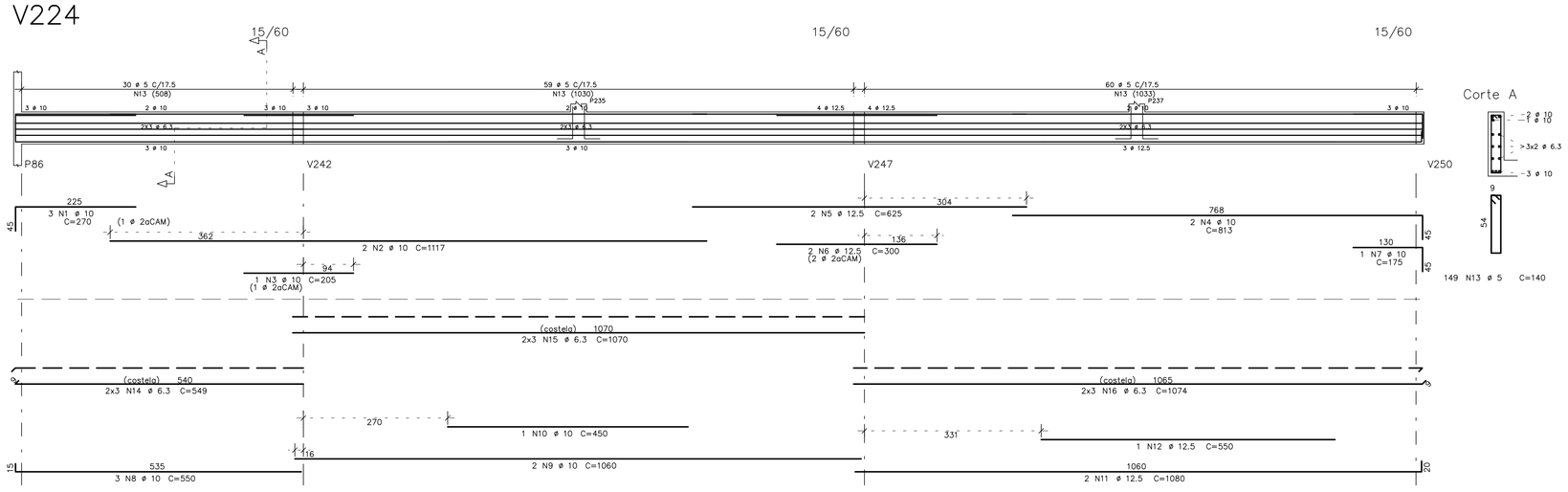
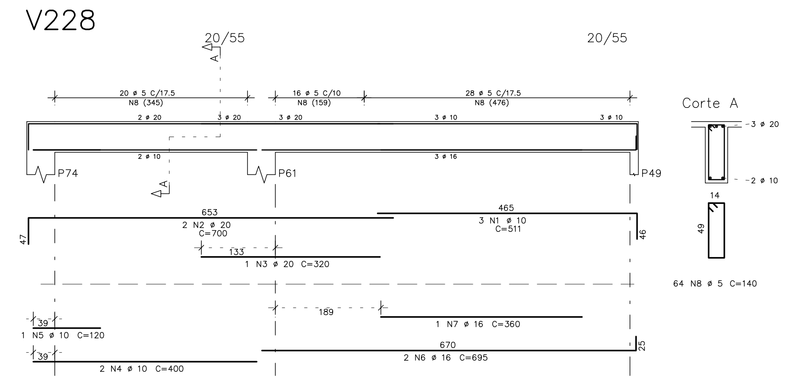
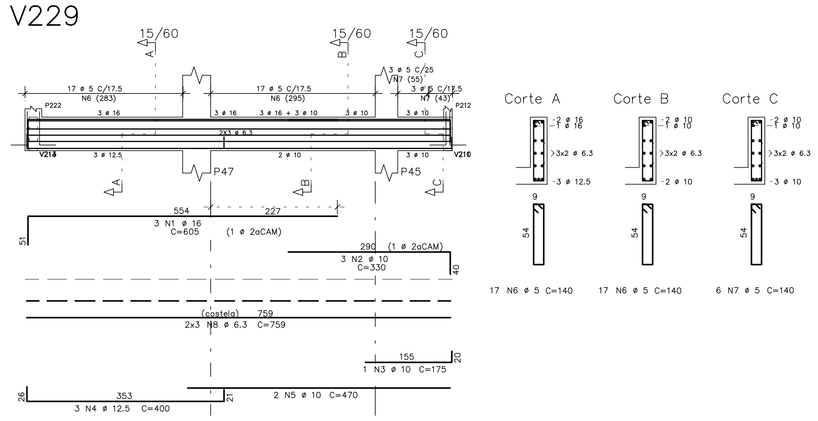
V224



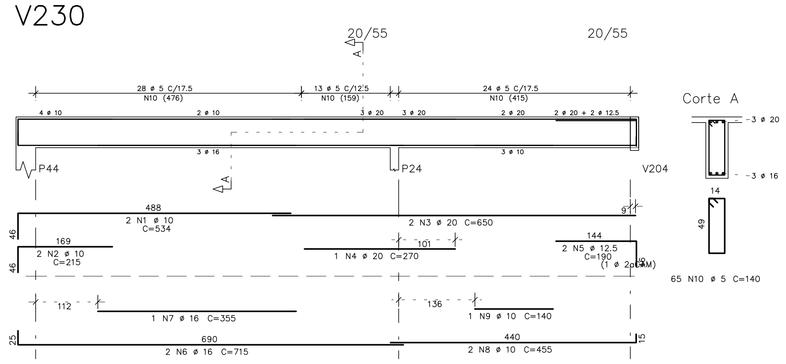
V228



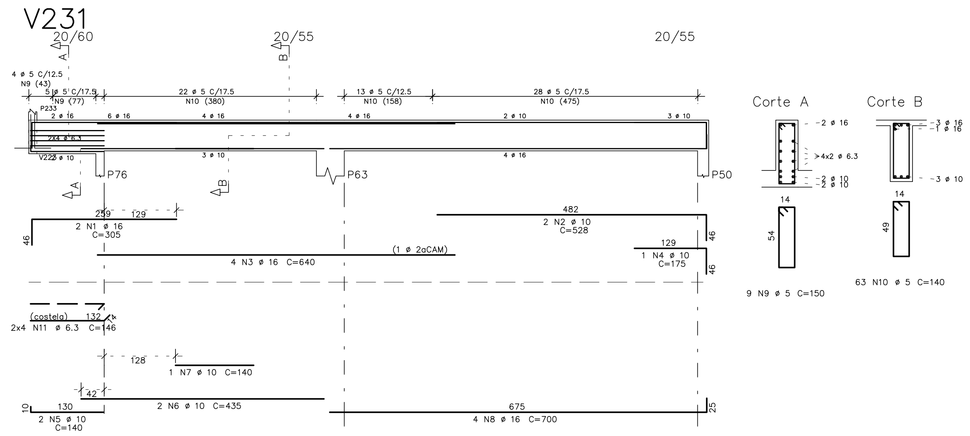
V229



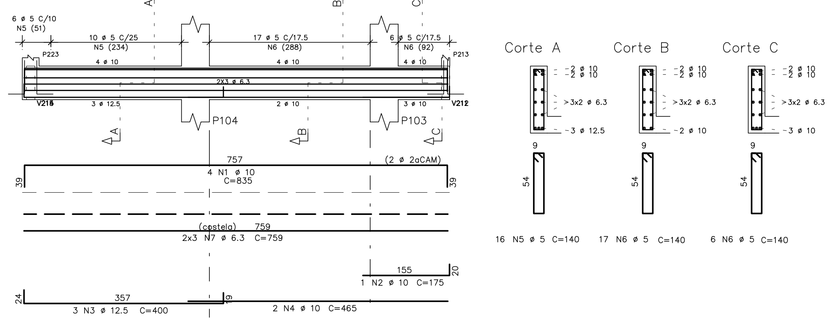
V230



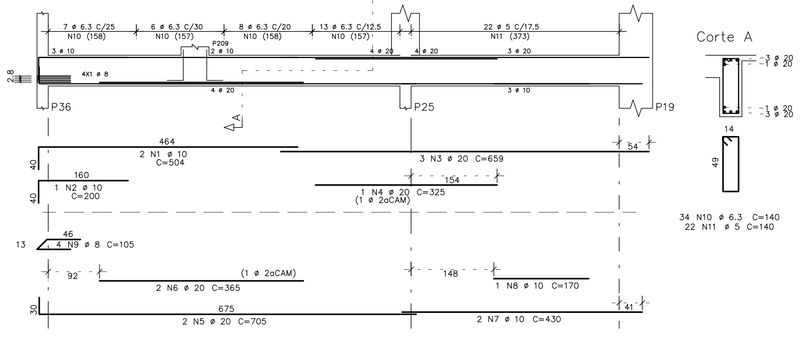
V231



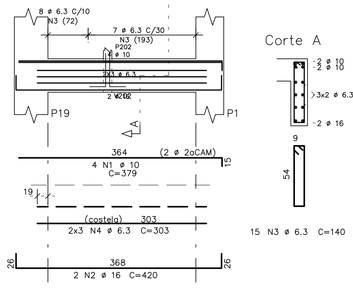
V232



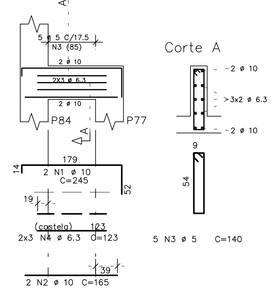
V233



V234



V235



	AÇO	POS	BIT (mm)	QUANT	COMPRIMENTO UNIT (cm)	COMPRIMENTO TOTAL (cm)
V224						
	50A	1	10	3	270	810
	50A	2	10	2	1117	2234
	50A	3	10	1	205	205
	50A	4	10	2	813	1626
	50A	5	12.5	2	625	1250
	50A	6	12.5	2	300	600
	50A	7	10	1	175	175
	50A	8	10	3	550	1650
	50A	9	10	2	1060	2120
	50A	10	10	1	450	450
	50A	11	12.5	2	1080	2160
	50A	12	12.5	1	550	550
	60B	13	5	149	140	20860
	50A	14	6.3	6	549	3294
	50A	15	6.3	6	1070	6420
	50A	16	6.3	6	1074	6444
V228						
	50A	1	10	3	511	1533
	50A	2	20	2	700	1400
	50A	3	20	1	320	320
	50A	4	10	2	400	800
	50A	5	10	1	120	120
	50A	6	16	2	695	1390
	50A	7	16	1	360	360
	60B	8	5	64	140	8960
V229						
	50A	1	16	3	605	1815
	50A	2	10	3	330	990
	50A	3	10	1	175	175
	50A	4	12.5	3	400	1200
	50A	5	10	2	470	940
	60B	6	5	34	140	4760
	60B	7	5	6	140	840
	50A	8	6.3	6	759	4554
V230						
	50A	1	10	2	534	1068
	50A	2	10	2	215	430
	50A	3	20	2	650	1300
	50A	4	20	1	270	270
	50A	5	12.5	2	190	380
	50A	6	16	2	715	1430
	50A	7	16	1	355	355
	50A	8	10	2	455	910
	50A	9	10	1	140	140
	60B	10	5	65	140	9100
V231						
	50A	1	16	2	305	610
	50A	2	10	2	528	1056
	50A	3	16	4	640	2560
	50A	4	10	1	175	175
	50A	5	10	2	140	280
	50A	6	10	2	435	870
	50A	7	10	1	140	140
	50A	8	16	4	700	2800
	60B	9	5	9	150	1350
	60B	10	5	63	140	8820
	50A	11	6.3	8	146	1168
V232						
	50A	1	10	4	835	3340
	50A	2	10	1	175	175
	50A	3	12.5	3	400	1200
	50A	4	10	2	465	930
	60B	5	5	16	140	2240
	60B	6	5	23	140	3220
	50A	7	6.3	6	759	4554
V233						
	50A	1	10	2	504	1008
	50A	2	10	1	200	200
	50A	3	20	3	659	1977
	50A	4	20	1	325	325
	50A	5	20	2	705	1410
	50A	6	20	2	365	730
	50A	7	10	2	430	860
	50A	8	10	1	170	170
	50A	9	8	4	105	420
	60B	10	6.3	34	140	4760
	60B	11	5	22	140	3080
V234						
	50A	1	10	4	379	1516
	50A	2	16	2	420	840
	50A	3	6.3	15	140	2100
	50A	4	6.3	6	303	1818
V235						
	50A	1	10	2	245	490
	50A	2	10	2	165	330
	60B	3	5	5	140	700
	50A	4	6.3	6	123	738
V236						
	50A	1	16	2	583	1166
	50A	2	16	2	695	1390
	50A	3	16	2	355	710
	50A	4	10	2	415	830
	50A	5	10	1	125	125
	50A	6	10	2	80	160
	50A	7	12.5	2	705	1410
	50A	8	12.5	2	405	810
	60B	9	5	58	140	8120
	50A	10	6.3	7	150	1050
	50A	11	6.3	8	86	688
V237						
	50A	1	8	2	355	710
	50A	2	12.5	4	265	1060
	50A	3	20	2	580	1160
	50A	4	20	2	320	640
	50A	5	12.5	2	210	420
	50A	6	10	2	80	160
	50A	7	25	2	780	1560
	50A	8	25	1	290	290
	50A	9	10	2	445	890
	50A	10	10	1	175	175
	50A	11	6.3	7	150	1050
	50A	12	6.3	45	140	6300
	60B	13	5	23	140	3220
	50A	14	6.3	8	86	688

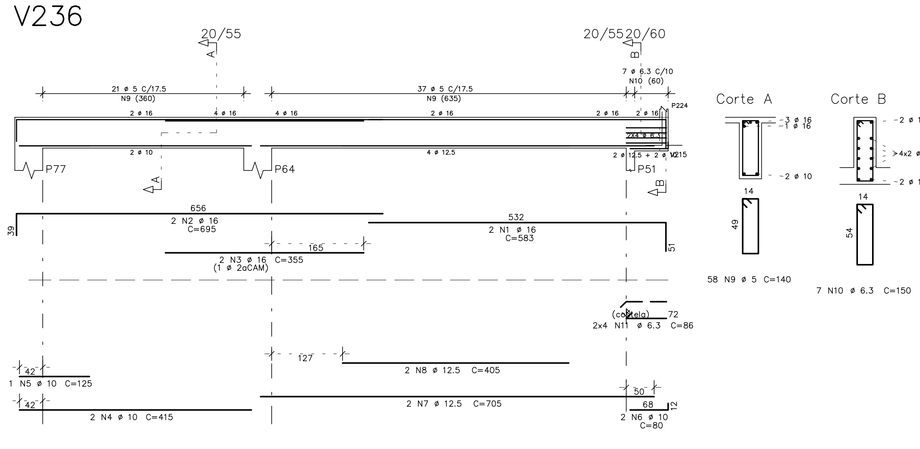
RESUMO AÇO CA 50-60

AÇO	BIT (mm)	COMPR (m)	PESO (kg)
60B	5	753	120
50A	6.3	456	114
50A	8	103	16
50A	10	1103	191
50A	12.5	110	110
50A	16	154	247
50A	20	95	238
50A	25	19	74
Peso Total	60B =		120 kg
Peso Total	50A =		979 kg

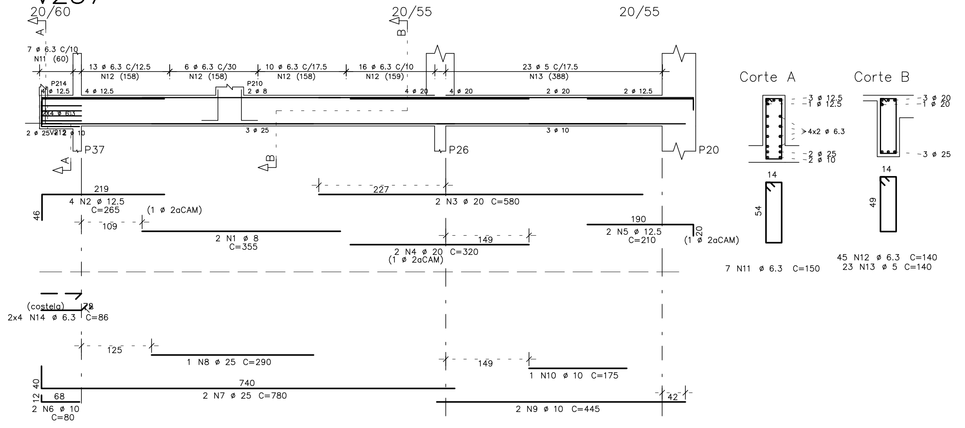
NOTAS

1- DIMENSÕES EM CENTIMETROS;
2- COTAS DE NIVEL EM METROS;
3- CONCRETO fck=25MPa;
4- COBRIMENTO DAS ARMADURA:
BLOCOS = 3 cm;
CINTAS = 3 cm;
PILARES = 3 cm;
VIGAS = 3 cm;
LAJES = 2,5 cm;
5- PREVER PASSAGEM DE TUBULAÇÕES DE AGUA, ESGOTO, ELETRICA, TELEFONIA E OUTROS NOS NOS ELEMENTOS ESTRUTURAIS ANTES DA CONCRETAGEM DOS MESMOS

V236



V237



PMMG DAL

SEÇÃO DE ENGENHARIA E PROJETOS

DADOS DO PROJETO

UNIDADE: 35ºBPM

LOCAL: CIDADE: SANTA LUZIA

PROJETO (estrutural/ arquitetônico/ hidráulico etc.): ESTRUTURA DE CONCRETO — Nº PROJETO:

TÍTULO DO PROJETO (reforma / levantamento etc.): PROJETO EXECUTIVO

DETALHES: ARMAÇÃO VIGAS DA COBERTURA - PARTE 04/06 — FOLHA: 24/48

ÁREA TOTAL TERRENO: 23.978,24 m² — ÁREA ÚTIL TERRENO: 14.545,34 m² — DATA: SETEMBRO 2013

DESENHISTA: JEFERSON — ESCALA: VER PROJETO — ART.:

ASSINATURAS

DAL: ITAMAR DE ALMEIDA SÁ, CEL PM

CH. DAL/3: DÁRIO JOSÉ DE ARAÚJO SILVA, MAJ PM

R.T.: JEFERSON DYONISIO DE SÁ, ENGENHEIRO CREA-MG 98.080/D