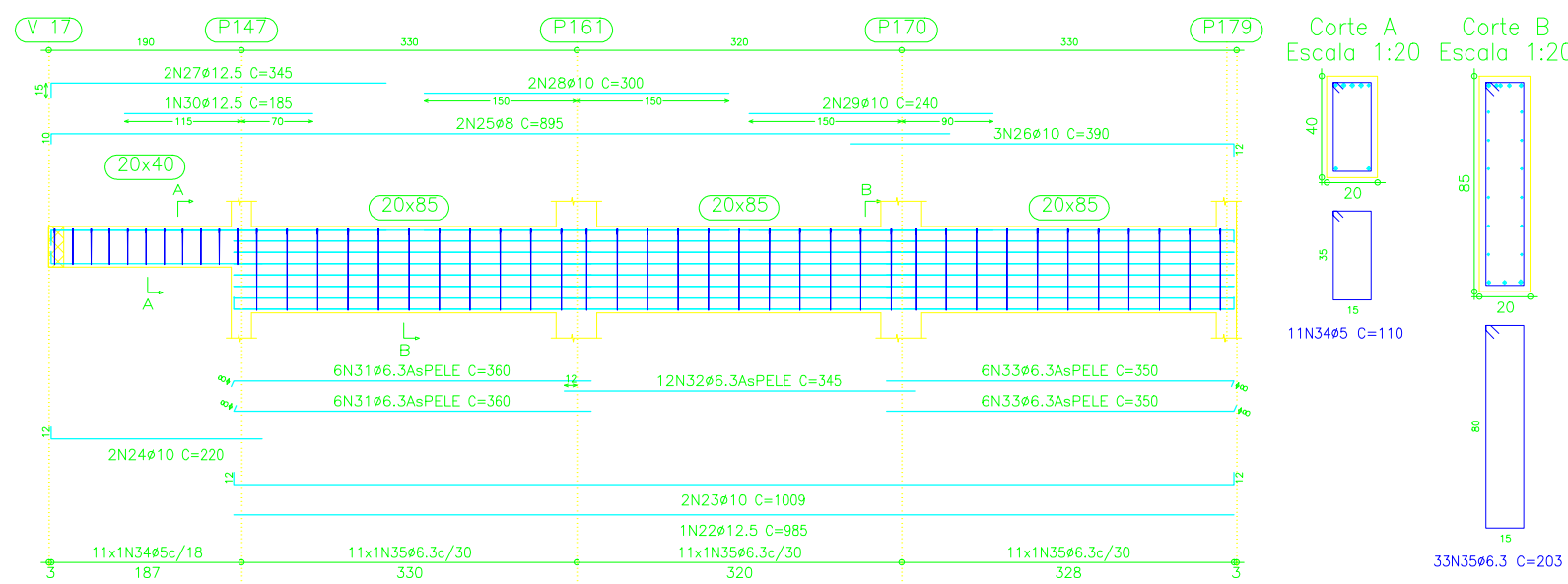
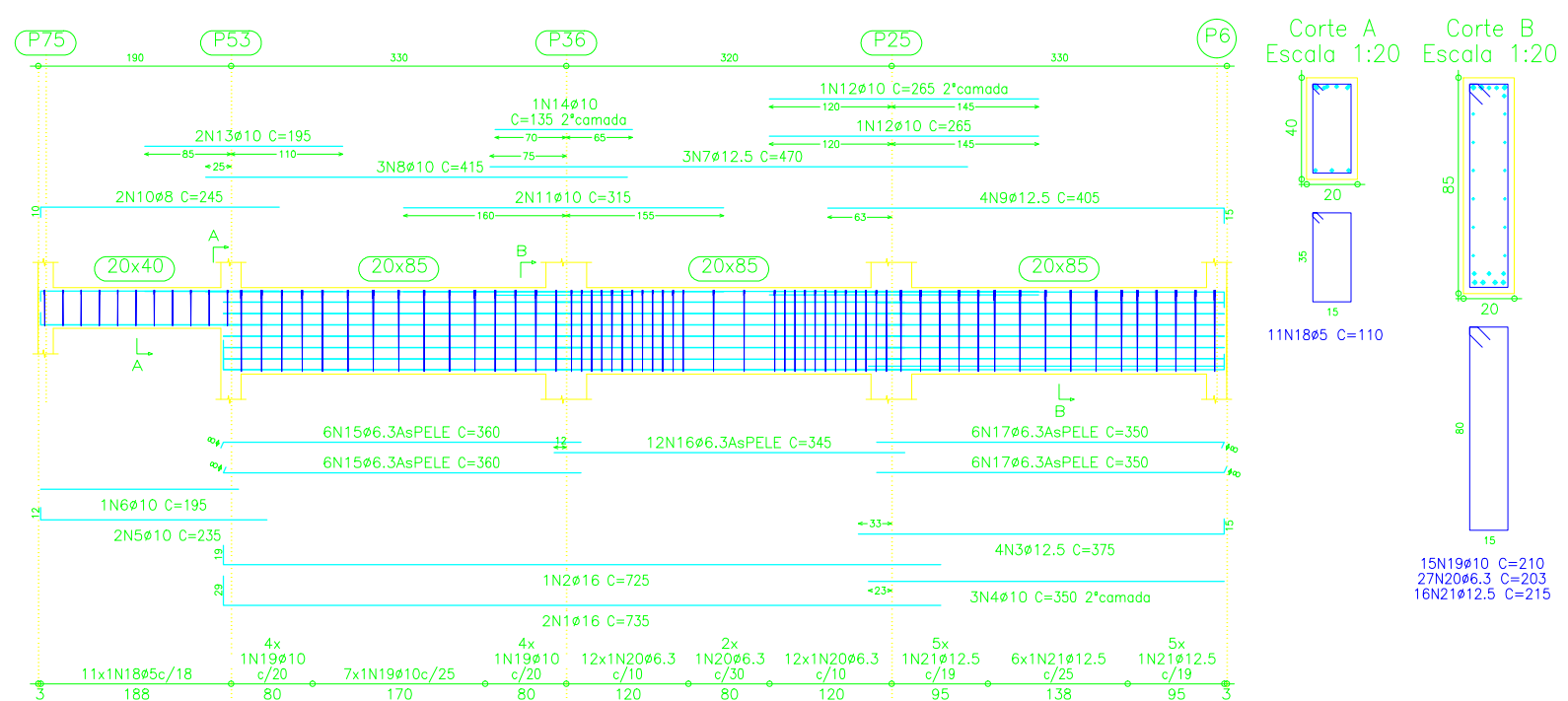


V 163
Escala: 1:50

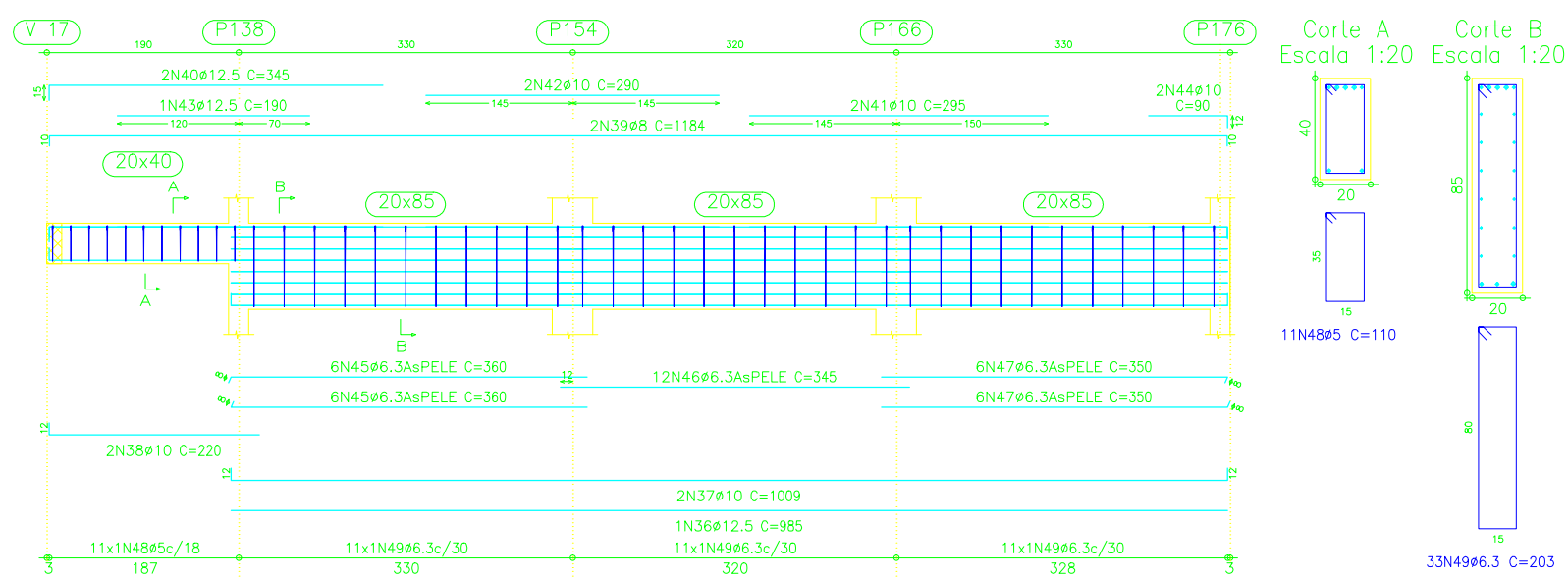


Primeiro piso
Detenho de vigas
Concreto: C20, com. de ferro
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

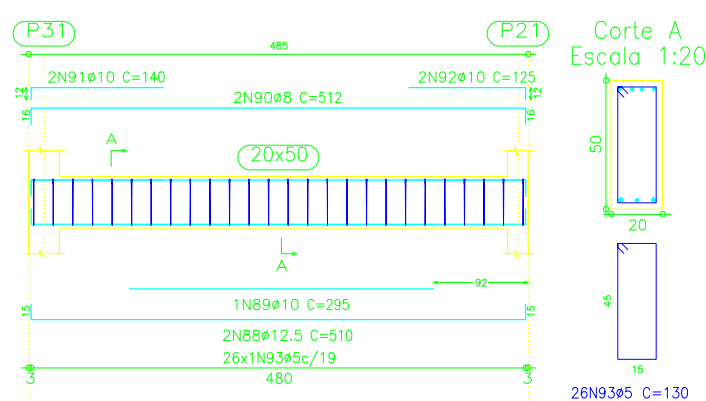
V 125
Escala: 1:50



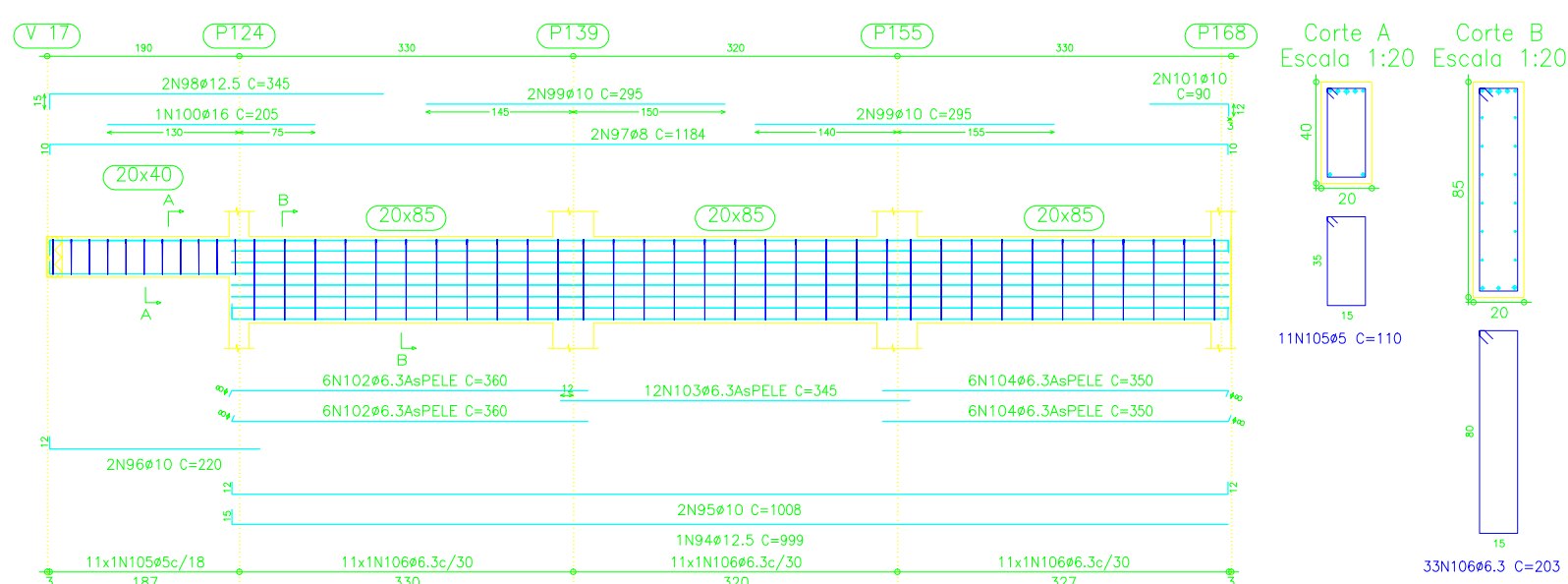
V 162
Escala: 1:50



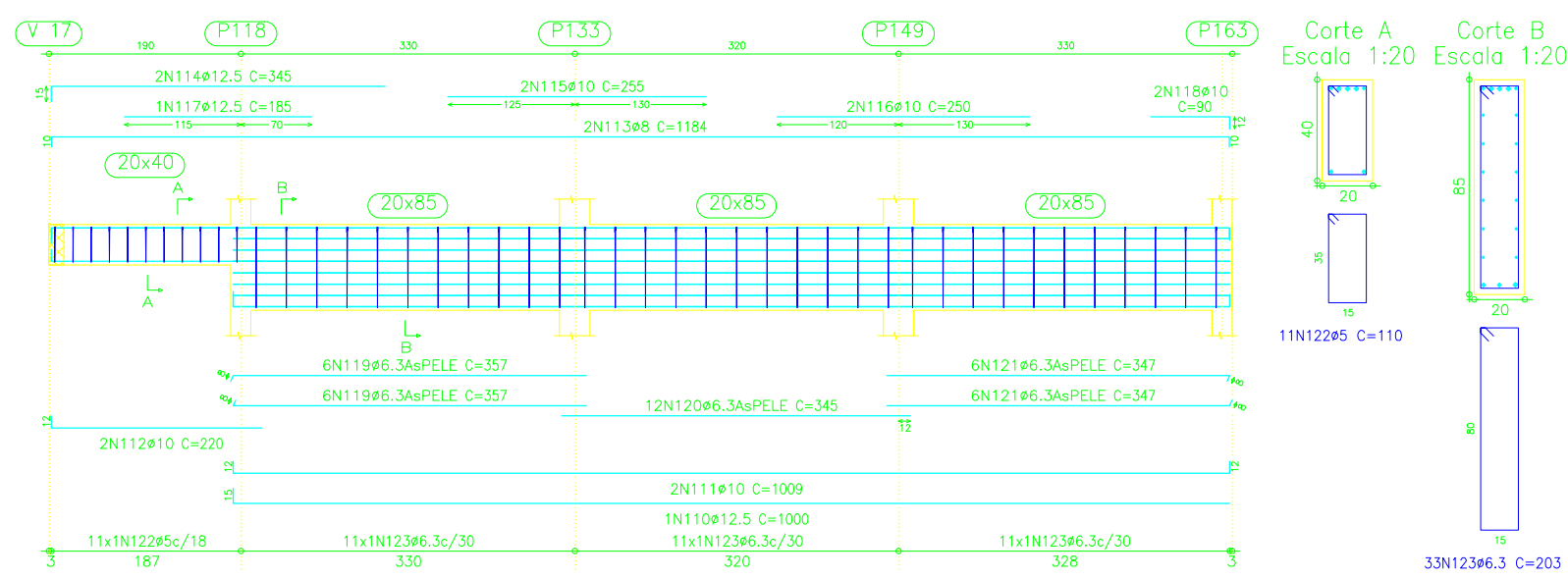
V 135
Escala: 1:50



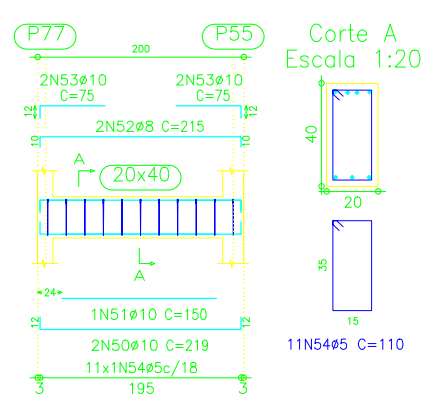
V 158
Escala: 1:50



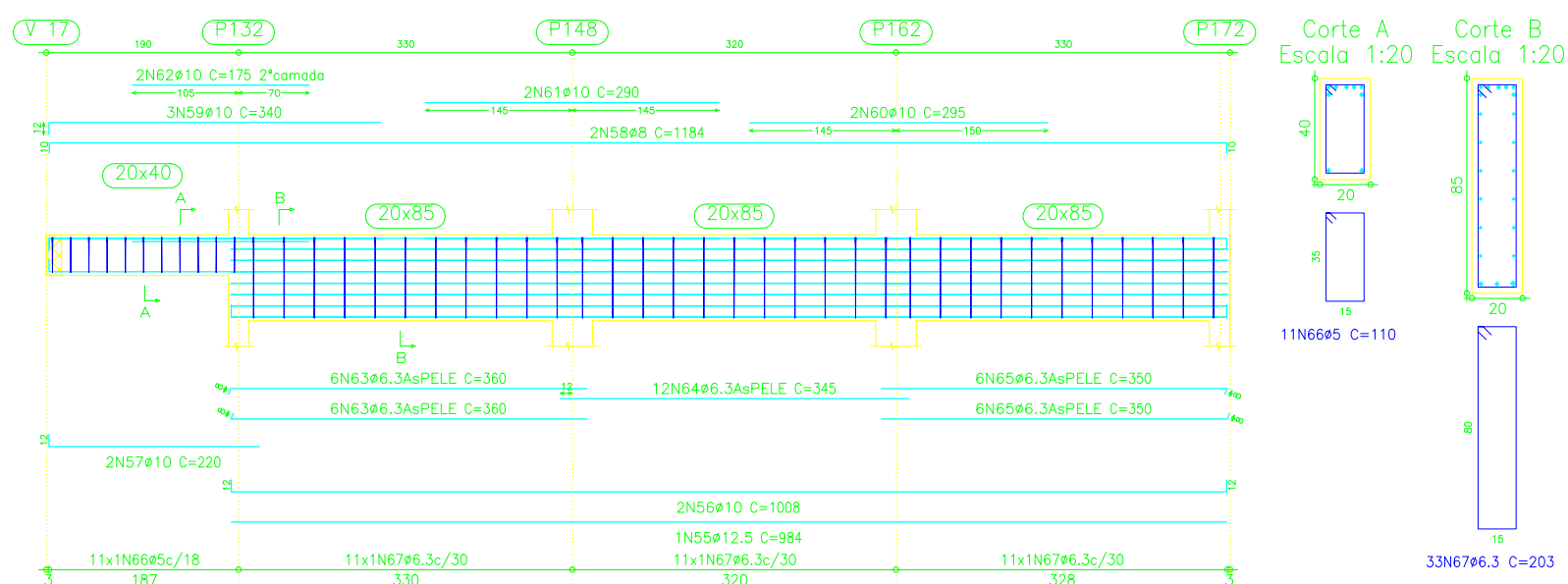
V 156
Escala: 1:50



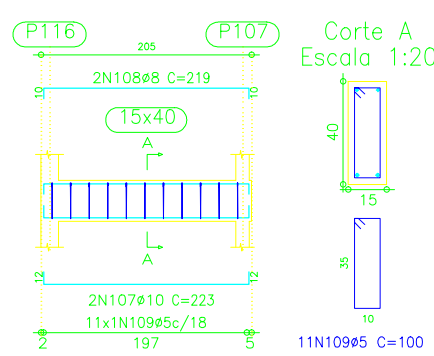
V 126
Escala: 1:50



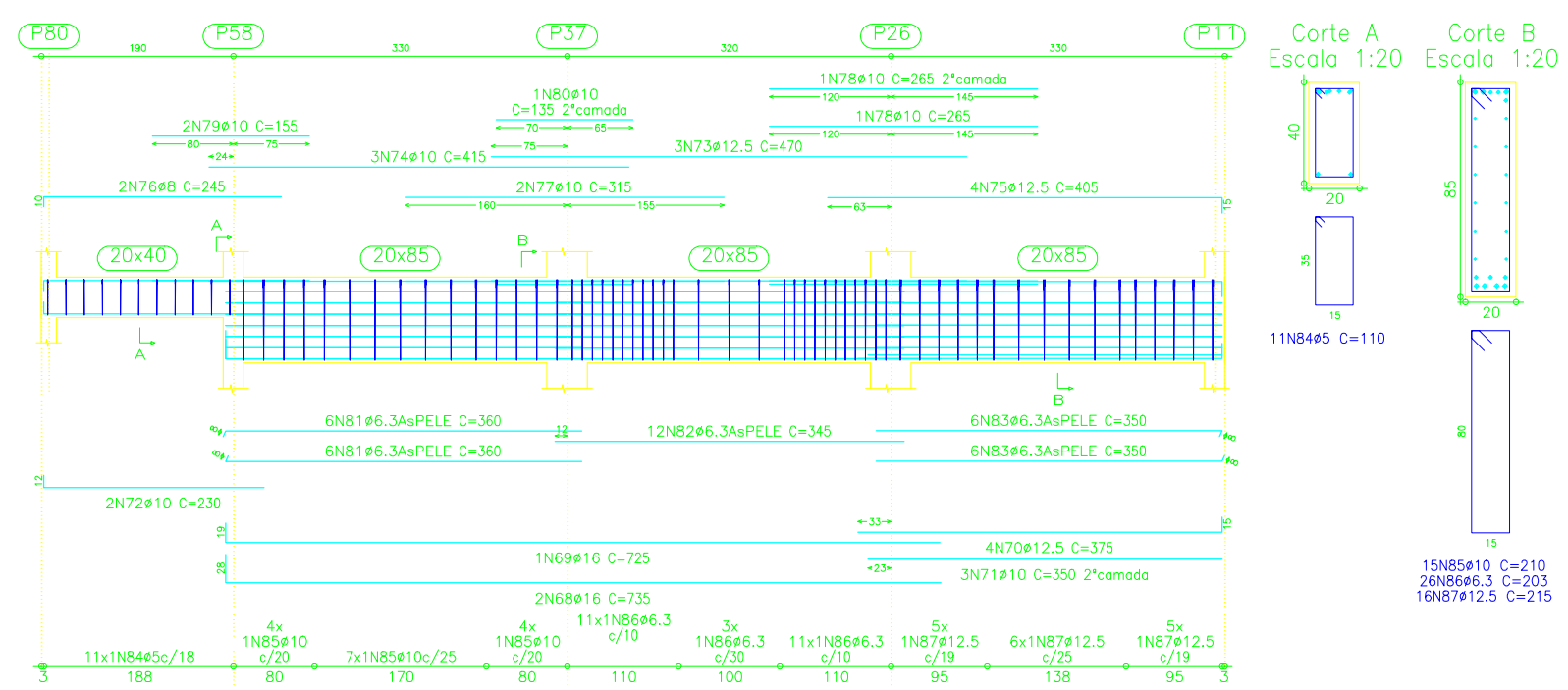
V 160
Escala: 1:50



V 131
Escala: 1:50



V 128
Escala: 1:50



Elemento	Pos.	Diam.	Q.	DoB. (cm)	Retid (cm)	DoB. (cm)	Comp. (cm)	Totol (cm)	CA-50-A (kg)	CA-60-B (kg)
V 135	1	#16	2	23	1985	725	1470	23.1	219	438
	2	#16	1	19	706	725	725	11.4	1008	2016
	3	#12.5	4	360	375	1500	14.7	220	1440	2.8
	4	#10	3	350	350	1050	6.6	350	1050	6.6
	5	#10	12	203	335	470	3.0	330	345	690
	6	#10	1	195	195	195	1.2	235	295	590
	7	#12.5	3	470	470	1410	13.8	290	580	3.7
	8	#10	3	415	415	1245	7.8	190	190	1.9
	9	#12.5	4	405	405	1620	15.9	180	180	1.1
	10	#8	10	235	345	490	1.9	360	4320	10.7
	11	#10	2	315	315	630	4.0	345	345	4140
	12	#10	2	205	205	530	3.3	350	4200	10.4
	13	#10	2	195	195	390	2.4	110	1210	1.9
	14	#10	1	135	135	135	0.8	203	6699	16.6
	15	#6.3	12	8	352	360	4320	10.7		
	16	#6.3	12	345	345	4140	10.2			
	17	#6.3	12	342	8	350	4200	10.4		
	18	#10	15	110	1210					
	19	#10	15	210	3150	19.8				
	20	#6.3	26	203	5278	13.1				
	21	#12.5	16	215	3440	33.8				
Total=1026									228.7	2.1
V 142	36	#12.5	1	985	985	985	985	9.7	984	9.7
	37	#10	2	12	985	12	1008	2016	12.7	
	38	#10	2	12	208	150	150	0.8	150	0.8
	39	#8	2	10	1164	10	1184	2368	9.3	
	40	#12.5	3	330	345	690	6.8	345	690	6.8
	41	#10	2	15	295	295	590	3.7		
	42	#10	2	290	290	580	3.7			
	43	#12.5	1	190	190	190	1.9			
	44	#10	2	78	78	12	90	180	1.1	
	45	#6.3	12	352	360	4320	10.7			
	46	#6.3	12	345	345	4140	10.2			
	47	#6.3	12	342	8	350	4200	10.4		
	48	#5	11	110	1210					
	49	#6.3	33	203	6699	16.6				
Total=1026									106.1	2.1
V 128	50	#10	2	12	195	12	219	438	2.8	
	51	#10	2	10	150	150	150	0.8		
	52	#8	2	10	195	10	215	430	1.7	
	53	#10	4	12	63	75	300	1.9		
	54	#5	11	110	1210					
Total=1026									5.0	2.1
V 148	55	#12.5	1	984	984	984	984	9.7		
	56	#10	2	12	984	12	1008	2016	12.7	
	57	#10	2	12	208	150	150	0.8		
	58	#8	2	10	1164	10	1184	2368	9.3	
	59	#10	3	330	345	690	6.8	345	690	6.8
	60	#10	2	15	295	295	590	3.7		
	61	#10	2	290	290	580	3.7			
	62	#10	2	175	175	350	2.2			
	63	#6.3	12	8	352	360	4320	10.7		
	64	#6.3	12	345	345	4140	10.2			
	65	#6.3	12	342	8	350	4200	10.4		
	66	#5	11	110	1210					
	67	#6.3	33	203	6699	16.6				
Total=1026									106.1	2.1
V 138	68	#16	2	28	707	725	1470	23.1		
	69	#16	1	19	706	725	725	11.4		
	70	#10	2	12	208	150	150	0.8		
	71	#10	3	350	350	1050	6.6			
	72	#10	12	218	230	460	2.9			
	73	#12.5	3	470	470	1410	13.8			
	74	#10	3	415	415	1245	7.8			
	75	#12.5	4	390	15	405	1620	15.9		
	76	#8	10	235	345	490	1.9			
	77	#10	2	315	315	630	4.0			
	78	#10	2	265	265	530	3.3			
	79	#10	2	150	150	300	1.9			
	80	#10	1	135	135	135	0.8			
	81	#6.3	12	8	352	360	4320	10.7		
	82	#6.3	12	345	345	4140	10.2			
	83	#6.3	12	342	8	350	4200	10.4		
	84	#5	11	110	1210					
	85	#10	18	210	3150	19.8				
	86	#6.3	26	203	5278	13.1				
	87	#12.5	16	215	3440	33.8				
Total=1026									226.1	2.1
V 135	88	#12.5	2	15	480	15	510	1020	10.0	
	89	#10	2	10	295	295	590	3.7		
	90	#8	2	16	480	16	512	1024	4.0	
	91	#10	2	12	128	140	280	1.8		
	92	#10	2	113	12	125	250	1.6		
	93	#5	26	130	1380					
Total=1026									5.3	
V 158	94	#12.5	1	15	984	984	984	9.7		
	95	#10	2	12	984	12	1008	2016	12.7	
	96	#10	2	12	208	150	150	0.8		
	97	#8	2	10	1164	10	1184	2368	9.3	
	98	#12.5	3	330	345	690	6.8			
	99	#10	2	15	295	295	590	3.7		
	100	#10	2	290	290	580	3.7			
	101	#10	2	78	78	12	90	180	1.1	
	102	#6.3	12	352	360	4320	10.7			
	103	#6.3	12	345	345	4140	10.2			
	104	#6.3	12	342	8	350	4200	10.4		
	105	#5	11	110	1210					
	106	#6.3	33	203	6699	16.6				
Total=1026									111.1	1.9
V 131	107	#10	2	12	199	12	223	446	2.8	
	108	#8	2	10	199	10	219	438	1.7	
	109	#5	11	100	1100					
Total=1026									1.7	
V 156	110	#12.5	1	15	985	985	985	9.7		
	111	#10	2	12	985	12	1008	2016	12.7	
	112	#10	2	12	208	150	150	0.8		
	113	#8	2	10	1164	10	1184	2368	9.3	
	114	#12.5	3	330	345	690	6.8			
	115	#10	2	15	295	295	590	3.7		
	116	#10	2	250	250	500	3.1			
	117	#12.5	1	195	195	195	1.9			
	118	#10	2	78	78	12	90	180	1.1	
	119	#6.3	12	8	352	360	4320	10.7		
	120	#6.3	12	345	345	4140	10.2			
	121	#6.3	12	342	8	350	4200	10.4		
	122	#5	11	110	1210					
	123	#6.3	33	203	6699	16.6				
Total=1026									106.1	2.1
									#5: 0.0	24.5
									#6: 61.0	0.0
									#10: 265.7	0.0
									#12.5: 272.5	0.0
									#16: 78.5	0.0
									Total: 1038.9	24.5

OBSERVAÇÕES

- Medidas das cotas em cm (exceto onde indicado)
- Verificar medidas na obra
- Molhar as formas antes do concretagem
- Usar espaçadores para garantir recobrimento do aço
- Nas armações negativas das lajes – usar "coranquejas"
- Cura mínima = 7 dias
- Desmoldagem(formas) = mínimo de 28 dias
- Todas as