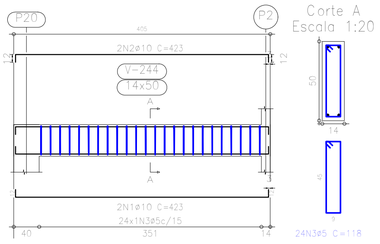
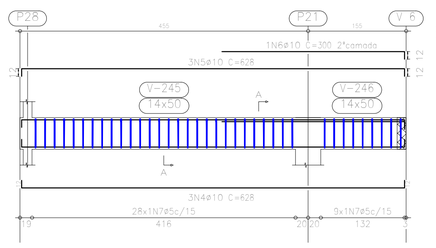
Pilar 1
Desenho de vigas
Concreto: C25, usina,rigor
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

V 14
Escala 1:50

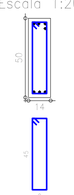


Corte A
Escala 1:20

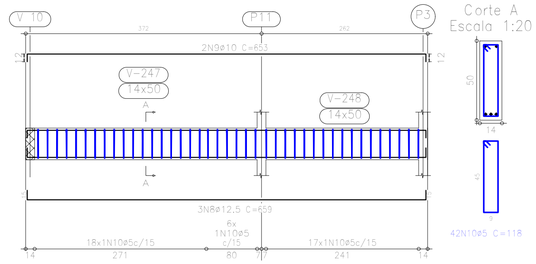
V 15
Escala 1:50



Corte A
Escala 1:20

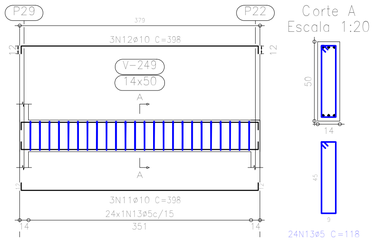


V 16
Escala 1:50



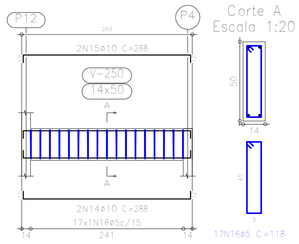
Corte A
Escala 1:20

V 17
Escala 1:50



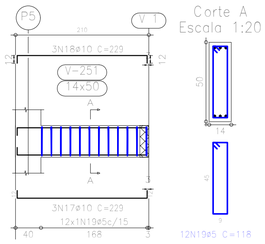
Corte A
Escala 1:20

V 18
Escala 1:50



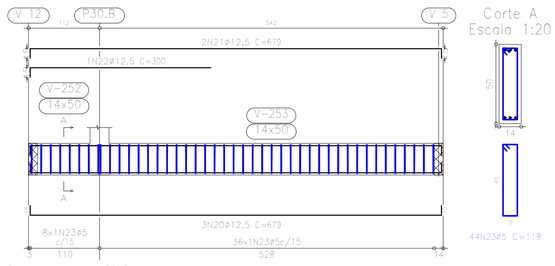
Corte A
Escala 1:20

V 19
Escala 1:50



Corte A
Escala 1:20

V 20
Escala 1:50

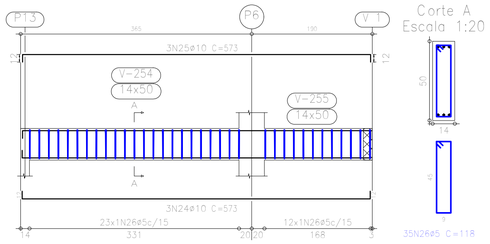


Corte A
Escala 1:20

Pilar ou muro apoiado:P30,B

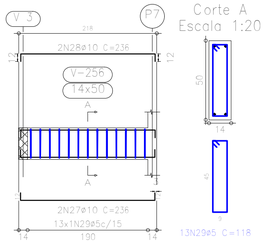
Ver esperas no detalhamento de pilares ou vista de muros

V 21
Escala 1:50



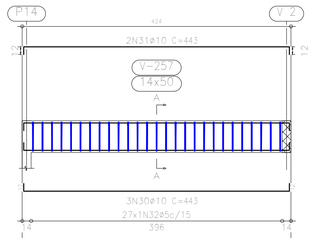
Corte A
Escala 1:20

V 22
Escala 1:50

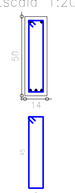


Corte A
Escala 1:20

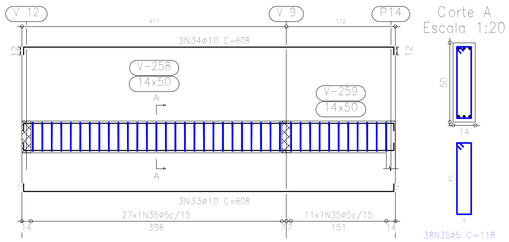
V 23
Escala 1:50



Corte A
Escala 1:20



V 24
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 14	1	ø10	2	12	399	12	423	846	5,3	
	2	ø10	2	12	399	12	423	846	5,3	
	3	ø5	24				118	2832		4,4
								Total+10%:	11,7	4,8
V 15	4	ø10	3	12	604	12	628	1884	11,8	
	5	ø10	3	12	604	12	628	1884	11,8	
	6	ø10	1		288	12	300	300	1,9	
	7	ø5	37				118	4366		6,9
								Total+10%:	28,1	7,6
V 16	8	ø12,5	3	15	629	15	659	1977	18,4	
	9	ø10	2	12	629	12	653	1306	8,2	
	10	ø5	41				118	4838		7,6
								Total+10%:	30,4	8,4
V 17	11	ø10	3	12	374	12	398	1194	7,5	
	12	ø10	3	12	374	12	398	1194	7,5	
	13	ø5	24				118	2832		4,4
								Total+10%:	16,5	4,8
V 18	14	ø10	2	12	264	12	288	576	3,6	
	15	ø10	2	12	264	12	288	576	3,6	
	16	ø5	17				118	2006		3,1
								Total+10%:	7,9	3,4
V 19	17	ø10	3	12	205	12	229	687	4,3	
	18	ø10	3	12	205	12	229	687	4,3	
	19	ø5	12				118	1416		2,2
								Total+10%:	9,5	2,4
V 20	20	ø12,5	3	15	649	15	679	2037	20,0	
	21	ø12,5	2	15	649	15	679	1358	13,3	
	22	ø12,5	1	15	285		300	300	2,9	
	23	ø5	44				118	5192		8,2
								Total+10%:	39,8	9,0
V 21	24	ø10	3	12	549	12	573	1719	10,8	
	25	ø10	3	12	549	12	573	1719	10,8	
	26	ø5	35				118	4130		6,5
								Total+10%:	23,8	7,2
V 22	27	ø10	2	12	212	12	236	472	3,0	
	28	ø10	2	12	212	12	236	472	3,0	
	29	ø5	13				118	1534		2,4
								Total+10%:	6,6	2,6
V 23	30	ø10	3	12	419	12	443	1329	8,3	
	31	ø10	2	12	419	12	443	886	5,6	
	32	ø5	27				118	3186		5,0
								Total+10%:	15,3	5,5
V 24	33	ø10	3	12	584	12	608	1824	11,5	
	34	ø10	3	12	584	12	608	1824	11,5	
	35	ø5	38				118	4484		7,0
								Total+10%:	25,3	7,7
								ø5:	0,0	63,4
								ø10:	153,6	0,0
								ø12,5:	61,1	0,0
								Total:	214,9	63,4

HAMILTON LIMA PAULA:00251548694

Assinado de forma digital por HAMILTON LIMA PAULA:00251548694
Dados: 2026.08.06 13:17:16 -03'00'

PROP	ASS HAMILTON LIMA PAULA – PREFEITO MUNICIPAL	PREFEITURA MUNICIPAL DE MARLIÉRIA/MG	ESCALA INDICADAS
RT	ASS LUIZ JOSE DE FREITAS:34506853687 Assinado de forma digital por LUIZ JOSE DE FREITAS:34506853687 Dados: 2026.08.06 11:16:31 -03'00' LUIZ JOSÉ DE FREITAS – CREA MG 177.128/D	DATA:09/2026 VISTO	PROJETO: REGIONAL DE CAVA GRANDE
DES.	APROV.	APROV.	CONTEUDO:ARMAÇÃO DE VIGAS DO 1° PAVIMENTO
CONF.:	DATA:		LOCALIDADE: CAVA GRANDE MARLIÉRIA – MG
			NÚMERO: FOLHA 10/15
			SEM ESCALA ESTR.