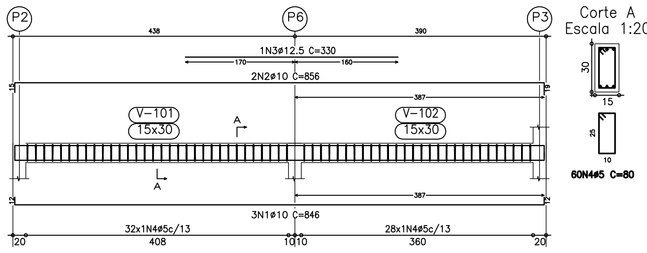
V 1
Escala 1:50



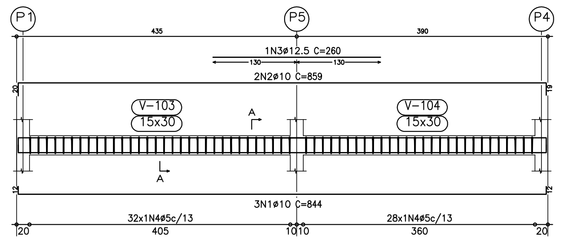
Corte A
Escala 1:20

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 1	1	ø10	3	12	822	12	846	2538	15.9	
	2	ø10	2	15	822	19	856	1712	10.8	
	3	ø12.5	1		330		330	330	3.2	
	4	ø5	60				80	4800		7.5
								Total+10%:	32.9	8.3
V 2	1	ø10	3	12	820	12	844	2532	15.9	
	2	ø10	2	20	820	19	859	1718	10.8	
	3	ø12.5	1		260		260	260	2.6	
	4	ø5	60				80	4800		7.5
								Total+10%:	32.2	8.3
								ø5:	0.0	16.6
								ø10:	58.8	0.0
								ø12.5:	6.3	0.0
								Total:	65.1	16.6

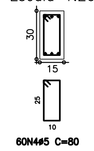
Piso 1
Desenho de vigas
Concreto: C25, usina.rigor
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

Resumo Aço Piso 1 Vigas		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø8	24.7	11	
	ø10	90.4	62	
	ø12.5	5.9	6	79
CA-60-B	ø5	133.6	23	23
Total				102

V 2
Escala 1:50



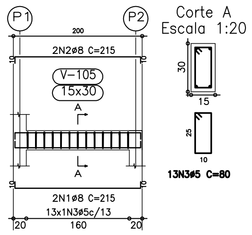
Corte A
Escala 1:20



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 3	1	ø8	2	10	195	10	215	430	1.7	
	2	ø8	2	10	195	10	215	430	1.7	
	3	ø5	13				80	1040		1.6
								Total+10%:	3.7	1.8
V 4	1	ø10	2	12	245	12	269	538	3.4	
	2	ø8	2	10	245	10	265	530	2.1	
	3	ø5	17				80	1360		2.1
								Total+10%:	6.1	2.3
V 5	1	ø8	2	10	245	10	265	530	2.1	
	2	ø8	2	15	245	15	275	550	2.2	
	3	ø5	17				80	1360		2.1
								Total+10%:	4.7	2.3
								ø5:	0.0	6.4
								ø8:	10.8	0.0
								ø10:	3.7	0.0
								Total:	14.5	6.4

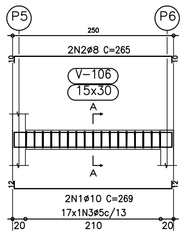
Piso 1
Desenho de vigas
Concreto: C25, usina.rigor
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

V 3
Escala 1:50

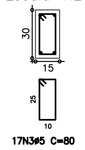


Corte A
Escala 1:20

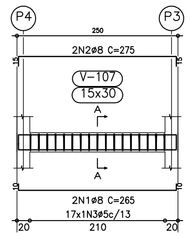
V 4
Escala 1:50



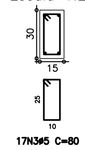
Corte A
Escala 1:20



V 5
Escala 1:50



Corte A
Escala 1:20

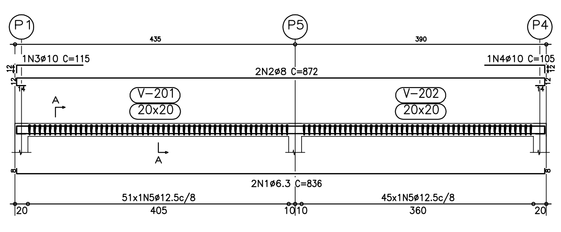


Cobertura
Desenho de vigas
Concreto: C25, usina.rigor
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

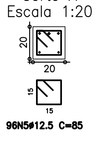
Resumo Aço Cobertura Vigas		Comp. total (m)	Peso+10% (kg)	Total
CA-50-A	ø6.3	24.7	7	
	ø8	23.4	10	
	ø10	2.2	2	
	ø12.5	104.6	113	132

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 1	1	ø6.3	2	8	820	8	836	1672	4.1	
	2	ø8	2	26	820	26	872	1744	6.8	
	3	ø10	1	12	103		115	115	0.7	
	4	ø10	1		93	12	105	105	0.7	
	5	ø12.5	96				85	8160	80.1	
								Total+10%:	101.6	
V 2	1	ø6.3	2	8	245	8	261	522	1.3	
	2	ø8	2	26	245	26	297	594	2.3	
	3	ø6.3	4	8	62		70	280	0.7	
	4	ø12.5	27				85	2295	22.5	
								Total+10%:	29.5	
								ø6.3:	6.7	0.0
								ø8:	10.0	0.0
								ø10:	1.5	0.0
								ø12.5:	112.9	0.0
								Total:	131.1	0.0

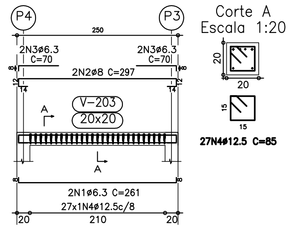
V 1
Escala 1:50



Corte A
Escala 1:20

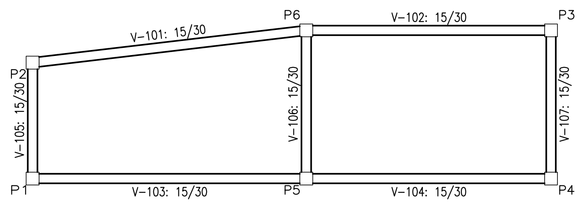


V 2
Escala 1:50

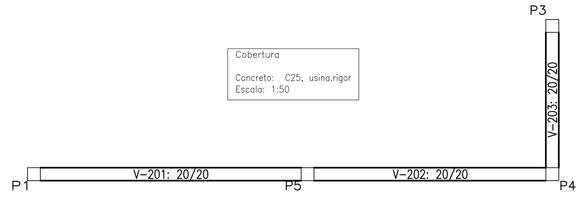


Corte A
Escala 1:20

Piso 1
Concreto: C25, usina.rigor
Escala: 1:50



Cobertura
Concreto: C25, usina.rigor
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

PRANCHA: 03/04

ESCALA: 1:50
DATA: 05/2011

ESPECIFICAÇÃO: PLANTA DE FORMAS E ARMAÇÃO DAS VIGAS