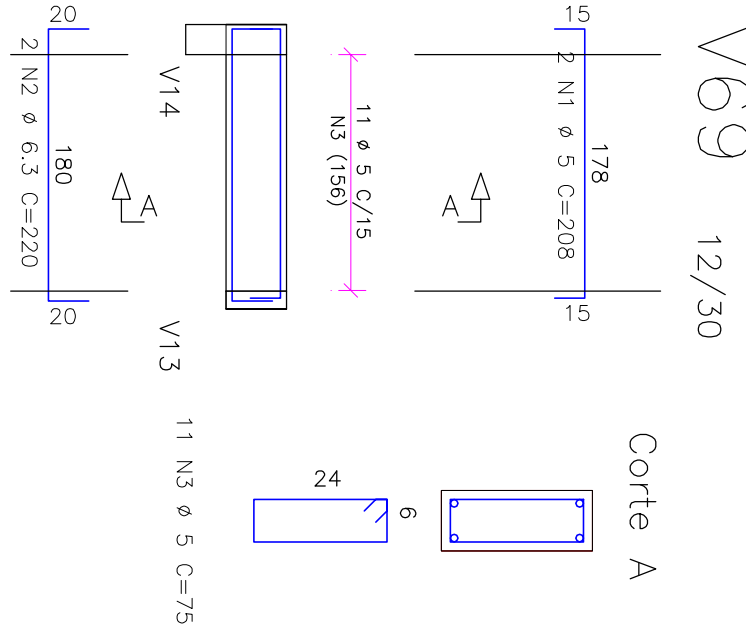
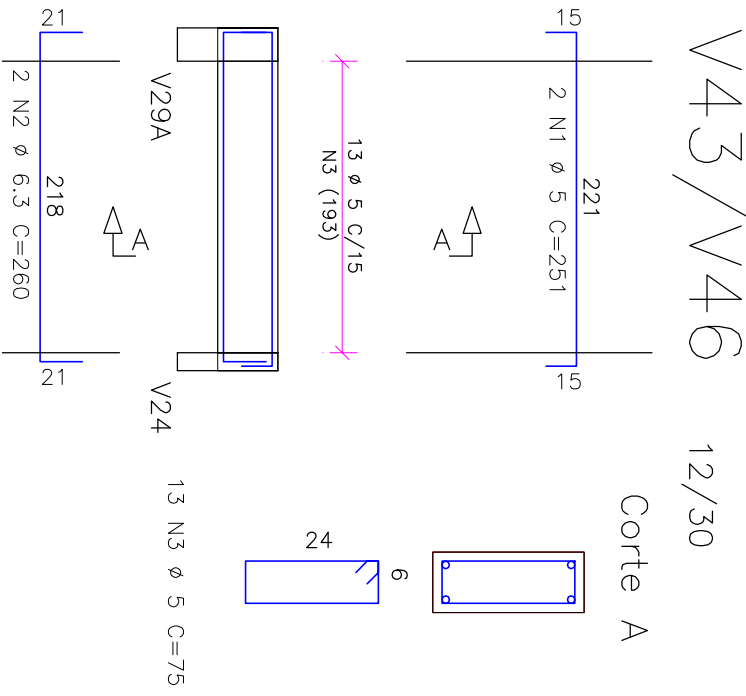
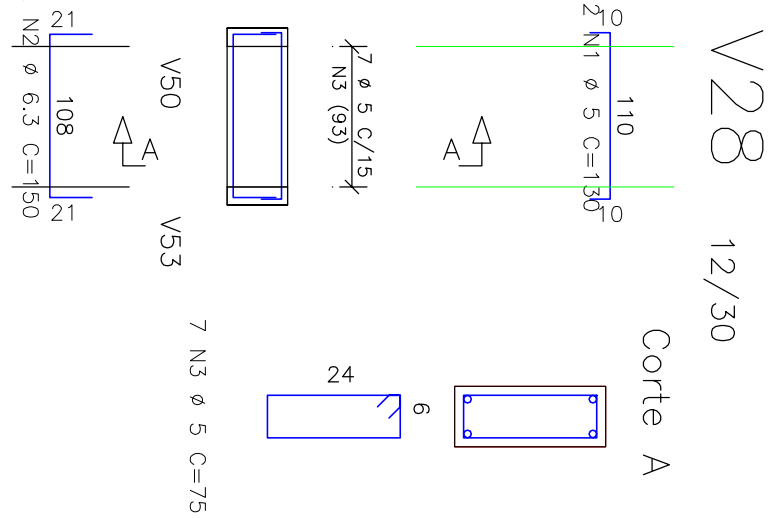
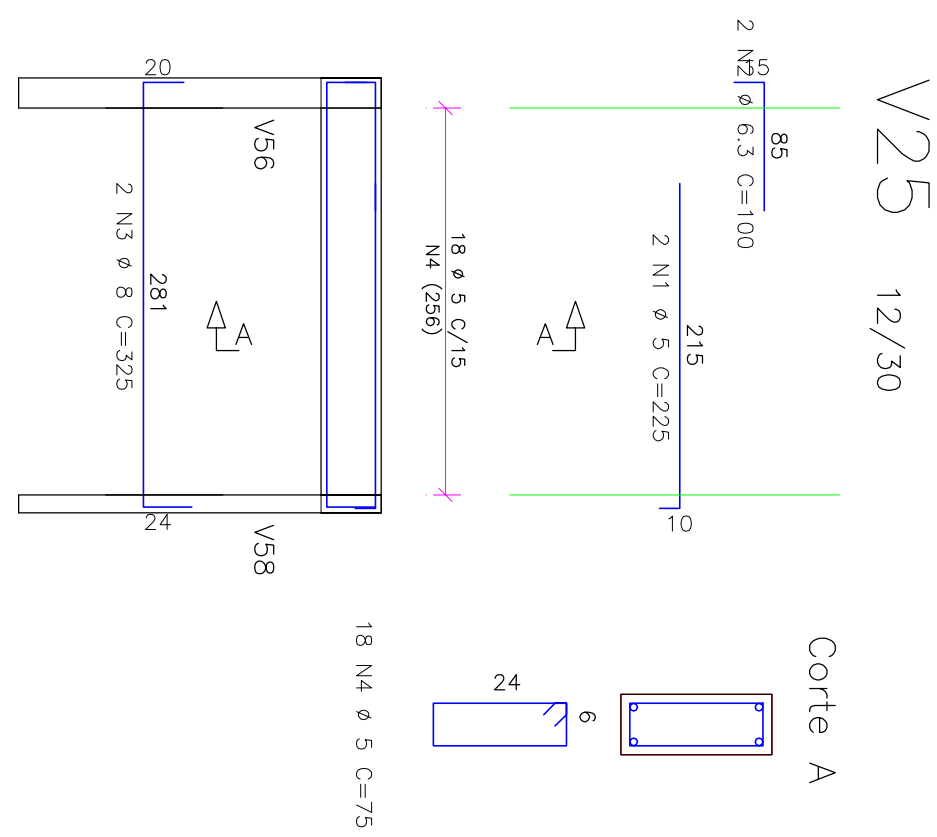
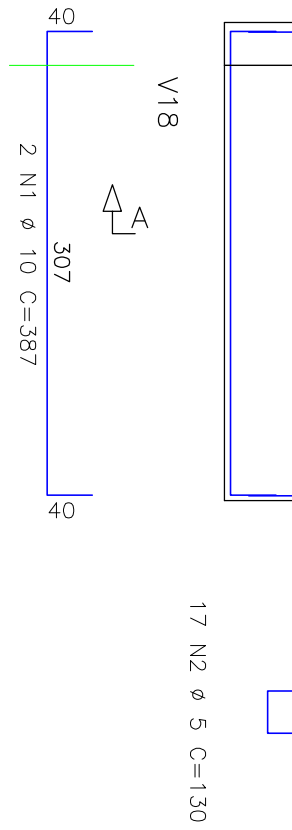
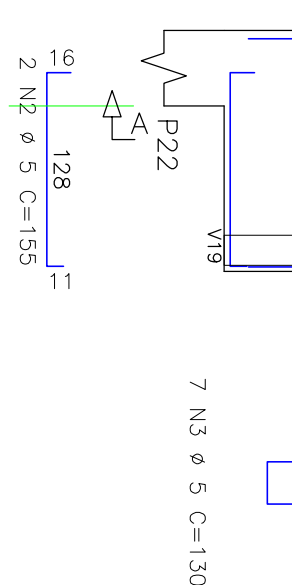
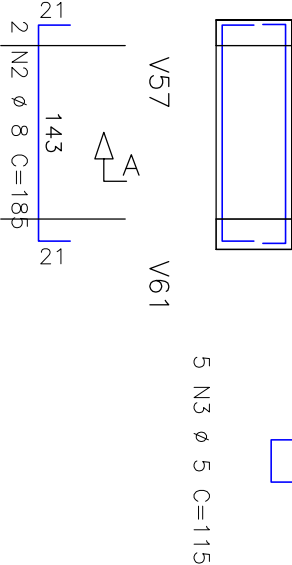
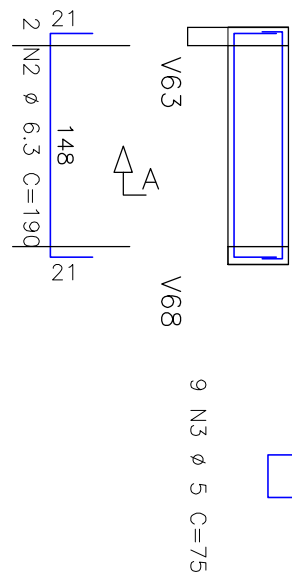
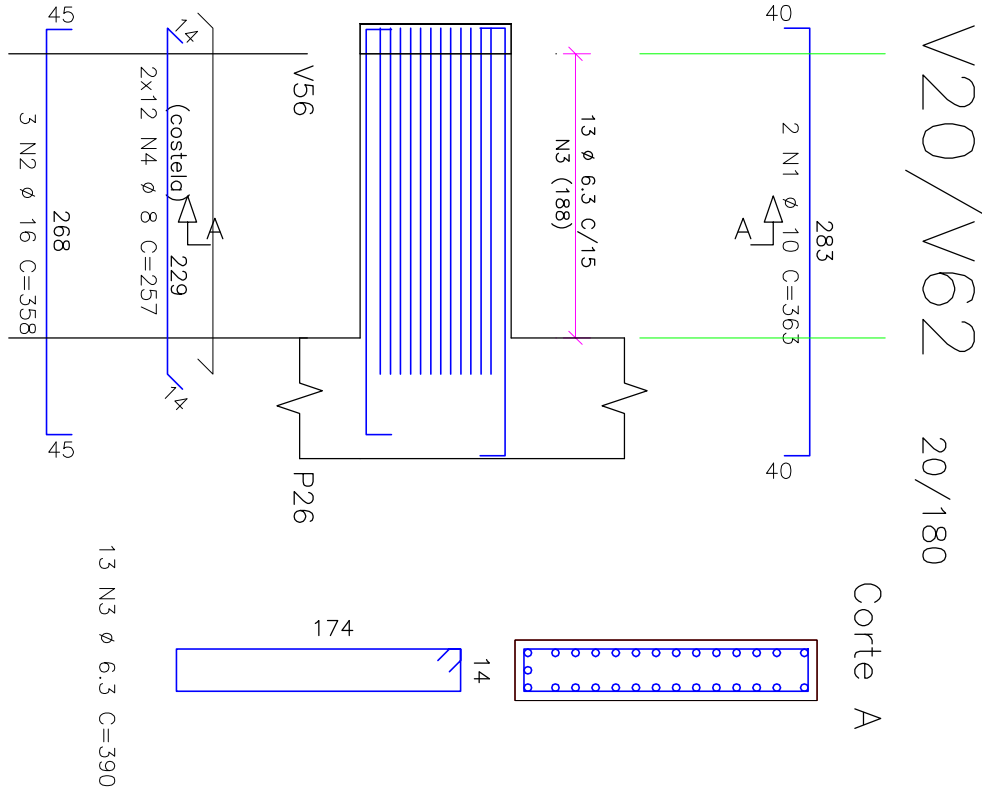
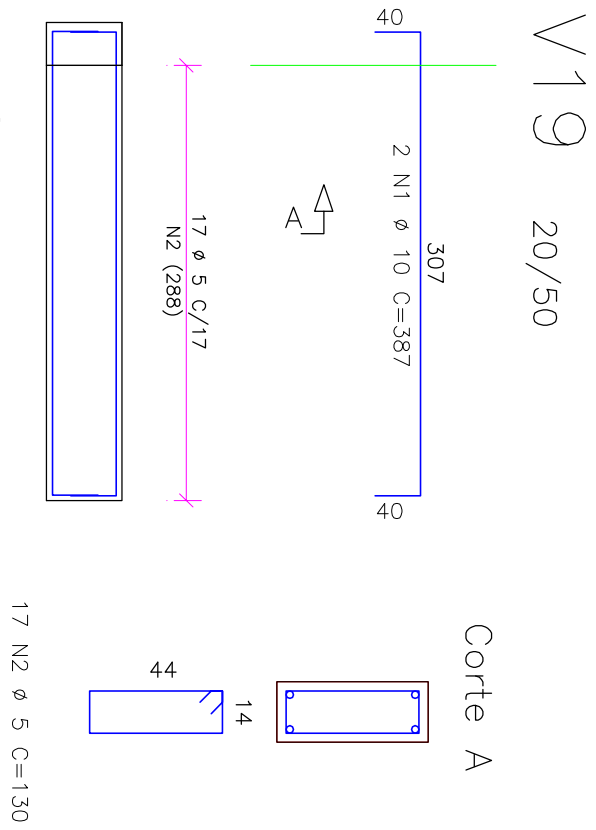
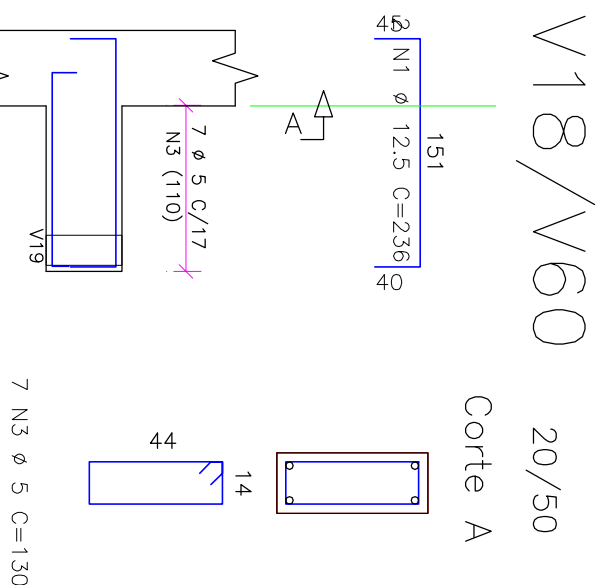
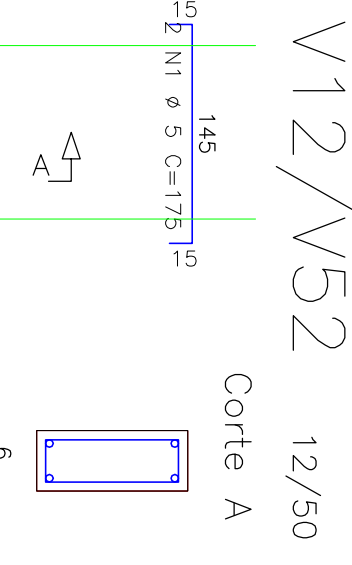
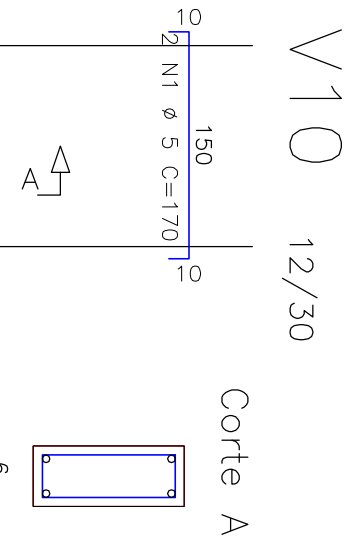
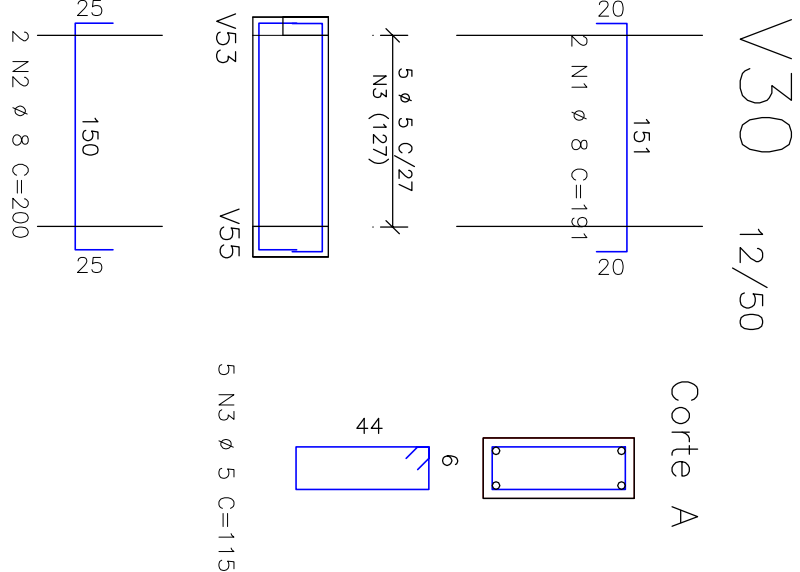
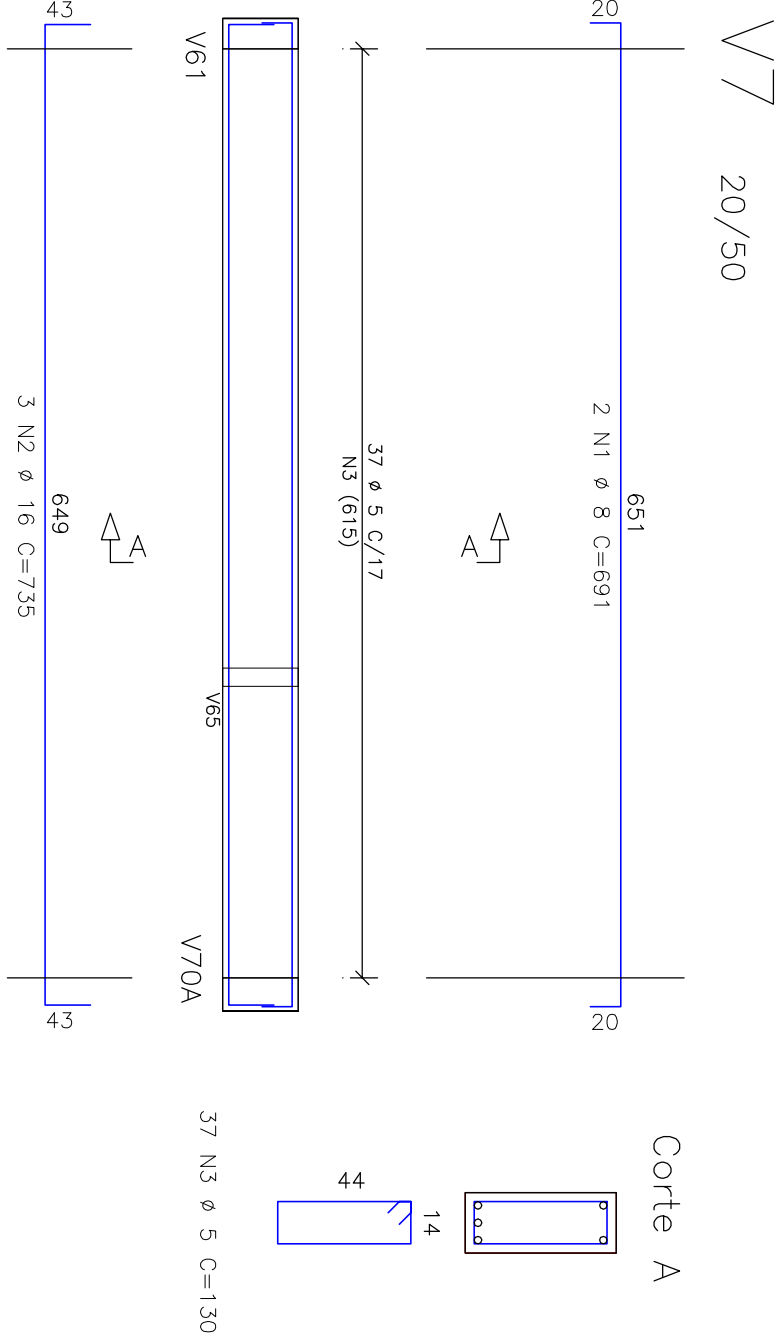
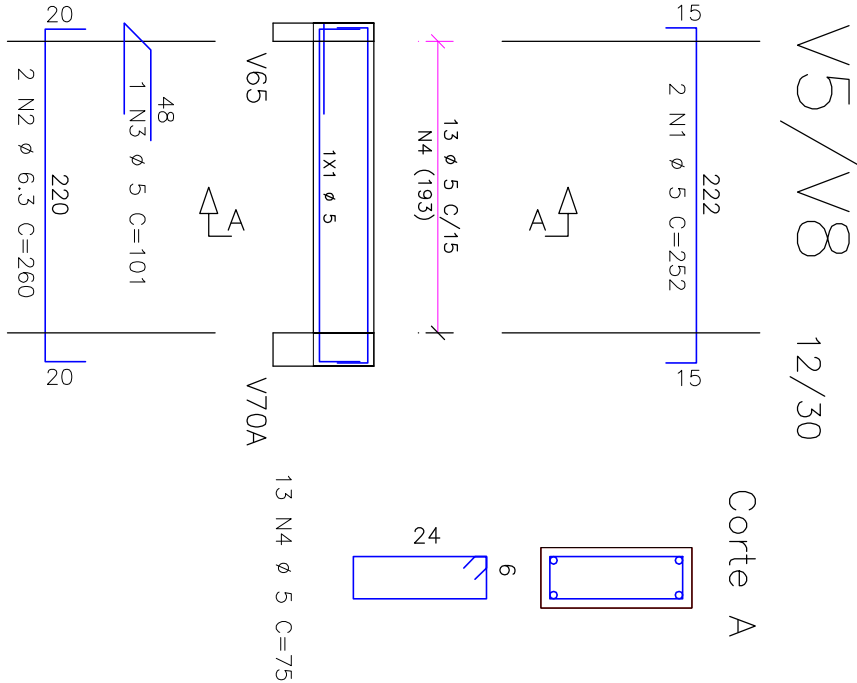
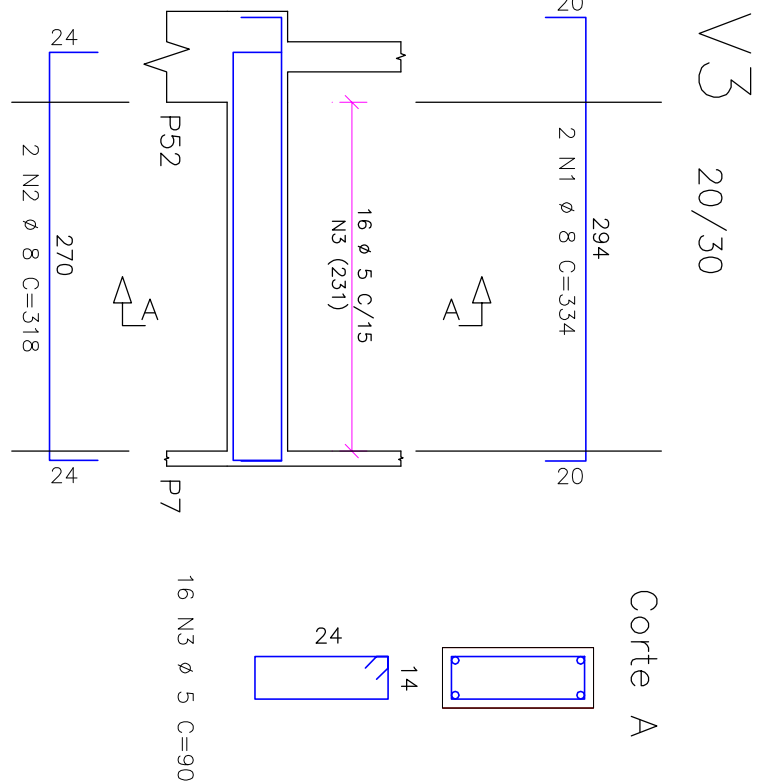


	AÇO	POS	BIT	QUANT.	COMPONENTE	UNIT	TOTAL	
			(mm)		(cm)	(cm)	(cm)	
V23/V63	(X2)	1	8	4	267	1088		
	50	3	16	4	60	240		
	50	3	16	6	519	2076		
	60	4	5	22	280	6580		
	60	4	5	22	290	6840		
V3	(X2)	1	8	2	314	6584		
	50	3	16	2	668	1336		
	60	4	5	22	280	6580		
	60	4	5	22	290	6840		
	60	4	5	22	300	7140		
V5/V8	(X2)	1	8	4	262	1008		
	50	3	16	4	60	240		
	50	3	16	6	519	2076		
	60	4	5	22	280	6580		
	60	4	5	22	290	6840		
V7	(X2)	1	8	2	661	1382		
	50	2	16	3	735	2205		
	60	3	5	37	130	4810		
	V10	(X2)	1	8	2	130	340	
		50	2	6,3	2	180	380	
60		3	5	9	75	675		
V11/V49/V50/V51		(X3)	1	10	6	422	2532	
		50	2	10	6	362	2172	
	50	2	10	78	115	8970		
	V12/V52	(X2)	1	5	4	175	700	
		50	2	8	4	185	740	
60		3	5	10	115	1150		
V13/V50/V51		(X3)	1	5	6	330	1980	
		50	2	10	6	345	2070	
	50	2	10	6	345	2070		
	60	3	10	6	345	2070		
	60	3	10	6	345	2070		
V16/V58	(X2)	1	8	4	593	2372		
	50	2	5	4	593	2372		
	60	3	5	4	593	2372		
	60	3	5	4	593	2372		
	60	3	5	4	593	2372		
V18/V60	(X2)	1	12,5	4	236	944		
	50	2	5	4	155	620		
	60	2	5	14	130	1820		
	V19	(X2)	1	10	4	367	1448	
		50	2	5	17	130	2210	
60		2	5	17	130	2210		
V20/V62		(X2)	1	10	4	368	1456	
		50	2	5	16	6	368	1456
	50	2	5	16	6	368	1456	
	60	3	6,3	26	360	12340		
	60	3	6,3	46	287	10340		
V22	(X2)	1	5	2	712	1444		
	50	2	12,5	2	611	1422		
	60	2	5	23	115	2445		
	V25	(X2)	1	5	2	225	450	
		50	2	5	2	225	450	
60		2	5	2	225	450		
60		2	5	2	225	450		
60		2	5	2	225	450		
V28	(X2)	1	5	2	150	300		
	50	2	6,3	7	75	525		
	60	3	5	7	75	525		
	V30	(X2)	1	8	2	191	382	
		50	2	8	2	200	400	
60		3	5	5	115	575		
V38		(X2)	1	10	2	513	1026	
		50	2	12,5	2	482	964	
	60	3	6,3	18	135	2430		
	V39/V40/V44	(X3)	1	10	9	452	4508	
		50	2	8	12	465	5580	
60		2	5	90	115	10550		
V43/V46		(X2)	1	5	4	251	1004	
		50	2	6,3	4	280	1040	
	60	3	5	26	75	1950		
	V44	(X2)	1	5	2	225	550	
		50	2	8	2	275	550	
60		3	5	14	90	1260		
V47		(X2)	1	5	2	225	550	
		50	2	8	2	370	740	
	60	3	5	2	75	1500		
	V51	(X2)	1	10	2	369	738	
		50	2	10	2	367	734	
60		3	5	20	90	1800		
V26/V59/V65		(X3)	1	10	6	632	3192	
		50	2	10	96	602	5418	
	60	3	5	96	135	12560		
	V64	(X2)	1	10	2	699	1398	
		50	2	10	2	675	1350	
60		3	5	34	130	4420		
V69		(X2)	1	5	3	208	416	
		50	2	6,3	2	220	440	
	60	3	5	11	75	825		
	V26/V73	(X2)	1	12,5	4	467	1868	
		50	2	10	4	467	1868	
60		3	10	36	130	4560		
RESUMO AÇO CA. 50-60								
AÇO		BIT	COMPR.		PESO			
	(mm)	(m)		(kg)				
60	3	1016		163				
50	5	302		139				
50	11,05	302		218				
50	16	99		159				
Peso Total	60 =			163 kg	722 kg			



OBSERVAÇÃO:

ALTERAÇÃO	DATA	REVISÃO	ASSUNTO	

PROPLAN
ENGENHARIA E PROJETOS
PROJETA E IMPLEMENTAÇÃO DE PROJETOS

R. Curso Amargante, 988, Duque de Caxias, Cubatã / MT, CEP. 78.045-330
fone / fax: (65) 3322 -- 3663 aquatro@aquatroprojetos.com
www.aquatroprojetos.com

PROJETO EXECUTIVO
PROJETO DE ESTRUTURA DE CONCRETO ARMADO

Propriedade: UNIRIO - UNIVERSIDADE FEDERAL DO ESTADO DO RIO DE JANEIRO

Local: AV. PAULISTA, 468, UNICAP, RIO DE JANEIRO

Coordenadora do Projeto:

Autor do Projeto: ANDRÉ LUIZ S. RAMOS ENGENHEIRO CIVIL/CSA, 3846/9 UF	Autor do Projeto: LUÍZO ROBERTO DE ALMEIDA DESENHEIRO CIVIL/CSA, 3819/9 UF
MÁRIO ANDRÉ DE AMORIM PALMA DESENHEIRO CIVIL/CSA, 10268/777	

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