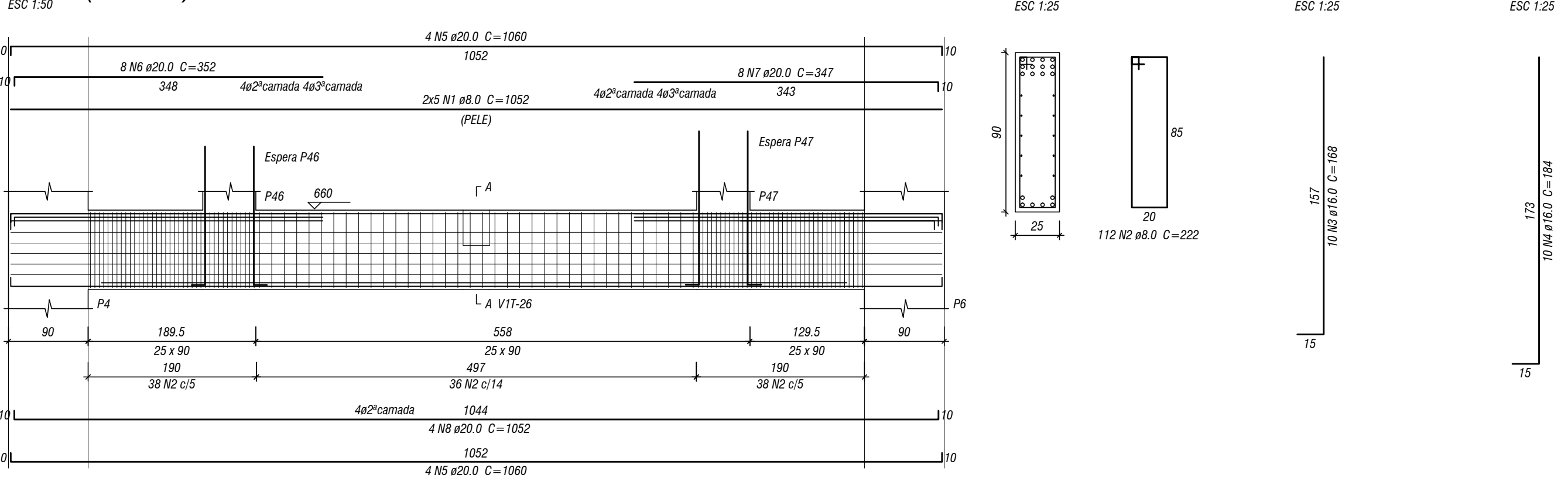
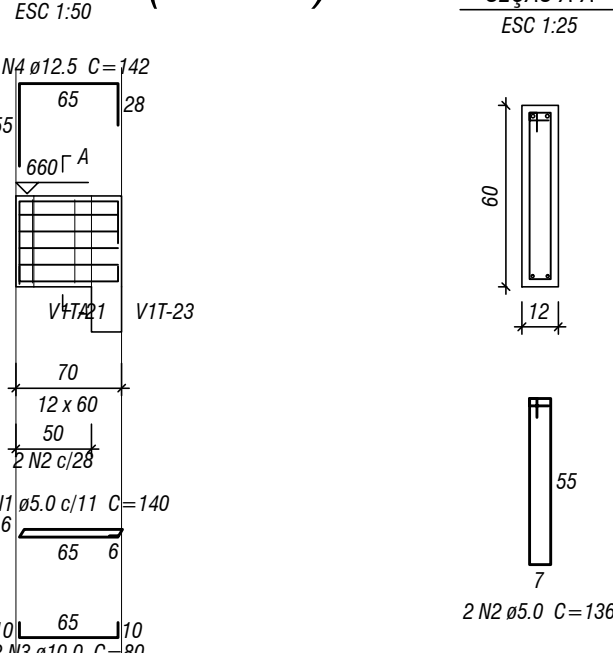


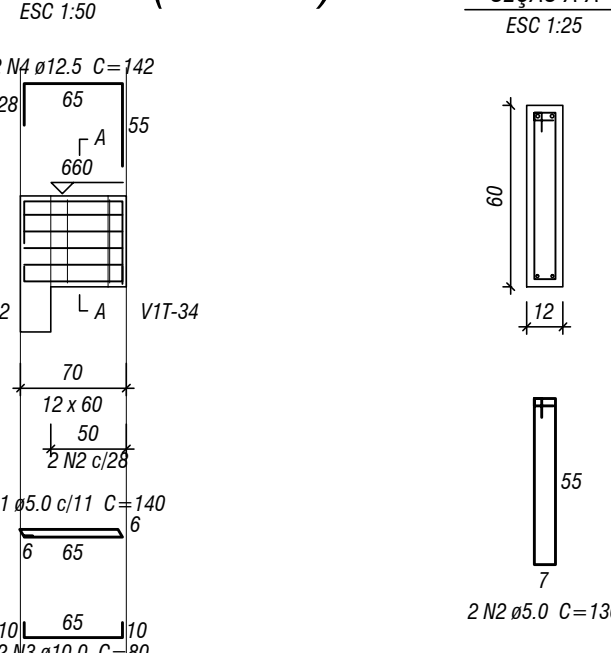
V1T-1 (25 x 90)



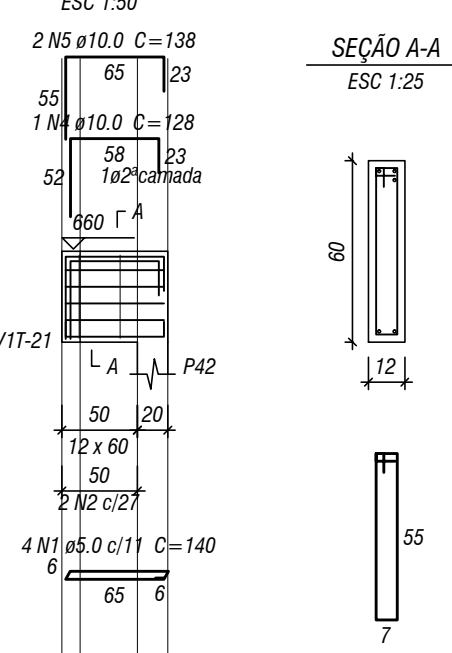
V1T-2 (12 x 60)



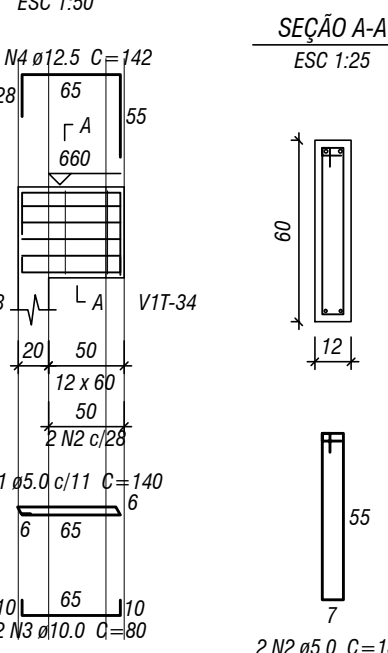
V1T-3 (12 x 60)



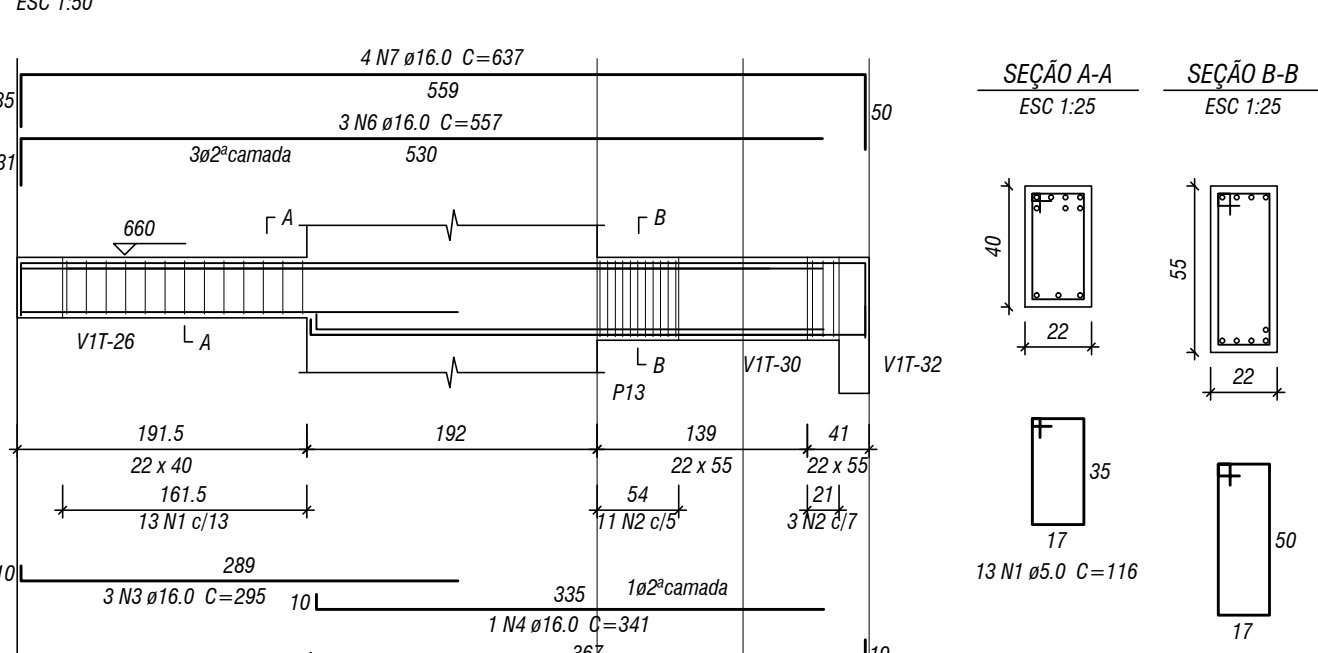
V1T-4 (12 x 60)



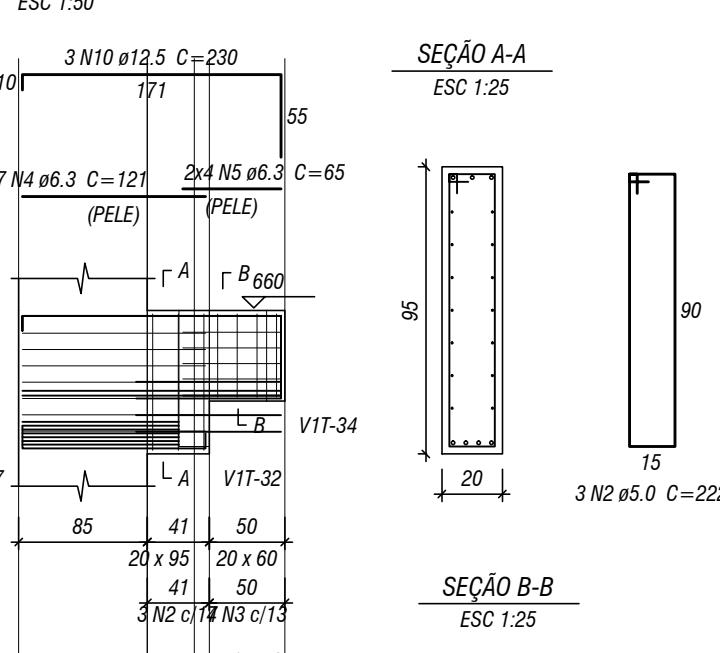
V1T-5 (12 x 60)



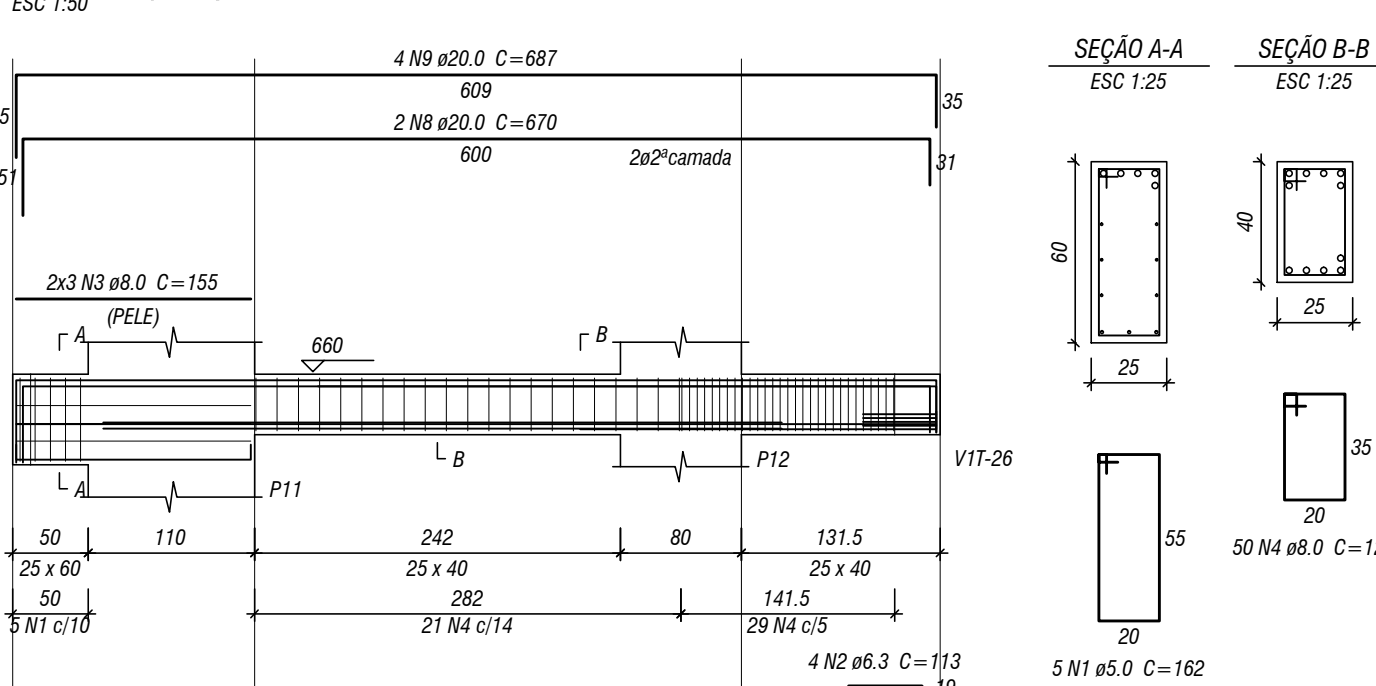
V1T-6 (var)



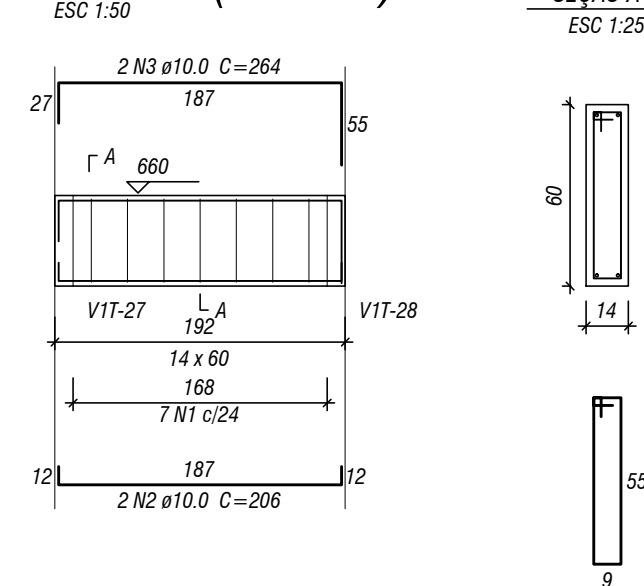
V1T-7 (var)



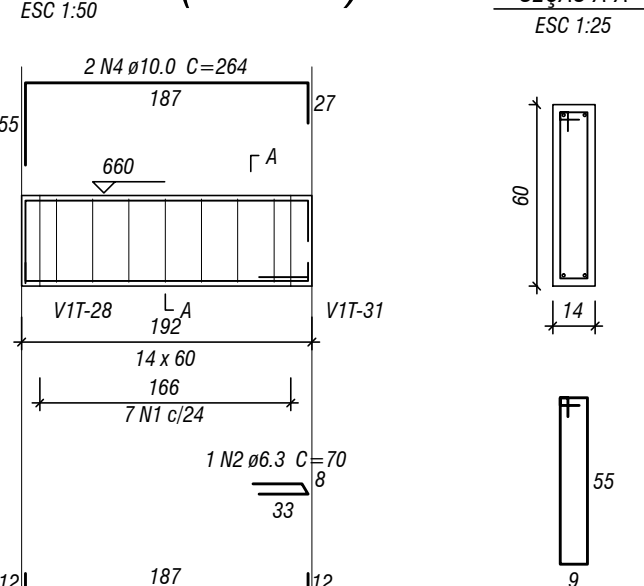
V1T-8 (var)



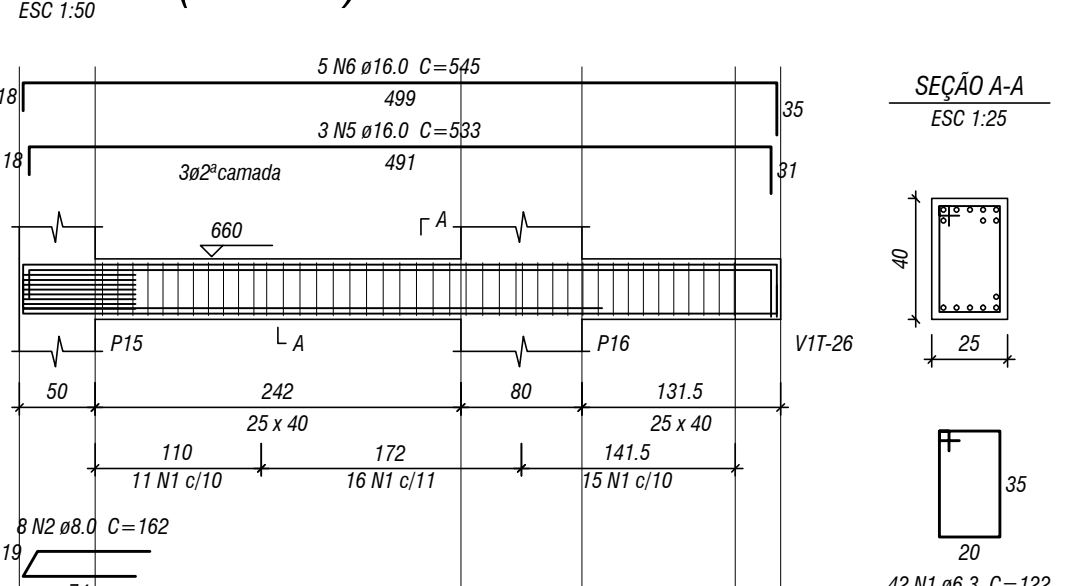
V1T-10 (14 x 60)



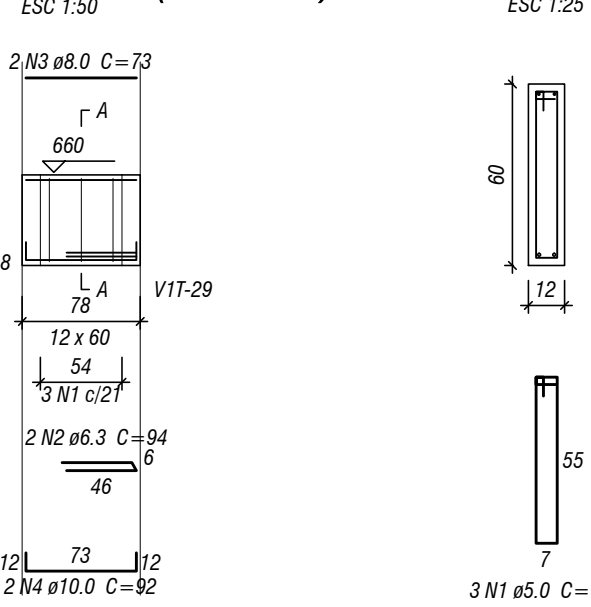
V1T-11 (14 x 60)



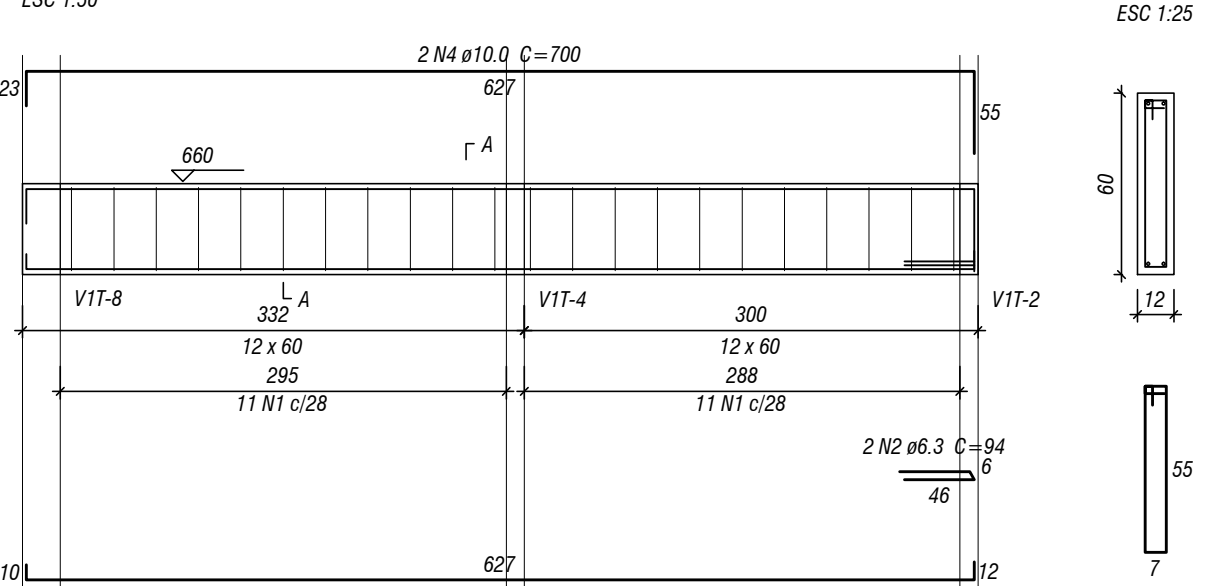
V1T-12 (25 x 40)



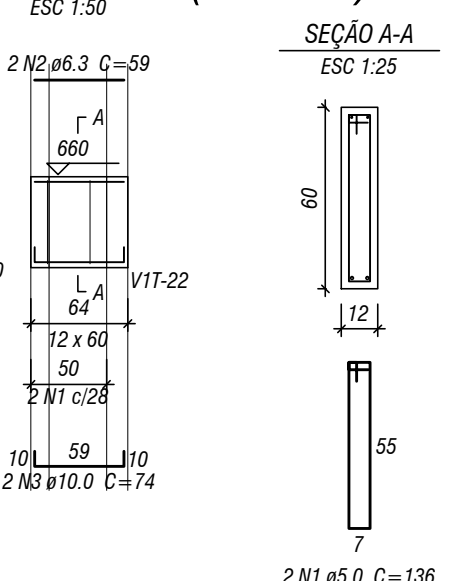
V1T-9 (12 x 60)



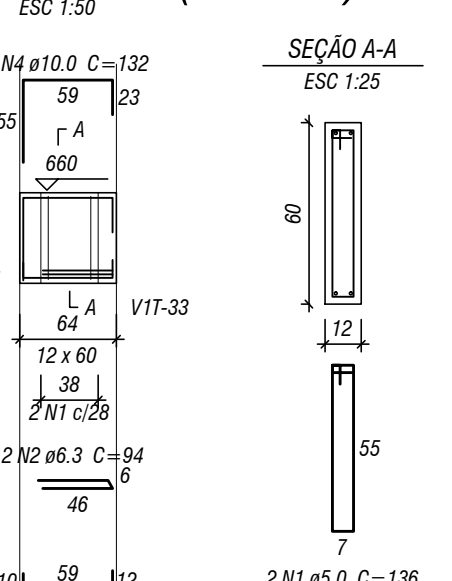
V1T-21 (12 x 60)



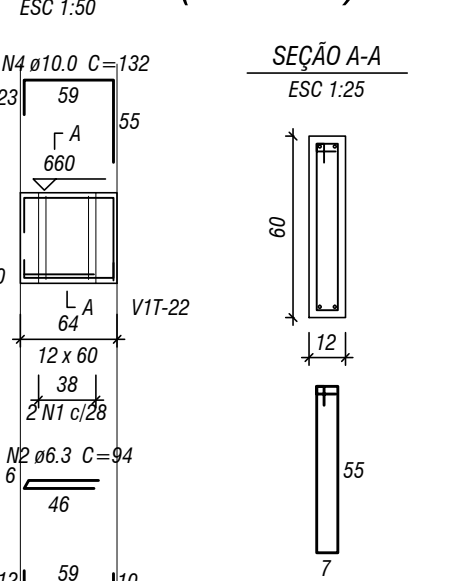
V1T-14 (12 x 60)



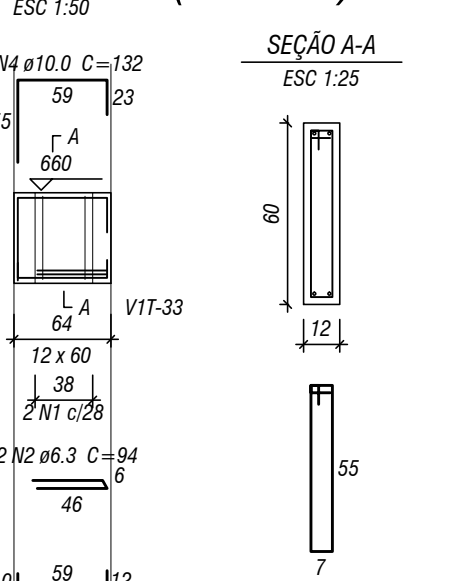
V1T-15 (12 x 60)



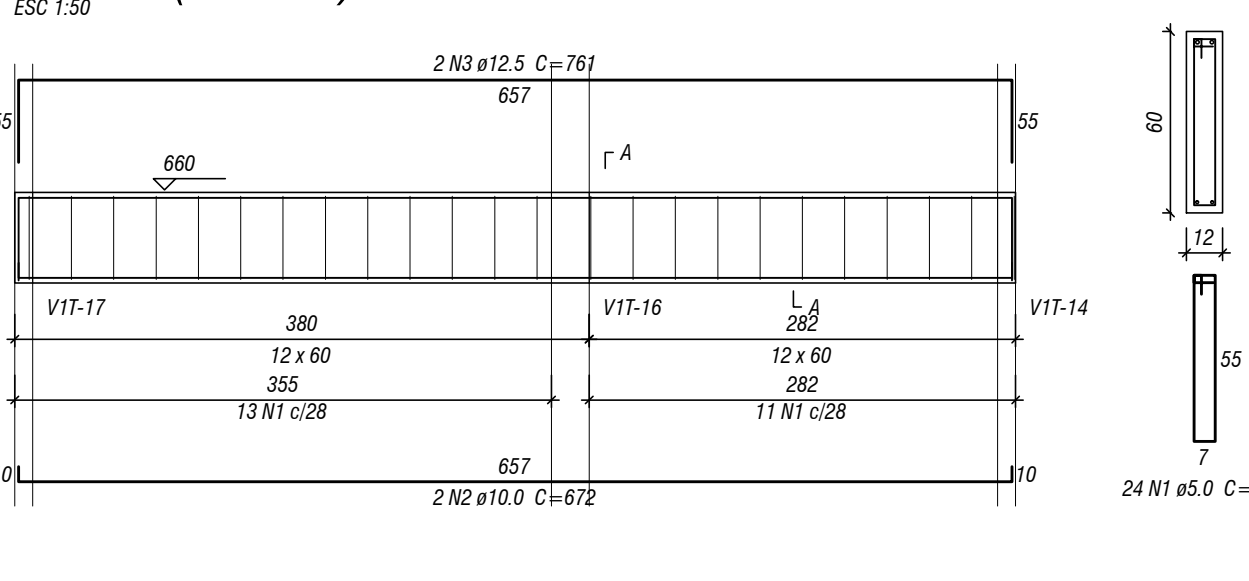
V1T-17 (12 x 60)



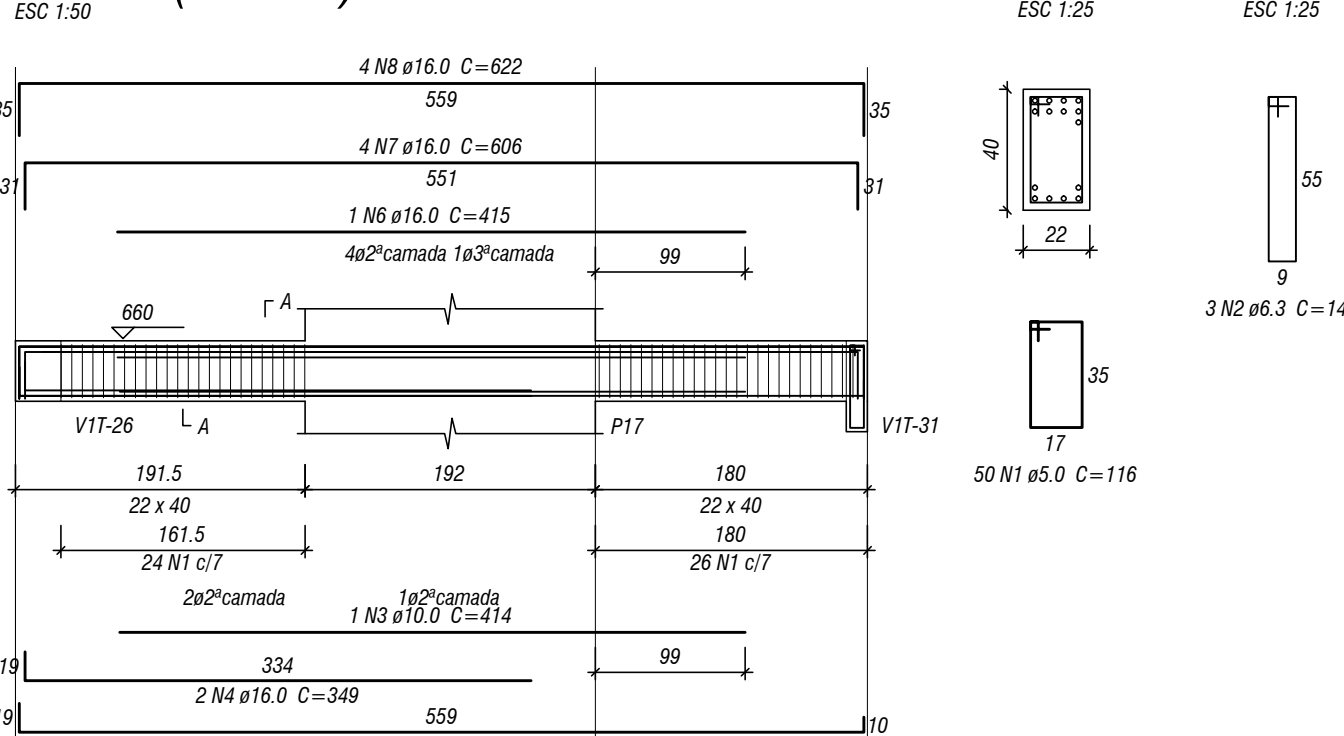
V1T-18 (12 x 60)



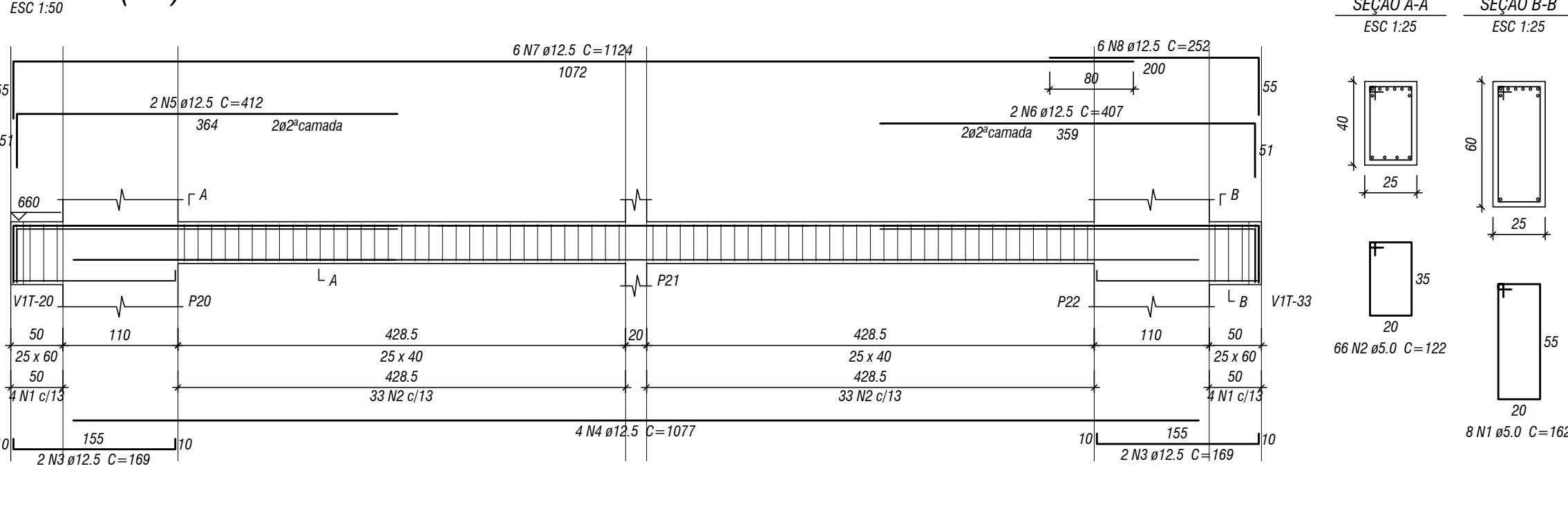
V1T-20 (12 x 60)



V1T-13 (22 x 40)



V1T-16 (var)



Relação do aço						
ELEMENTO	AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
V1T-1	CA50	1	8.0	10	1052	10520
	CA50	2	8.0	112	222	24984
	CA50	3	16.0	10	168	1680
	CA50	4	16.0	10	164	1640
	CA50	5	20.0	8	1080	8460
V1T-2	CA50	6	20.0	8	352	2816
	CA50	7	20.0	8	347	2776
	CA50	8	20.0	4	1052	4208
	CA50	1	5.0	4	140	560
	CA60	2	5.0	2	136	272
V1T-3	CA50	3	10.0	2	80	160
	CA50	4	12.5	2	142	284
	CA60	1	5.0	4	140	560
	CA50	2	5.0	2	136	272
	CA50	3	10.0	2	80	160
V1T-4	CA50	4	12.5	2	142	284
	CA60	1	5.0	4	140	560
	CA50	2	5.0	2	136	272
	CA50	3	10.0	2	80	160
	CA50	4	10.0	1	128	128
V1T-5	CA50	5	10.0	2	138	276
	CA60	1	5.0	4	140	560
	CA50	2	5.0	2	136	272
	CA50	3	10.0	2	80	160
	CA50	4	12.5	2	142	284
V1T-6	CA50	1	5.0	13	116	1508
	CA50	2	8.0	14	146	2044
	CA50	3	16.0	3	295	885
	CA50	4	16.0	1	341	341
	CA50	5	16.0	4	389	1556
V1T-7	CA50	6	16.0	3	557	1671
	CA50	7	16.0	4	637	2548
	CA60	1	5.0	4	202	808
	CA60	2	5.0	3	222	666
	CA60	3	5.0	4	152	608
V1T-8	CA50	4	6.3	14	121	1694
	CA50	5	6.3	8	65	520
	CA50	6	6.3	7	218	1526
	CA50	7	12.5	4	140	560
	CA50	8	12.5	2	72	144
V1T-9	CA50	9	12.5	3	171	513
	CA50	10	12.5	3	230	690
	CA60	1	5.0	5	162	810
	CA50	2	6.3	4	113	452
	CA50	3	8.0	6	155	930
V1T-10	CA50	4	8.0	50	122	6100
	CA50	5	10.0	3	170	510
	CA50	6	12.5	2	609	1218
	CA50	7	20.0	5	557	2785
	CA50	8	20.0	2	670	1340
V1T-11	CA50	9	20.0	4	687	2748
	CA60	1	5.0	3	136	408
	CA50	2	6.3	2	94	188
	CA50	3	8.0	2	73	146
	CA50	4	10.0	2	92	184
V1T-12	CA60	1	5.0	7	140	980
	CA50	2	10.0	2	206	412
	CA50	3	10.0	2	206	412
	CA50	4	10.0	2	206	412
	CA50	5	10.0	2	206	412
V1T-13	CA50	6	16.0	5	545	2725
	CA50	1	5.0	50	116	5800
	CA50	2	6.3	3	140	420
	CA50	3	10.0	1	414	414
	CA50	4	16.0	2	349	698
V1T-14	CA50	5	16.0	4	581	2324
	CA50	6	16.0	1	415	415
	CA50	7	16.0	4	606	2424
	CA50	8	16.0	4	622	2488
	CA60	1	5.0	2	136	272
V1T-15	CA50	2	6.3	2	59	118
	CA50	3	10.0	2	74	148
	CA60	1	5.0	2	136	272
	CA50	2	6.3	2	94	188
	CA50	3	10.0	2	76	152
V1T-16	CA50	4	10.0	2	132	264
	CA60	1	5.0	8	162	1296
	CA60	2	5.0	66	122	8032
	CA50	3	12.5	4	189	676
	CA50	4	12.5	4	1077	4308
V1T-17	CA50	5	12.5	2	412	824
	CA50	6	12.5	2	407	814
	CA50	7	12.5	6	1134	6744
	CA50	8	12.5	6	252	1512
	CA60	1	5.0	2	136	272
V1T-18	CA50	2	6.3	1	94	94
	CA50	3	10.0	2	76	152
	CA50	4	10.0	2	132	264
	CA60	1	5.0	2	136	272
	CA50	2	6.3	2	94	188
V1T-19	CA50	3	10.0	2	76	152
	CA50	4	10.0	2	132	264
	CA50	5	10.0	2	132	264
	CA50	6	10.0	2	132	264
	CA50	7	10.0	2	132	264
V1T-20	CA50	8	10.0	2	132	264
	CA50	9	10.0	2	132	264
	CA50	10	10.0	2	132	264
	CA50	11	10.0	2	132	264
	CA50	12	10.0	2	132	264
V1T-21	CA50	13	10.0	2	132	264
	CA50	14	10.0	2	132	264
	CA50	15	10.0	2	132	264
	CA50	16	10.0	2	132	264
	CA50	17	10.0	2	132	264

Resumo do aço

AÇO	DIAM	C.TOTAL	PESO
CA50	6.3	107.7	26.4
	8.0	459	181.1
	10.0	94.6	58.3
	12.5	203.8	196.3
	16.0	262.5	414.2
	20.0	251.6	620.3
CA60	5.0	325.9	50.2
PESO TOTAL			
CA50	1498.8		
CA60	50.2		

Vol. de concreto total (C-30) = 7.92 m³
Área de forma total = 93.16 m²

CONTROLE DAS REVISÕES:		
REVISÃO	DATA	DESCRIÇÃO

ENGENHARIA
Engenharia de Estruturas e Engenharia de Segurança do Trabalho
Excelência em Projetos Estruturais de Concreto Armado, Protendido, Pré-Moldado, Estruturas Metálicas e Alvenaria Estrutural
Avenida Pinguim, N° 304 | Sala 01 | Gleba Ribeirão Pinguim | Maringá - Paraná | CEP: 87065-675
Fone/Fax: (44) 3026-8993 - e-mail: yk@ykenharia.com.br - Visite nosso site http://www.ykenharia.com.br

PROJETO:

ESTRUTURAL EM CONCRETO ARMADO

CLIENTE:

RODRIGO KOJO

OBRA:

Para Construção de Uma Edificação Residencial Coletiva - Edifício Jardins de France

LOCAL:

Rua Francisco Glicério, n° 1.033 - Zona 07 - Maringá - Paraná

REFERÊNCIA(S):

Detalhes das Vigas do Tipo 1 (Folha 01 de 03)

REVISÃO:

R-00

PRANCHA:

33

RESPONSÁVEL TÉCNICO:

Eng° Esp. Yutaka Mario Kobayashi Júnior
CREA PR-89.748/D

DATA CRIAÇÃO:

09/04/2013

DATA DA REVISÃO:

N/C

PROJETO N°:

P-181

ESCALAS:

INDICADAS