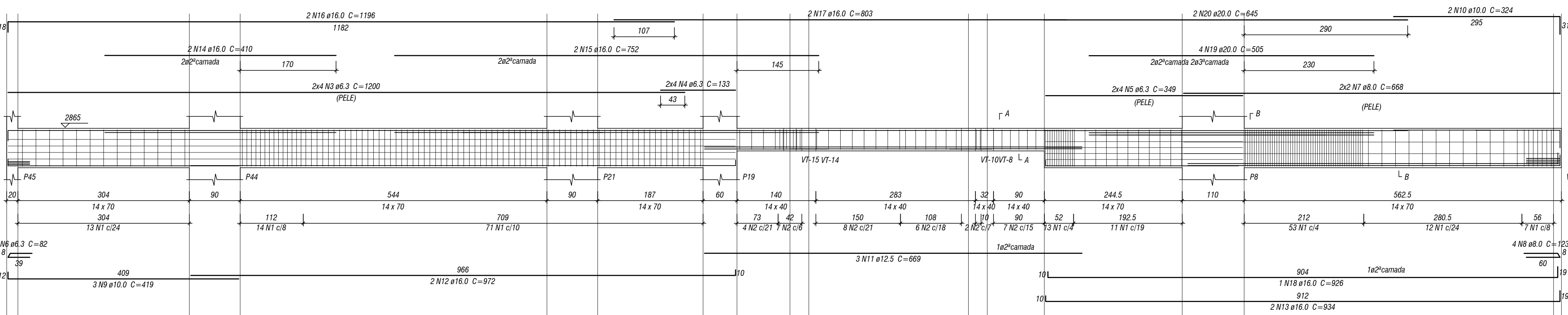
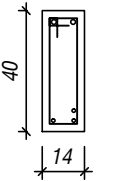


VT-27 (var)



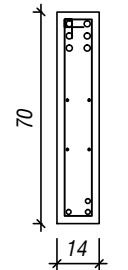
SEÇÃO A-A

ESC 1:25



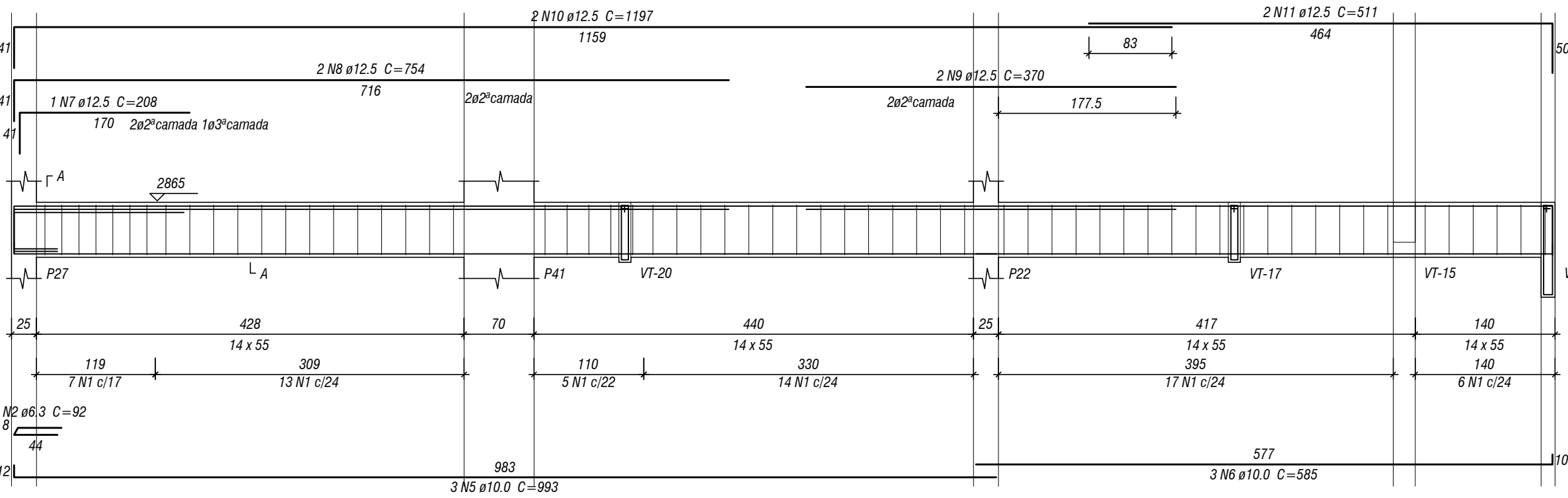
SEÇÃO B-B

ESC 1:25



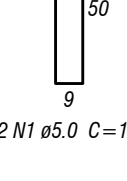
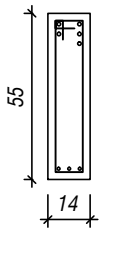
VT-32 (14 x 55)

ESC 1:50



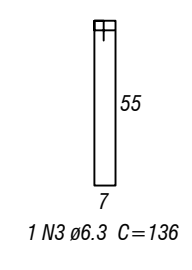
SEÇÃO A-A

ESC 1:25



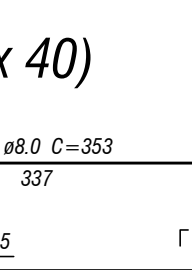
SUSPENSÃO VT-20

ESC 1:25



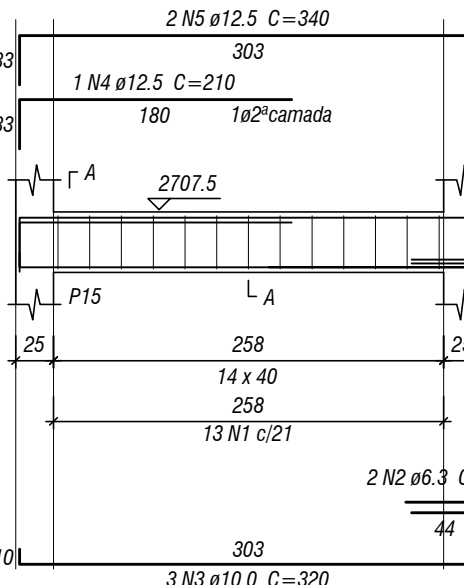
SUSPENSÃO VT-13

ESC 1:25



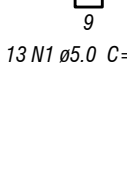
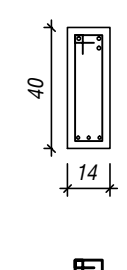
VT-38 (14 x 40)

ESC 1:50



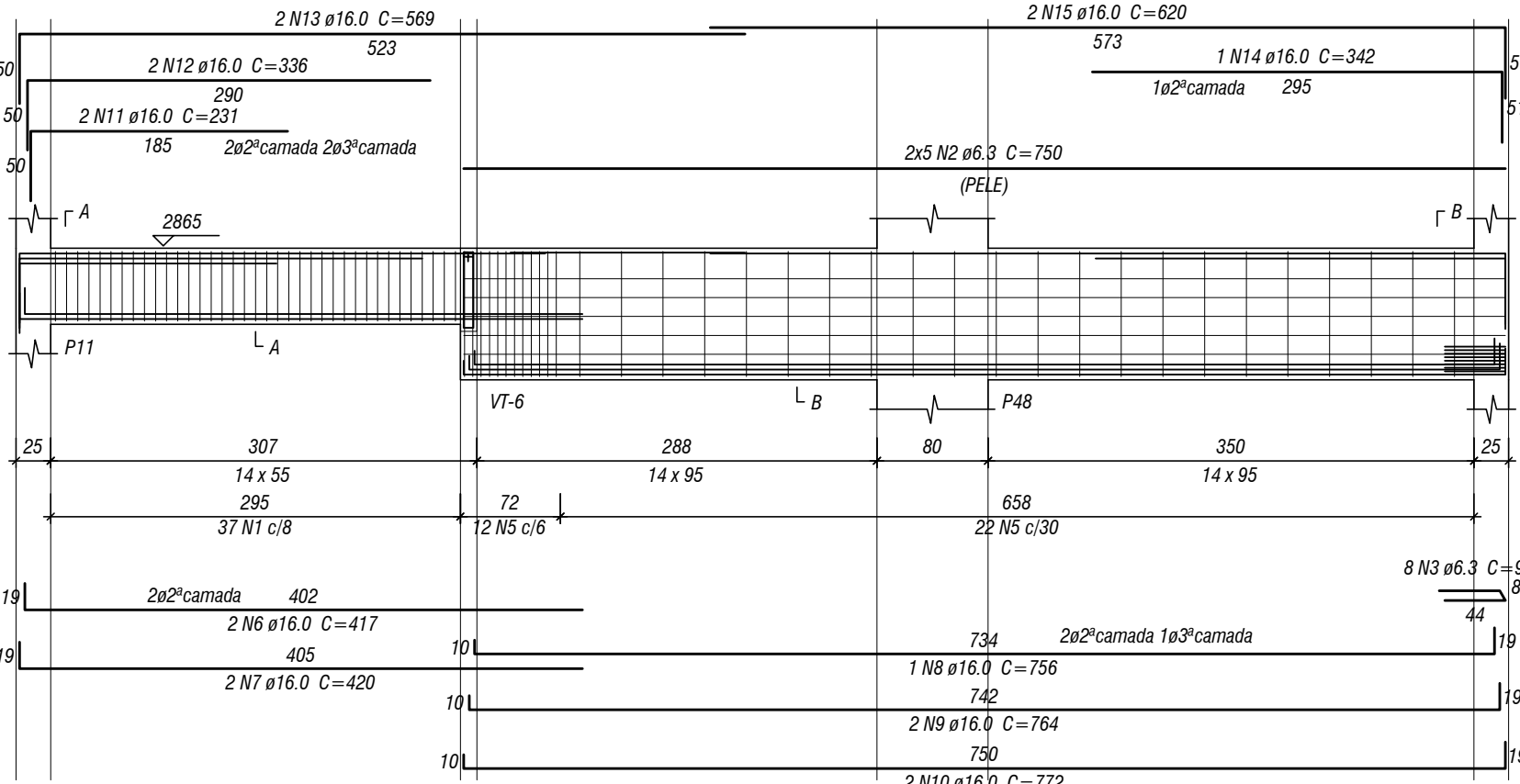
SEÇÃO A-A

ESC 1:25



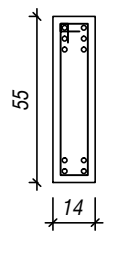
VT-25 (var)

ESC 1:50



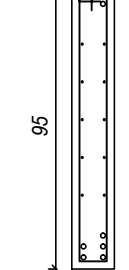
SEÇÃO A-A

ESC 1:25



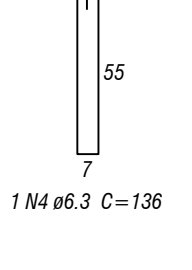
SEÇÃO B-B

ESC 1:25



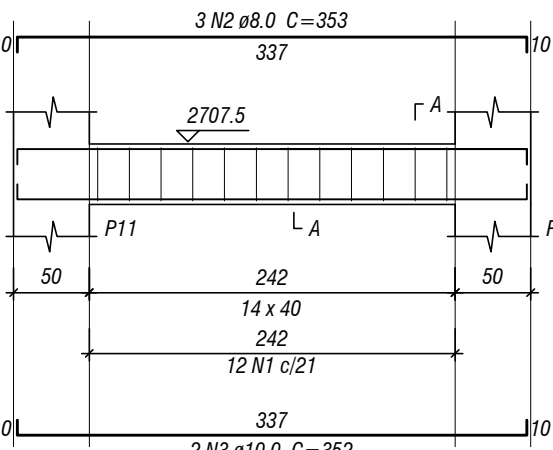
SUSPENSÃO VT-6

ESC 1:25



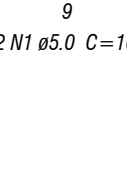
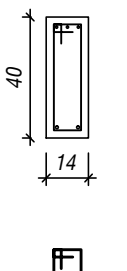
VT-36 (14 x 40)

ESC 1:50



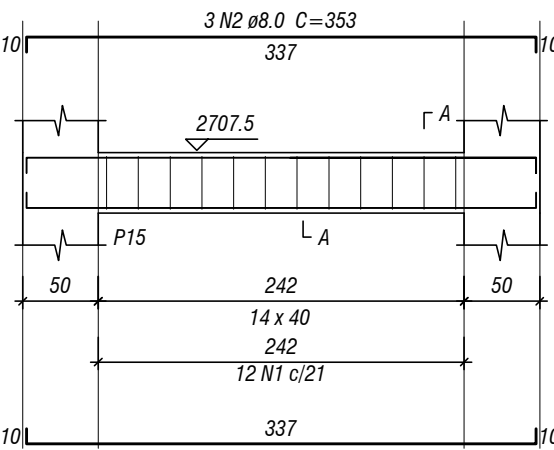
SEÇÃO A-A

ESC 1:25



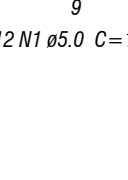
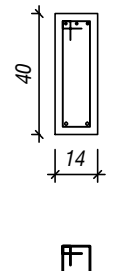
VT-37 (14 x 40)

ESC 1:50



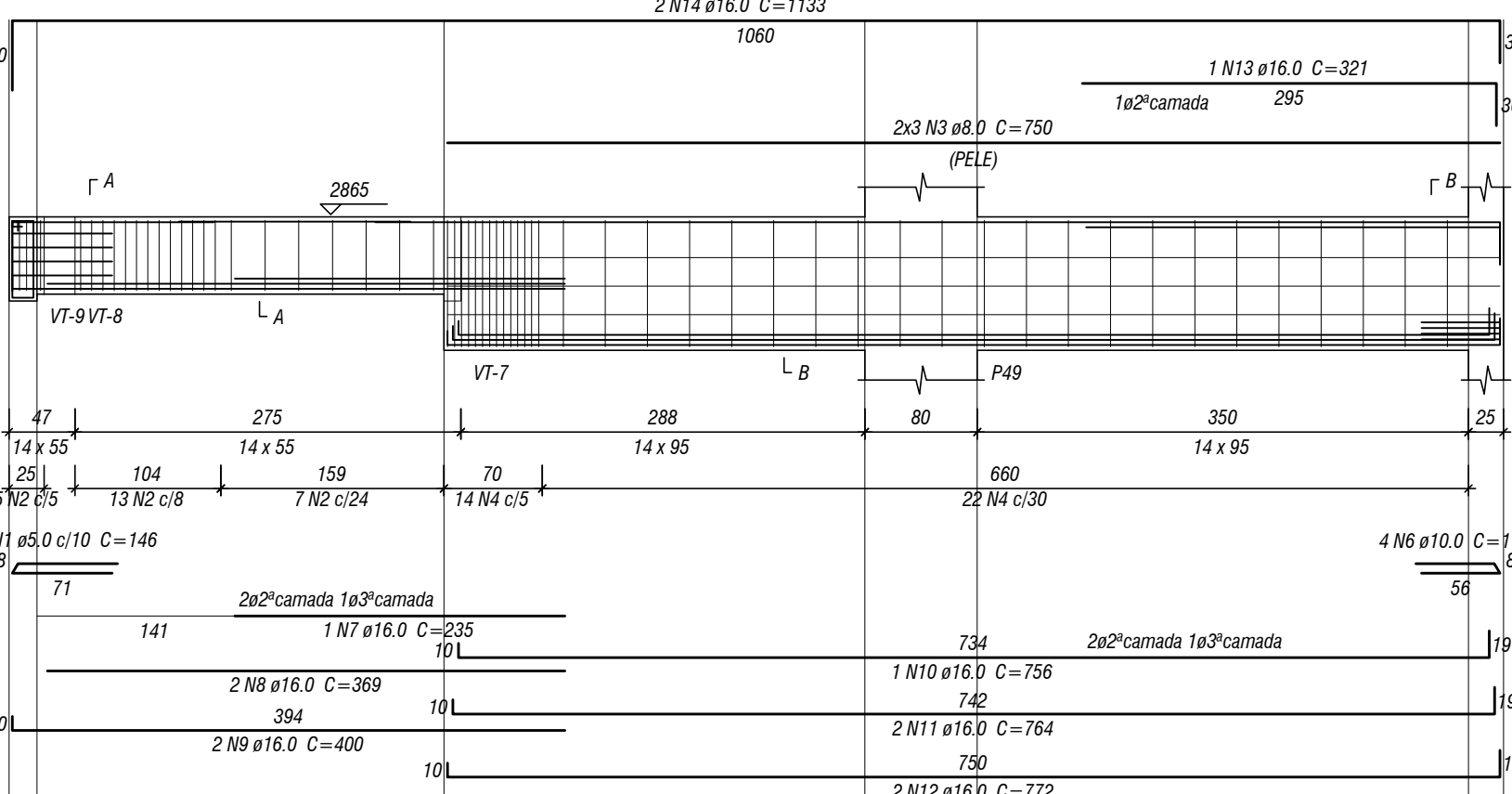
SEÇÃO A-A

ESC 1:25



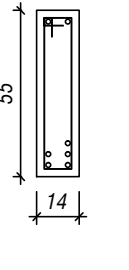
VT-33 (var)

ESC 1:50



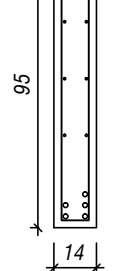
SEÇÃO A-A

ESC 1:25



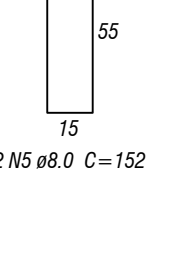
SEÇÃO B-B

ESC 1:25



SUSPENSÃO VT-9

ESC 1:25



Relação do aço						
ELEMENTO	AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
VT-25	CA60	1	5.0	37	130	4810
	CA50	2	6.3	10	750	7500
	CA50	3	6.3	8	92	736
	CA50	4	6.3	1	136	136
	CA50	5	8.0	34	210	7140
	CA50	6	16.0	2	417	834
	CA50	7	16.0	2	420	840
	CA50	8	16.0	1	756	756
	CA50	9	16.0	2	764	1528
	CA50	10	16.0	2	772	1544
	CA50	11	16.0	2	780	1560
	CA50	12	16.0	2	788	1576
	CA50	13	16.0	2	796	1592
	CA50	14	16.0	1	804	1608
	CA50	15	16.0	2	812	1624
VT-27	CA60	1	5.0	194	160	31040
	CA60	2	5.0	34	100	3400
	CA50	3	6.3	8	1200	9600
	CA50	4	6.3	8	123	1064
	CA50	5	6.3	8	349	2792
	CA50	6	6.3	3	82	246
	CA50	7	8.0	4	688	2672
	CA50	8	8.0	4	123	492
	CA50	9	10.0	3	419	1257
	CA50	10	10.0	2	324	648
	CA50	11	12.5	3	669	2007
	CA50	12	16.0	2	972	1944
	CA50	13	16.0	2	834	1668
	CA50	14	16.0	2	410	820
	CA50	15	16.0	2	732	1504
VT-32	CA50	16	16.0	2	1196	2392
	CA50	17	16.0	2	803	1606
	CA50	18	16.0	1	926	926
	CA50	19	20.0	4	505	2020
	CA50	20	20.0	2	645	1290
	CA60	1	5.0	62	130	8060
	CA50	2	6.3	2	92	184
	CA50	3	6.3	2	136	272
	CA50	4	6.3	1	210	210
	CA50	5	10.0	3	993	2979
	CA50	6	10.0	3	585	1755
	CA50	7	12.5	1	208	208
	CA50	8	12.5	2	734	1508
	CA50	9	12.5	2	370	740
	CA50	10	12.5	2	1197	2394
VT-33	CA50	11	12.5	2	511	1022
	CA60	1	5.0	4	146	584
	CA60	2	5.0	25	120	3250
	CA50	3	8.0	6	750	4500
	CA50	4	8.0	36	210	7560
	CA50	5	8.0	2	132	304
	CA50	6	10.0	4	113	452
	CA50	7	16.0	1	235	235
	CA50	8	16.0	2	369	738
	CA50	9	16.0	2	400	800
	CA50	10	16.0	1	756	756
	CA50	11	16.0	2	764	1528
	CA50	12	16.0	2	772	1544
	CA50	13	16.0	1	321	321
	CA50	14	16.0	2	1133	2266
VT-36	CA60	1	5.0	12	100	1200
	CA50	2	8.0	3	353	1059
	CA50	3	10.0	2	352	704
VT-37	CA60	1	5.0	12	100	1200
	CA50	2	8.0	3	329	987
	CA50	3	10.0	2	352	704
VT-38	CA60	1	5.0	13	100	1300
	CA50	2	6.3	2	92	184
	CA50	3	10.0	3	329	987
	CA50	4	12.5	1	210	210
	CA50	5	12.5	2	340	680

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	229.3	56.1
	8.0	247.9	97.8
	10.0	94.6	58.3
	12.5	87.7	84.5
	16.0	296.1	451.5
	20.0	33.1	81.6
CA60	5.0	548.5	84.5
PESO TOTAL			
CA50		829.8	
CA60		84.5	

Vol. de concreto total (C-30) = 6.69 m³

Área de forma total = 106.01 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

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Fone/Fax: (44) 3026-8993 - e-mail: yk@ykengenharia.com.br - Visite nosso site! http://www.ykengenharia.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, nº 1.033 - Zona 07 - Maringá - Paraná

REFERÊNCIA(S):

Detalhes das Vigas do Tipo 8 (Folha 03 de 03)

REVISÃO:

R-00

PRANCHAS:

54

RESPONSÁVEL TÉCNICO:

Eng.º Esp. Yutaka Mario Kobayashi Júnior

CREA PR-89.748/D

DATA CRIAÇÃO:

09/04/2013

DATA DA REVISÃO:

N/C

ART Nº:

20122498064

PROJETO Nº:

P-181

ESCALAS:

INDICADAS