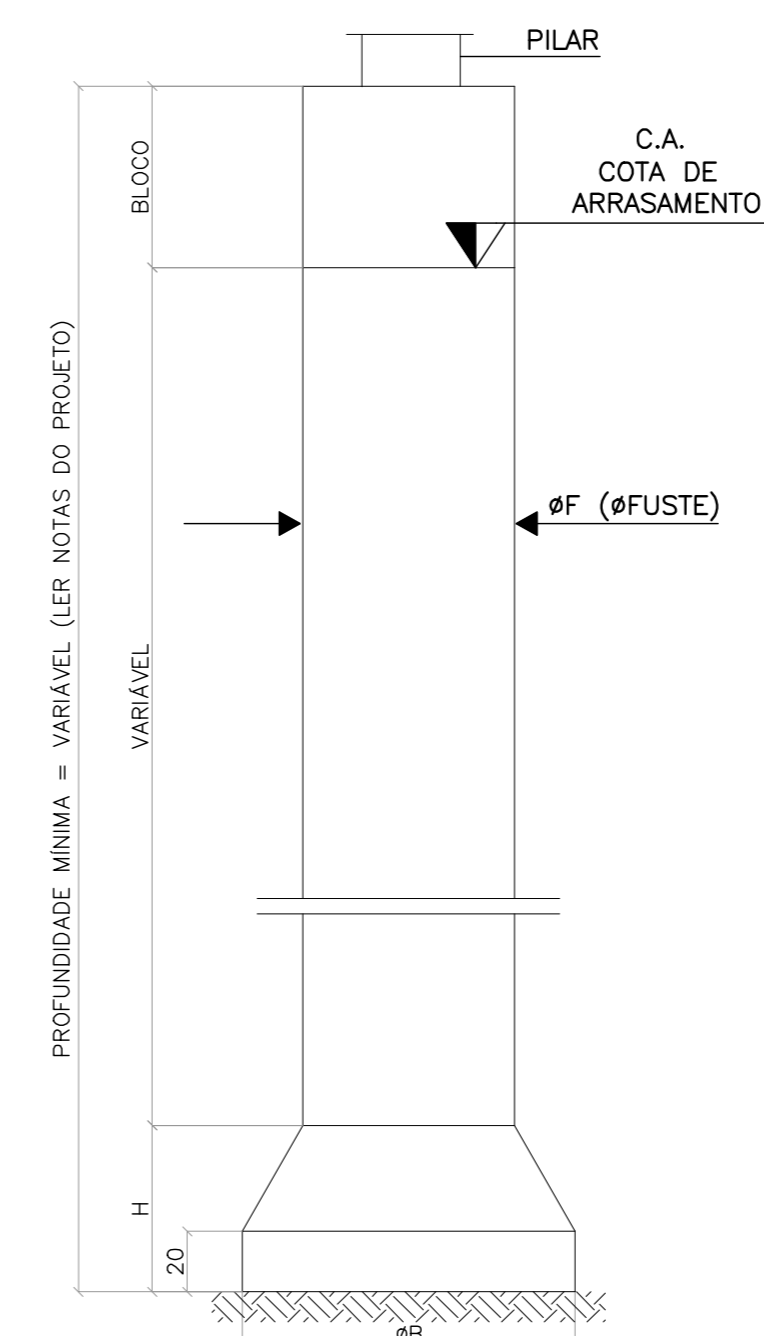
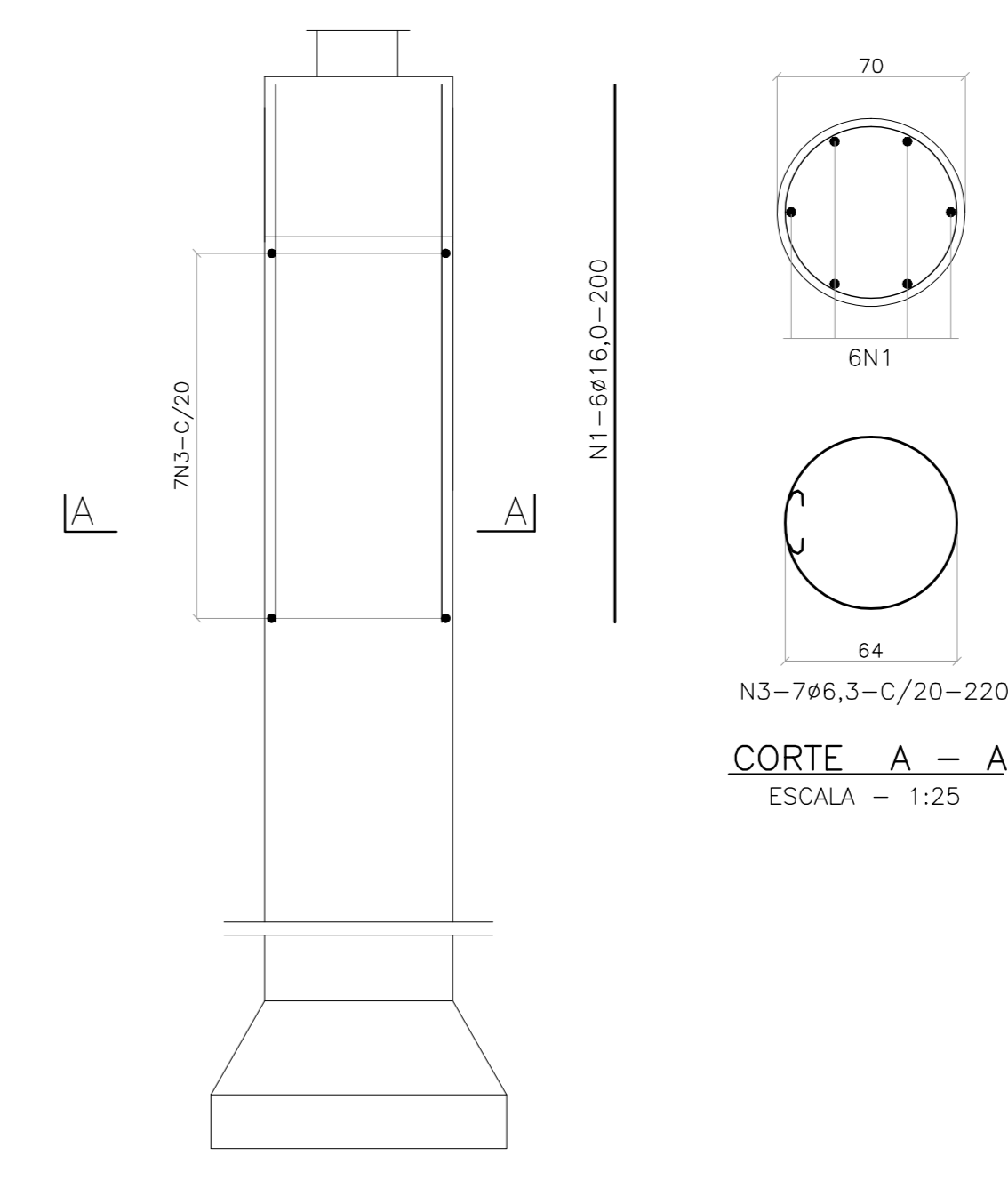


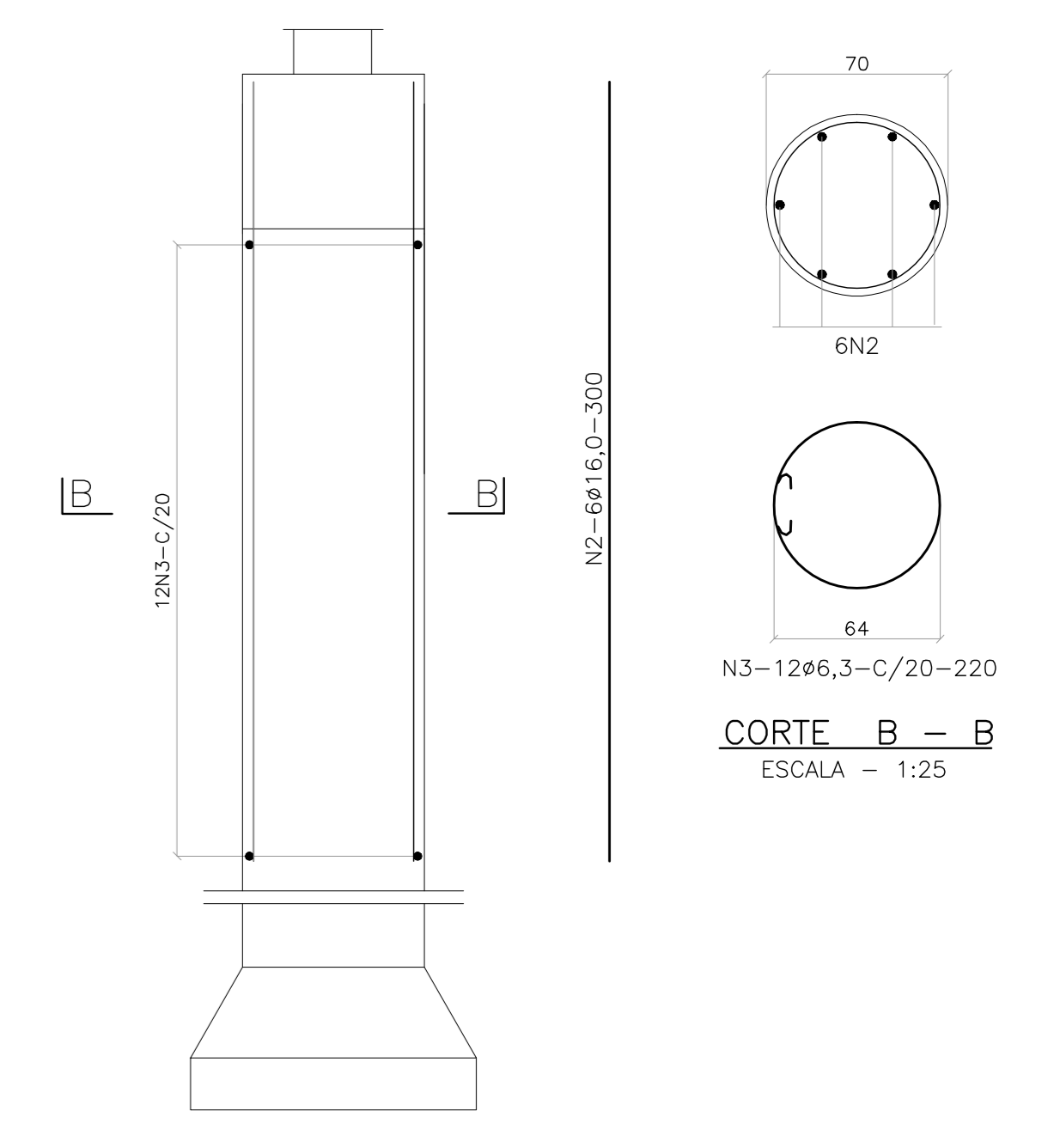
PLANTA DE LOCAÇÃO DOS PILARES E TUBULÕES
ESCALA - 1:50



DETALHE TÍPICO DOS TUBULÕES
ESCALA - 1:25



ARMAÇÃO DOS TUBULÕES DO DEPÓSITO (x6)
PROFUNDIDADE MÍNIMA = 4,00 METROS
P/ T1-T2-T5-T6-T7-T8
ESCALA - 1:25



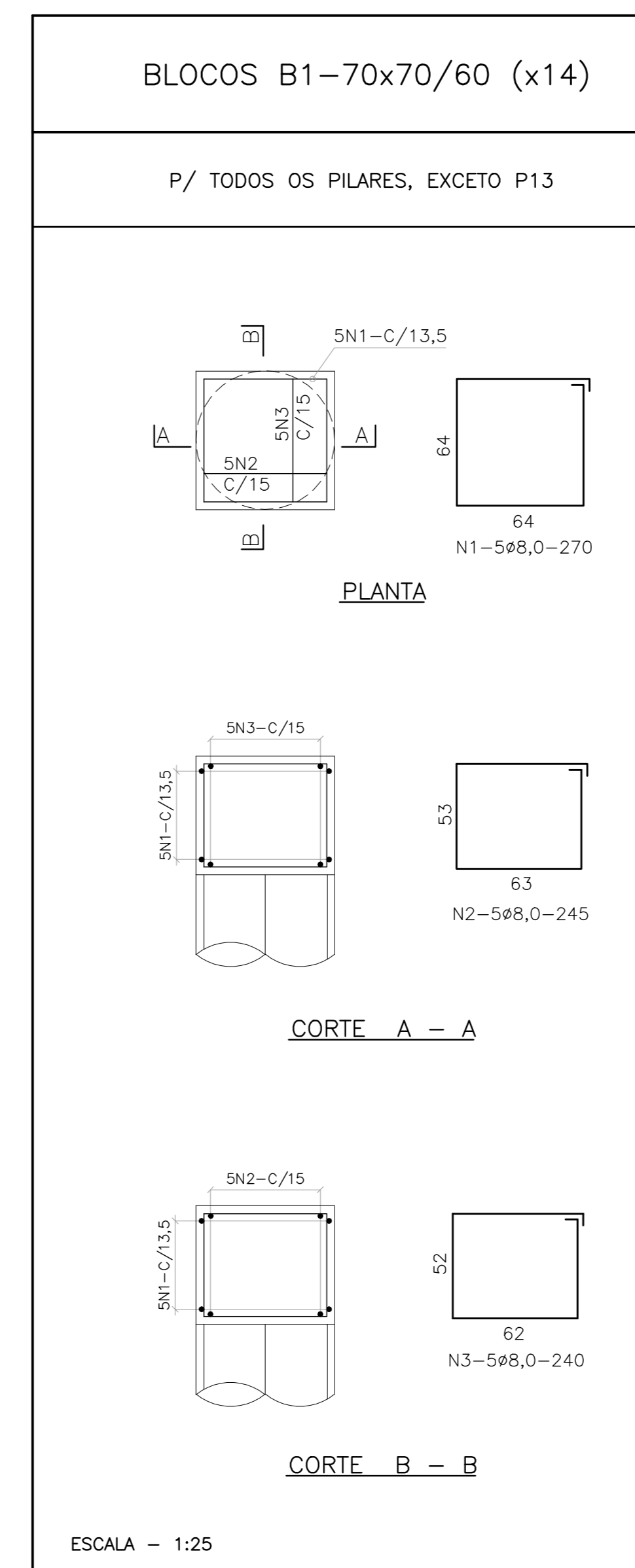
ARMAÇÃO DOS DEMAIS TUBULÕES (x9)
PROFUNDIDADE MÍNIMA = 5,00 METROS
P/ T11-T12-T13-T14-T15-T16-T19-T20-T21
ESCALA - 1:25

CARGAS NOS PILARES E DIMENSÕES DOS TUBULÕES				
PILARES/TUBULÕES	CARGAS (ton.)	ØF	ØB	H
P1-P7-P13	33,5	70	170	85
P2-P8-P15-P16	39,0	70	180	95
P5-P21	28,5	70	160	80
P6-P11-P14	45,5	70	195	110
P12-P19	54,5	70	220	130
P20	19,5	70	130	50

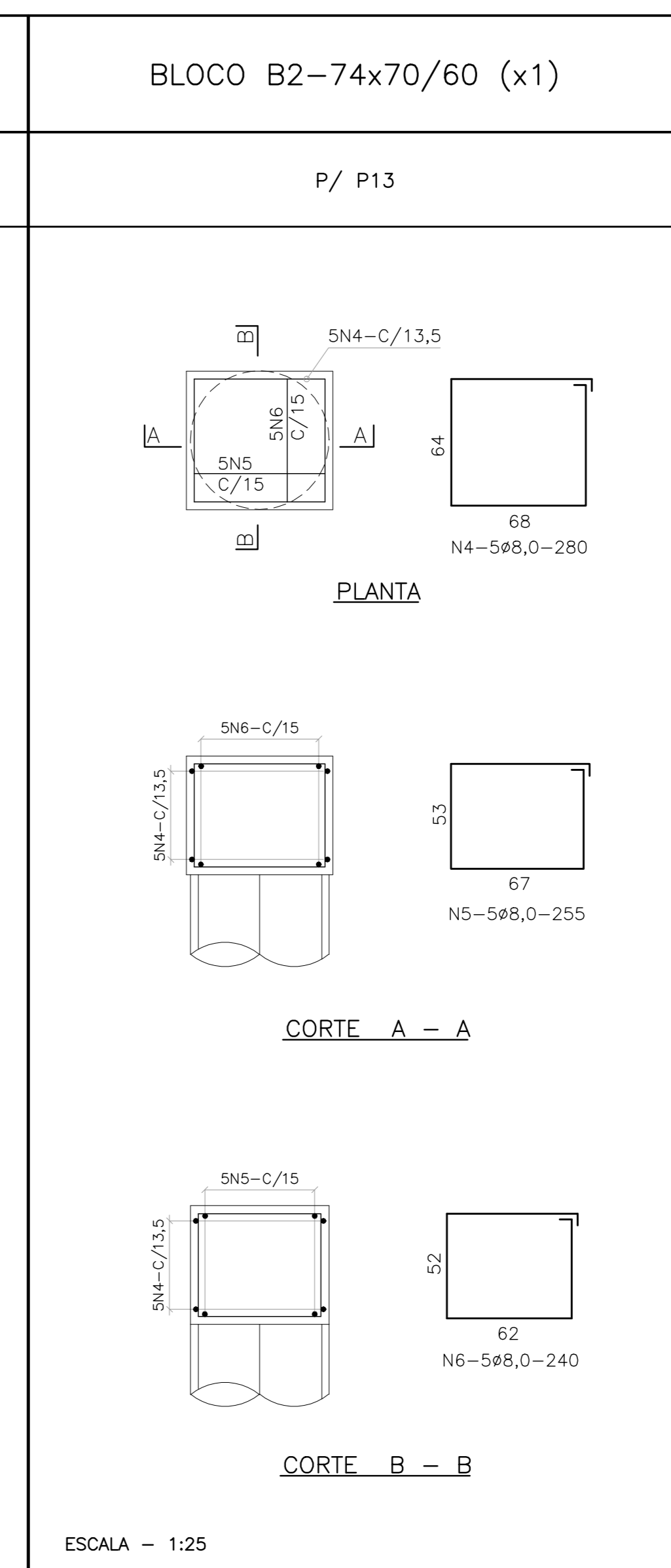
COTAS DE ARRASAMENTO		(C.A.)
TUBULÕES		
T1-T2-T5-T6-T7-T8		+822,94
T11		+826,30
T12		+825,90
T13		+826,90
T14		+826,80
T15		+827,51
T16		+827,21
T19-T20-T21		+827,61

LISTA DE FERROS TUBULÕES				
N	Ø	Quant.	Comprimento	
			Unit.(cm)	Total(m)
1	16,0	36	200	72
2	16,0	54	300	162
3	6,3	150	220	330

RESUMO DE AÇO TUBULÕES				
Diâmetro (mm)	Comp.(m)	Peso(kg)		TIPO
		kgf/m	Total(kgf)	
6,3	330	0,245	81	CA-50A
16,0	234	1,578	370	CA-50A
Peso Total			451	kgf



ESCALA - 1:25



ESCALA - 1:25

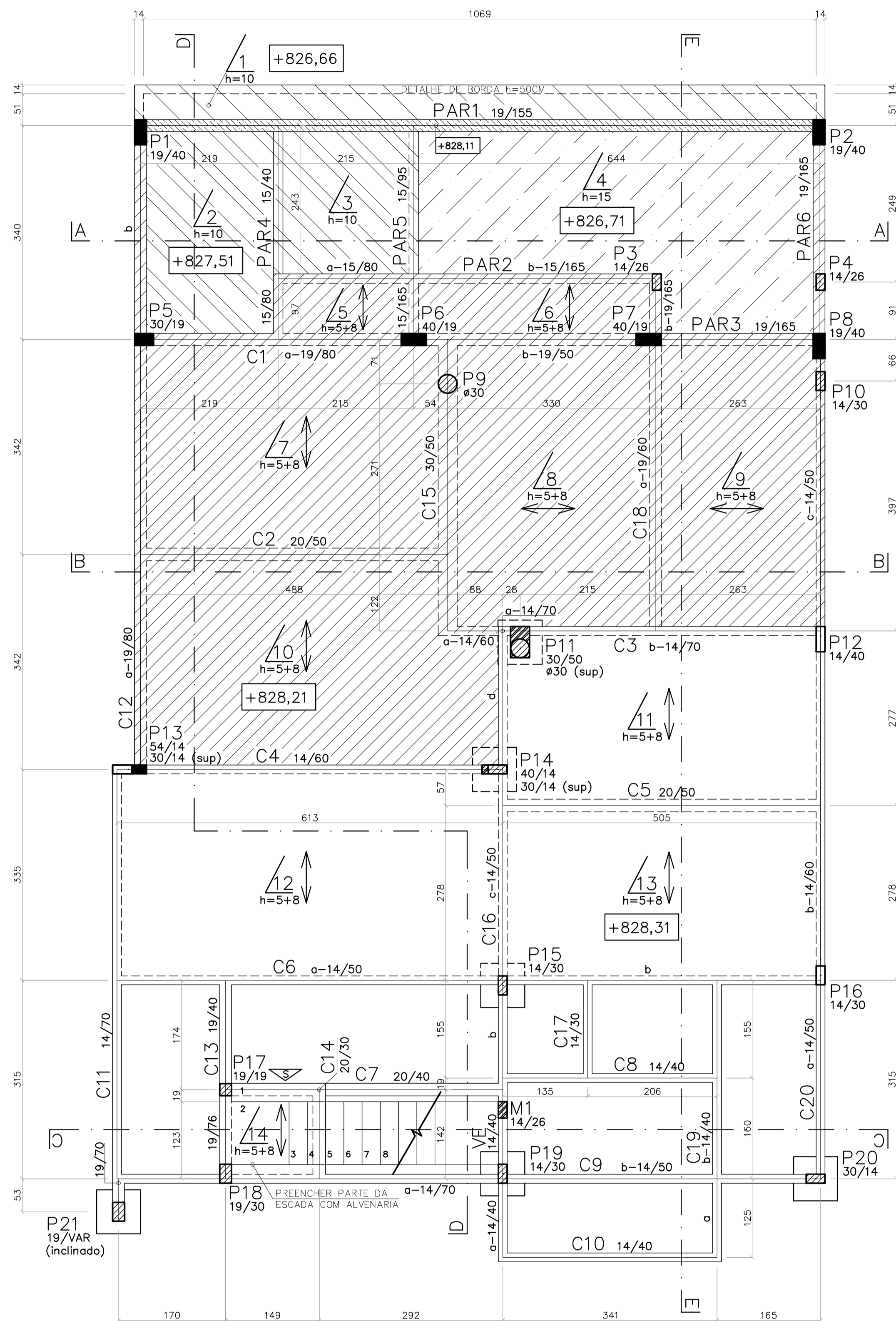
LISTA DE FERROS BLOCOS				
N	Ø	Quant.	Comprimento	
			Unit.(cm)	Total(m)
1	8,0	70	270	189
2	8,0	70	245	172
3	8,0	70	240	168
4	8,0	5	280	14
5	8,0	5	255	13
6	8,0	5	240	12

RESUMO DE AÇO BLOCOS				
Diâmetro (mm)	Comp.(m)	Peso(kg)		TIPO
		kgf/m	Total(kgf)	
8,0	568	0,395	224	CA-50A
Peso Total			225	kgf

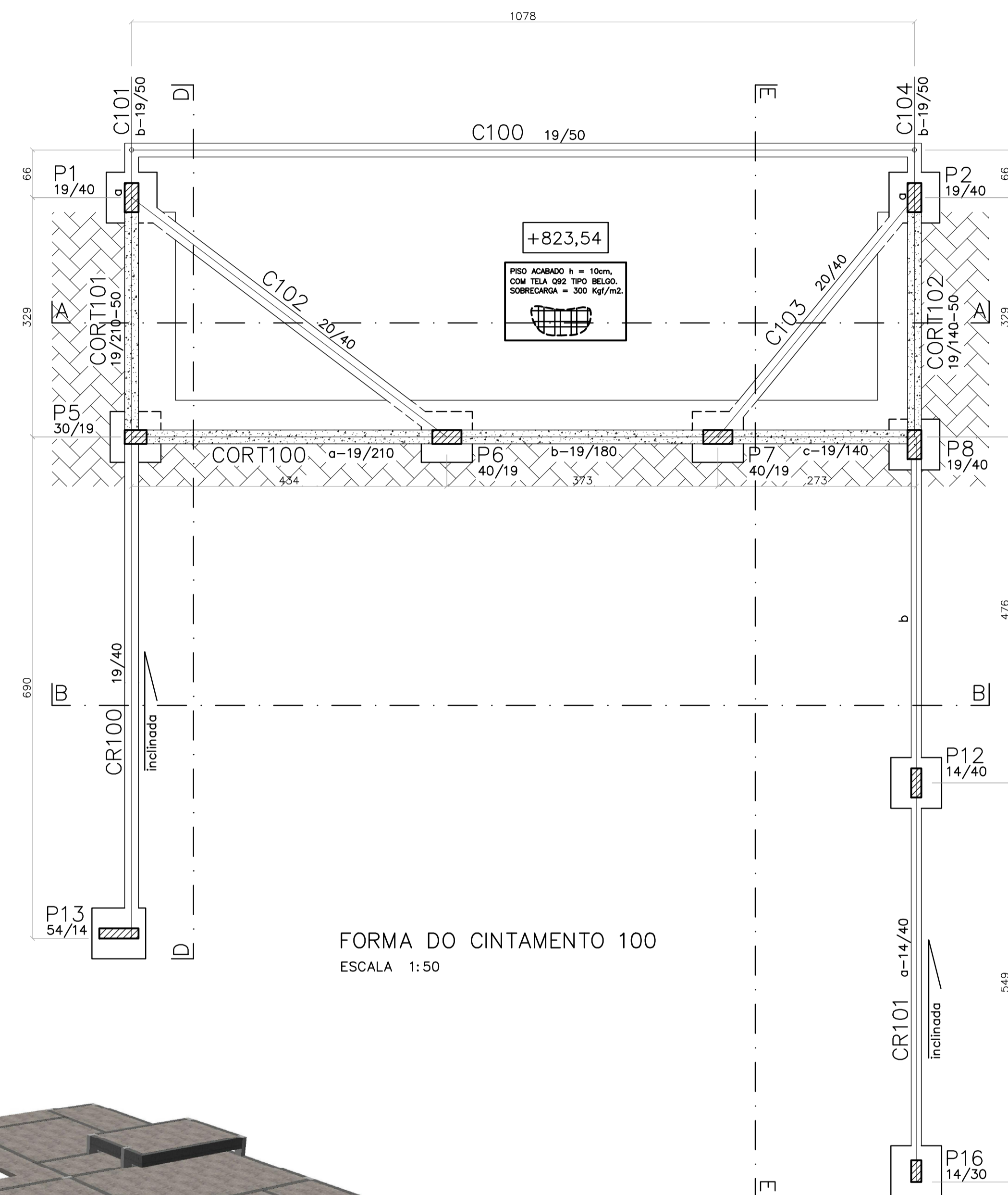
NOTAS:

- MEDIDAS EM CENTÍMETROS E NÍVEIS EM METROS.
- CONCRETO TUBULÕES $f_{ck} \geq 20,0$ MPa.
- CONCRETO BLOCOS $f_{ck} \geq 30,0$ MPa.
- PROFUNDIDADE MÍNIMA DOS TUBULÕES DO DEPÓSITO = 4,00 METROS.
- PROFUNDIDADE MÍNIMA DOS DEMAIS TUBULÕES = 5,00 METROS.
- TAXA MÍNIMA ADMISSÍVEL NO TERRENO PARA TUBULÕES: $\sigma_T = 1,50$ Kgf/cm².
- A PROFUNDIDADE DOS TUBULÕES DEVERÁ SER CONFIRMADA PELO RT DE EXECUÇÃO DURANTE A EXECUÇÃO DA OBRA, DEVENDO SER ATINGIDA A TAXA MÍNIMA ESTABELECIDAS.
- REFERÊNCIA DE SONDAGEM:
FUROS SP 01 E SP 02.
- COBRIMENTO DOS FERROS: 3,0cm.

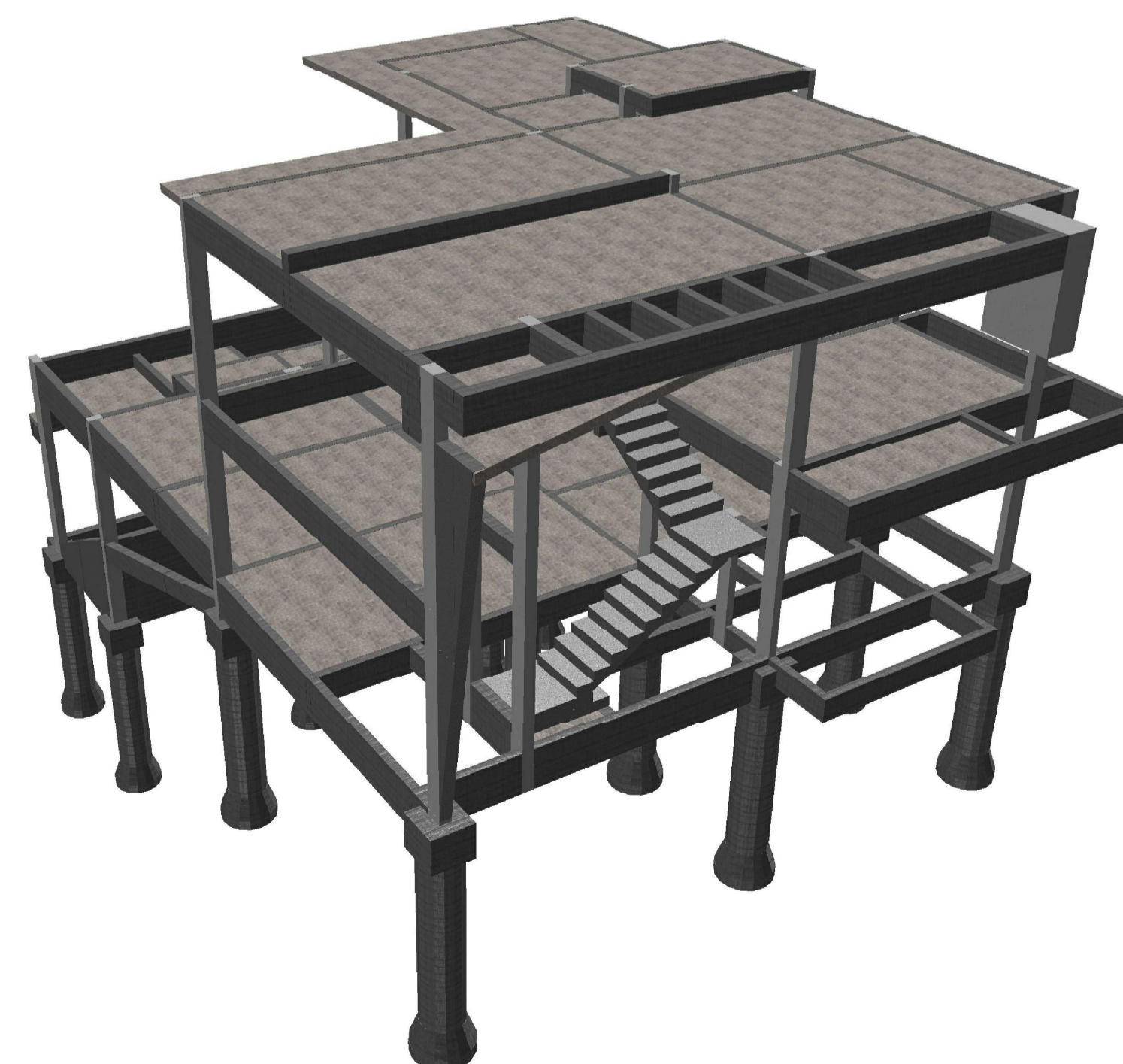
PROJETO ESTRUTURAL				
CONTEÚDO				
PLANTA DE LOCAÇÃO DOS PILARES E TUBULÕES				
ARMAÇÃO DOS TUBULÕES E BLOCOS				
AZEVEDO		Deborah Azevedo		TELEFONE (37) 9128-4675
PROJETOS		ENGR. CIVIL - CREA N° 200607/D		DATA
ESCALA	INDICADA	APROV.	PROJ.	DES. N°
				1
				COPIA
				REV.



FORMA DO CINTAMENTO 1
ESCALA 1:50



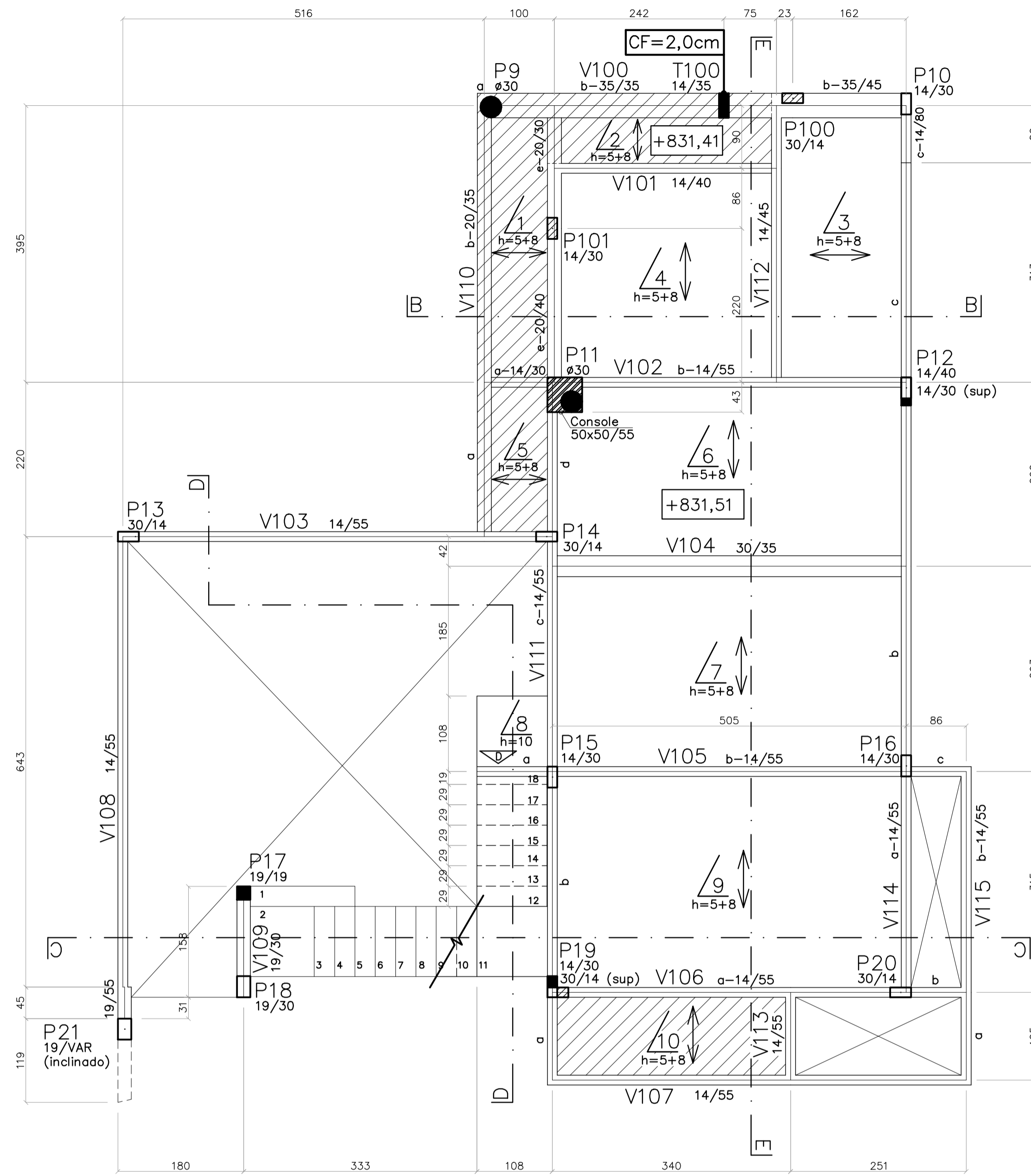
FORMA DO CINTAMENTO 100
ESCALA 1:50



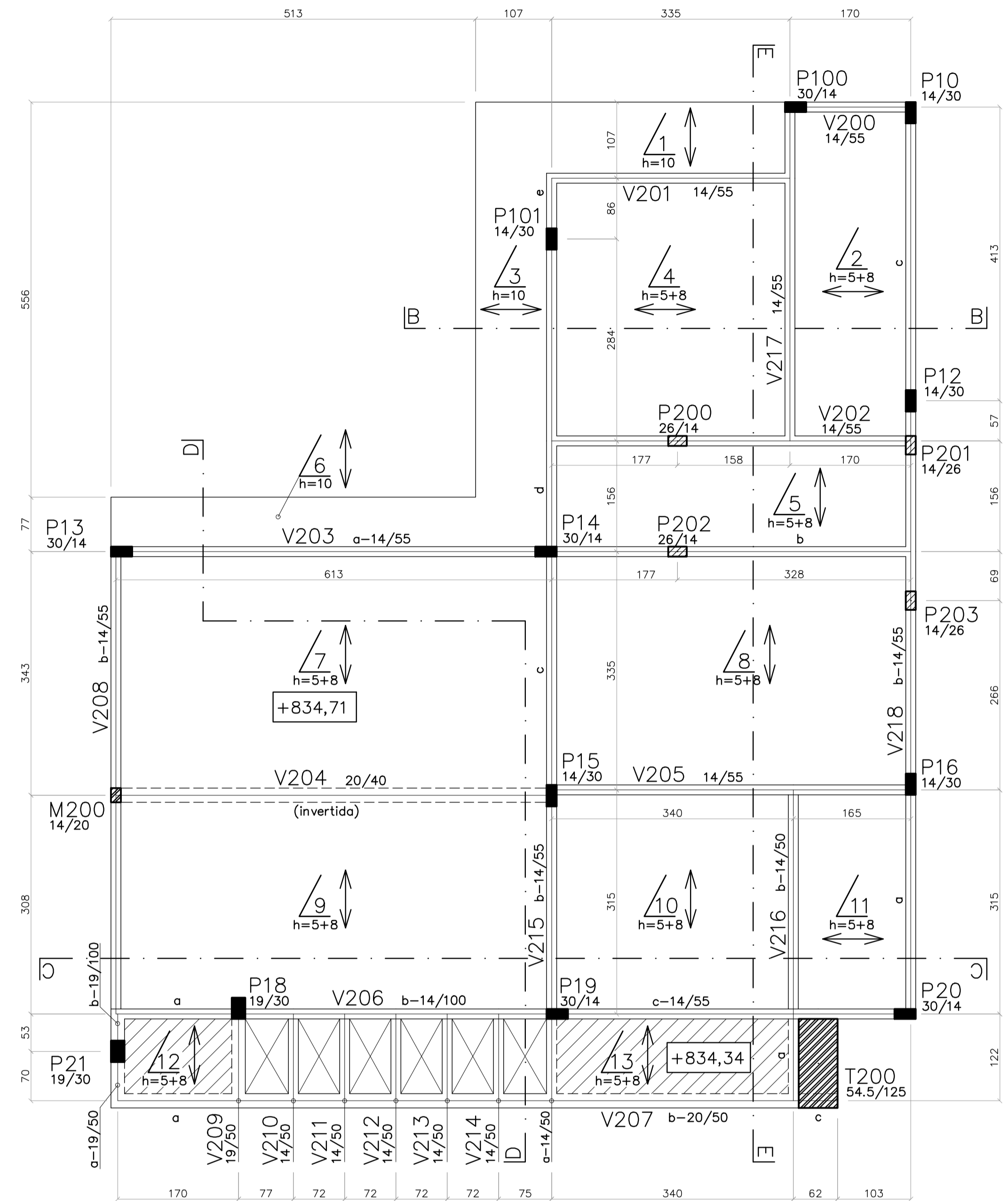
NOTAS:

- 1 - MEDIDAS EM CENTÍMETROS E NÍVEIS EM METROS.
- 2 - CONVENÇÃO P/ PILARES:
 - ◻ - NASCEM.
 - ◻ - CONTINUAM.
 - - MORREM.
 - ◻ - NASCEM E MORREM NO MESMO PAVIMENTO.
- 3 - CONCRETO fck PARA ESTRUTURA ≥ 30,0 MPa.
- 4 - AS LAJES TRELIÇADAS DEVERÃO UTILIZAR COMO ENCHIMENTO EPS.
- 5 - AS DIMENSÕES DAS VIGOTAS DAS LAJES TRELIÇADAS DEVERÃO SER CONFIRMADAS COM O FORNECEDOR.
- 6 - CF = CONTRA-FLECHA, EXECUTAR NAS VIGAS QUE INDICAM SUA NECESSIDADE, CONFORME ESPECIFICADO NAS PLANTAS DE FORMA.
- 7 - AS LAJES E PAREDES DA PISCINA DEVERÃO SER OBRIGATORIAMENTE CONCRETADAS EM APENAS UMA ETAPA.

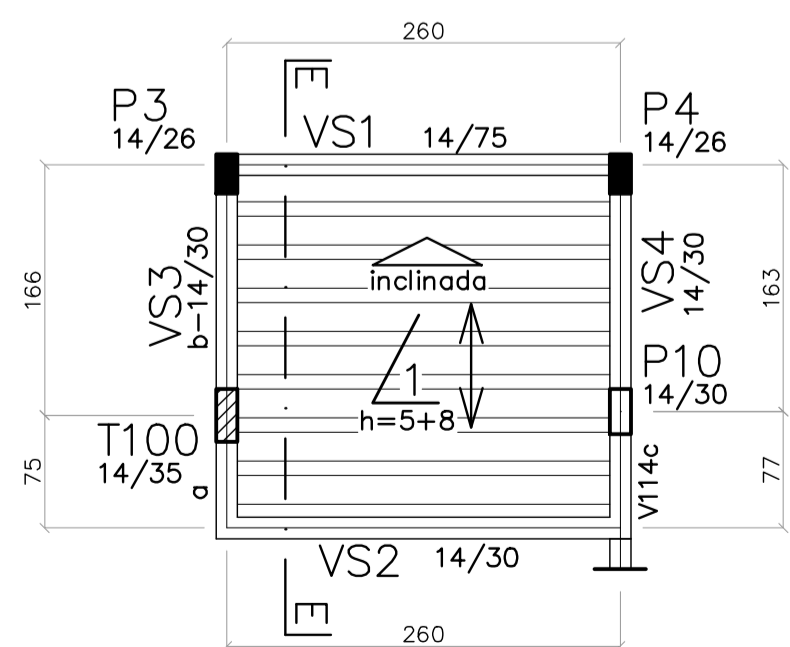
PROJETO		ESTRUTURAL			
CONTEUDO					
PLANTAS DE FORMA DOS PAVIMENTOS - PARTE 1					
AZEVEDO		Deborah Azevedo ENG. CIVIL - CREA Nº 200607/D		TELEFONE (37) 9128-4675	
PROJETOS		DES. Nº		DATA	
ESCALA	INDICADA	APROV.	PROJ.	DES. Nº	REV.
				2	



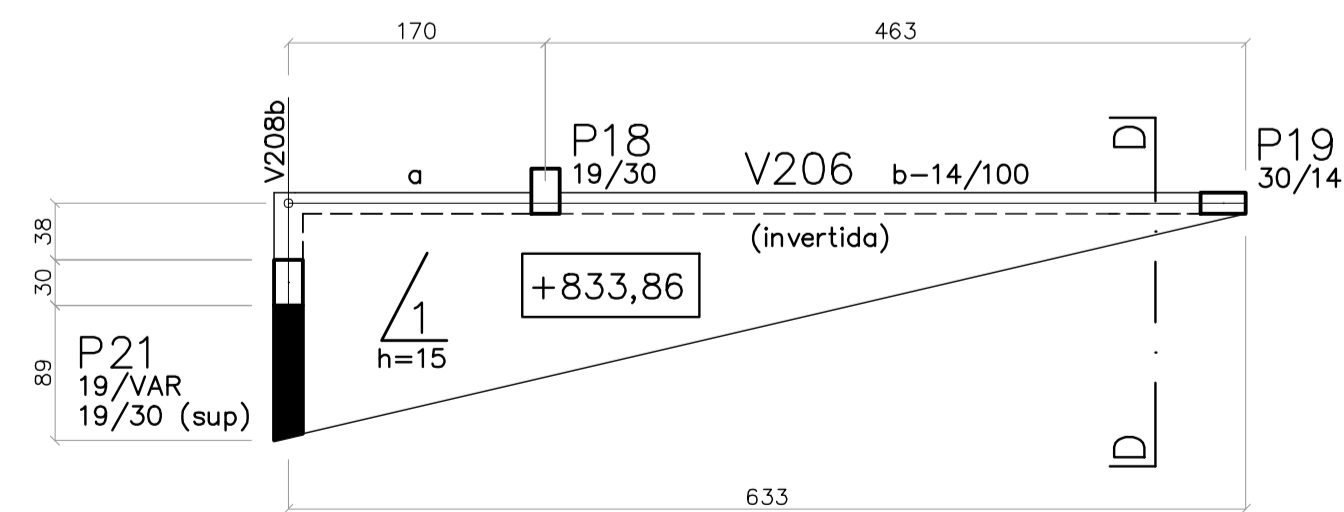
FORMA DO PRIMEIRO TETO
ESCALA 1:50



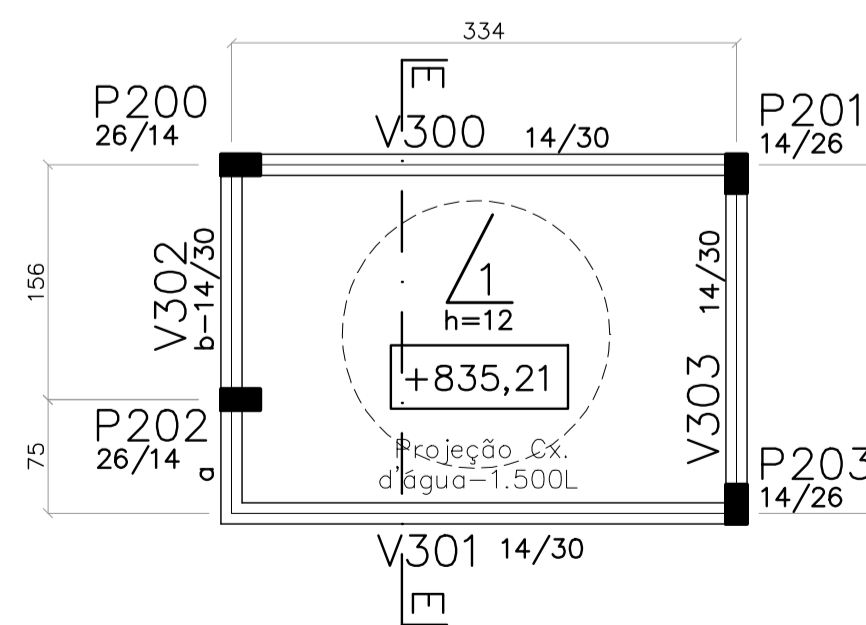
FORMA DO SEGUNDO TETO
ESCALA 1:50



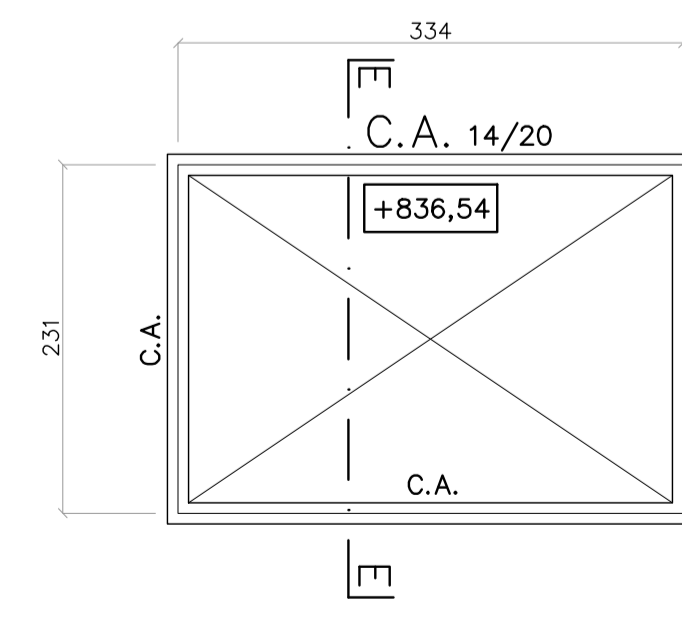
FORMA DO NÍVEL +831,01 DO PRIMEIRO TETO
TETO DA SAUNA ESCALA 1:50



FORMA DO NÍVEL +833,86 DO SEGUNDO TETO
ESCALA 1:50



FORMA DO TERCEIRO TETO
FUNDO DA CX. D'ÁGUA ESCALA 1:50

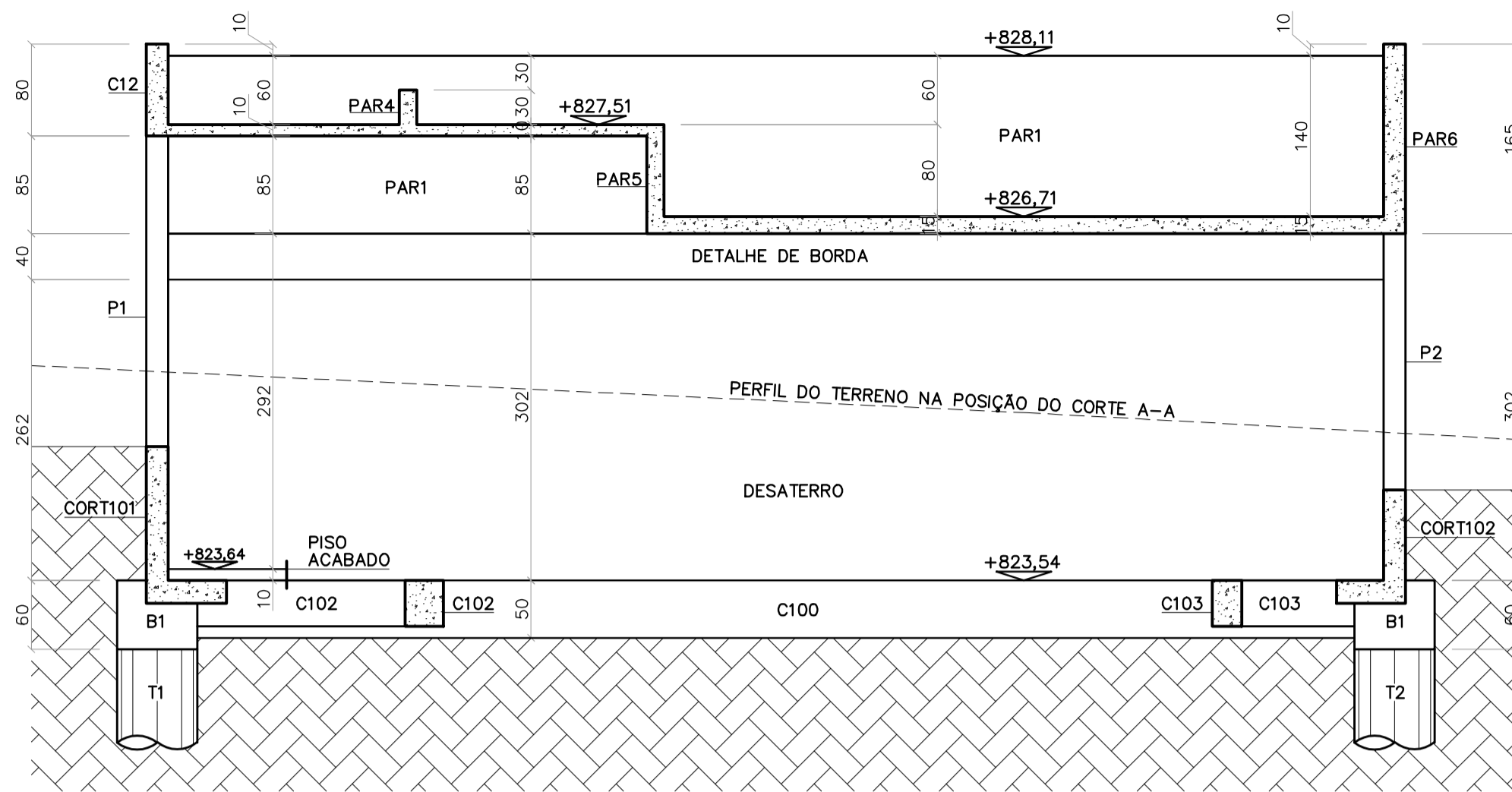


FORMA DA TAMPÁ DA CX. D'ÁGUA
COBERTURA METÁLICA ESCALA 1:50

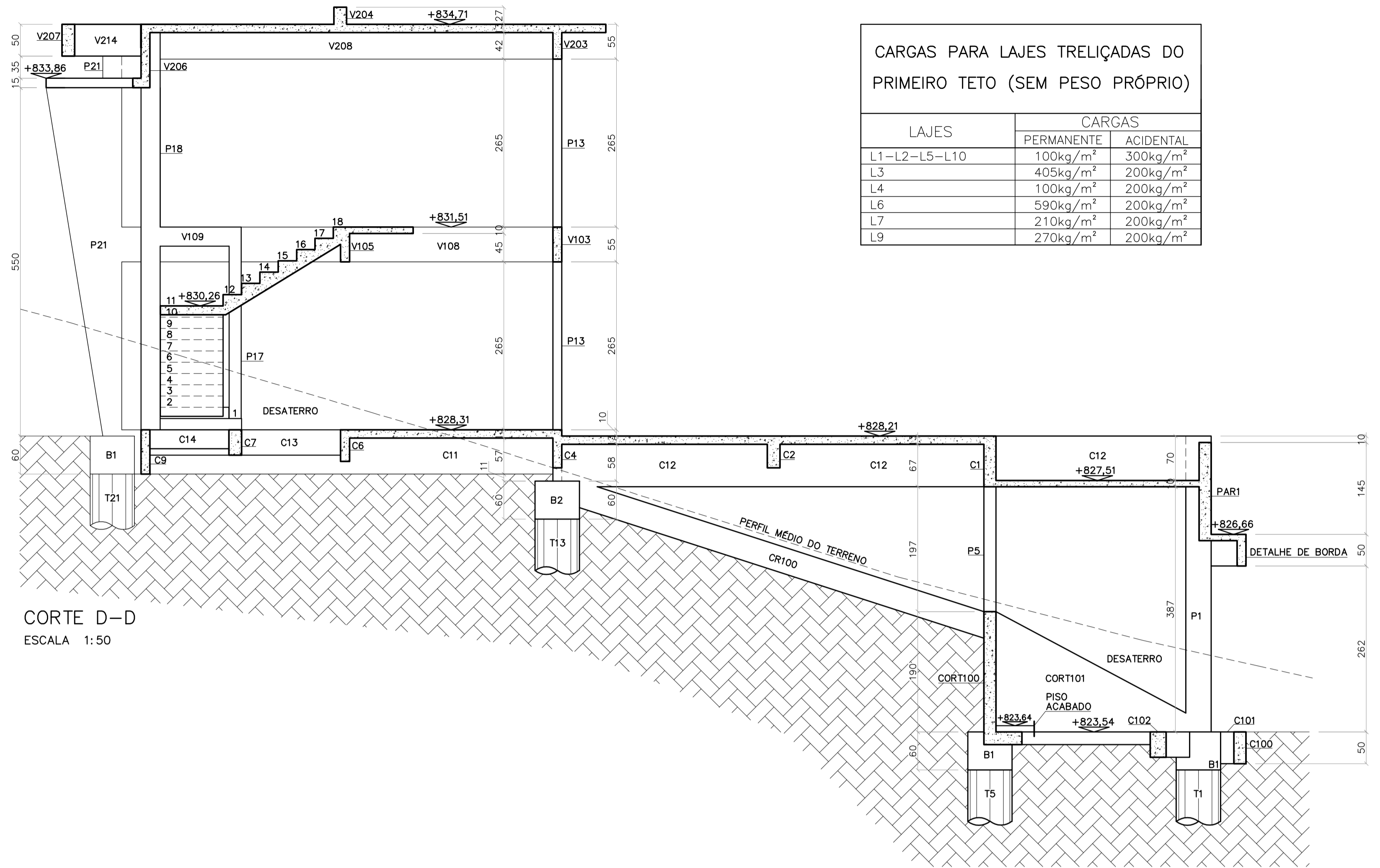
NOTAS:

- 1 - MEDIDAS EM CENTÍMETROS E NÍVEIS EM METROS.
- 2 - CONVENÇÃO P/ PILARES:
 - ◻ - NASCEM.
 - ◻ - CONTINUAM.
 - - MORREM.
 - ◻ - NASCEM E MORREM NO MESMO PAVIMENTO.
- 3 - CONCRETO fck PARA ESTRUTURA ≥ 30,0 MPa.
- 4 - AS LAJES TRELIÇADAS DEVERÃO UTILIZAR COMO ENCHIMENTO EPS.
- 5 - AS DIMENSÕES DAS VIGOTAS DAS LAJES TRELIÇADAS DEVERÃO SER CONFIRMADAS COM O FORNECEDOR.
- 6 - CF = CONTRA-FLECHA, EXECUTAR NAS VIGAS QUE INDICAM SUA NECESSIDADE, CONFORME ESPECIFICADO NAS PLANTAS DE FORMA.
- 7 - AS LAJES E PAREDES DA PISCINA DEVERÃO SER OBRIGATORIAMENTE CONCRETADAS EM APENAS UMA ETAPA.

PROJETO		ESTRUTURAL		
CONTEUDO				
PLANTAS DE FORMA DOS PAVIMENTOS - PARTE 1				
AZEVEDO		Deborah Azevedo ENG. CIVIL - CREA Nº 200607/D		TELEFONE (37) 9128-4675
ESCALA INDICADA		APROV.	PROJ.	DES. Nº 3
				DATA
				COPIA
				REV.

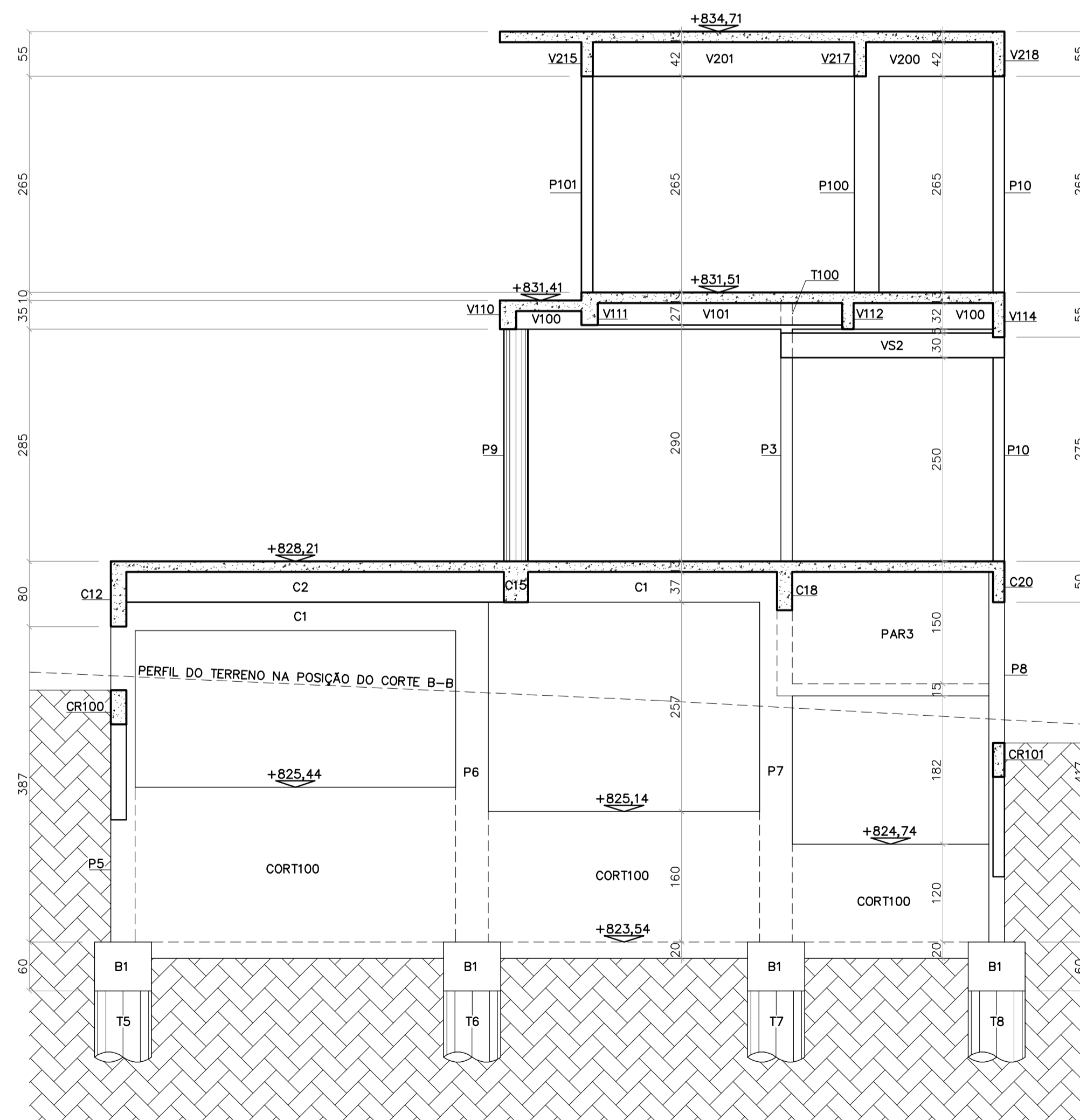


CORTE A-A
ESCALA 1:50

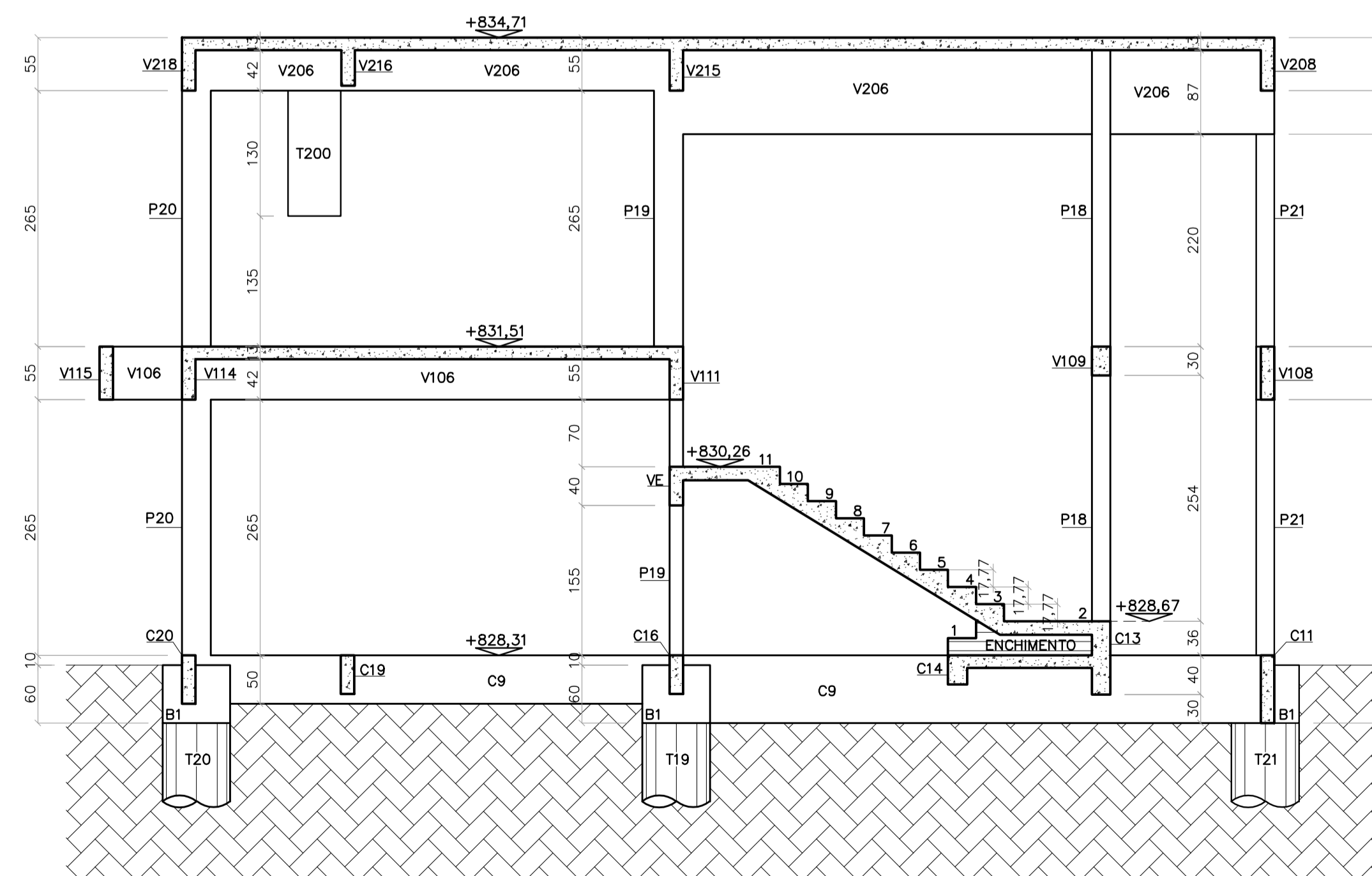


CORTE D-D
ESCALA 1:50

LAJES	CARGAS	
	PERMANENTE	ACIDENTAL
L1-L2-L5-L10	100kg/m ²	300kg/m ²
L3	405kg/m ²	200kg/m ²
L4	100kg/m ²	200kg/m ²
L6	590kg/m ²	200kg/m ²
L7	210kg/m ²	200kg/m ²
L9	270kg/m ²	200kg/m ²



CORTE B-B
ESCALA 1:50



CORTE C-C
ESCALA 1:50

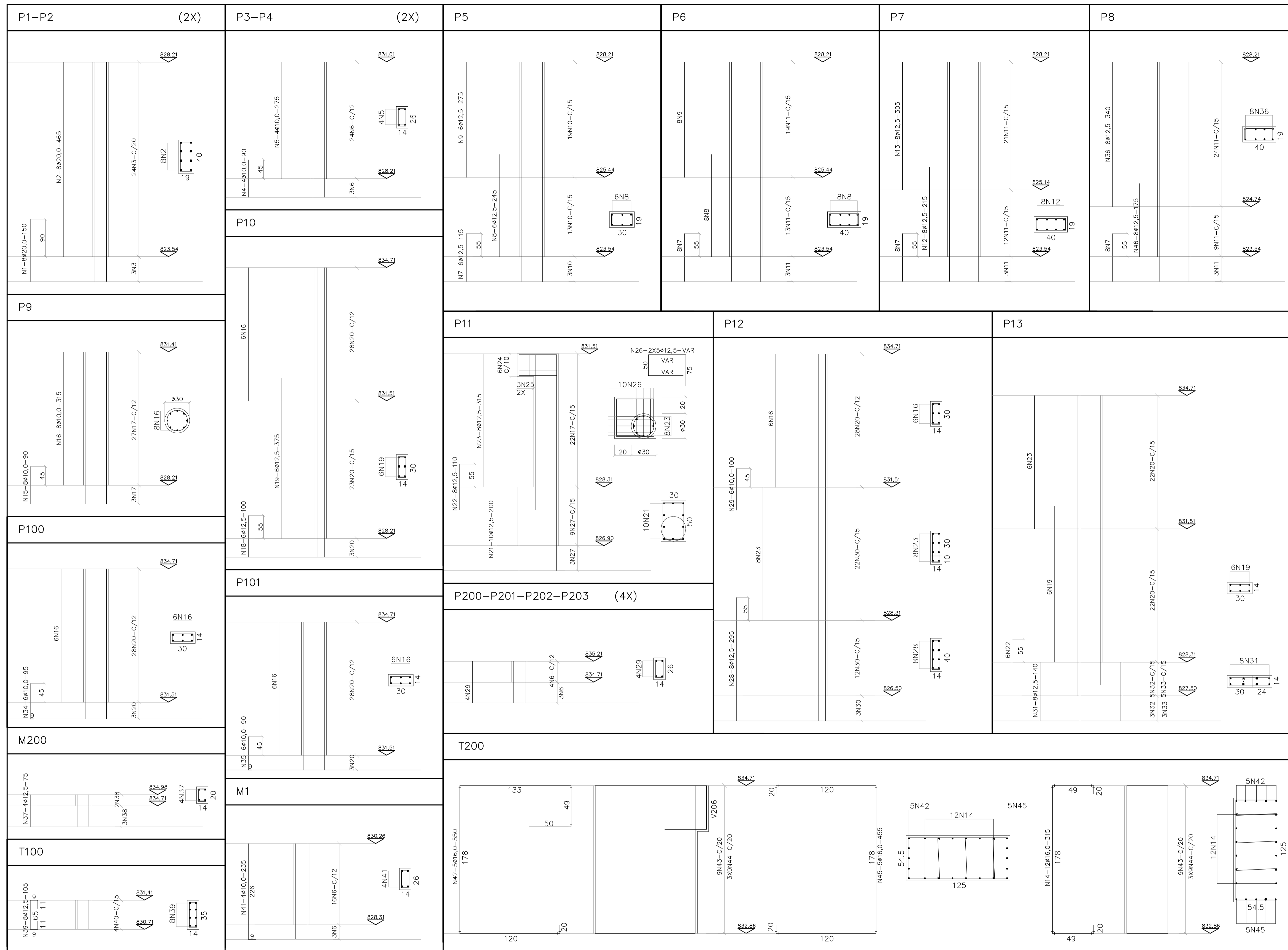
CARGAS PARA LAJES TRELIÇADAS DO CINTAMENTO 1 (SEM PESO PRÓPRIO)

LAJES	CARGAS	
	PERMANENTE	ACIDENTAL
L5-L6-L7-L8-L10	100kg/m ²	300kg/m ²
L9	505kg/m ²	200kg/m ²
L11-L12-L13	100kg/m ²	200kg/m ²
L14	500kg/m ²	200kg/m ²

NOTA:

1 - MEDIDAS EM CENTIMETROS E NÍVEIS EM METROS.

PROJETO	ESTRUTURAL			
CONTEUDO	CORTES A-A, B-B, C-C E D-D CARGAS PARA AS LAJES TRELIÇADAS DO CINTAMENTO 1 CARGAS PARA AS LAJES TRELIÇADAS DO PRIMEIRO TETO			
AZEVEDO PROJETOS	Deborah Azevedo ENG. CIVIL - CREA Nº 200607/D	TELEFONE (37) 9128-4675	DATA	
ESCALA INDICADA	APROV. PROJ.	DES. N.º 4	COPIA	REV.



LISTA DE FERROS PILARES

N	Ø	Quant.	Comprimento	
			Unit.(cm)	Total(m)
1	20,0	16	150	24
2	20,0	16	465	74
3	6,3	54	110	59
4	10,0	8	90	7
5	10,0	8	275	22
6	5,0	101	70	71
7	12,5	30	115	35
8	12,5	14	245	35
9	12,5	14	275	39
10	5,0	35	90	32
11	5,0	107	110	118
12	12,5	8	215	17
13	12,5	8	305	24
14	16,0	12	315	38
15	10,0	8	90	7
16	10,0	32	315	101
17	5,0	52	95	49
18	12,5	6	100	6
19	12,5	12	375	45
20	5,0	188	80	150
21	12,5	10	200	20
22	12,5	14	110	15
23	12,5	22	315	69
24	6,3	6	195	12
25	8,0	6	205	12
26	12,5	10	VAR	21
27	5,0	12	150	18
28	12,5	8	295	24
29	10,0	22	100	22
30	5,0	37	100	37
31	12,5	8	140	11
32	5,0	8	130	10
33	5,0	8	20	2
34	10,0	6	95	6
35	10,0	6	90	5
36	12,5	8	340	27
37	12,5	4	75	3
38	5,0	5	60	3
39	12,5	8	105	8
40	5,0	4	90	4
41	10,0	4	235	9
42	16,0	5	550	28
43	6,3	9	350	32
44	6,3	27	60	16
45	16,0	5	455	23
46	12,5	8	175	14

RESUMO DE AÇO

Ø	Comp.(m)	kg/m	Peso(kg)
5,0	493	0,154	76
6,3	119	0,245	29
8,0	12	0,395	5
10,0	180	0,617	111
12,5	413	0,963	398
16,0	88	1,578	139
20,0	98	2,466	243
Peso Total			1000

NOTAS:
 1 - MEDIDAS EM CENTÍMETROS E NÍVEIS EM METROS.
 2 - COBRIMENTO DOS FERROS: 2,5cm.

PROJETO **ESTRUTURAL**

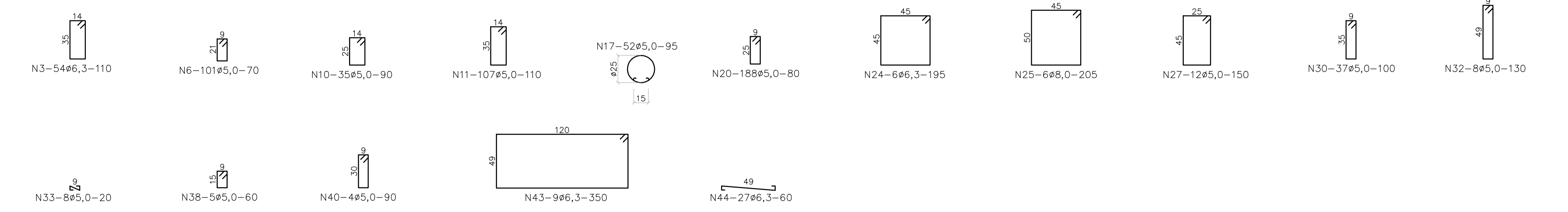
CONTEUDO **ARMAÇÃO DOS PILARES - PARTE 1**

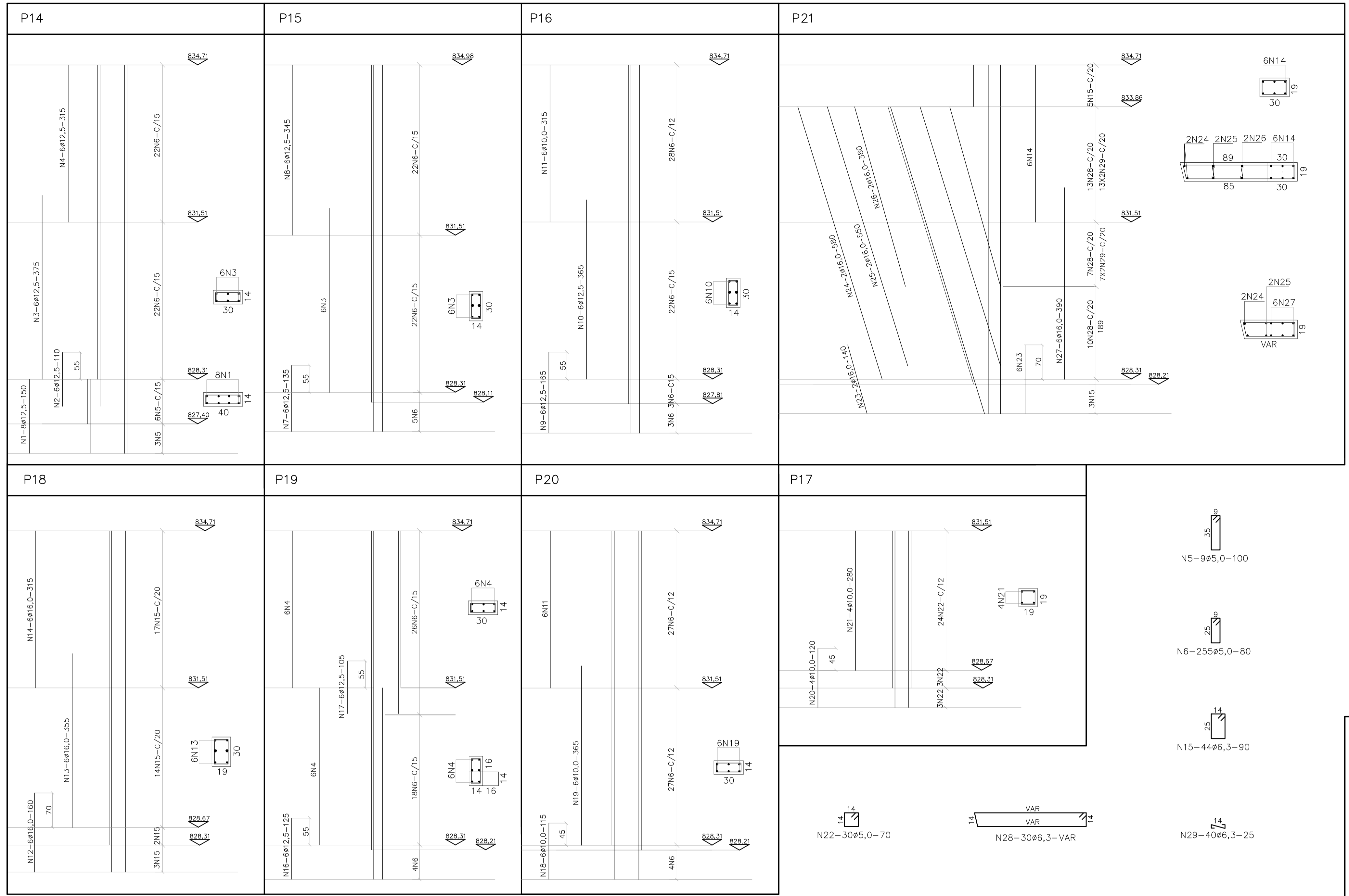
AZEVEDO PROJETO

Deborah Azevedo
 ENG. CIVIL - CREA Nº 200607/D

TELEFONE (37) 9128-4675
 DATA

ESCALA INDICADA APROV. PROJ. DES. N.º 6 COPIA REV.





LISTA DE FERROS PILARES

N	Ø	Quant.	Comprimento	
			Unit.(cm)	Total(m)
1	12,5	8	150	12
2	12,5	6	110	7
3	12,5	12	375	45
4	12,5	18	315	57
5	5,0	9	100	9
6	5,0	255	80	204
7	12,5	6	135	8
8	12,5	6	345	21
9	12,5	6	165	10
10	12,5	6	365	22
11	10,0	12	315	37
12	16,0	6	160	10
13	16,0	6	355	21
14	16,0	12	315	38
15	6,3	44	90	40
16	12,5	6	125	8
17	12,5	6	105	6
18	10,0	6	115	7
19	10,0	6	365	22
20	10,0	4	120	5
21	10,0	4	280	11
22	5,0	30	70	21
23	16,0	8	140	11
24	16,0	2	580	12
25	16,0	2	550	11
26	16,0	2	380	8
27	16,0	6	390	23
28	6,3	30	VAR	50
29	6,3	40	25	10

RESUMO DE AÇO

Ø	Comp.(m)	kg/m	Peso(kg)
5,0	234	0,154	36
6,3	50	0,245	12
10,0	83	0,617	51
12,5	195	0,963	188
16,0	134	1,578	211
Peso Total			498

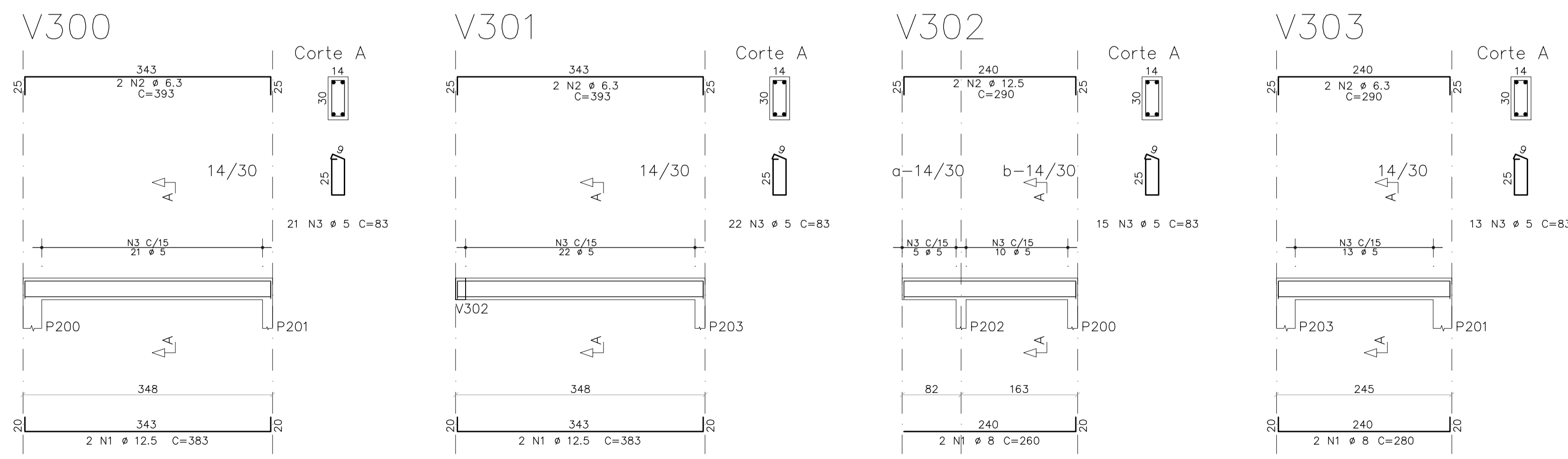
RESUMO DE AÇO C.A.s

Diâmetro (mm)	Comp.(m)	Peso(kg)	
		kgf/m	Total(kgf)
5,0	34	0,154	5
8,0	45	0,395	18
Peso Total		=	23 kgf

ARMADURA DAS C.A.s
ESC. 1:10

AÇO	POS	BIT	QUANT	COMPRIMENTO	UNIT	TOTAL
				mm	cm	cm
V300						
50A	1	12,5	2	383	766	
50A	2	6,3	2	393	786	
60A	3	5	21	83	1743	
V301						
50A	1	12,5	2	383	766	
50A	2	6,3	2	393	786	
60A	3	5	22	83	1826	
V302						
50A	1	8	2	260	520	
50A	2	12,5	2	290	580	
60A	3	5	15	83	1245	
V303						
50A	1	8	2	280	560	
50A	2	6,3	2	290	580	
60A	3	5	13	83	1079	

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
60A	4	59	9
50A	6,3	22	5
50A	8	11	4
50A	12,5	21	20
Peso Total 60A =			9 kgf
Peso Total 50A =			30 kgf



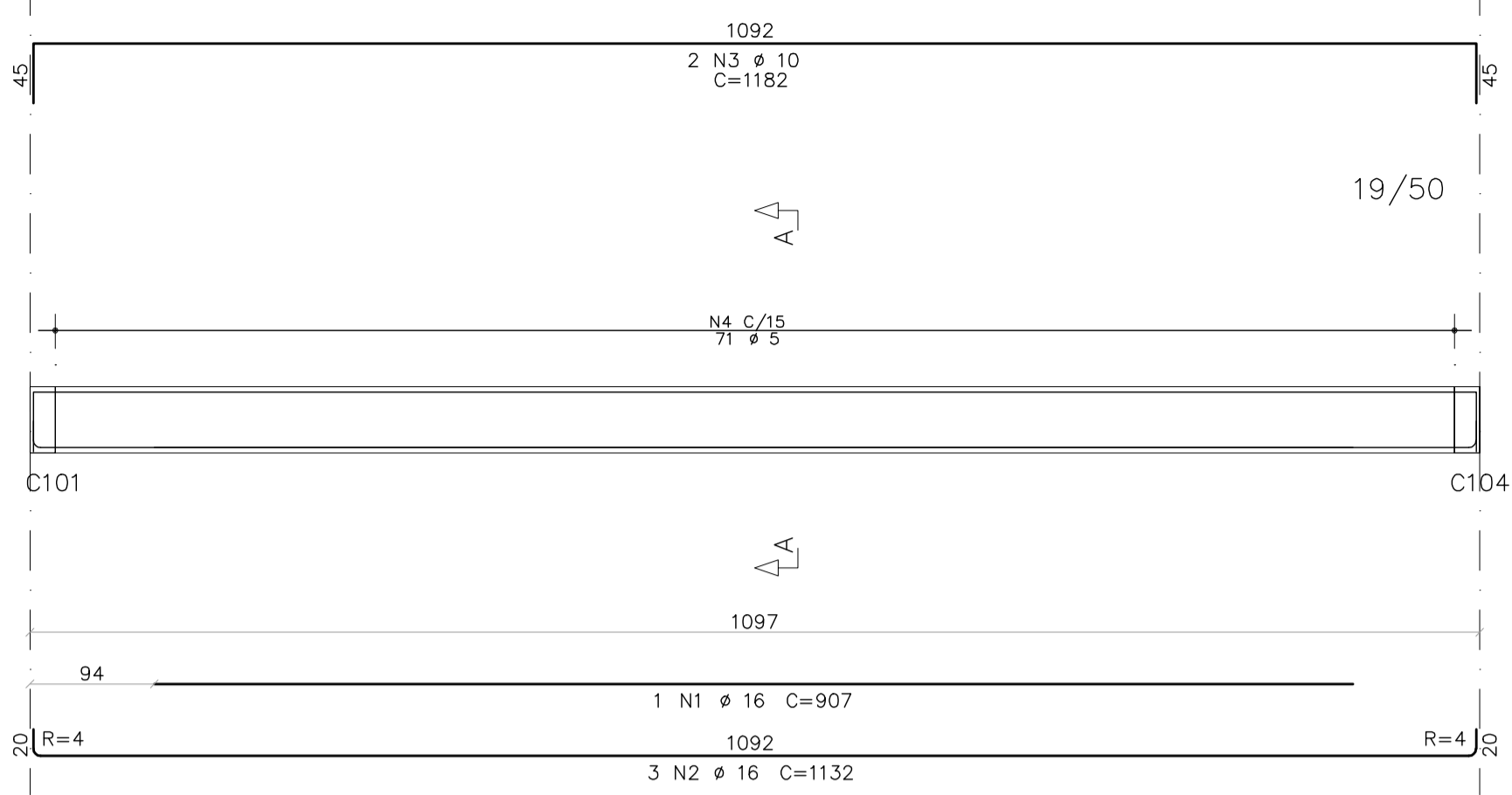
NOTAS:
 1 - MEDIDAS EM CENTÍMETROS E NÍVEIS EM METROS.
 2 - COBRIMENTO DOS FERROS: 2,5cm.

PROJETO ESTRUTURAL

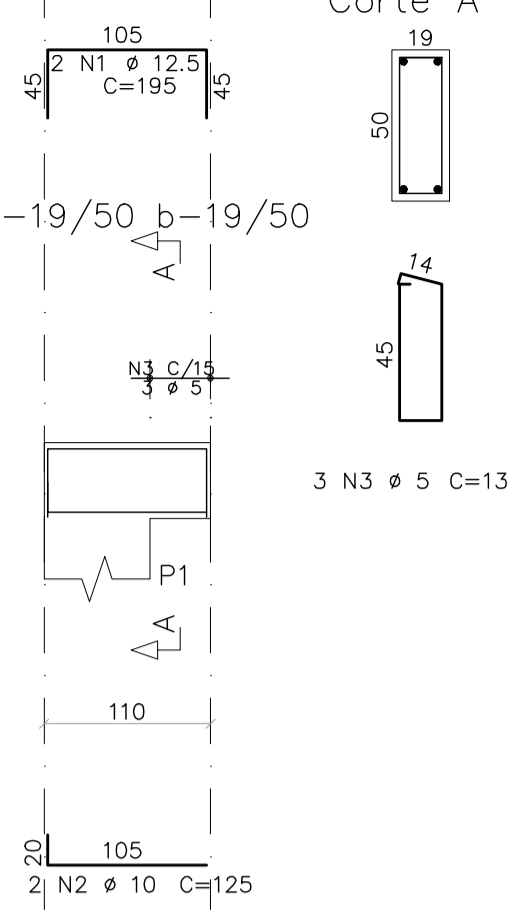
CONTEUDO
 ARMAÇÃO DOS PILARES - PARTE 2
 ARMAÇÃO DAS VIGAS DO TERCEIRO TETO
 ARMAÇÃO DAS C.A.s DA TAMPA DA CAIXA D'ÁGUA

AZEVEDO PROJETOS	Deborah Azevedo ENGR. CIVIL - CREA Nº 200607/D	TELEFONE (37) 9128-4675 DATA
ESCALA INDICADA	APROV. PROJ.	DES. N° 7
		COPIA REV.

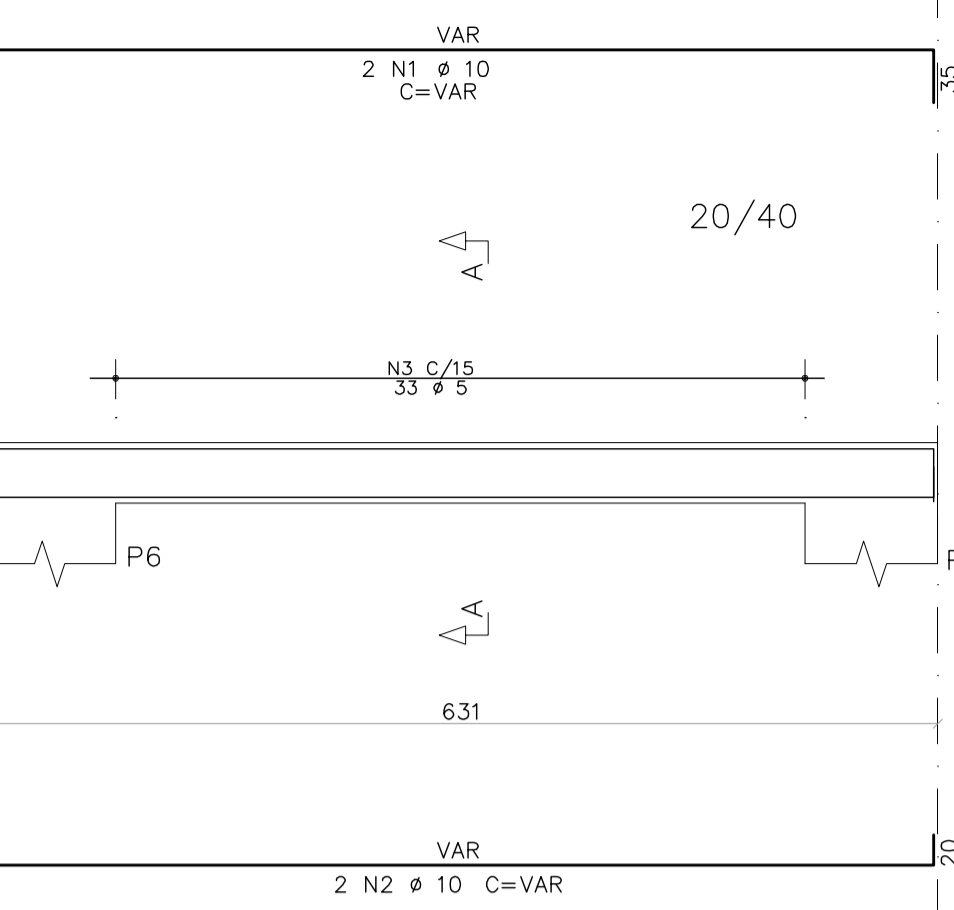
C100



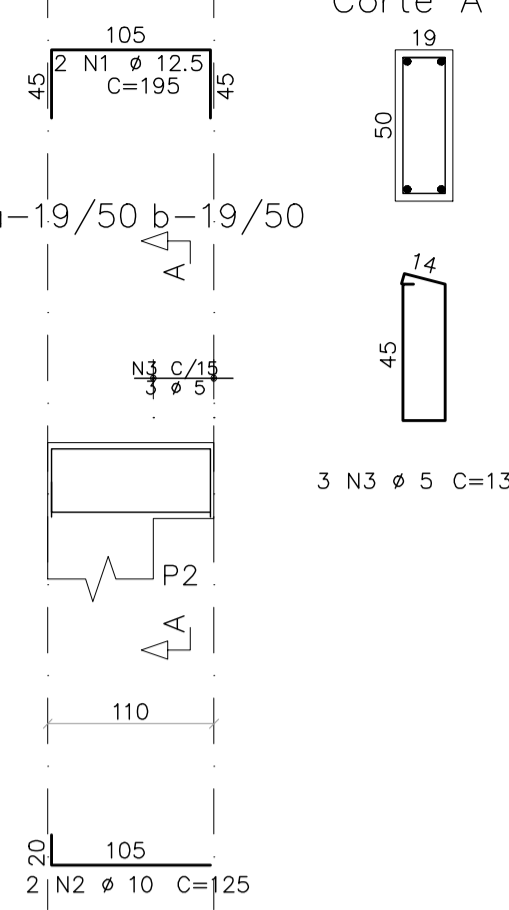
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C102

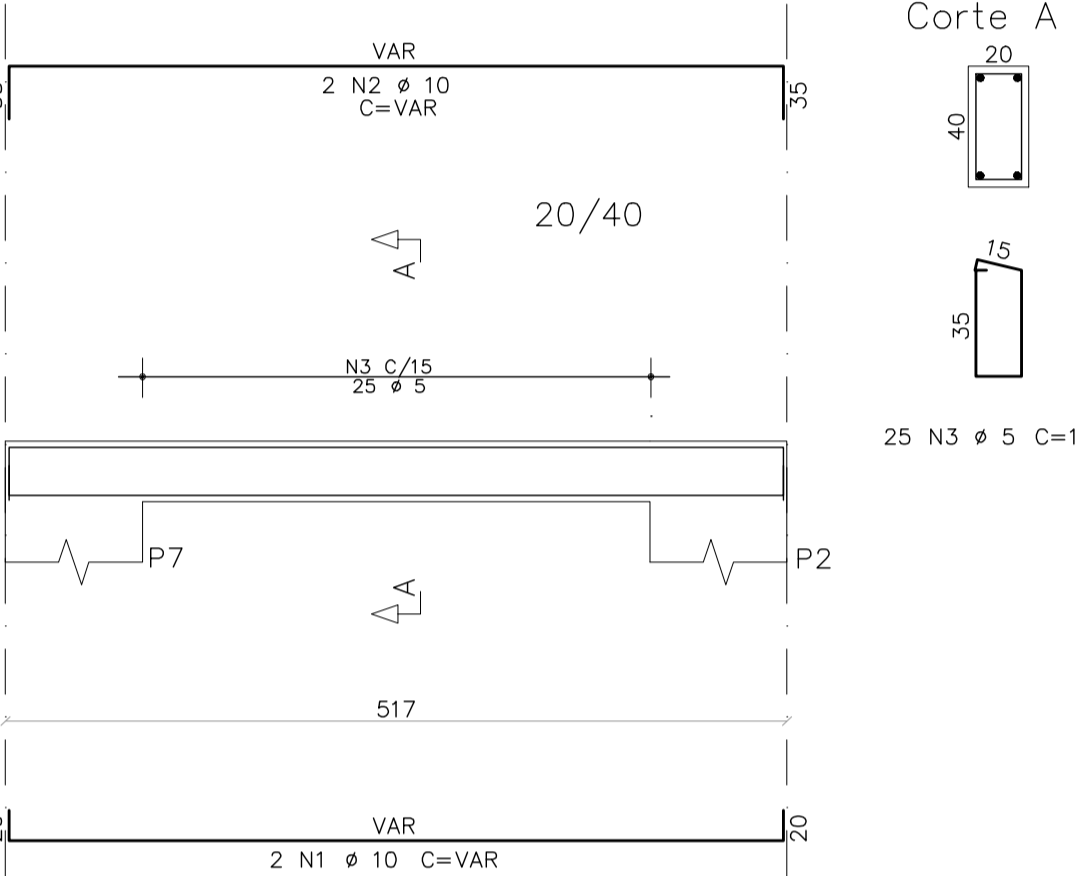


C104

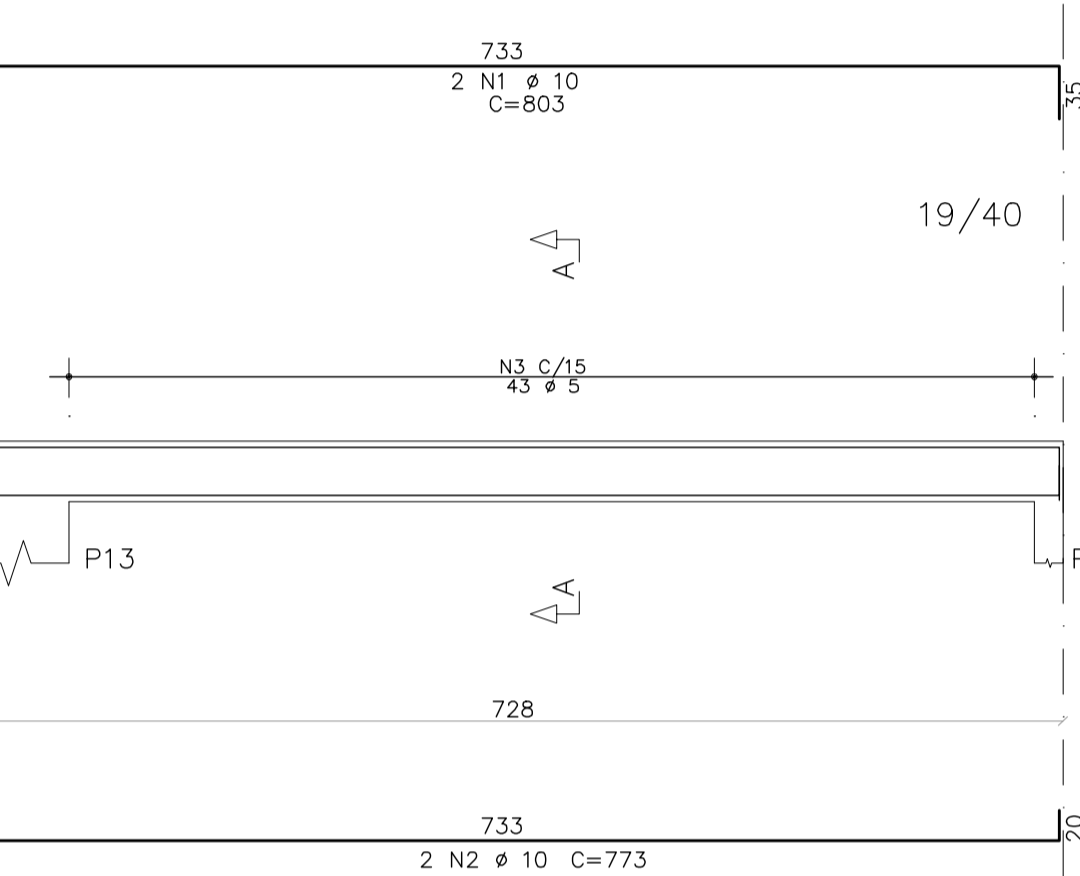


AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
C100	50A	1	16	1	907
	50A	2	16	3	1132
	50A	3	10	2	1182
	60A	4	5	71	133
C101	50A	1	12.5	2	195
	50A	2	10	2	125
	60A	3	5	3	133
C102	50A	1	10	2	VAR
	50A	2	10	2	VAR
	60A	3	5	33	115
C103	50A	1	10	2	VAR
	50A	2	10	2	VAR
	60A	3	5	25	115
C104	50A	1	12.5	2	195
	50A	2	10	2	125
	60A	3	5	3	133
CR100	50A	1	10	2	803
	50A	2	10	2	773
	60A	3	5	43	113
CR101	50A	1	8	2	447
	50A	2	8	2	600
	50A	3	10	2	410
	50A	4	8	2	515
	50A	5	8	2	383
	60A	6	5	59	103

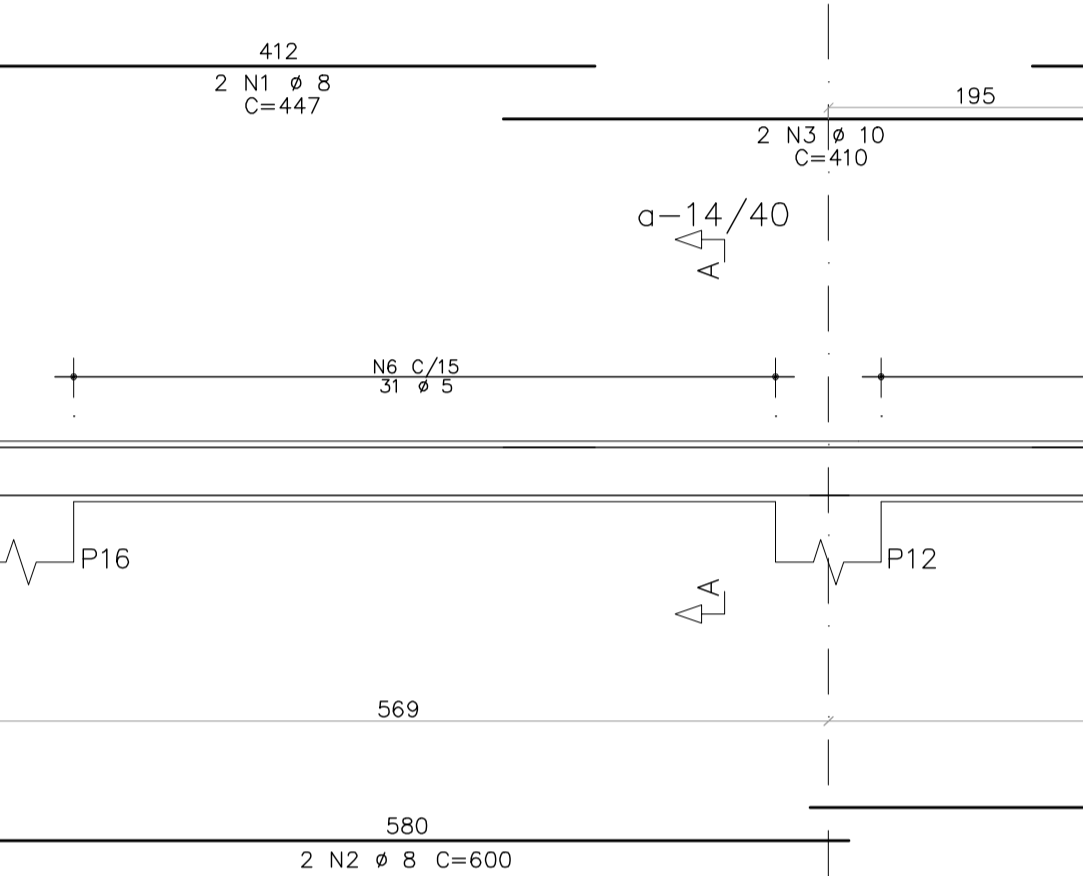
C103



CR100

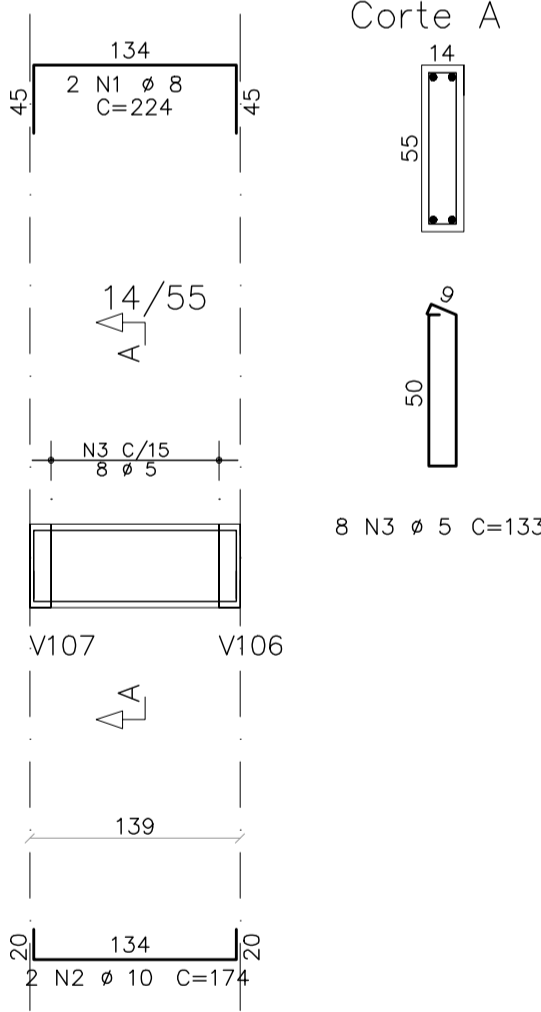


CR101

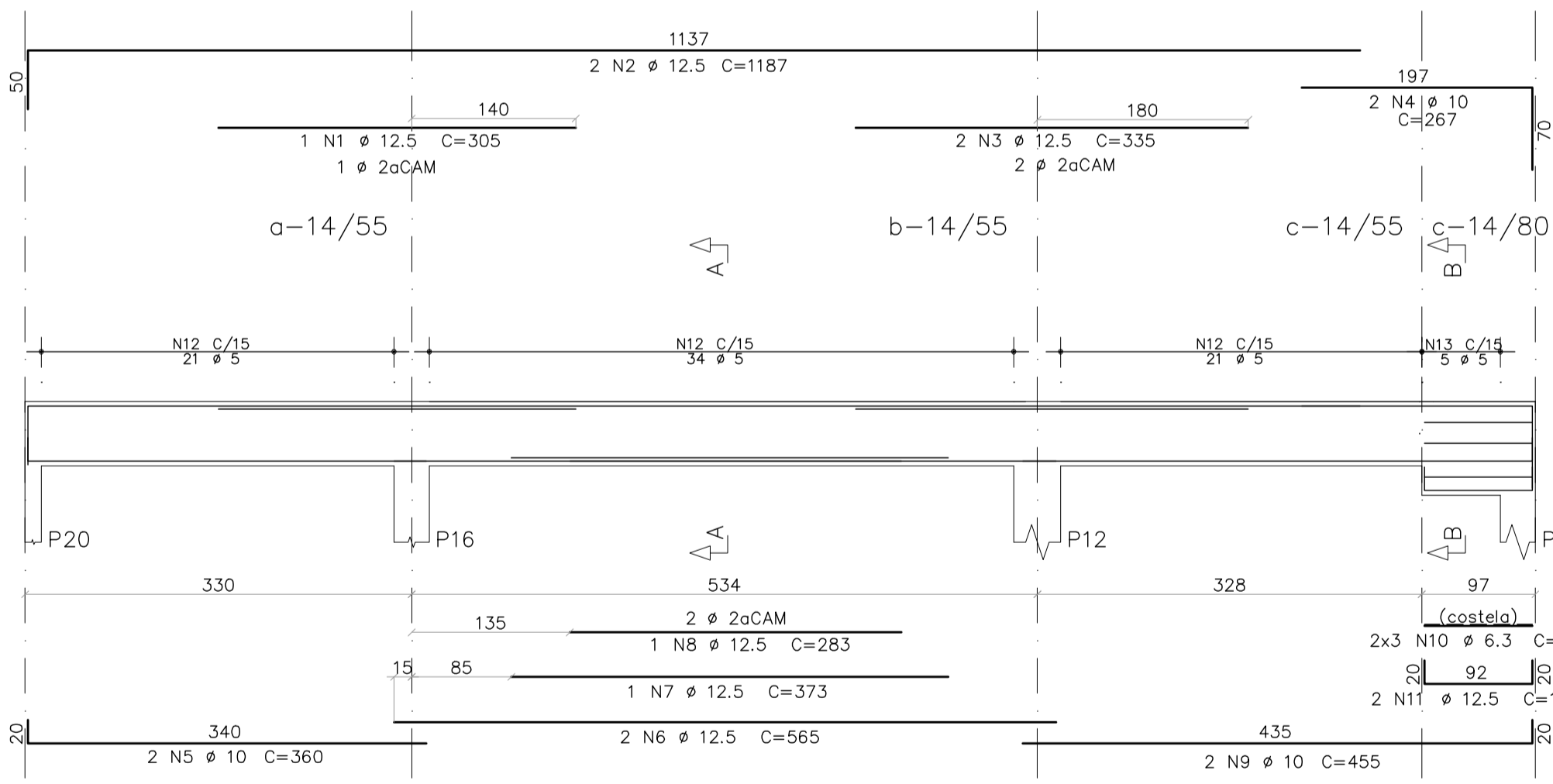


RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	278	43
50A	8	39	15
50A	10	118	73
50A	12.5	8	8
50A	16	43	68
Peso Total 60A =			43 kgf
Peso Total 50A =			164 kgf

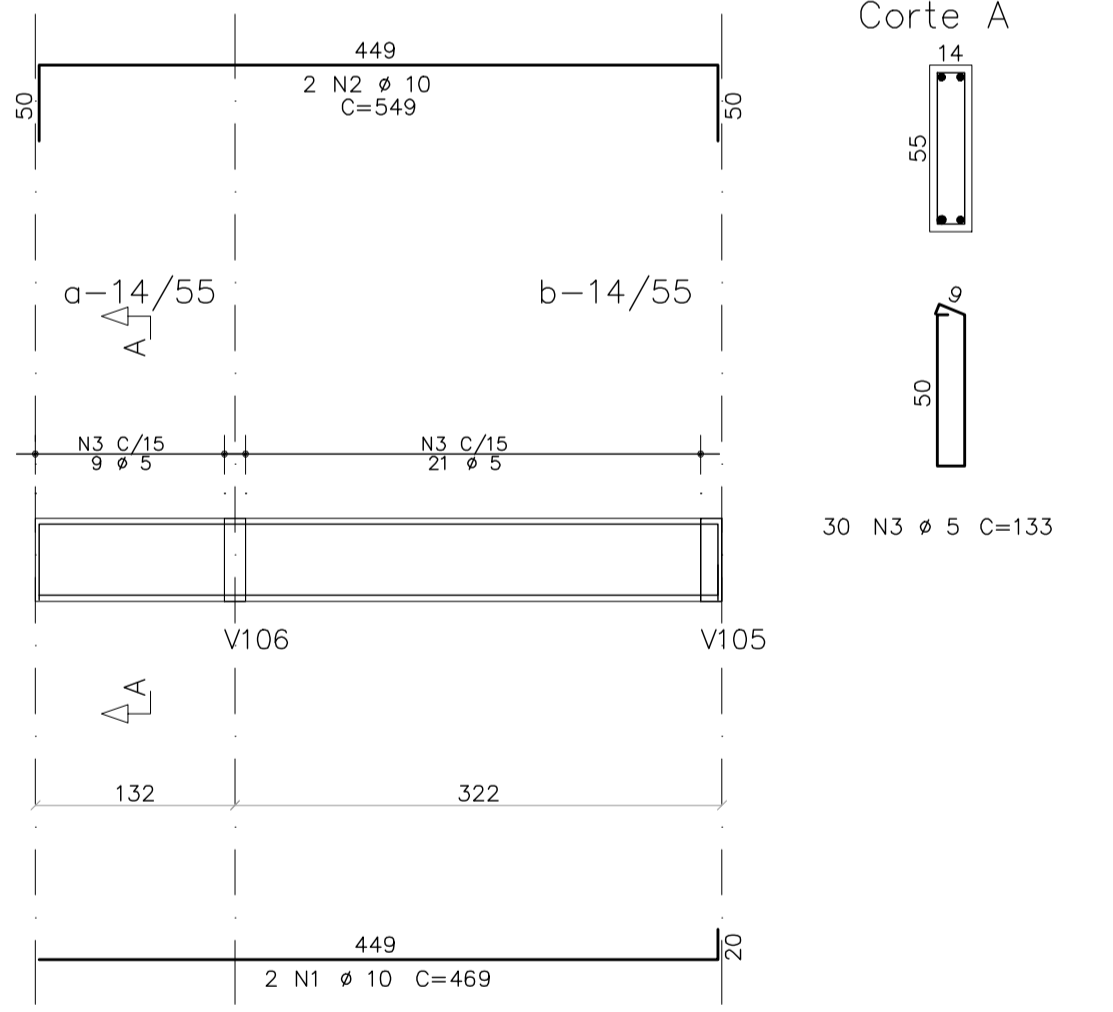
V113



V114



V115

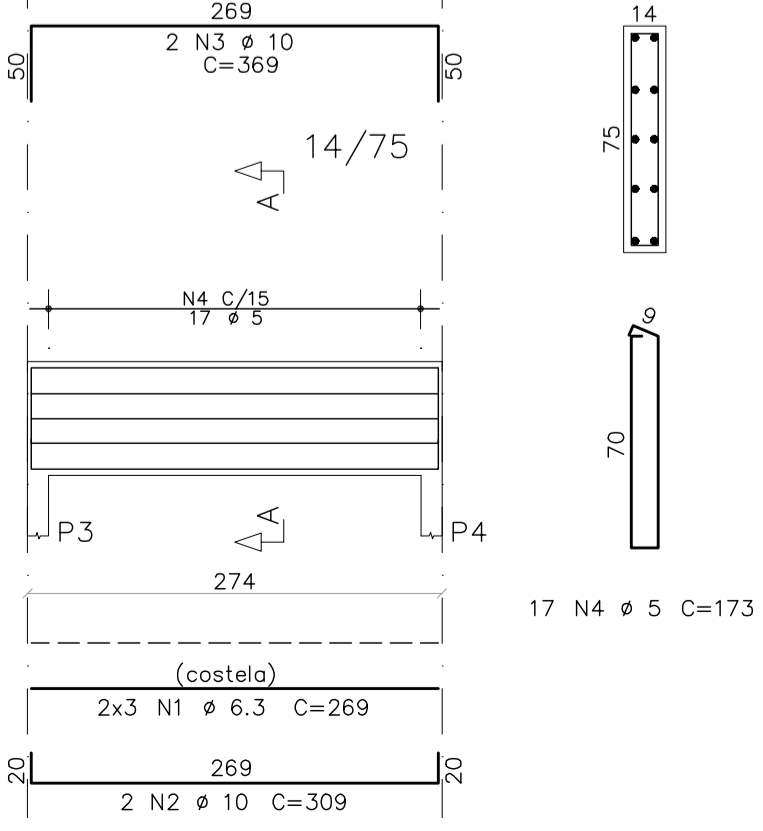


AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
		mm		cm	cm
V113	50A	1	8	2	224
	50A	2	10	2	174
	60A	3	5	8	133
V114	50A	1	12.5	1	305
	50A	2	12.5	2	1187
	50A	3	12.5	2	335
	50A	4	10	2	267
	50A	5	10	2	360
	50A	6	12.5	2	565
	50A	7	12.5	1	373
	50A	8	12.5	1	283
	50A	9	10	2	455
	50A	10	6.3	6	92
	50A	11	12.5	2	132
	60A	12	5	76	133
	60A	13	5	5	183
V115	50A	1	10	2	469
	50A	2	10	2	549
	60A	3	5	30	133

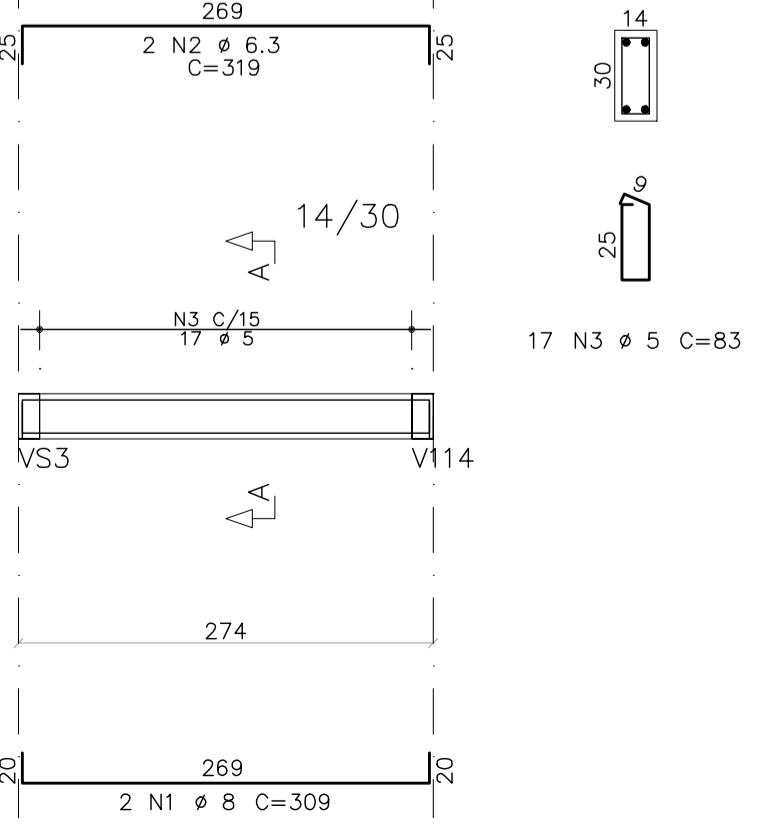
RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
		m	kgf
60A	5	161	25
50A	6.3	6	1
50A	8	4	2
50A	10	45	28
50A	12.5	54	52
Peso Total 60A =			25 kgf
Peso Total 50A =			83 kgf

AÇO	POS	BIT	QUANT	COMPRIMENTO	
		mm		UNIT	TOTAL
				cm	cm
VS1	50A	1	6.3	6	269
	50A	2	10	2	309
	50A	3	10	2	369
	60A	4	5	17	173
VS2	50A	1	8	2	309
	50A	2	6.3	2	319
	60A	3	5	17	83
VS3	50A	1	10	2	299
	50A	2	8	2	269
	60A	3	5	14	83
VS4	50A	1	8	2	203
	50A	2	6.3	2	213
	60A	3	5	9	83

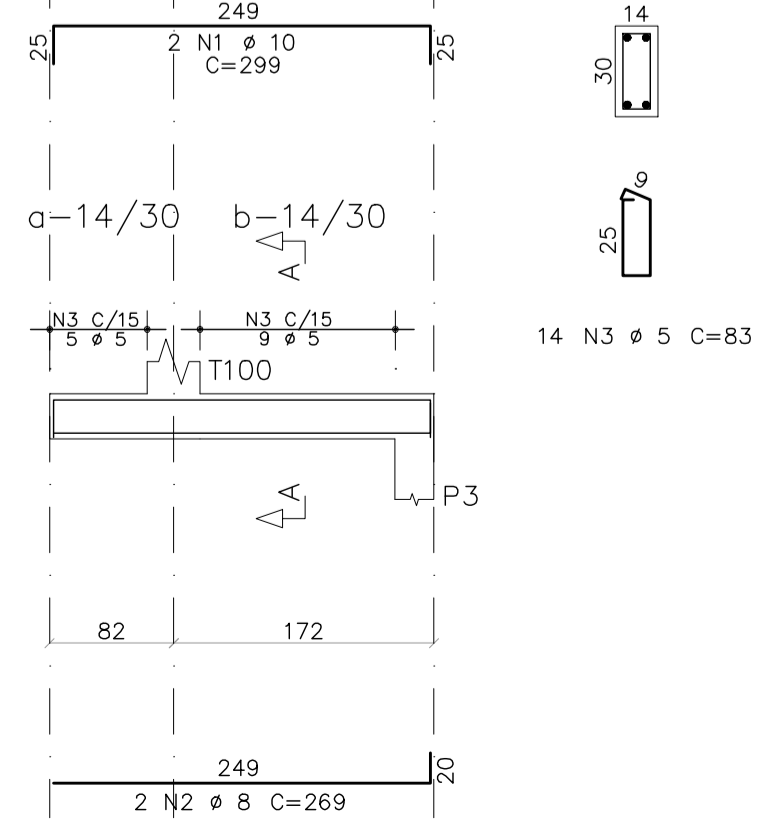
VS1



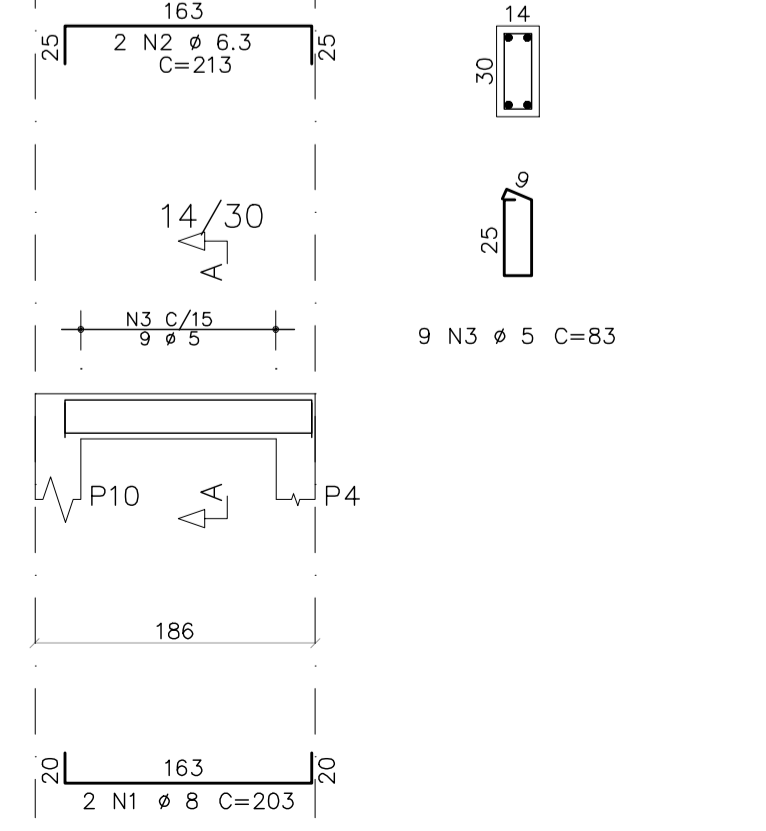
VS2



VS3



VS4



NOTAS:

- 1 - MEDIDAS EM CENTIMETROS E NIVEIS EM METROS.
- 2 - COBRIMENTO DOS FERROS: 2,5cm.

PROJETO: **ESTRUTURAL**

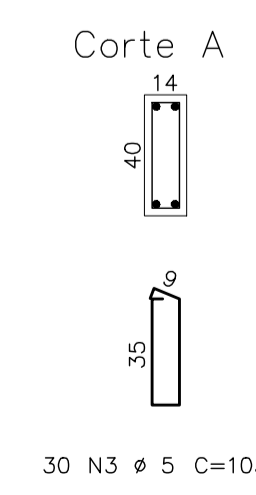
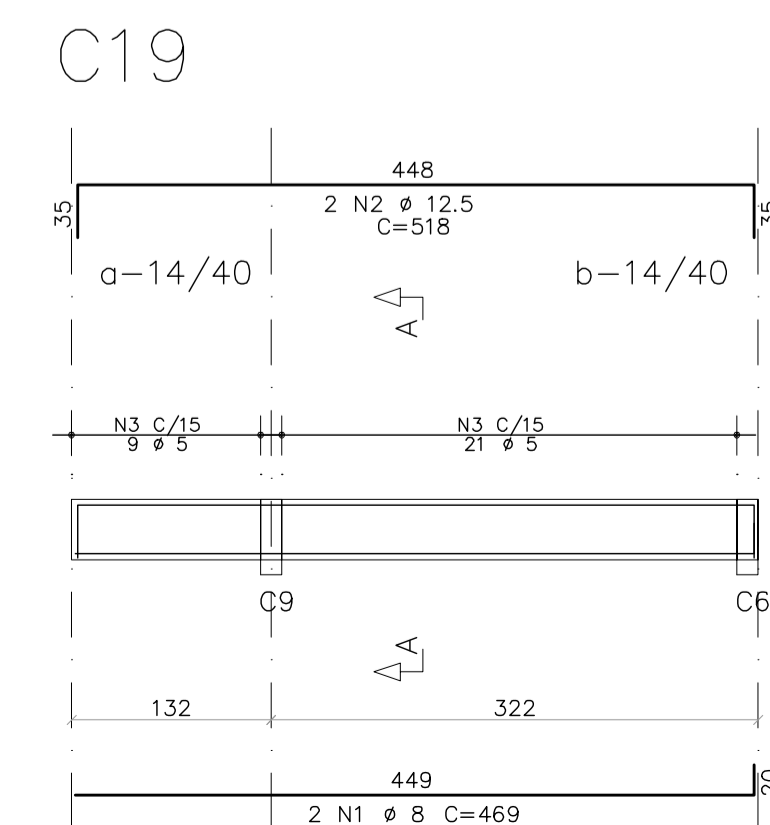
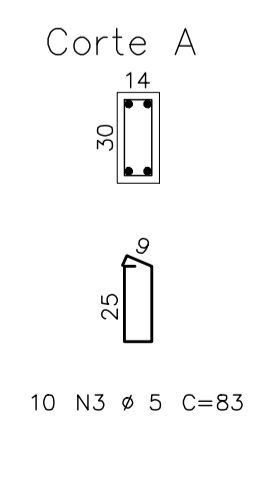
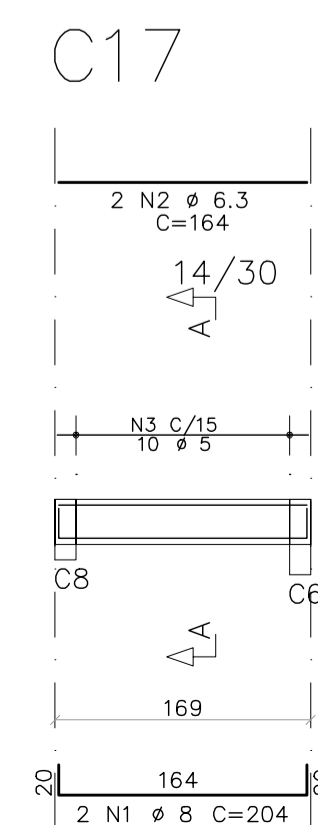
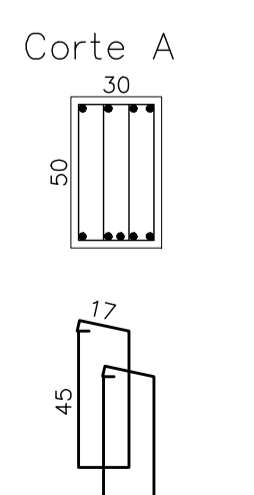
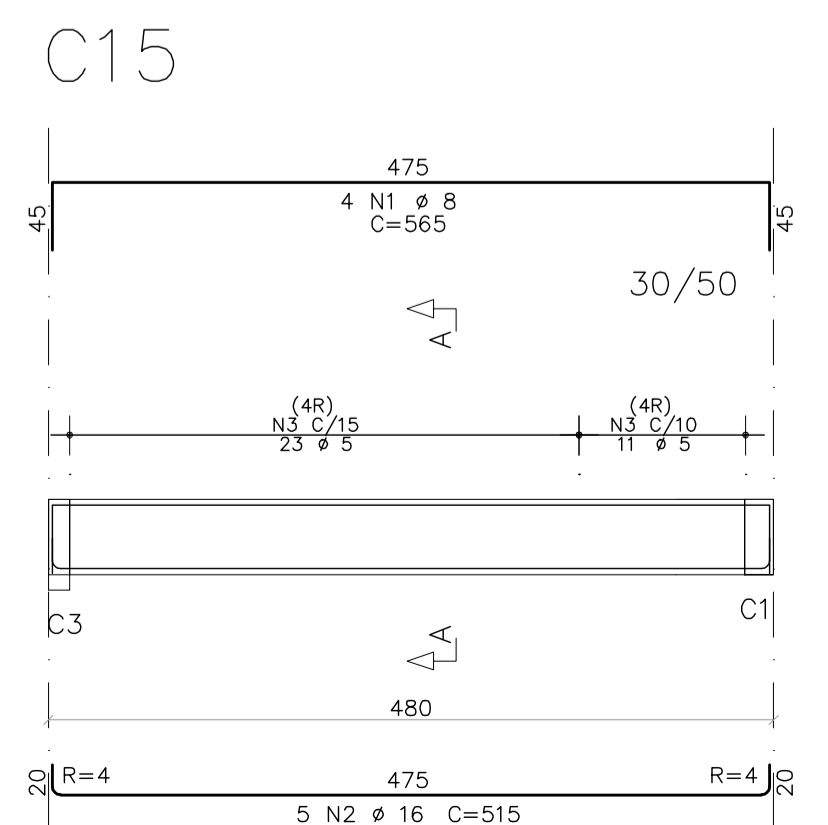
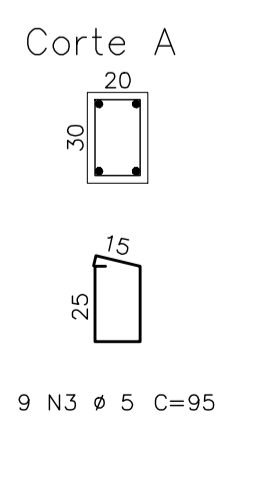
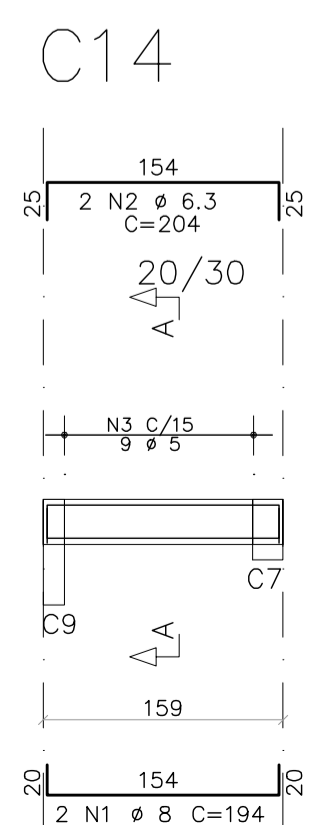
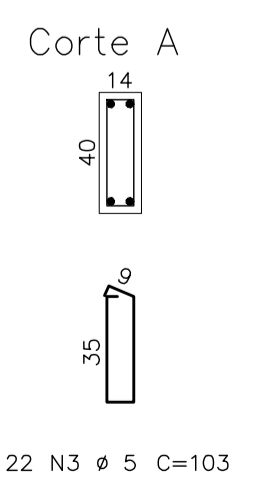
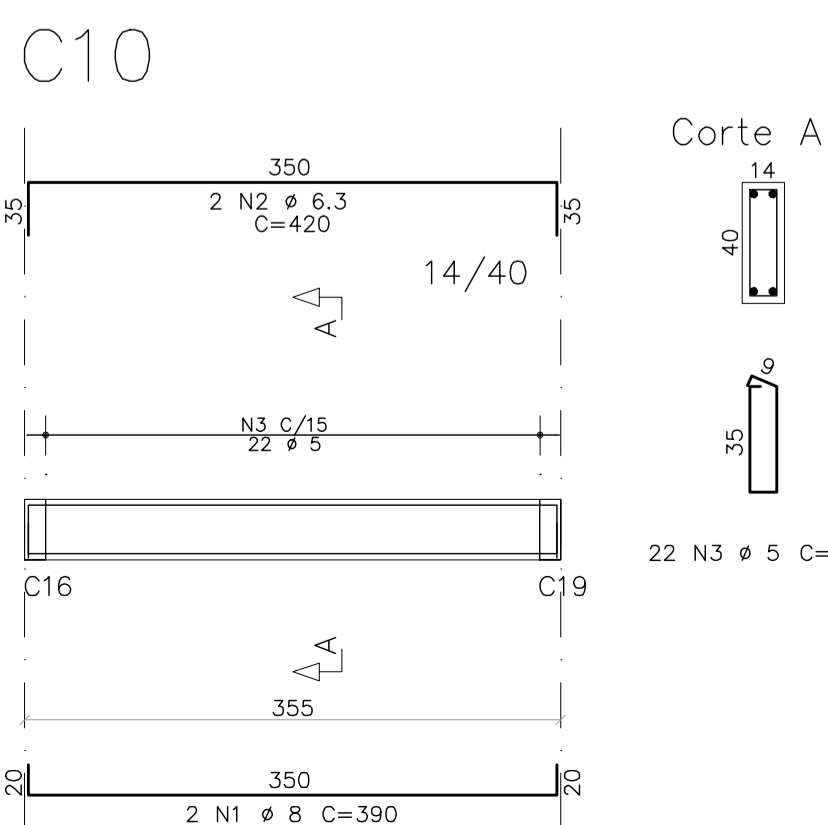
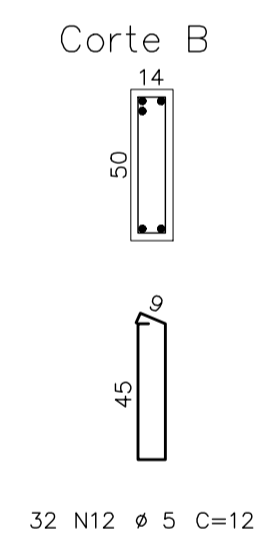
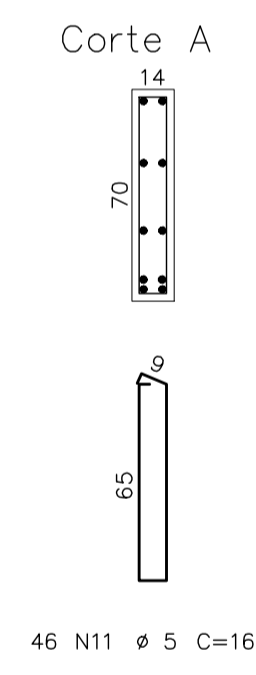
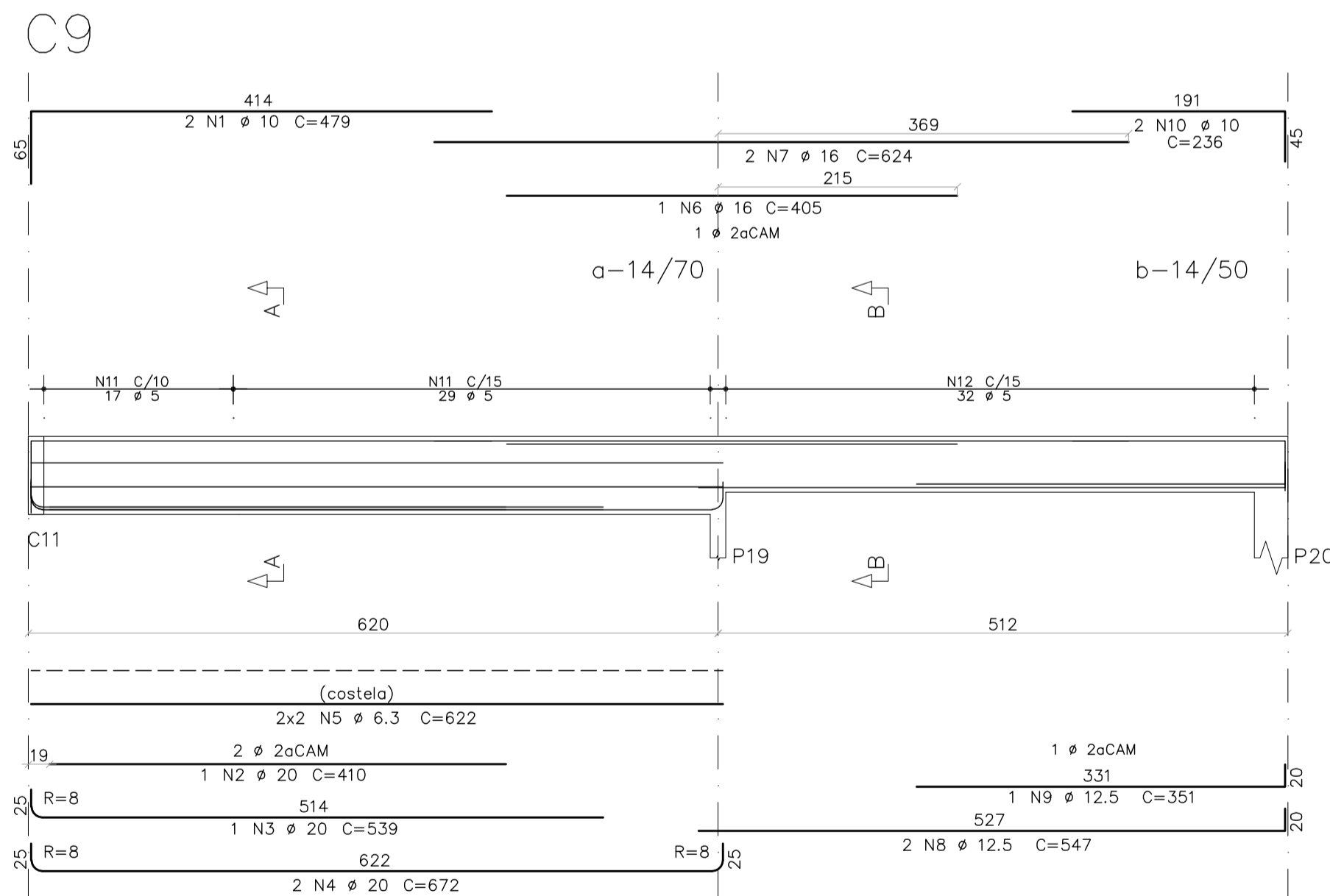
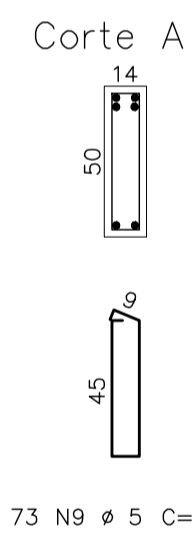
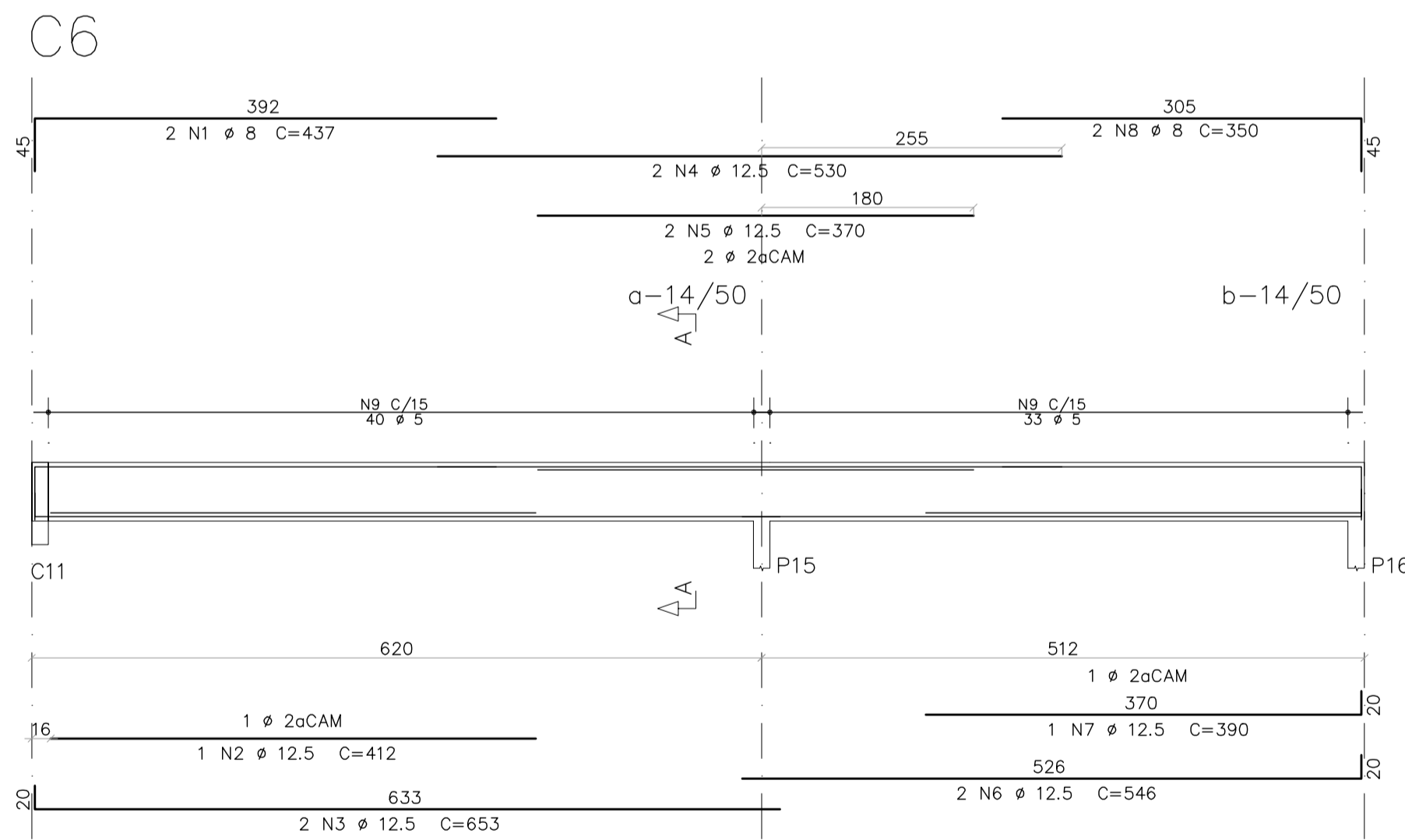
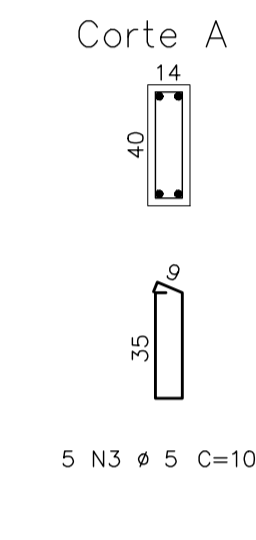
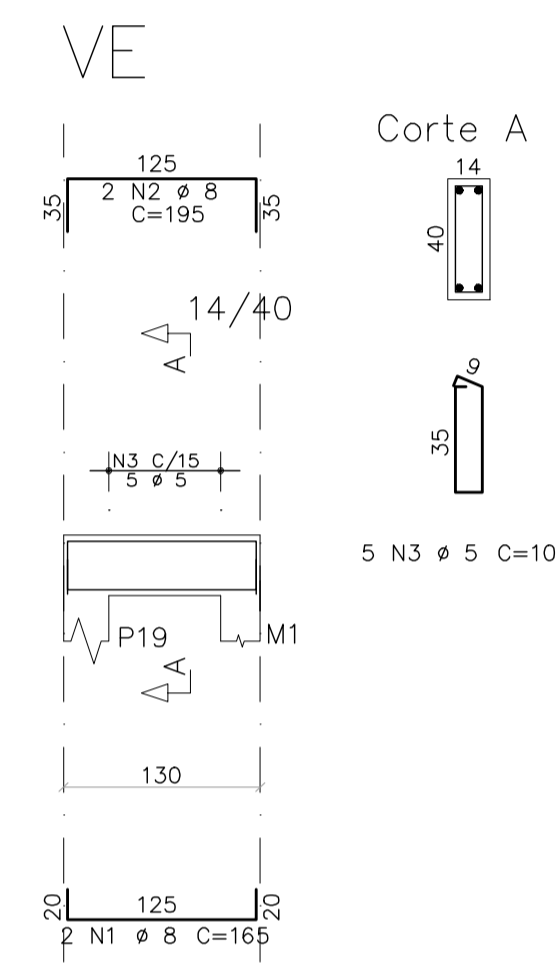
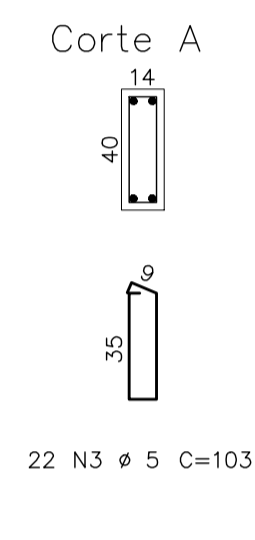
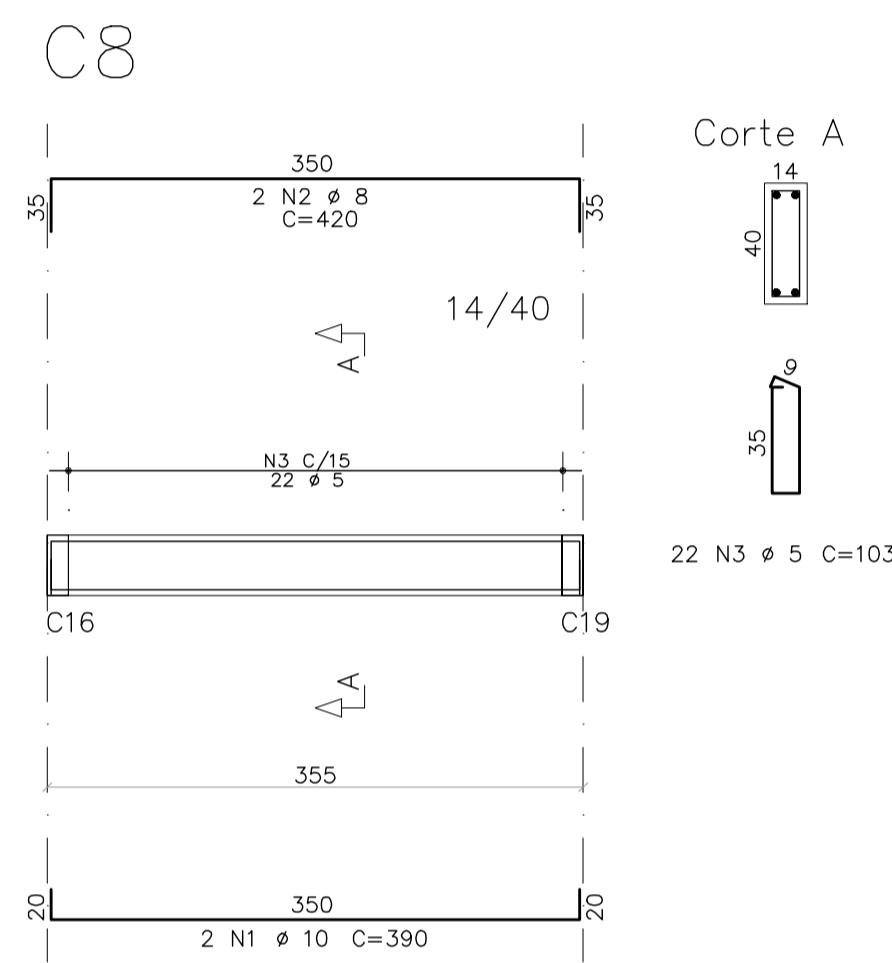
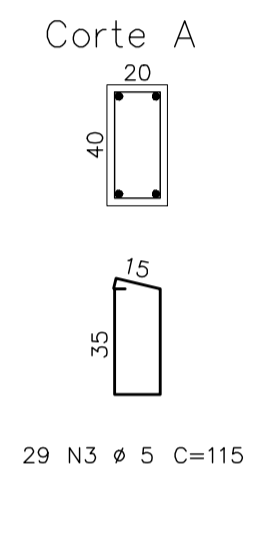
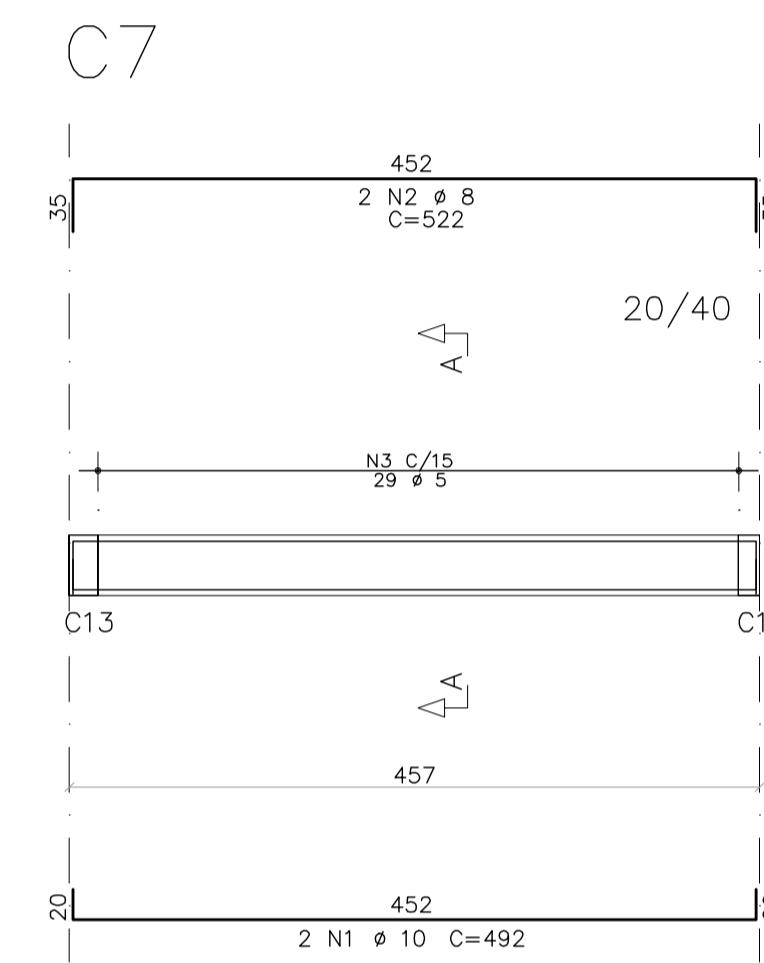
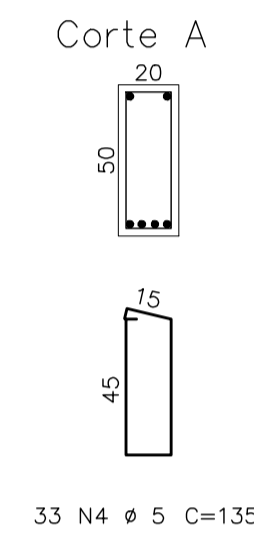
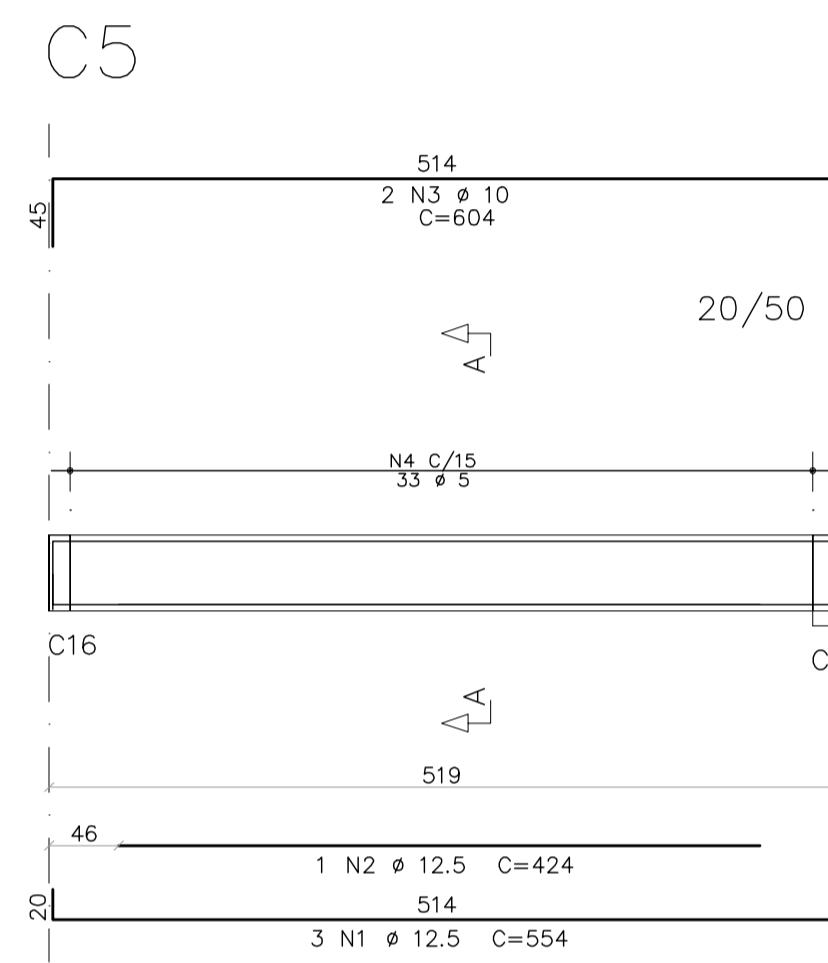
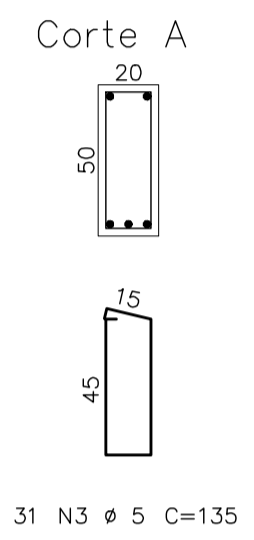
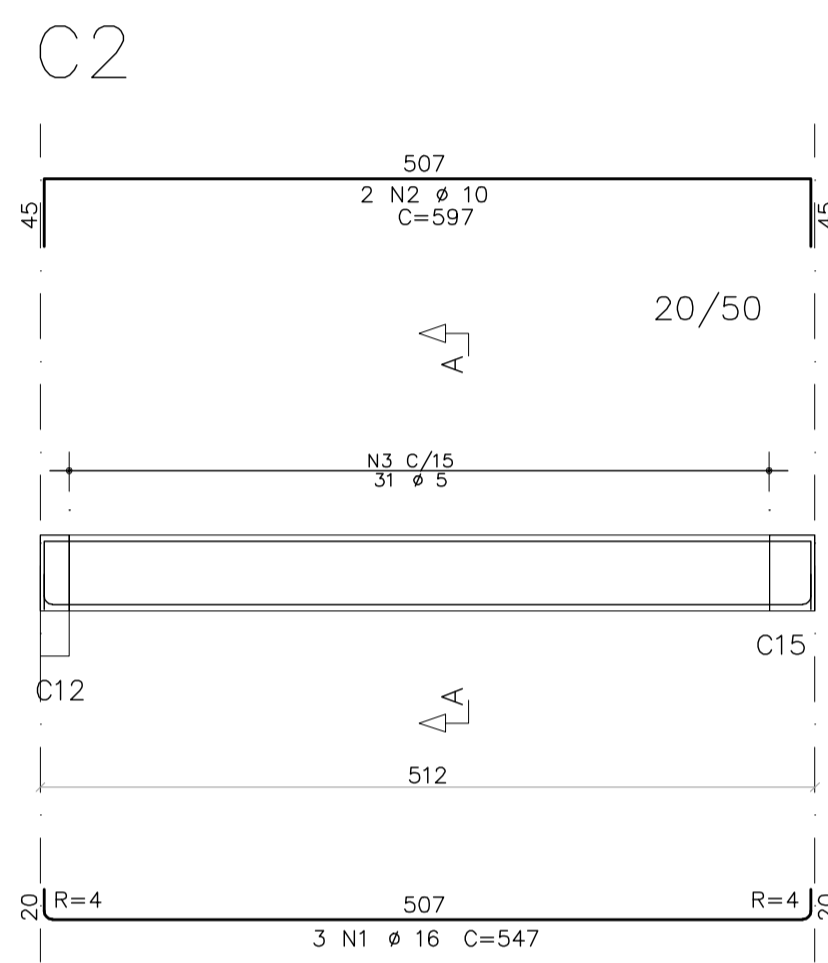
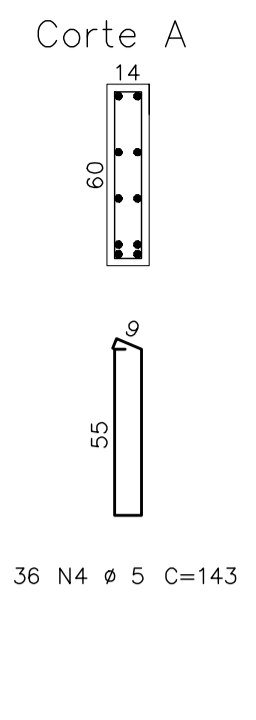
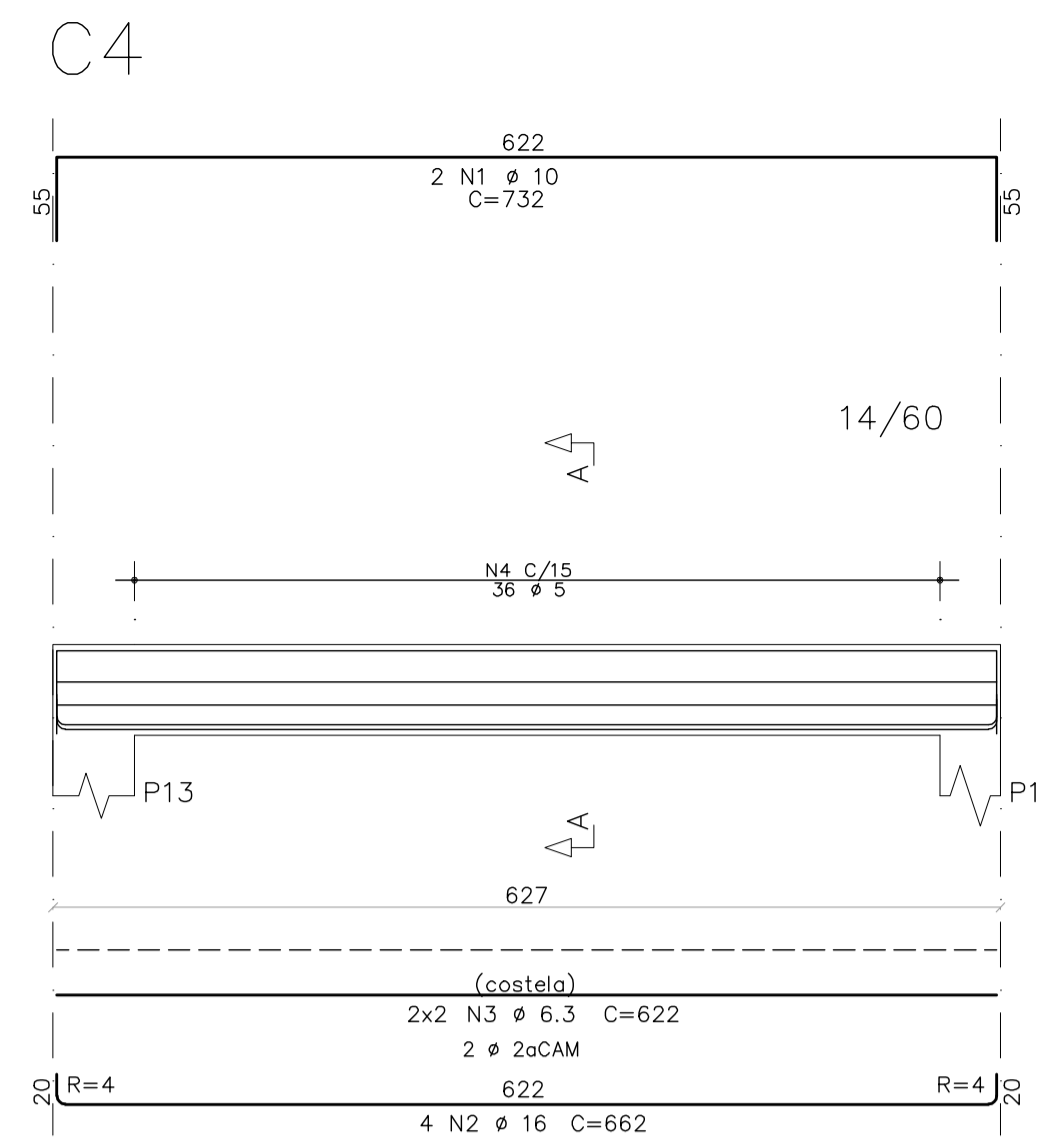
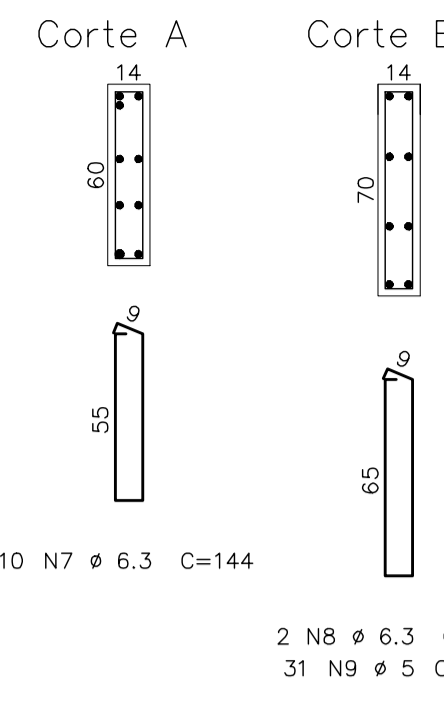
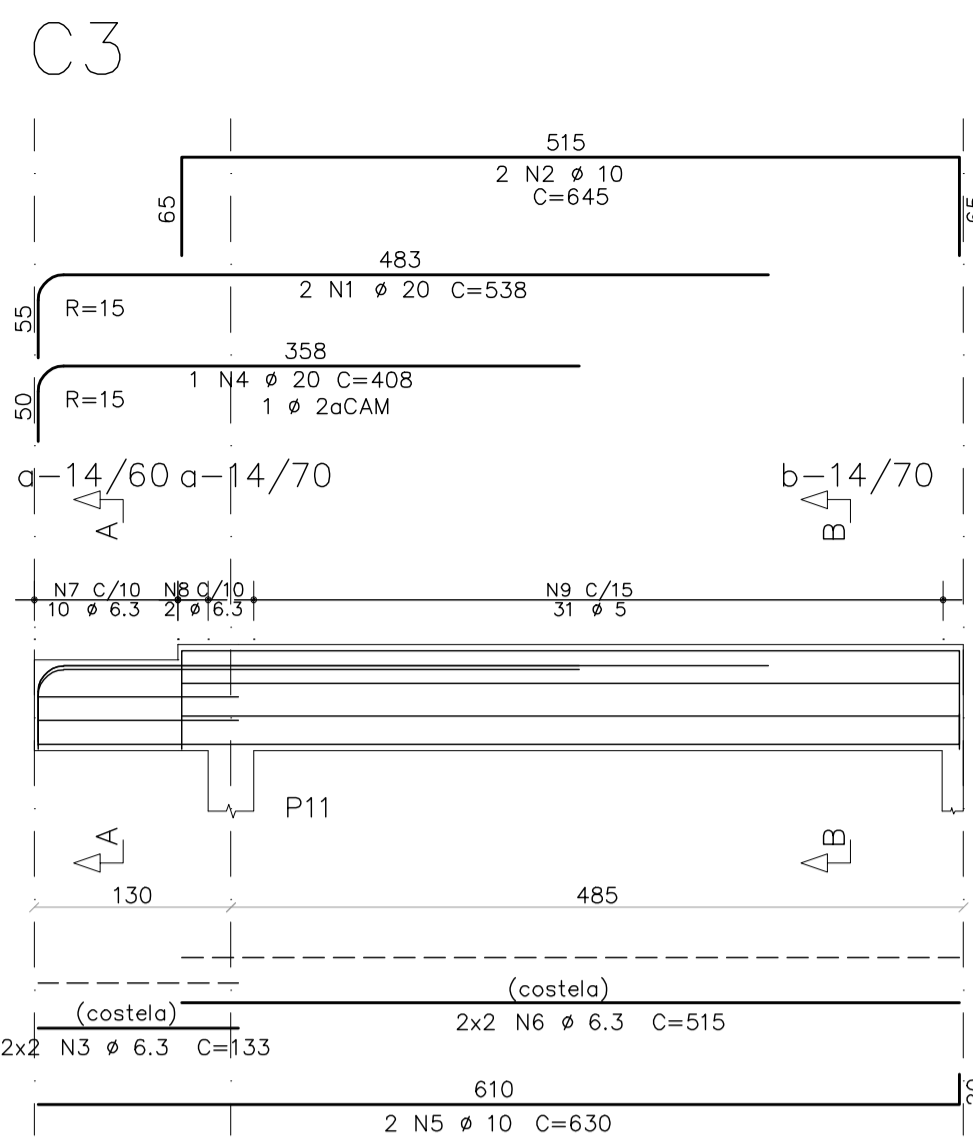
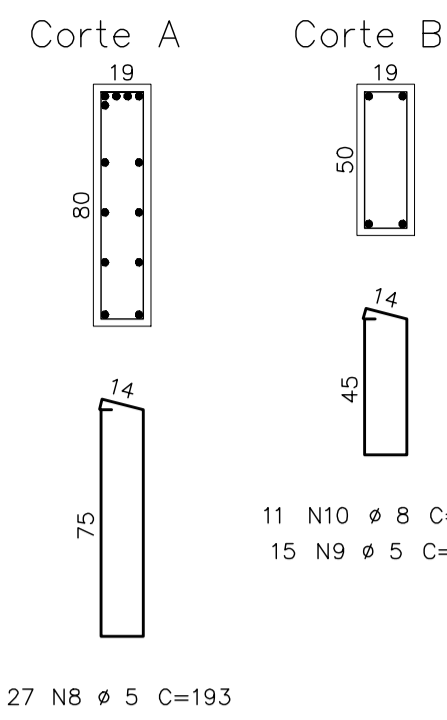
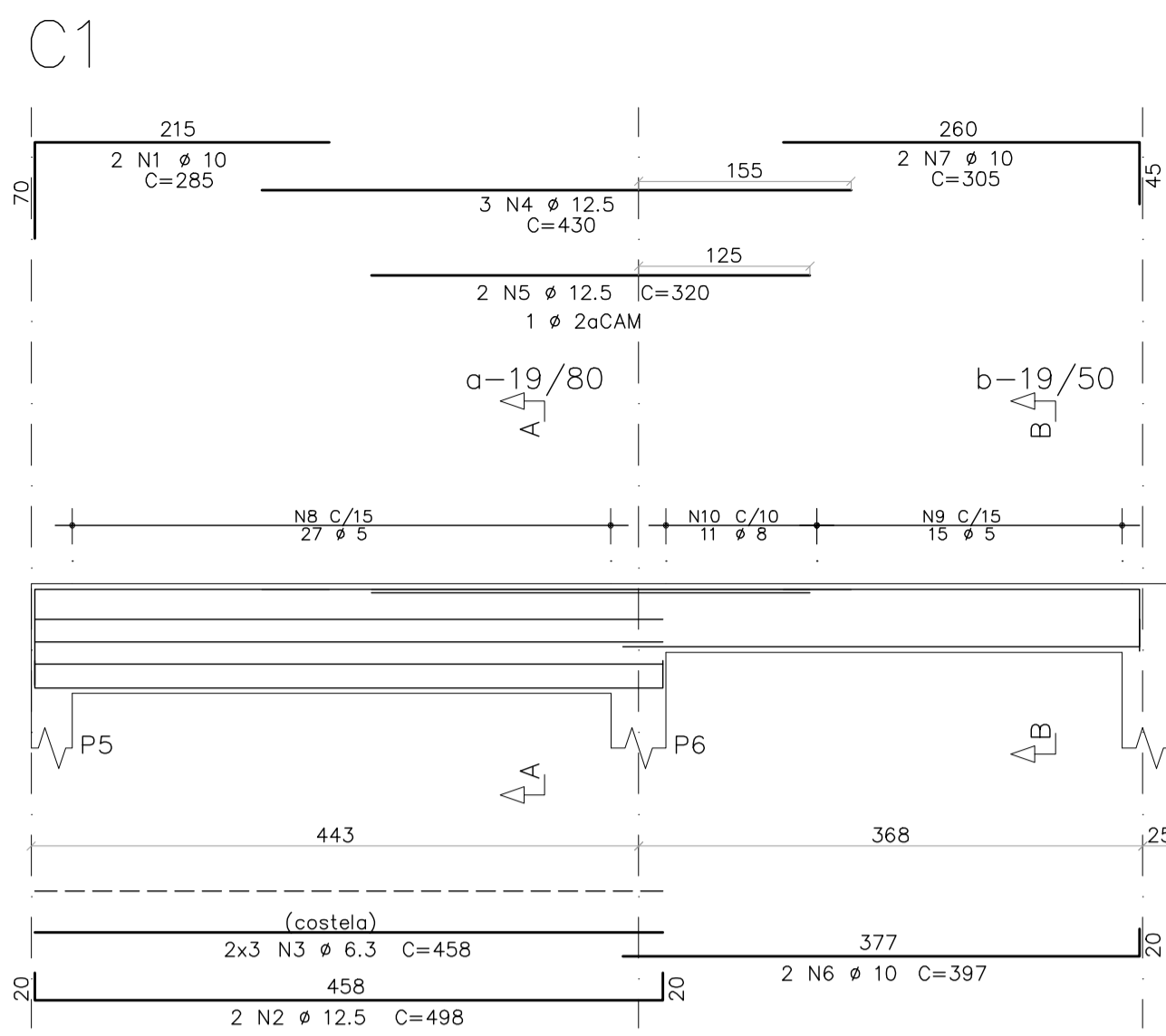
CONTEUDO: **ARMAÇÃO CINTAS DO CINTAMENTO 100**
ARMAÇÃO DAS VIGAS DO PRIMEIRO TETO - PARTE 1
ARMAÇÃO DAS VIGAS DA SAUNA

AZEVEDO PROJETOS

Deborah Azevedo
 ENG. CIVIL - CREA Nº 200607/D

TELEFONE (37) 9128-4675
 DATA

ESCALA INDICADA APROV. PROJ. DES. N° 8 COPIA REV.



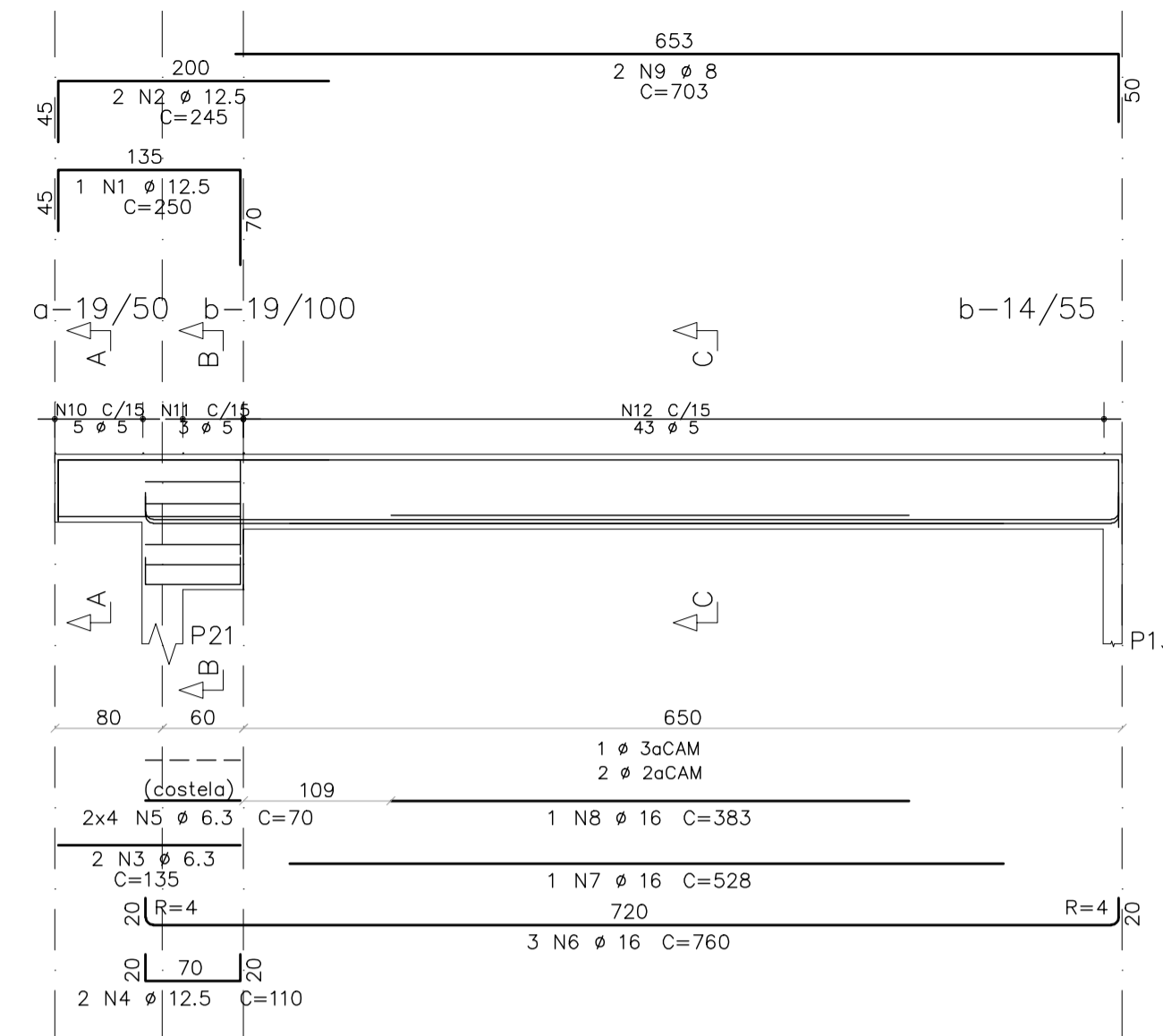
AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
C1	50A	1	10	2	285	570
C1	50A	2	12.5	2	498	996
C1	50A	3	6.3	6	458	2748
C1	50A	4	12.5	3	430	1290
C1	50A	5	12.5	2	320	640
C1	50A	6	10	2	397	794
C1	50A	7	10	2	305	610
C1	60A	8	5	27	193	5211
C1	60A	9	5	15	133	1995
C1	60A	10	8	11	136	1496
C2	50A	1	16	3	547	1641
C2	50A	2	10	2	597	1194
C2	60A	3	5	31	135	4185
C3	50A	1	20	2	538	1076
C3	50A	2	12.5	2	645	1290
C3	50A	3	6.3	4	133	532
C3	50A	4	20	1	408	408
C3	50A	5	10	2	630	1260
C3	50A	6	6.3	4	515	2060
C3	50A	7	6.3	10	144	1440
C3	50A	8	6.3	2	164	328
C3	60A	9	5	31	163	5053
C4	50A	1	10	2	732	1464
C4	50A	2	16	4	662	2648
C4	50A	3	6.3	4	622	2488
C4	60A	4	5	36	143	5148
C5	50A	1	12.5	3	554	1662
C5	50A	3	10	2	604	1208
C5	60A	4	5	33	135	4455
C6	50A	1	8	2	437	874
C6	50A	2	12.5	1	412	824
C6	50A	3	12.5	2	653	1306
C6	50A	4	12.5	2	530	1060
C6	50A	5	12.5	2	370	740
C6	50A	6	12.5	2	546	1092
C6	50A	7	12.5	1	390	390
C6	50A	8	8	2	350	700
C6	60A	9	5	73	123	8979
C7	50A	1	10	2	492	984
C7	50A	2	12.5	1	522	1044
C7	60A	3	5	29	115	3335
C8	50A	1	10	2	390	780
C8	50A	2	8	2	420	840
C8	60A	3	5	22	103	2266
C9	50A	1	10	2	479	958
C9	50A	2	20	1	410	820
C9	50A	3	20	1	539	1078
C9	50A	4	20	2	672	1344
C9	50A	5	6.3	4	622	2488
C9	50A	6	16	1	405	810
C9	50A	7	16	2	624	1248
C9	50A	8	12.5	2	547	1094
C9	50A	9	12.5	1	351	702
C9	50A	10	10	2	236	472
C9	60A	11	5	46	163	7498
C9	60A	12	5	32	123	3936
C10	50A	1	8	2	390	780
C10	50A	2	6.3	2	420	840
C10	60A	3	5	22	103	2266
C14	50A	1	8	2	194	388
C14	50A	2	6.3	2	204	408
C14	60A	3	5	9	95	855
C15	50A	1	8	4	565	2260
C15	50A	2	16	5	515	2575
C15	60A	3	5	68	139	9452
C17	50A	1	8	2	204	408
C17	50A	2	6.3	2	164	328
C17	60A	3	5	10	83	830
C19	50A	1	8	2	469	938
C19	50A	2	12.5	1	518	1036
C19	60A	3	5	30	103	3090
VE	50A	1	8	2	165	330
VE	50A	2	8	2	195	390
VE	60A	3	5	5	103	515

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	691	106
50A	6.3	137	33
50A	8	104	41
50A	10	116	71
50A	12.5	125	120
50A	16	65	134
50A	20	38	93
Peso Total	60A =		106 kgf
Peso Total	50A =		494 kgf

- NOTAS:**
 1 - MEDIDAS EM CENTÍMETROS E NÍVEIS EM METROS.
 2 - COBRIMENTO DOS FERROS: 2,5cm.

PROJETO		ESTRUTURAL	
CONTEUDO			
ARMAÇÃO DAS CINTAS DO CINTAMENTO 1 - PARTE 1			
AZEVEDO		Deborah Azevedo	
PROJETOS		ENGR. CIVIL - CREA Nº 200607/D	
ESCALA		TELEFONE	(37) 9128-4675
INDICADA	APROV.	DATA	
	PROJ.	DES. N°	9
		COPIA	
		REV.	

V208

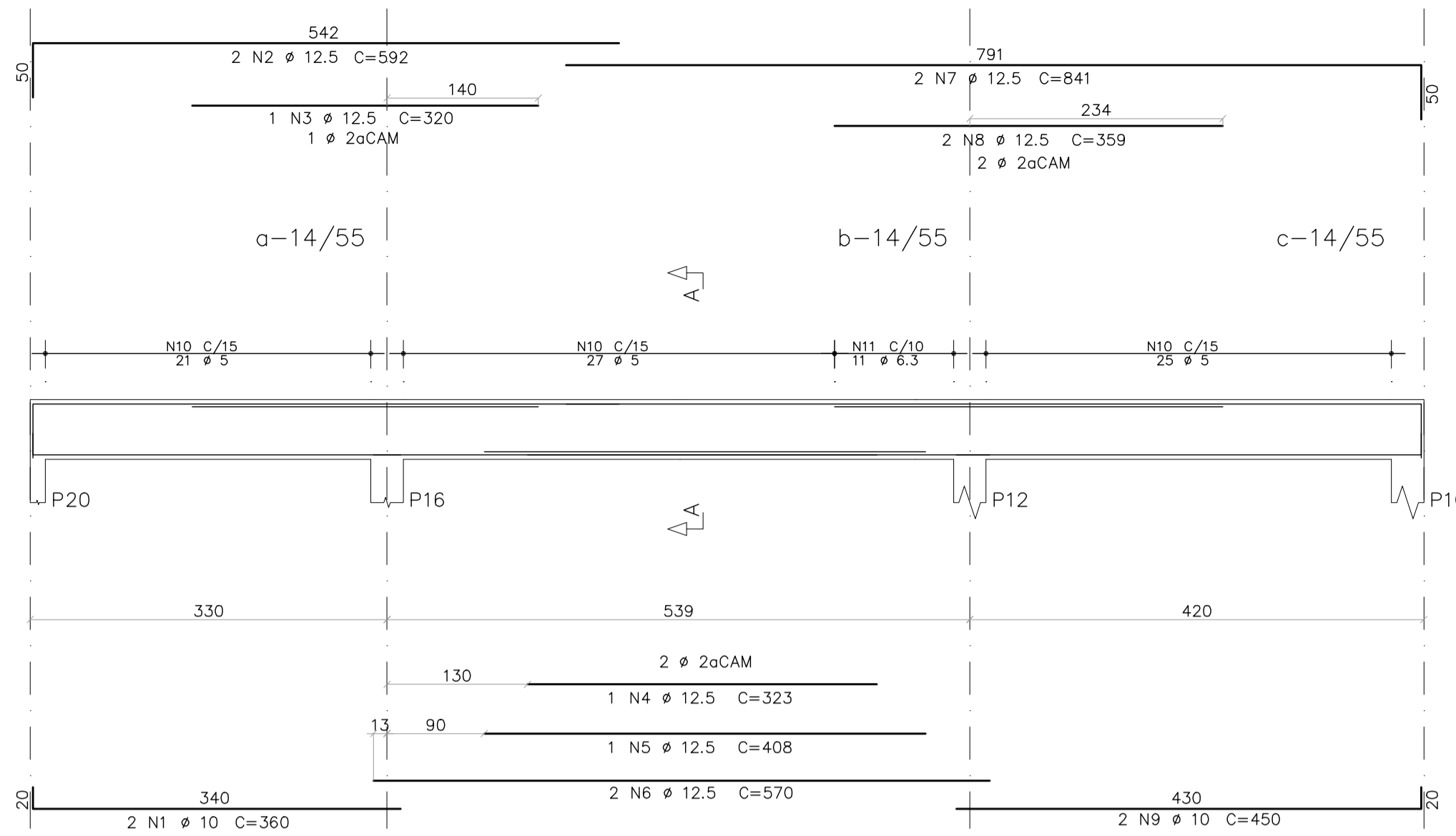


Corte A

Corte B

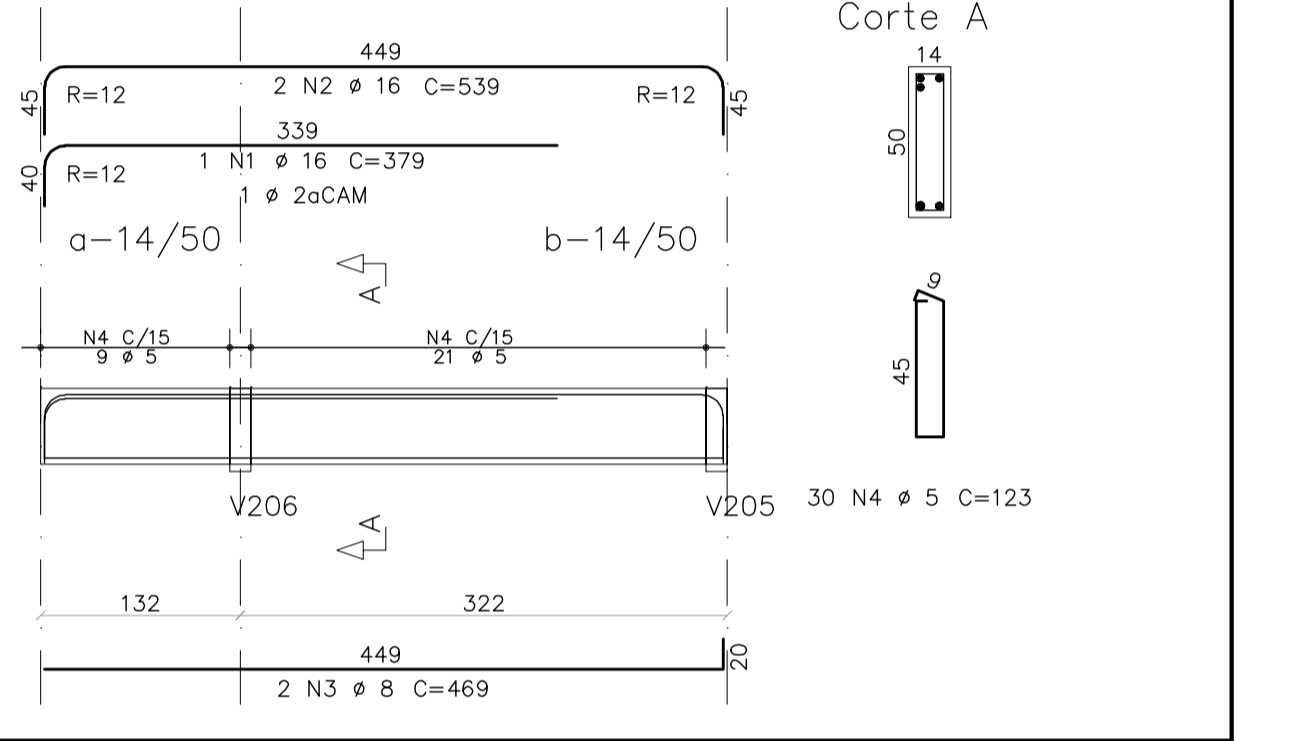
Corte C

V218



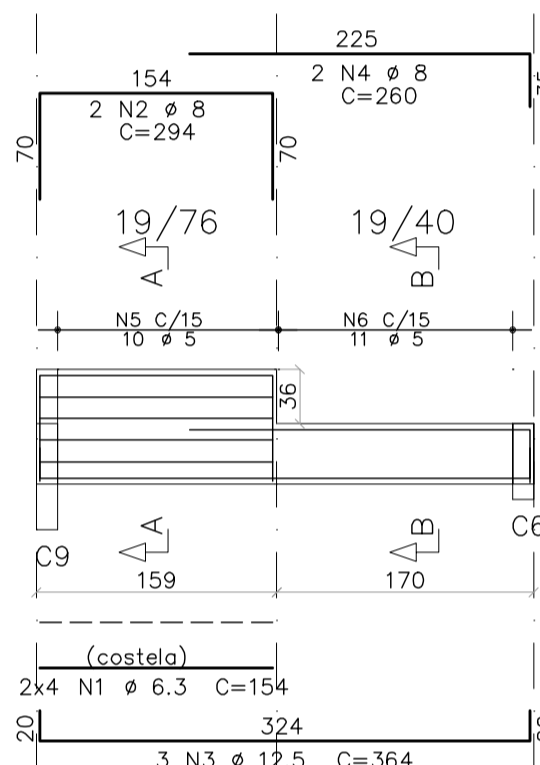
Corte A

V216



Corte A

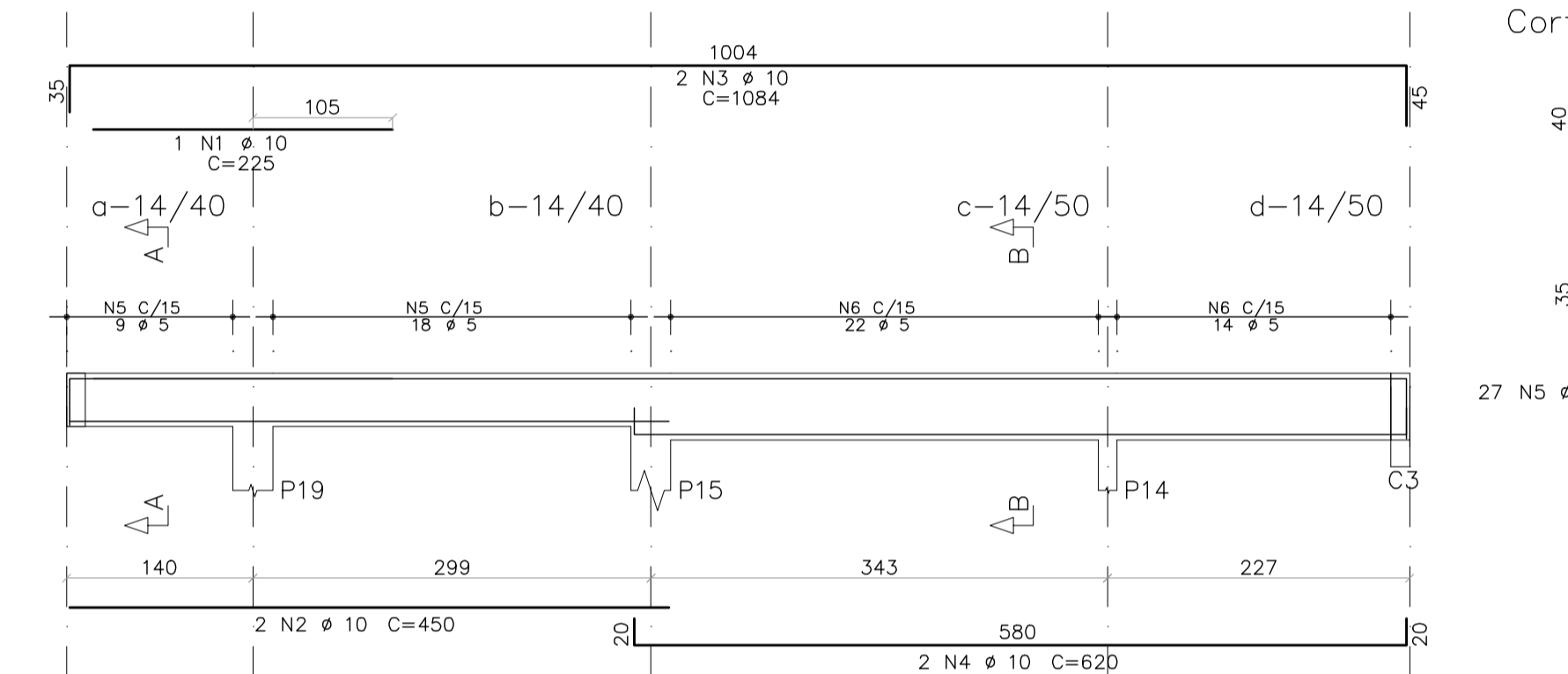
C13



Corte A

Corte B

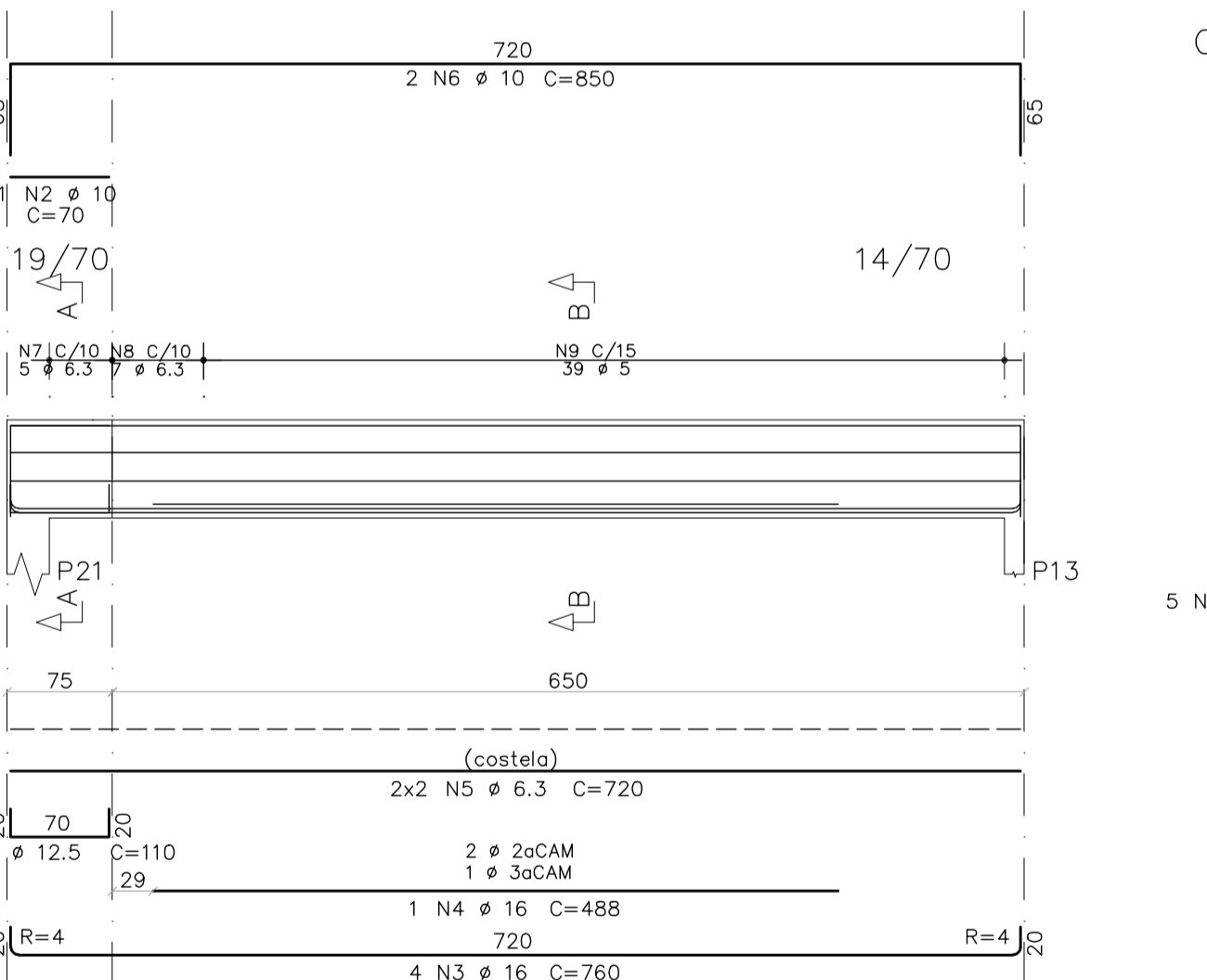
C16



Corte A

Corte B

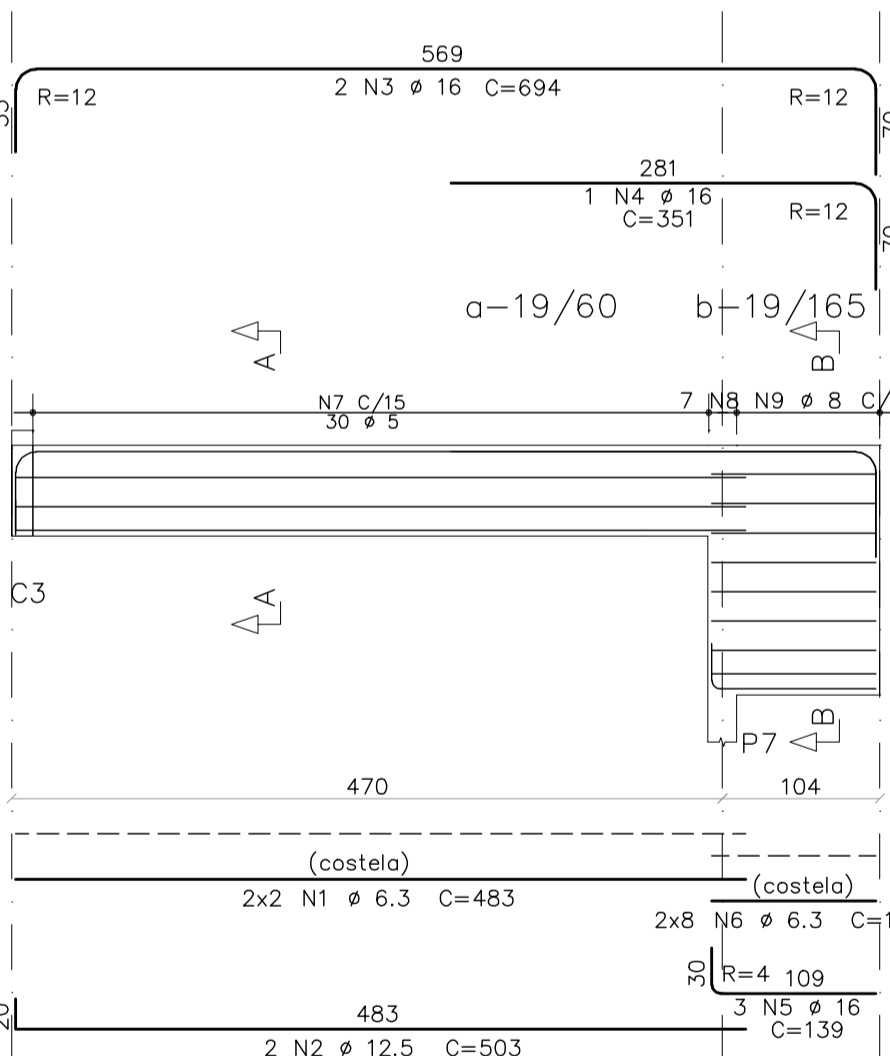
C11



Corte A

Corte B

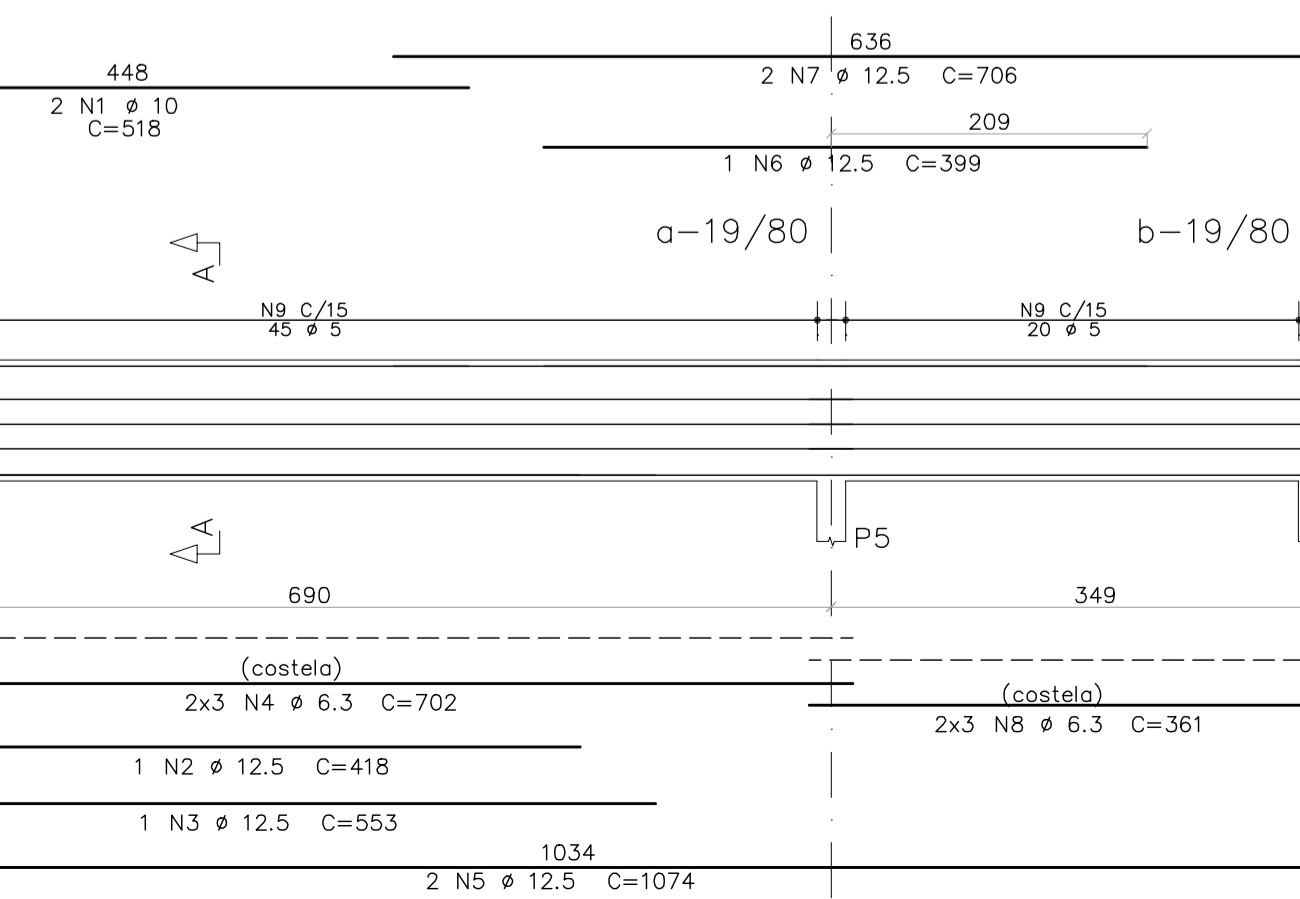
C18



Corte A

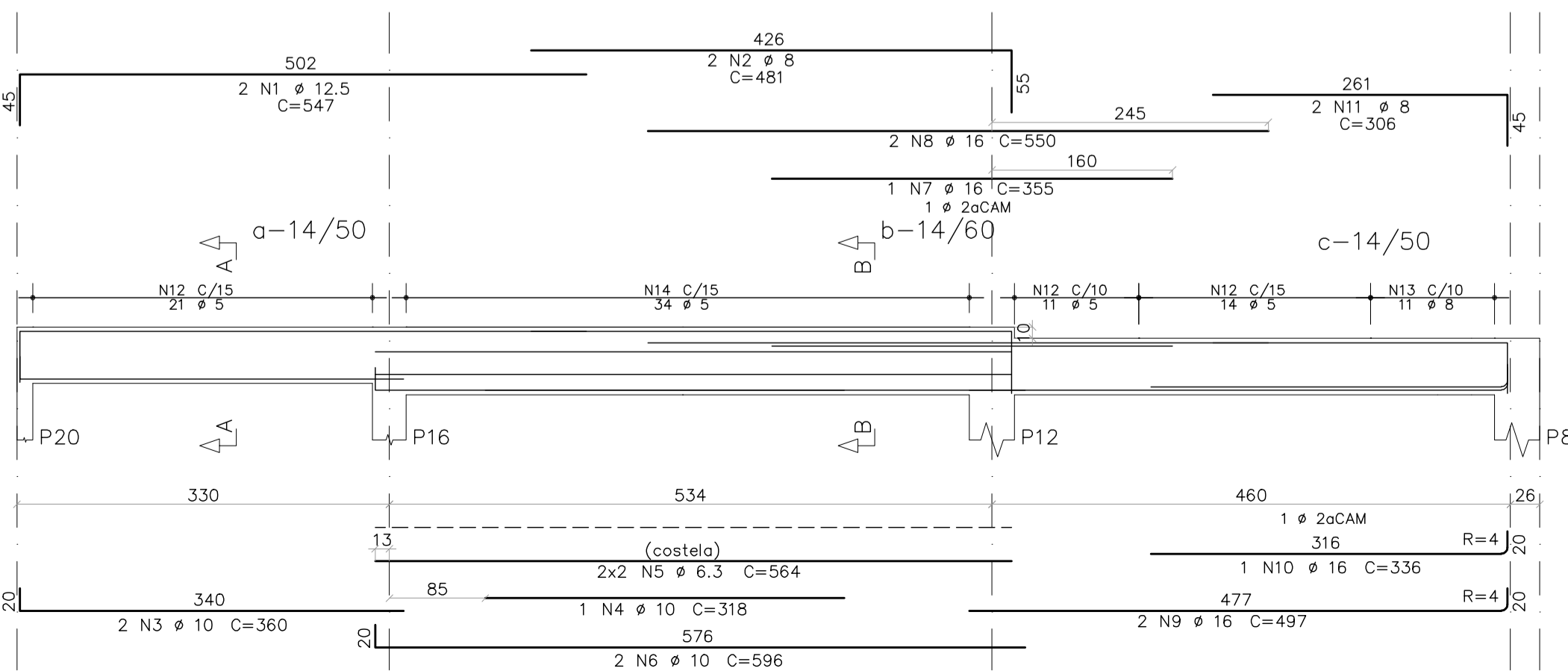
Corte B

C12



Corte A

C20



Corte A

Corte B

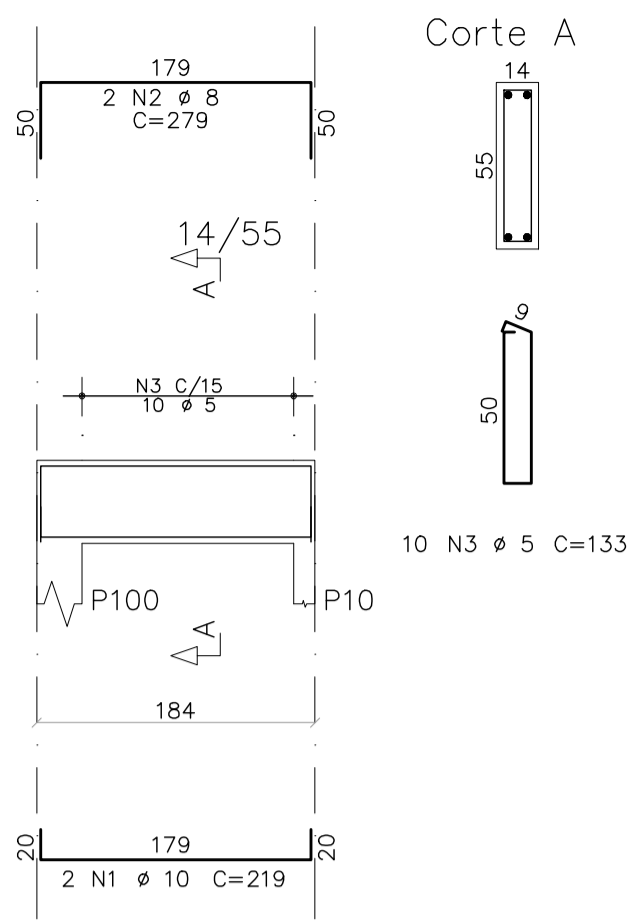
AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
				cm	cm
V208					
50A	1	12.5	1	250	250
50A	2	12.5	2	245	490
50A	3	6.3	2	135	270
60A	4	12.5	2	110	220
50A	5	6.3	8	70	560
50A	6	16	3	760	2280
50A	7	16	1	528	528
50A	8	16	1	383	383
50A	9	16	2	703	1406
60A	10	5	5	133	665
60A	11	5	3	233	699
60A	12	5	43	133	5719
V216					
50A	1	16	1	379	379
50A	2	16	2	539	1078
50A	3	8	2	469	938
60A	4	30	123	123	3690
V218					
50A	1	10	2	360	720
50A	2	12.5	2	592	1184
50A	3	12.5	1	320	320
50A	4	12.5	1	323	323
50A	5	12.5	1	408	408
50A	6	12.5	2	570	1140
50A	7	12.5	2	841	1682
50A	8	12.5	2	359	718
50A	9	10	2	450	900
60A	10	5	73	133	9709
60A	11	6.3	11	134	1474
RESUMO DE AÇO					
AÇO	BIT	mm	COMPR	UNIT	TOTAL
				m	kgf
60A	5	205			32
50A	6.3	23			6
50A	8	23			9
50A	10	16			10
50A	12.5	67			65
50A	16	46			73
Peso Total				60A =	32 kgf
Peso Total				50A =	163 kgf

AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
				cm	cm
C11					
50A	1	12.5	1	110	110
50A	2	10	1	70	70
50A	3	10	1	760	3040
50A	4	16	1	488	488
50A	5	6.3	4	720	2880
50A	6	10	2	850	1700
50A	7	6.3	5	174	870
50A	8	6.3	7	164	1148
60A	9	5	39	163	6357
C12					
50A	1	10	2	518	1036
50A	2	12.5	1	418	418
50A	3	12.5	1	553	553
50A	4	6.3	6	702	4212
50A	5	12.5	2	1074	2148
50A	6	12.5	1	399	399
50A	7	12.5	2	706	1412
50A	8	6.3	6	361	2166
60A	9	5	65	193	12545
C13					
50A	1	6.3	8	154	1232
50A	2	8	2	294	588
50A	3	12.5	1	553	1092
50A	4	8	2	260	520
60A	5	5	10	185	1850
60A	6	5	11	113	1243
C16					
50A	1	10	1	225	225
50A	2	10	2	450	900
50A	3	10	2	1084	2168
50A	4	10	2	620	1240
60A	5	5	27	103	2781
60A	6	5	36	123	4428
C18					
50A	1	6.3	4	483	1932
50A	2	12.5	2	503	1006
50A	3	16	2	694	1388
50A	4	16	1	351	351
50A	5	16	3	139	417
50A	6	6.3	16	109	1744
60A	7	5	30	153	4590
50A	8	8	7	243	1701
50A	9	8	7	268	1876
C20					
50A	1	12.5	2	547	1094
50A	2	8	2	481	962
50A	3	10	2	360	720
50A	4	10	1	318	318
50A	5	6.3	4	564	2256
50A	6	10	2	596	1192
50A	7	16	1	355	355
50A	8	16	2	550	1100
50A	9	16	2	497	994
50A	10	16	1	336	336
50A	11	8	2	306	612
60A	12	5	46	123	5658
50A	13	8	11	126	1386
60A	14	5	34	143	4862
RESUMO DE AÇO					
AÇO	BIT	COMPR	UNIT	TOTAL	
				kgf	
60A	5	443		68	
50A	6.3	184		45	
50A	8	76		30	
50A	10	96		59	
50A	12.5	82		79	
50A	16	85		134	
Peso Total				60A =	68 kgf
Peso Total				50A =	347 kgf

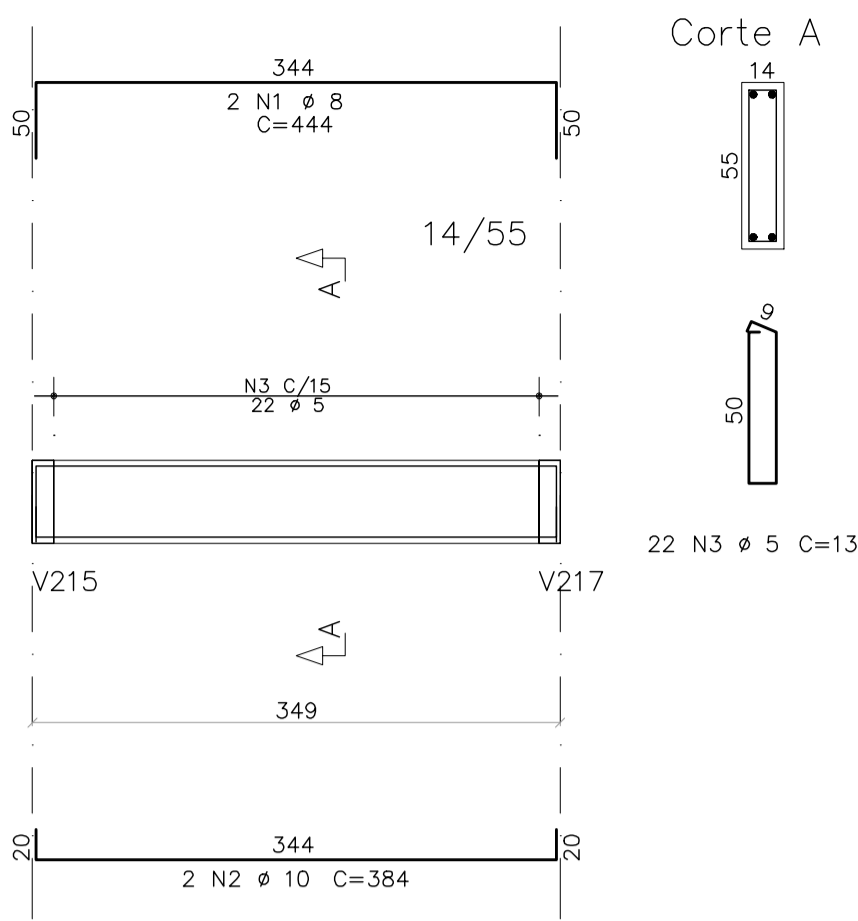
NOTAS:
 1 - MEDIDAS EM CENTIMETROS E NÍVEIS EM METROS.
 2 - COBRIMENTO DOS FERROS: 2,5cm.

PROJETO		ESTRUTURAL	
CONTEUDO			
ARMAÇÃO DAS VIGAS DO SEGUNDO TETO - PARTE 1 ARMAÇÃO DAS CINTAS DO CINTAMENTO 1 - PARTE 2			
AZEVEDO		Deborah Azevedo	
PROJETOS		ENG. CIVIL - CREA Nº 200607/D	
ESCALA		TELEFONE (37) 9128-4675	
INDICADA		DATA	
APROV.		DES. N°	
PROJ.		COPIA	
10		REV.	

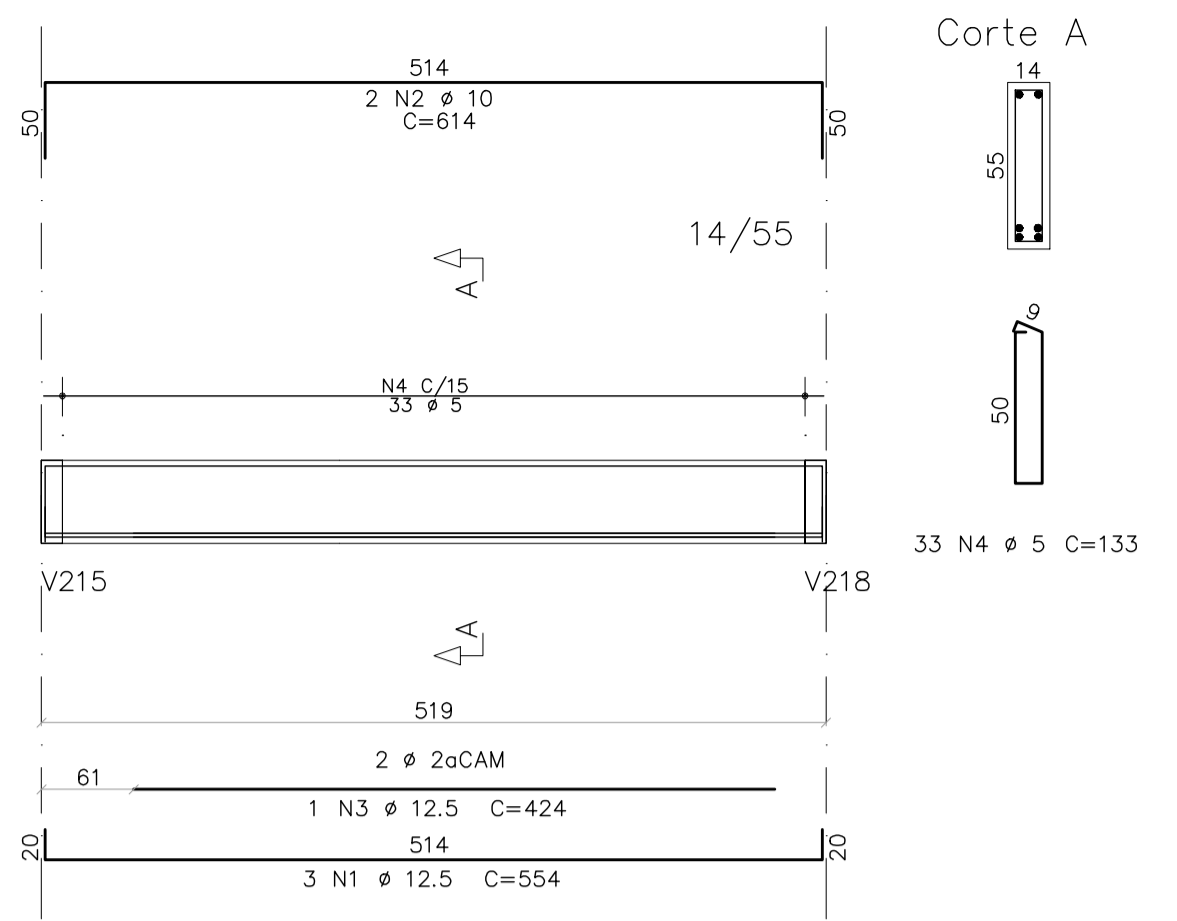
V200



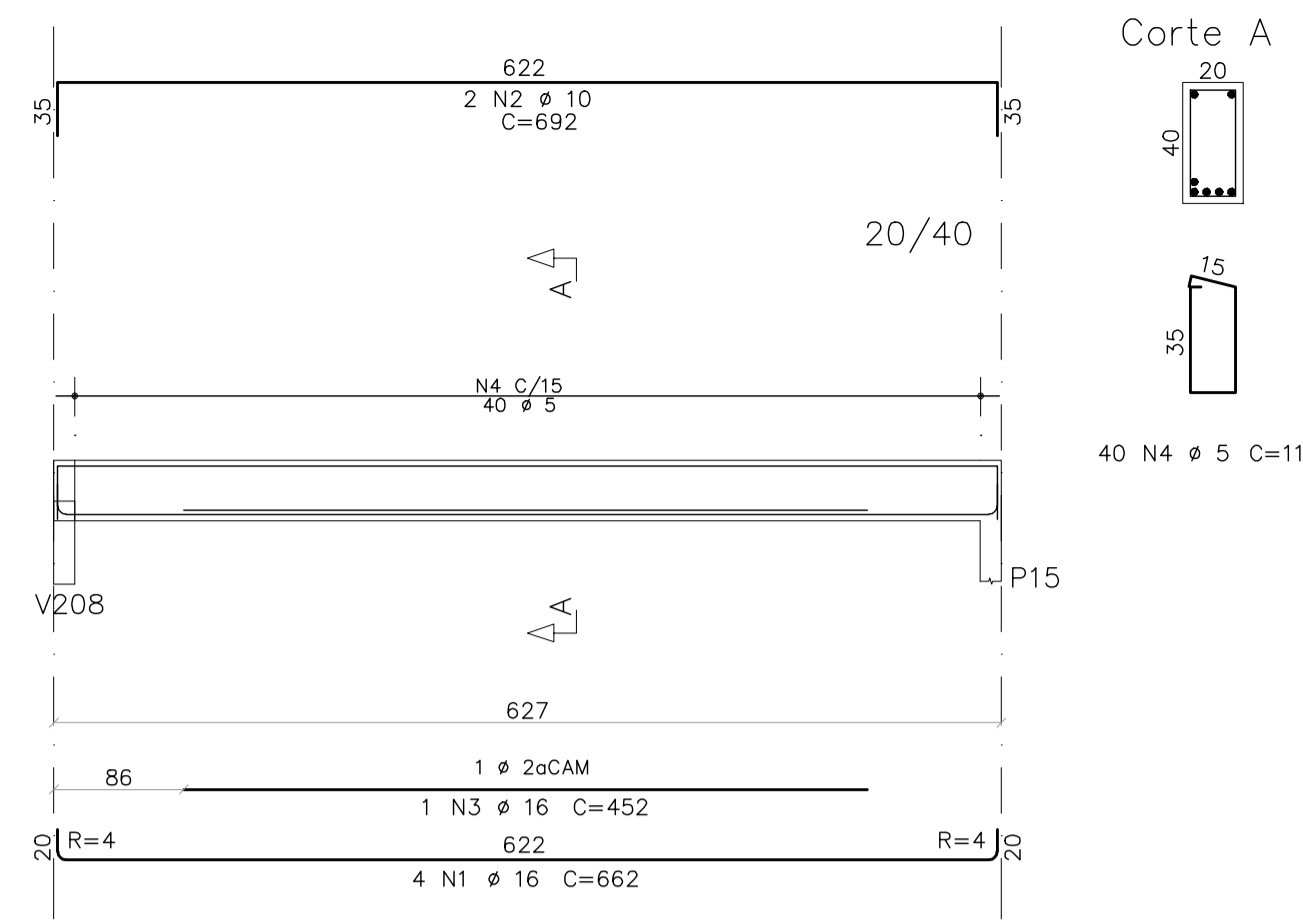
V201



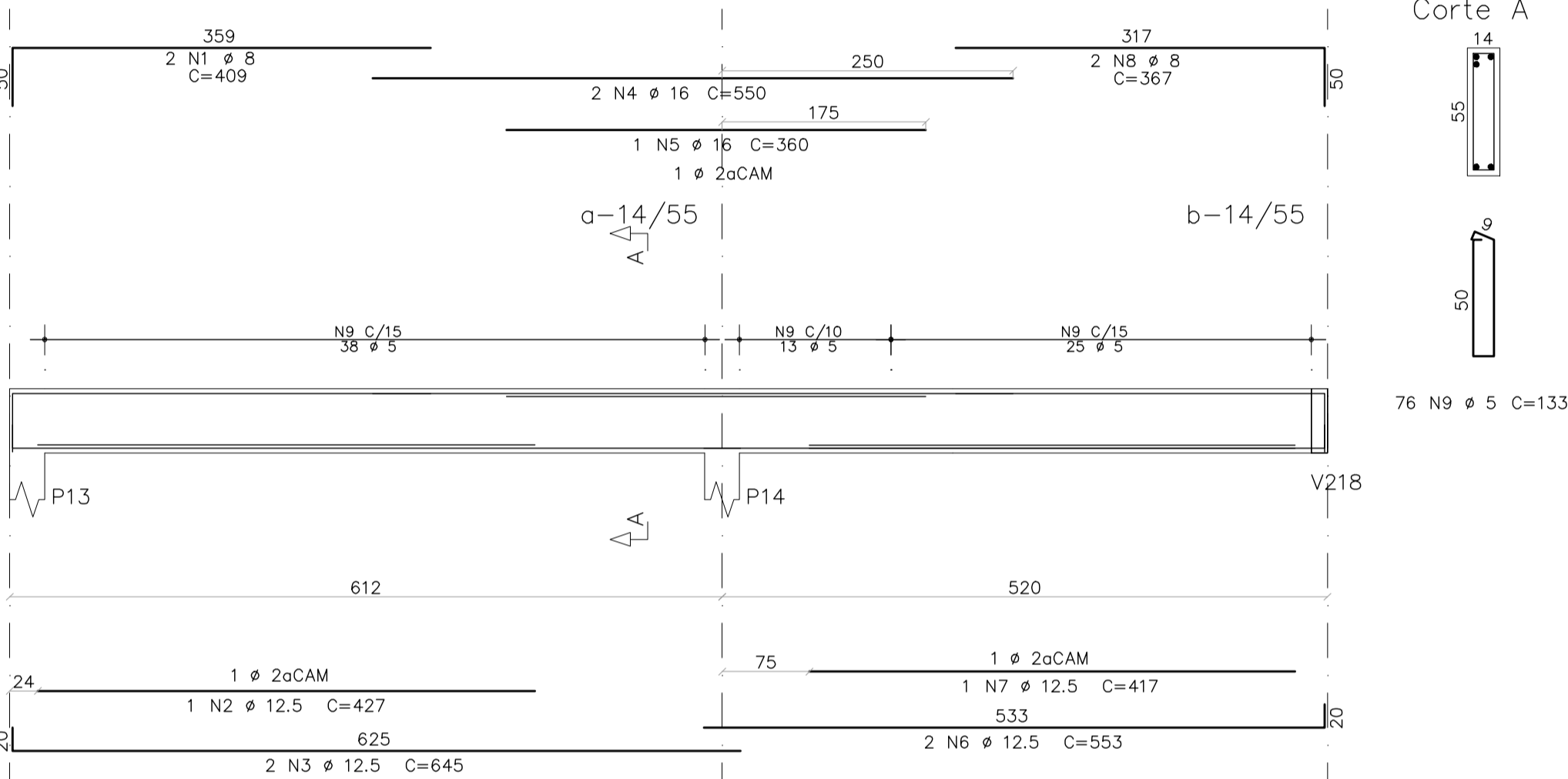
V202



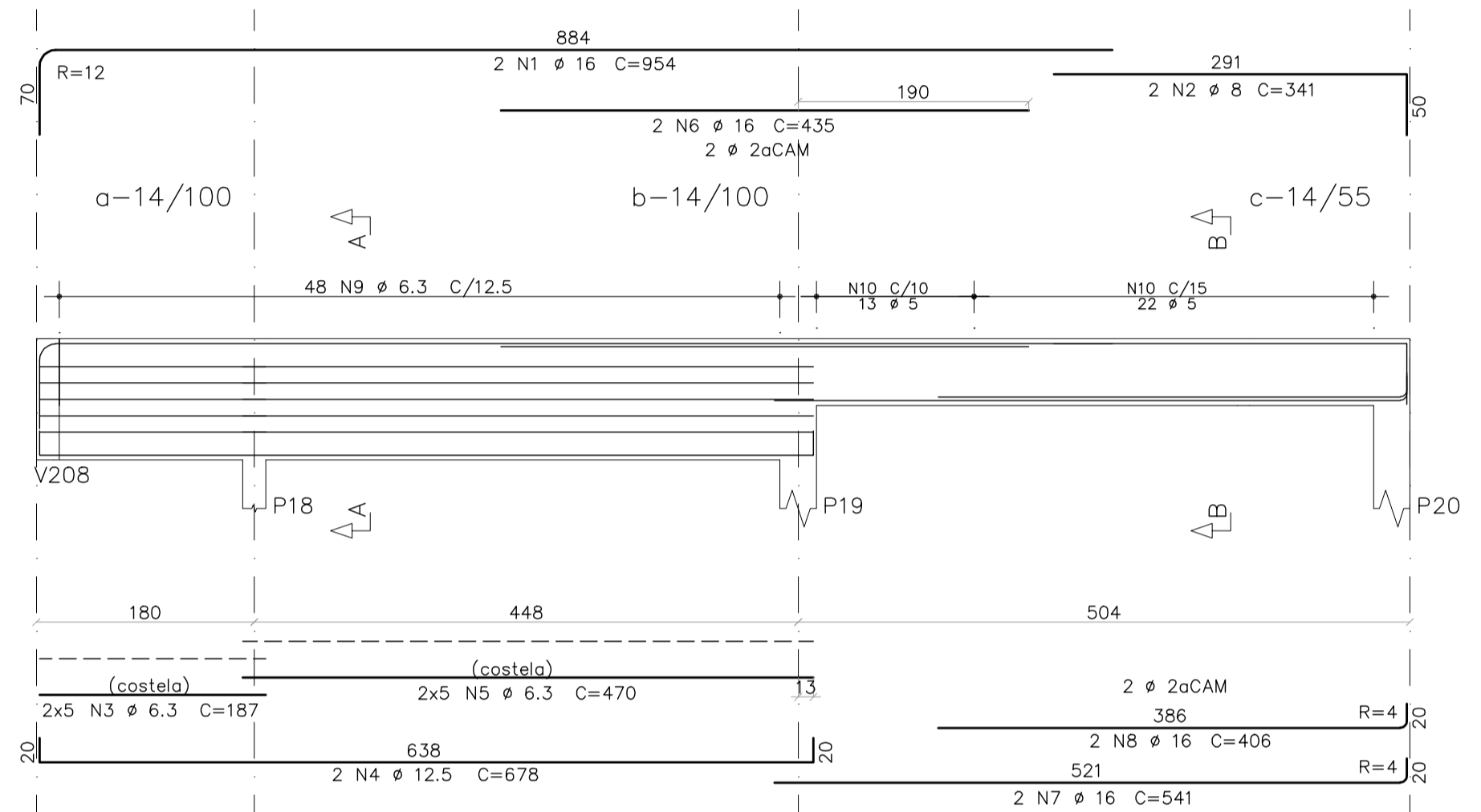
V204



V203



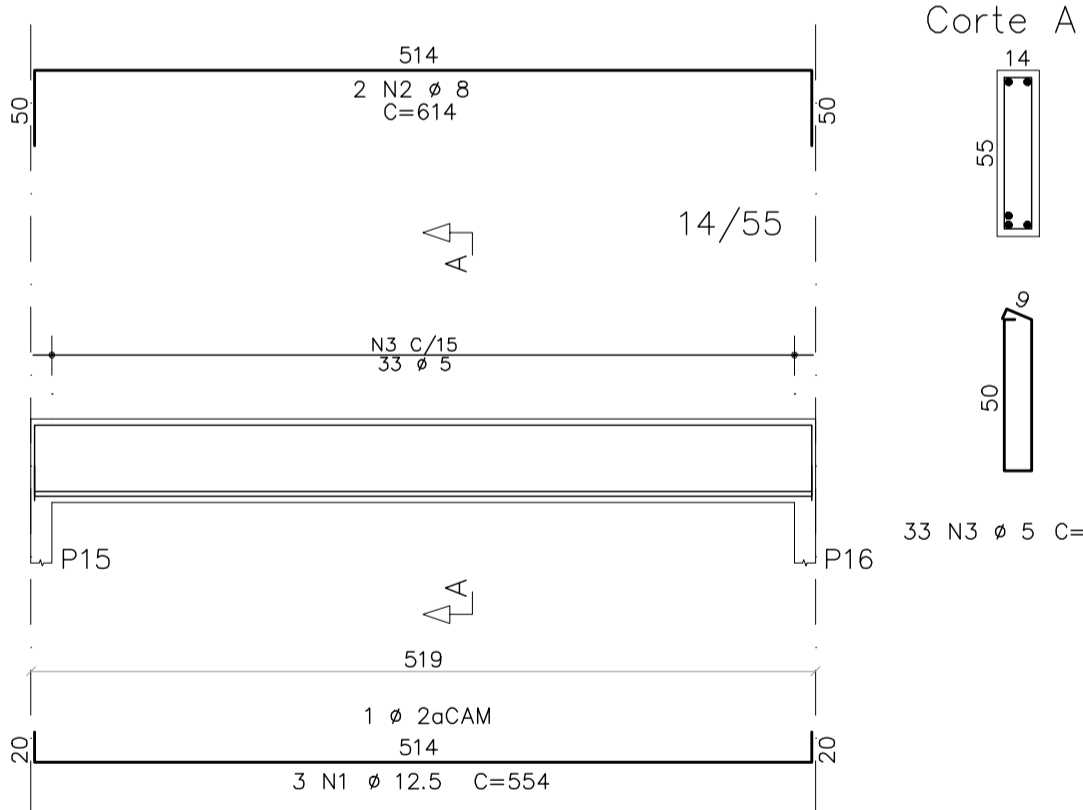
V206



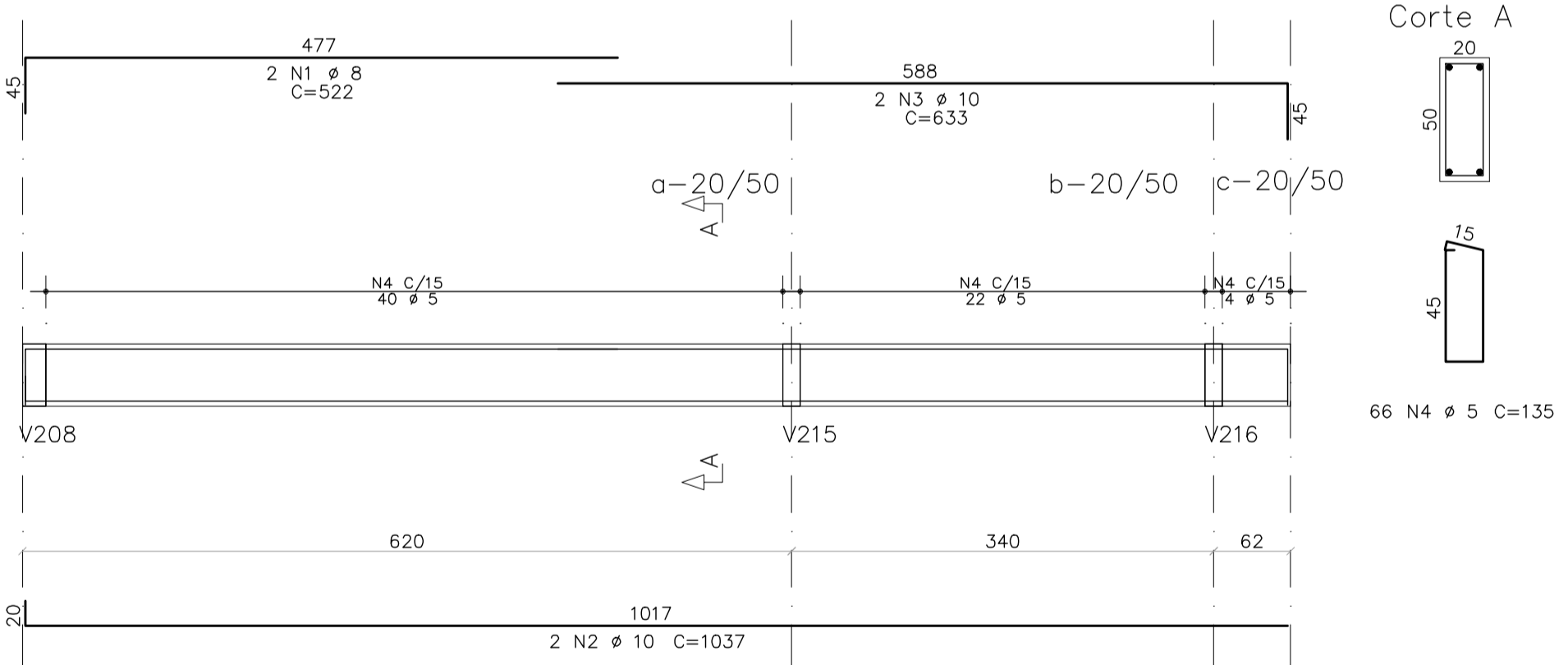
Corte A

Corte B

V205

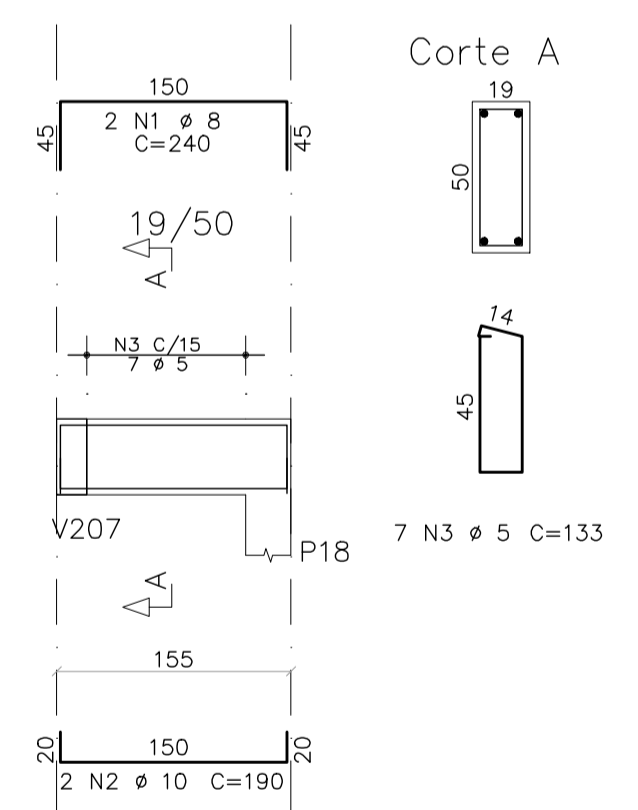


V207



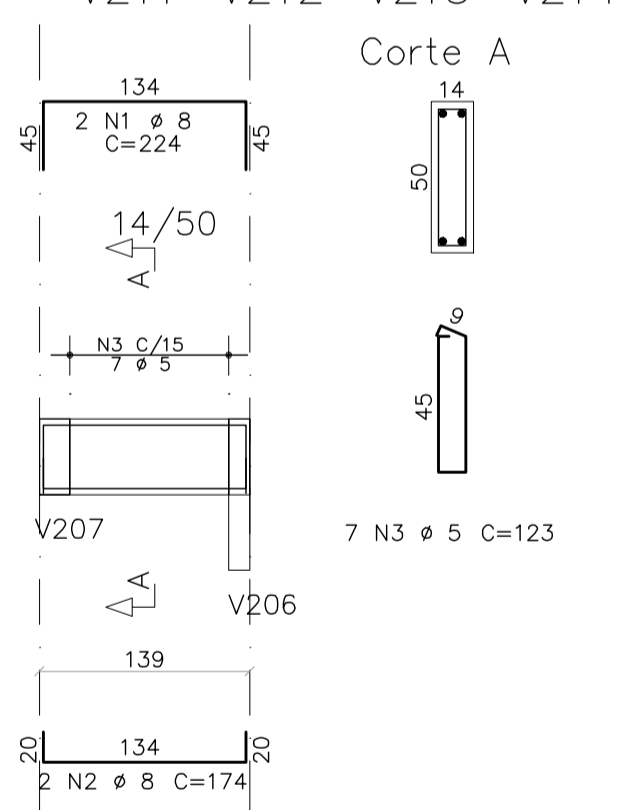
Corte A

V209



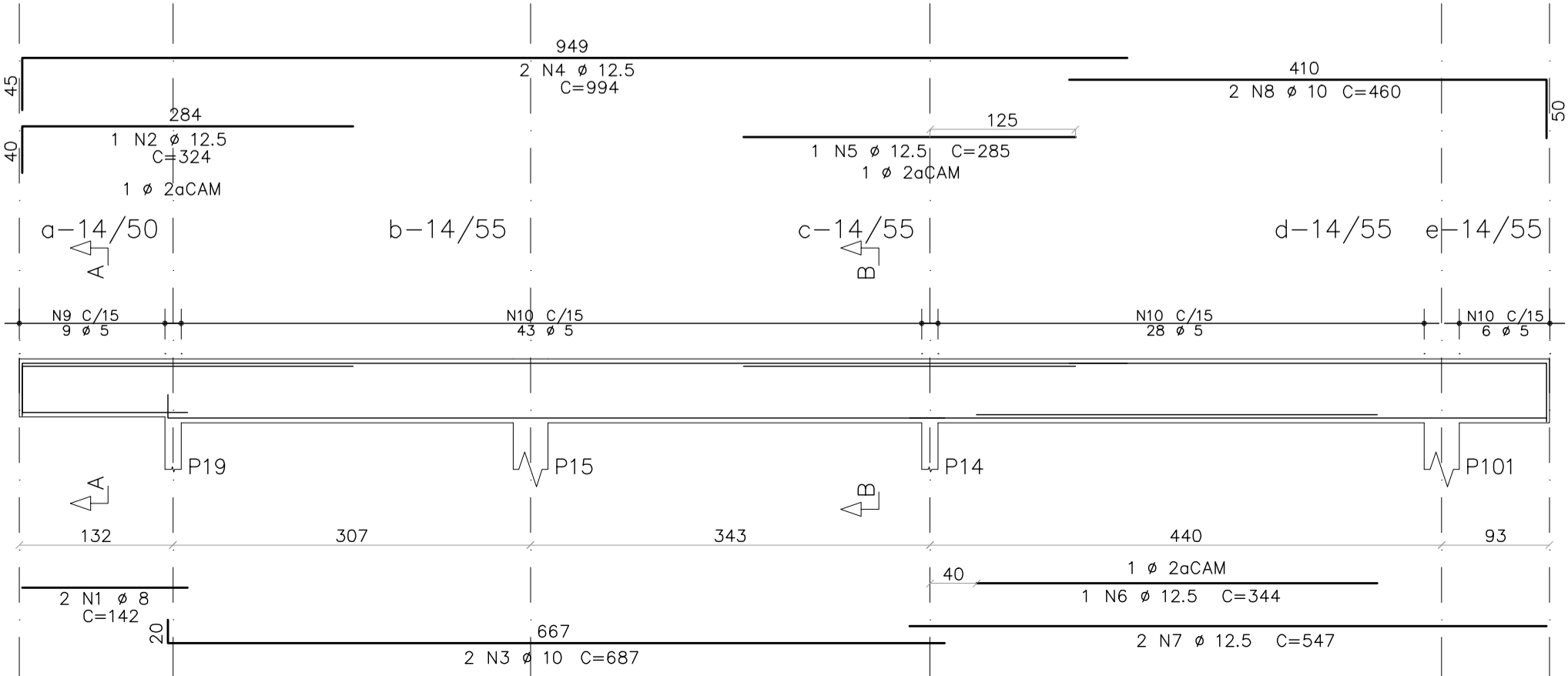
Corte A

V210



Corte A

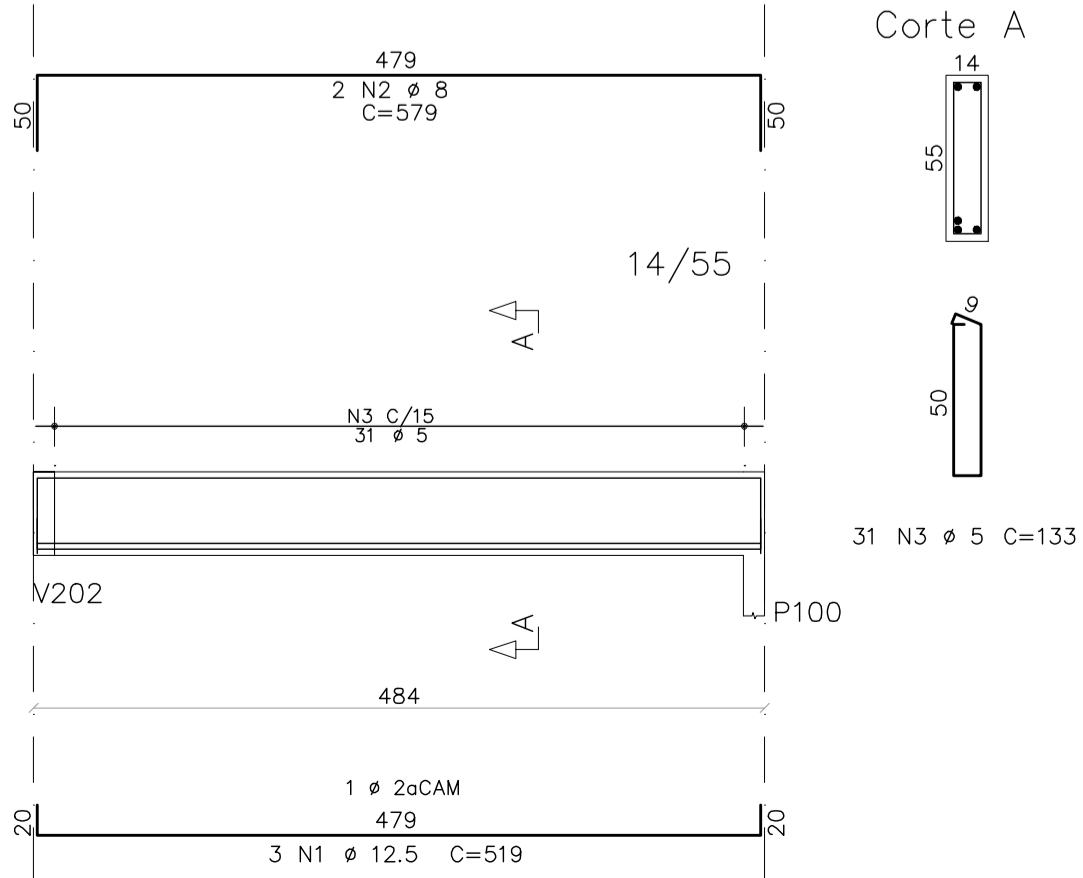
V215



Corte A

Corte B

V217



Corte A

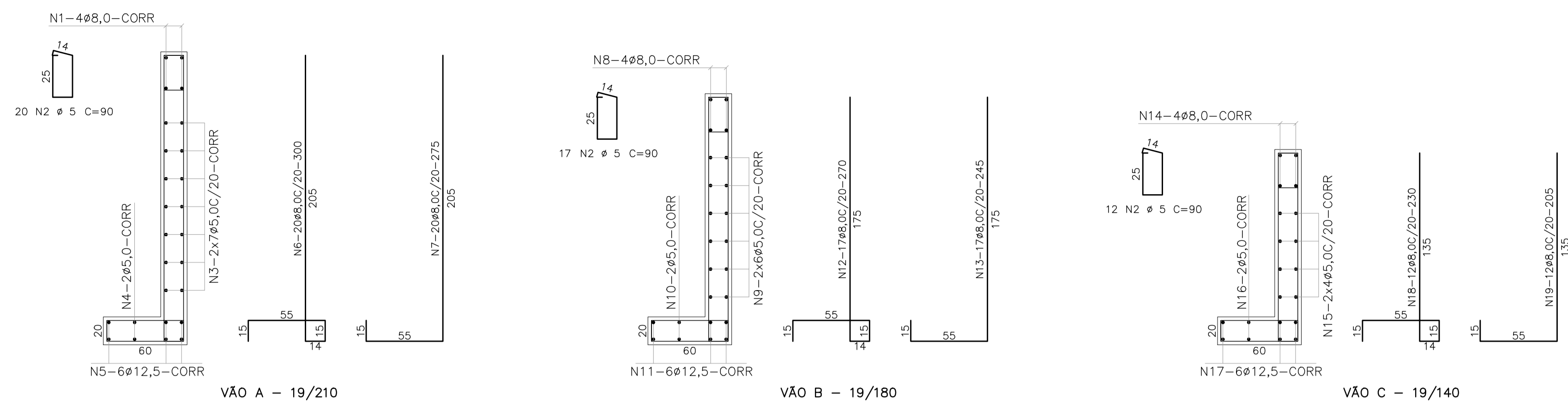
AÇO	POS	BIT	QUANT	COMPRIMENTO			
				UNIT	TOTAL		
		mm		cm	cm		
V200	50A	1	10	2	219	438	
	50A	2	8	2	279	558	
	60A	3	5	10	133	1330	
V201	50A	1	8	2	444	888	
	50A	2	10	2	384	768	
	60A	3	5	22	133	2926	
V202	50A	1	12.5	3	554	1662	
	50A	2	10	2	614	1228	
	50A	3	12.5	1	424	424	
	60A	4	5	33	133	4389	
V203	50A	1	8	2	409	818	
	50A	2	12.5	1	427	427	
	50A	3	12.5	2	645	1290	
	50A	4	16	1	550	1100	
	50A	5	16	1	360	360	
	50A	6	12.5	2	553	1106	
	50A	7	12.5	1	417	417	
	50A	8	8	2	367	734	
	60A	9	5	76	133	10108	
V204	50A	1	16	4	662	2648	
	50A	2	10	2	692	1384	
	50A	3	16	1	452	452	
	60A	4	5	40	113	4600	
V205	50A	1	12.5	3	554	1662	
	50A	2	8	2	614	1228	
	60A	3	5	33	133	4389	
V206	50A	1	16	2	954	1908	
	50A	2	8	2	341	682	
	50A	3	6.3	10	187	1870	
	50A	4	12.5	2	678	1356	
	50A	5	6.3	10	470	4700	
	50A	6	16	2	435	870	
	50A	7	16	2	541	1082	
	50A	8	16	2	406	812	
	50A	9	6.3	48	VAR	16848	
	60A	10	5	35	133	4655	
V207	50A	1	8	2	522	1044	
	50A	2	10	2	1037	2074	
	50A	3	10	2	633	1266	
	60A	4	5	66	135	8910	
V209	50A	1	8	2	240	480	
	50A	2	10	2	190	380	
	60A	3	5	7	133	931	
V210	(X5)	50A	1	8	10	224	2240
		50A	2	8	10	174	1740
		60A	3	5	35	123	4305
V215	50A	1	8	2	142	284	
	50A	2	12.5	1	324	324	
	50A	3	10	2	687	1374	
	50A	4	12.5	2	994	1988	
	50A	5	12.5	1	285	285	
	50A	6	12.5	1	344	344	
	50A	7	12.5	2	547	1094	
	50A	8	10	2	460	920	
	60A	9	5	9	123	1107	
	60A	10	5	77	133	10241	
V217	50A	1	12.5	3	519	1557	
	50A	2	8	2	579	1158	
	60A	3	5	31	133	4123	

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
	mm	m	kgf
60A	5	620	96
50A	6.3	234	57
50A	8	119	47
50A	10	98	61
50A	12.5	139	134
50A	16	92	146
Peso Total	60A =		96 kgf
Peso Total	50A =		445 kgf

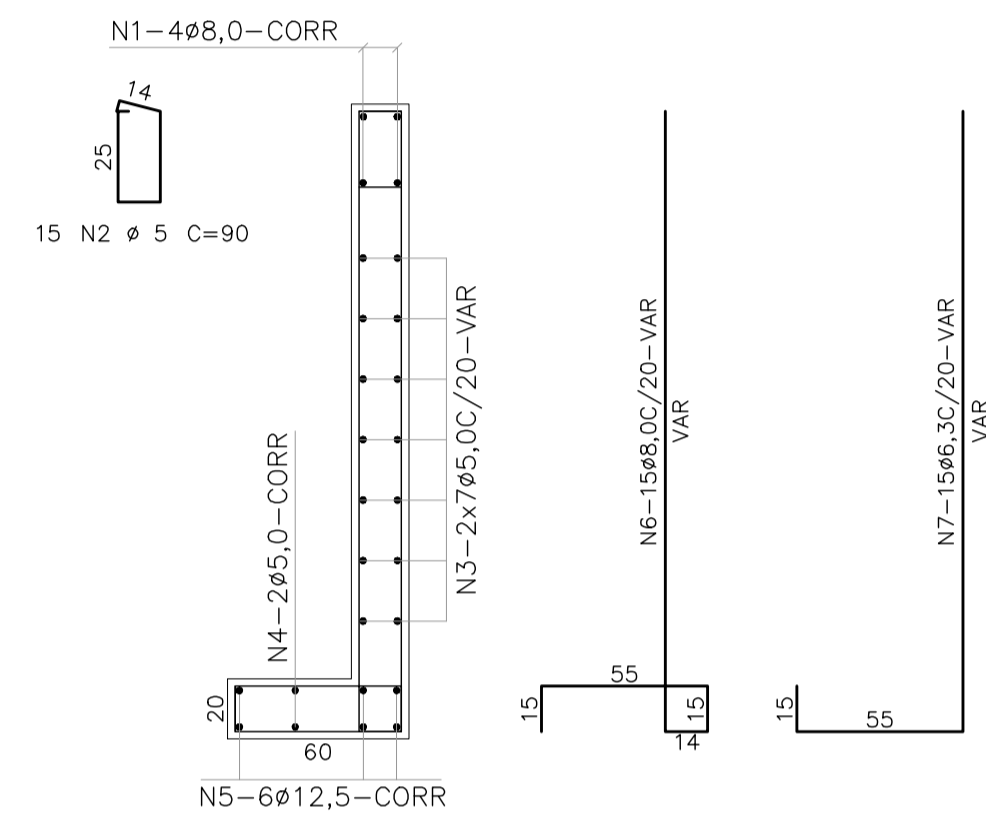
NOTAS:

- 1 - MEDIDAS EM CENTIMETROS E NIVEIS EM METROS.
- 2 - COBRIMENTO DOS FERROS: 2,5cm.

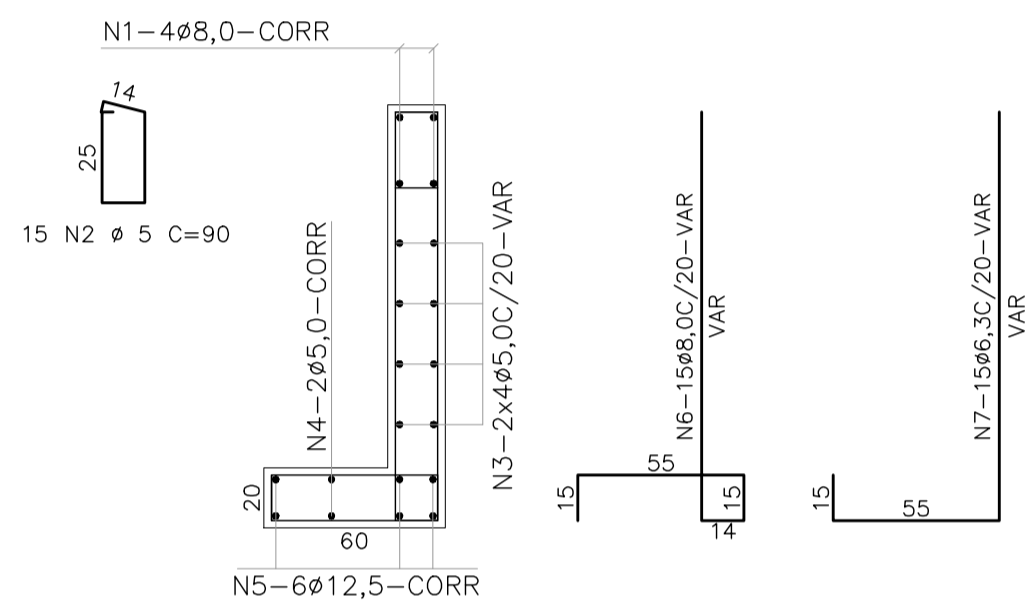
PROJETO		ESTRUTURAL	
CONTEUDO			
ARMAÇÃO DAS VIGAS DO SEGUNDO TETO - PARTE 2			
AZEVEDO		Deborah Azevedo	
PROJETOS		ENGR. CIVIL - CREA Nº 200607/D	
ESCALA		TELEFONE (37) 9128-4675	
INDICADA		DATA	
APROV.		DES. N°	
PROJ.		12	
COPIA		REV.	



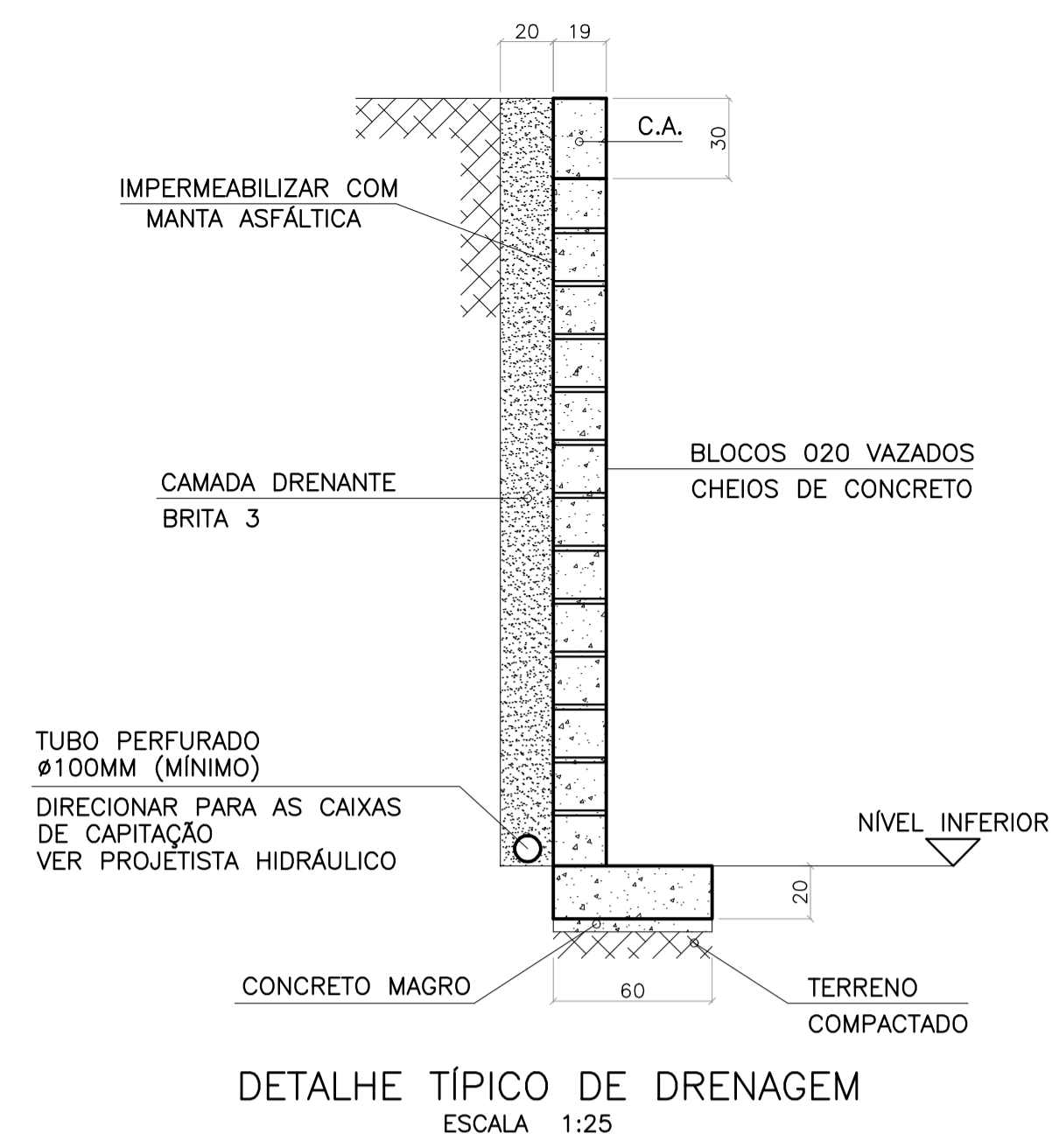
CORTINA 1 - 19/VAR
ESCALA 1:25



CORTINA 2 - 19/210-50
ESCALA 1:25



CORTINA 3 - 19/140-50
ESCALA 1:25

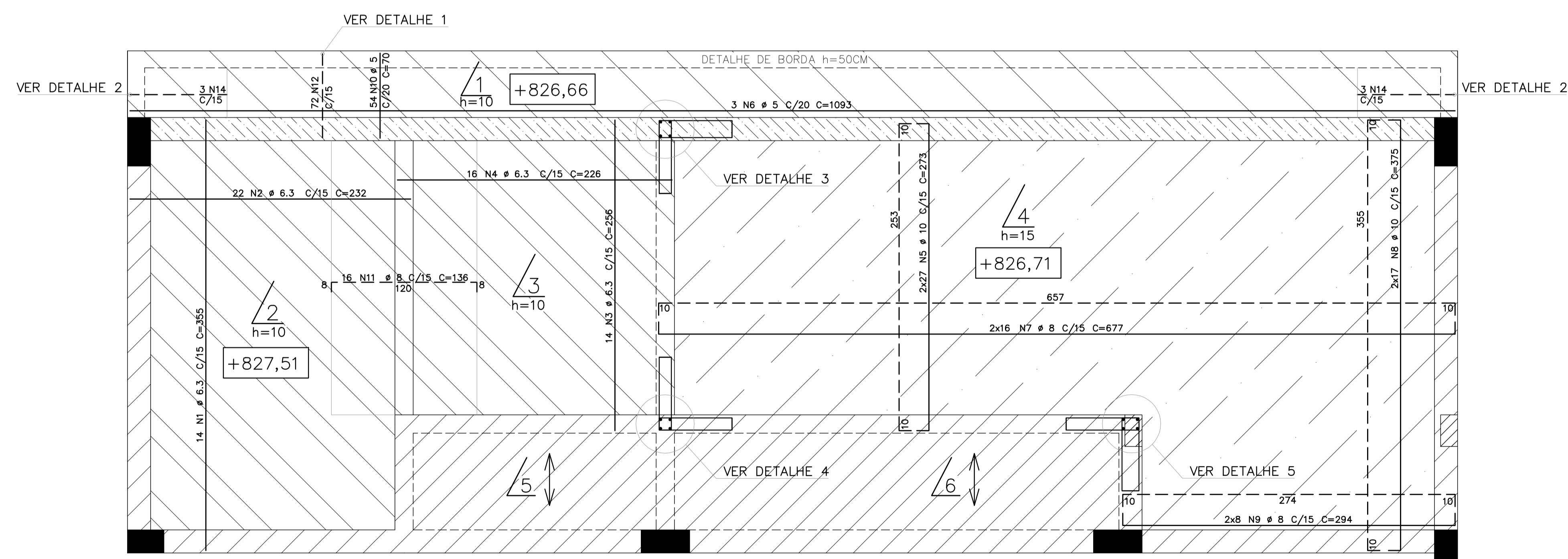


OBSERVAÇÕES:

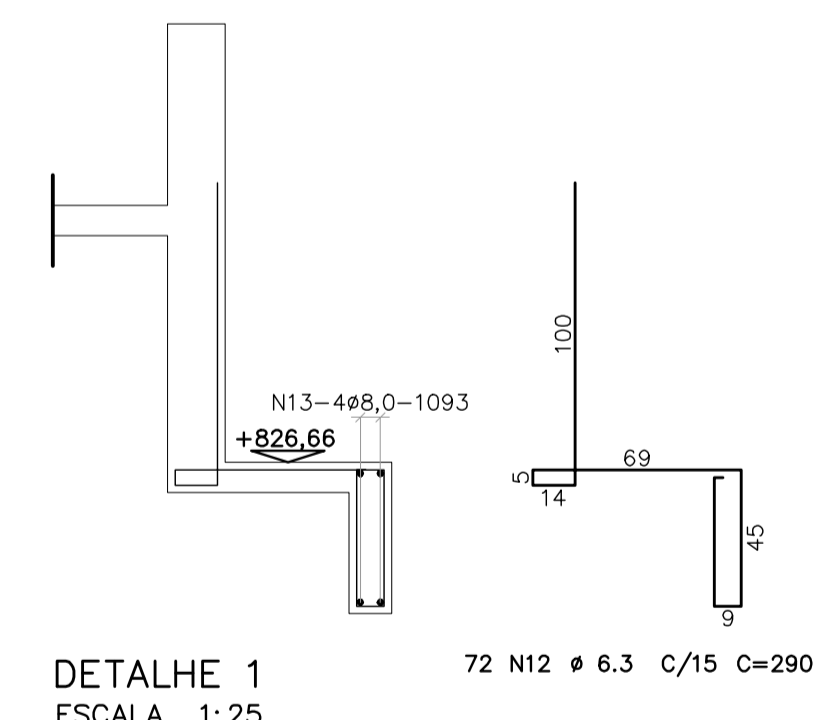
- 1 - UMA VEZ INICIADA A ETAPA DE CONCRETAGEM, EM NENHUMA HIPÓTESE ESTA DEVERÁ SER PARALISADA ATÉ A FINALIZAÇÃO DA RESPECTIVA CORTINA.
- 2 - O TARDOS DAS CORTINAS (PARTE POSTERIOR) DEVERÁ SER IMPERMEABILIZADO COM MANTA ASFÁLTICA.
- 3 - O PROJETO HIDRÁULICO DEVERÁ PREVER O DIRECIONAMENTO DA ÁGUA CAPTADA PELOS TUBOS PARA AS CAIXAS DE CAPTAÇÃO (VER DETALHE TÍPICO).
- 4 - RESPEITAR ÂNGULO MÁXIMO DE CORTE DO TALUDE PARA EVITAR DESLIZAMENTO DE TERRA DURANTE A EXECUÇÃO DAS CORTINAS.
- 5 - O ATERRO DEVERÁ SER REALIZADO REAPROVEITANDO O MATERIAL EXISTENTE, DEVENDO SER FEITA A COMPACTAÇÃO CONTROLADA.
- 6 - PREVER INSTALAÇÃO DE LONA PRETA NO TALUDE ESCAVADO ATÉ QUE SEJA FEITO O ATERRO.
- 7 - EXECUTAR CINTAS DE AMARRAÇÃO (C.A.s) NO TOPO DAS CORTINAS, CONFORME ARMAÇÃO APRESENTADA JUNTAMENTE COM A ARMAÇÃO DAS CORTINAS.

AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
cm					
CORTINA 1					
50A	1	8	4	COR	1800
60A	2	5	50	COR	4500
60A	3	5	14	COR	6300
60A	4	5	2	COR	900
50A	5	12.5	6	COR	2700
50A	6	8	20	COR	6000
50A	7	8	20	COR	5500
50A	8	8	4	COR	1640
60A	9	5	12	COR	4920
50A	10	5	2	COR	820
50A	11	12.5	6	COR	2460
50A	12	8	17	COR	4590
50A	13	8	17	COR	4165
50A	14	8	4	COR	1120
60A	15	5	8	COR	2240
60A	16	5	2	COR	560
50A	17	12.5	6	COR	1680
50A	18	8	12	COR	2760
50A	19	8	12	COR	2460
CORTINA 2					
50A	1	8	4	COR	1440
60A	2	5	15	VAR	1350
60A	3	5	2	VAR	2520
60A	4	5	2	VAR	720
50A	5	12.5	6	VAR	2160
50A	6	8	15	VAR	3450
50A	7	6.3	15	VAR	3000
CORTINA 3					
50A	1	8	4	COR	1440
60A	2	5	15	VAR	1350
60A	3	5	8	VAR	1440
60A	4	5	2	COR	720
50A	5	12.5	6	COR	720
50A	6	8	15	VAR	2925
50A	7	6.3	15	VAR	2475

RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
mm			kgf
60A	5	283	44
50A	6.3	55	13
50A	8	393	155
50A	12.5	112	108
Peso Total 60A =			44 kgf
Peso Total 50A =			276 kgf



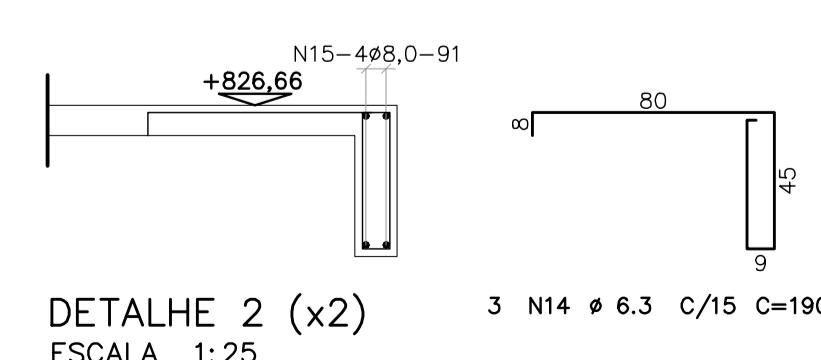
ARMAÇÃO DA LAJES MACIÇAS DO CINTAMENTO 1
LAJES DA FOGUEIRA, DA PISCINA E DA CALHA DA PISCINA ESC. 1:25



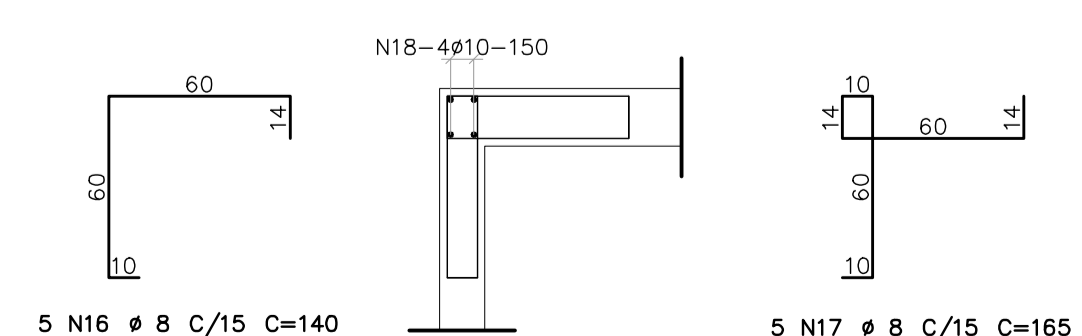
DETALHE 1
ESCALA 1:25

AÇO	POS	BIT	QUANT	COMPRIMENTO	
				UNIT	TOTAL
cm					
LAJES MACIÇAS DO CINTAMENTO 1					
50A	1	6.3	14	355	4970
50A	2	6.3	22	232	5104
50A	3	6.3	14	256	3584
50A	4	6.3	16	226	3616
50A	5	10	54	273	14742
60A	6	5	3	1093	3279
50A	7	8	32	677	21664
50A	8	10	34	375	12750
50A	9	8	16	294	4704
60A	10	5	54	70	3780
50A	11	8	16	136	2176
50A	12	6.3	72	290	20880
50A	13	8	4	1093	4372
50A	14	6.3	6	190	1140
50A	15	8	8	91	728
50A	16	8	5	140	700
50A	17	8	5	165	825
60A	18	10	4	150	600
50A	19	8	5	140	700
50A	20	8	5	160	800
50A	21	10	4	160	640
50A	22	8	10	165	1650
50A	23	8	10	140	1400
50A	24	12.5	4	160	640

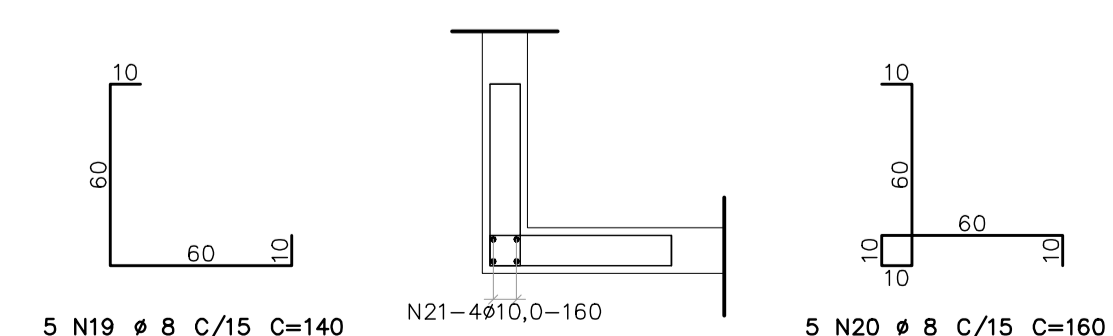
RESUMO DE AÇO			
AÇO	BIT	COMPR	PESO
mm			kgf
60A	5	71	11
50A	6.3	393	96
50A	8	397	157
50A	10	287	177
50A	12.5	6	6
Peso Total 60A =			11 kgf
Peso Total 50A =			437 kgf



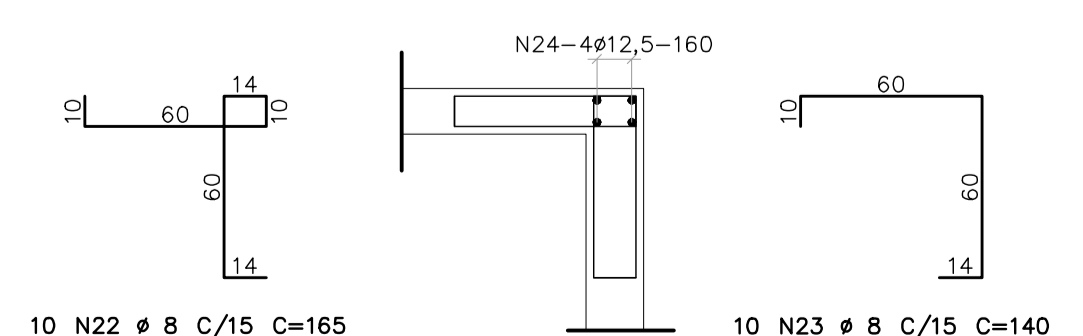
DETALHE 2 (x2)
ESCALA 1:25



DETALHE 3 - UNIÃO DE PAREDES
ESCALA 1:25



DETALHE 4 - UNIÃO DE PAREDES
ESCALA 1:25



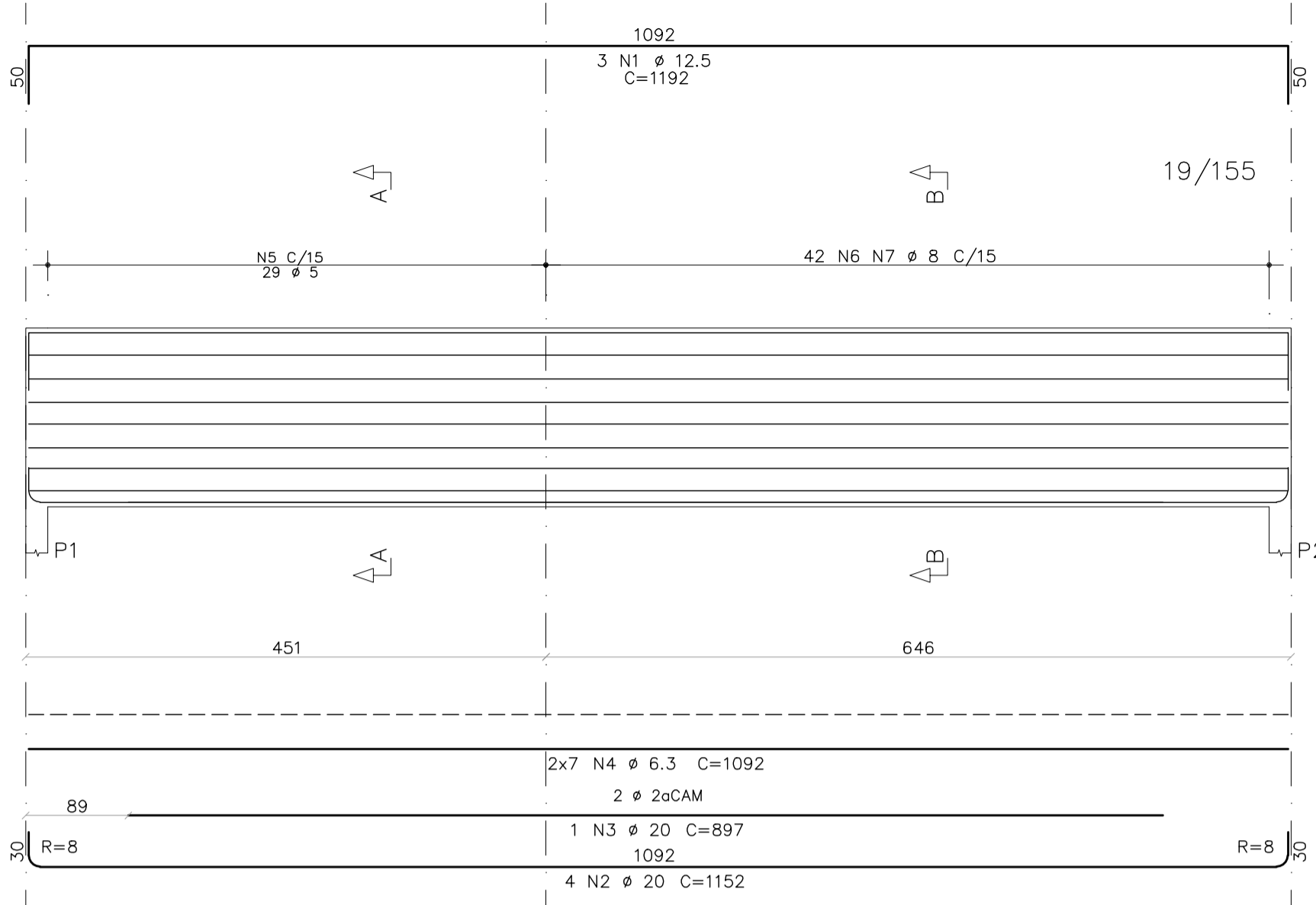
DETALHE 5 - UNIÃO DE PAREDES
ESCALA 1:25

NOTAS:

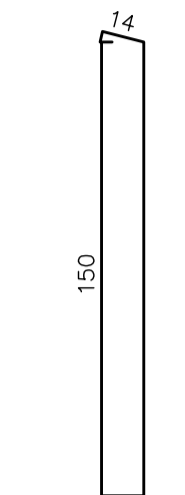
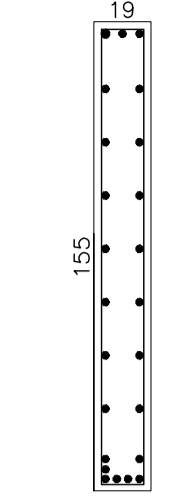
- 1 - MEDIDAS EM CENTÍMETROS E NÍVEIS EM METROS.
- 2 - COBRIMENTO DOS FERROS PARA CORTINAS: 2,5cm.
- 3 - COBRIMENTO DOS FERROS PARA LAJES: 2,0cm.

PROJETO		ESTRUTURAL	
CONTEUDO			
ARMAÇÃO DAS CORTINAS			
ARMAÇÃO DA LAJES MACIÇAS DO CINTAMENTO 1			
AZEVEDO		Deborah Azevedo	
PROJETOS		ENG. CIVIL - CREA Nº 200607/D	
ESCALA	APROV.	PROJ.	DES. N°
INDICADA			13
		TELEFONE	(37) 9128-4675
		DATA	
COPIA	REV.		

PAR1

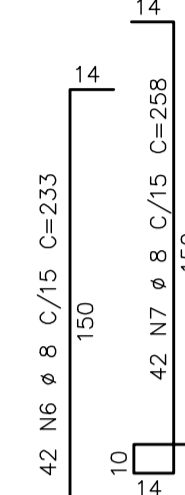
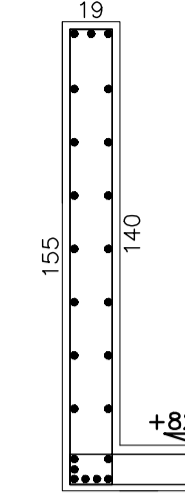


Corte A

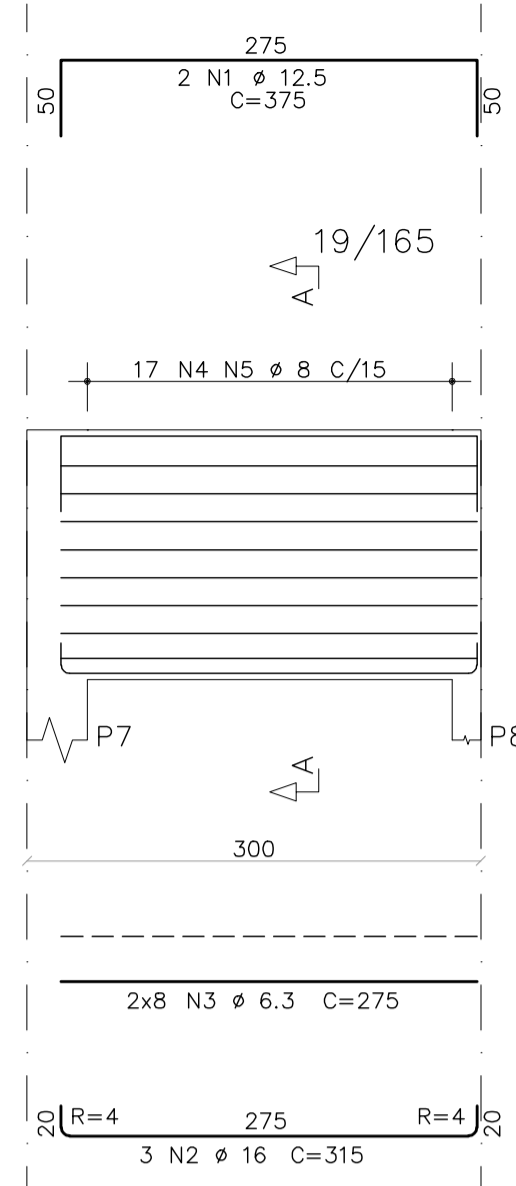


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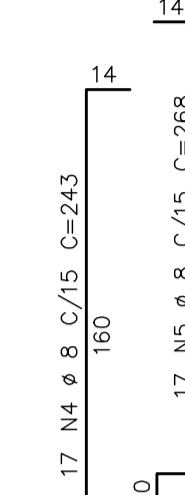
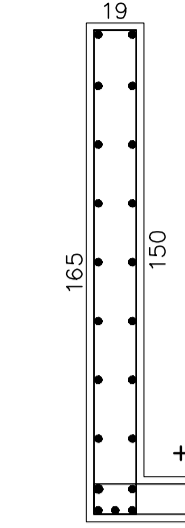
Corte B



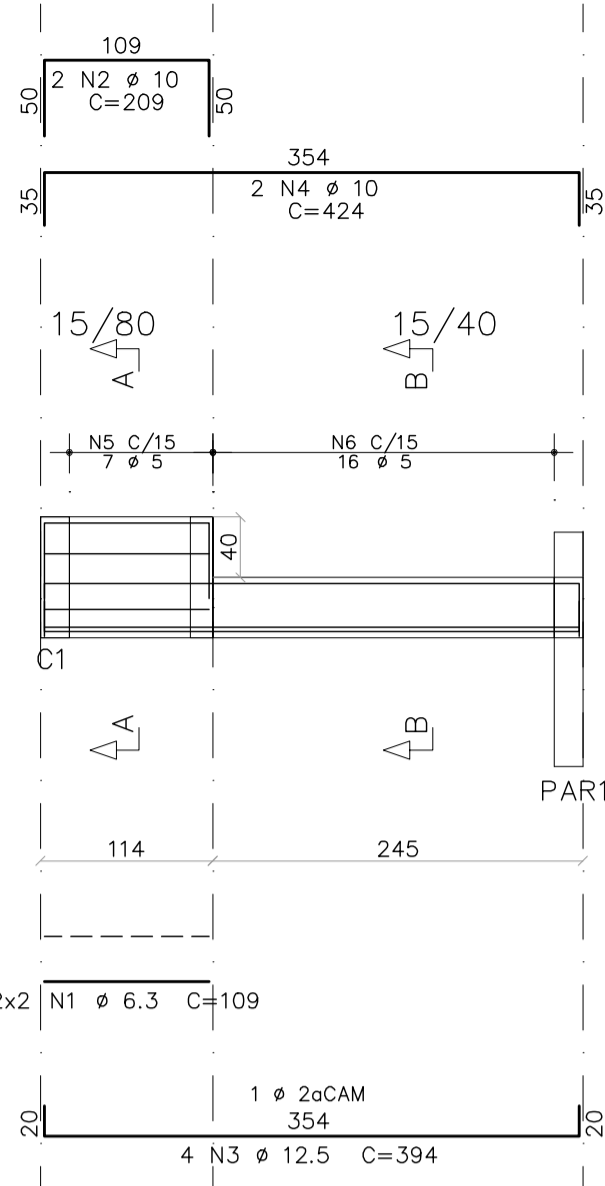
PAR3



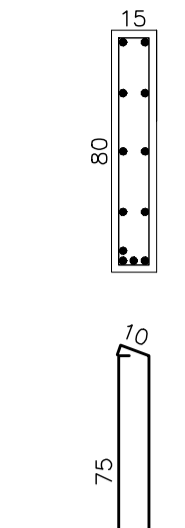
Corte A



PAR4



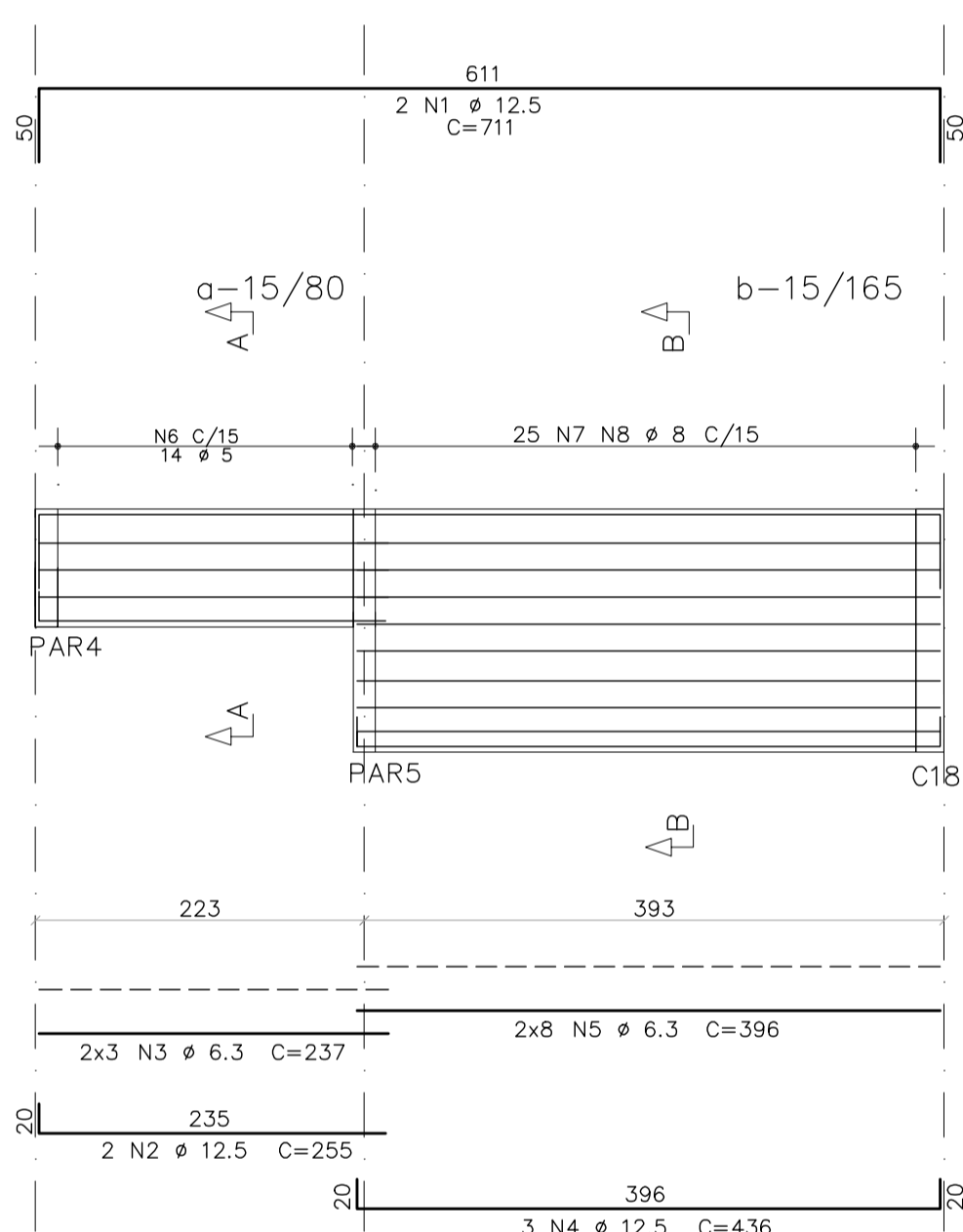
Corte A



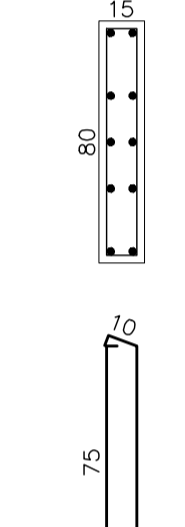
AÇO	POS	BIT	QUANT	COMPRIMENTO		
				UNIT	TOTAL	
		mm		cm	cm	
PAR1	50A	1	12.5	3	1192	3576
	50A	2	20	4	1152	4608
	50A	3	20	1	897	897
	50A	4	6.3	14	1092	15288
	60A	5	5	29	343	9947
	50A	6	8	42	233	9786
	50A	7	8	42	258	10836
PAR2	50A	1	12.5	2	711	1422
	50A	2	12.5	2	255	510
	50A	3	6.3	2	237	474
	50A	4	12.5	3	436	1308
	50A	5	6.3	16	396	6336
	60A	6	5	14	185	2590
	50A	7	8	25	239	5975
	50A	8	8	25	260	6500
PAR3	50A	1	12.5	2	375	750
	50A	2	16	3	315	945
	50A	3	6.3	16	275	4400
	50A	4	8	17	243	4131
	50A	5	8	17	268	4556
PAR4	50A	1	6.3	4	109	436
	50A	2	10	2	209	418
	50A	3	12.5	4	394	1576
	50A	4	10	2	424	848
	60A	5	5	7	185	1295
	60A	6	5	16	105	1680
PAR5	50A	1	10	2	249	498
	50A	2	6.3	6	109	654
	50A	3	12.5	3	394	1182
	50A	4	6.3	10	354	3540
	50A	5	10	2	454	908
	60A	6	5	17	355	2485
	50A	7	6.3	16	169	2704
	50A	8	6.3	16	190	3040
PAR6	50A	1	6.3	16	355	5680
	50A	2	16	3	395	1185
	50A	3	12.5	2	455	910
	50A	4	8	20	243	4860
	50A	5	8	20	268	5360

RESUMO DE AÇO				
AÇO	BIT	COMPR	PESO	
		mm	m	kgf
60A	5	180	28	
50A	6.3	435	107	
50A	8	520	205	
50A	10	27	16	
50A	12.5	112	108	
50A	16	21	34	
50A	20	55	136	
Peso Total		60A =	28	kgf
Peso Total		50A =	606	kgf

PAR2

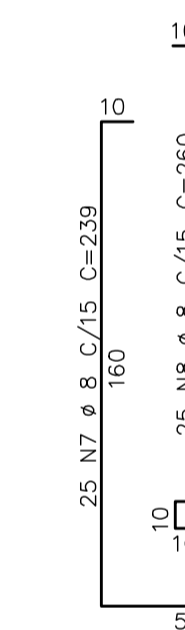
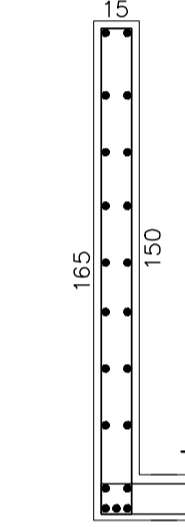


Corte A

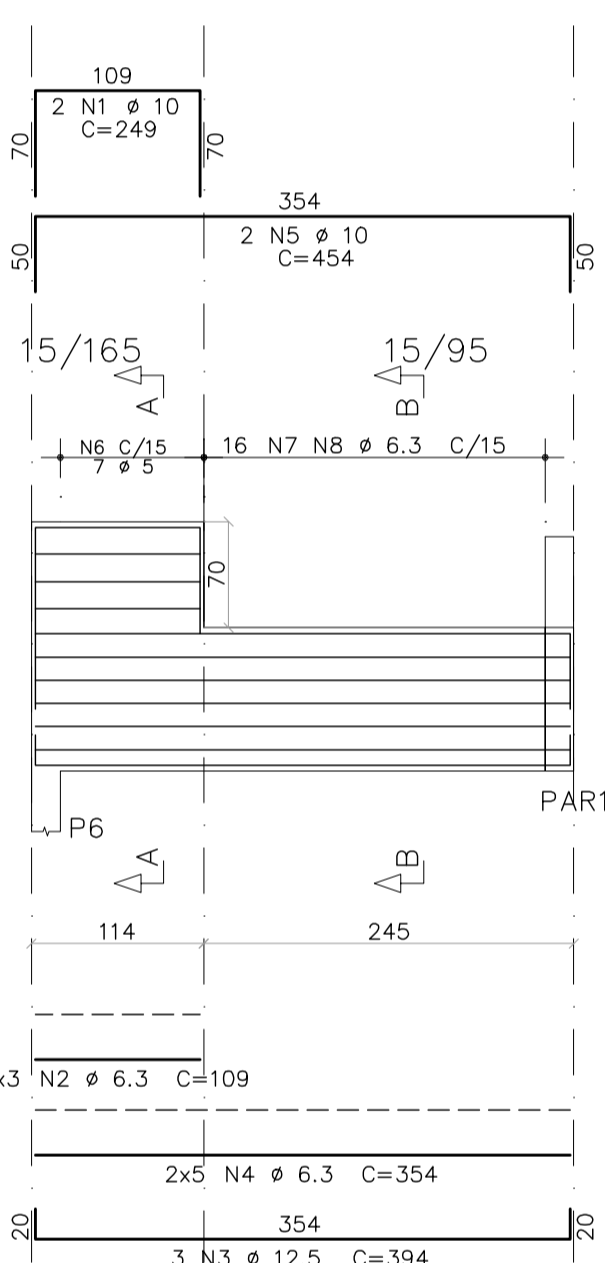


14 N6 ϕ 5 C=185

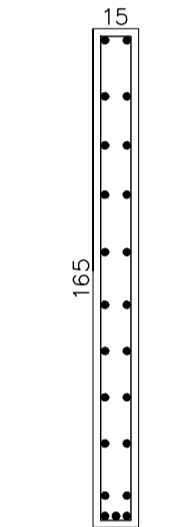
Corte B



PAR5

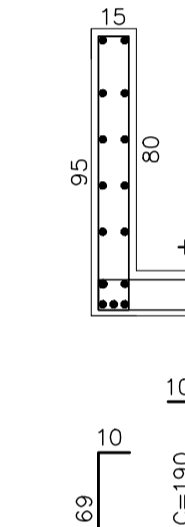


Corte A

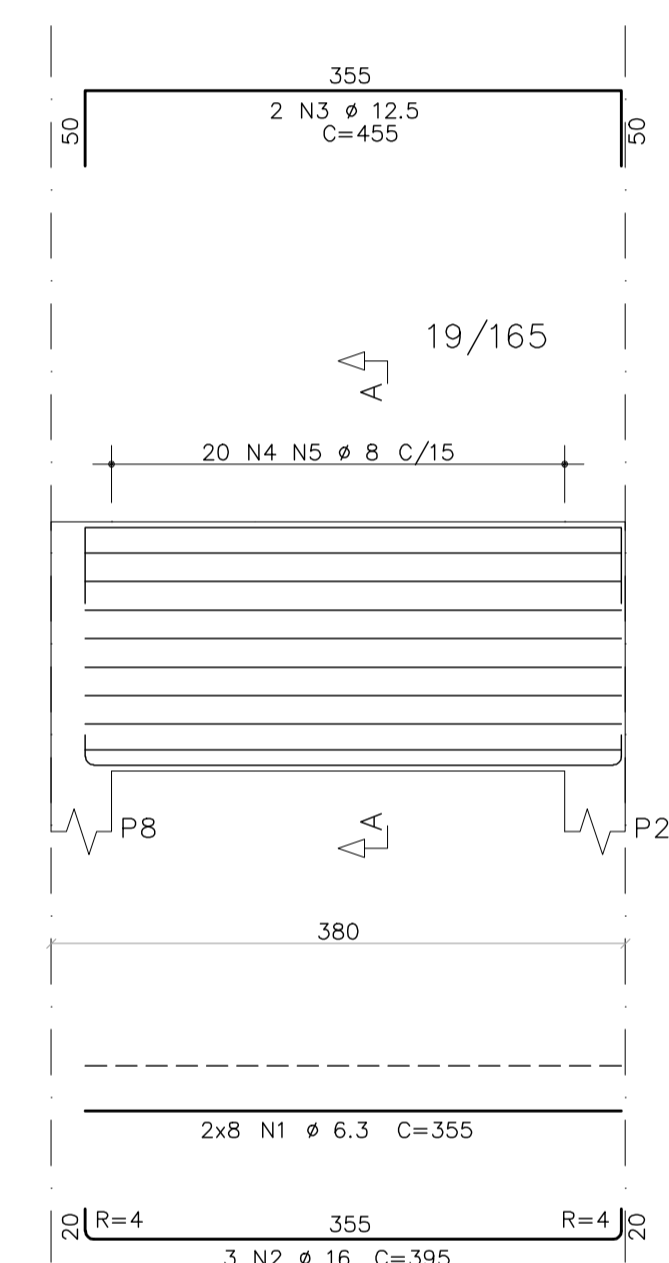


7 N6 ϕ 5 C=355

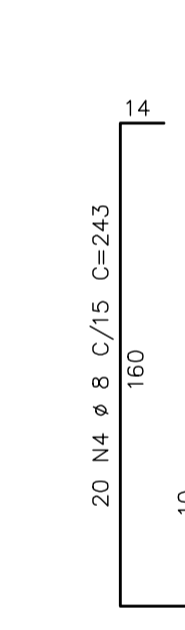
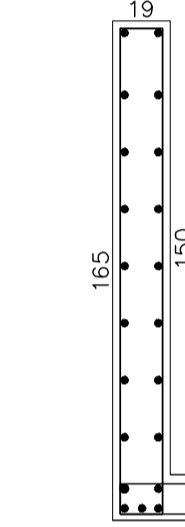
Corte B



PAR6

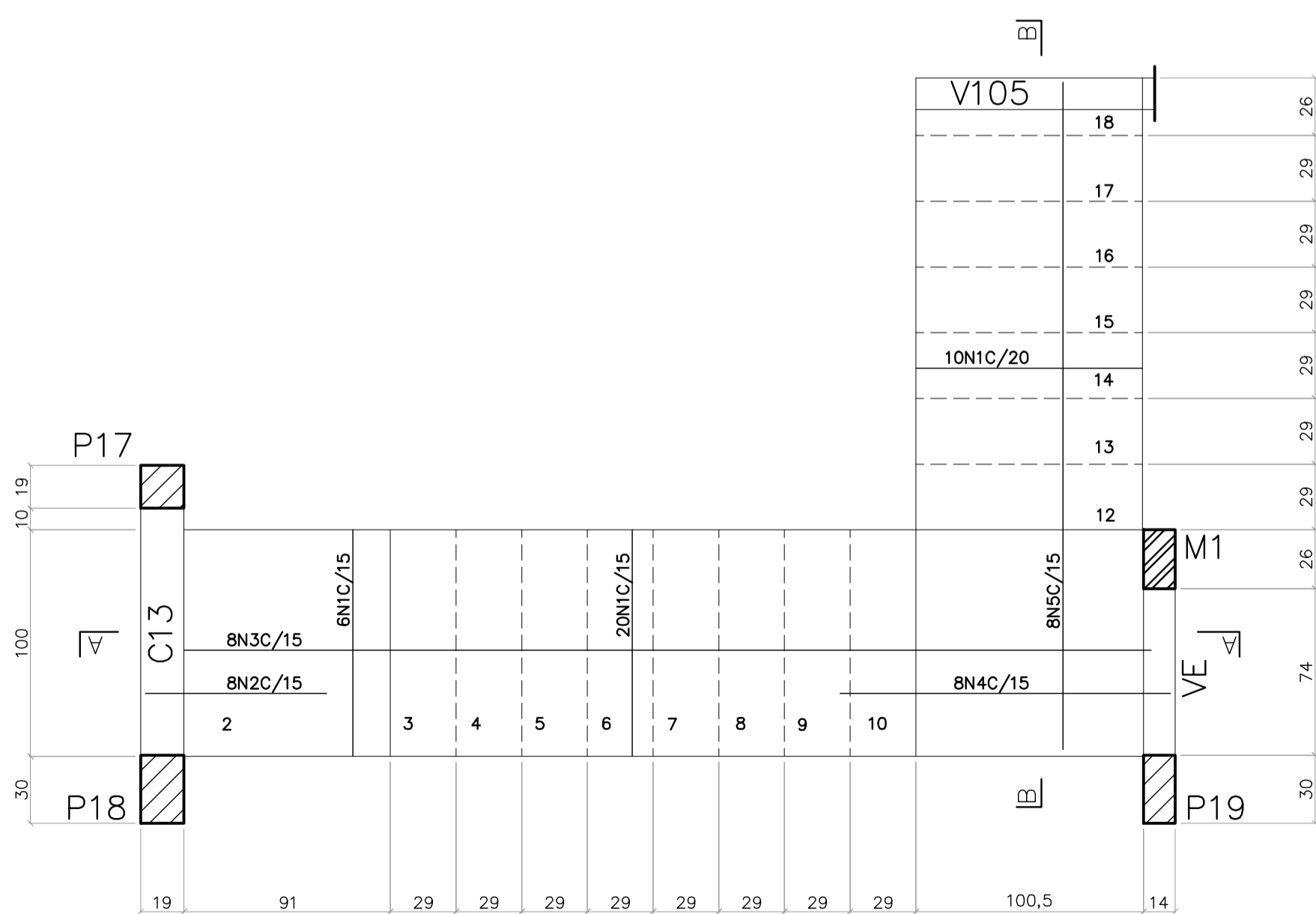
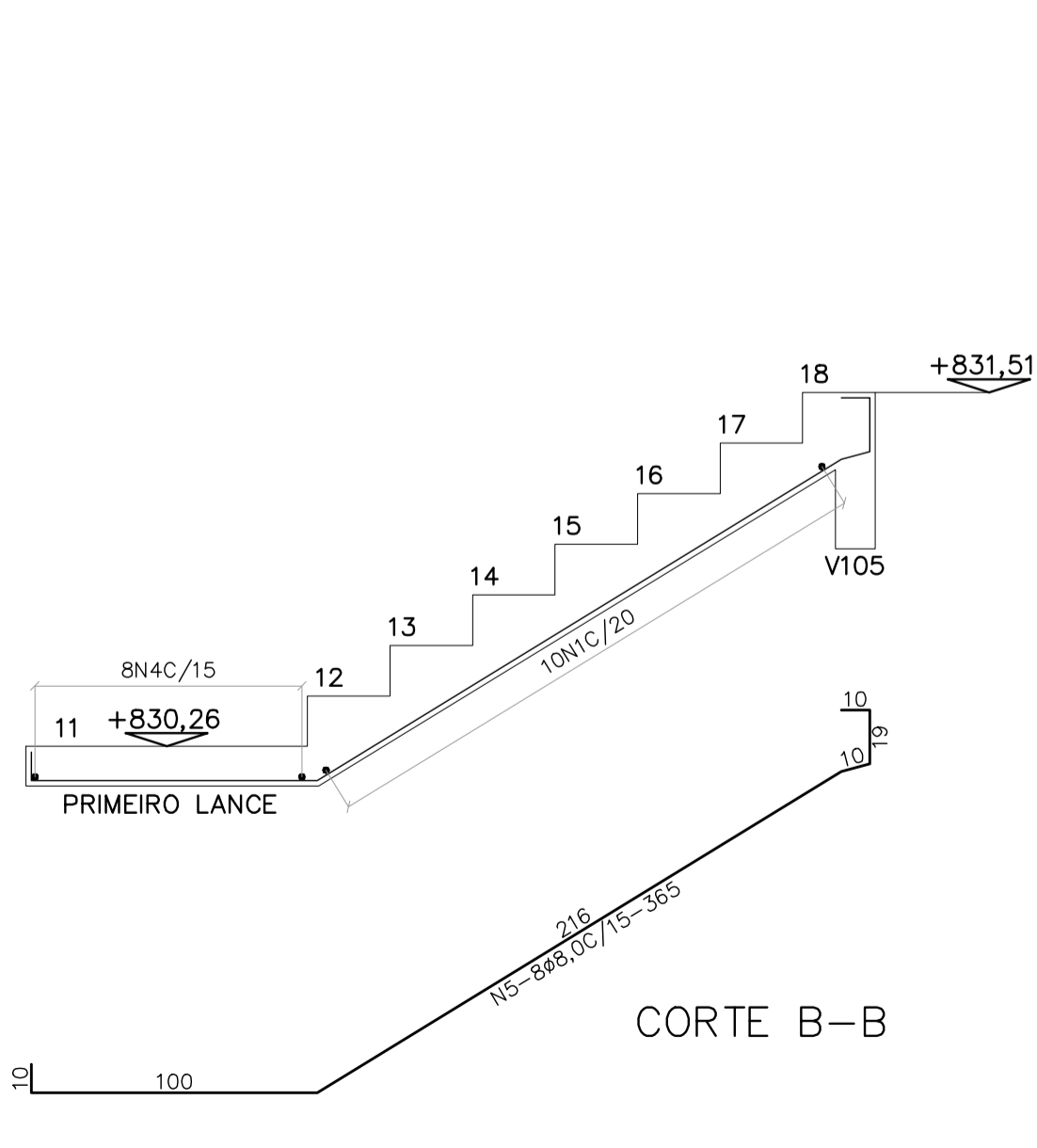


Corte A



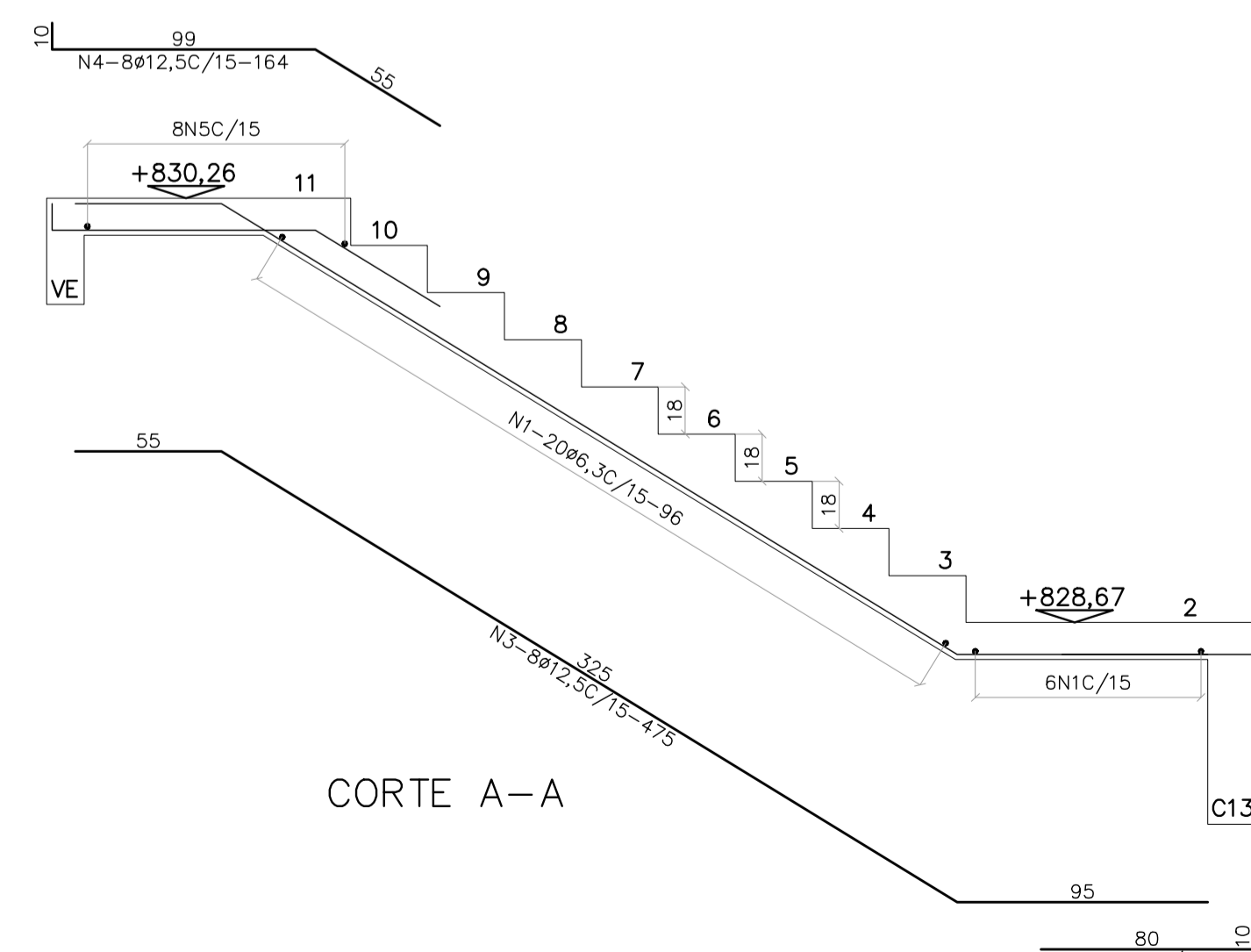
RESUMO DE AÇO				
AÇO	BIT	COMPR	PESO	
		mm	m	kgf
60A	5	180	28	
50A	6.3	435	107	
50A	8	520	205	
50A	10	27	16	
50A	12.5	112	108	
50A	16	21	34	
50A	20	55	136	
Peso Total		60A =	28	kgf
Peso Total		50A =	606	kgf

RESUMO DE AÇO				
AÇO	BIT	COMPR	PESO	
		mm	m	kgf
50A	6.3	35	9	
50A	8	29	12	
50A	12.5	58	56	
Peso Total		50A =	76	kgf



PLANTA

ARMAÇÃO DA ESCADA
h=14cm
ESCALA 1:25



CORTE A-A

NOTAS:

- MEDIDAS EM CENTÍMETROS E NÍVEIS EM METROS.
- COBRIMENTO DOS FERROS PARA PAREDES: 2,5cm.
- COBRIMENTO DOS FERROS PARA A ESCADA: 2,0cm.

PROJETO		ESTRUTURAL		
CONTEUDO		ARMAÇÃO DAS PAREDES DA PISCINA ARMAÇÃO DA ESCADA		
AZEVEDO		Deborah Azevedo ENGR. CIVIL - CREA Nº 200607/D		TELEFONE (37) 9128-4675
ESCALA INDICADA		APROV.	PROJ.	DES. N° 14
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