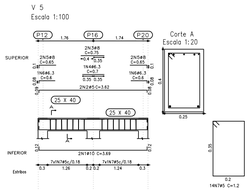
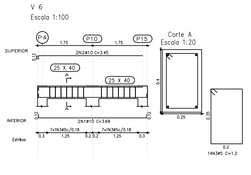
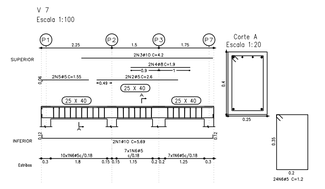
NÍVEL 3.50/3,80 m
Desenho de vigas
Concreto: C20, em geral
Aço: CA-50-A e CA-60-B
Escala vigas: 1:100
Escala seções: 1:20

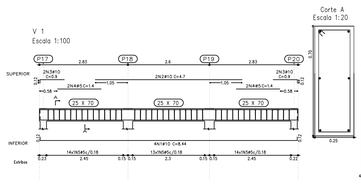
Resumo Aço NÍVEL 3.50 m Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A Ø6.3	3.7	1	
Ø8	14.2	6	
Ø10	169.5	117	124
CA-60-B Ø5	309.2	53	53
Total			177

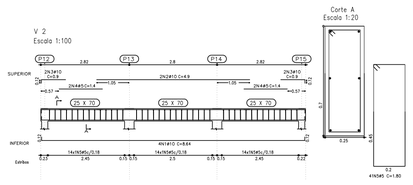


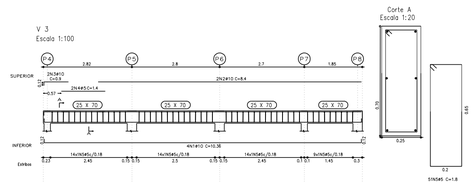


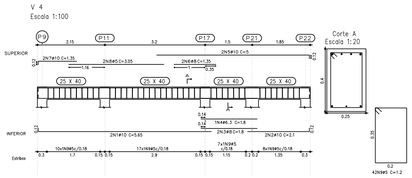


Elemento	Pos.	Diam.	Q.	Dob. Com. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (kg)	CA-50-A (kg)	CA-60-B (kg)
V 1	1	#10	2	12	820	12	844	3376	21.20	
	2	#10	2		470		470	940	5.9	
	3	#10	2	12	78		90	360	2.2	
	4	#5	1		140		160	160		0.9
	5	#5	40				120	4920		7.7
							Total+10%		30.50	9.5
V 2	1	#10	2	12	840	12	864	3456	21.80	
	2	#10	2	12	78		90	360	2.2	
	3	#10	2	12	78		90	360	2.2	
	4	#5	1		140		160	160		0.8
	5	#5	42				120	5040		7.9
							Total+10%		34	9.7
V 3	1	#10	4	12	1012	12	1036	4144	26.2	
	2	#10	2	12	840		840	1680	10.6	
	3	#10	2	12	78		90	360	1.1	
	4	#5	1		140		160	280		0.4
	5	#5	51				120	6120		9.6
							Total+10%		41.50	11.0
V 4	1	#10	2	12	553		565	1130	7.1	
	2	#10	2	12	388		400	800	5.0	
	3	#8	2		180		180	360	1.4	
	4	#6.3	2		180		180	360	0.5	
	5	#10	2	12	488	12	500	1000	6.3	
	6	#8	2		133		135	270	1.1	
	7	#10	2	12	122		135	270	1.7	
	8	#5	1		300		320	320		1.0
	9	#5	40				505	610		1.9
	10	#5	40				120	5040		7.9
							Total+10%		23.7	5.8
V 5	1	#10	2	12	545	12	569	1138	4.8	
	2	#5	2	12	343	8	376	752	1.1	
	3	#8	1				70	70	0.6	
	4	#6.3	1				70	70	0.2	
	5	#8	4	10	55		65	260	1.0	
	6	#6.3	2	8	52		60	120	0.3	
	7	#5	14			8	120	1680		2.8
							Total+10%		9.4	4.1
V 6	1	#10	2	12	343	12	369	738	4.6	
	2	#5	2	16	184		200	400	0.6	
	3	#6.3	2	8	87		95	190	0.5	
	4	#5	14				120	1680		2.8
							Total+10%		9.8	3.9
V 7	1	#10	2	12	545	12	569	1138	7.1	
	2	#5	2		260		280	520		0.8
	3	#10	2		420		420	840	5.2	
	4	#8	1		190		190	380	1.5	
	5	#8	2	8	169		180	360		0.5
	6	#5	24				120	2880		4.5
							Total+10%		15.5	6.4
							#5=		0.0	52.9
							#6.3=		1.1	0.0
							#8=		8.5	0.0
							#10=		117.2	0.0
							Total		126.8	52.9



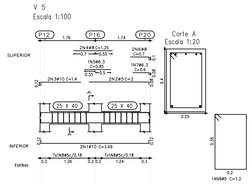


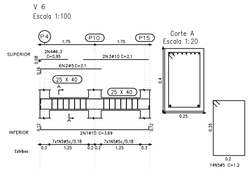


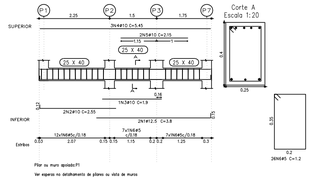


NÍVEL 2.20
Desenho de vigas
Concreto: C20, em geral
Aço: CA-50-A e CA-60-B
Escala vigas: 1:100
Escala seções: 1:20

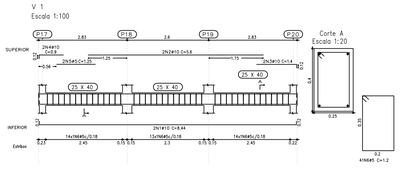
Resumo Aço NÍVEL 2.20 Vigas	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A Ø6.3	3.4	1	
Ø8	25.0	11	
Ø10	184.7	128	
Ø12.5	9.1	10	150
CA-60-B Ø5	306.3	53	53
Total			203

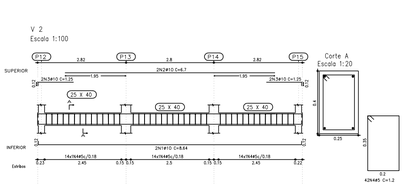


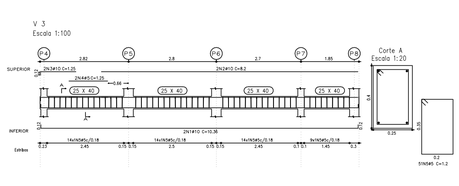


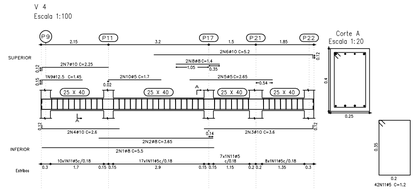


Elemento	Pos.	Diam.	Q.	Dob. Com. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (kg)	CA-50-A (kg)	CA-60-B (kg)
V 1	1	#10	2	12	820	12	844	1688	10.6	
	2	#10	2		560		560	1120	7.0	
	3	#10	2		128	12	140	280	1.8	
	4	#10	2	12	78		90	180	1.1	
	5	#5	1		140		160	160		0.4
	6	#5	41				120	4920		7.7
							Total+10%		22.6	8.9
V 2	1	#10	2	12	840	12	864	1728	10.9	
	2	#10	2		670		670	1340	8.4	
	3	#10	2	12	112		125	500	3.1	
	4	#5	42				120	5040		7.9
							Total+10%		24.2	8.7
V 3	1	#10	2	12	1012	12	1036	2072	13.0	
	2	#10	2	12	840		840	1680	10.5	
	3	#10	2	12	112		125	250	1.6	
	4	#5	1		140		160	280		0.4
	5	#5	51				120	6120		9.6
							Total+10%		27.4	11.0
V 4	1	#8	2		500		550	1100	4.3	
	2	#8	2		365		365	730	2.8	
	3	#10	2		248	12	260	520	3.3	
	4	#10	2		265		265	530		0.8
	5	#5	2		508	12	520	1040	6.5	
	6	#10	2	12	213		225	450	2.8	
	7	#8	1		140		140	280	1.1	
	8	#12.5	2	15	130		145	290	1.4	
	9	#5	1		150		170	170		0.5
	10	#5	40				120	5040		7.9
							Total+10%		29.5	10.1
V 5	1	#10	2	12	343	12	368	736	4.6	
	2	#5	2	12	182	8	320	400		0.6
	3	#10	2	12	128		140	280	1.8	
	4	#8	1		125		125	250	1.0	
	5	#6.3	1		70		70	70	0.2	
	6	#8	4	10	55		65	260	1.0	
	7	#6.3	2	8	52		60	120	0.3	
	8	#5	14			8	120	1680		2.8
							Total+10%		9.0	3.5
V 6	1	#10	2	12	343	12	369	738	4.6	
	2	#5	2	16	184		210	1260		2.0
	3	#6.3	2	8	87		95	190	0.5	
	4	#5	14				120	1680		2.8
							Total+10%		5.1	5.7
V 7	1	#12.5	2	15	365	15	380	760	7.5	
	2	#10	2	12	243		255	510	3.2	
	3	#10	1		190		190	190	1.2	
	4	#10	2		243		255	510	10.3	
	5	#5	1		315		335	335	1.1	
	6	#5	24				120	3120		4.9
							Total+10%		27.4	5.4
							#5=		9.0	52.7
							#6.3=		0.5	0.0
							#8=		10.8	0.0
							#10=		107.4	0.0
							#12.5		9.9	0.0
							Total		128.5	52.7









REÚSA
CONSERVAÇÃO AMBIENTAL

Rua: Floriano Peixoto, N° 40
Centro
CEP: 14870-370 - Jaboticabal-SP
Tel.: (16) 3202-1446

PROJETO CIVIL
TÍTULO: ARMADURAS VIGAS NIVEL 2,20 E 3,50M
CLIENTE: PREFEITURA MUNICIPAL DE SÃO JOÃO DA BOA VISTA
EMPREENDIMENTO: ESTAÇÃO DE TRANSBORDO DE SÃO JOÃO DA BOA VISTA

ESCALA :	FOLHA:	DATA :	DESENHO:	RESPONSÁVEL:	ASSINATURA :
INDICADA	09/14	MAR/2012	RODOLFO DIAS	PAULO HENRIQUE BELLINGIERI ENG° CIVIL - CREA 060191803/4	