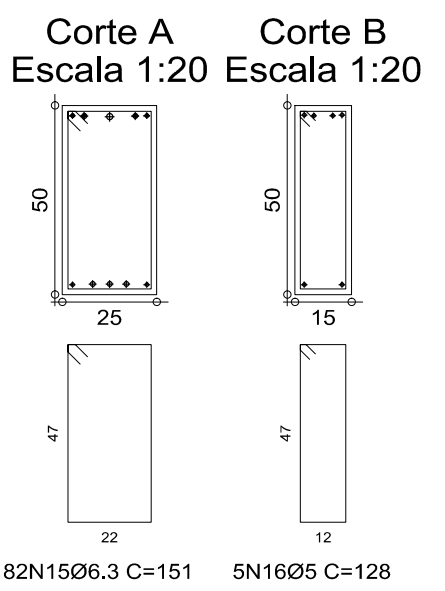
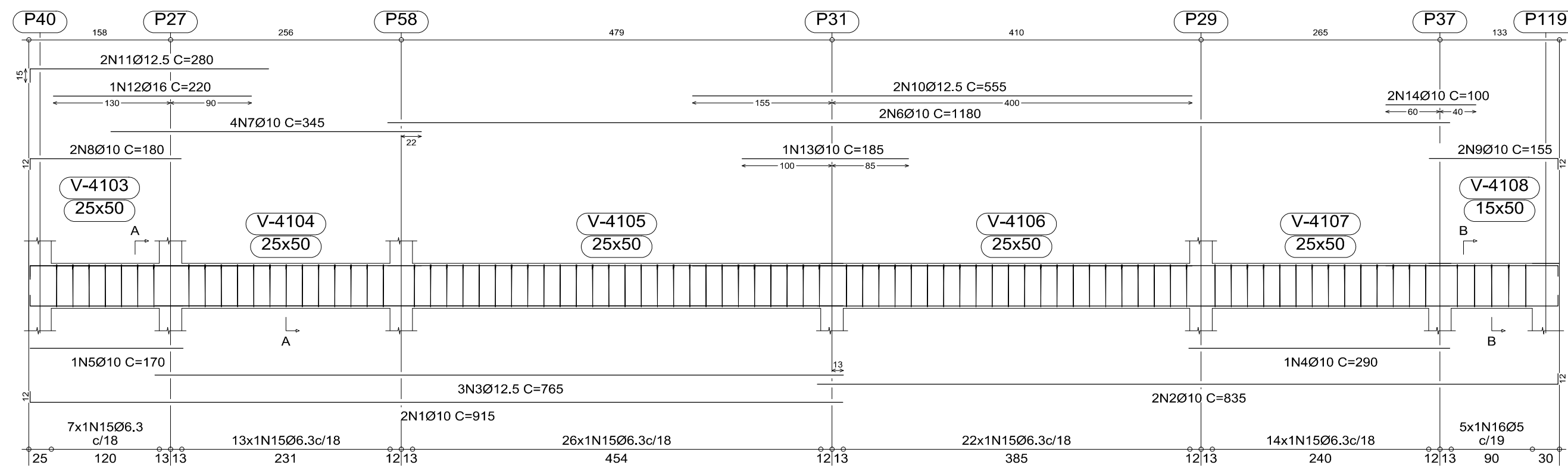
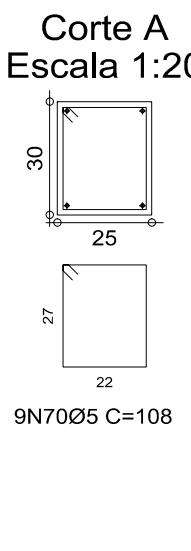
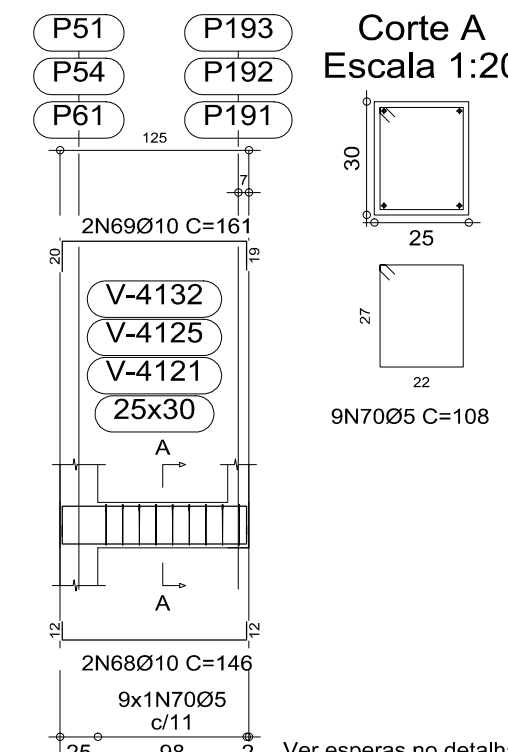


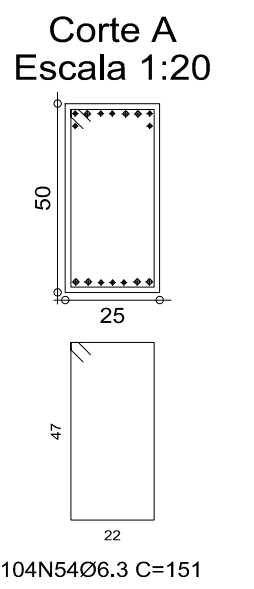
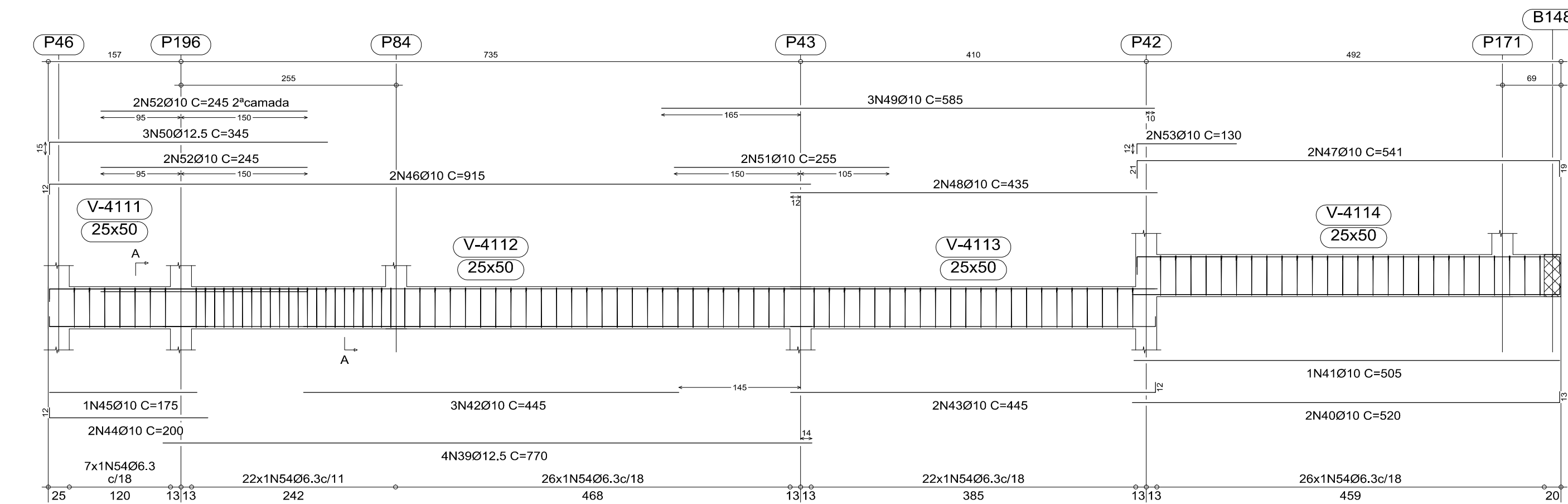
V B432  
Escala 1:50



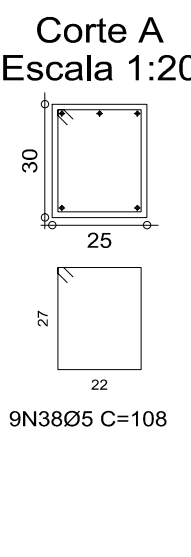
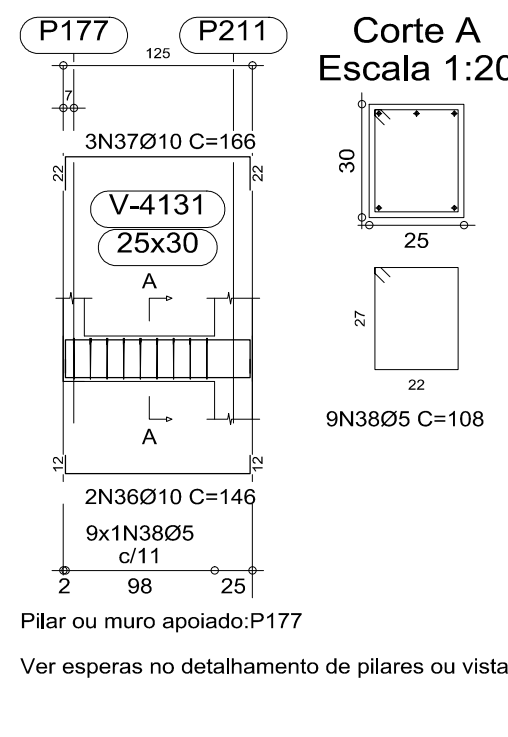
V B439  
V B443  
V B450  
Escala 1:50



V B435  
Escala 1:50



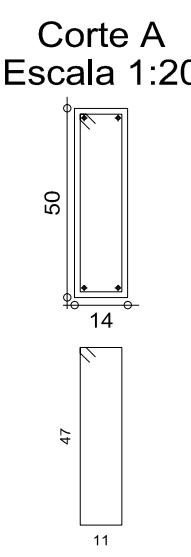
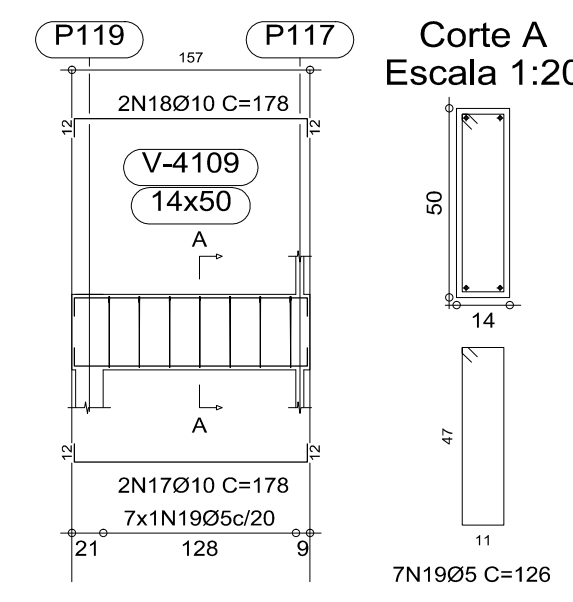
V B449  
Escala 1:50



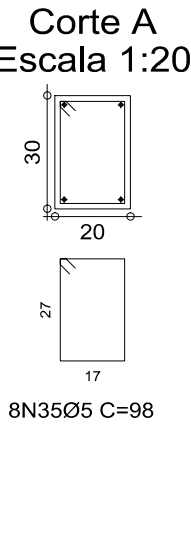
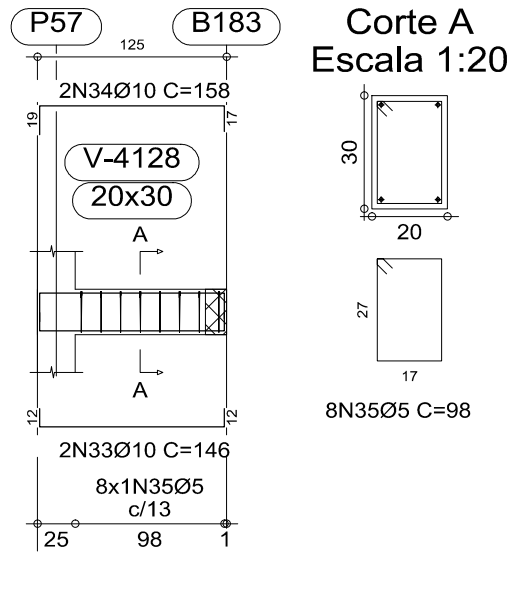
Pilar ou muro apoiado: P84 e P171  
Ver esperas no detalhamento de pilares ou vista de muros

Pilar ou muro apoiado: P177  
Ver esperas no detalhamento de pilares ou vista de muros

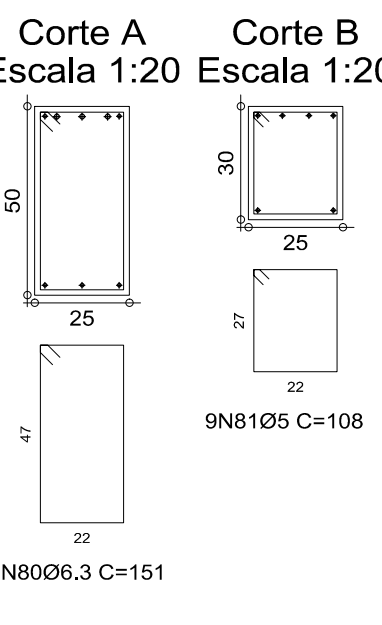
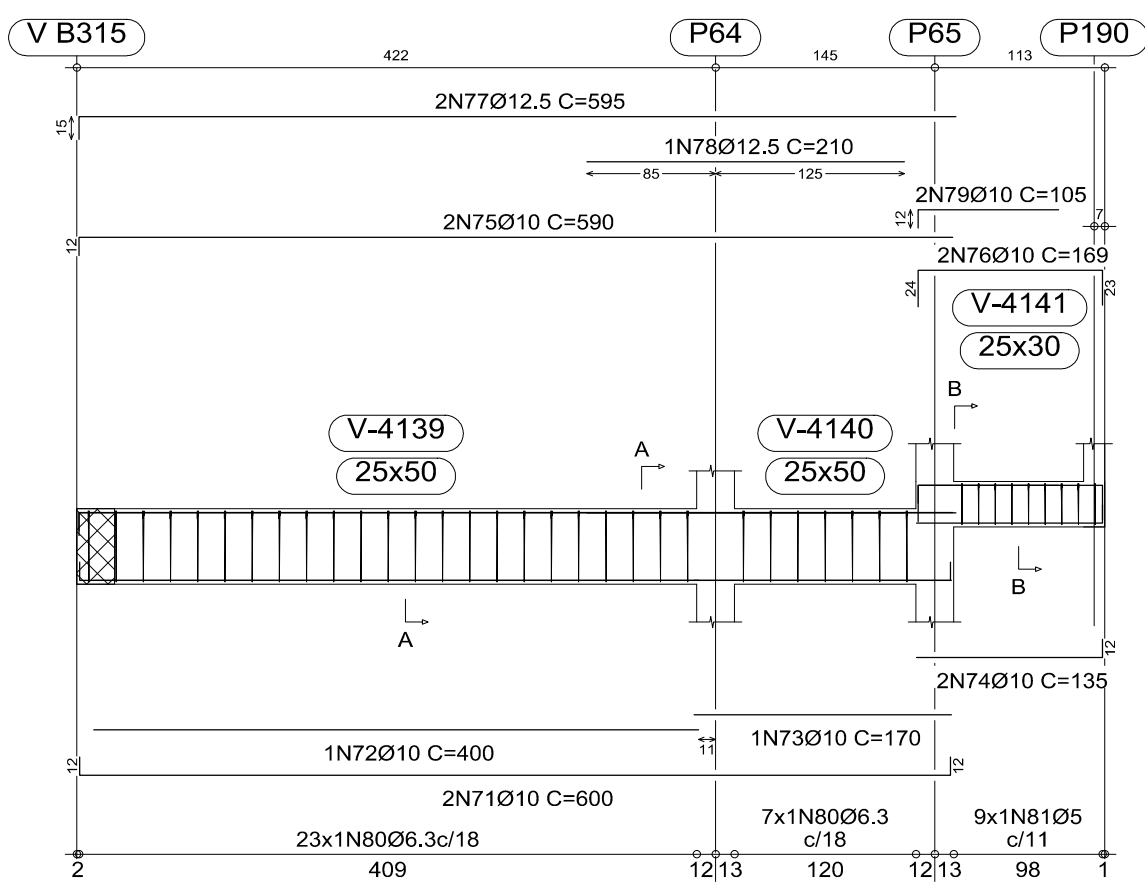
V B433  
Escala 1:50



V B446  
Escala 1:50



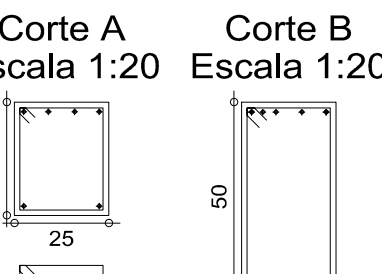
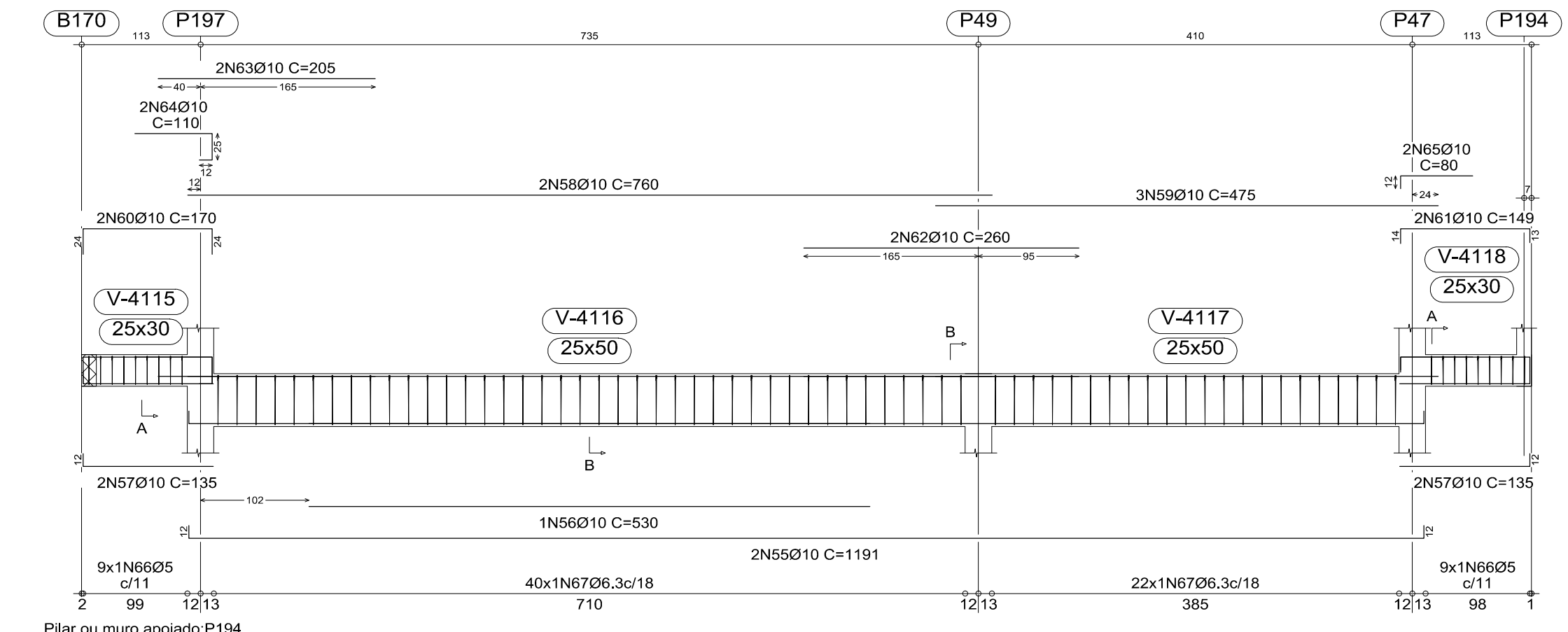
V B455  
Escala 1:50



Pilar ou muro apoiado: P190  
Ver esperas no detalhamento de pilares ou vista de muros

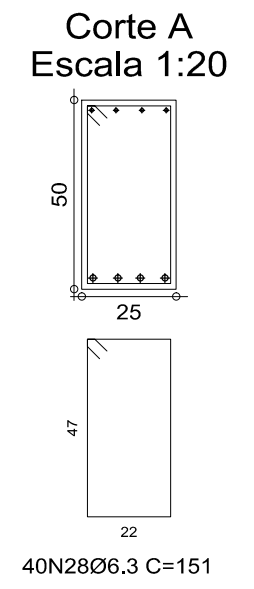
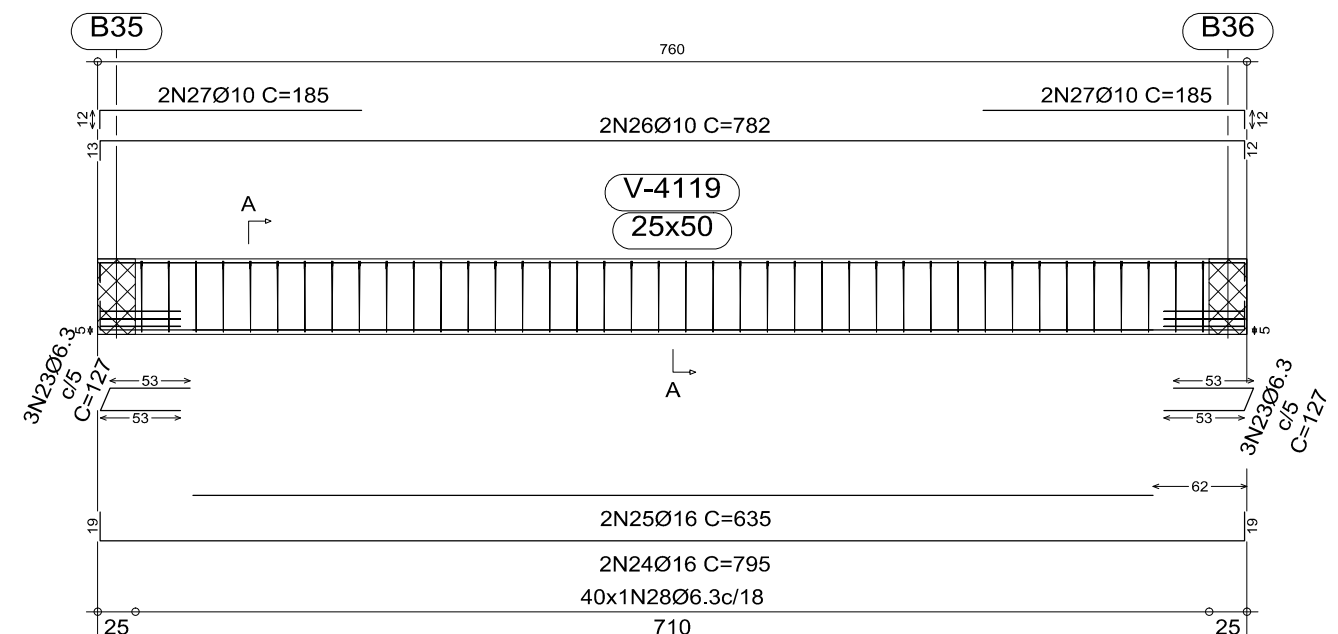
SEGUNDA LAJE  
Desenho de vigas  
Concreto: C20, em geral  
Aço: CA-50-A e CA-60-B  
Escala vigas: 1:50  
Escala seções: 1:20

V B436  
Escala 1:50

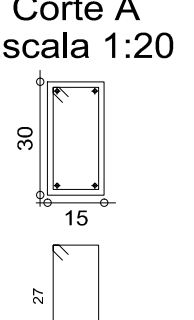
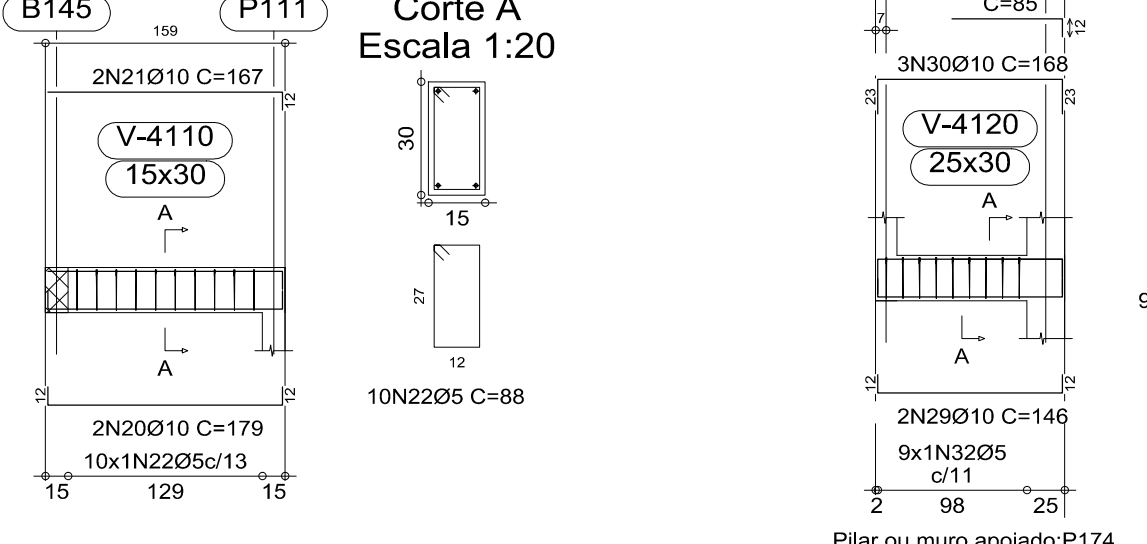


Pilar ou muro apoiado: P194  
Ver esperas no detalhamento de pilares ou vista de muros

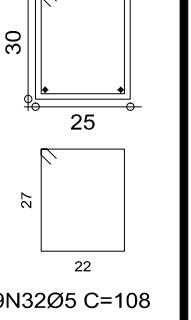
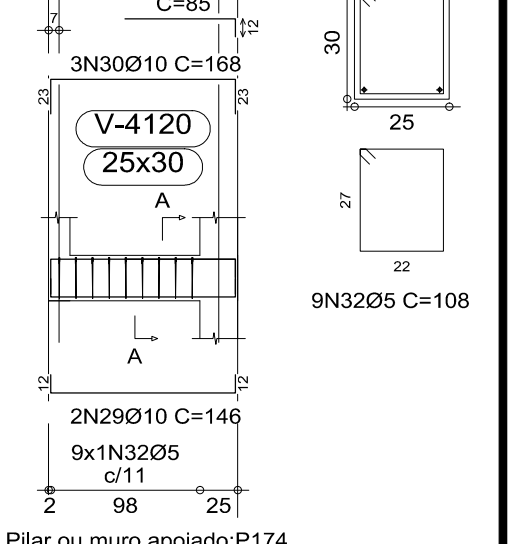
V B437  
Escala 1:50



V B434  
Escala 1:50



V B438  
Escala 1:50

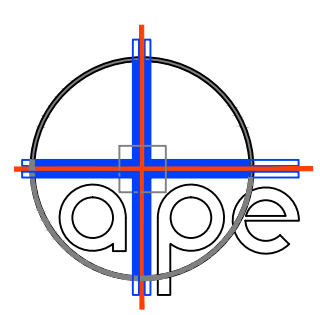


Pilar ou muro apoiado: P174  
Ver esperas no detalhamento de pilares ou vista de muros

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Ret. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
<b>V B432</b>									
1	Ø10	2	12	903		915	1830	11.5	
2	Ø10	2	12	823	12	835	1670	10.5	
3	Ø12.5	3	765			765	2295	22.5	
4	Ø10	1	290			290	290	1.8	
5	Ø10	1	170			170	170	1.1	
6	Ø10	1	1180			1180	2360	14.8	
7	Ø10	4	345			345	1380	8.7	
8	Ø10	2	168			180	360	2.3	
9	Ø10	2	143	12	155	310		1.9	
10	Ø12.5	2	555			555	1110	10.9	
11	Ø12.5	2	265			265	560	3.5	
12	Ø16	1	220			220	220	3.5	
13	Ø10	1	185			185	185	1.2	
14	Ø10	2	100			100	200	1.3	
15	Ø6.3	82				151	12382	30.6	
16	Ø5	5				128	640		1.0
Total+10%:									140.9
<b>V B433</b>									
17	Ø10	2	12	154	12	178	356	2.2	
18	Ø10	2	12	154	12	178	356	2.2	
19	Ø5	7				126	882		1.4
Total+10%:									4.8
<b>V B434</b>									
20	Ø10	2	12	155	12	179	358	2.2	
21	Ø10	2	12	155	12	179	358	2.2	
22	Ø5	10				88	880		1.4
Total+10%:									4.7
<b>V B437</b>									
23	Ø6.3	6	53	21	53	127	762	1.9	
24	Ø16	2	19	757	19	795	1590	25.0	
25	Ø16	2	635			635	1270	19.9	
26	Ø10	2	13	757	12	782	1564	9.8	
27	Ø10	4	12	173		185	740	4.6	
28	Ø6.3	40				151	6040	14.9	
Total+10%:									83.7
<b>V B438</b>									
29	Ø10	2	12	122	12	146	292	1.8	
30	Ø10	3	23	122	23	168	504	3.2	
31	Ø10	2	73	12		85	170	1.1	
32	Ø5	9				108	972		1.5
Total+10%:									6.7
<b>V B446</b>									
33	Ø10	2	12	122	12	146	292	1.8	
34	Ø10	2	19	122	17	158	316	2.0	
35	Ø5	8				98	784		1.2
Total+10%:									4.2
<b>V B449</b>									
36	Ø10	2	12	122	12	146	292	1.8	
37	Ø10	3	22	122	22	166	498	3.1	
38	Ø5	9				108	972		1.5
Total+10%:									5.4
<b>V B435</b>									
39	Ø12.5	4				770	3080	30.2	
40	Ø10	2	13			507	1014	6.5	
41	Ø10	1	505			505	505	3.2	
42	Ø10	3	445			445	1335	8.4	
43	Ø10	2	433	12	445	890		5.6	
44	Ø10	2	188			200	400	2.5	
45	Ø10	1	175			175	175	1.1	
46	Ø10	2	12	903	915	1830		11.5	
47	Ø10	2	21	501	19	541	1082	6.8	
48	Ø10	2	435			435	870	5.5	
49	Ø10	3	585			585	1755	11.0	
50	Ø12.5	3	15	330	365	510	1020	3	
51	Ø10	2	255	255	510			3.2	
52	Ø10	4	245			245	980	6.2	
53	Ø10	2	12	118		130	260	1.6	
54	Ø6.3	103				151	15553	38.5	
Total+10%:									167.2
<b>V B436</b>									
55	Ø10	2	12	1167	12	1191	2382	15.0	
56	Ø10	1	530			530	530	3.3	
57	Ø10	4	12	123		135	540	3.4	
58	Ø10	2	760			760	1520	9.5	
59	Ø10	3	475			475	1425	8.9	
60	Ø10	2	24	122	24	170	340	2.1	
61	Ø10	2	14	122	13	149	298	1.9	
62	Ø10	2	260			260	520	3.3	
63	Ø10	2	205			205	410	2.6	
64	Ø10	2	73	37	110	220		1.4	
65	Ø10	2	12	68		80	160	1.0	
66	Ø5	18				108	1944		3.1
67	Ø6.3	62				151	9362	23.1	
Total+10%:									83.1
<b>V B439=V B443</b>									
68	Ø10	2	12	122	12	146	292	1.8	
69	Ø10	2	20	122	19	161	322	2.0	
70	Ø5	9				108	972		1.5
Total+10%:									4.2
<b>V B450</b>									
71	Ø10	2	12	576	12	600	1200	7.5	
72	Ø10	1	400			400	400	2.5	
73	Ø10	1	170			170	170	1.1	
74	Ø10	2	123	12	135	270		1.7	
75	Ø10	2	12	578	590	1180		7.4	
76	Ø10	2	24	122	23	169	338	2.1	
77	Ø12.5	2	15	580		595	1190	11.7	
78	Ø12.5	1	210			210	210	1.3	
79	Ø10	2	12	93		105	210	1.3	
80	Ø6.3	30				151	4530	11.2	
81	Ø5	9				108	972		1.5
Total+10%:									53.5
Total:									19.0

NR.	AUTOR	DATA
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-
-	-	-

PARA APROVAÇÃO	ASS.	DATA:	ORDEM DE SERVIÇO:
X LIBERADO P/ FABRICAÇÃO	ASS. ENG. REINALDO	DATA: 16/08/2010	01618
CONNECT DESIGN <sup>®</sup> TODOS OS DIREITOS RESERVADOS. PROIBIDA A REPRODUÇÃO SEM AUTORIZAÇÃO PREVIA.			
Rua João Pessoa, 1890 - CEP 18602-140 Botucatu - SP		Proj: ENG. REINALDO Data: 16/08/2010	
Fone/Fax + 55 14 3815-1873 / 3813-4563 connect@connectdesign.com.br www.connectdesign.com.br		Proj: CONNECT Data: 16/08/2010	
TECNOLOGIA EM PROJETOS		Dimensões: CM Arquivo: STR-01618-041-REV00	



ASSESSORIA TÉCNICA DE PLANEJAMENTO E ENGENHARIA  
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OBRA	AMPLIAÇÃO DO AMBULATÓRIO MÉDICO DE ESPECIALIDADES	REVISÃO	00
LOCAL	HOSPITAL DAS CLÍNICAS - BOTUCATU	ESCALAS	GERAL
FRANCHA	ARMAÇÃO DAS VIGAS DA SEGUNDA LAJE- SETOR B- COTA 103.50	ESTRUTURAL	FOLHA 41/56