833
65+0,000	6820469,7963	646689,2723	29,0854
65+17,445 PI	6820486,6032	646684,5982	29,1744
66+0,000	6820489,0619	646683,9024	29,1875
67+0,000	6820508,3062	646678,4566	29,2837
67+6,331 PI	6820514,3983	646676,7327	29,3018
68+0,000	6820527,5248	646672,9210	29,3122
68+4,507 PI	6820531,8532	646671,6642	29,3070
68+14,064 PI	6820541,1054	646669,2688	29,2818
69+0,000	6820546,9121	646668,0387	29,2565
69+1,820 PI	6820548,6926	646667,6615	29,2472
69+10,481 PI	6820557,2038	646666,0556	29,1937
69+17,612 PI	6820564,2545	646664,9911	29,1425
70+0,000	6820566,6206	646664,6686	29,1253

Relatório de Alinhamento Horizontal por Estaca

Alinhamento: ALI - CICLO FAIXA			
Estaca	Norte	Este	Cota
70+4,183 PI	6820570,7657	646664,1037	29,0953
70+7,598 PI	6820574,1515	646663,6577	29,0708
70+18,837 PI	6820585,3460	646662,6600	28,9901
71+0,000	6820586,5071	646662,6001	28,9818
71+8,432 PI	6820594,9283	646662,1657	28,9213
71+19,294 PI	6820605,7755	646661,5992	28,8433
72+0,000	6820606,4809	646661,5813	28,8382
72+11,670 PI	6820618,1471	646661,2849	28,7545
73+0,000	6820626,4690	646660,9169	28,6947
73+2,334 PI	6820628,8010	646660,8138	28,6779
74+0,000	6820646,4361	646659,7731	28,5518
74+2,532 PI	6820648,9640	646659,6239	28,5359
75+0,000	6820666,4025	646658,6143	28,4691
75+7,042 PI	6820673,4325	646658,2073	28,4633
76+0,000	6820686,3784	646657,6432	28,4845
77+0,000	6820706,3595	646656,7727	28,5628
78+0,000	6820726,3405	646655,9021	28,6422
78+15,459 PI	6820741,7844	646655,2292	28,7035
79+0,000	6820746,3245	646655,1167	28,7216
79+18,275 PI	6820764,5941	646654,6641	28,7941
80+0,000	6820766,3188	646654,6838	28,7980
81+0,000	6820786,3174	646654,9127	28,7810
82+0,000	6820806,3161	646655,1417	28,7639
82+7,371 PI	6820813,6864	646655,2260	28,7577
83+0,000	6820826,3156	646655,2108	28,7469
84+0,000	6820846,3156	646655,1867	28,7315
84+3,171 PI	6820849,4867	646655,1829	28,7336
85+0,000	6820866,3149	646655,0270	28,8002
86+0,000	6820886,3140	646654,8418	29,0001
86+5,006 PI	6820891,3200	646654,7954	29,0707
86+13,371 PI	6820899,6845	646654,7828	29,2070
87+0,000	6820906,3138	646654,7532	29,3306
87+8,152 PI	6820914,4655	646654,7169	29,4871
87+17,478 PI	6820923,7631	646653,9886	29,6660
88+0,000	6820926,2616	646653,6442	29,7144
88+3,438 PI	6820929,6671	646653,1747	29,7804
88+12,432 PI	6820938,5416	646651,7119	29,9527
89+0,000	6820945,9865	646650,3522	30,0821
89+0,457 PI	6820946,4360	646650,2701	30,0891
89+15,019 PI	6820960,6259	646646,9991	30,2680
90+0,000	6820965,4630	646645,8105	30,3088

Relatório de Alinhamento Horizontal por Estaca

Alinhamento: ALI - CICLO FAIXA			
Estaca	Norte	Este	Cota
90+12,781 PI	6820977,8751	646642,7603	30,3662
91+0,000	6820984,8867	646641,0439	30,3690
92+0,000	6821004,3131	646636,2883	30,3580
92+16,545 PI	6821020,3840	646632,3542	30,3490
93+0,000	6821023,7360	646631,5187	30,3471
94+0,000	6821043,1423	646626,6819	30,3361
94+19,382 PI	6821061,9489	646621,9945	30,3255
95+0,000	6821062,5493	646621,8476	30,3252
96+0,000	6821081,9765	646617,0955	30,3143
97+0,000	6821101,4037	646612,3434	30,3942
97+8,118 PI	6821109,2891	646610,4146	30,4402
98+0,000	6821120,8417	646607,6358	30,5075
98+12,288 PI	6821132,7893	646604,7620	30,5772
99+0,000	6821140,2870	646602,9579	30,6209
99+7,253 PI	6821147,3384	646601,2611	30,6620
100+0,000	6821159,7325	646598,2811	30,7342
100+8,103 PI	6821167,6114	646596,3867	30,7801
101+0,000	6821179,1942	646593,6725	30,8475
101+0,208 PI	6821179,3968	646593,6250	30,8487
101+8,119 PI	6821187,0643	646591,6795	30,8935
102+0,000	6821198,6350	646588,9802	30,9609
103+0,000	6821218,1121	646584,4365	31,0742
104+0,000	6821237,5891	646579,8928	31,1420
104+9,252 PI	6821246,5988	646577,7910	31,1697
105+0,000	6821257,0610	646575,3271	31,2019
106+0,000	6821276,5285	646570,7426	31,2619
107+0,000	6821295,9959	646566,1581	31,3218
107+8,376 PI	6821304,1491	646564,2380	31,3469
108+0,000	6821315,4727	646561,6133	31,3817
108+13,474 PI	6821328,5991	646558,5707	31,4221
109+0,000	6821334,9409	646557,0331	31,4417
109+15,217 PI	6821349,7297	646553,4475	31,4873
109+18,631 PI	6821353,0024	646552,4755	31,4975
110+0,000	6821354,3167	646552,0932	31,5016
110+2,793 PI	6821356,9982	646551,3131	31,5100
110+7,202 PI	6821361,2160	646550,0264	31,5232
110+11,421 PI	6821365,1478	646548,4965	31,5359
110+17,130 PI	6821370,2059	646545,8505	31,5530
111+0,000	6821372,5103	646544,1394	31,5616
111+3,692 PI	6821375,4742	646541,9386	31,5726
111+7,943 PI	6821378,5957	646539,0520	31,5854



Autor do projeto:
BRUNO FRIGO PASINI
ENGENHEIRO CIVIL - CREA/SC 137.007-9

Prancha:
2 / 3

Obra
R.M. LINHA EYNG

Conteúdo
NOTAS DE SERVIÇO - EIXO CICLOFAIXA

Local
R.M. LINHA EYNG, LINHA EYNG - FORQUILHINHA/SC

Relatório de Alinhamento Horizontal por Estaca			
Alinhamento: ALI - CICLO FAIXA			
Estaca	Norte	Este	Cota
111+12,858 PI	6821381,8053	646535,3304	31,6001
111+16,769 PI	6821384,2359	646532,2654	31,6118
112+0,000	6821386,0107	646529,5661	31,6210
112+3,552 PC	6821387,9622	646526,5982	31,6186
112+18,849 PT	6821395,2283	646513,1487	31,6079
113+0,000	6821395,6777	646512,0896	31,6071
113+5,503 PI	6821397,8267	646507,0238	31,6033
114+0,000	6821403,9565	646493,8863	31,5931
114+3,013 PI	6821405,2306	646491,1557	31,5910
115+0,000	6821412,5990	646475,8502	31,5792
116+0,000	6821421,2744	646457,8297	31,5653
116+6,011 PI	6821423,8816	646452,4139	31,5611
117+0,000	6821429,8162	646439,7458	31,5513
118+0,000	6821438,3006	646421,6346	31,5374
118+16,188 PI	6821445,1680	646406,9751	31,5261
119+0,000	6821446,8287	646403,5443	31,5234
120+0,000	6821455,5428	646385,5425	31,5111
121+0,000	6821464,2570	646367,5407	31,5366
121+0,162 PI	6821464,3273	646367,3953	31,5371
122+0,000	6821472,5422	646349,3376	31,6150
122+10,415 PI	6821476,8548	646339,8578	31,6752
123+0,000	6821480,8534	646331,1463	31,7324
123+2,454 PI	6821481,8770	646328,9162	31,7470
124+0,000	6821489,1416	646312,9445	31,8518
125+0,000	6821497,4222	646294,7392	31,9750
125+9,349 PI	6821501,2929	646286,2291	32,0402
126+0,000	6821505,7568	646276,5587	32,1216
126+18,934 PI	6821513,6919	646259,3681	32,2838
127+0,000	6821514,1279	646258,3950	32,2934
128+0,000	6821522,3049	646240,1429	32,4719
129+0,000	6821530,4820	646221,8909	32,6501
129+5,384 PI	6821532,6830	646216,9779	32,6936
130+0,000	6821538,7689	646203,6887	32,7843
130+0,618 PI	6821539,0262	646203,1268	32,7873
131+0,000	6821547,2293	646185,5663	32,8437
132+0,000	6821555,6939	646167,4458	32,8294
132+15,558 PI	6821562,2785	646153,3498	32,7992
133+0,000	6821564,1339	646149,3140	32,7906
133+17,236 PI	6821571,3335	646133,6532	32,7571
134+0,000	6821572,4898	646131,1432	32,7518
134+19,391 PI	6821580,6027	646113,5307	32,7141

Relatório de Alinhamento Horizontal por Estaca			
Alinhamento: ALI - CICLO FAIXA			
Estaca	Norte	Este	Cota
135+0,000	6821580,8604	646112,9791	32,7129
136+0,000	6821589,3266	646094,8595	32,6741
136+0,727 PI	6821589,6344	646094,2007	32,6726
137+0,000	6821598,1393	646076,9059	32,6352
137+12,728 PI	6821603,7557	646065,4846	32,6105
138+0,000	6821607,6108	646059,3180	32,5964
138+0,524 PC	6821607,8887	646058,8734	32,5953
138+16,747 PT	6821617,7620	646046,0583	32,5638
139+0,000	6821620,0708	646043,7667	32,5575
139+4,834 PI	6821623,5021	646040,3611	32,5487
139+16,419 PI	6821632,2033	646032,7136	32,5339
140+0,000	6821635,0490	646030,5393	32,5312
141+0,000	6821650,9407	646018,3963	32,5317
142+0,000	6821666,8325	646006,2533	32,5592
142+0,456 PI	6821667,1944	646005,9767	32,5601
142+12,437 PI	6821676,8848	645998,9305	32,5898
143+0,000	6821682,9753	645994,4465	32,6132
144+0,000	6821699,0812	645982,5889	32,6770
144+1,609 PI	6821700,3766	645981,6351	32,6821
145+0,000	6821714,9937	645970,4736	32,7408
145+6,782 PI	6821720,3836	645966,3578	32,7624
146+0,000	6821730,9182	645958,3736	32,8045
146+12,926 PI	6821741,2194	645950,5662	32,8457
147+0,000	6821746,8720	645946,3122	32,8683
147+18,777 PI	6821761,8748	645935,0215	32,9281
148+0,000	6821762,8521	645934,2857	32,9320
149+0,000	6821778,8296	645922,2558	32,9958
150+0,000	6821794,8071	645910,2258	33,0595
151+0,000	6821810,7846	645898,1959	33,1233
151+7,177 PI	6821816,5177	645893,8792	33,1462
152+0,000	6821826,7134	645886,1017	33,1871
153+0,000	6821842,6150	645873,9717	33,2508
154+0,000	6821858,5166	645861,8416	33,3146
155+0,000	6821874,4182	645849,7115	33,3783
156+0,000	6821890,3199	645837,5814	33,4421
156+3,097 PI	6821892,7823	645835,7030	33,4521
156+15,078 PI	6821902,3029	645828,4305	33,4907
157+0,000	6821906,2133	645825,4407	33,5066
158+0,000	6821922,1017	645813,2933	33,5711
159+0,000	6821937,9900	645801,1458	33,6356
159+4,670 PI	6821941,6997	645798,3096	33,6506

Relatório de Alinhamento Horizontal por Estaca			
Alinhamento: ALI - CICLO FAIXA			
Estaca	Norte	Este	Cota
160+0,000	6821953,9090	645789,0386	33,7001
161+0,000	6821969,8373	645776,9436	33,7646
162+0,000	6821985,7656	645764,8486	33,8291
162+10,772 PI	6821994,3446	645758,3342	33,8638
163+0,000	6822001,6895	645752,7478	33,8935
164+0,000	6822017,6083	645740,6402	33,9580