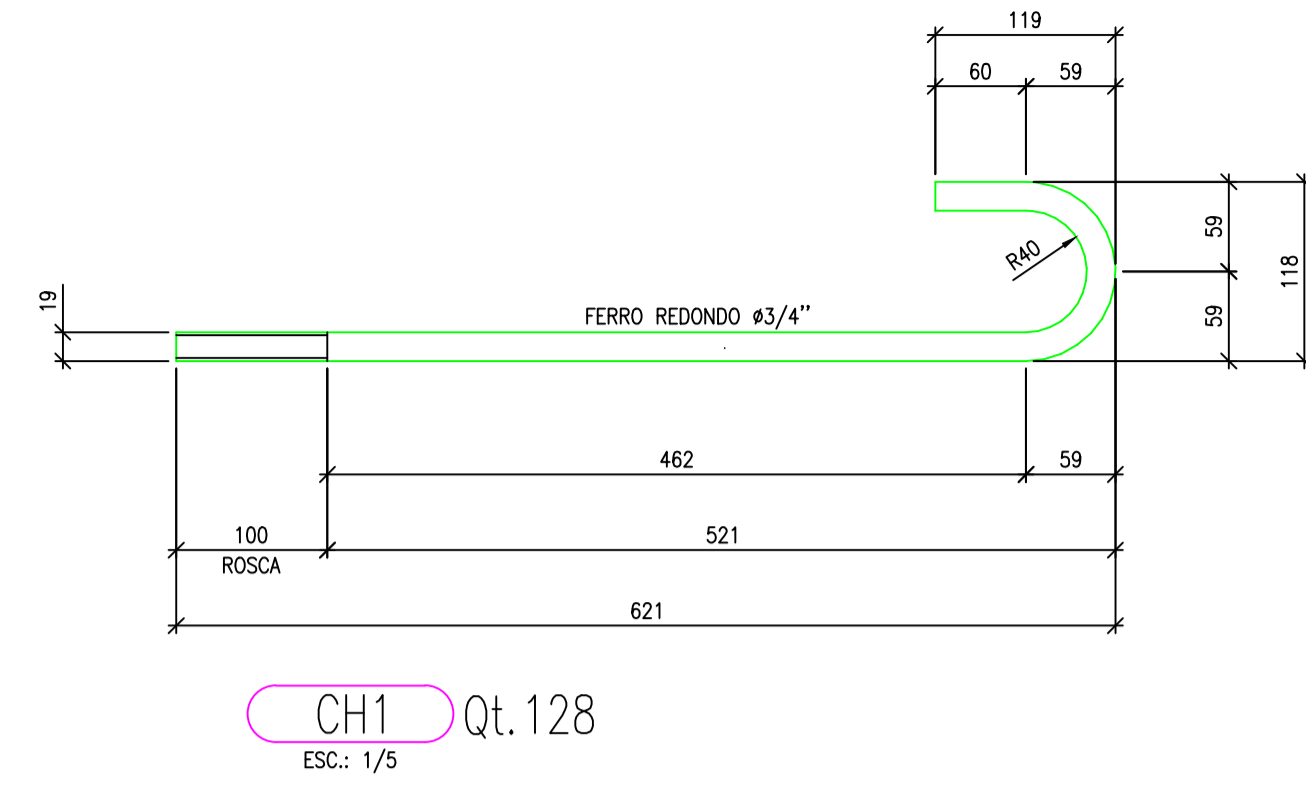
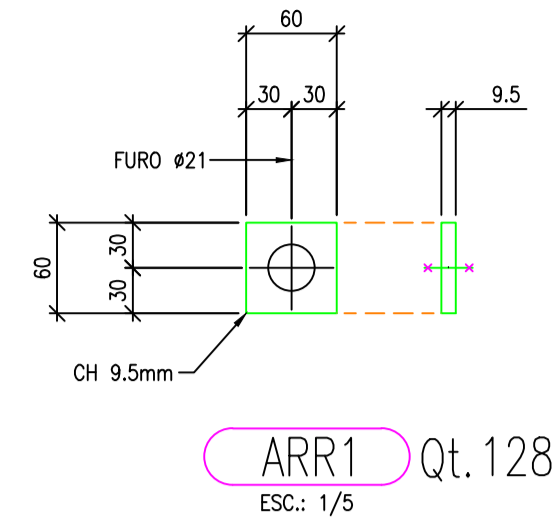


CHUMBADOR



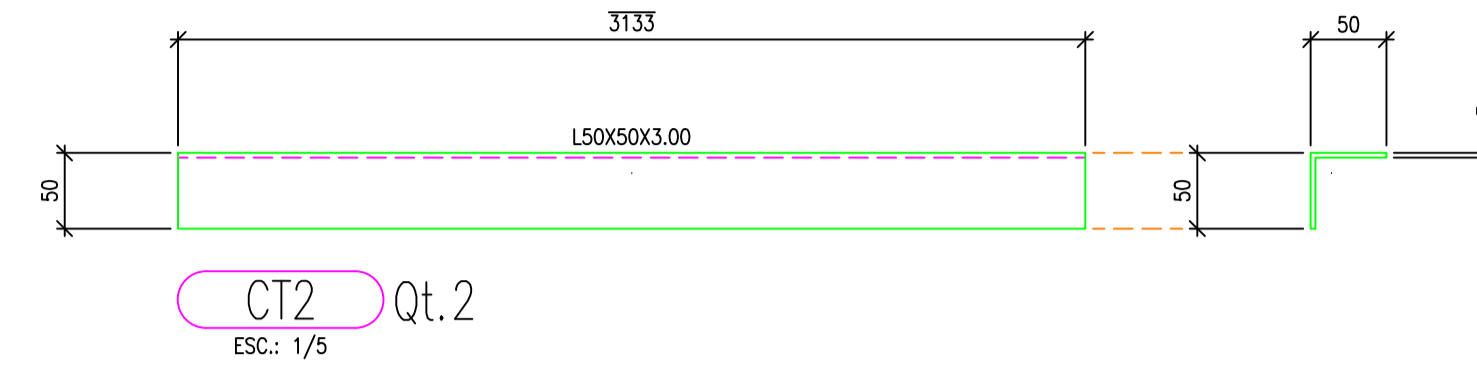
CH1 Qt. 128  
ESC.: 1/5

ARRUELA DE CHAPA



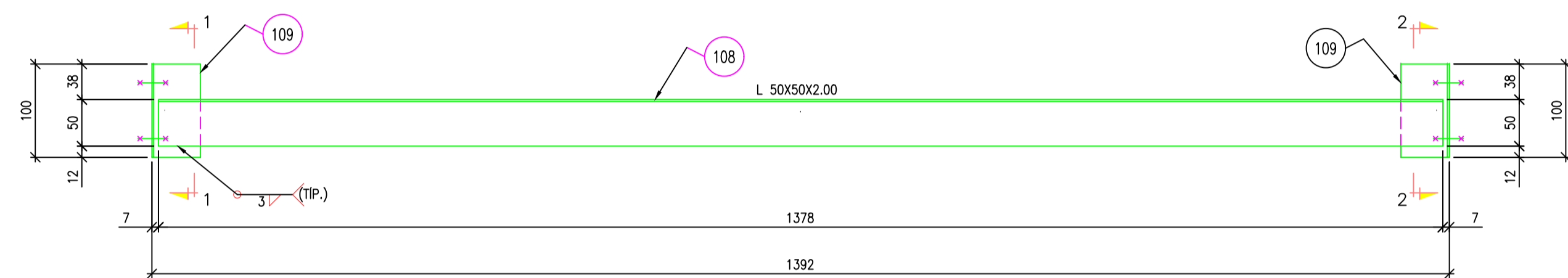
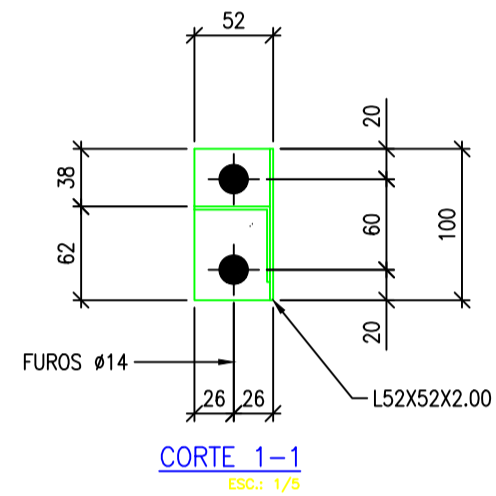
ARR1 Qt. 128  
ESC.: 1/5

CANTONEIRA DE OITÃO

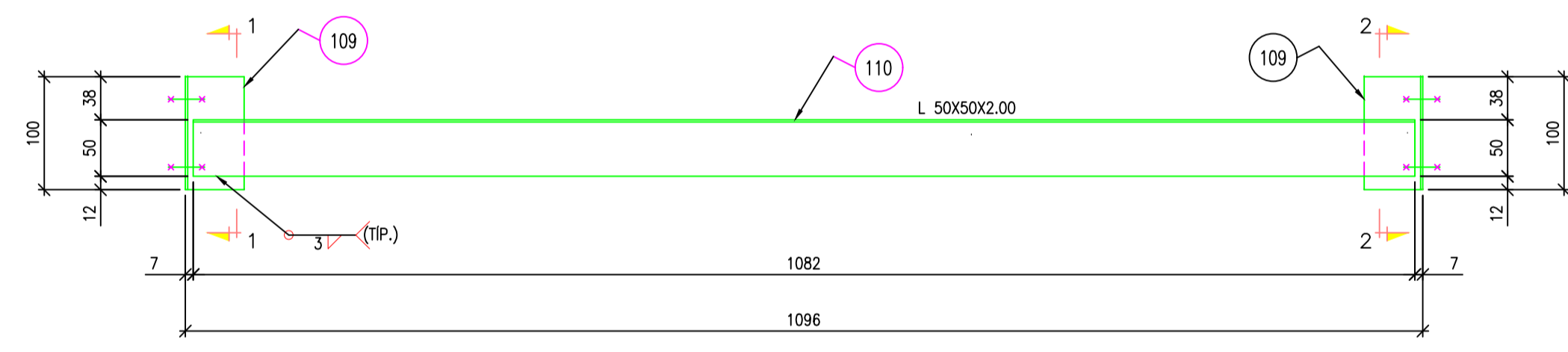
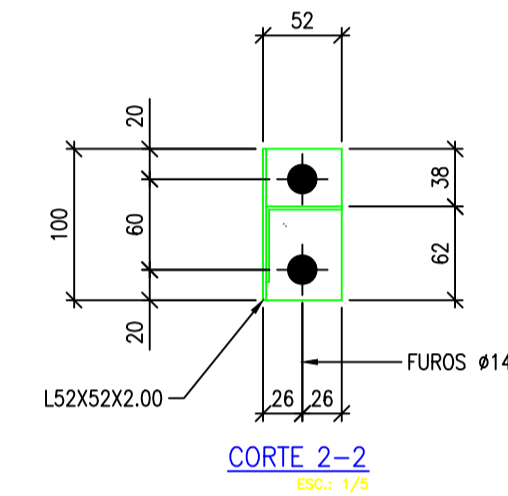


CT2 Qt. 2  
ESC.: 1/5

CORRENTES RIGIDAS

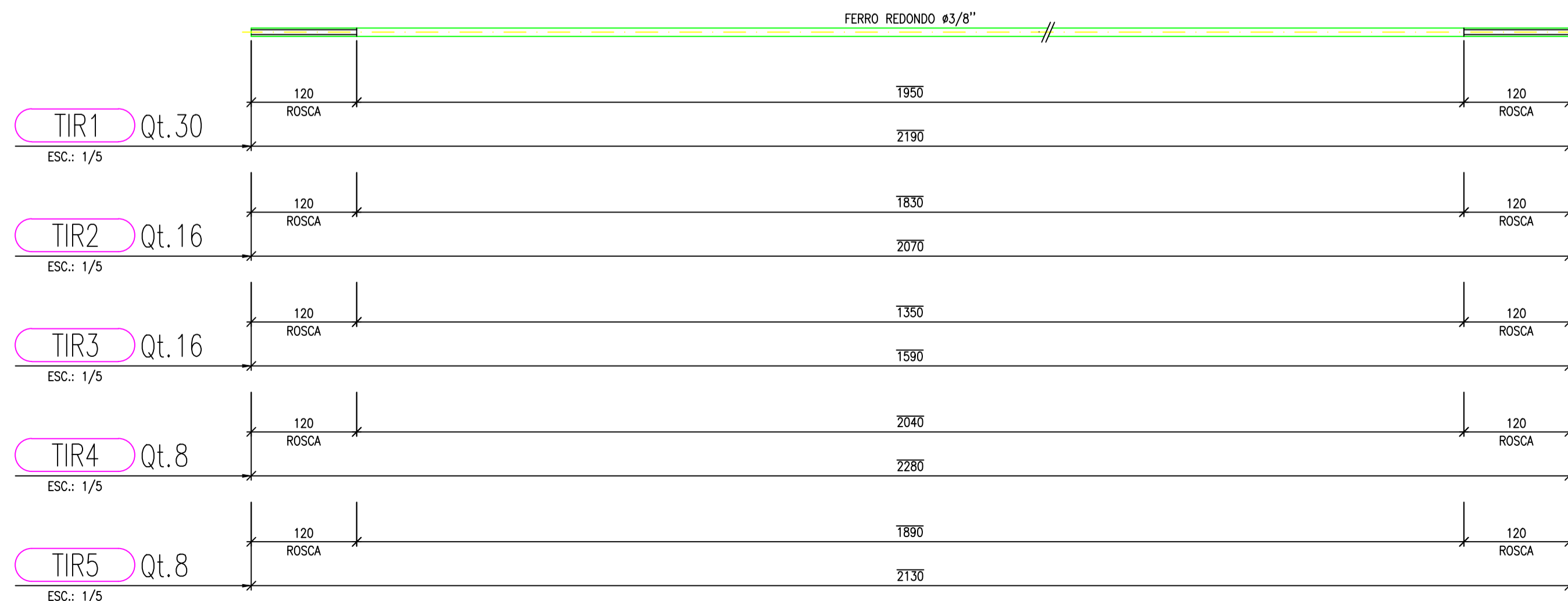


CR1 Qty. 195  
ESC.: 1/5

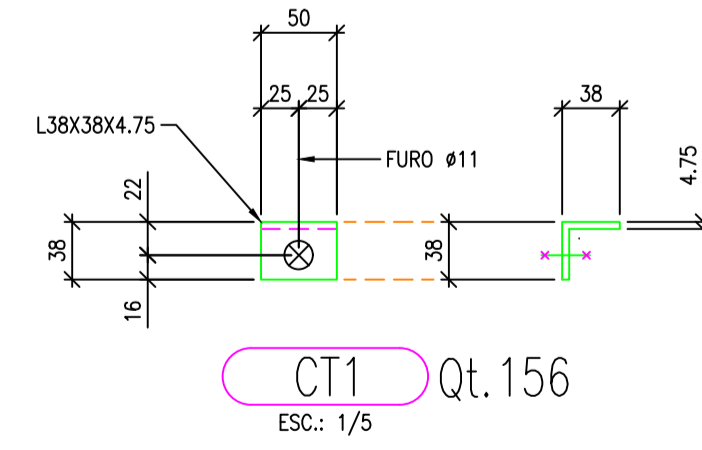


CR9 Qty. 32  
ESC.: 1/5

TIRANTES



SUPORTE TIRANTES



CT1 Qt. 156  
ESC.: 1/5

LISTA DE MATERIAIS

PESO TOTAL: 0.9114 ton SUPERFÍCIE A TRATAR: 83.5 m²

MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
ARR1	128	ARRUELA		0.0003	0.0346
ARR1	128	Ch. 9.50 x 60.0 x 60.0	CIVL300	0.0003	0.0346
CH1	128	CHUMBADOR		0.0017	0.2189
CH1	128	FE3/4" x 778.3	SAE1020	0.0017	0.2189
CR1	195	CORRENTE RIGIDA		0.0024	0.4661
108	195	L 50X50X2.00 x 1377.7	CIVL300	0.0021	0.4037
109	390	L52X52X2.00 x 100.0	CIVL300	0.0002	0.0624
CR9	32	CORRENTE RIGIDA		0.0019	0.0621
109	64	L52X52X2.00 x 100.0	CIVL300	0.0002	0.0102
110	32	L 50X50X2.00 x 1081.7	CIVL300	0.0016	0.0518
CT1	156	OLHAL		0.0001	0.0203
CT1	156	L38X38X4.75 x 50.0	CIVL300	0.0001	0.0203
CT2	2	CANTONEIRA		0.0070	0.0140
CT2	2	L50X50X3.00 x 3133.2	CIVL300	0.0070	0.0140
TIR1	30	TIRANTE		0.0013	0.0393
TIR1	30	FE3/8" x 2190.0	SAE1020	0.0013	0.0393
TIR2	16	TIRANTE		0.0012	0.0198
TIR2	16	FE3/8" x 2070.0	SAE1020	0.0012	0.0198
TIR3	16	TIRANTE		0.0010	0.0152
TIR3	16	FE3/8" x 1590.0	SAE1020	0.0010	0.0152
TIR4	8	TIRANTE		0.0014	0.0110
TIR4	8	FE3/8" x 2280.0	SAE1020	0.0014	0.0110
TIR5	8	TIRANTE		0.0013	0.0102
TIR5	8	FE3/8" x 2130.0	SAE1020	0.0013	0.0102

Rev.	Descrição	Responsável	Data

**Broetto Engenharia**

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

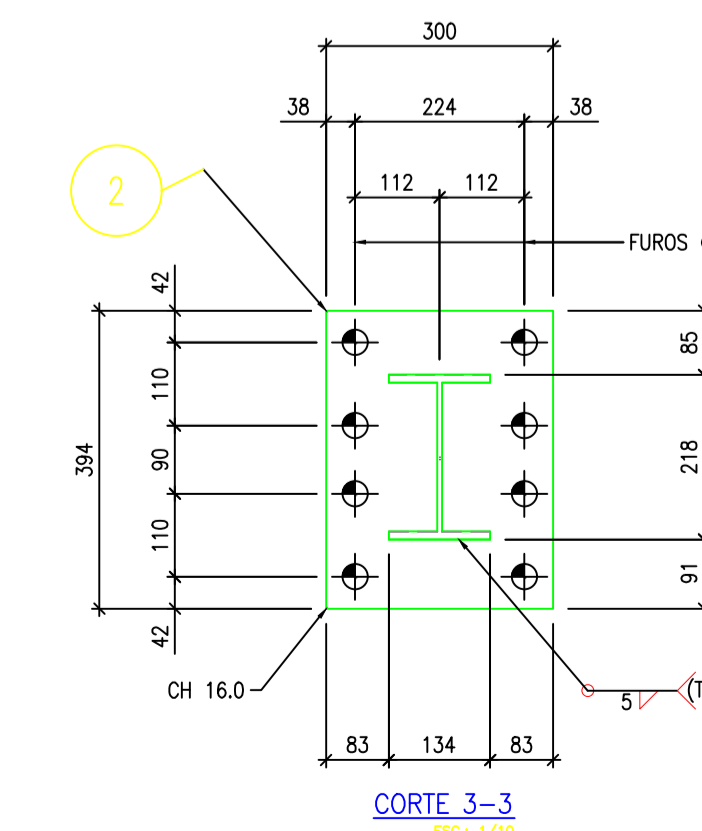
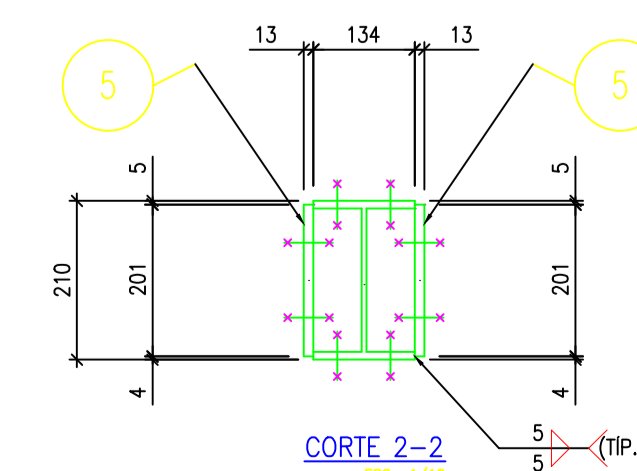
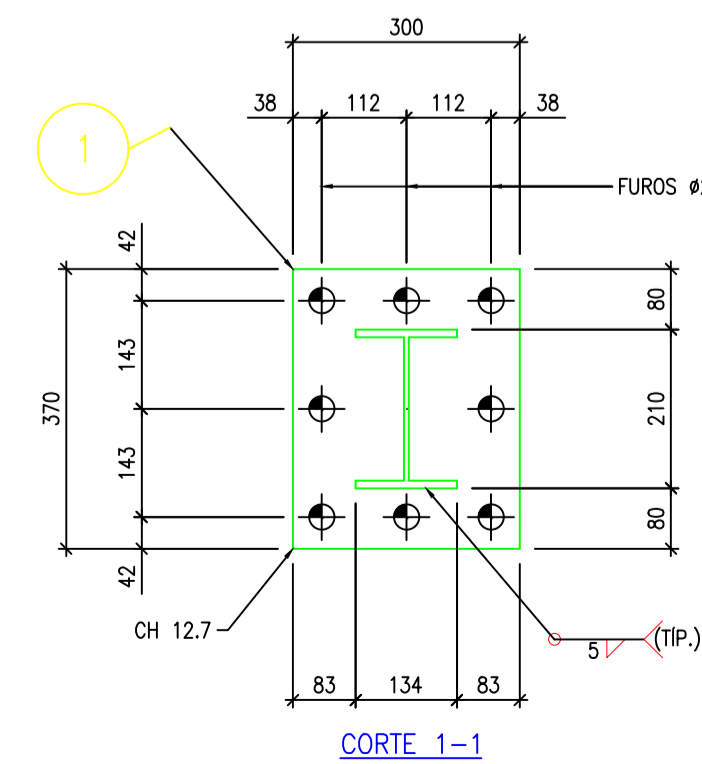
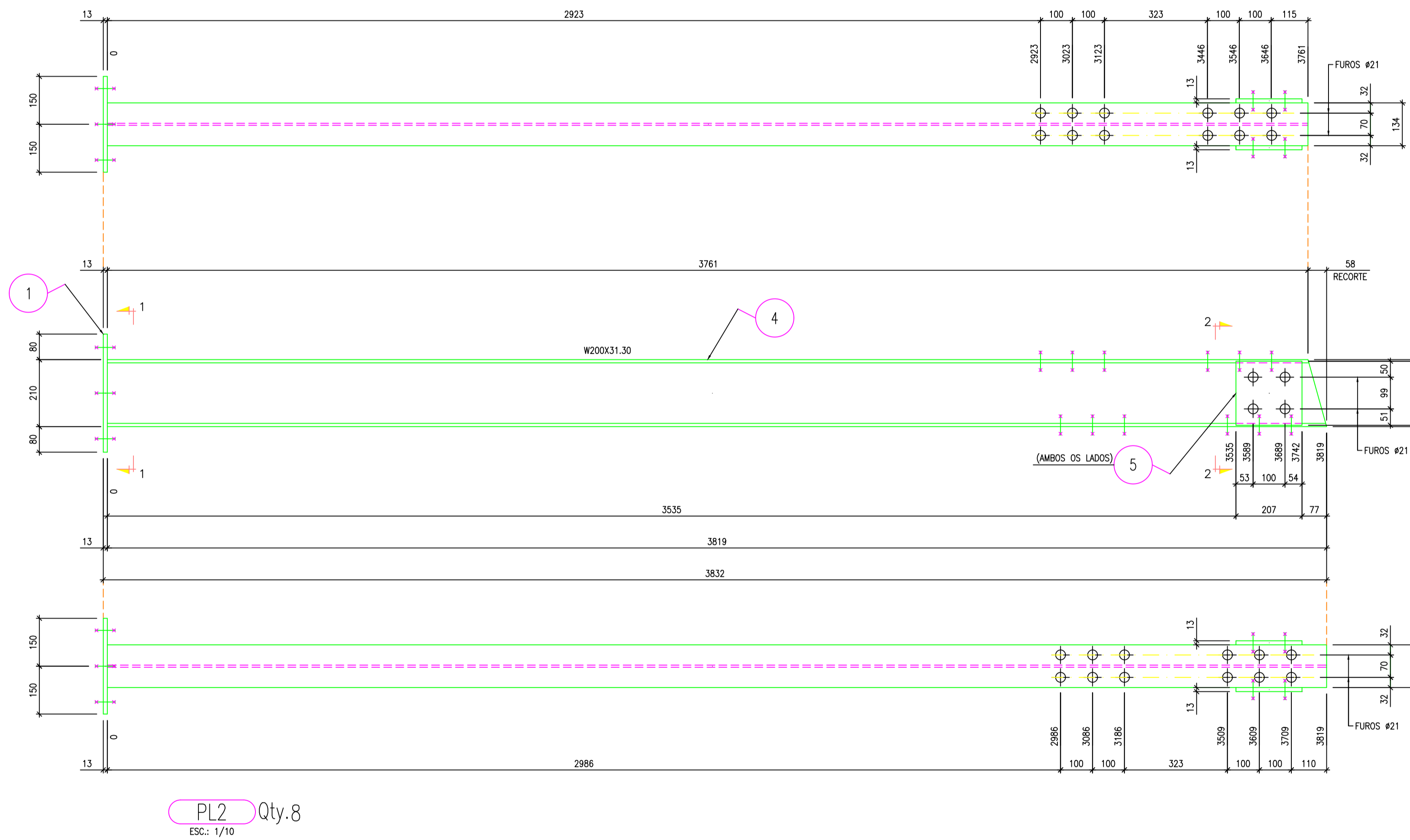
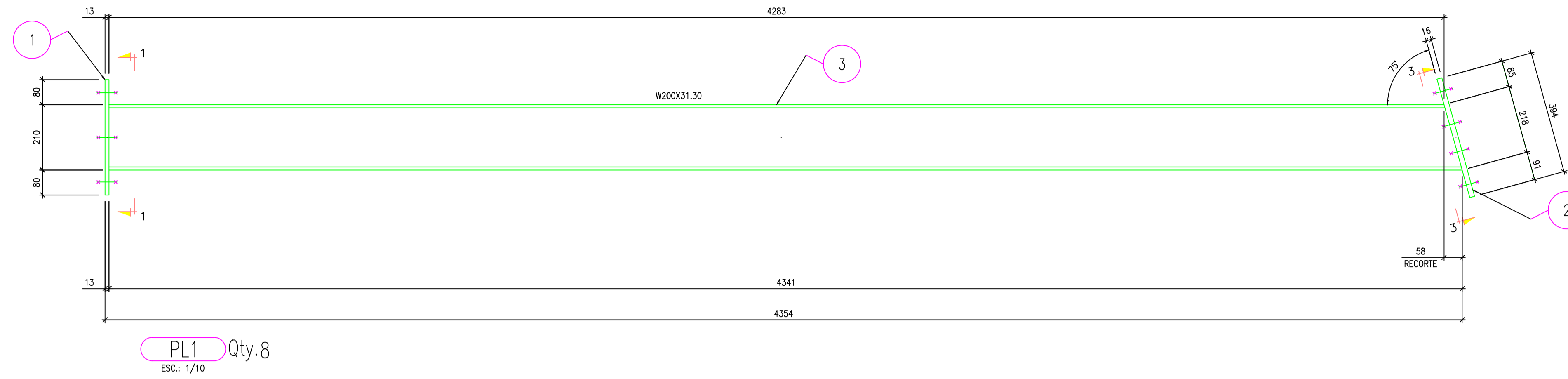
PRANCHA: **Chumbadores, arruelas e acessórios**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto** (RS247200)

CLIENTE: **Prefeitura Municipal de Cotiporã** (ESCALA ind. FOLHA F01-00)

DESENHO: **jrgb** (UNIDADE m DATA 25-jul-23)

Veranópolis - RS @BroettoEngenharia (54) 996743658



LISTA DE MATERIAIS					
PESO TOTAL: 2.4251 ton		SUPERFÍCIE A TRATAR: 67.8 m²			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
PL1	8	PILAR		0.1631	1.3048
1	8	Ch. 12.70 x 300.0 x 370.0	CIVIL300	0.0111	0.0886
2	8	Ch. 16.00 x 300.0 x 394.0	CIVIL300	0.0149	0.1188
3	8	W200X31.30 x 4341.1	A572GR50	0.1372	1.0974
PL2	8	PILAR		0.1400	1.1203
1	8	Ch. 12.70 x 300.0 x 370.0	CIVIL300	0.0111	0.0886
4	8	W200X31.30 x 3819.2	A572GR50	0.1207	0.9655
5	16	Ch. 12.70 x 200.7 x 207.0	CIVIL300	0.0041	0.0662

Rev.	Descrição	Responsável	Data

**Broetto Engenharia**

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Pilares**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto** (RS247200)

CLIENTE: **Prefeitura Municipal de Cotiporã**

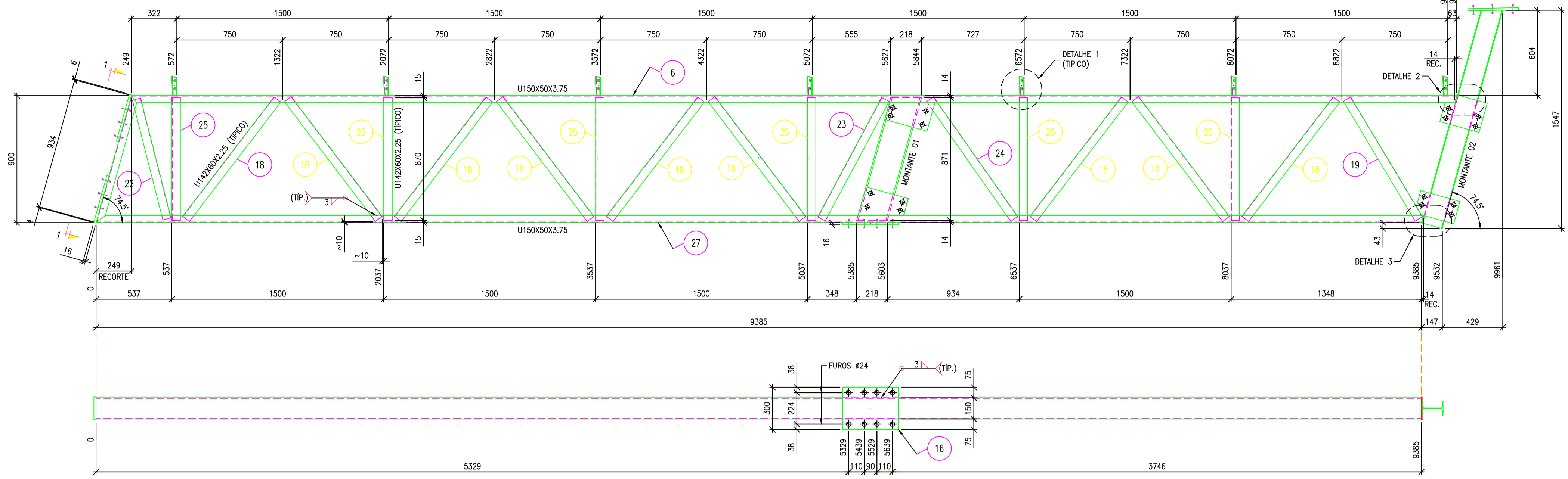
DESENHO: **jrgb**

UNIDADE: **mm**

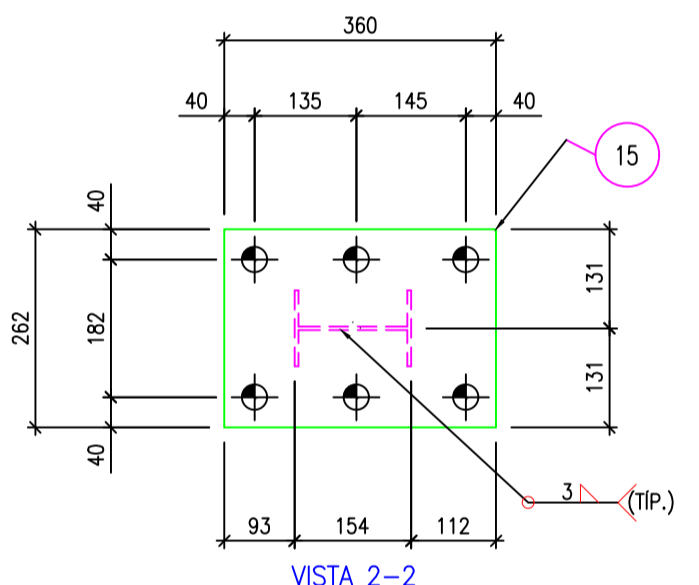
DATA: **25-jul-23**

FOLHA: **F02-00**

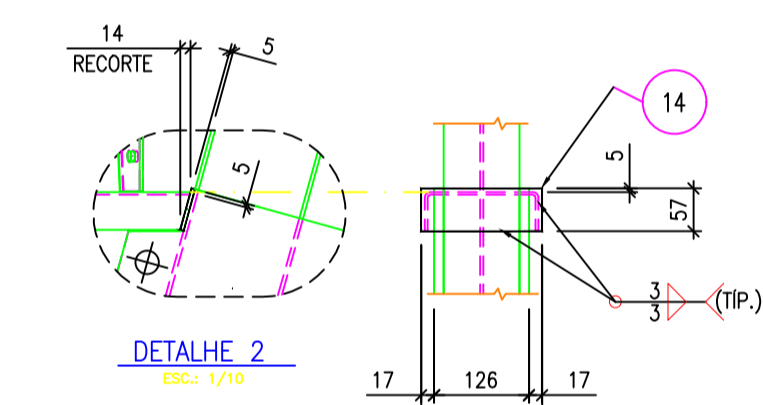
Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658



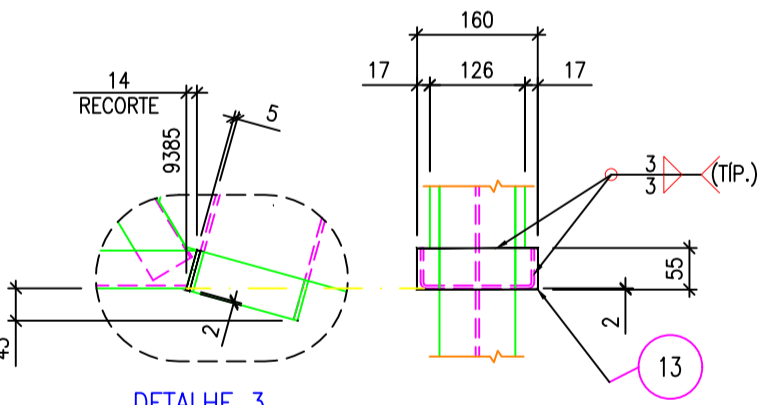
TS1 Qty. 8  
ESC.: 1/20



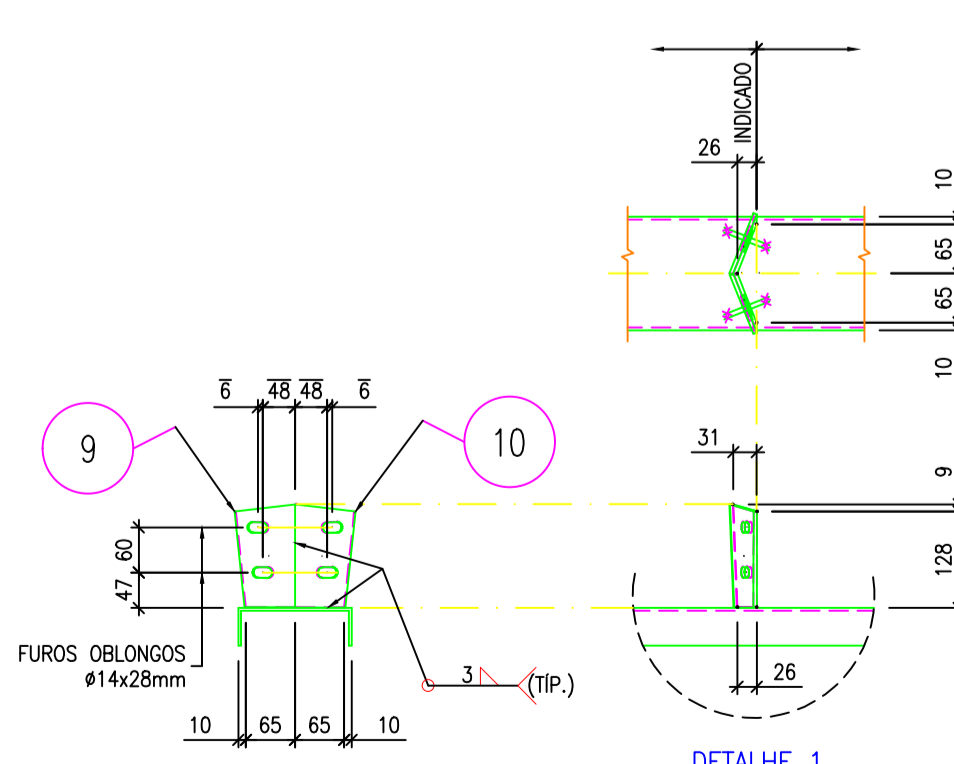
VISTA 2-2  
ESC.: 1/20



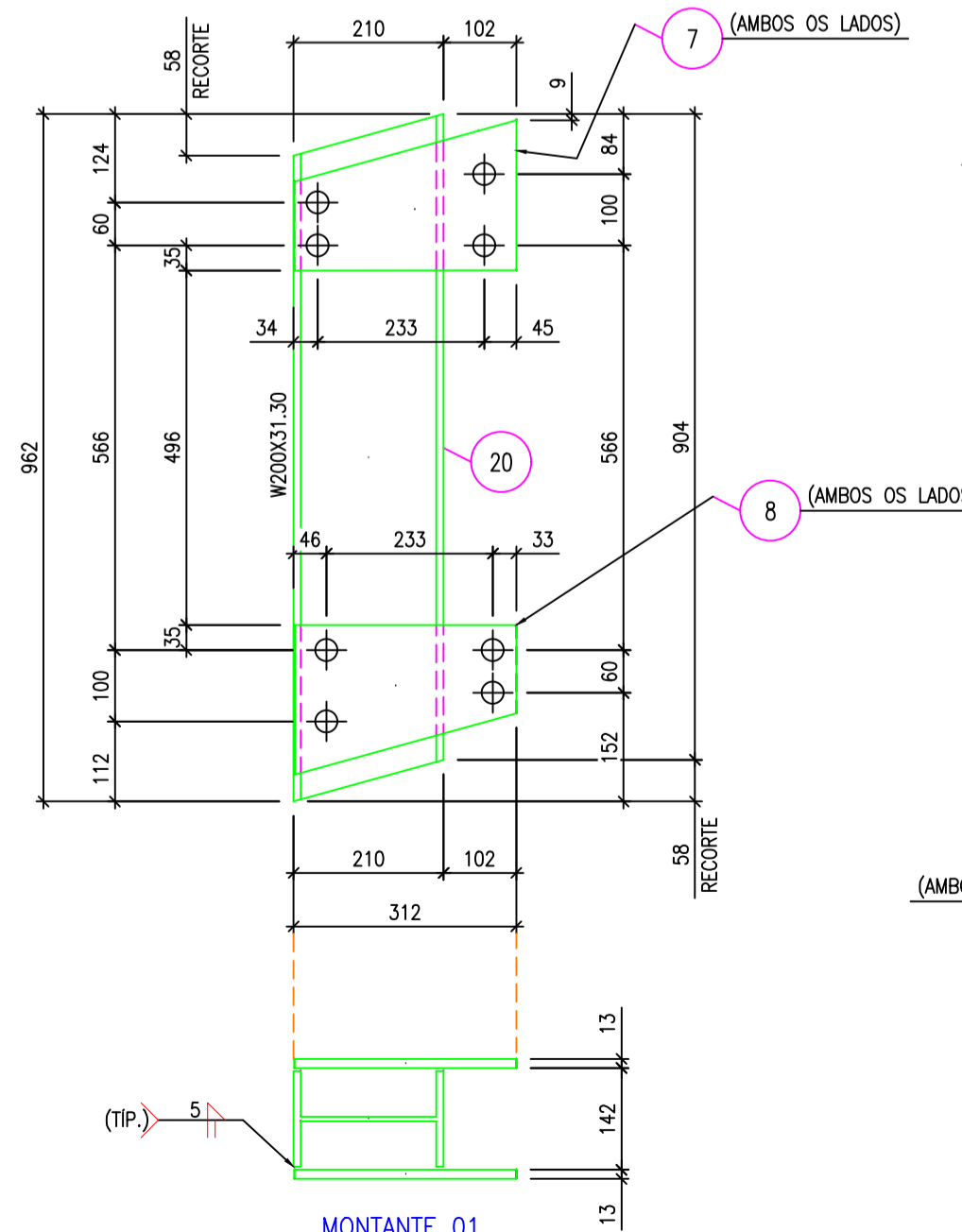
DETALHE 2  
ESC.: 1/10



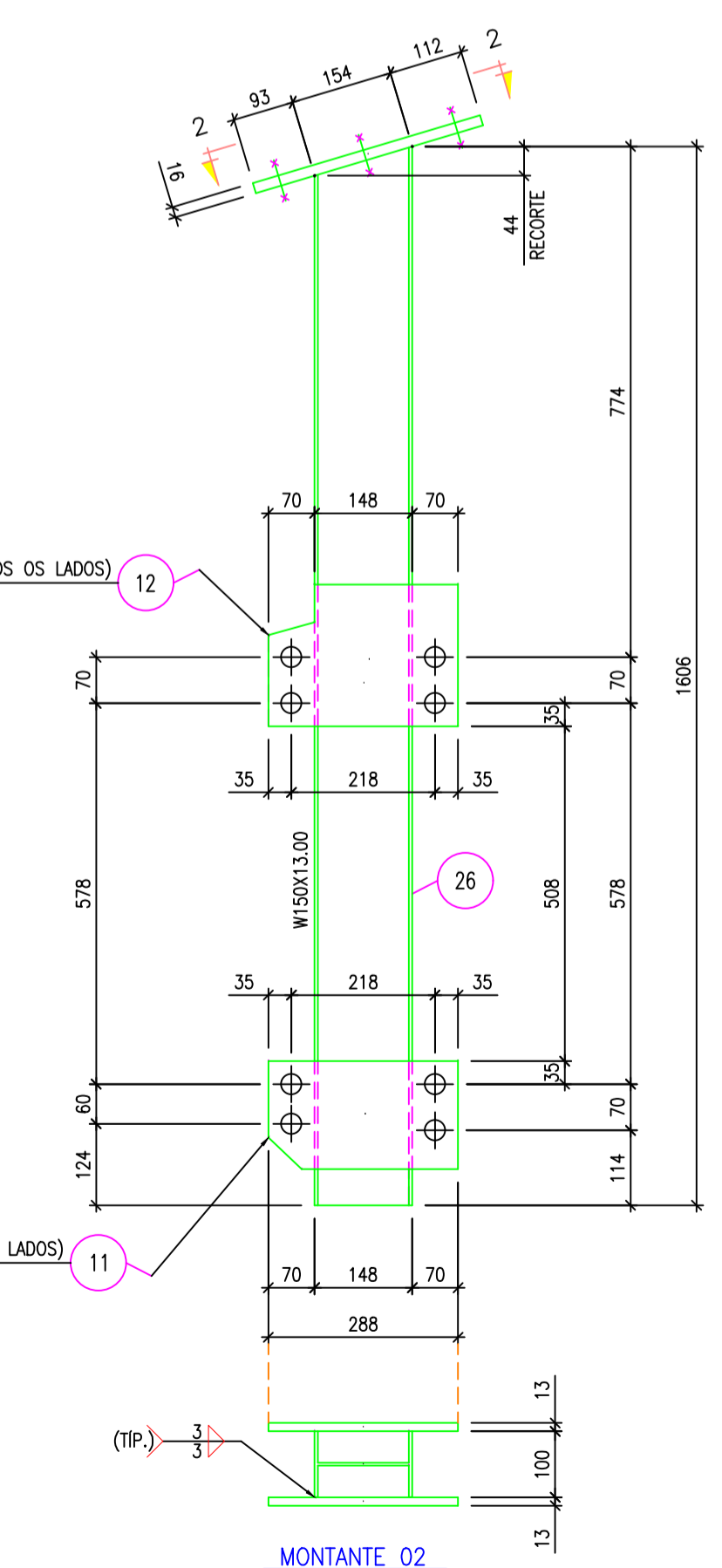
DETALHE 3  
ESC.: 1/10



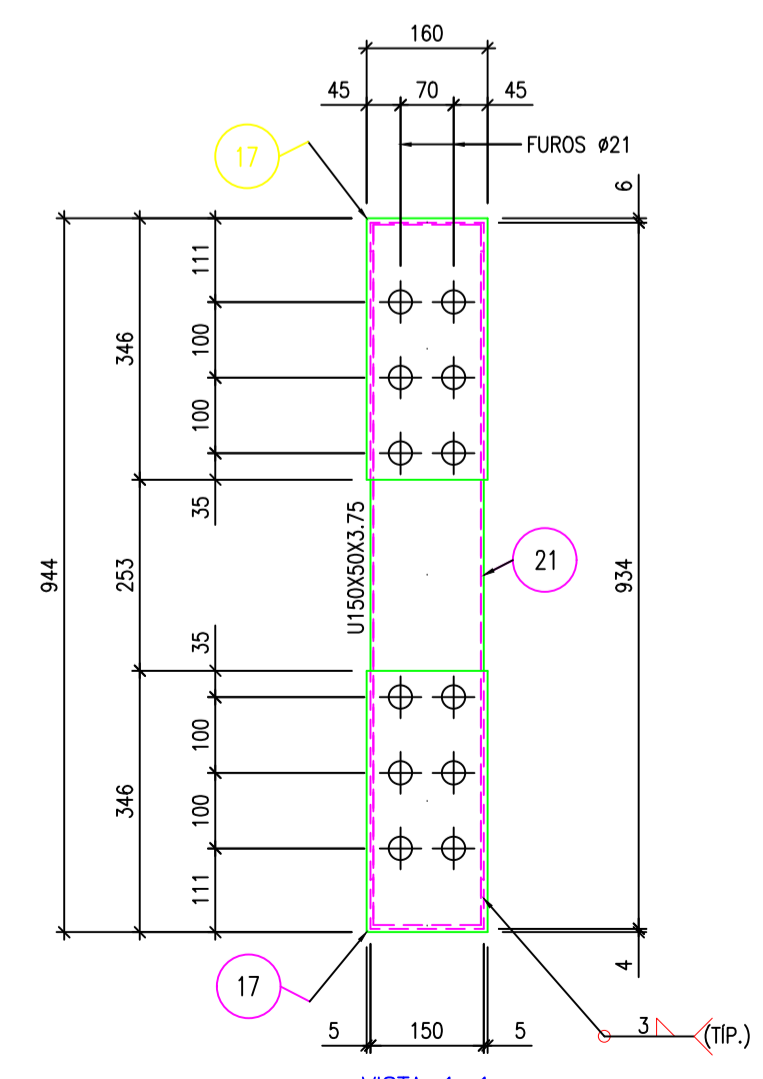
DETALHE 1  
ESC.: 1/10



MONTANTE 01  
ESC.: 1/10



MONTANTE 02  
ESC.: 1/10



VISTA 1-1  
ESC.: 1/10

IMPORTANTE:  
-SOLDAS NÃO INDICADAS UTILIZAR CORDÃO DE 3mm  
TODO O CONTORNO

		LISTA DE MATERIAIS		
		PESO TOTAL: 2.9672 ton	SUPERFÍCIE A TRATAR: 186.5 m <sup>2</sup>	
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso
			Unit.	Tot.
TS1	8	TRELIÇA PRINCIPAL		0.3709 2.9672
6	8	U150X50X3.75 x 9385.1	CIVIL300	0.0657 0.5253
7	16	Ch. 12.70 x 202.2 x 355.6	CIVIL300	0.0072 0.1149
8	16	Ch. 12.70 x 202.2 x 355.5	CIVIL300	0.0072 0.1146
9	56	Ch. 4.75 x 85.9 x 137.2	CIVIL300	0.0004 0.0246
10	56	Ch. 4.75 x 84.0 x 137.2	CIVIL300	0.0004 0.0241
11	16	Ch. 12.70 x 163.9 x 287.7	CIVIL300	0.0047 0.0752
12	16	Ch. 12.70 x 215.0 x 287.7	CIVIL300	0.0062 0.0987
13	8	Ch. 4.75 x 54.8 x 160.0	CIVIL300	0.0003 0.0026
14	8	Ch. 4.75 x 56.7 x 160.0	CIVIL300	0.0003 0.0027
15	8	Ch. 16.00 x 262.0 x 359.6	CIVIL300	0.0118 0.0946
16	8	Ch. 16.00 x 300.0 x 394.0	CIVIL300	0.0149 0.1188
17	16	Ch. 16.00 x 160.0 x 345.6	CIVIL300	0.0070 0.1112
18	72	U142X60X2.25 x 1065.0	CIVIL300	0.0048 0.3449
19	8	U142X60X2.25 x 989.3	CIVIL300	0.0045 0.0356
20	8	W200X31.30 x 962.1	A572GR50	0.0304 0.2432
21	8	U150X50X3.75 x 933.9	CIVIL300	0.0065 0.0522
22	8	U142X60X2.25 x 875.3	CIVIL300	0.0039 0.0315
23	8	U142X60X2.25 x 959.1	CIVIL300	0.0043 0.0345
24	8	U142X60X2.25 x 1037.3	CIVIL300	0.0047 0.0373
25	48	U142X60X2.25 x 869.6	CIVIL300	0.0039 0.1877
26	8	W150X13.00 x 1605.6	A572GR50	0.0209 0.1670
27	8	U150X50X3.75 x 9398.9	CIVIL300	0.0658 0.5260

Rev.	Descrição	Responsável	Data

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

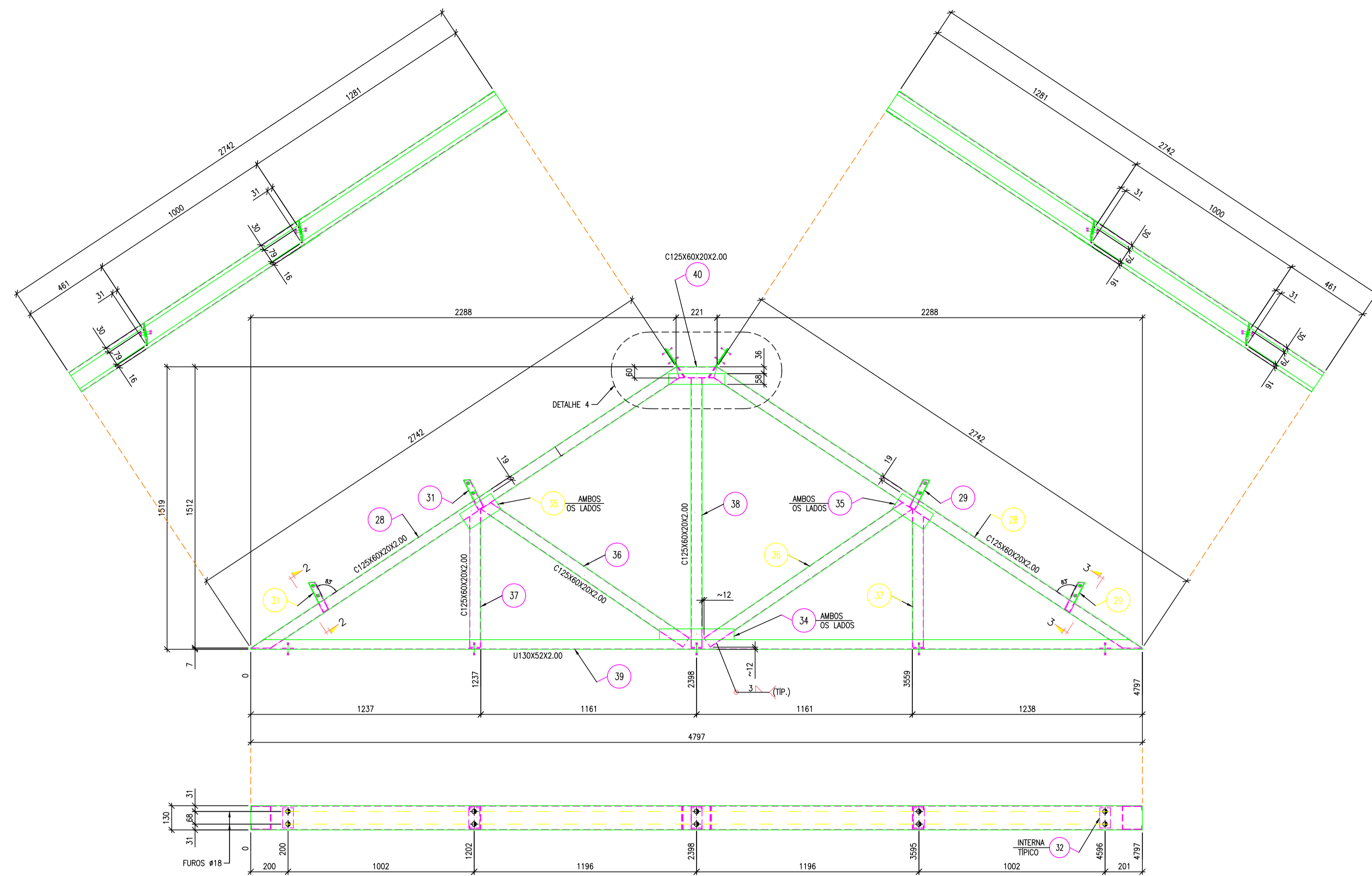
FRANCHA: **Treliça Principal**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      RS247200

CLIENTE: **Prefeitura Municipal de Cotiporã**      ESCALA: **ind.**      FOLHA: **F03-00**

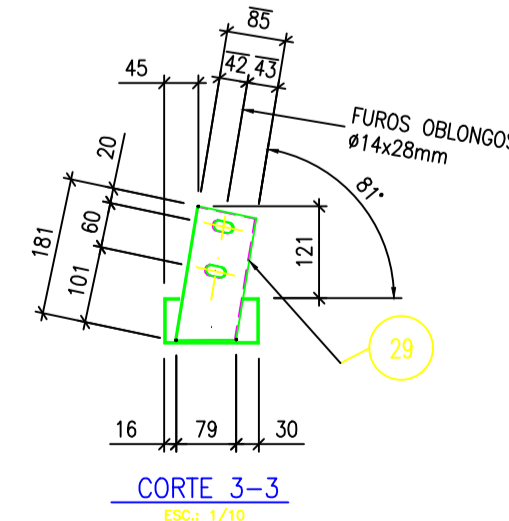
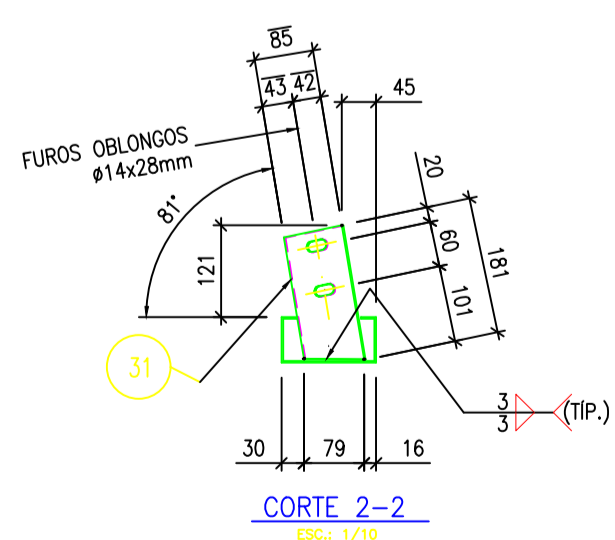
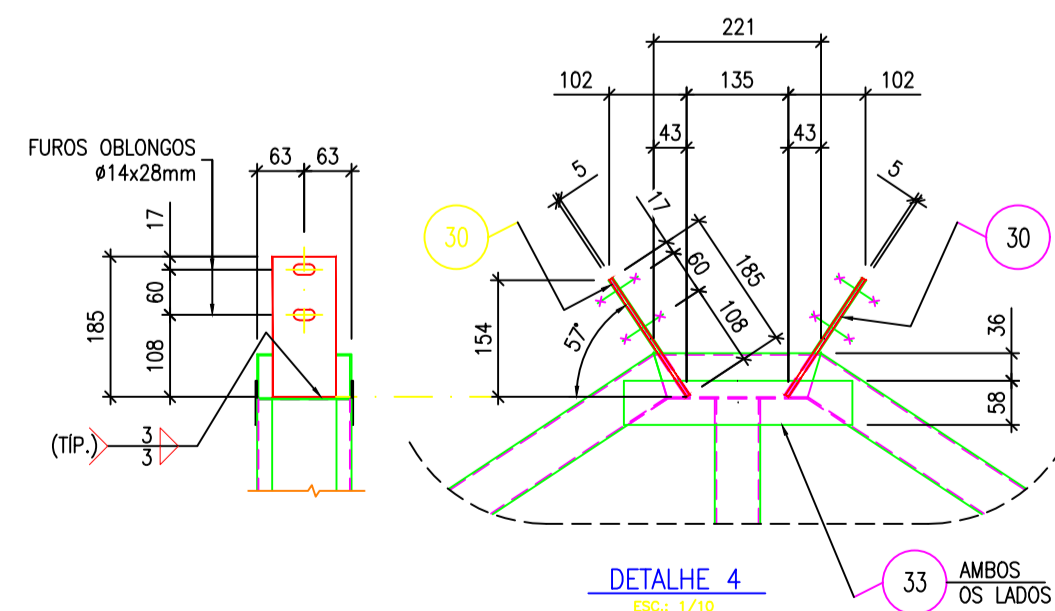
Veranópolis - RS      @BroettoEngenharia      UNIDADE: **mm**      DATA: **25-jul-23**

(54) 996743658      DESENHO: **jrgb**



TS2 Qty. 1  
ESC.: 1/15

**IMPORTANTE:**  
-SOLDAS NÃO INDICADAS UTILIZAR CORDÃO DE 3mm  
TODO O CONTOURO



LISTA DE MATERIAIS					
PESO TOTAL: 0.0723 ton			SUPERFÍCIE A TRATAR: 9.0 m <sup>2</sup>		
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
TS2	1	TESOURA OITÃO		0.0723	0.0723
28	2	C125X60X20X2.00 x 2742.0	CVL300	0.0117	0.0234
29	2	Ch. 4.75 x 83.6 x 180.8	CVL300	0.0006	0.0011
30	2	Ch. 4.75 x 83.6 x 186.2	CVL300	0.0006	0.0012
31	2	Ch. 4.75 x 83.6 x 180.8	CVL300	0.0006	0.0011
32	5	Ch. 4.75 x 58.0 x 107.9	CVL300	0.0002	0.0012
33	2	Ch. 2.00 x 58.1 x 302.3	CVL300	0.0003	0.0006
34	2	Ch. 2.00 x 58.1 x 402.3	CVL300	0.0004	0.0007
35	4	Ch. 2.00 x 98.1 x 202.3	CVL300	0.0003	0.0012
36	2	C125X60X20X2.00 x 1315.4	CVL300	0.0056	0.0112
37	2	C125X60X20X2.00 x 741.0	CVL300	0.0032	0.0063
38	1	C125X60X20X2.00 x 1447.0	CVL300	0.0062	0.0062
39	1	U130X52X2.00 x 4796.6	CVL300	0.0171	0.0171
40	1	C125X60X20X2.00 x 221.3	CVL300	0.0009	0.0009

Rev.	Descrição	Responsável	Data

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Tesoura Oitão**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      RS247200

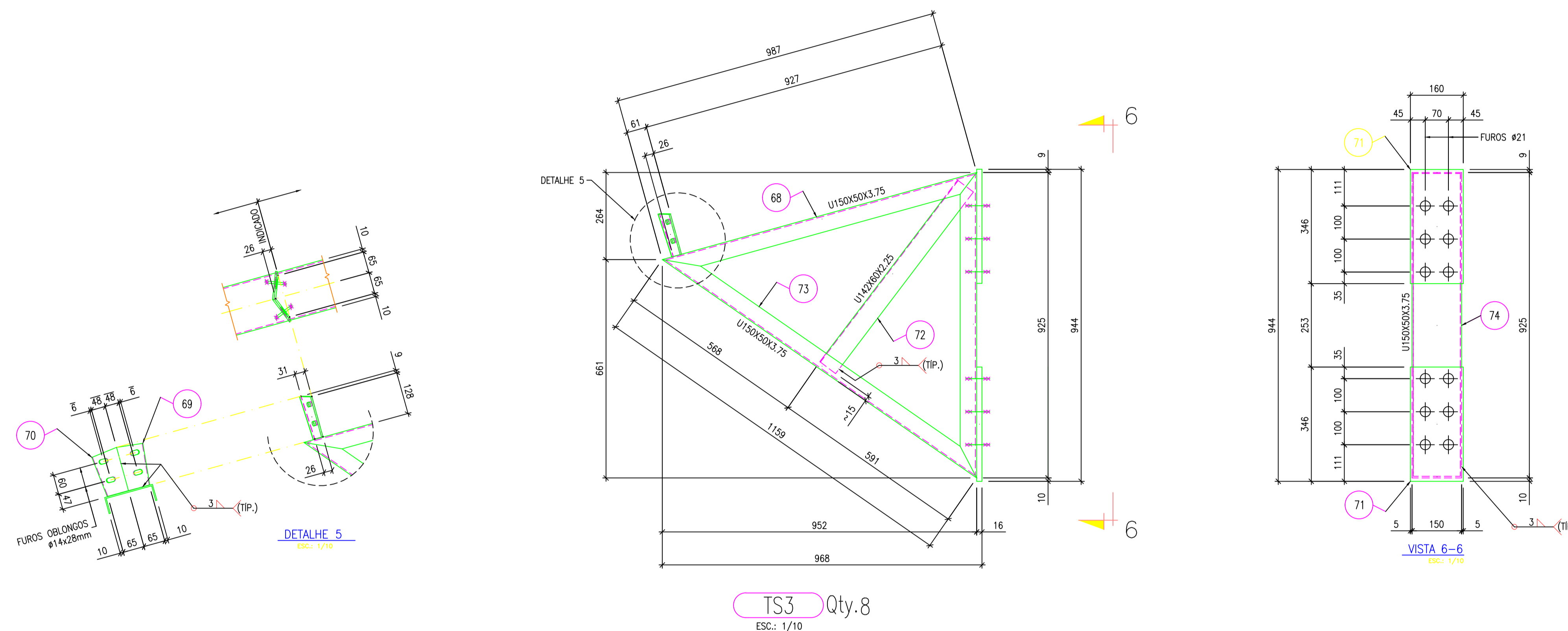
CLIENTE: **Prefeitura Municipal de Cotiporã**      ESCALA: **ind.**      FOLHA: **F04-00**

DESENHO: **jrgb**      UNIDADE: **mm**      DATA: **25-jul-23**

Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658

LISTA DE MATERIAIS

MAR. POS.		QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.	
TS3		8	BEIRAL		0.0394	0.3149
68	8	U150X50X3.75 x 987.5	CIVIL300		0.0069	0.0553
69	8	Ch. 4.75 x 85.9 x 137.2	CIVIL300		0.0004	0.0035
70	8	Ch. 4.75 x 84.0 x 137.2	CIVIL300		0.0004	0.0034
71	16	Ch. 16.00 x 160.0 x 345.6	CIVIL300		0.0070	0.1112
72	8	U142X60X2.25 x 690.0	CIVIL300		0.0031	0.0248
73	8	U150X50X3.75 x 1158.7	CIVIL300		0.0081	0.0649
74	8	U150X50X3.75 x 924.8	CIVIL300		0.0065	0.0518



**IMPORTANTE:**  
 -SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
 TODO O CONTORNO

Rev.	Descrição	Responsável	Data

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

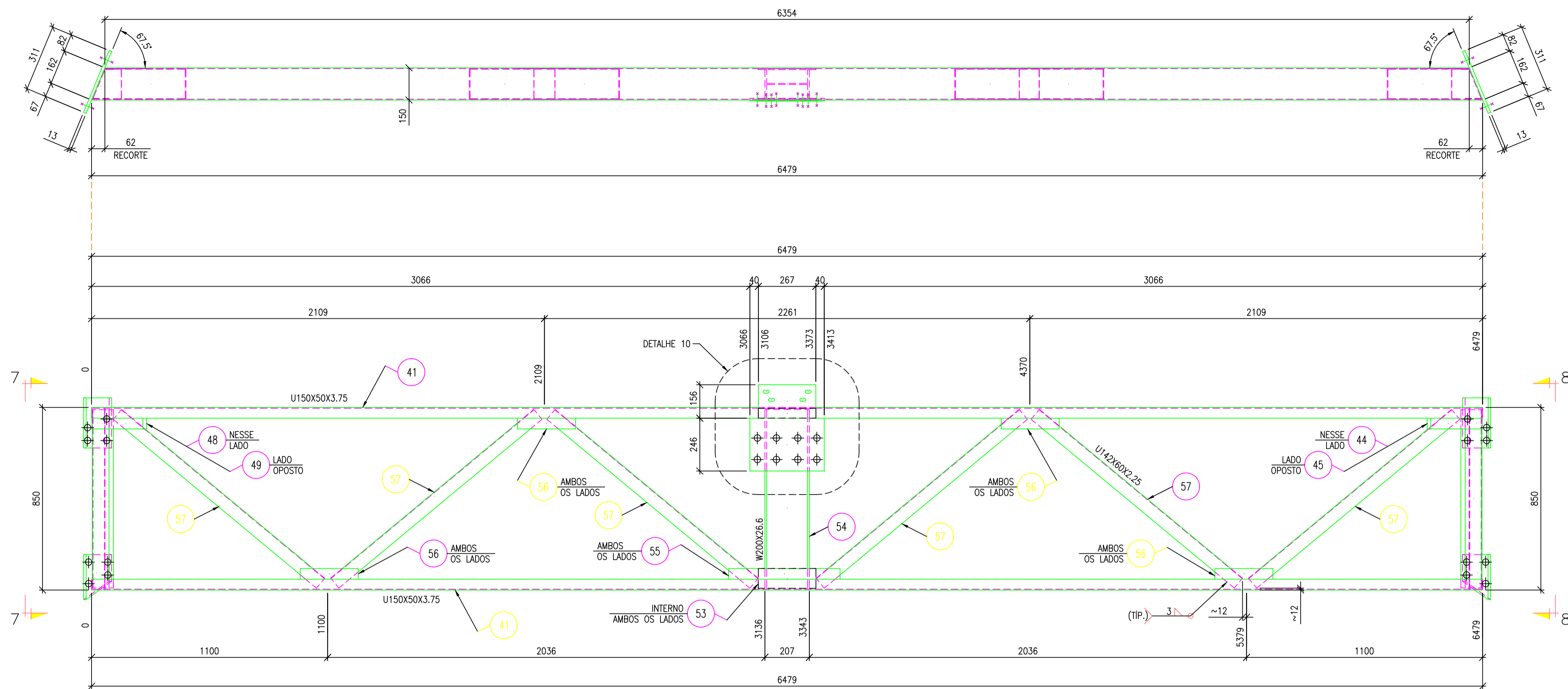
ENDEREÇO: **Cotiporã**

PRANCHA: **Beiral**

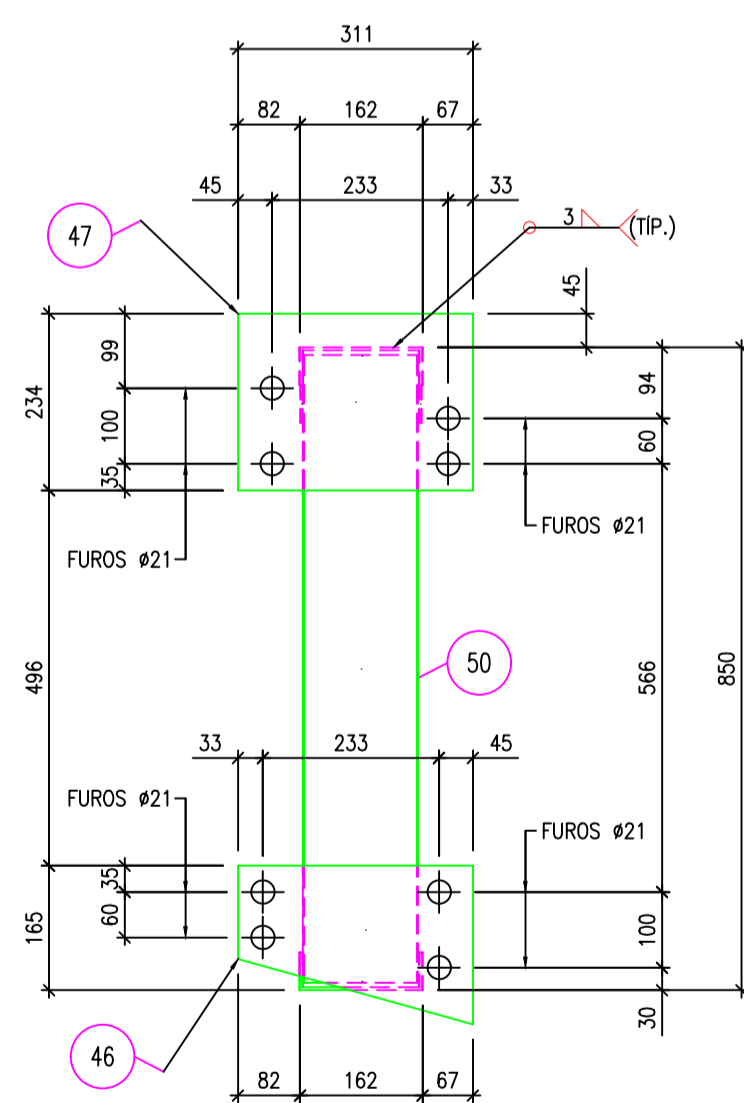
RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      **RS247200**

CLIENTE: **Prefeitura Municipal de Cotiporã**      ESCALA: **ind.**      FOLHA: **F05-00**

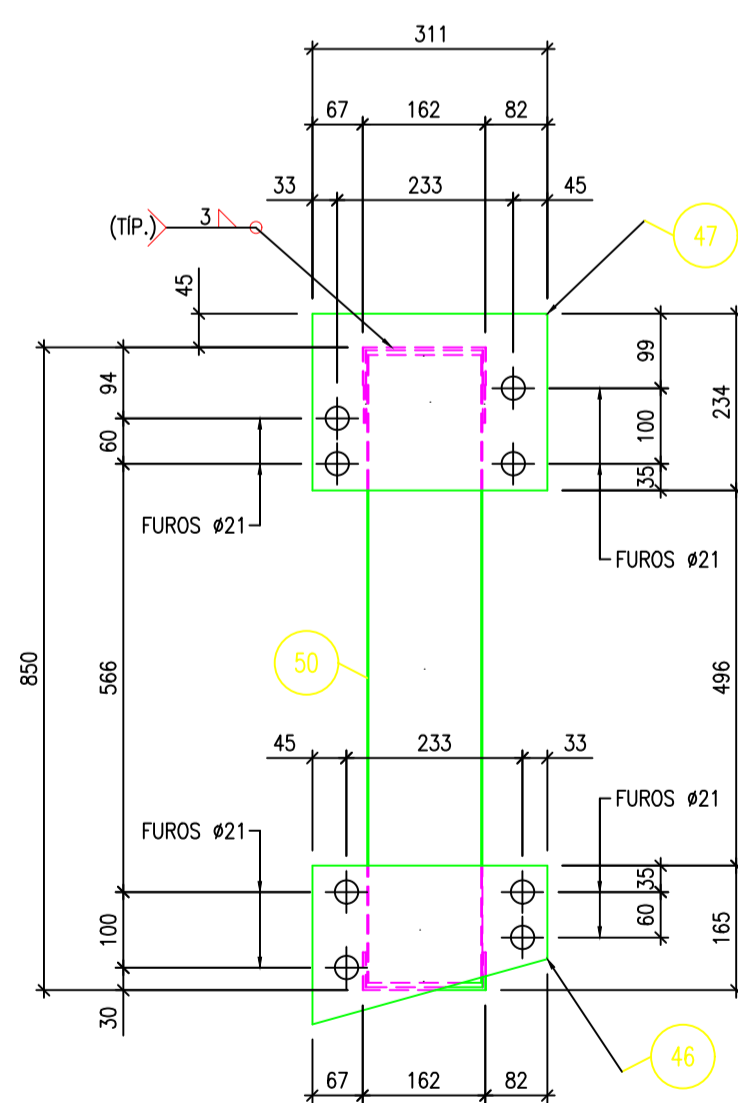
Veranópolis - RS      @BroettoEngenharia      UNIDADE: **mm**      DATA: **25-jul-23**  
 (54) 996743658      **jrgb**



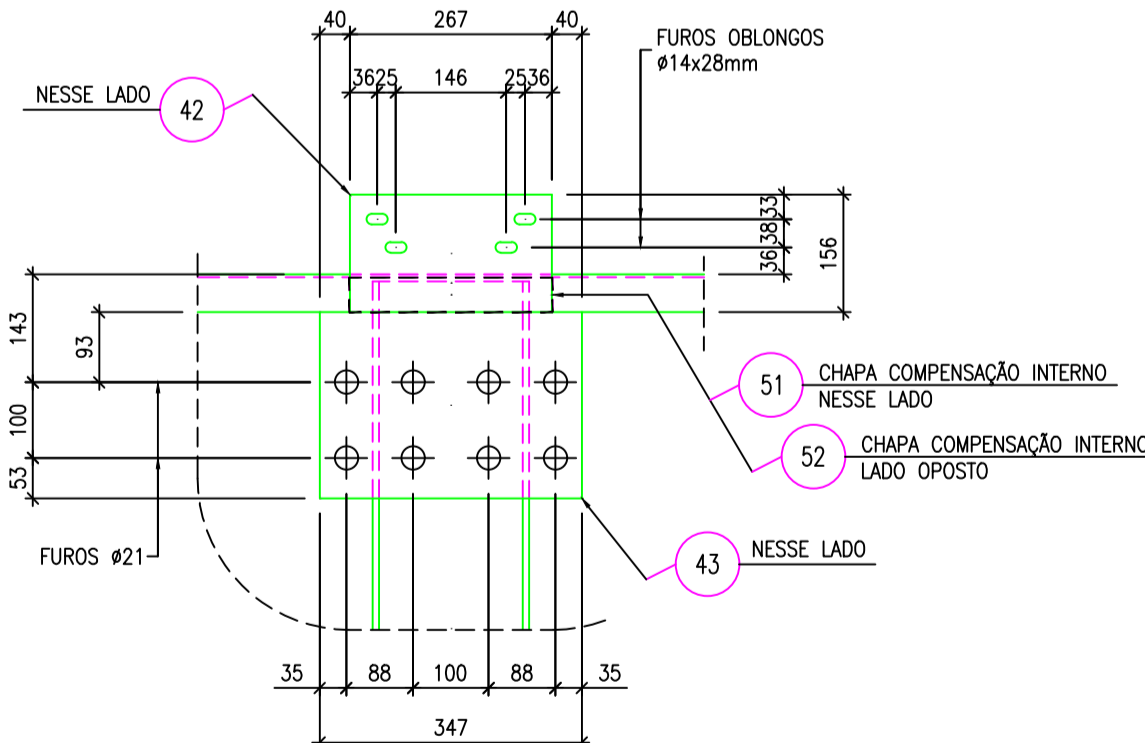
VT1 Qty. 1  
ESC.: 1/15



VISTA 7-7  
ESC.: 1/10



VISTA 8-8  
ESC.: 1/10



DETALHE 10  
ESC.: 1/10

**IMPORTANTE:**  
-SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
TODO O CONTORNO

LISTA DE MATERIAIS					
PESO TOTAL: 0.2030 ton		SUPERFÍCIE A TRATAR: 13.2 m <sup>2</sup>			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
VT1	1	VIGA TRAVAMENTO		0.2030	0.2030
41	2	U150X50X3.75 x 6478.7	CIVIL300	0.0453	0.0907
42	1	Ch. 4.75 x 155.6 x 267.2	CIVIL300	0.0016	0.0016
43	1	Ch. 12.70 x 246.2 x 346.6	CIVIL300	0.0085	0.0085
44	1	Ch. 3.00 x 50.0 x 240.1	CIVIL300	0.0003	0.0003
45	1	Ch. 3.00 x 50.0 x 194.7	CIVIL300	0.0002	0.0002
46	2	Ch. 12.70 x 202.2 x 355.5	CIVIL300	0.0072	0.0143
47	2	Ch. 12.70 x 233.7 x 310.7	CIVIL300	0.0072	0.0145
48	1	Ch. 3.00 x 50.0 x 236.9	CIVIL300	0.0003	0.0003
49	1	Ch. 3.00 x 50.0 x 194.7	CIVIL300	0.0002	0.0002
50	2	Ch. 3.00 x 265.8 x 830.0	CIVIL300	0.0052	0.0104
51	1	Ch. 4.75 x 45.8 x 268.9	CIVIL300	0.0005	0.0005
52	1	Ch. 4.75 x 45.8 x 268.9	CIVIL300	0.0005	0.0005
53	2	Ch. 4.75 x 92.2 x 268.9	CIVIL300	0.0009	0.0018
54	1	W200X26.6 x 832.9	A572GR50	0.0224	0.0224
55	2	Ch. 3.00 x 50.0 x 518.7	CIVIL300	0.0006	0.0012
56	8	Ch. 3.00 x 50.0 x 270.0	CIVIL300	0.0003	0.0026
57	6	U142X80X2.25 x 1230.0	CIVIL300	0.0055	0.0332

Rev.	Descrição	Responsável	Data

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

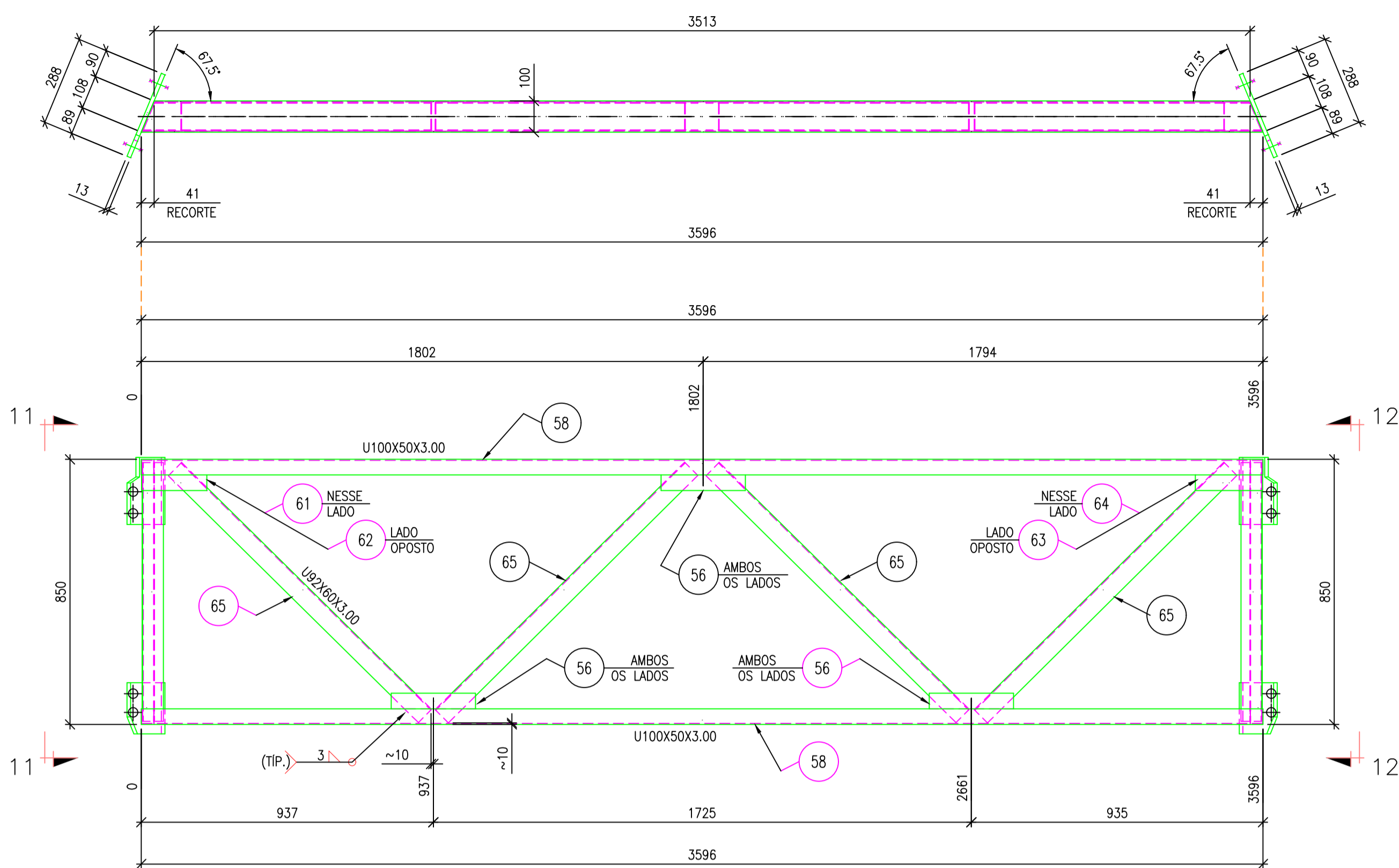
PRANCHA: **Viga de Travamento**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto** RS247200

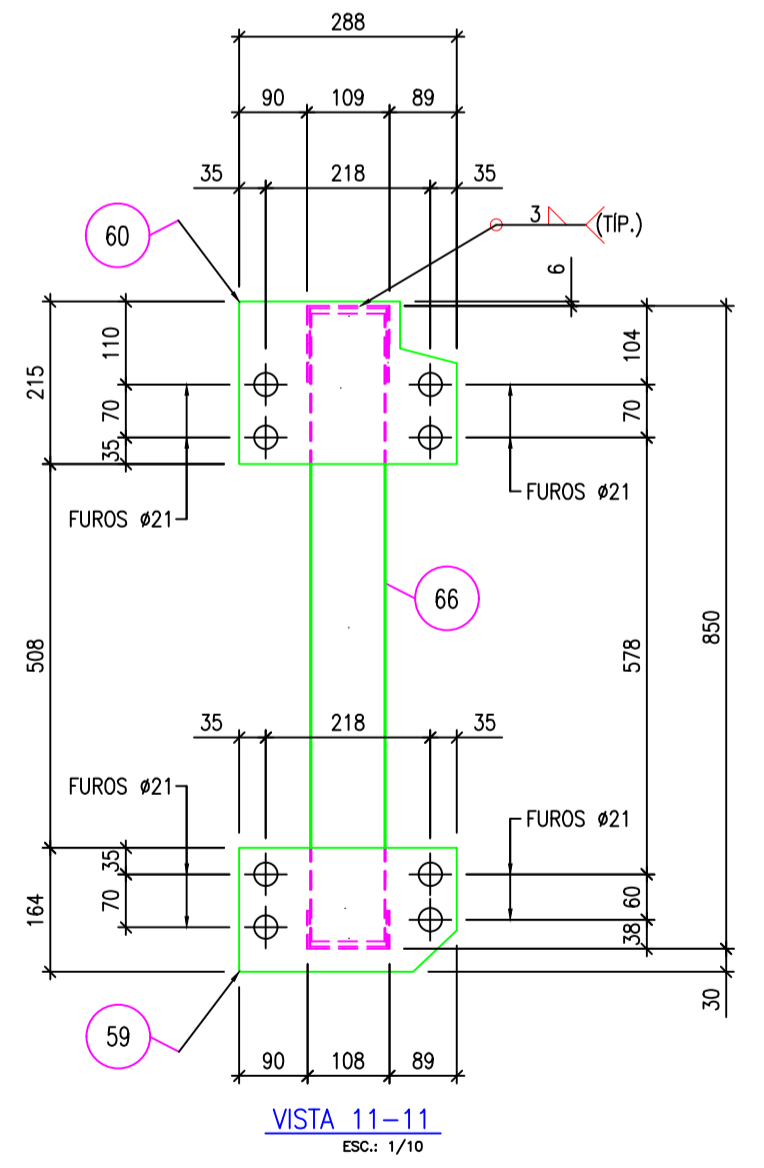
CLIENTE: **Prefeitura Municipal de Cotiporã** ESCALA: **ind.** FOLHA: **F06-00**

DESENHO: **jrgb** UNIDADE: **mm** DATA: **25-jul-23**

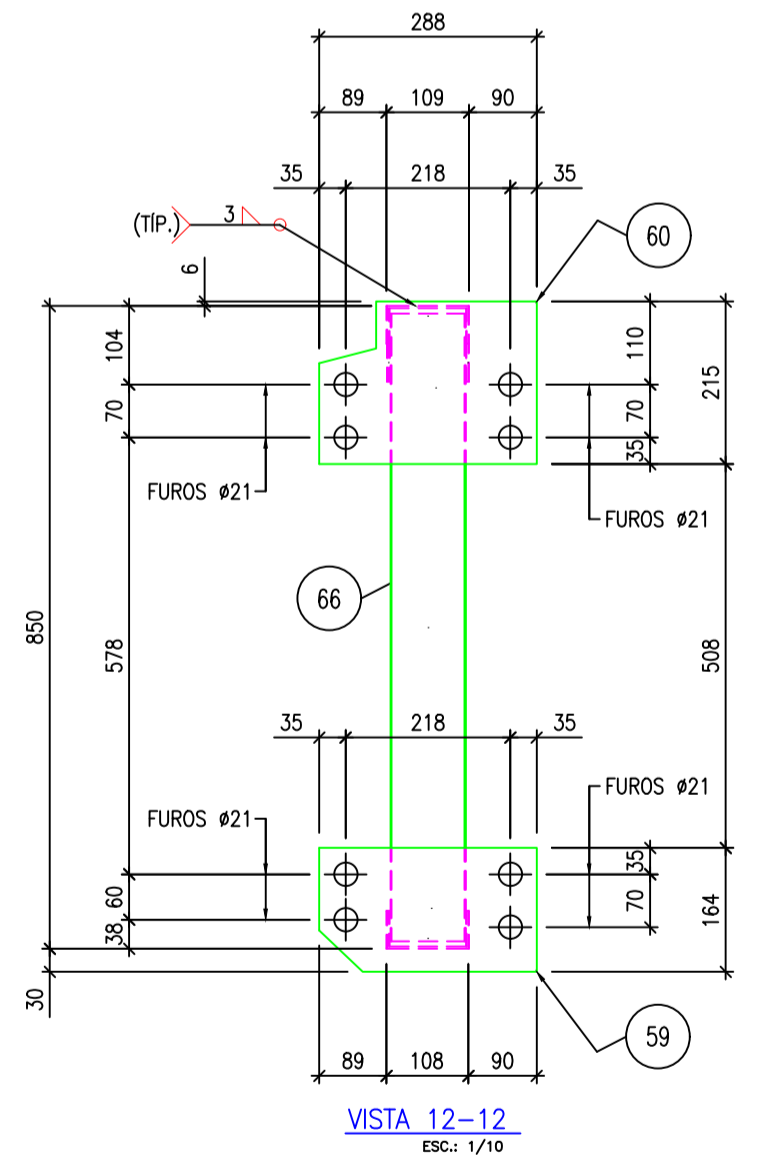
Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658



VT2 Qty. 8  
ESC.: 1/15



VISTA 11-11  
ESC.: 1/10



VISTA 12-12  
ESC.: 1/10

IMPORTANTE:  
-SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
TODO O CONTORNO

LISTA DE MATERIAIS					
PESO TOTAL: 0.6860 ton		SUPERFÍCIE A TRATAR: 48.1 m²			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
VT2	8	VIGA DE TRAVAMENTO		0.0858	0.6860
56	48	Ch. 3.00 x 50.0 x 270.0	CIVIL300	0.0003	0.0154
58	16	U100X50X3.00 x 3595.9	CIVIL300	0.0161	0.2576
59	16	Ch. 12.70 x 163.9 x 287.7	CIVIL300	0.0047	0.0752
60	16	Ch. 12.70 x 215.0 x 287.7	CIVIL300	0.0062	0.0987
61	8	Ch. 3.00 x 50.0 x 209.0	CIVIL300	0.0003	0.0020
62	8	Ch. 3.00 x 50.0 x 168.8	CIVIL300	0.0002	0.0016
63	8	Ch. 3.00 x 50.0 x 175.4	CIVIL300	0.0002	0.0017
64	8	Ch. 3.00 x 50.0 x 215.4	CIVIL300	0.0003	0.0020
65	32	U92X60X3.00 x 1126.5	CIVIL300	0.0054	0.1715
66	16	Ch. 3.00 x 192.8 x 830.0	CIVIL300	0.0038	0.0603

Rev.	Descrição	Responsável	Data

Broetto  
engenharia

Prefeitura Municipal de Cotiporã

OBRA: **Centro de Eventos**

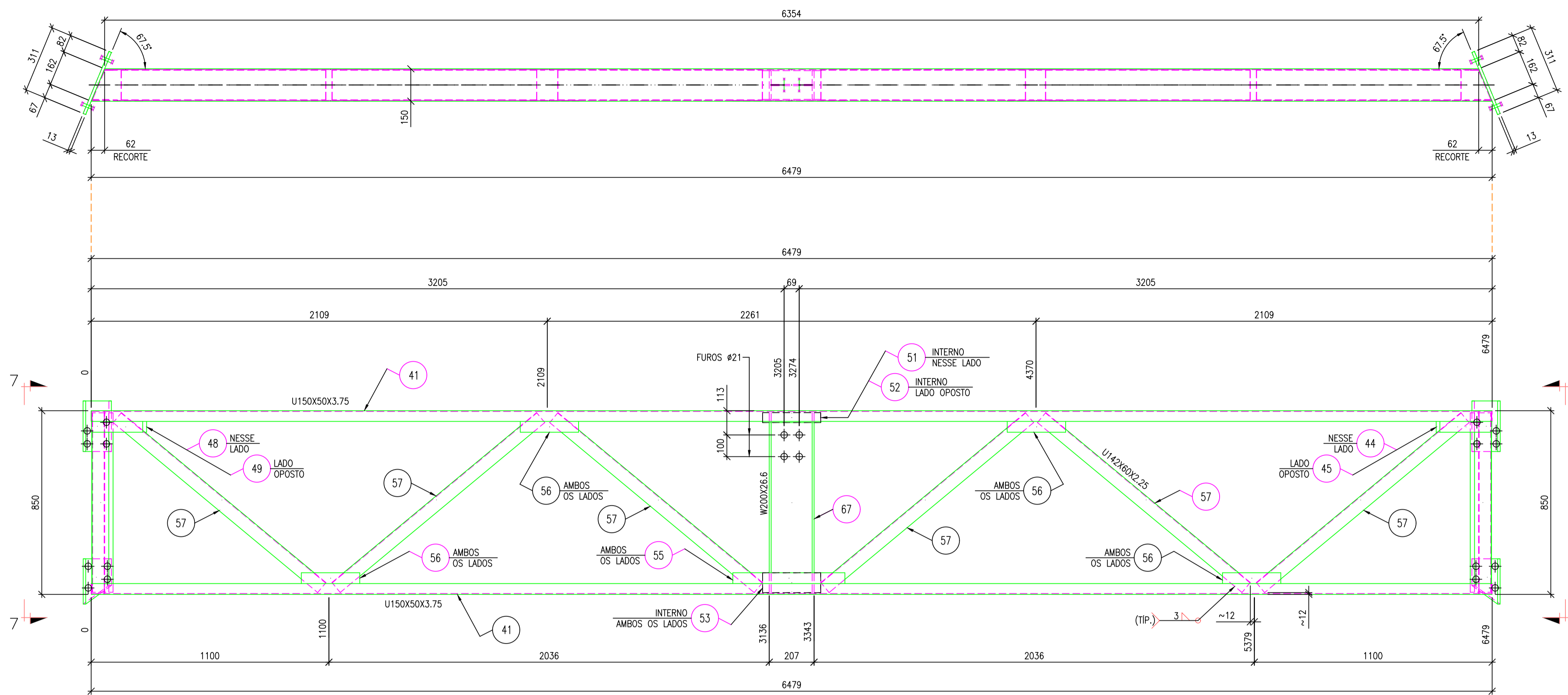
ENDEREÇO: **Cotiporã**

PRANCHA: **Viga de Travamento**

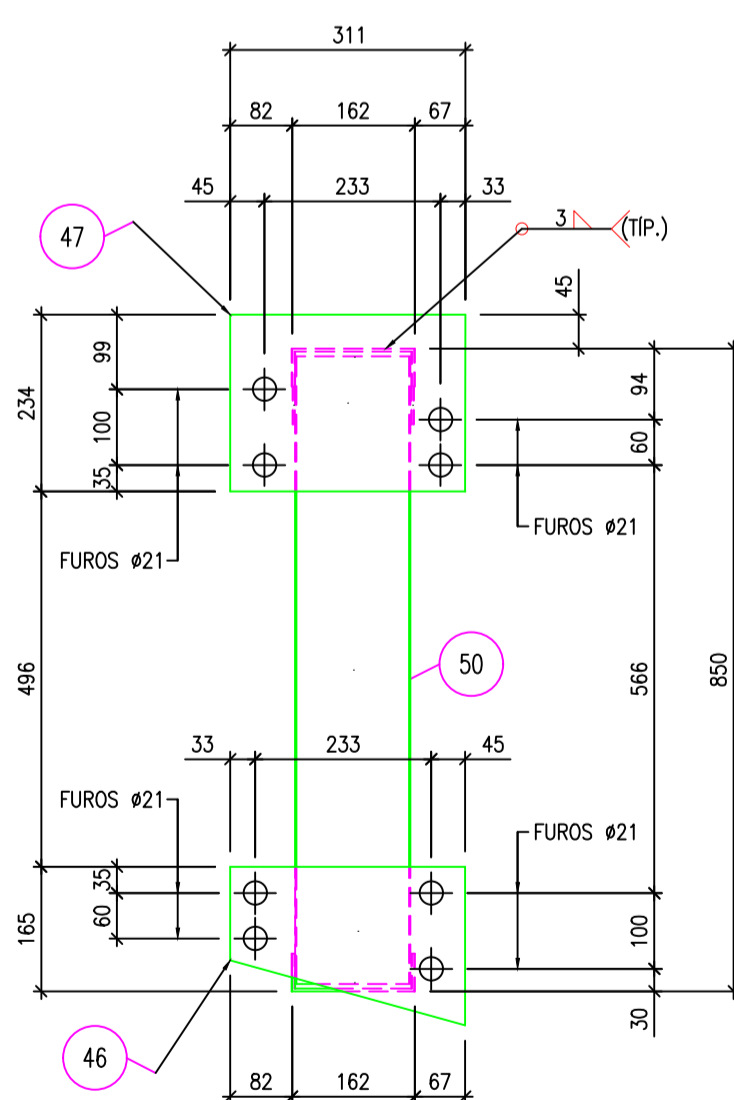
RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      RS247200

CLIENTE: **Prefeitura Municipal de Cotiporã**      ESCALA: **ind.**      FOLHA: **F07-00**

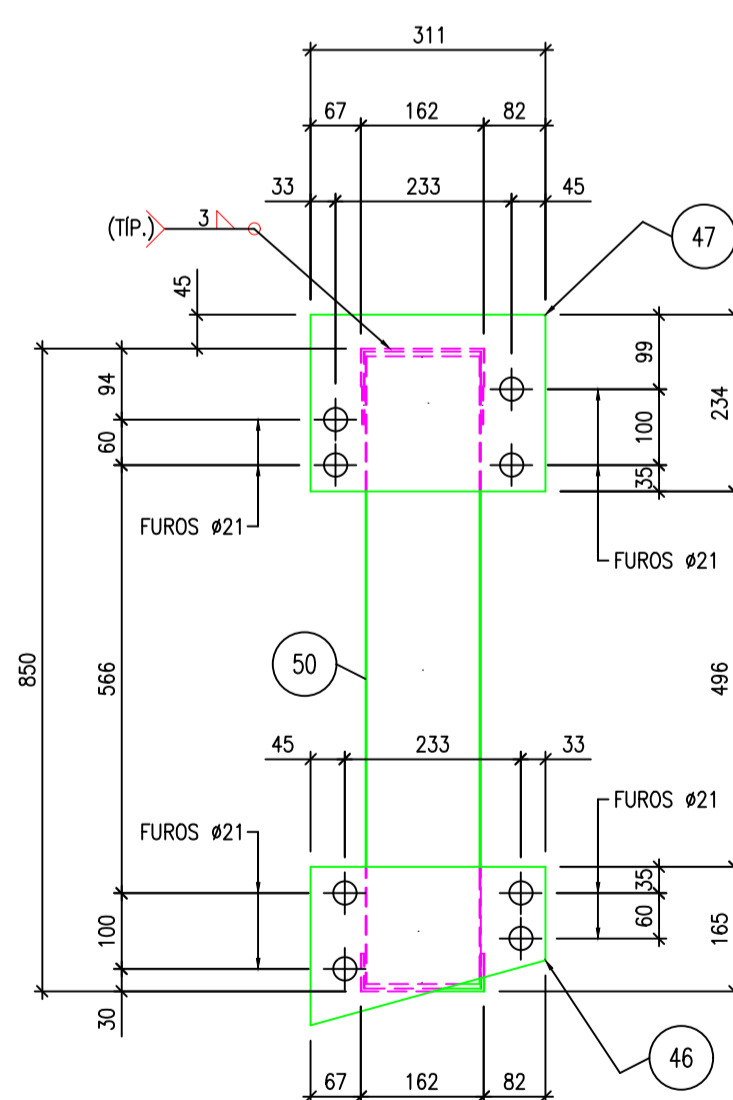
DESENHO: **jrgb**      UNIDADE: **mm**      DATA: **25-jul-23**



VT3 Qty.7  
ESC.: 1/15



VISTA 7-7  
ESC.: 1/10



VISTA 8-8  
ESC.: 1/10

**IMPORTANTE:**  
-SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
TODO O CONTORNO

LISTA DE MATERIAIS					
PESO TOTAL: 1.3507 ton		SUPERFÍCIE A TRATAR: 90.6 m²			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
VT3	7	VIGA DE TRAVAMENTO		0.1930	1.3507
41	14	U150X50X3.75 x 6478.7	CIVIL300	0.0453	0.6346
44	7	Ch. 3.00 x 50.0 x 240.1	CIVIL300	0.0003	0.0020
45	7	Ch. 3.00 x 50.0 x 196.7	CIVIL300	0.0002	0.0016
46	14	Ch. 12.70 x 202.2 x 355.5	CIVIL300	0.0072	0.1002
47	14	Ch. 12.70 x 233.7 x 310.7	CIVIL300	0.0072	0.1014
48	7	Ch. 3.00 x 50.0 x 236.9	CIVIL300	0.0003	0.0020
49	7	Ch. 3.00 x 50.0 x 194.7	CIVIL300	0.0002	0.0016
50	14	Ch. 3.00 x 265.8 x 830.0	CIVIL300	0.0052	0.0727
51	7	Ch. 4.75 x 45.8 x 268.9	CIVIL300	0.0005	0.0032
52	7	Ch. 4.75 x 45.8 x 268.9	CIVIL300	0.0005	0.0032
53	14	Ch. 4.75 x 92.2 x 268.9	CIVIL300	0.0009	0.0129
55	14	Ch. 3.00 x 50.0 x 518.7	CIVIL300	0.0006	0.0085
56	56	Ch. 3.00 x 50.0 x 270.0	CIVIL300	0.0003	0.0179
57	42	U142X60X2.25 x 1230.0	CIVIL300	0.0055	0.2323
67	7	W200X26.6 x 832.9	A572GR50	0.0224	0.1567

Rev.	Descrição	Responsável	Data

Broetto

engenharia

Prefeitura Municipal de Cotiporã

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

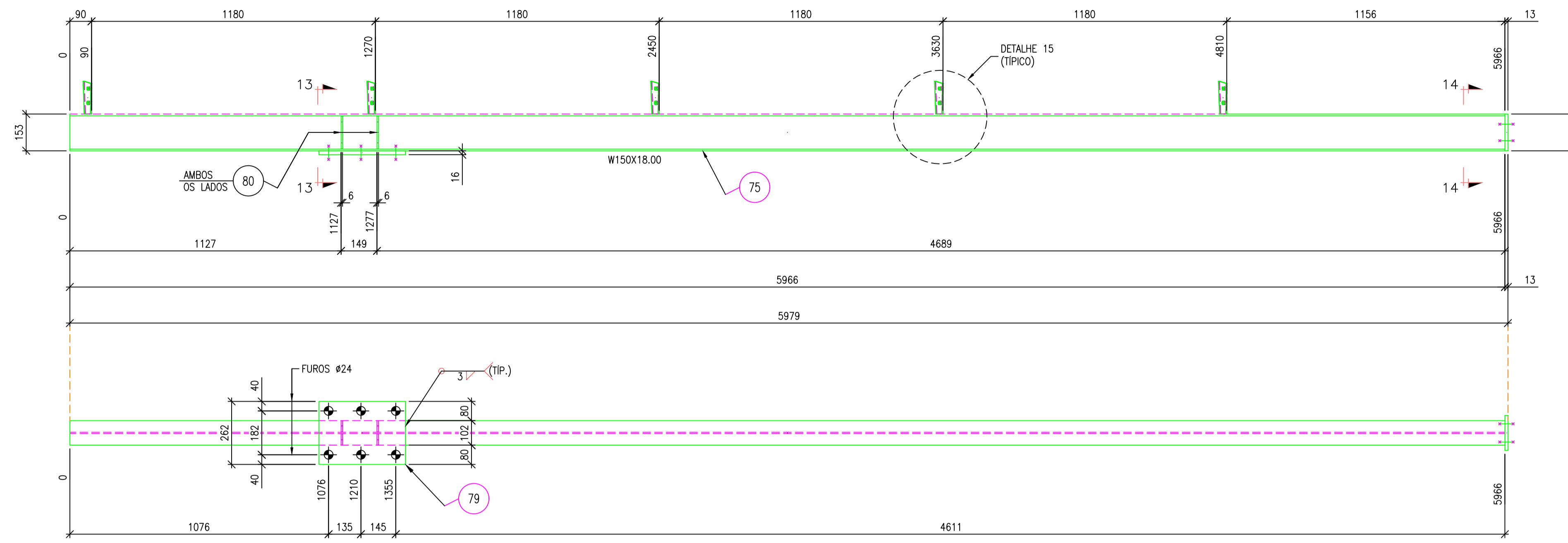
PRANCHA: **Viga de Travamento**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      RS247200

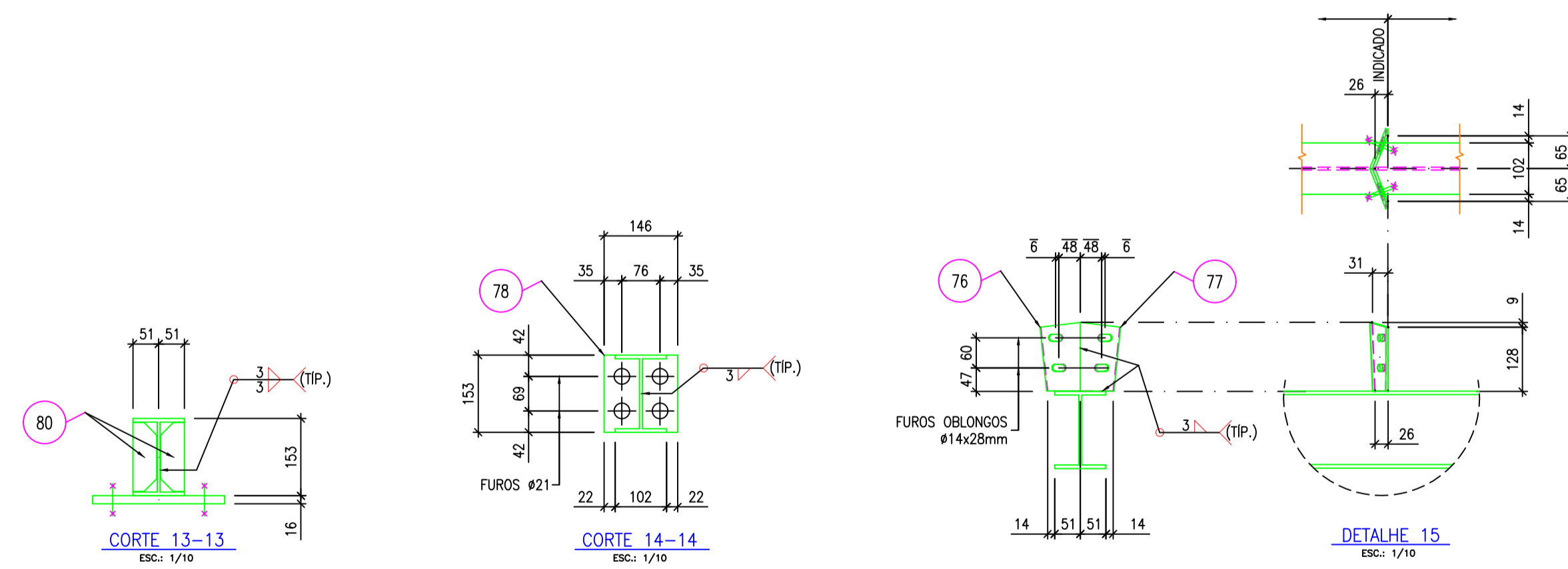
CLIENTE: **Prefeitura Municipal de Cotiporã**      ESCALA: **ind.**      FOLHA: **F08-00**

DESENHO: **jrgb**      UNIDADE: **mm**      DATA: **25-jul-23**





VC1 Qty.8  
ESC.: 1/15



**IMPORTANTE:**  
-SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
TODO O CONTORNO

LISTA DE MATERIAIS					
PESO TOTAL: 1.0356 ton		SUPERFÍCIE A TRATAR: 37.3 m²			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
VC1	8	VIGA		0.1295	1.0356
75	8	W150X18.00 x 5966.0	A572GR50	0.1098	0.8782
76	40	Ch. 4.75 x 85.9 x 137.2	CIVIL300	0.0004	0.0176
77	40	Ch. 4.75 x 84.0 x 137.2	CIVIL300	0.0004	0.0172
78	8	Ch. 12.70 x 145.7 x 153.0	CIVIL300	0.0022	0.0178
79	8	Ch. 16.00 x 262.0 x 359.6	CIVIL300	0.0118	0.0946
80	32	Ch. 6.35 x 47.1 x 136.8	CIVIL300	0.0003	0.0102

Rev.	Descrição	Responsável	Data

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Viga**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto** RS247200

CLIENTE: **Prefeitura Municipal de Cotiporã** ESCALA: **ind.** FOLHA: **F09-00**

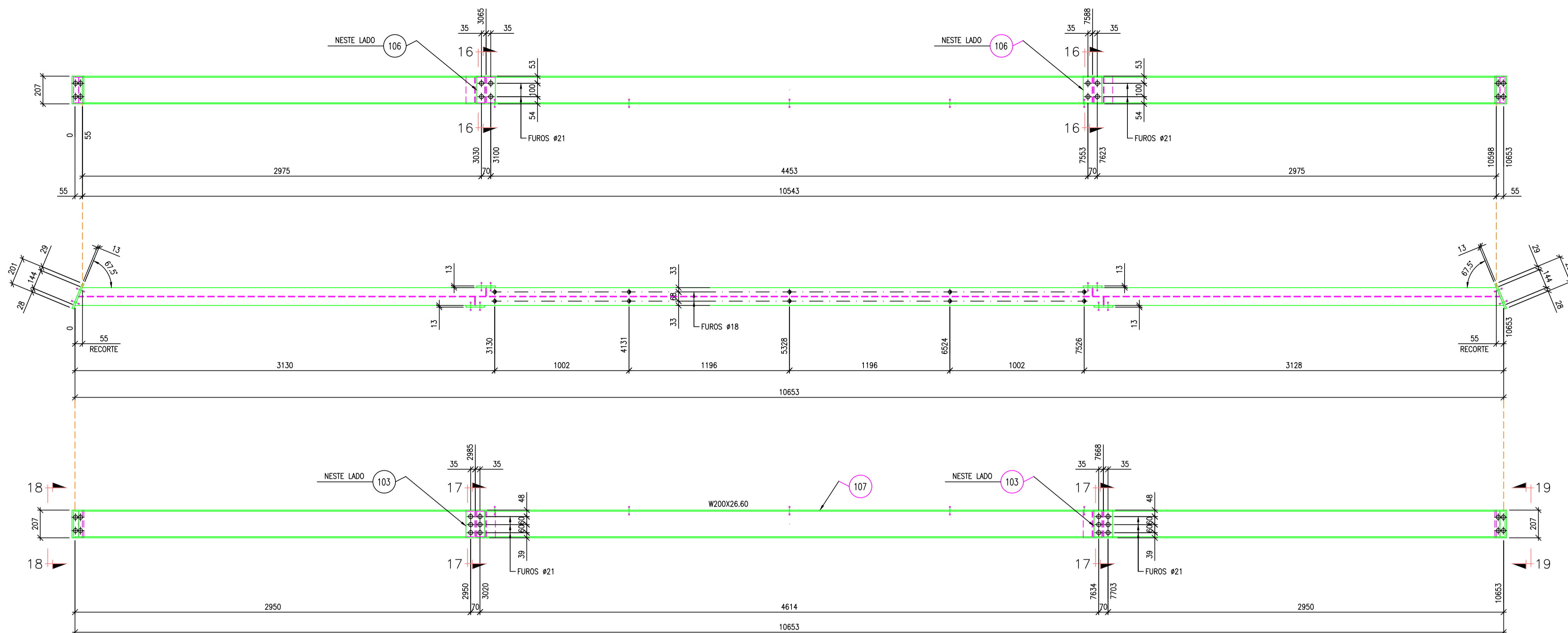
DESENHO: **jrgb** UNIDADE: **mm** DATA: **25-jul-23**

Veranópolis - RS  
@BroettoEngenharia  
(51) 996743658

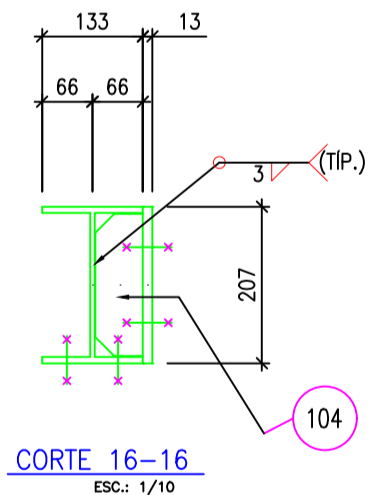
PROIBIDA A Cópia, Reprodução e Circulação

LISTA DE MATERIAIS

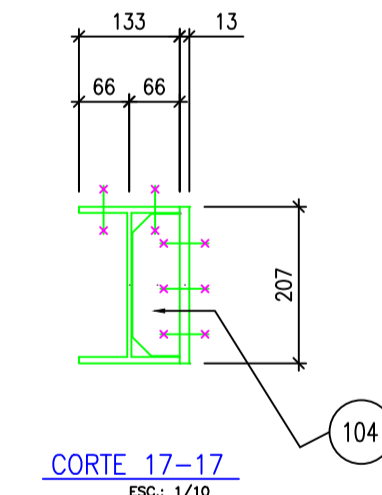
PESO TOTAL: 0.3087 ton		SUPERFÍCIE A TRATAR: 10.3 m <sup>2</sup>			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
VC10	1	VIGA		0.3087	0.3087
103	2	Ch. 12.70 x 139.4 x 207.0	CIVIL300	0.0029	0.0058
104	4	Ch. 6.35 x 62.6 x 188.2	CIVIL300	0.0006	0.0024
105	2	Ch. 12.70 x 200.7 x 207.0	CIVIL300	0.0041	0.0083
106	2	Ch. 12.70 x 139.4 x 207.0	CIVIL300	0.0029	0.0058
107	1	W200X26.60 x 10653.4	A572GR50	0.2866	0.2866



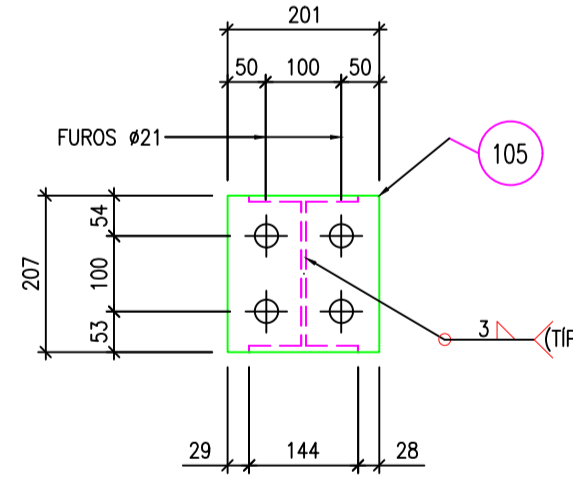
VC10 Qty.1  
ESC.: 1/20



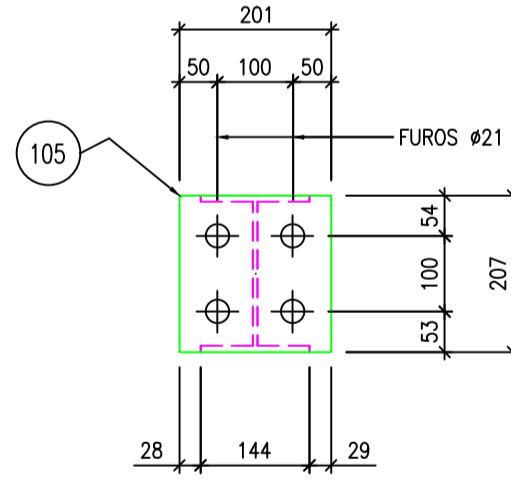
CORTE 16-16  
ESC.: 1/10



CORTE 17-17  
ESC.: 1/10



VISTA 18-18  
ESC.: 1/10



VISTA 19-19  
ESC.: 1/10

IMPORTANTE:  
-SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
TODO O CONTORNO

Rev.	Descrição	Responsável	Data

**Broetto Engenharia**

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Viga**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto** RS247200

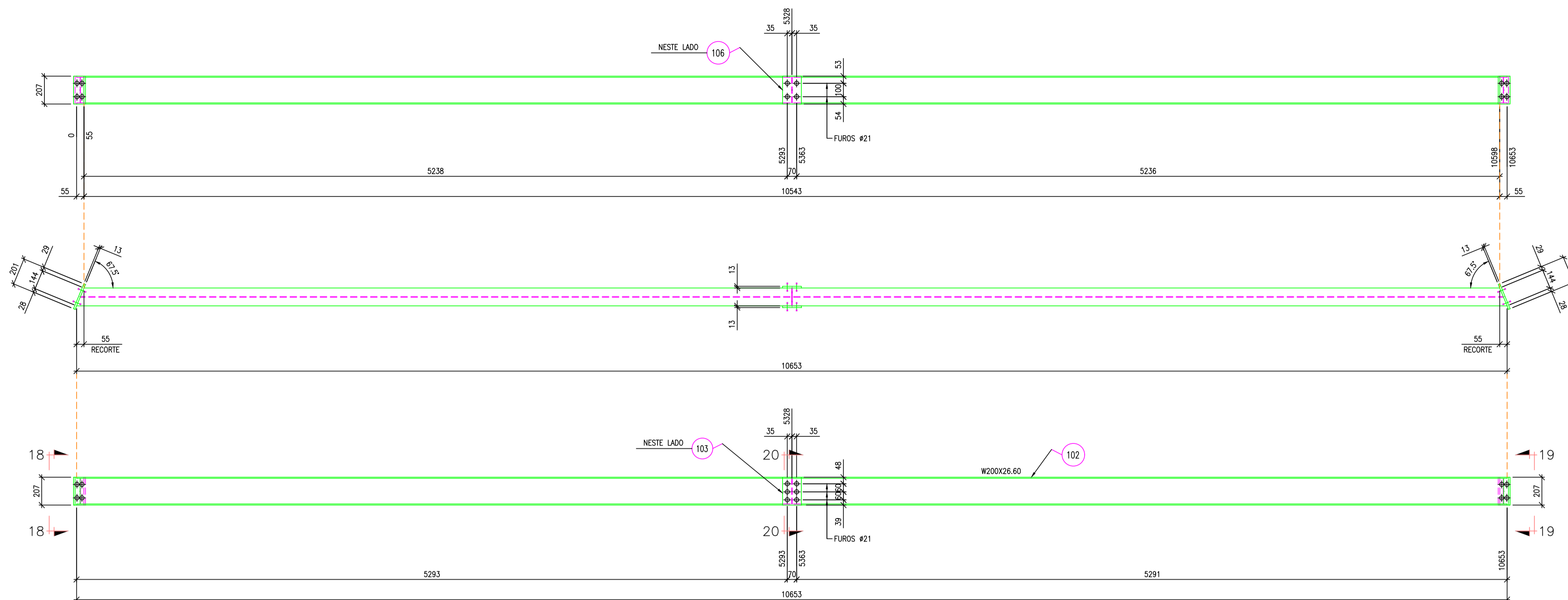
CLIENTE: **Prefeitura Municipal de Cotiporã** ESCALA: **ind.** FOLHA: **F10-00**

DESENHO: **jrgb** UNIDADE: **mm** DATA: **25-jul-23**

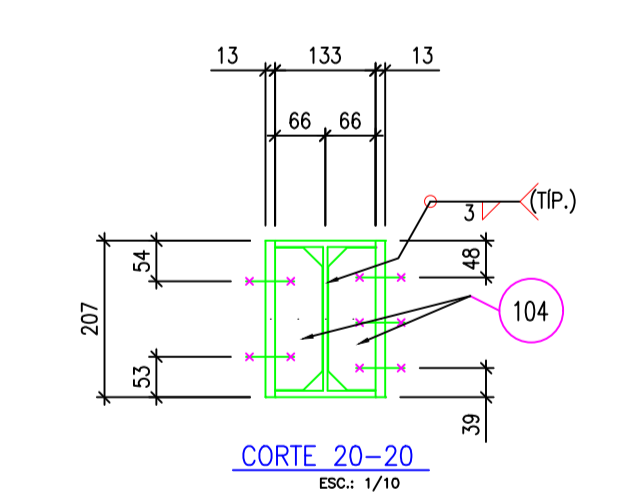
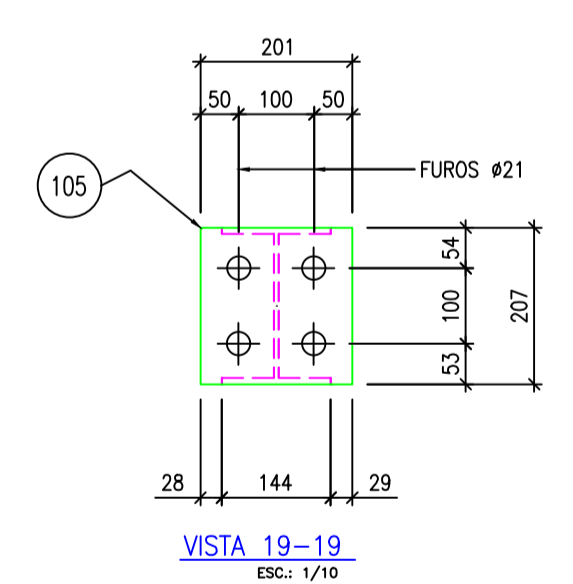
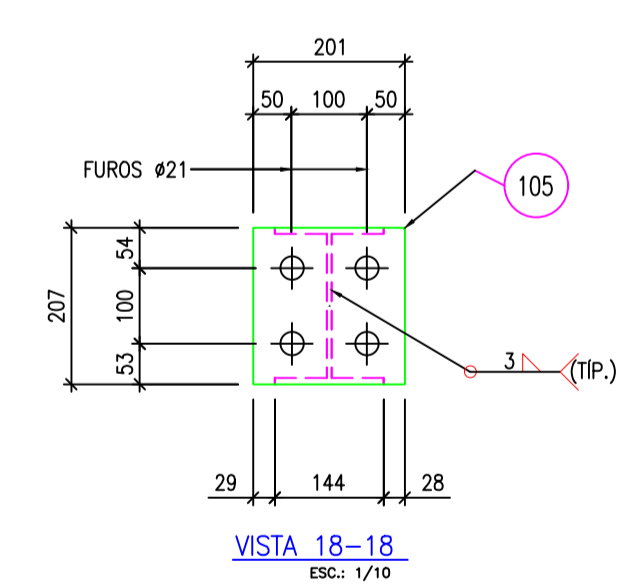
Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658

LISTA DE MATERIAIS

PESO TOTAL: 2.1126 ton		SUPERFÍCIE A TRATAR: 71.0 m²			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
VC9	7	VIGA		0.3018	2.1126
102	7	W200X26.60 x 10653.4	A572GR50	0.2866	2.0061
103	7	Ch. 12.70 x 139.4 x 207.0	CIVL300	0.0029	0.0202
104	14	Ch. 6.35 x 62.6 x 188.2	CIVL300	0.0006	0.0083
105	14	Ch. 12.70 x 200.7 x 207.0	CIVL300	0.0041	0.0580
106	7	Ch. 12.70 x 139.4 x 207.0	CIVL300	0.0029	0.0202



VC9 Qty.7  
ESC.: 1/20



**IMPORTANTE:**  
-SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
TODO O CONTORNO

Rev.	Descrição	Responsável	Data

**Broetto Engenharia**

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Viga**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto** (RS247200)

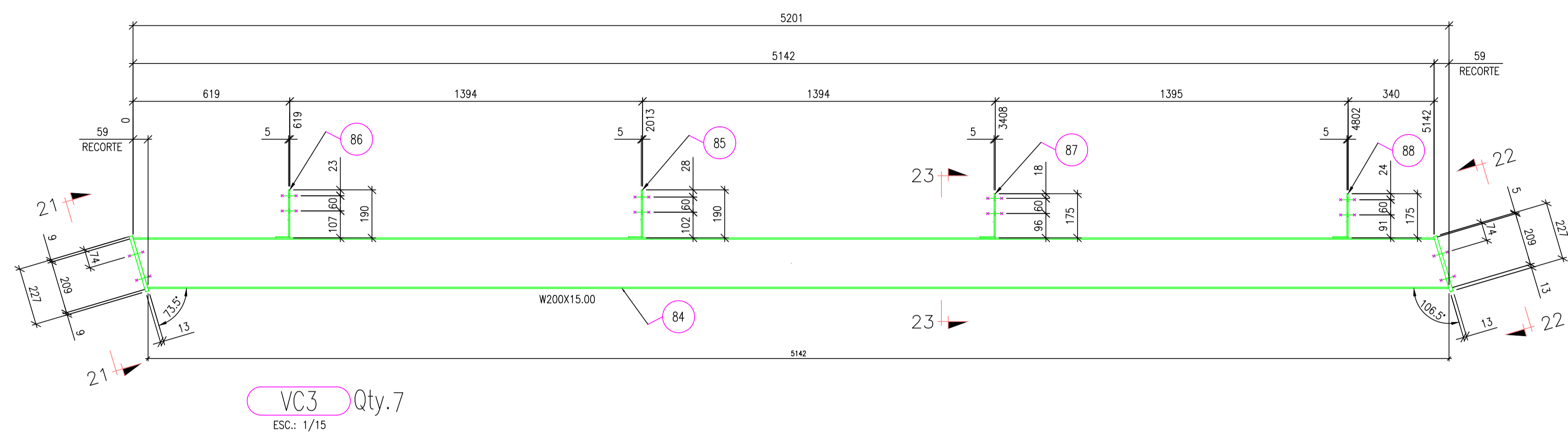
CLIENTE: **Prefeitura Municipal de Cotiporã** (ESCALA: ind. FOLHA: F11-00)

DESENHO: **jrgb** (UNIDADE: mm DATA: 25-jul-23)

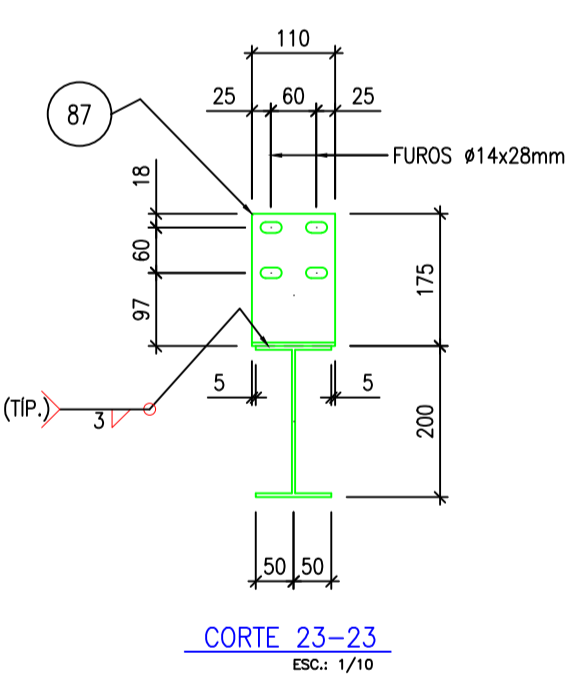
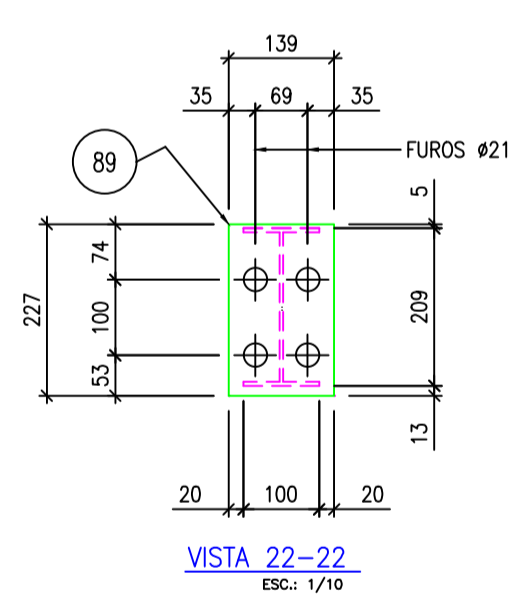
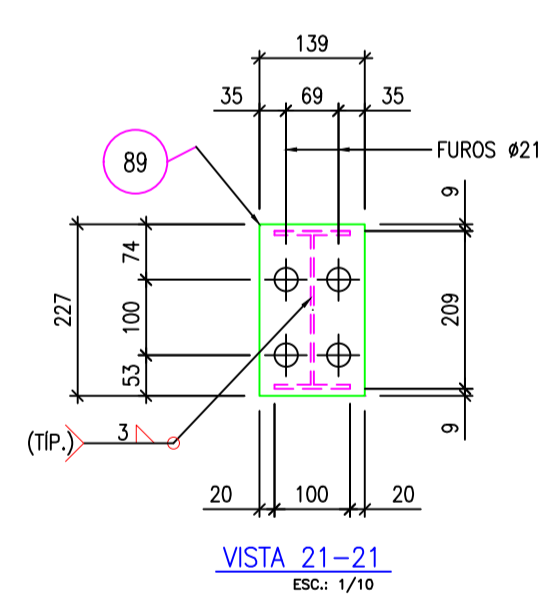
Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658

LISTA DE MATERIAIS

PESO TOTAL: 0.6241 ton		SUPERFÍCIE A TRATAR: 30.7 m²		Peso	
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Unit.	Tot.
VC3	7	VIGA		0.0892	0.6241
84	7	W200X15.00 x 5200.9	A572GR50	0.0791	0.5534
85	7	L190X55X4.75 x 110.0	CIVIL300	0.0010	0.0068
86	7	L190X55X4.75 x 110.0	CIVIL300	0.0010	0.0068
87	7	L175X60X4.75 x 110.0	CIVIL300	0.0009	0.0065
88	7	L175X60X4.75 x 110.0	CIVIL300	0.0009	0.0065
89	14	Ch. 12.70 x 139.4 x 227.0	CIVIL300	0.0032	0.0441



**IMPORTANTE:**  
-SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
TODO O CONTORNO



Rev.	Descrição	Responsável	Data

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Viga**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      RS247200

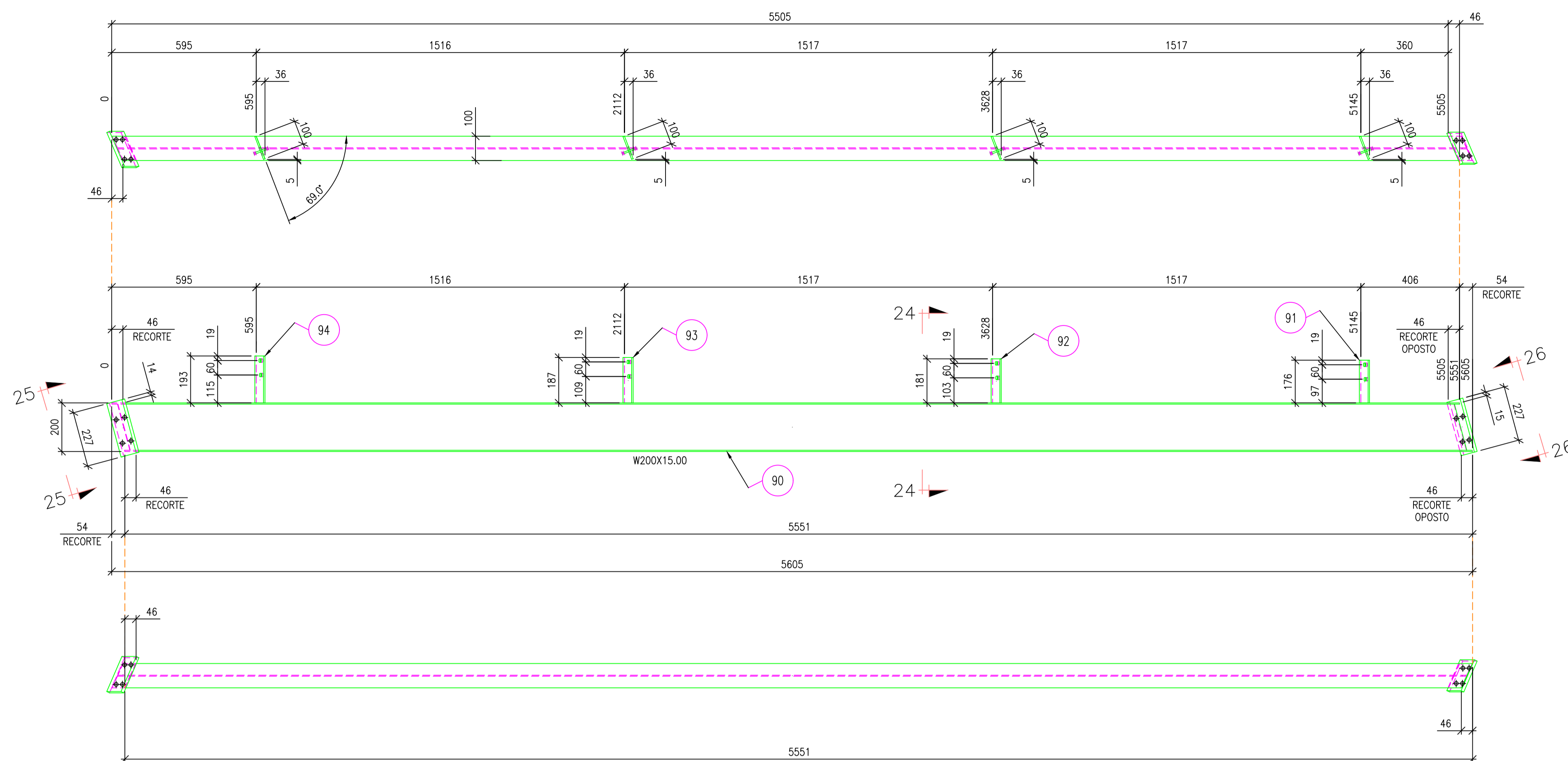
CLIENTE: **Prefeitura Municipal de Cotiporã**      ESCALA: **ind.**      FOLHA: **F12-00**

DESENHO: **jrgb**      UNIDADE: **mm**      DATA: **25-jul-23**

Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658

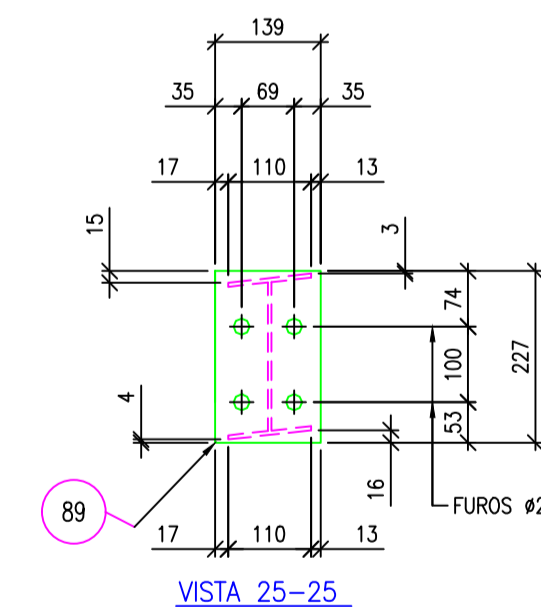
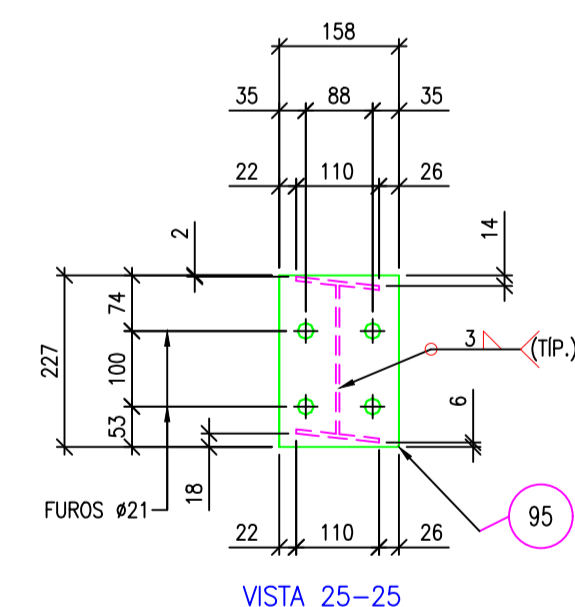
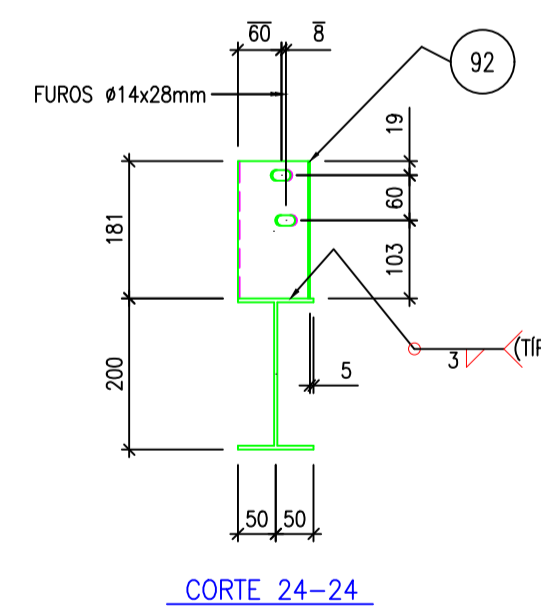
LISTA DE MATERIAIS

PESO TOTAL: 0.0956 ton		SUPERFÍCIE A TRATAR: 4.7 m <sup>2</sup>			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
VC4	1	VIGA		0.0956	0.0956
89	1	Ch. 12.70 x 139.4 x 227.0	CIVIL300	0.0032	0.0032
90	1	W200X15.00 x 5605.3	A572GR50	0.0852	0.0852
91	1	Ch. 6.35 x 99.6 x 175.8	CIVIL300	0.0009	0.0009
92	1	Ch. 6.35 x 99.6 x 181.5	CIVIL300	0.0009	0.0009
93	1	Ch. 6.35 x 99.6 x 187.2	CIVIL300	0.0009	0.0009
94	1	Ch. 6.35 x 99.6 x 193.0	CIVIL300	0.0010	0.0010
95	1	Ch. 12.70 x 158.4 x 227.0	CIVIL300	0.0036	0.0036



VC4 Qty. 1  
ESC.: 1/15

**IMPORTANTE:**  
-SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
TODO O CONTORNO



Rev.	Descrição	Responsável	Data

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Viga**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto** RS247200

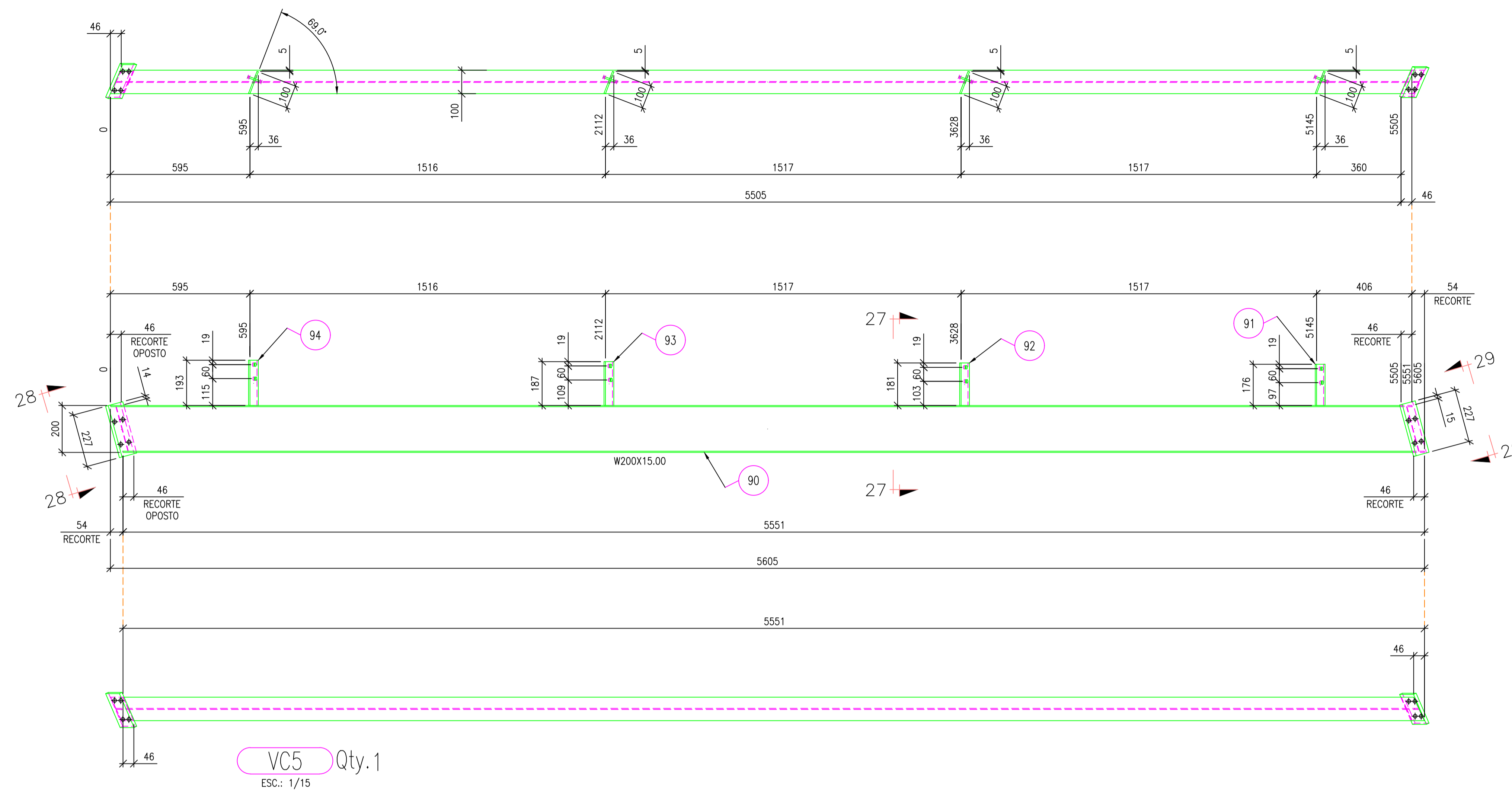
CLIENTE: **Prefeitura Municipal de Cotiporã** ESCALA: **ind.** FOLHA: **F13-00**

DESENHO: **jrgb** UNIDADE: **mm** DATA: **25-jul-23**

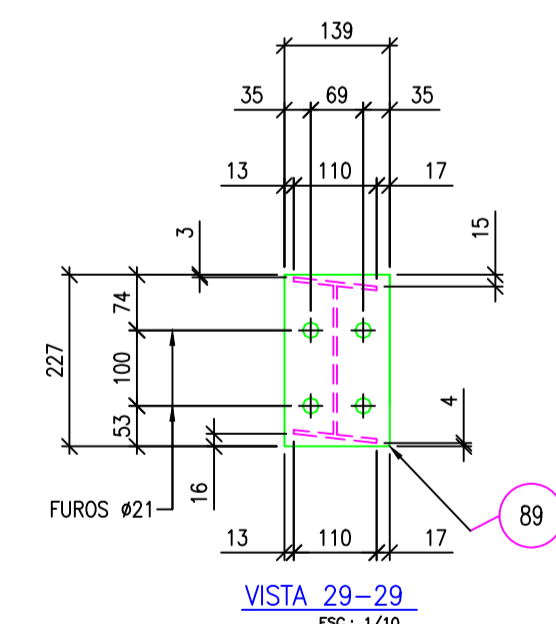
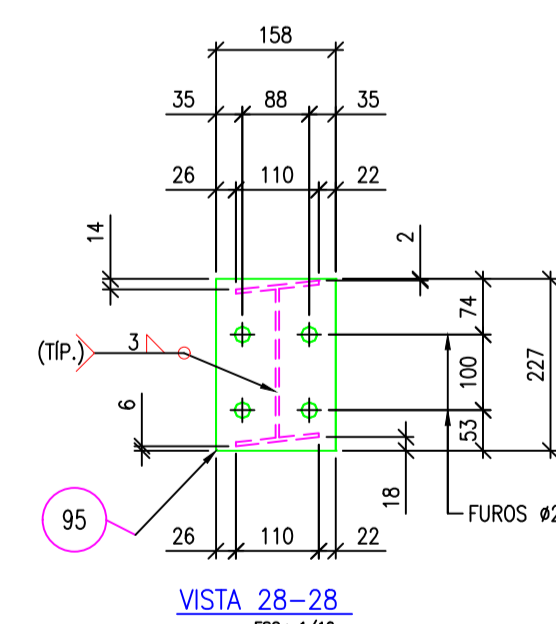
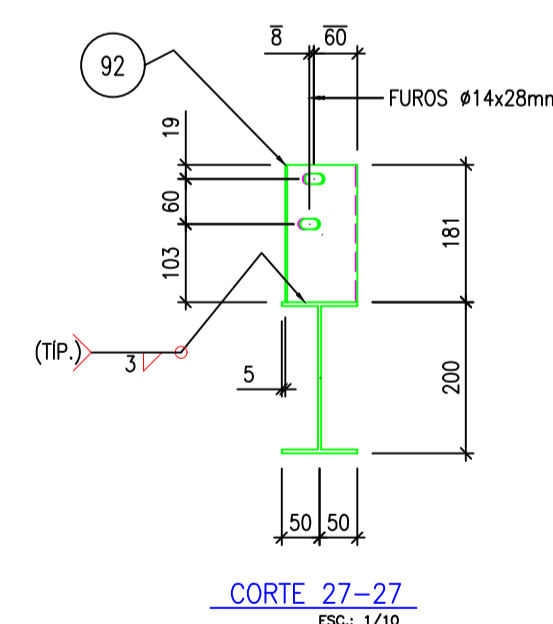
Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658

LISTA DE MATERIAIS

PESO TOTAL: 0.0956 ton		SUPERFÍCIE A TRATAR: 4.7 m <sup>2</sup>			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
VC5	1	VIGA		0.0956	0.0956
89	1	Ch. 12.70 x 139.4 x 227.0	CIVIL300	0.0032	0.0032
90	1	W200X15.00 x 5605.3	A572GR50	0.0852	0.0852
91	1	Ch. 6.35 x 99.6 x 175.8	CIVIL300	0.0009	0.0009
92	1	Ch. 6.35 x 99.6 x 181.5	CIVIL300	0.0009	0.0009
93	1	Ch. 6.35 x 99.6 x 187.2	CIVIL300	0.0009	0.0009
94	1	Ch. 6.35 x 99.6 x 193.0	CIVIL300	0.0010	0.0010
95	1	Ch. 12.70 x 158.4 x 227.0	CIVIL300	0.0036	0.0036



**IMPORTANTE:**  
-SOLDAS NÃO INDICADAS UTILIZAR CORDÃO DE 3mm  
TODO O CONTOURNO



Rev.	Descrição	Responsável	Data

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Viga**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      RS247200

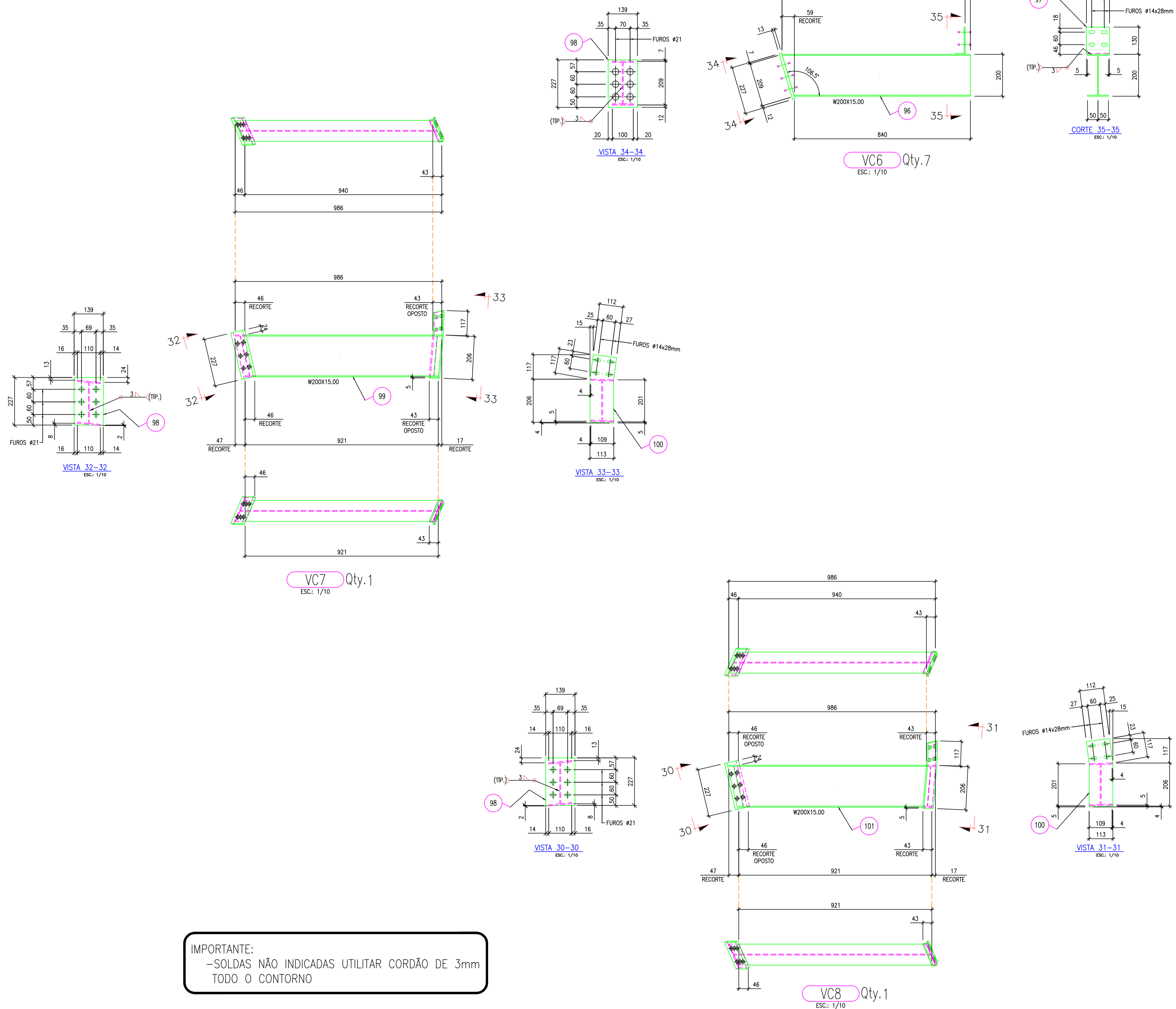
CLIENTE: **Prefeitura Municipal de Cotiporã**      ESCALA: **ind.**      FOLHA: **F14-00**

DESENHO: **jrgb**      UNIDADE: **mm**      DATA: **25-jul-23**

Veranópolis - RS  
@BroettoEngenharia  
(51) 996743658

LISTA DE MATERIAIS

PESO TOTAL: 0.1629 ton		SUPERFÍCIE A TRATAR: 7.5 m <sup>2</sup>			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
VC6	7	VIGA		0.0175	0.1225
96	7	W200X15.00 x 899.0	A572GR50	0.0137	0.0956
97	7	L130X45X4.75 x 110.0	CIVIL300	0.0007	0.0048
98	7	Ch. 12.70 x 139.4 x 227.0	CIVIL300	0.0032	0.0221
VC7	1	VIGA		0.0202	0.0202
98	1	Ch. 12.70 x 139.4 x 227.0	CIVIL300	0.0032	0.0032
99	1	W200X15.00 x 985.8	A572GR50	0.0150	0.0150
100	1	Ch. 6.35 x 127.8 x 326.6	CIVIL300	0.0021	0.0021
VC8	1	VIGA		0.0202	0.0202
98	1	Ch. 12.70 x 139.4 x 227.0	CIVIL300	0.0032	0.0032
100	1	Ch. 6.35 x 127.8 x 326.6	CIVIL300	0.0021	0.0021
101	1	W200X15.00 x 985.8	A572GR50	0.0150	0.0150



**IMPORTANTE:**  
-SOLDAS NÃO INDICADAS UTILITAR CORDÃO DE 3mm  
TODO O CONTORNO

Rev.	Descrição	Responsável	Data

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Vigas**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      RS247200

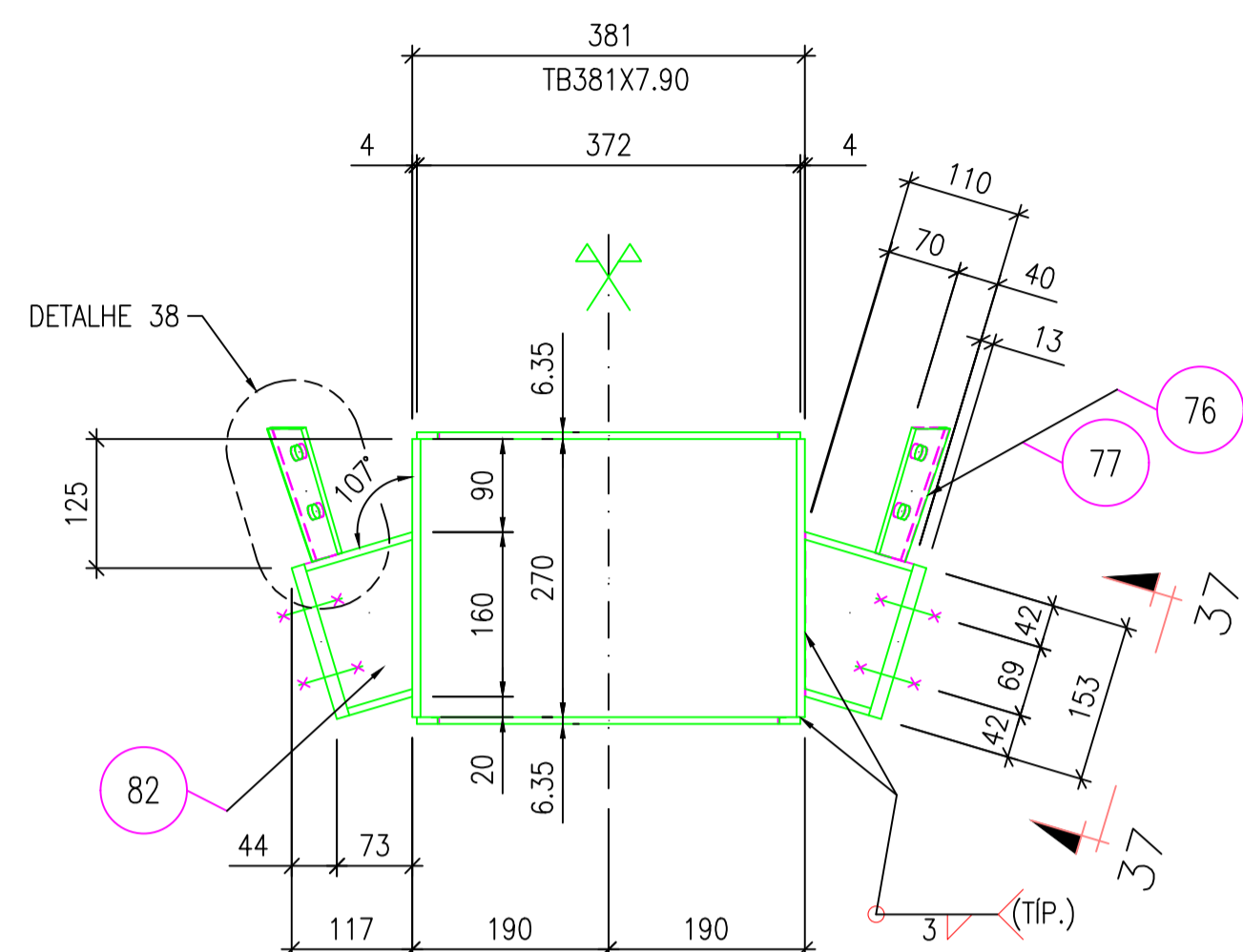
CLIENTE: **Prefeitura Municipal de Cotiporã**

DESENHO: **jrgb**      UNIDADE: **mm**      DATA: **25-jul-23**      FOLHA: **F15-00**

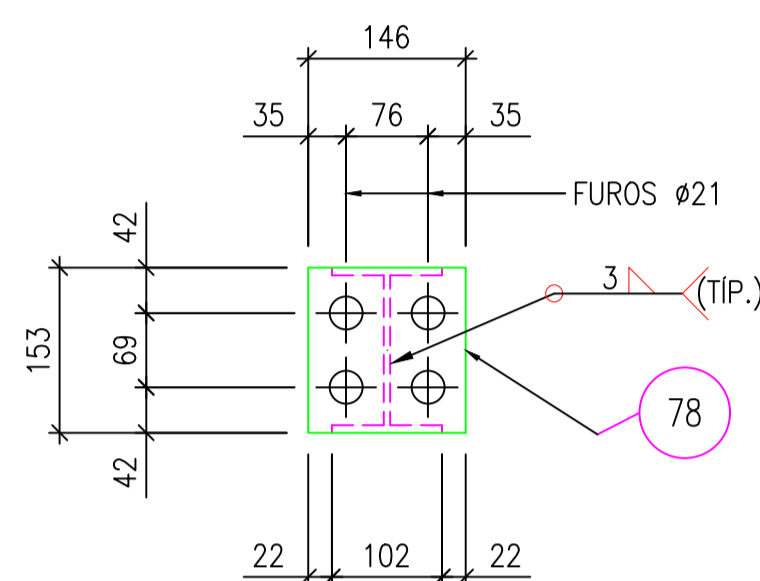
Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658

LISTA DE MATERIAIS

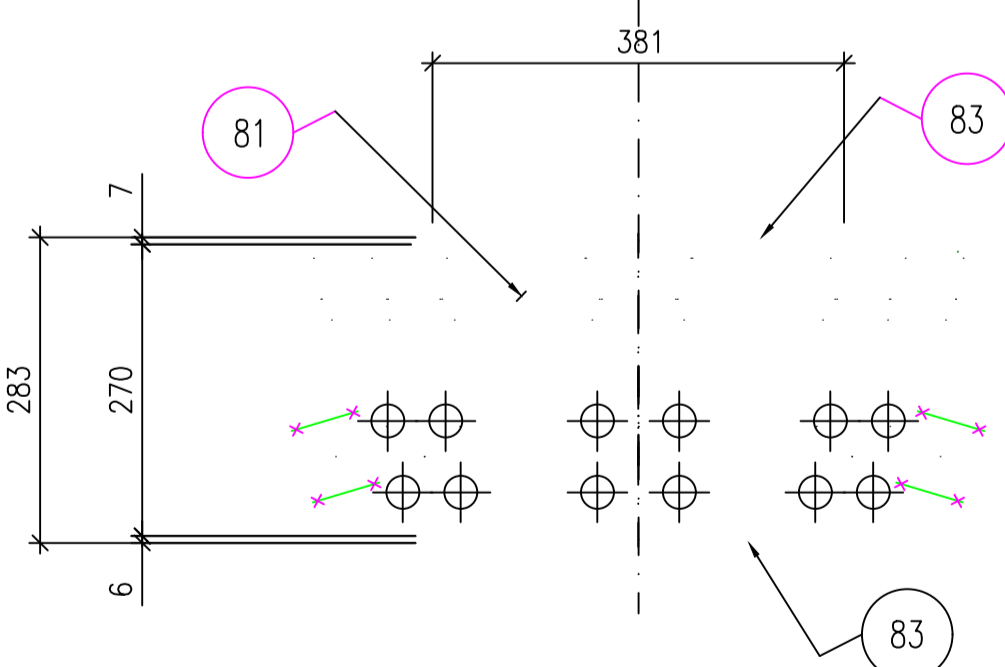
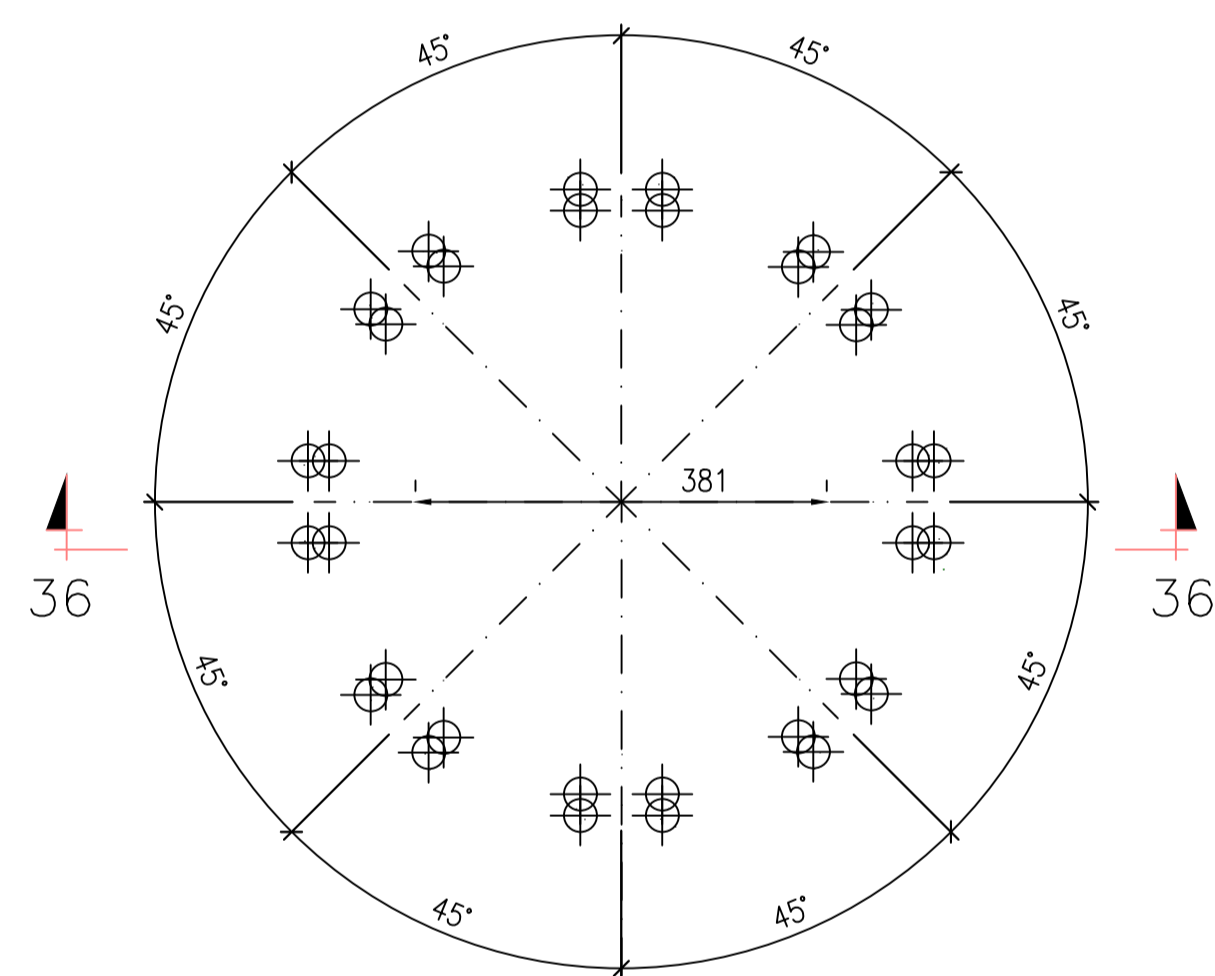
PESO TOTAL: 0.0755 ton		SUPERFÍCIE A TRATAR: 2.4 m <sup>2</sup>		Peso	
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Unit.	Tot.
VC2	1	CUPULA		0.0755	0.0755
76	8	Ch. 4.75 x 85.9 x 137.2	CIVIL300	0.0004	0.0035
77	8	Ch. 4.75 x 84.0 x 137.2	CIVIL300	0.0004	0.0034
78	8	Ch. 12.70 x 145.7 x 153.0	CIVIL300	0.0022	0.0178
81	1	TB381X7.90 x 270.0	CIVL300	0.0196	0.0196
82	8	W150X18.00 x 118.0	A572GR50	0.0022	0.0174
83	2	Ch. 6.35 x 372.4 x 372.4	CIVIL300	0.0069	0.0138



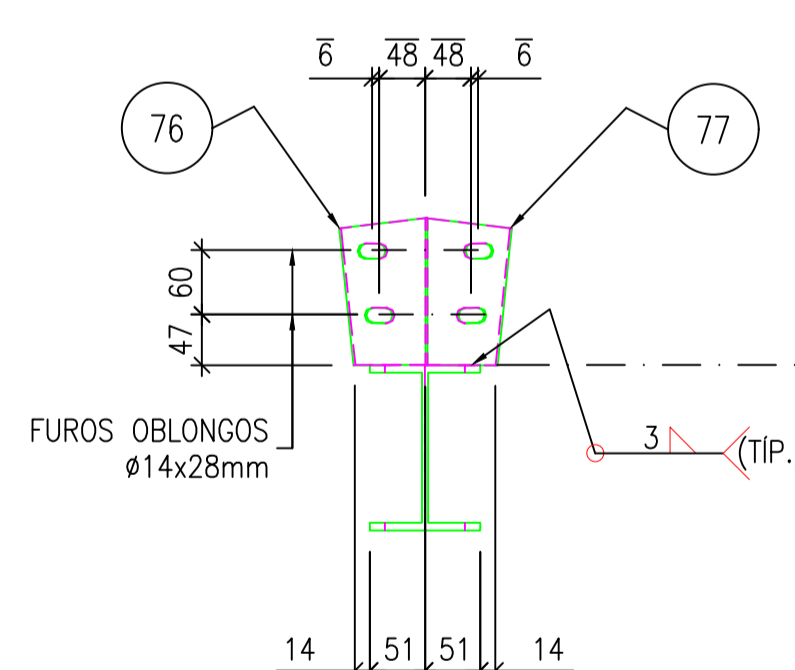
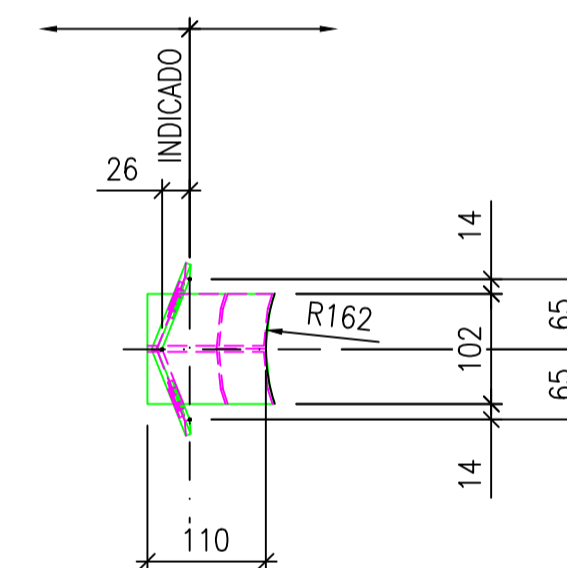
CORTE 36-36  
ESC.: 1/10



CORTE 37-37  
ESC.: 1/10



VC2 Qty. 1  
ESC.: 1/10



DETALHE 38  
ESC.: 1/10

Rev.	Descrição	Responsável	Data

**Broetto Engenharia**

Prefeitura Municipal de Cotiporã

OBRA: Centro de Eventos

ENDEREÇO: Cotiporã

PRANCHA: Cupula

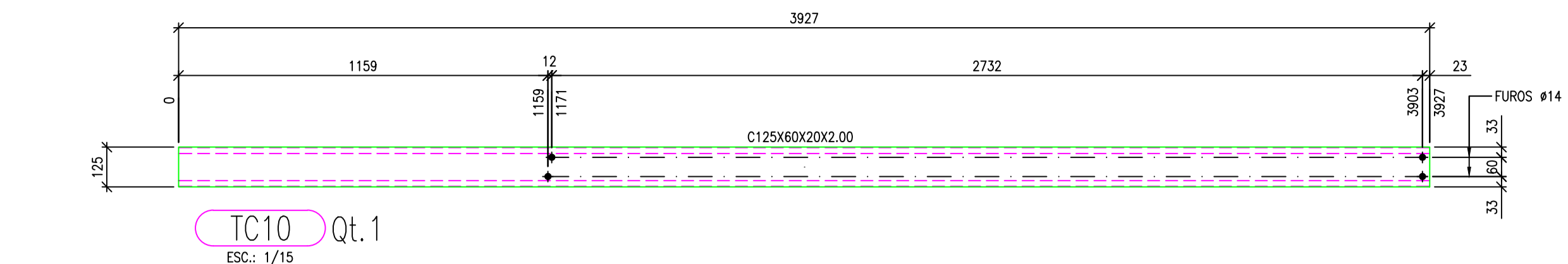
RESPONSÁVEL TÉCNICO: José R. G. Broetto RS247200

CLIENTE: Prefeitura Municipal de Cotiporã ESCALA: ind. FOLHA: F16-00

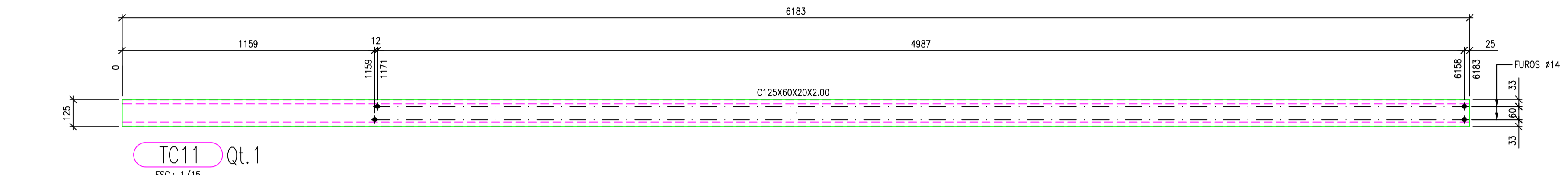
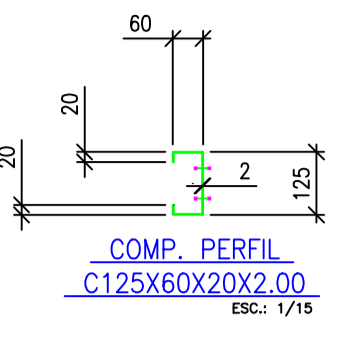
DESENHO: jrgb UNIDADE: mm DATA: 25-jul-23

Veranópolis - RS @BroettoEngenharia (54) 996743658

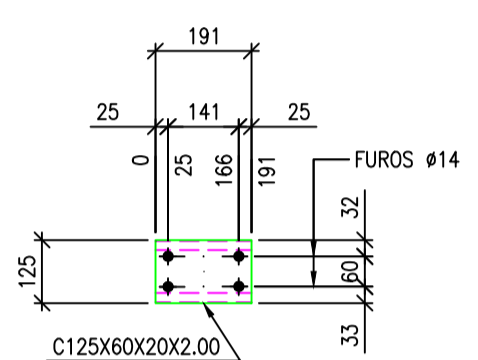




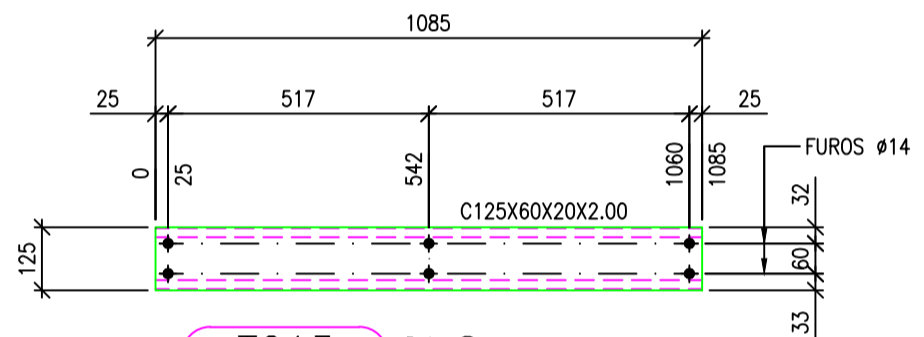
TC10 Qt.1  
ESC.: 1/15



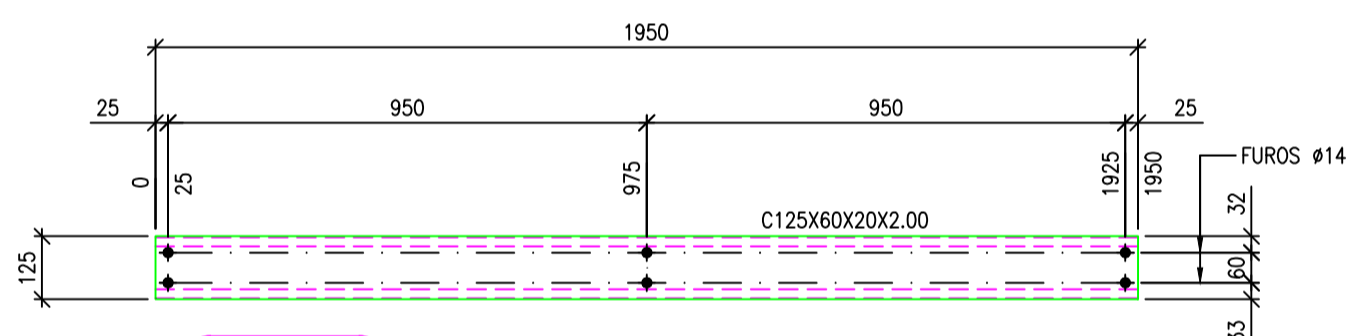
TC11 Qt.1  
ESC.: 1/15



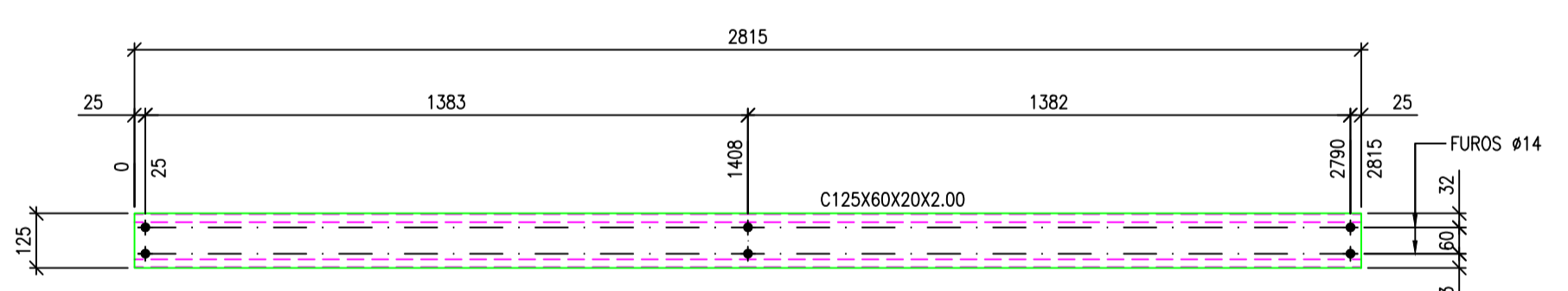
TC12 Qt.8  
ESC.: 1/15



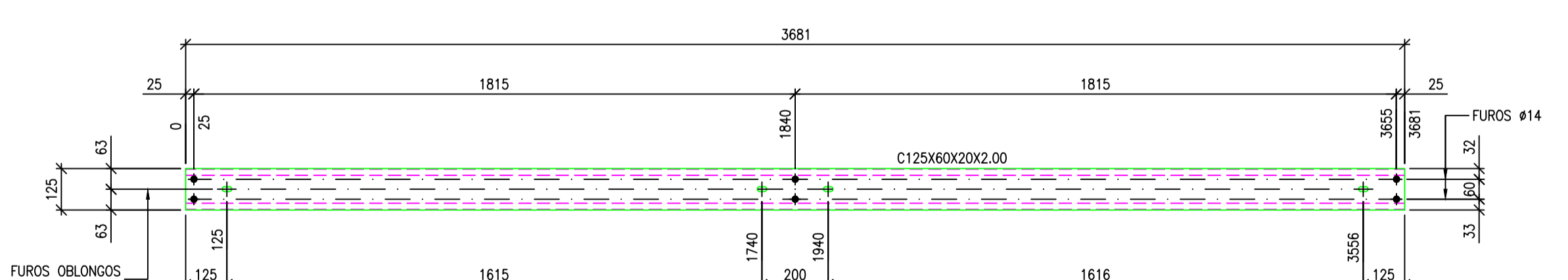
TC13 Qt.8  
ESC.: 1/15



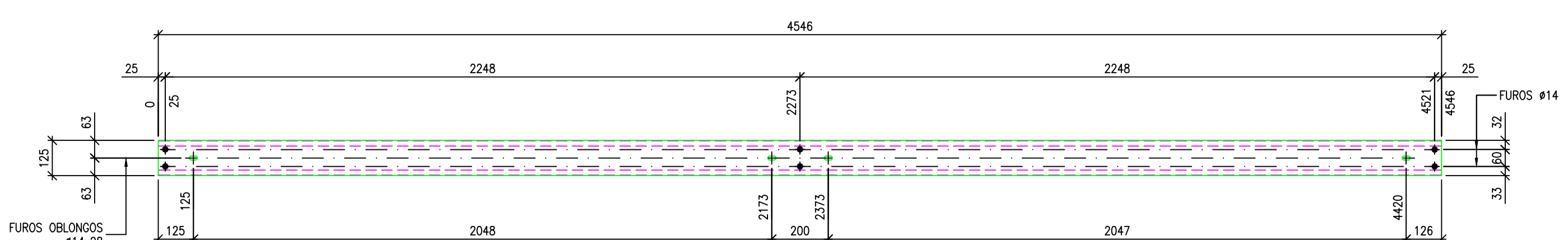
TC14 Qt.8  
ESC.: 1/15



TC15 Qt.8  
ESC.: 1/15



TC16 Qt.8  
ESC.: 1/15



TC17 Qt.8  
ESC.: 1/15

LISTA DE MATERIAIS					
PESO TOTAL: 0.5302 ton		SUPERFÍCIE A TRATAR: 68.1 m <sup>2</sup>			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
TC10	1	TERÇA DE COBERTURA		0.0168	0.0168
TC10	1	C125X60X20X2.00 x 3926.6	CIVIL300	0.0168	0.0168
TC11	1	TERÇA DE COBERTURA		0.0264	0.0264
TC11	1	C125X60X20X2.00 x 6183.4	CIVIL300	0.0264	0.0264
TC12	8	TERÇA DE COBERTURA		0.0008	0.0065
TC12	8	C125X60X20X2.00 x 190.6	CIVIL300	0.0008	0.0065
TC13	8	TERÇA DE COBERTURA		0.0046	0.0370
TC13	8	C125X60X20X2.00 x 1084.6	CIVIL300	0.0046	0.0370
TC14	8	TERÇA DE COBERTURA		0.0083	0.0666
TC14	8	C125X60X20X2.00 x 1949.6	CIVIL300	0.0083	0.0666
TC15	8	TERÇA DE COBERTURA		0.0120	0.0961
TC15	8	C125X60X20X2.00 x 2814.6	CIVIL300	0.0120	0.0961
TC16	8	TERÇA DE COBERTURA		0.0157	0.1257
TC16	8	C125X60X20X2.00 x 3680.6	CIVIL300	0.0157	0.1257
TC17	8	TERÇA DE COBERTURA		0.0194	0.1552
TC17	8	C125X60X20X2.00 x 4545.6	CIVIL300	0.0194	0.1552

Rev.	Descrição	Responsável	Data

**Broetto**  
engenharia

Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

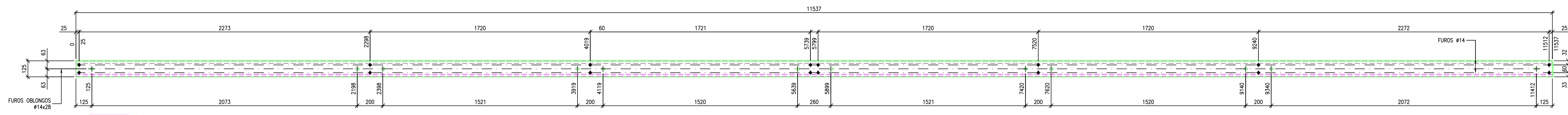
ENDEREÇO: **Cotiporã**

PRANCHA: **Terças de Cobertura**

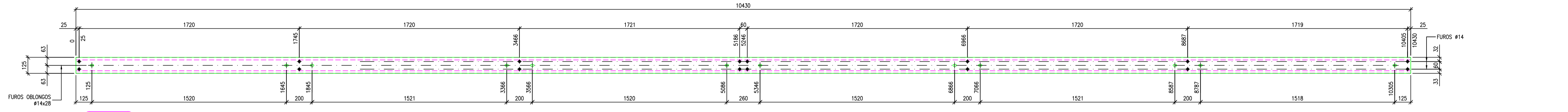
RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      RS247200

CLIENTE: **Prefeitura Municipal de Cotiporã**      ESCALA: **ind.**      FOLHA: **F17-00**

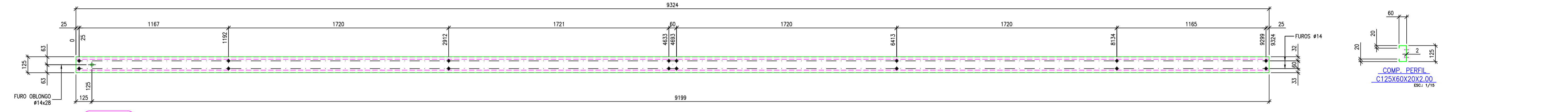
DESENHO: **jrgb**      UNIDADE: **mm**      DATA: **25-jul-23**



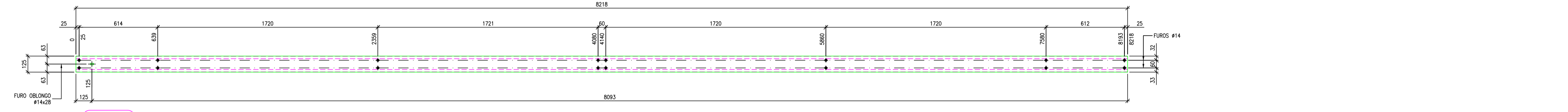
TC25 Qt.7  
ESC.: 1/15



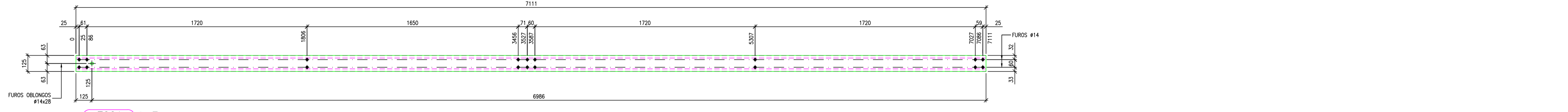
TC24 Qt.7  
ESC.: 1/15



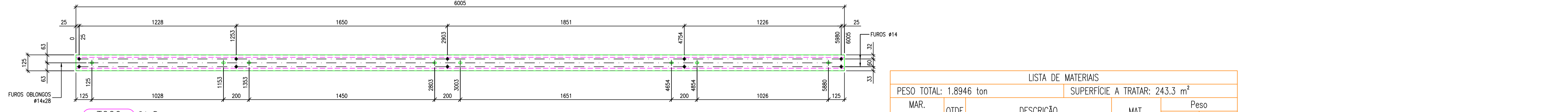
TC23 Qt.7  
ESC.: 1/15



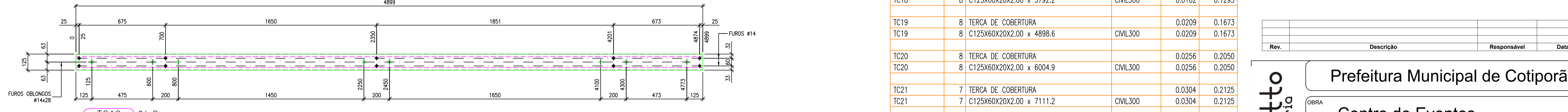
TC22 Qt.7  
ESC.: 1/15



TC21 Qt.7  
ESC.: 1/15



TC20 Qt.8  
ESC.: 1/15



TC19 Qt.8  
ESC.: 1/15



TC18 Qt.8  
ESC.: 1/15

LISTA DE MATERIAIS					
PESO TOTAL: 1.8946 ton			SUPERFÍCIE A TRATAR: 243.3 m <sup>2</sup>		
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
TC18	8	TERÇA DE COBERTURA		0.0162	0.1295
TC18	8	C125X60X20X2.00 x 3792.2	CIVIL300	0.0162	0.1295
TC19	8	TERÇA DE COBERTURA		0.0209	0.1673
TC19	8	C125X60X20X2.00 x 4898.6	CIVIL300	0.0209	0.1673
TC20	8	TERÇA DE COBERTURA		0.0256	0.2050
TC20	8	C125X60X20X2.00 x 6004.9	CIVIL300	0.0256	0.2050
TC21	7	TERÇA DE COBERTURA		0.0304	0.2125
TC21	7	C125X60X20X2.00 x 7111.2	CIVIL300	0.0304	0.2125
TC22	7	TERÇA DE COBERTURA		0.0351	0.2455
TC22	7	C125X60X20X2.00 x 8217.6	CIVIL300	0.0351	0.2455
TC23	7	TERÇA DE COBERTURA		0.0398	0.2785
TC23	7	C125X60X20X2.00 x 9323.9	CIVIL300	0.0398	0.2785
TC24	7	TERÇA DE COBERTURA		0.0445	0.3116
TC24	7	C125X60X20X2.00 x 10430.3	CIVIL300	0.0445	0.3116
TC25	7	TERÇA DE COBERTURA		0.0492	0.3447
TC25	7	C125X60X20X2.00 x 11537.0	CIVIL300	0.0492	0.3447

Rev.	Descrição	Responsável	Data

**Broetto Engenharia**

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

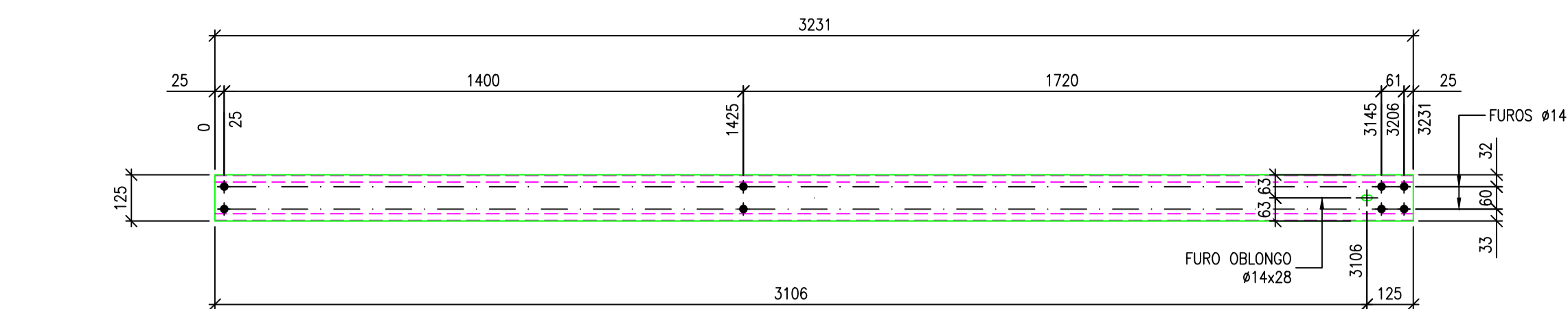
PRANCHA: **Terças de Cobertura**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto**      RS247200

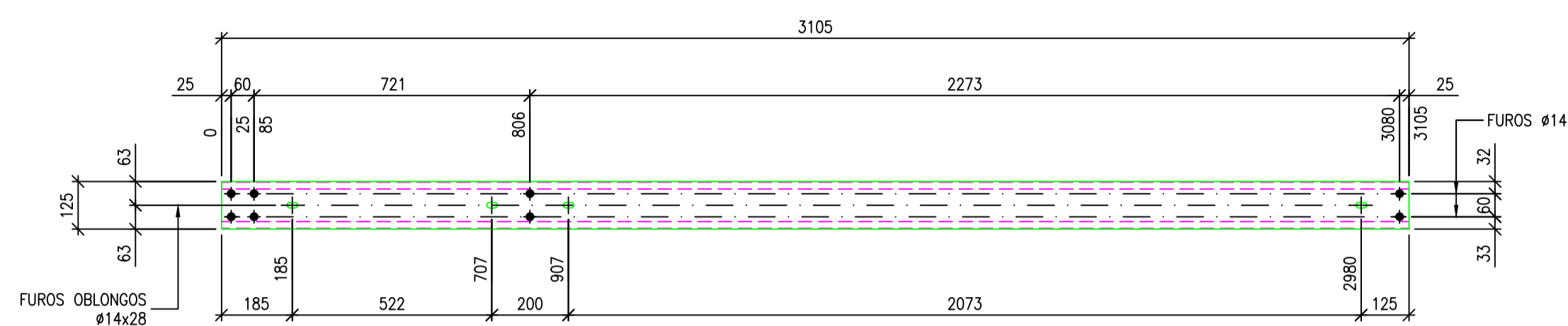
CLIENTE: **Prefeitura Municipal de Cotiporã**      ESCALA: **ind.**      FOLHA: **F18-00**

DESENHO: **jrgb**      UNIDADE: **mm**      DATA: **25-jul-23**

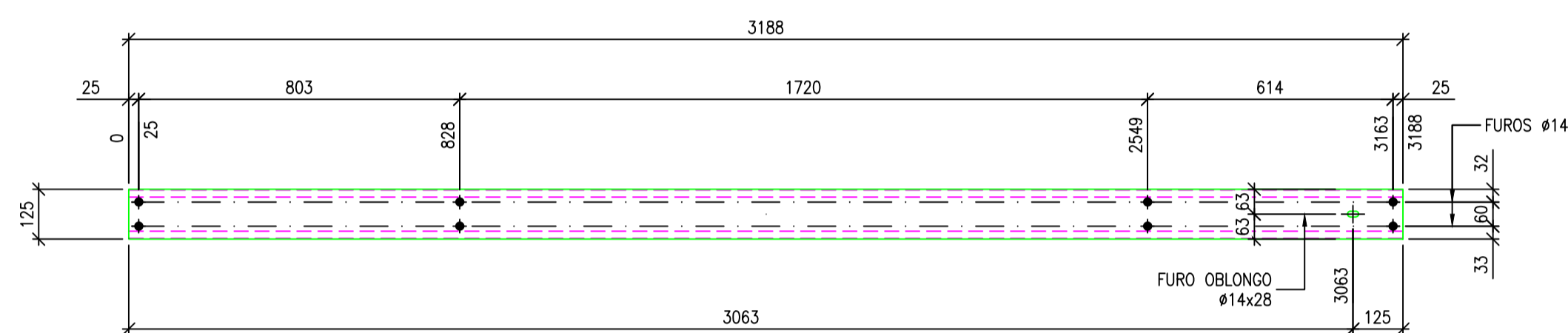
Veranópolis - RS  
@BroettoEngenharia  
(51) 996743658



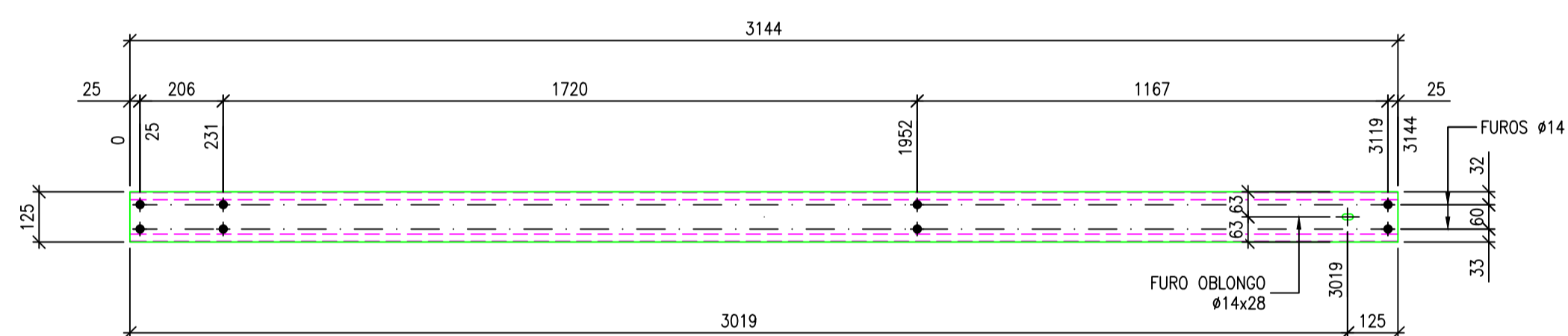
TC3 Qt.2  
ESC.: 1/15



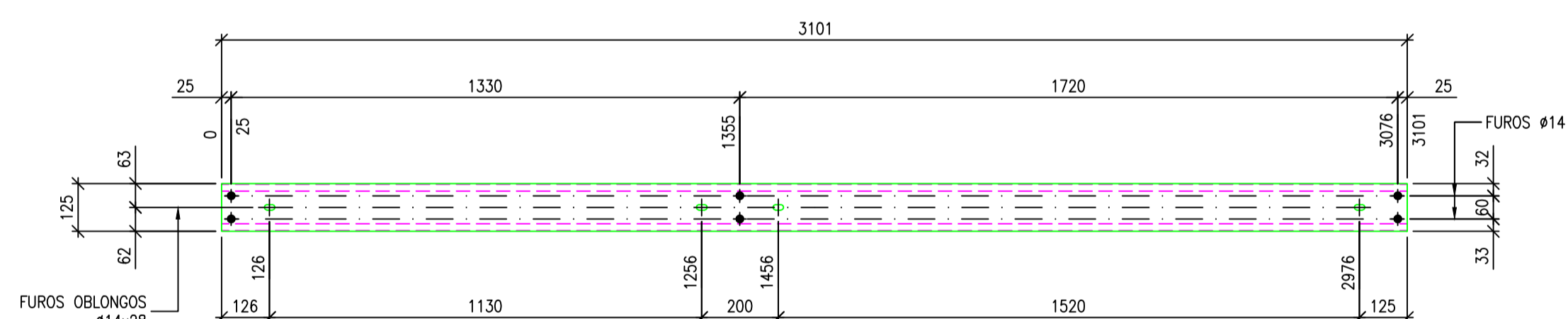
TC4 Qt.2  
ESC.: 1/15



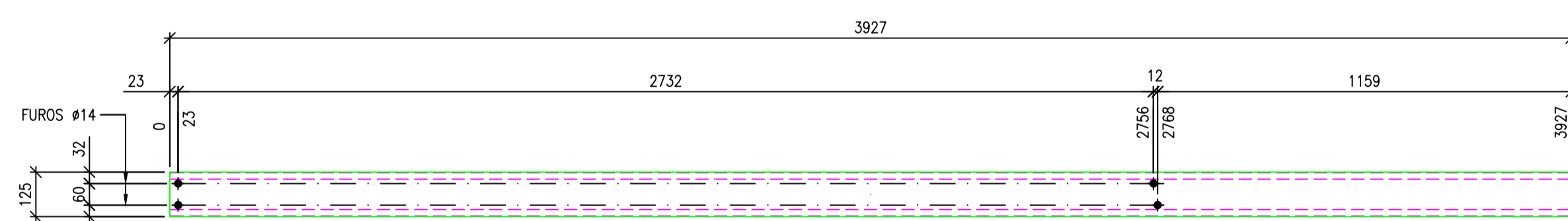
TC5 Qt.2  
ESC.: 1/15



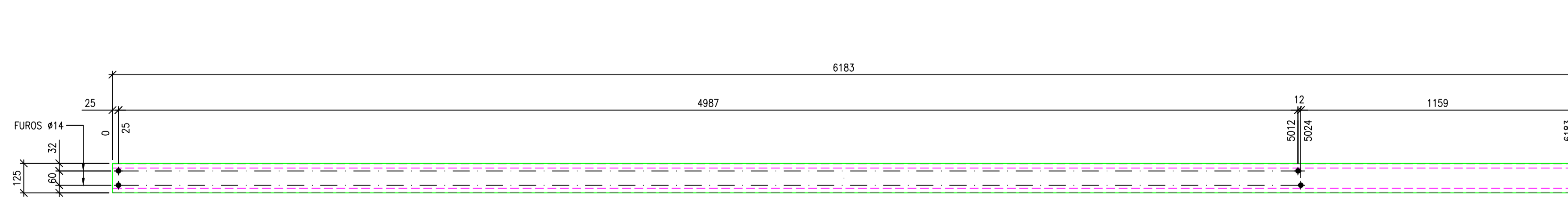
TC6 Qt.2  
ESC.: 1/15



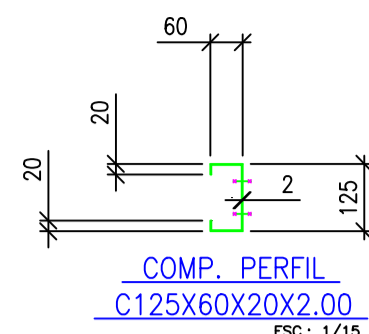
TC7 Qt.2  
ESC.: 1/15



TC8 Qt.1  
ESC.: 1/15



TC9 Qt.1  
ESC.: 1/15



LISTA DE MATERIAIS					
PESO TOTAL: 0.1777 ton		SUPERFÍCIE A TRATAR: 22.8 m²			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
TC3	2	TERÇA DE COBERTURA		0.0138	0.0276
TC3	2	C125X60X20X2.00 x 3231.2	CIVIL300	0.0138	0.0276
TC4	2	TERÇA DE COBERTURA		0.0133	0.0265
TC4	2	C125X60X20X2.00 x 3105.0	CIVIL300	0.0133	0.0265
TC5	2	TERÇA DE COBERTURA		0.0136	0.0272
TC5	2	C125X60X20X2.00 x 3187.6	CIVIL300	0.0136	0.0272
TC6	2	TERÇA DE COBERTURA		0.0134	0.0268
TC6	2	C125X60X20X2.00 x 3143.9	CIVIL300	0.0134	0.0268
TC7	2	TERÇA DE COBERTURA		0.0132	0.0265
TC7	2	C125X60X20X2.00 x 3100.6	CIVIL300	0.0132	0.0265
TC8	1	TERÇA DE COBERTURA		0.0168	0.0168
TC8	1	C125X60X20X2.00 x 3926.6	CIVIL300	0.0168	0.0168
TC9	1	TERÇA DE COBERTURA		0.0264	0.0264
TC9	1	C125X60X20X2.00 x 6183.4	CIVIL300	0.0264	0.0264

Rev.	Descrição	Responsável	Data

**Broetto Engenharia**

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Terças de Cobertura**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto** (RS247200)

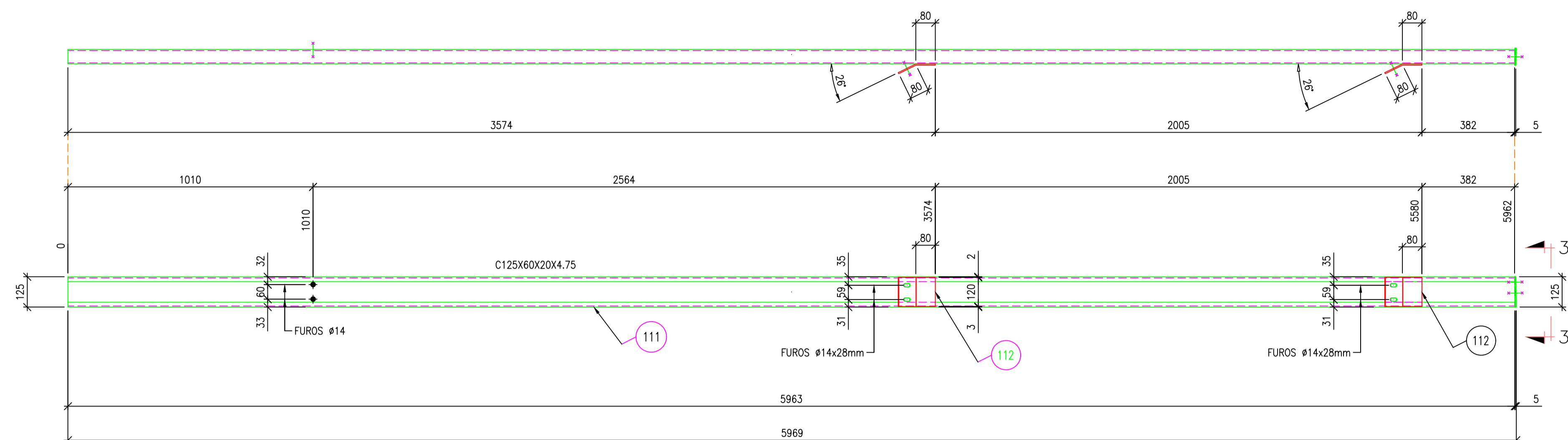
CLIENTE: **Prefeitura Municipal de Cotiporã** (ESCALA ind. FOLHA F19-00)

DESENHO: **jrgb** (UNIDADE mm DATA 25-jul-23)

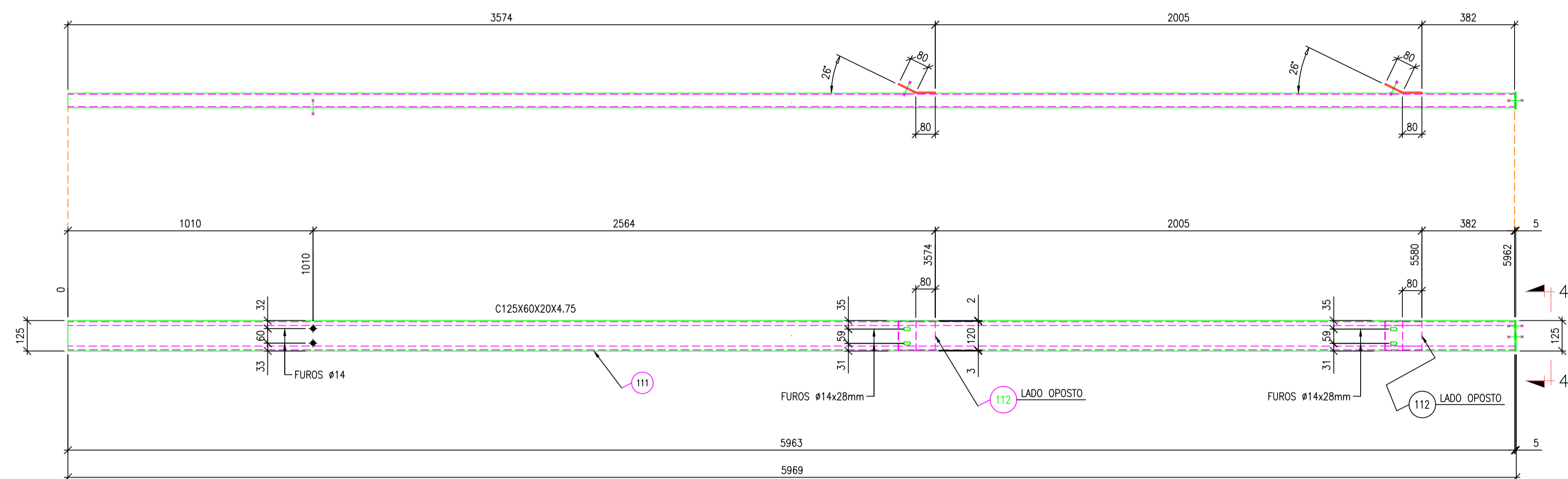
Veranópolis - RS @BroettoEngenharia (54) 996743658

LISTA DE MATERIAIS

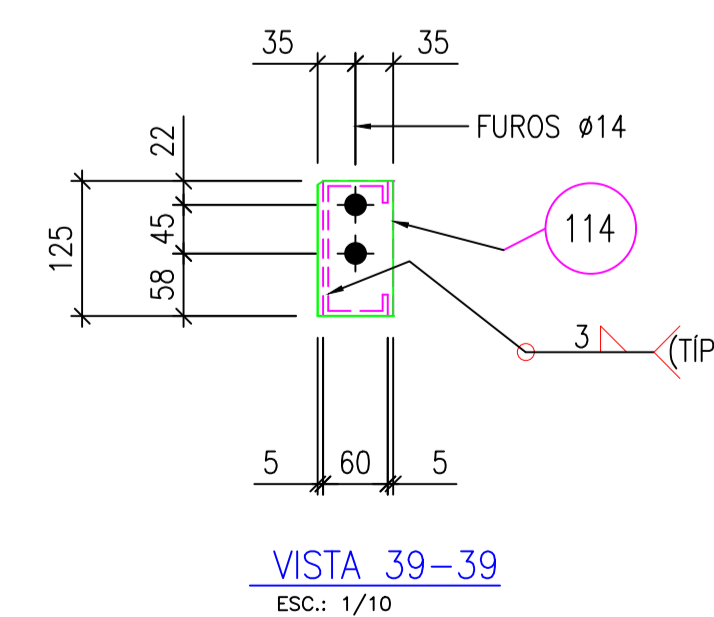
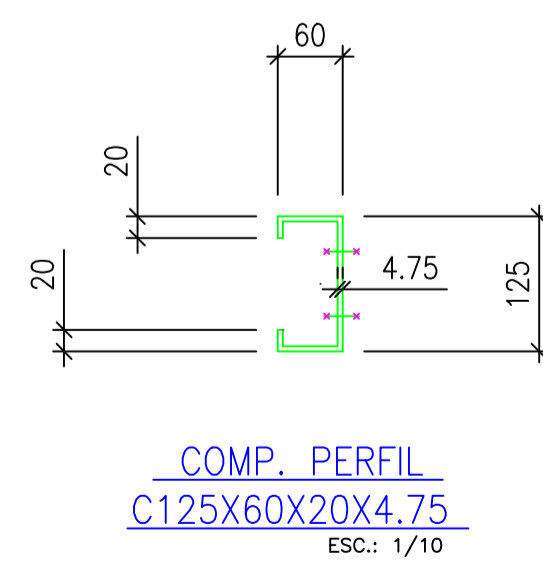
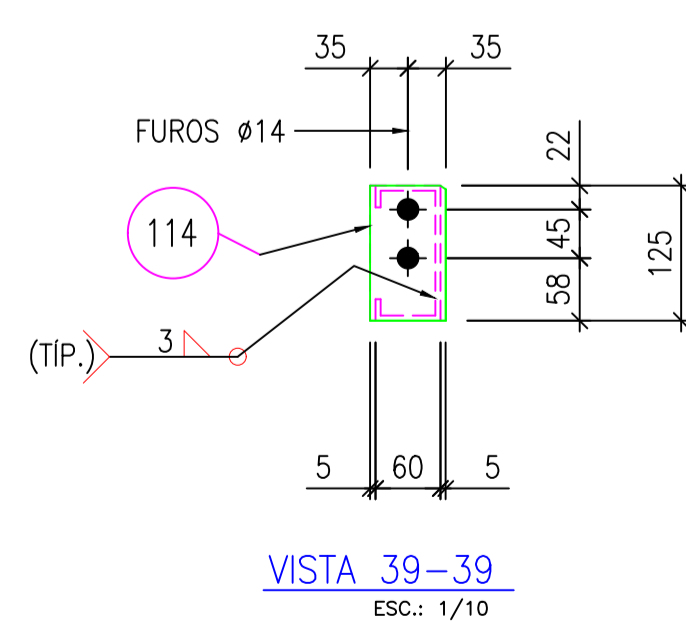
PESO TOTAL: 0.1164 ton		SUPERFÍCIE A TRATAR: 6.4 m <sup>2</sup>			
MAR. POS.	QTDE	DESCRIÇÃO	MAT.	Peso	
				Unit.	Tot.
TC1	1	TERCAS DE COBERTURA		0.0582	0.0582
111	1	C125X60X20X4.75	CIVIL300	0.0564	0.0564
112	2	Ch. 4.75 x 120.0 x 160.0	CIVIL300	0.0007	0.0014
114	1	Ch. 4.75 x 70.0 x 125.0	CIVIL300	0.0003	0.0003
TC2	1	TERCAS DE COBERTURA		0.0582	0.0582
111	1	C125X60X20X4.75	CIVIL300	0.0564	0.0564
112	2	Ch. 4.75 x 120.0 x 160.0	CIVIL300	0.0007	0.0014
114	1	Ch. 4.75 x 70.0 x 125.0	CIVIL300	0.0003	0.0003



TC1 Qty.1  
ESC.: 1/15



TC2 Qty.1  
ESC.: 1/15



Rev.	Descrição	Responsável	Data

**Broetto Engenharia**

**Prefeitura Municipal de Cotiporã**

OBRA: **Centro de Eventos**

ENDEREÇO: **Cotiporã**

PRANCHA: **Terças de Cobertura**

RESPONSÁVEL TÉCNICO: **José R. G. Broetto** RS247200

CLIENTE: **Prefeitura Municipal de Cotiporã** ESCALA: **ind.** FOLHA: **F20-00**

DESENHO: **jrgb** UNIDADE: **mm** DATA: **25-jul-23**

Veranópolis - RS  
@BroettoEngenharia  
(54) 996743658