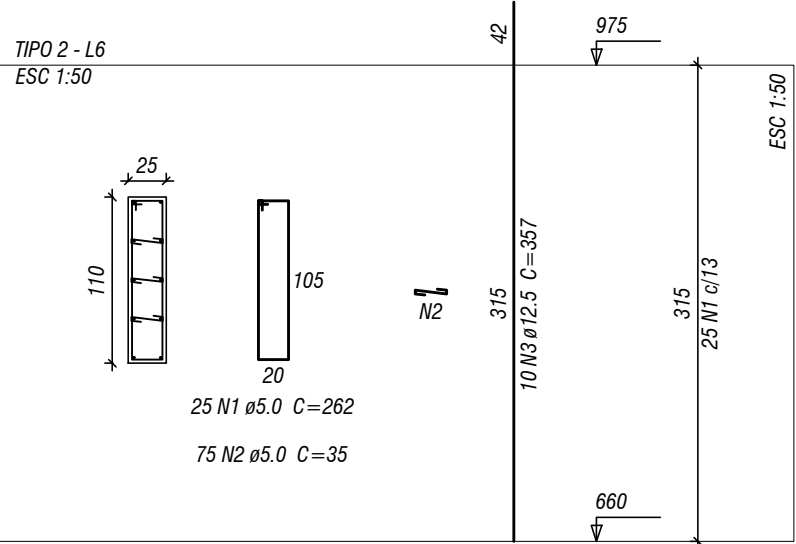
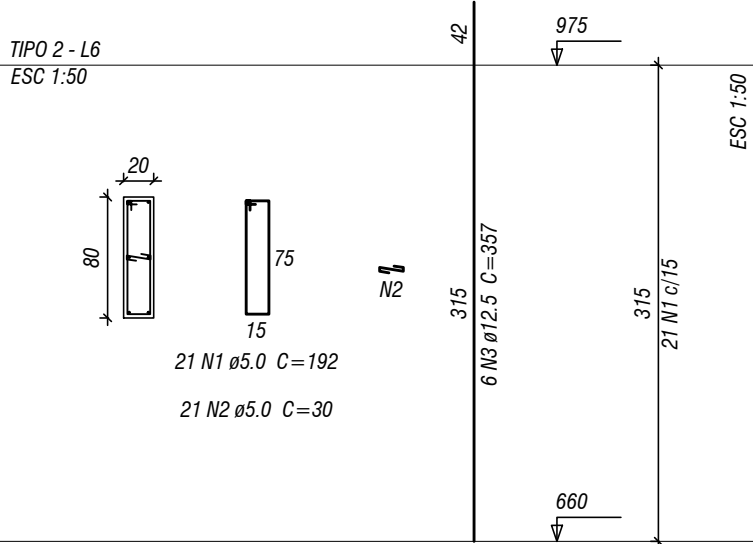


PENAS PARA PLOTAGEM									
COR	PENA N°	ESP.	COR	PENA N°	ESP.				
1 (red)	7	0,15	8	7	0,10				
2 (yellow)	7	0,27	15	7	0,10				
3 (green)	7	0,10	141	7	0,60				
4 (cyan)	7	0,30	151	7	0,60				
5 (blue)	7	0,60	161	7	0,60				
6 (magenta)	7	0,40	demora	7	0,22				
7 (white)	7	0,22							

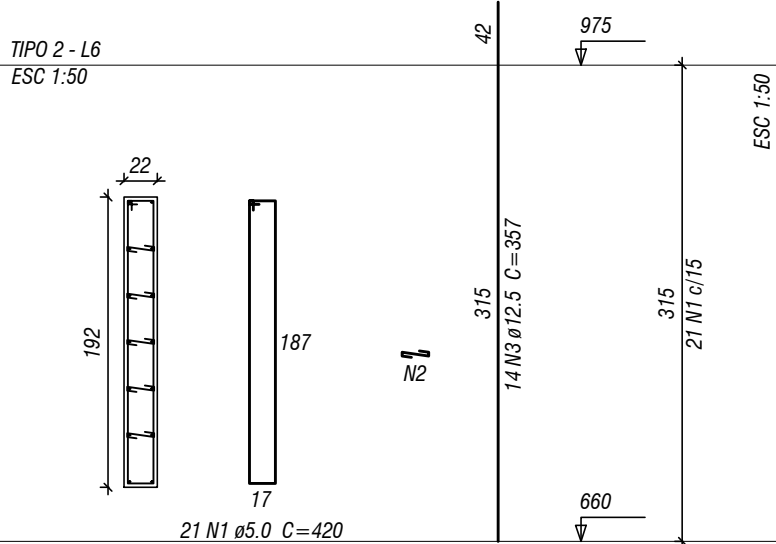
P11=P15



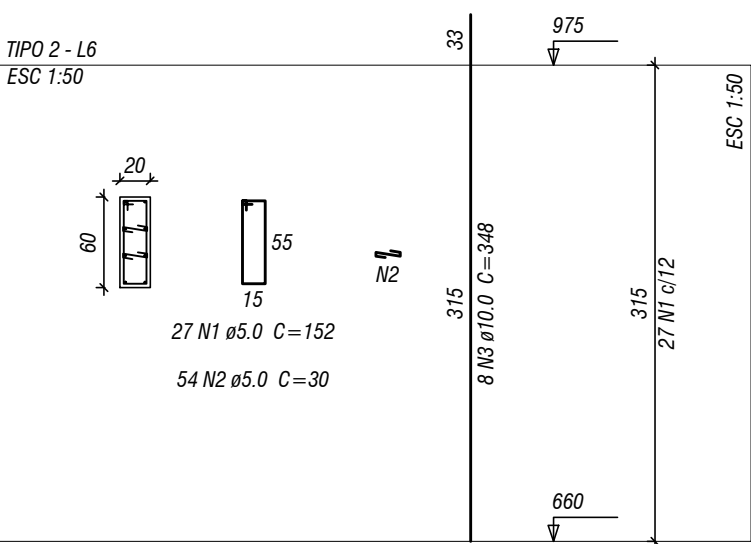
P12=P16=P40



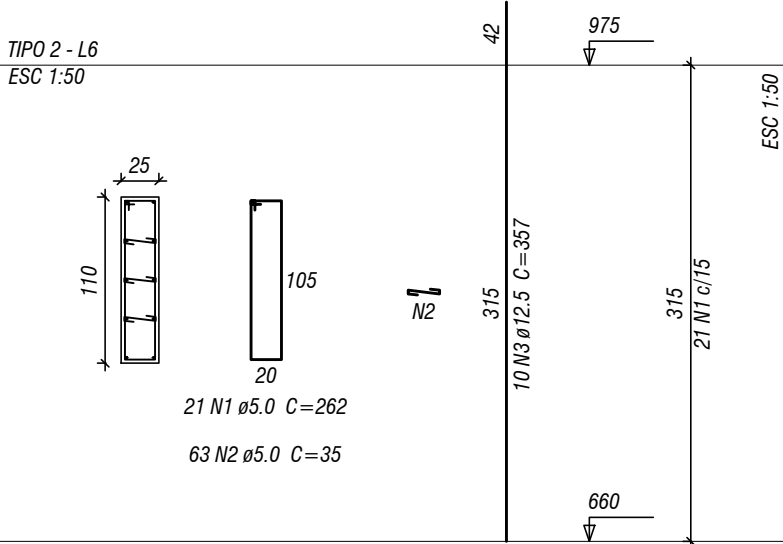
P13=P17



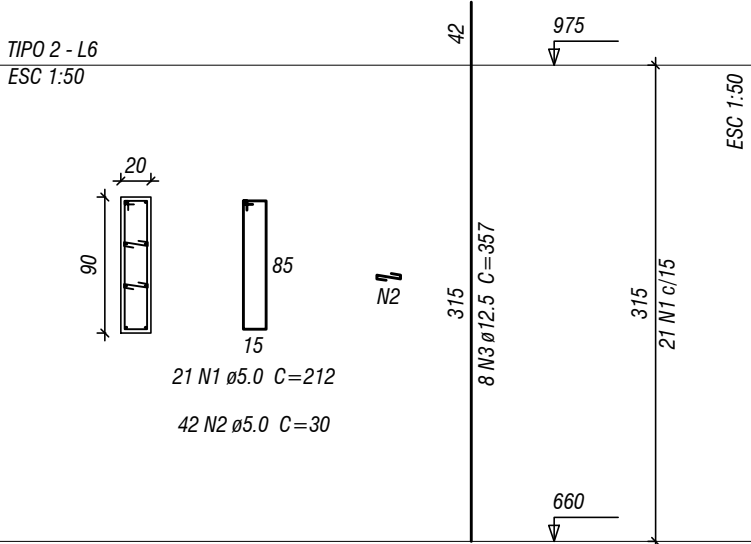
P19



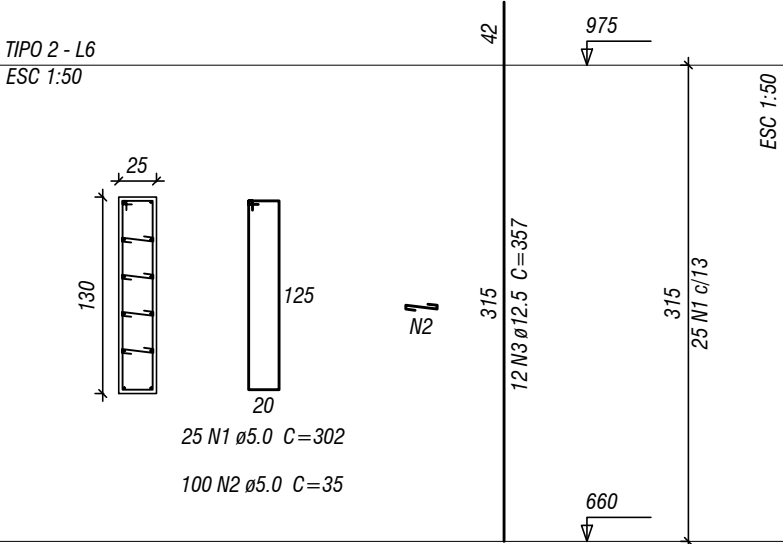
P20=P22



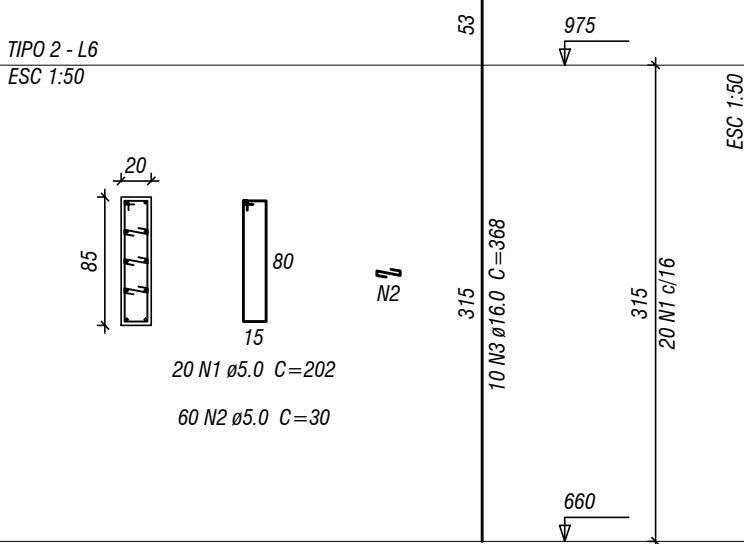
P21



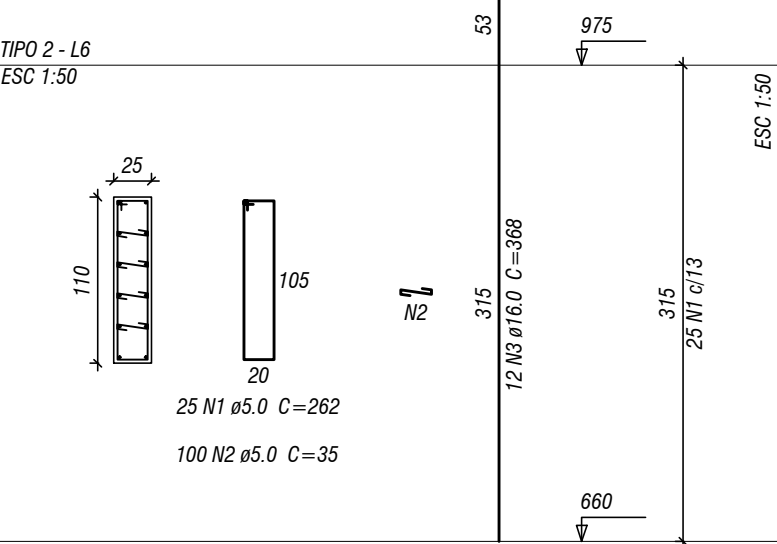
P26=P27



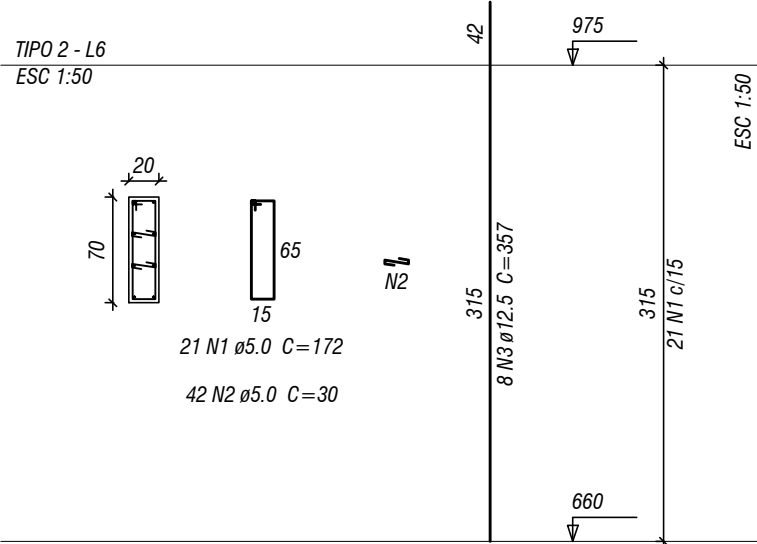
P37



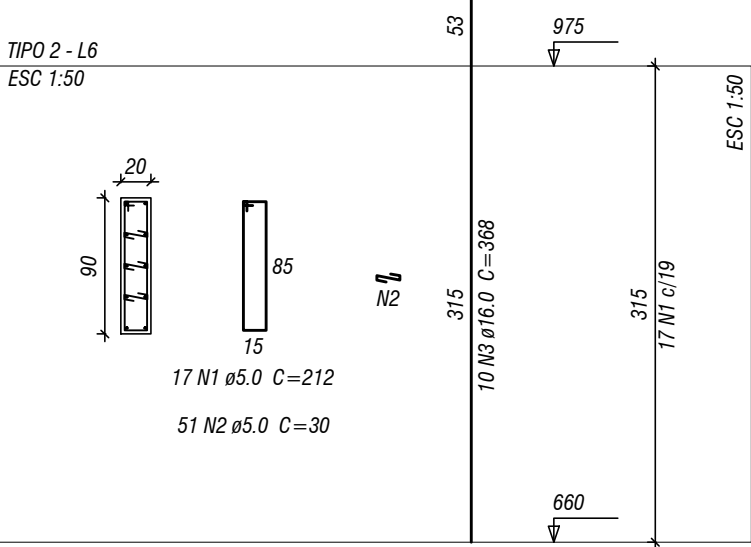
P4



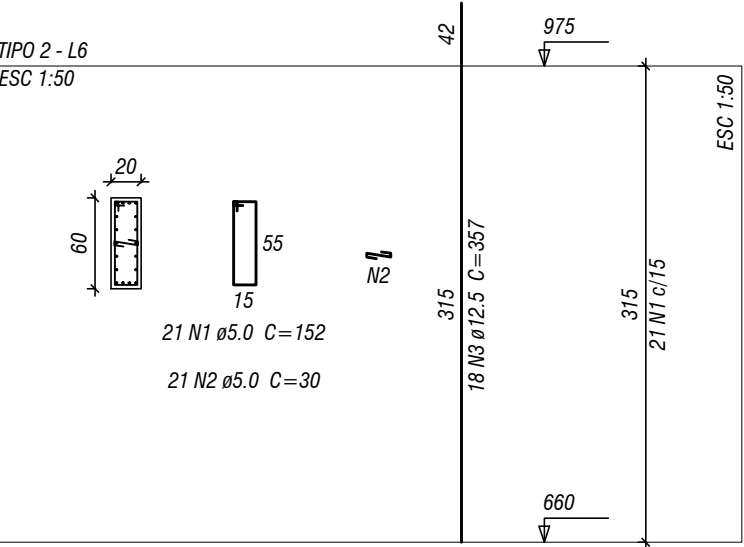
P41



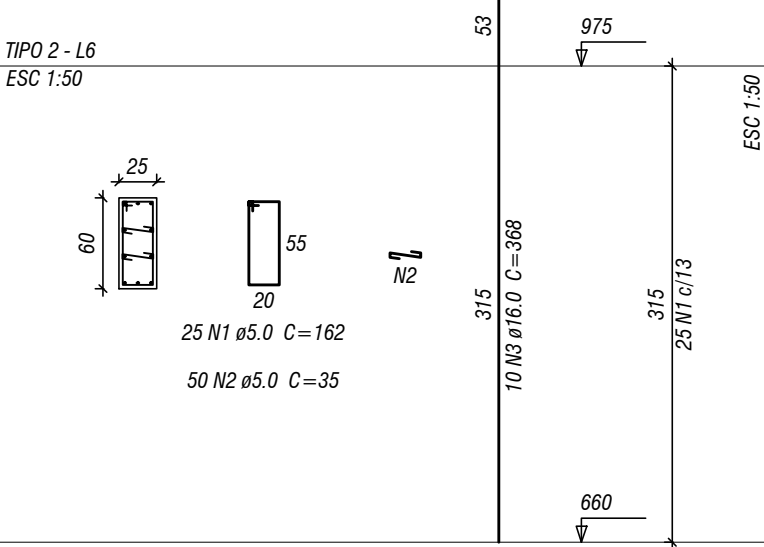
P44



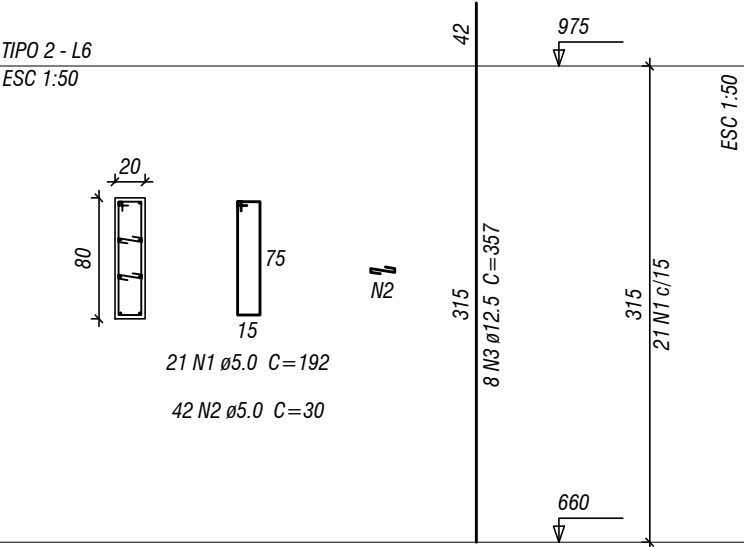
P45



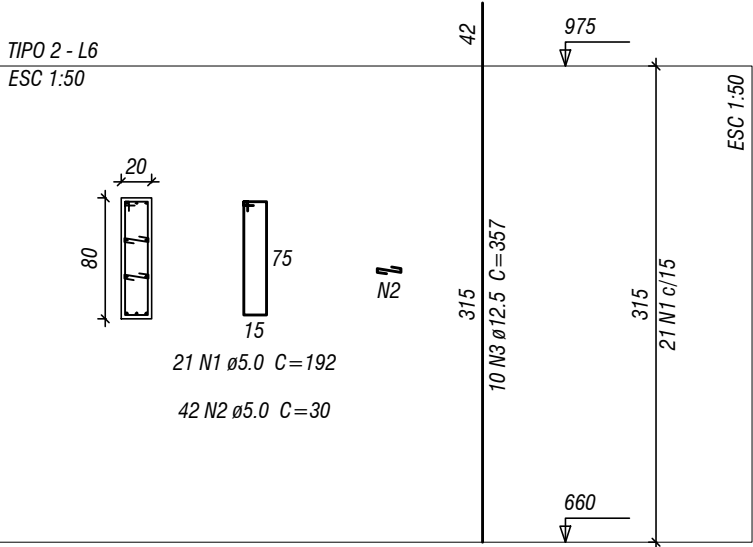
P46=P47



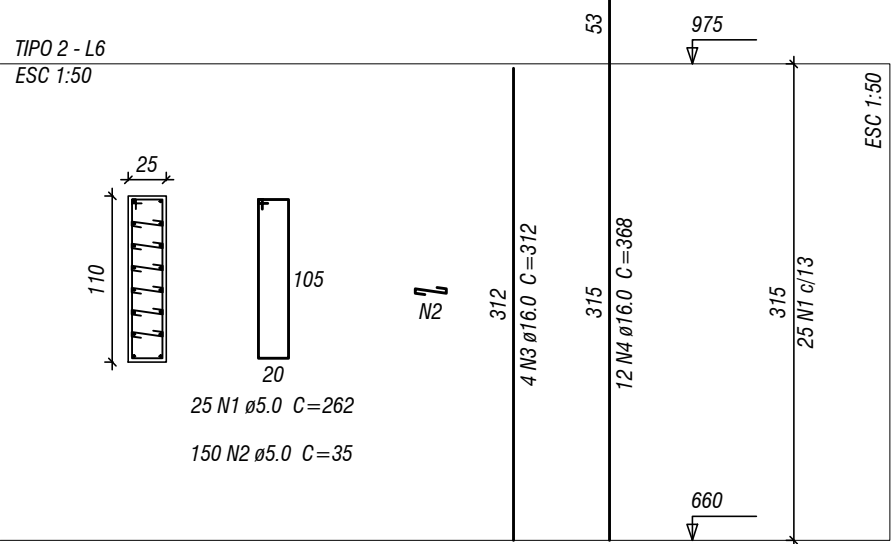
P48



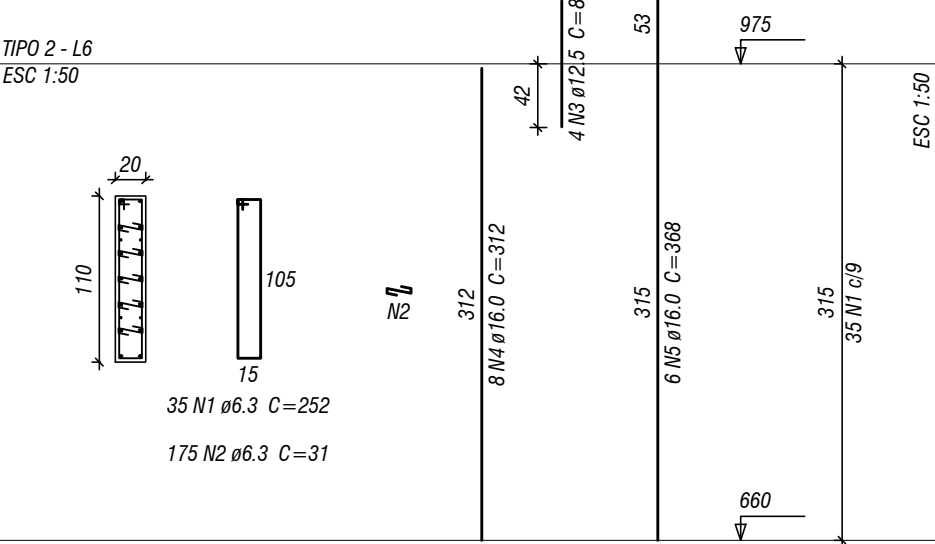
P49



P6



P8



Relação do aço						
ELEMENTO	AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
P4	CA60	1	5.0	25	262	6550
	CA60	2	5.0	100	35	3500
	CA50	3	16.0	12	368	4416
	CA60	1	5.0	25	262	6550
	CA60	2	5.0	150	35	5250
P6	CA50	3	16.0	4	312	1248
	CA50	4	16.0	12	368	4416
	CA50	1	6.3	35	252	8820
	CA50	2	6.3	175	31	5425
	CA50	3	12.5	4	83	332
P8	CA50	4	16.0	8	312	2496
	CA50	5	16.0	6	368	2208
	CA60	1	5.0	50	262	13100
	CA60	2	5.0	150	35	5250
	CA50	3	12.5	20	357	7140
2xP11	CA60	1	5.0	63	192	12096
	CA60	2	5.0	63	30	1890
	CA50	3	12.5	18	357	6426
	CA60	1	5.0	42	420	17640
	CA60	2	5.0	210	32	6720
P19	CA50	3	12.5	28	357	9996
	CA60	1	5.0	27	152	4104
	CA60	2	5.0	54	30	1620
	CA50	3	10.0	8	348	2784
	CA60	1	5.0	42	262	11004
2xP20	CA60	2	5.0	126	35	4410
	CA50	3	12.5	20	357	7140
	CA60	1	5.0	21	212	4452
	CA60	2	5.0	42	30	1260
	CA50	3	12.5	8	357	2856
P21	CA60	1	5.0	50	302	15100
	CA60	2	5.0	200	35	7000
	CA50	3	12.5	24	357	8568
	CA60	1	5.0	20	202	4040
	CA60	2	5.0	60	30	1800
P37	CA50	3	16.0	10	368	3680
	CA60	1	5.0	21	172	3612
	CA60	2	5.0	42	30	1260
	CA50	3	12.5	8	357	2856
	CA60	1	5.0	17	212	3604
P41	CA60	2	5.0	51	30	1530
	CA50	3	16.0	10	368	3680
	CA60	1	5.0	21	152	3192
	CA60	2	5.0	21	30	630
	CA50	3	12.5	18	357	6426
2xP46	CA60	1	5.0	50	162	8100
	CA60	2	5.0	100	35	3500
	CA50	3	16.0	20	368	7360
	CA60	1	5.0	21	192	4032
	CA60	2	5.0	42	30	1260
P48	CA50	3	12.5	8	357	2856
	CA60	1	5.0	21	192	4032
	CA60	2	5.0	42	30	1260
	CA50	3	12.5	10	357	3570
	CA60	2	5.0	42	30	1260
P49	CA50	3	12.5	10	357	3570
	CA60	2	5.0	42	30	1260
	CA50	3	12.5	10	357	3570
	CA60	2	5.0	42	30	1260
	CA50	3	12.5	10	357	3570

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	142.5	34.9
	10.0	21.9	17.2
	12.5	581.7	560.3
	16.0	285.1	465.7
CA60	5.0	1693.5	261
PESO TOTAL			
CA50	1078		
CA60	261		

Vol. de concreto total (C=30) = 16.93 m³
Área de forma total = 184.15 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@ykengeharia.com.br - Visite nosso site! http://www.ykengeharia.com.br

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 dos Pilares do Tipo 1

RESPONSÁVEL TÉCNICO:

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

REVISÃO:

R-00

DATA CRIAÇÃO:

09/04/2013

DATA DA REVISÃO:

N/C

PROJETO Nº:

P-181

PRANCHA:

32

68

ESCALAS:

INDICADAS