

Pilares que terminam em
Piso 1
Concreto: C25, usina.rigor
Aço: CA-50-A e CA-60-B
Escala: 1:50

Resumo Aço			Peso+10%	Total
Piso 1	Comp. (m)		(kg)	
CA-50-A	ø10	89.2	62	62
CA-60-B	ø5	95.0	16	16
Total				78

Aço	Pos.	Diam.	Q.	Comp. (cm)	Total (cm)	x 2
CA-50-A	7	ø10	4	285	1140	2280
"	8	ø10	4	99	396	792
CA-60-B	9	ø5	22	72	1584	3168

+2.50

4N7ø10 C=285

N8c/12
22 ø5

+0.00

4N8ø10 C=99
35

4N9ø10 C=85
15

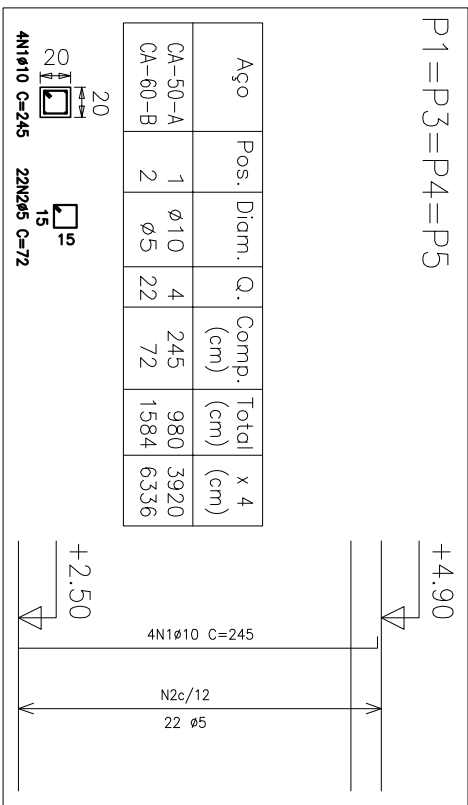
4N10ø10 C=85
15

22Nø5 C=72

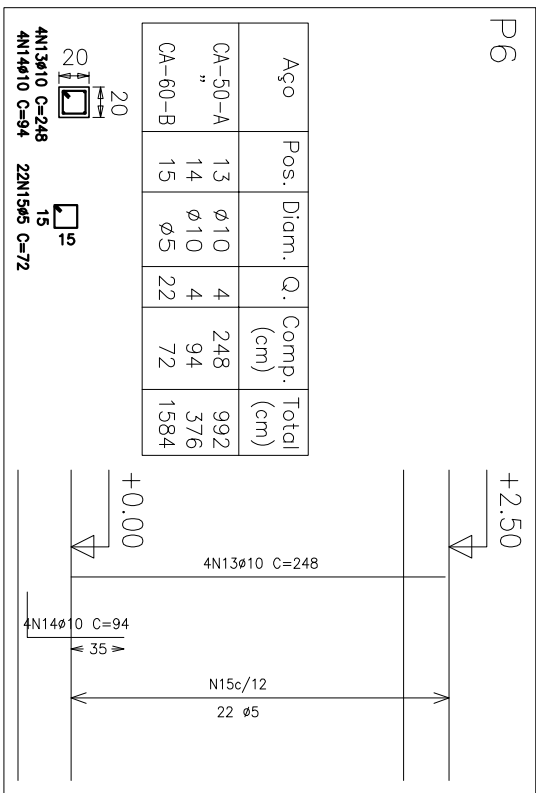
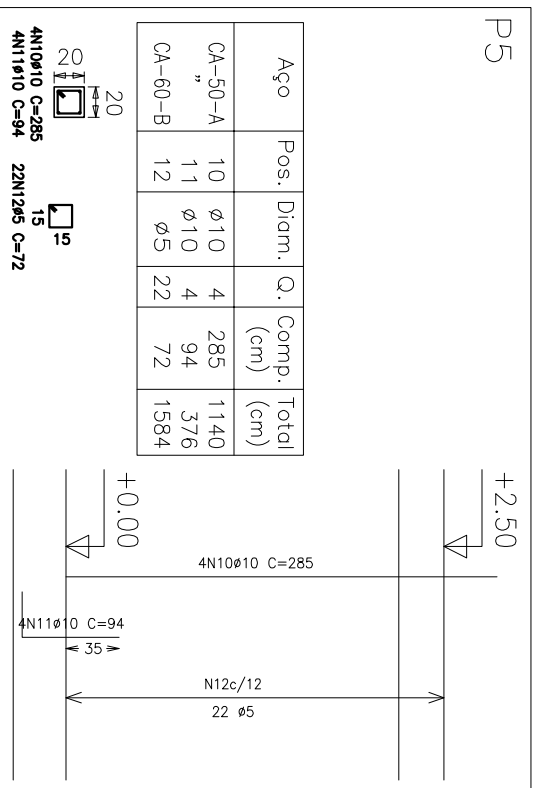
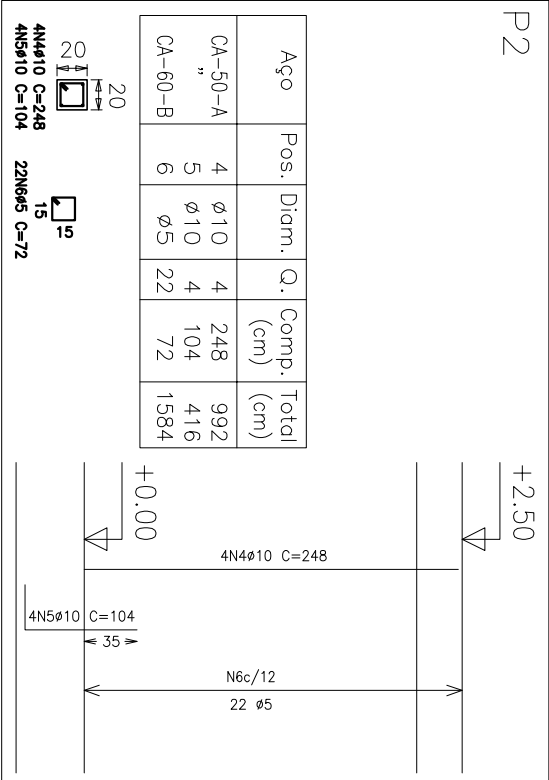
Elemento	Pos.	Diam.	Q.	Dob. (cm)	Retq (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
P1	1	ø10	4	285			285	1140	7.2	
	2	ø10	4	30	74		104	416	2.6	
	3	ø5	22	72			72	1584		2.5
Total+10%:									10.8	2.8
P2	4	ø10	4	248			248	992	6.2	
	5	ø10	4	30	74		104	416	2.6	
	6	ø5	22	72			72	1584		2.5
Total+10%:									9.7	2.8
P3=P4	7	ø10	4	285			285	1140	7.2	
	8	ø10	4	30	69		99	396	2.5	
	9	ø5	22	72			72	1584		2.5
Total+10%:									10.7	2.8
(x2):									21.4	5.6
P5	10	ø10	4	285			285	1140	7.2	
	11	ø10	4	30	64		94	376	2.4	
	12	ø5	22	72			72	1584		2.5
Total+10%:									10.6	2.8
P6	13	ø10	4	248			248	992	6.2	
	14	ø10	4	30	64		94	376	2.4	
	15	ø5	22	72			72	1584		2.5
Total+10%:									9.5	2.8
ø5:									0.0	16.8
ø10:									62.0	0.0
Total:									62.0	16.8


Resumo Aço Cobertura Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	39.2	27	27
CA-60-B ø5	63.4	11	11
Total			38

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Retq. (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)	
P1=P3=P4=P5	1	ø10	4	7	238		245	980	6.2		
	2	ø5	22		72		72	1584		2.5	
	Total+10%:									6.8	2.8
	(x4):									27.2	11.2
ø5:									0.0	11.2	
ø10:									27.2	0.0	
Total:									27.2	11.2	



Pilares que terminam em
Cobertura
Concreto: C25, usina.rigor
Aço: CA-50-A e CA-60-B
Escala: 1:50





PREFEITURA MUNICIPAL DO RIO GRANDE
UNIDADE GESTORA DE PROJETOS - UGP

OBRA: REFORMA DO PRÉDIO - DATC

Projeto Estrutural

RESP. PROJETO: ENGº FELIPE CANDIDO VELOSO COSTA

CREA/RS 159649

ESCALA: 1:50

DATA: 10/2010

PRANCHA: 02/04

ESPECIFICAÇÃO: PLANTA DE ARMAÇÃO DOS PILARES