

Technical drawing of a staircase section (Corte A) showing structural details and dimensions. The drawing includes a side elevation and a plan view.

Side Elevation Details:

- Reinforcement bars: 2 N6 Ø 12.5 C=330, 2 N8 Ø 12.5 C=315, 2 N9 Ø 12.5 C=193, 2 N1 Ø 5 C=239, 2 N3 Ø 5 C=215, 2 N5 Ø 5 C=218, 2 N7 Ø 5 C=176.
- Dimensions: 53, 144, 109, 126, 111, 94, 55.

Plan View Details:

- Reinforcement bars: 34 Ø 5 C/15 N16 (505), 30 Ø 5 C/15 N16 (435), 30 Ø 5 C/15 N16 (440), 27 Ø 5 C/15 N16 (399), 1 N11 Ø 6.3 C=396, 2 N10 Ø 10 C=566, 3 N12 Ø 10 C=476, 3 N13 Ø 10 C=481, 2 N14 Ø 10 C=455, 1 N15 Ø 6.3 C=329, 121 N16 Ø 5 C=150.
- Dimensions: 80, 140, 59, 41, 21, 21, 21.

Section Label: Corte A

Technical drawing of a window assembly. The drawing shows a cross-section of the window frame and glazing. Key dimensions and labels include:

- Top Section:** A horizontal line with a dimension of $2 \text{ N1 } \emptyset 10 \text{ C}=407$.
- Left Side:** A vertical dimension of 170 is indicated.
- Right Side:** A vertical dimension of 200 is indicated.
- Window Frame:** Labeled **B511**. It features a horizontal dimension of 14 0 5 C/20 and a vertical dimension of 13 (63) .
- Glazing:** Labeled **(cristallo) 383**. It features a horizontal dimension of $2 \times 2 \text{ N4 } \emptyset 5 \text{ C}=401$.
- Bottom Section:** A horizontal line with a dimension of $2 \text{ N2 } \emptyset 10 \text{ C}=405$.
- Annotations:**
 - 170** and **200** are vertical dimensions on the left and right sides, respectively.
 - 130** is a vertical dimension on the left side, below the window frame.
 - 18 N3 $\emptyset 5 \text{ C}=147$** is a dimension at the bottom right.
 - 9** is a dimension on the right side, near the window frame.
 - B512** is a label on the right side, near the window frame.
 - Corte A-A** is a label at the top right.

Technical drawing of a window assembly showing a cross-section and a side elevation.

Corte A

Dimensions and components shown in the drawing:

- Top section: 2 N2 Ø 10 C=163, 2 N3 Ø 10 C=215, 2 N1 Ø 5 C=172, 2 N4 Ø 10 C=516
- Bottom section: 60, VE116E, 80, B522, 22 N5 Ø 5 C=138, 2 N6 Ø 5 C=28 / N3 (435)
- Detail view (Corte A): 9, 50

[illegible]

Technical drawing of a bridge structure, showing a plan view and a cross-section labeled "Corte A".

Plan View (Top): Shows the bridge layout with various spans and supports. Key labels include:

- 2 N2 Ø 10 C=217
- 2 N3 Ø 10 C=862
- 2 N4 Ø 5 C=197
- 2 N6 Ø 10 C=432
- 2 N8 Ø 10 C=409
- 2 N9 Ø 10 C=730
- 2 N10 Ø 10 C=667
- 2 N11 Ø 10 C=376
- 2 N12 Ø 10 C=617
- 2 N13 Ø 10 C=499
- 2 N14 Ø 10 C=966

Cross-Section (Corte A): Shows the bridge's profile with dimensions:

- 15
- 30
- 45

Plan View (Bottom): Shows the bridge layout with various spans and supports. Key labels include:

- VE107E
- VE106E
- VE105E
- VE104E
- VE103E
- VE102E
- VE101E

Dimensions for the spans are provided in parentheses:

- 41 Ø 5 C/15 N15 (605)
- 21 Ø 5 C/15 N15 (314)
- 39 Ø 5 C/15 N15 (575)
- 30 Ø 5 C/15 N15 (448)
- 27 Ø 5 C/15 N15 (390)
- 30 Ø 5 C/15 N15 (445)
- 188 N15 Ø 5 C=110

Corte A

5.8m

20/170

20/60

20/170

2x3 Ø 6.3

2x5 Ø 6.3

8 Ø 6.3 C=28

N5 (154)

100

P510

6.0 6.3 C=20 /

N4 (116)

6.0 6.3 C=28 /

N4 (116)

2x3 N4 Ø 6.3 C=182

2x3 N7 Ø 6.3 C=182

38

2x3 N6 Ø 6.3 C=492

39

3 N3 Ø 10 C=247

169

3 N2 Ø 12.5 C=334

169

3 N2 Ø 12.5 C=334

Corte B

15

555

8 N5 Ø 6.3 C=168

15

1615

6 N4 Ø 6.3 C=388

6 N4 Ø 6.3

Technical drawing of a building facade showing three sections: Corte A, Corte B, and Corte C. The drawing includes dimensions and structural details.

Corte A: Shows a section with dimensions 579, 2 N1 Ø 16 C=69, 15/170, 15/60, 15/170, 2x3 Ø 6.3, 2x5 Ø 6.3, 8 Ø 6.3 C/20 N5 (154), 9 Ø 6.3 C/20 N4 (176), 2x5 Ø 6.3 C=231, 2x5 N7 Ø 6.3 C=231, 2x3 N6 Ø 6.3 C=600, 2 N3 Ø 10 C=248, 165, 145, 10, 575, 8 N5 Ø 6.3 C=153, 9 N4 Ø 6.3 C=373, 9 N4 Ø 6.3 C=373, 2x5 Ø 6.3 C=336, 2x3 N5 Ø 6.3 C=346.

Corte B: Shows a section with dimensions 10, 575, 8 N5 Ø 6.3 C=153, 9 N4 Ø 6.3 C=373, 9 N4 Ø 6.3 C=373, 2x5 Ø 6.3 C=336, 2x3 N5 Ø 6.3 C=346.

Corte C: Shows a section with dimensions 10, 165, 145, 10, 575, 8 N5 Ø 6.3 C=153, 9 N4 Ø 6.3 C=373, 9 N4 Ø 6.3 C=373, 2x5 Ø 6.3 C=336, 2x3 N5 Ø 6.3 C=346.

[illegible]

	ACD	PDS	BIT		QUANT	COMPRMENT		ACD	PDS	BIT		QUANT	COMPRMENT		
			(nm)	(nm)		(UNIT)	(TOTAL)			(nm)	(nm)		(UNIT)	(TOTAL)	
															(nm)
VE101	60B	1	5	2	839	478	VE107	60B	1	5	2	292	504		
	50A	2	12.5	2	212	424		50A	2	10	2	197	434		
	50A	3	5	2	212	424		50A	3	10	2	863	1724		
	50A	4	12.5	2	341	682		50A	4	5	2	217	394		
	50A	5	5	2	436	872		50A	5	5	2	436	872		
	50A	6	12.5	2	330	660		50A	6	10	2	432	864		
	50A	7	5	2	376	752		50A	7	5	2	376	752		
	50A	8	12.5	2	315	630		50A	8	10	2	409	818		
	50A	9	5	2	384	768		50A	9	5	2	384	768		
	50A	10	10	2	566	1132		50A	10	10	2	667	1324		
	50A	11	6.3	1	396	396		50A	11	10	2	376	752		
	50A	12	5	2	476	952		50A	12	10	2	476	952		
50A	13	10	3	481	1443	50A	13	13	2	499	998				
50A	14	5	2	455	910	50A	14	10	2	566	1132				
50A	15	6.3	1	329	329	60R	15	5	188	110	20680				
60B	16	5	121	150	18150										
VE101E	50A	1	8	4	175	709	VE106	60B	1	5	2	172	344		
	50A	16	16	4	271	1084		50A	2	10	2	163	326		
	50A	3	4	4	226	904		50A	3	10	2	163	326		
	50A	4	12.5	2	999	1997		VE109	50A	4	10	2	516	1032	
	50A	5	12.5	2	548	1096			60B	5	5	22	1320	2636	
	50A	6	8	7	331	2217			60B	1	5	2	403	806	
50A	8	8	50	266	1092	50A	2		10	2	572	1144			
50A	8	8	50	266	1030	50A	3	10	2	572	1144				
50A	6	6	6	147	880	60B	5	5	25	1338	2650				
VE102	60B	1	5	2	312	624	VE110	50A	1	16	2	582	1444		
	50A	2	10	5	2	638		476	50A	2	12.5	5	6	334	804
	60B	3	5	2	368	736		50A	4	10	2	741	1484		
	50A	4	10	2	424	848		50A	5	12.5	3	122	888	4636	
	50A	5	10	2	178	356		50A	6	5	12	3	144	1444	
	50A	6	10	2	112	424		50A	6	6.3	2	492	2952		
50A	7	10	2	706	4102	50A	7	6.3	20	182	3640				
60B	8	5	66	138	918										
VE103	50A	1	16	2	384	768	VE111	50A	1	8	5	289	1378		
	50A	2	8	2	580	580		50A	2	10	2	689	689		
	50A	3	8	6	152	918		50A	3	10	2	689	689		
	(X2)							50A	4	5	3	373	1114		
VE104	50A	1	16	4	319	1276	VE112	50A	5	6.3	8	153	1224		
	50A	2	12.5	5	6	289		1276	50A	6	6.3	8	200	3600	
	50A	3	5	30	350	30									
	60B	4	5	20	358	7160		60B	1	5	2	274	548		
VE106	50A	1	10	2	437	814	VE113	50A	2	10	2	161	326		
	50A	2	10	2	405	810		50A	4	10	2	565	1130		
	60B	3	5	18	147	2646		50A	5	6.3	2	130	260		
	60B	4	5	3	147	2646		60B	6	5	20	138	2930		
VE107E	60B	1	5	2	221	442	VE113	60B	1	5	2	221	442		
	50A	2	10	2	163	326		50A	2	10	2	163	326		
	50A	3	10	2	161	322		50A	3	10	2	513	1026		
	50A	4	5	3	138	276		60B	6	6.3	2	130	260		
	50A	5	10	2	138	276									
	50A	6	10	2	138	276									

RESUMIO ACO CA 50-60			
ACO	BIT (mm)	CDMPR (%)	PESO (kg)
60B	5	788	126
50A	6.3	382	96
50A	8	168	67
50A	10	305	192
50A	12.5	118	118
50A	16	65	103
Peso Total	60B =		126 kg
Peso Total	50A =		576 kg

- LAJES = 2,0 cm
- VIGAS E PILARES = 2,5 cm
- BLOCOS, BALDRAMES E CONTENÇÕES (FACE EM CONTATO COM A TERRA) = 3,0 cm

1. ESSES COBRIMENTOS DEVERÃO SER GARANTIDOS COM O USO DE ESPACADORES OU PASTILHAS.

COBRIMENTOS ESPECÍFICOS EM CONTRÁRIO AOS VALORES INDICADOS ACIMA, ESTÃO INDICADOS NOS DESENHOS FORMAS DOS PAVIMENTOS.

NORMAS UTILIZADAS:

NBR-6118/2003 - PROJETO E EXECUCAO DE OBRAS DE CONCRETO ARMADO
NBR-6120/1980 - CARGAS PARA O CALCULO DE ESTRUTURAS DE EDIFICACOES

INDICE:
VE101 A VE113 / VE101E

$F_{CK} = 35 \text{ MPa}$
 $E_C = 28 \text{ GPa}$
 $A/C = 0,65$

(MÓDULO DE ELASTICIDADE SECANTE
 AOS 28 DIAS).

(FATOR AGUA CIMENTO)

0	26/06/2009 EMISSÃO INICIAL		
REV	DATA	DESCRIÇÃO	
 Simetria Engenharia SUA QUADRA: CA No 21 SALAS 201 A 209 BRASILIA-DF CEP: 71500-045 FONE: (06161) 3026-9633 E-MAIL: contato@simetria.org.br			
PROJETO ESTRUTURAL			
CLIENTE:	DISCO INCORPORADORA E IMOBILIARIA LTDA		
OBRA:	EDIFÍCIO RESIDENCIAL OLIMPIQUE		NO OBRA: 001
ENDEREÇO OBRA:	SRIA AREA ESPECIAL 04 LOTES G e H - GUARÁ/DF		
DESCRIÇÃO:	ARMACAO DAS VIGAS DO 20 SUBSOLDO TORRE C - JUNTAS E (01/02)		BENEFÍCIO No: 098-XX
DESENHISTA:	DATA:	ESCALA:	UNIDADE
TOS/HELENA	26/06/2009	1:50	Cm
ARQUIVO: PLT	No PROJ.: SIMETRIA 421		
421-EST-098-XXX-R00 - PLT			
PROPRIETÁRIO:	RESPONSÁVEL TÉCNICO		
RESPOSTA TÉCNICA PELA PROJETO ESTRUTURAL			
SIMETRIA ENGENHARIA E PROJETOS S/C LTDA CREA: 0725/8F			

