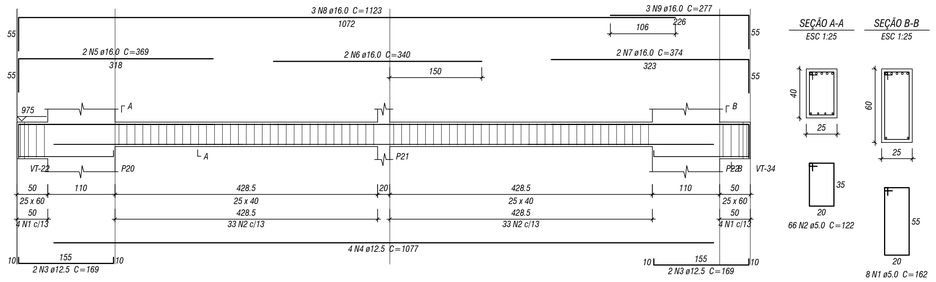
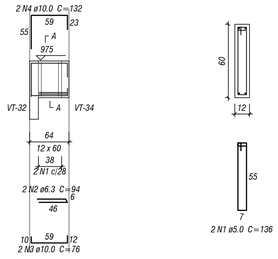
VT-18 (var)
ESC 1:50



SEÇÃO A-A
ESC 1:25

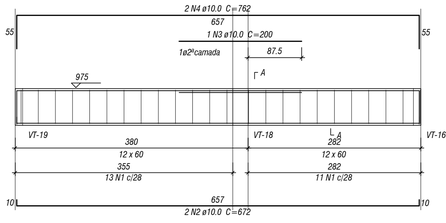
SEÇÃO B-B
ESC 1:25

VT-20 (12 x 60)
ESC 1:50

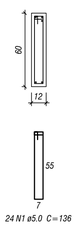


SEÇÃO A-A
ESC 1:25

VT-22 (12 x 60)
ESC 1:50



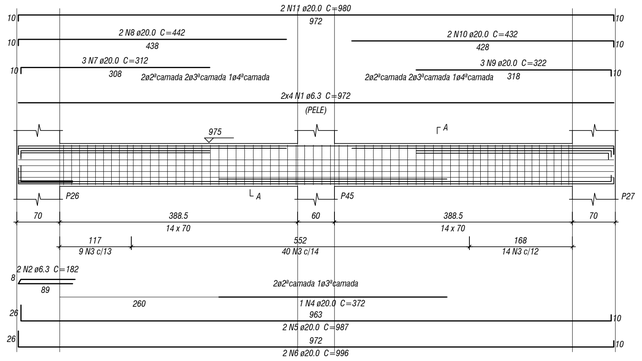
SEÇÃO A-A
ESC 1:25



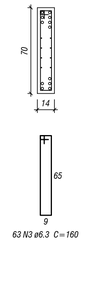
Relação do aço

ELEMENTO	AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
6xVT-18	CA60	1	5.0	48	162	7776
	CA60	2	5.0	396	122	48312
	CA50	3	12.5	24	169	4056
	CA50	4	12.5	24	1077	25848
	CA50	5	16.0	12	369	4428
	CA50	6	16.0	12	340	4080
	CA50	7	16.0	12	374	4488
	CA50	8	16.0	18	1123	20214
	CA50	9	16.0	18	277	4986
6xVT-20	CA60	1	5.0	12	136	1632
	CA50	2	6.3	12	94	1128
	CA50	3	10.0	12	76	912
	CA50	4	10.0	12	132	1584
6xVT-21	CA50	1	6.3	48	972	46656
	CA50	2	6.3	12	182	2184
	CA50	3	6.3	378	160	60480
	CA50	4	20.0	6	372	2232
	CA50	5	20.0	12	987	11844
	CA50	6	20.0	12	996	11952
	CA50	7	20.0	18	312	5616
	CA50	8	20.0	12	442	5304
	CA50	9	20.0	18	322	5796
	CA50	10	20.0	12	432	5184
	CA50	11	20.0	12	980	11760
6xVT-22	CA60	1	5.0	144	136	19584
	CA50	2	10.0	12	672	8064
	CA50	3	10.0	6	200	1200
	CA50	4	10.0	12	762	9144
6xVT-23	CA60	1	5.0	132	136	17952
	CA50	2	6.3	12	94	1128
	CA50	3	10.0	6	404	2424
	CA50	4	10.0	12	644	7728
	CA50	5	10.0	12	668	8016
6xVT-24	CA60	1	5.0	258	210	54180
	CA60	2	5.0	72	130	9360
	CA50	3	6.3	60	983	58980
	CA50	4	6.3	60	177	10620
	CA50	5	6.3	30	92	2760
	CA50	6	6.3	6	136	816
	CA50	7	10.0	6	538	3228
	CA50	8	10.0	18	1000	18000
	CA50	9	10.0	12	399	4788
	CA50	10	10.0	18	194	3492
	CA50	11	12.5	6	415	2490
	CA50	12	12.5	12	812	9744
	CA50	13	12.5	6	260	1560
	CA50	14	12.5	12	1197	14364
	CA50	15	12.5	12	389	4668
6xVT-25	CA50	1	6.3	60	750	45000
	CA50	2	6.3	30	92	2760
	CA50	3	6.3	162	130	21060
	CA50	4	6.3	6	136	816
	CA50	5	8.0	36	101	3636
	CA50	6	8.0	234	210	49140
	CA50	7	16.0	18	347	6246
	CA50	8	16.0	12	764	9168
	CA50	9	20.0	6	433	2598
	CA50	10	20.0	12	437	5244
	CA50	11	20.0	12	765	9180
	CA50	12	20.0	12	774	9288
	CA50	13	20.0	6	236	1416
	CA50	14	20.0	12	345	4140
	CA50	15	20.0	12	429	5148
6xVT-26	CA60	1	5.0	78	96	7488
	CA50	2	6.3	12	80	960
	CA50	3	8.0	12	309	3708
	CA50	4	10.0	12	208	2496
	CA50	5	10.0	12	341	4092
6xVT-28	CA60	1	5.0	72	136	9792
	CA50	2	10.0	12	384	4608
	CA50	3	12.5	12	411	4932
6xVT-29	CA60	1	5.0	72	136	9792
	CA50	2	6.3	6	84	504
	CA50	3	6.3	6	210	1260
	CA50	4	10.0	12	384	4608
	CA50	5	10.0	6	229	1374
	CA50	6	10.0	12	427	5124
6xVT-30	CA60	1	5.0	24	100	2400
	CA60	2	5.0	12	136	1632
	CA50	3	10.0	12	60	720
	CA50	4	10.0	6	57	342
	CA50	5	10.0	12	107	1284
6xVT-31	CA50	1	10.0	72	42	3024
	CA50	2	10.0	60	219	13140
	CA50	3	16.0	24	152	3648
	CA50	4	20.0	24	82	1968
	CA50	5	20.0	24	137	3288

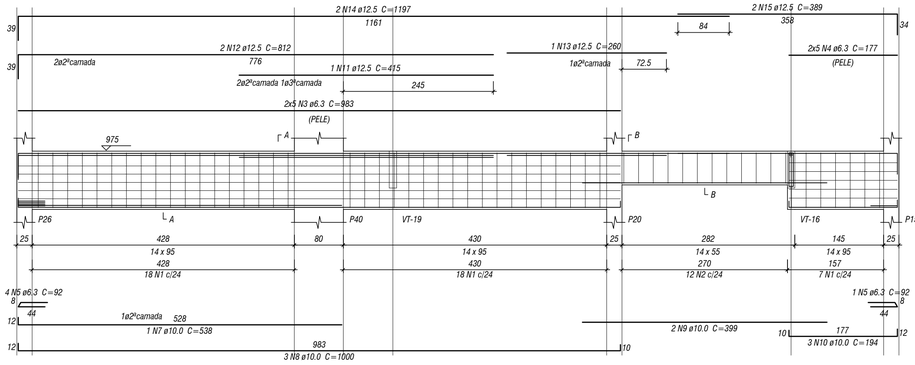
VT-21 (14 x 70)
ESC 1:50



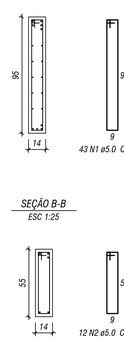
SEÇÃO A-A
ESC 1:25



VT-24 (var)
ESC 1:50

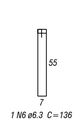


SEÇÃO A-A
ESC 1:25



SEÇÃO B-B
ESC 1:25

SUSPENSÃO VT-16
ESC 1:25



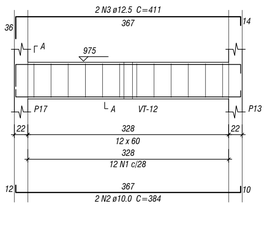
Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO (kg)
CA50	6.3	2571.2	629.2
	8.0	564.9	222.9
	10.0	1094	674.4
	12.5	676.7	651.8
	16.0	572.6	903.7
	20.0	1019.6	2514.4
CA60	5.0	1899	292.7
PESO TOTAL			
CA50	5596.5		
CA60	292.7		

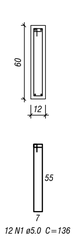
Vol. de concreto total (C-30) = 43.03 m³
Área de forma total = 641.45 m²

OBS: ESSE QUANTITATIVO JÁ CONSIDERA A REPTIAÇÃO DOS PAVIMENTSO TIPOS.

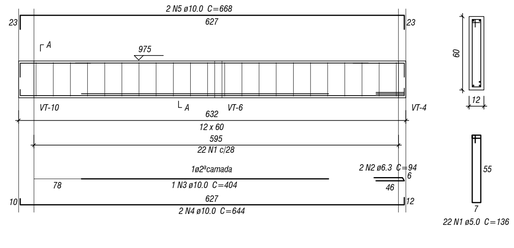
VT-28 (12 x 60)
ESC 1:50



SEÇÃO A-A
ESC 1:25

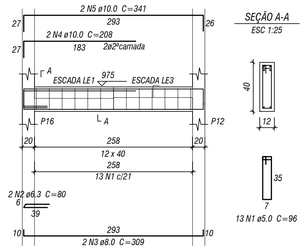


VT-23 (12 x 60)
ESC 1:50



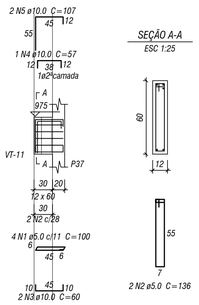
SEÇÃO A-A
ESC 1:25

VT-26 (12 x 40)
ESC 1:50



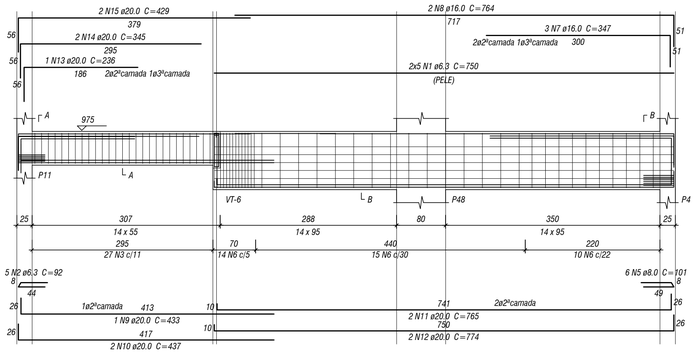
SEÇÃO A-A
ESC 1:25

VT-30 (12 x 60)
ESC 1:50

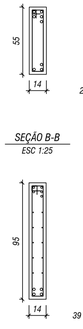


SEÇÃO A-A
ESC 1:25

VT-25 (var)
ESC 1:50

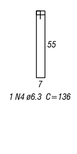


SEÇÃO A-A
ESC 1:25

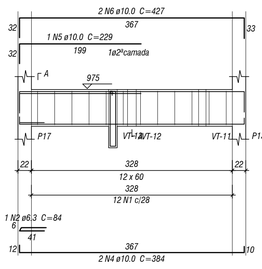


SEÇÃO B-B
ESC 1:25

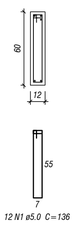
SUSPENSÃO VT-6
ESC 1:25



VT-29 (12 x 60)
ESC 1:50

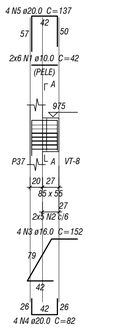


SEÇÃO A-A
ESC 1:25

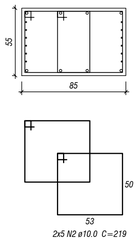


SUSPENSÃO VT-13
ESC 1:25

VT-31 (85 x 55)
ESC 1:50



SEÇÃO A-A
ESC 1:25



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 Pingüim, N° 304 | Sala 01 | Gleba Ribeirão Pingüim | Maringá - Paraná | CEP: 87065-675
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, n° 1.033 - Zona 07 - Maringá - Paraná

REFERÊNCIA(s):
Detalhes das Vigas do Tipo (Folha 02 de 03)
<>
<>

REVISÃO: **R-00**

PRANCHA: **46** / **68**

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

DATA CRIAÇÃO: 09/04/2013

DATA DA REVISÃO: N/C

ART N°: 20122498064

PROJETO N°: P-181

ESCALAS: INDICADAS

PENAS PARA PLOTAGEM

COR	PENA Nº	ESP.
1 (red)	1	0,10
2 (yellow)	2	0,20
3 (green)	3	0,30
4 (cyan)	4	0,40
5 (magenta)	5	0,50
6 (magenta)	6	0,60
7 (white)	7	0,70

COR	PENA Nº	ESP.
1 (red)	1	0,10
2 (yellow)	2	0,20
3 (green)	3	0,30
4 (cyan)	4	0,40
5 (magenta)	5	0,50
6 (magenta)	6	0,60
7 (white)	7	0,70

COR	PENA Nº	ESP.
1 (red)	1	0,10
2 (yellow)	2	0,20
3 (green)	3	0,30
4 (cyan)	4	0,40
5 (magenta)	5	0,50
6 (magenta)	6	demais
7 (white)	7	0,70