

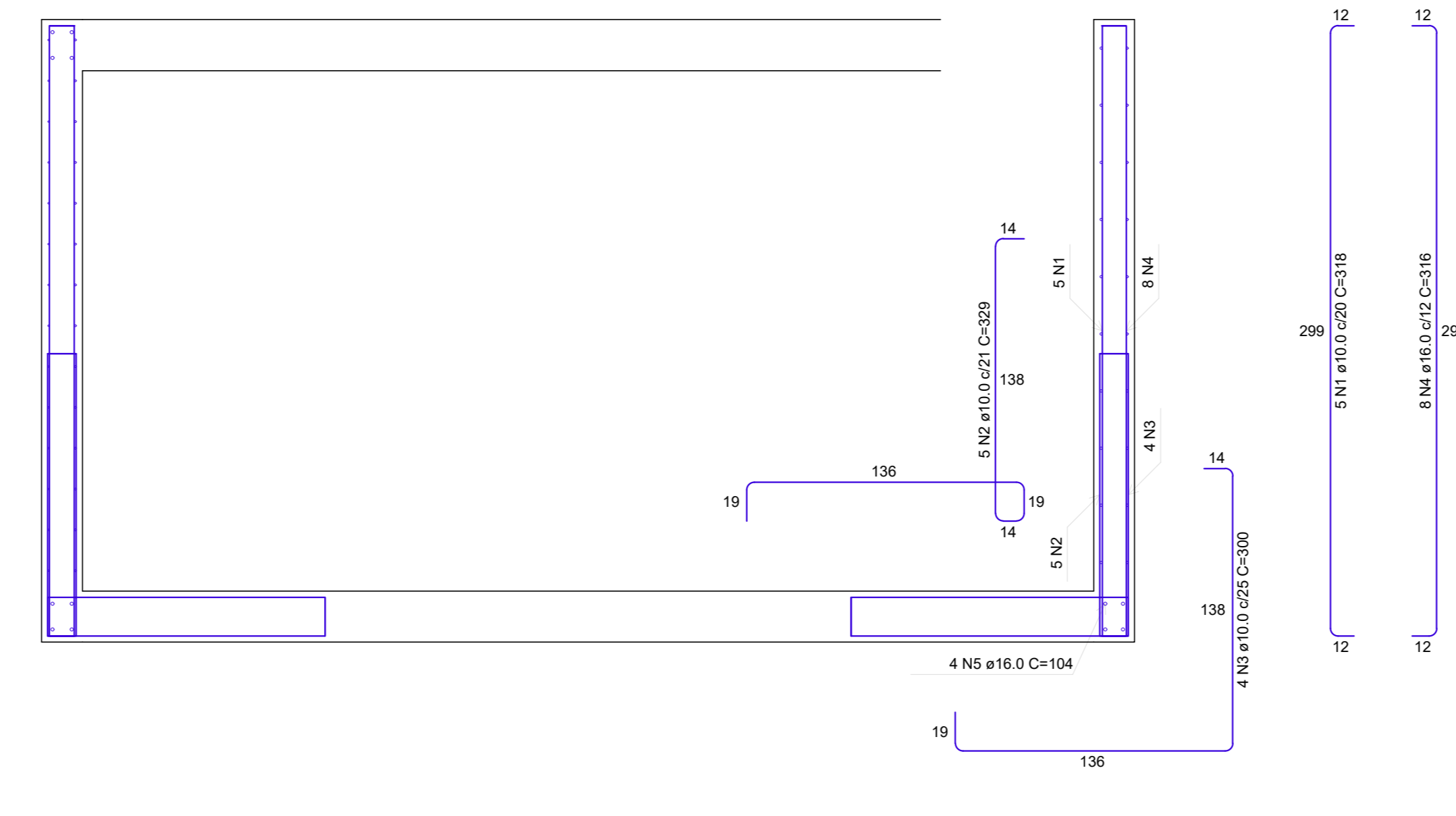
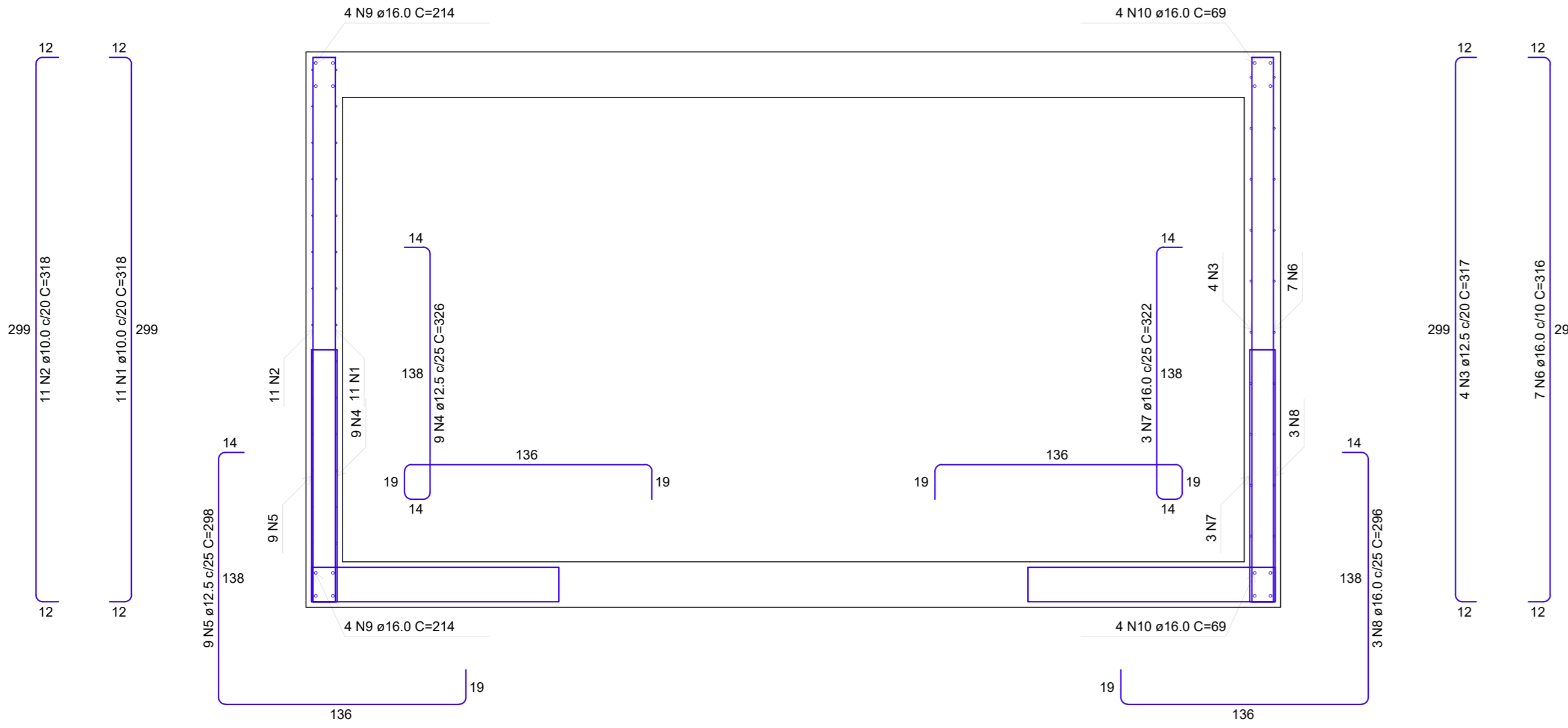
RELAÇÃO DO AÇO - VIGAS BALDRAMA

ELEMENTO	CAÇO	N	DIAM (mm)	QUANT (cm)	C.UNIT (cm)	C.TOTAL (cm)
VB1	CA60	1	5.0	28	111	3108
	CA50	2	10.0	2	530	1060
	CA50	3	12.5	2	530	1060
VB2	CA60	1	5.0	28	111	3108
	CA50	2	10.0	2	530	1060

RESUMO DO AÇO

CAÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10% (Barras)	PESO + 10% (kg)
CA50	10.0	21.2	2	14.4
CA60	5.0	62.2	6	10.5
PESO TOTAL (kg)				24.9
CA50	10.0			14.4
CA60	5.0			10.5

Volume de concreto (C-30) = 0.66 m³  
Área de forma = 6.23 m²



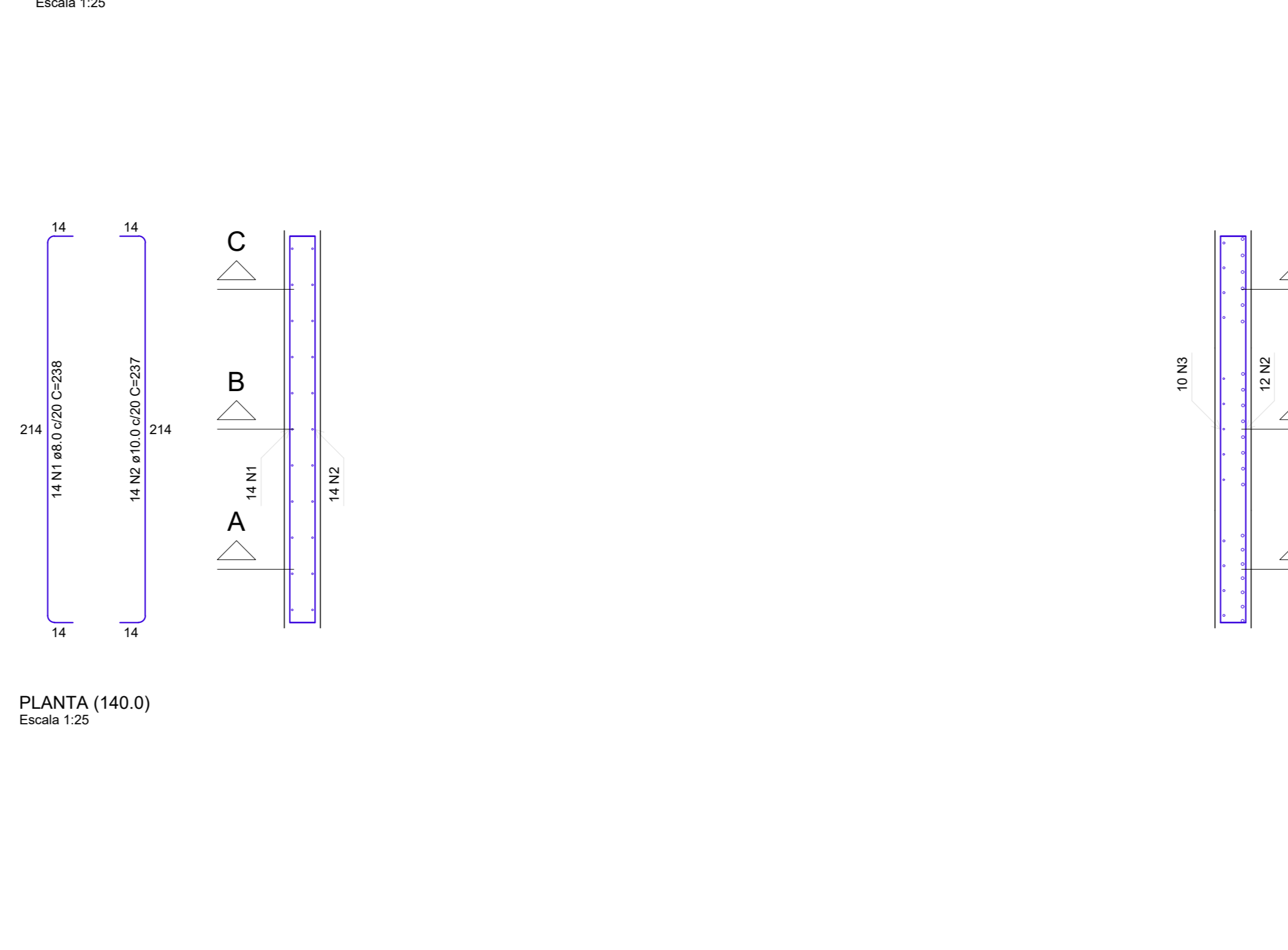
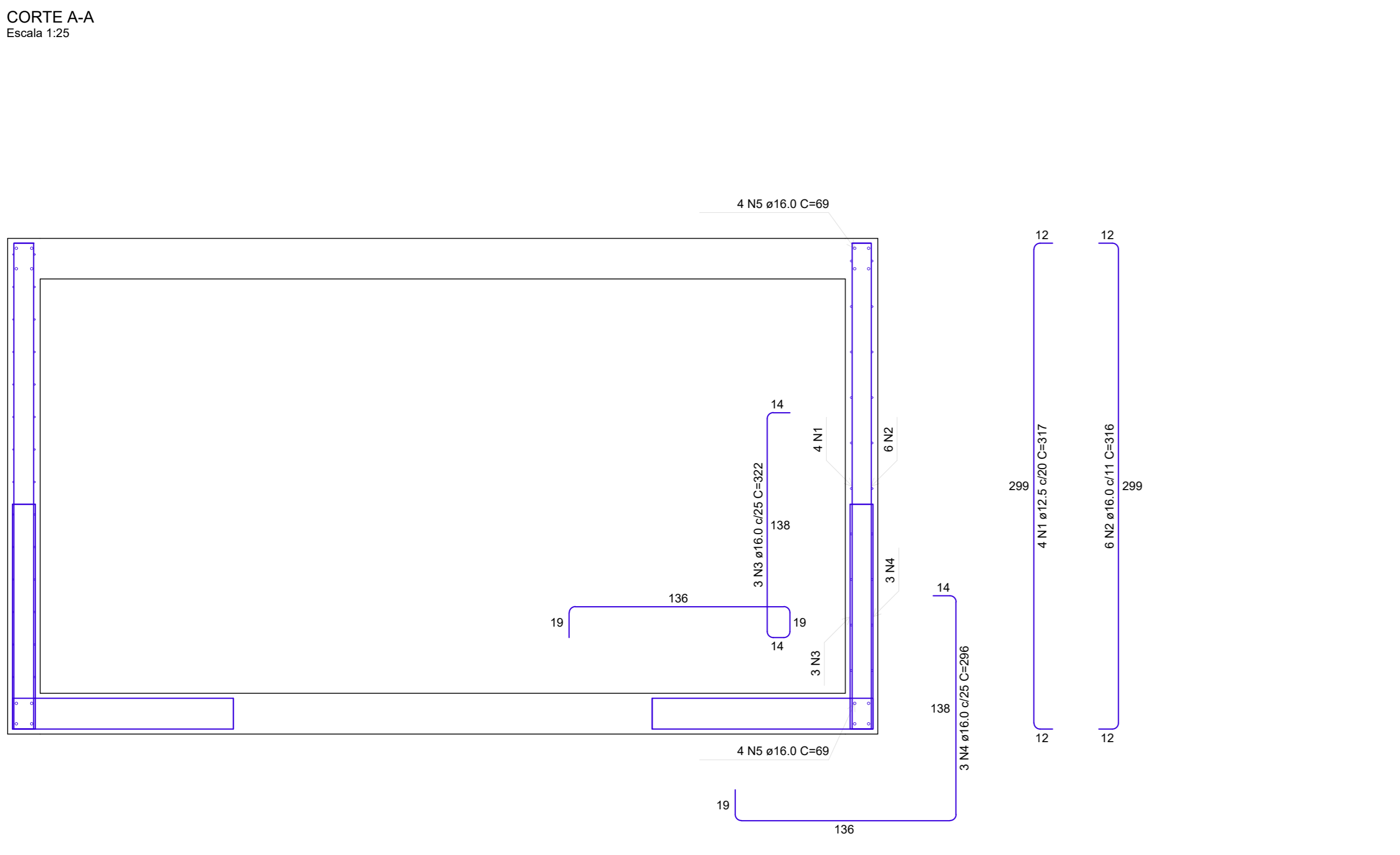
RELAÇÃO DO AÇO - VIGAS TOPO

ELEMENTO	CAÇO	N	DIAM (mm)	QUANT (cm)	C.UNIT (cm)	C.TOTAL (cm)
VC1	CA60	1	5.0	28	111	3108
	CA50	2	6.3	12	606	6060
	CA50	3	12.5	9	530	1900
VC2	CA50	1	5.0	28	111	3108
	CA50	4	12.5	2	606	1212
	CA50	3	12.5	2	530	6060
	CA50	4	12.5	2	606	1212

RESUMO DO AÇO

CAÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10% (Barras)	PESO + 10% (kg)
CA50	6.3	127.2	12	34.2
CA60	12.5	45.4	10	48.2
CA50	5.0	107	10	18.1
PESO TOTAL (kg)				100.5
CA50	6.3			34.2
CA60	12.5			48.2
CA50	5.0			18.1

Volume de concreto (C-30) = 1.33 m³  
Área de forma = 12.88 m²



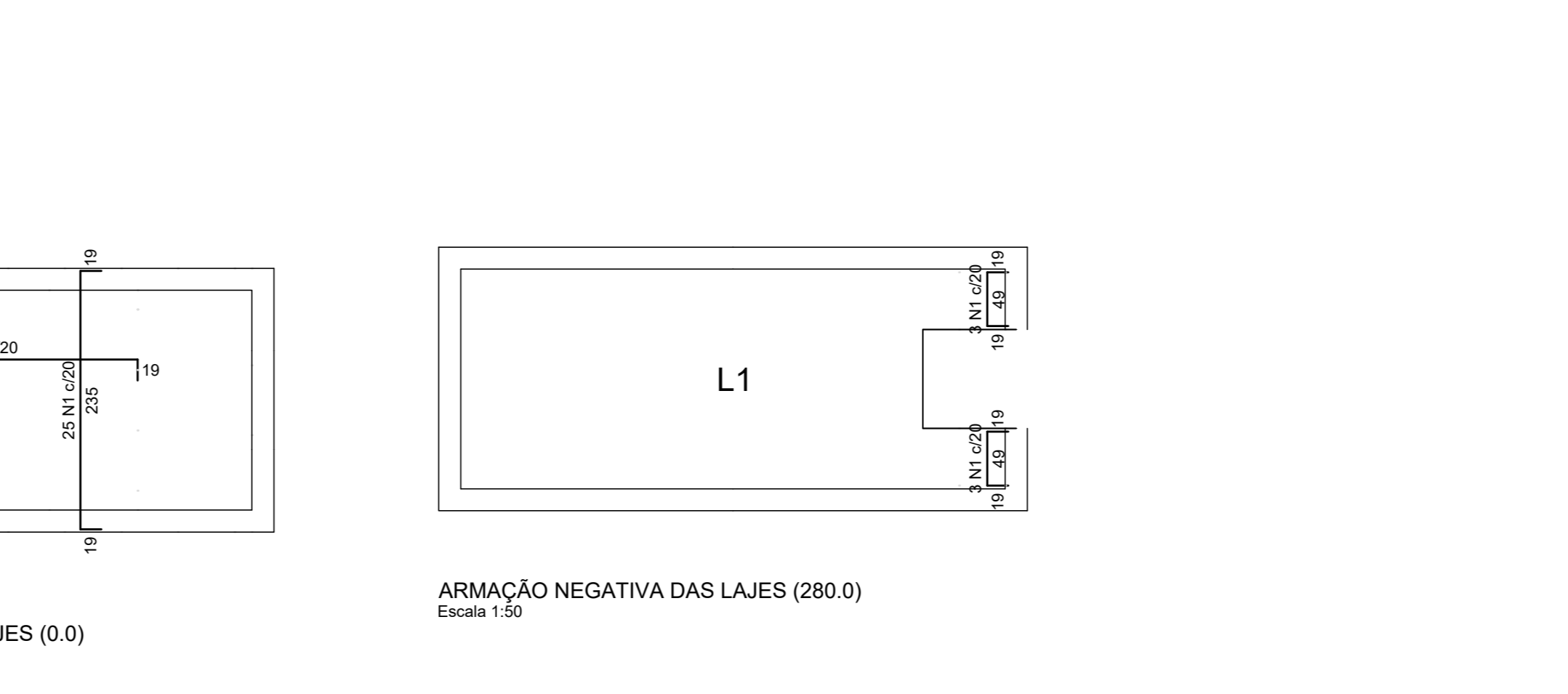
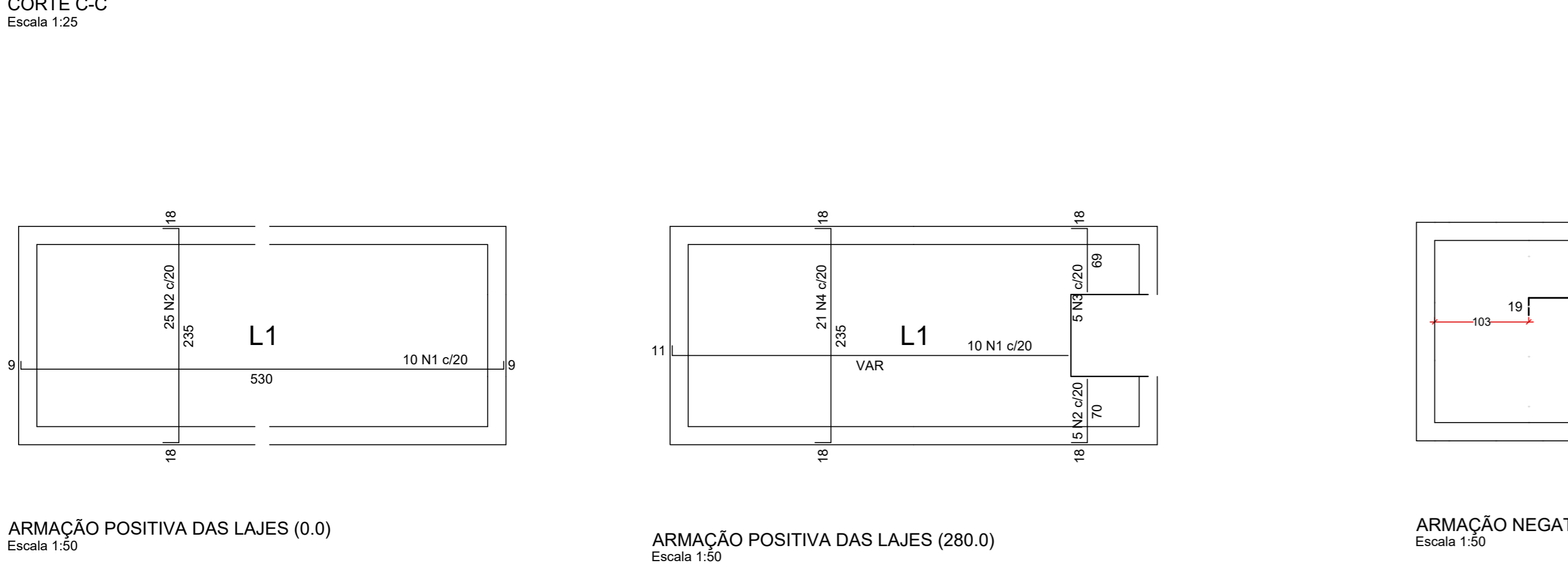
RELAÇÃO DO AÇO - PAREDE DE CONCRETO

ELEMENTO	CAÇO	N	DIAM (mm)	QUANT (cm)	C.UNIT (cm)	C.TOTAL (cm)
Corte A-A	CA50	1	10.0	11	318	3498
	CA50	2	10.0	11	318	3498
	CA50	3	12.5	4	317	1268
	CA50	4	12.5	9	306	2954
	CA50	5	12.5	9	298	2682
	CA50	6	15.0	7	316	2212
	CA50	7	16.0	3	322	966
	CA50	8	15.0	3	296	888
	CA50	9	16.0	8	214	1712
Corte B-B	CA50	1	10.0	5	318	1590
	CA50	2	10.0	6	309	1645
	CA50	3	10.0	4	300	1200
	CA50	4	10.0	4	316	1264
	CA50	5	16.0	4	104	416
	CA50	6	12.5	4	317	1268
	CA50	2	16.0	6	316	1896
	CA50	3	16.0	3	322	966
	CA50	4	16.0	3	296	888
Corte C-C	CA50	1	10.0	8	69	552
	CA50	2	10.0	25	268	6700
	CA50	1	8.0	6	83	498
	CA50	1	8.0	14	238	3332
	CA50	2	10.0	26	237	6162
	CA50	3	12.5	10	236	2360
	CA50	1	8.0	10	544	5440
	CA50	2	16.0	5	264	6600
	CA50	1	10.0	10	VAR	VAR
Negativos (280.0)	CA50	1	10.0	25	268	6700
	CA50	1	8.0	6	83	498
	CA50	1	8.0	14	238	3332
Positivos (280.0)	CA50	1	10.0	10	544	5440
	CA50	2	16.0	5	264	6600
	CA50	3	16.0	5	84	420

RESUMO DO AÇO

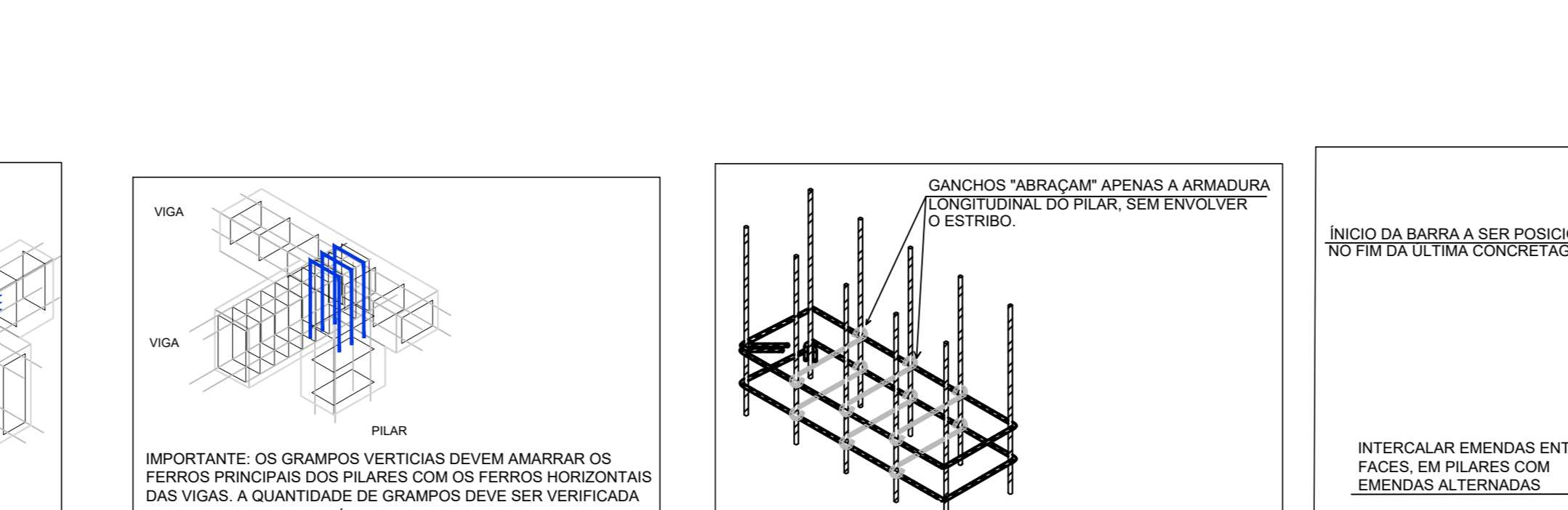
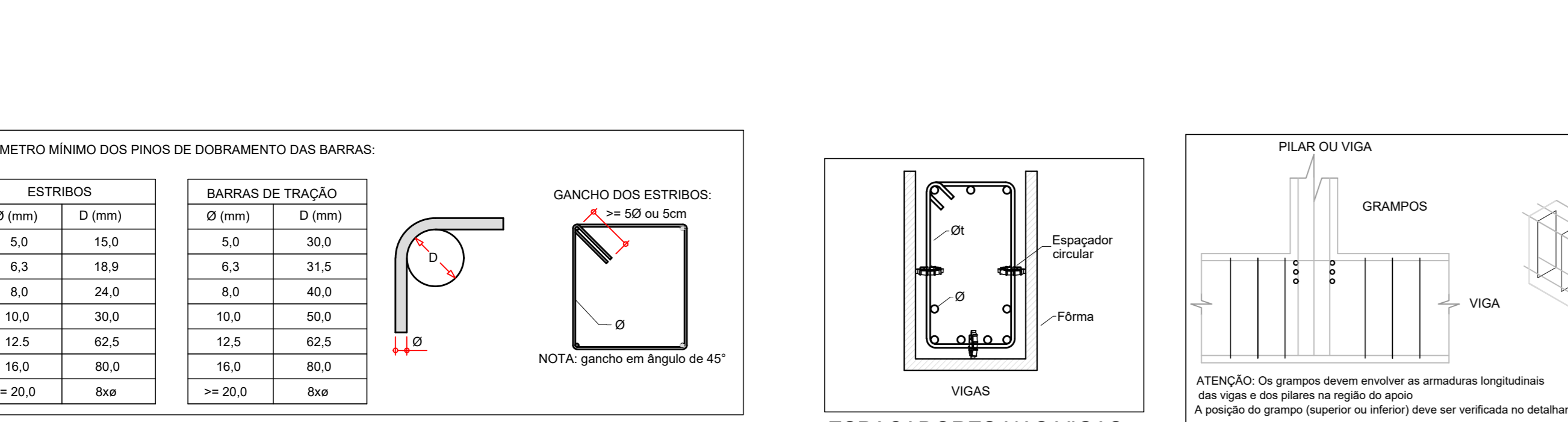
CAÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10% (Barras)	PESO + 10% (kg)
CA50	8.0	92.7	9	40.2
CA50	10.0	318.4	30	216.6
CA50	12.5	165.1	10	111.4
CA50	16.0	265.6	25	461
PESO TOTAL (kg)				829.3
CA50	8.0			40.2
CA50	10.0			216.6
CA50	12.5			111.4
CA50	16.0			461

Volume de concreto (C-30) = 7.30 m³  
Área de forma = 35.46 m²



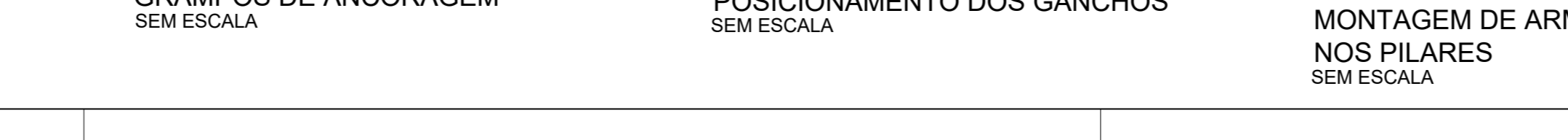
RELAÇÃO DO AÇO - PAREDE DE CONCRETO

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	CA50	1	8.0	14	238	3332
	CA50	2	10.0	26	237	6162
	CA50	3	12.5	10	236	2360
	CA50	1	8.0	10	544	5440
	CA50	2	16.0	5	264	6600
	CA50	1	10.0	10	VAR	VAR



RELAÇÃO DO AÇO - PAREDE DE CONCRETO

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RELAÇÃO DO AÇO - PAREDE DE CONCRETO

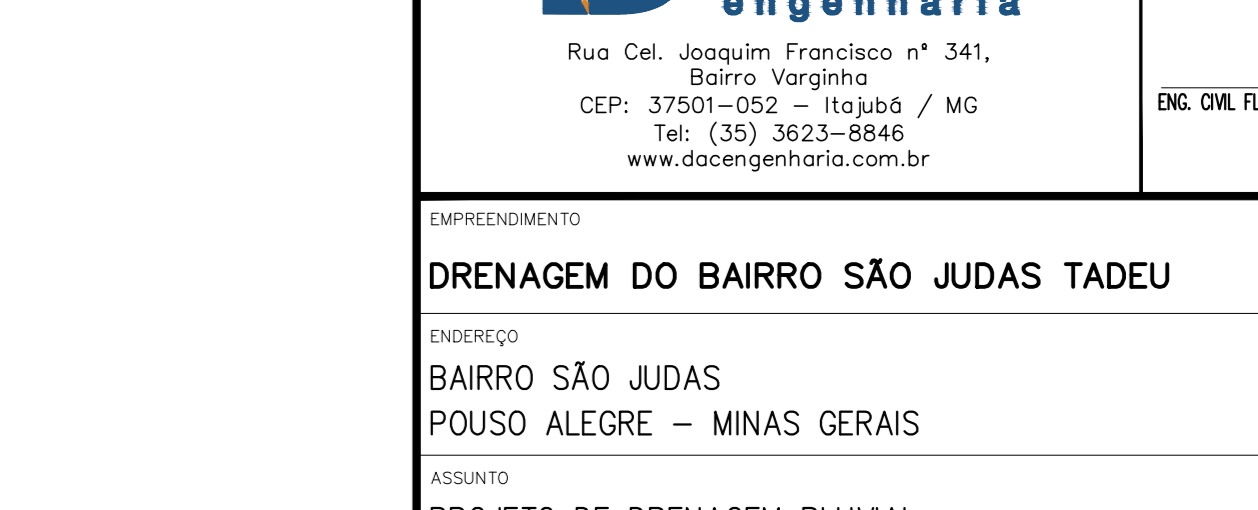
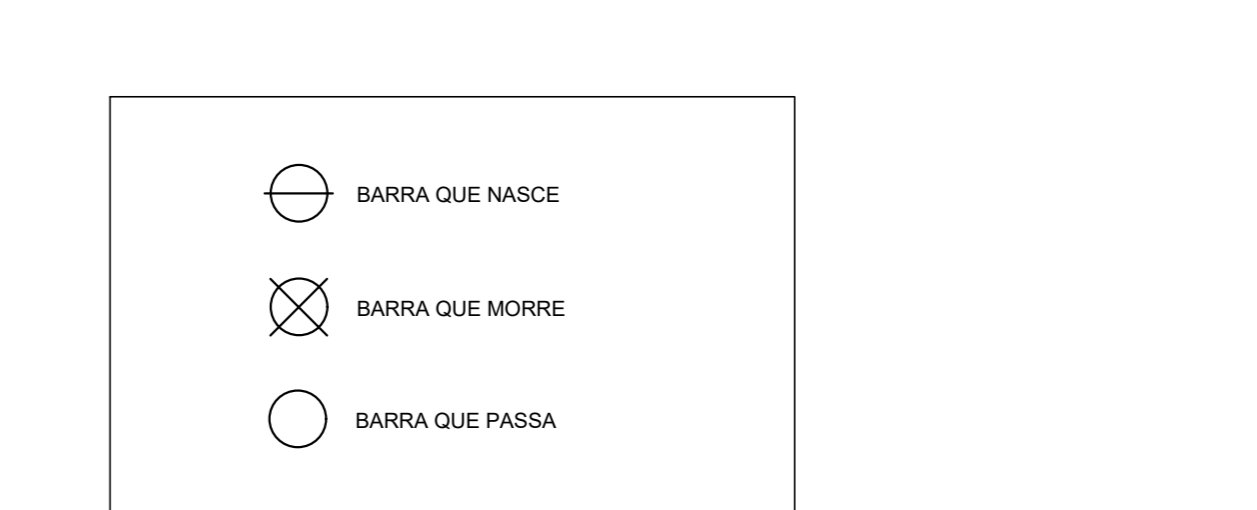
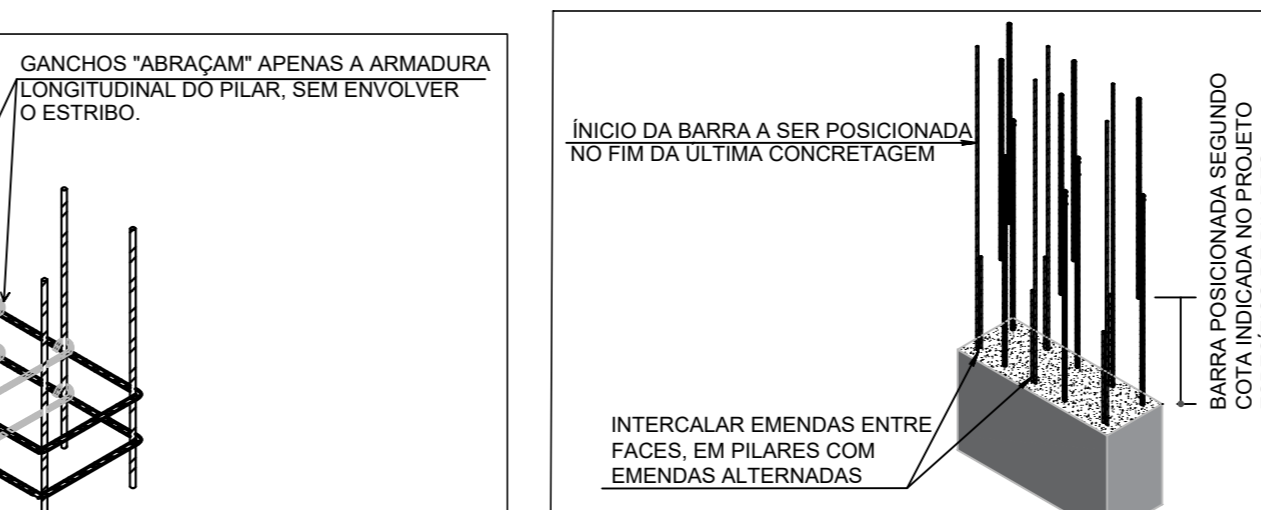
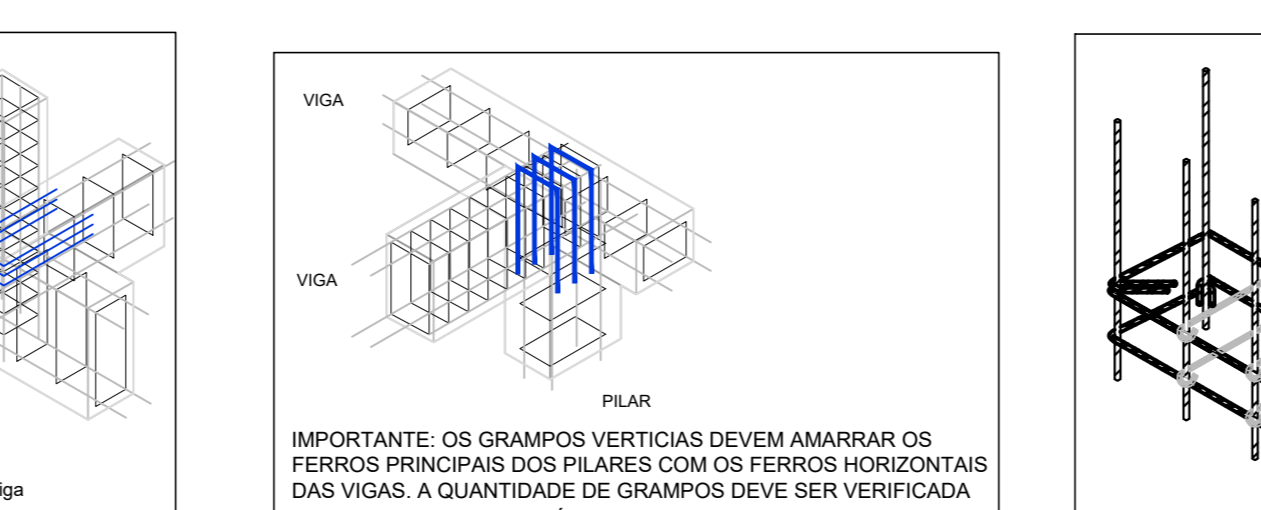
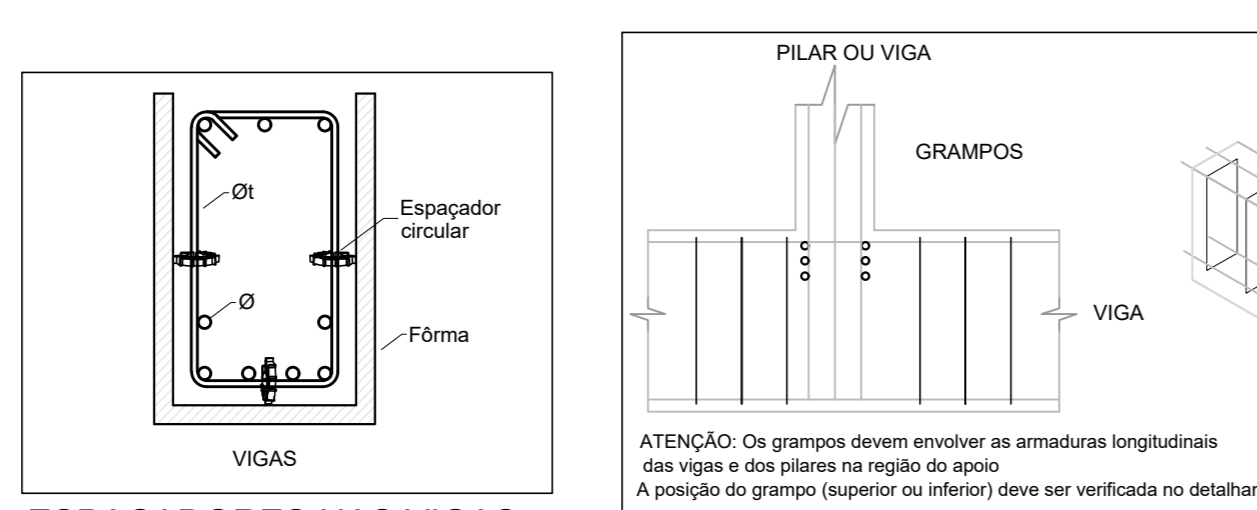
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	CA50	1	8.0	10	544	5440
	CA50	2	16.0	5	264	6600
	CA50	1	10.0	10	VAR	VAR

DIÂMETRO MÍNIMO DOS PINOS DE DOBRAMENTO DAS BARRAS:

ESTRIBOS	DIÂMETRO (mm)	BARRAS DE TRACÇÃO	DIÂMETRO (mm)
5.0	15.0	5.0	30.0
6.3	18.9	6.3	31.5
8.0	24.0	8.0	40.0
10.0	30.0	10.0	50.0
12.5	37.5	12.5	62.5
16.0	48.0	16.0	80.0
≥ 20.0		8xø	

GANCHO DOS ESTRIBOS: A ≥ 50 ou 5cm

NOTA: gancho em ângulo de 45°



PROJETO DE DRENAGEM PLUVIAL

PROJETO ESTRUCTURAL DOS POÇOS DE VISITA ESPECIAIS PVE-04

PROJETO DE DRENAGEM PLUVIAL

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PROJETO DE DRENAGEM PLUVIAL

PROJETO ESTRUCTURAL DOS POÇOS DE VISITA ESPECIAIS PVE-0