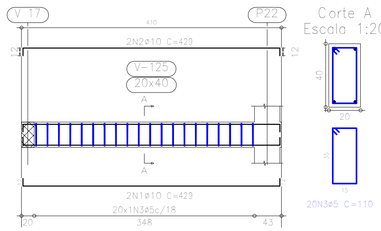
Térreo
Desenho de vigas
Concreto: C25, usina,rigor
Aço: CA-50-A e CA-60-B
Escala vigas: 1:50
Escala seções: 1:20

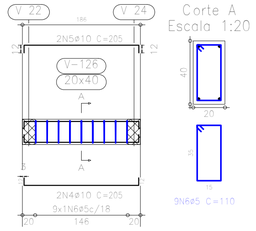
V 9
Escala 1:50



Corte A
Escala 1:20

20N3ø5 C=110

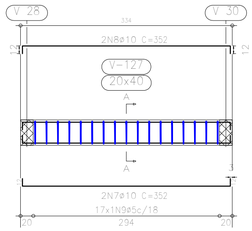
V 10
Escala 1:50



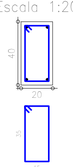
Corte A
Escala 1:20

9N6ø5 C=110

V 11
Escala 1:50



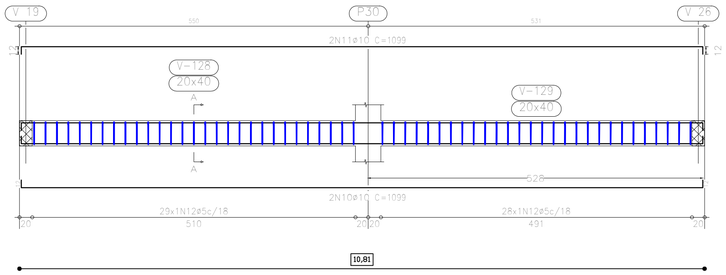
Corte A
Escala 1:20



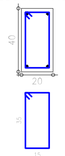
17N9ø5 C=110

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
V 9	1	ø10	2	12	405	12	429	858	5,4	
	2	ø10	2	12	405	12	429	858	5,4	
	3	ø5	20				110	2200		3,5
								Total+10%:	11,9	3,9
V 10	4	ø10	2	12	181	12	205	410	2,6	
	5	ø10	2	12	181	12	205	410	2,6	
	6	ø5	9				110	990		1,6
								Total+10%:	5,7	1,8
V 11	7	ø10	2	12	328	12	352	704	4,4	
	8	ø10	2	12	328	12	352	704	4,4	
	9	ø5	17				110	1870		2,9
								Total+10%:	9,7	3,2
V 12	10	ø10	2	12	1075	12	1099	2198	13,8	
	11	ø10	2	12	1075	12	1099	2198	13,8	
	12	ø5	57				110	6270		9,8
								Total+10%:	30,4	10,8
V 13	13	ø10	2	12	820	12	844	1688	10,6	
	14	ø10	2	12	820	12	844	1688	10,6	
	15	ø5	41				110	4510		7,1
								Total+10%:	23,3	7,8
V 14	16	ø10	2	12	1188		1200	2400	15,1	
	17	ø10	2		288	12	300	600	3,8	
	18	ø10	2	12	1188		1200	2400	15,1	
	19	ø10	2		288	12	300	600	3,8	
	20	ø5	67				110	7370		11,6
								Total+10%:	41,6	12,8
V 15	21	ø10	2	12	995	12	1019	2038	12,8	
	22	ø10	2	12	995	12	1019	2038	12,8	
	23	ø5	50				110	5500		8,6
								Total+10%:	28,2	9,5
V 16	24	ø10	2	12	539	12	563	1126	7,1	
	25	ø10	2	12	539	12	563	1126	7,1	
	26	ø5	28				110	3080		4,8
								Total+10%:	15,6	5,3
V 17	27	ø10	2	12	605	12	629	1258	7,9	
	28	ø10	2	12	605	12	629	1258	7,9	
	29	ø5	32				110	3520		5,5
								Total+10%:	17,4	6,1
V 18	30	ø10	2	12	405	12	429	858	5,4	
	31	ø10	2	12	405	12	429	858	5,4	
	32	ø5	22				110	2420		3,8
								Total+10%:	11,9	4,2
V 19	33	ø10	2	12	607	12	631	1262	7,9	
	34	ø10	2	12	607	12	631	1262	7,9	
	35	ø5	33				110	3630		5,7
								Total+10%:	17,4	6,3
								ø5:	0,0	71,7
								ø10:	213,1	0,0
								Total:	213,1	71,7

V 12
Escala 1:50

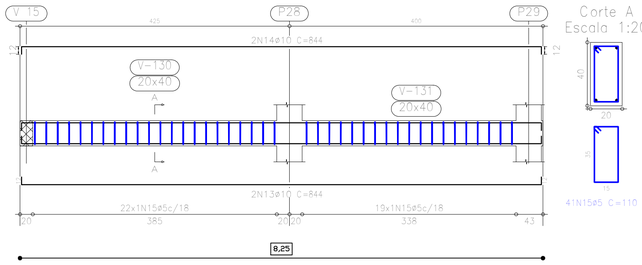


Corte A
Escala 1:20



57N12ø5 C=110

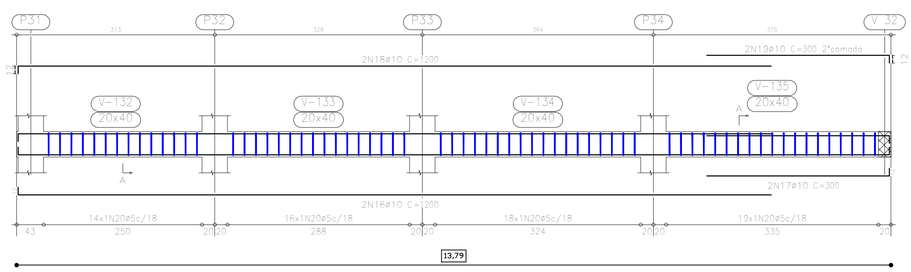
V 13
Escala 1:50



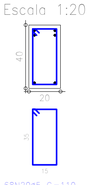
Corte A
Escala 1:20

41N15ø5 C=110

V 14
Escala 1:50

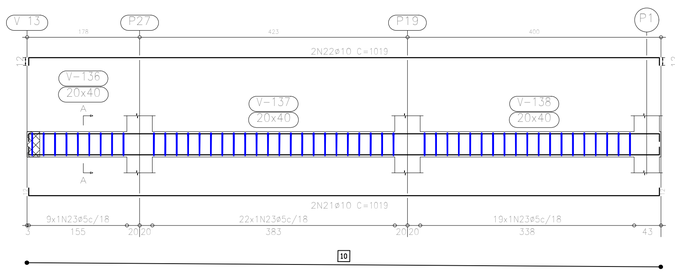


Corte A
Escala 1:20

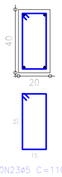


68N20ø5 C=110

V 15
Escala 1:50

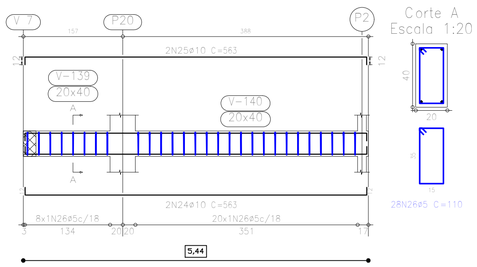


Corte A
Escala 1:20



50N23ø5 C=110

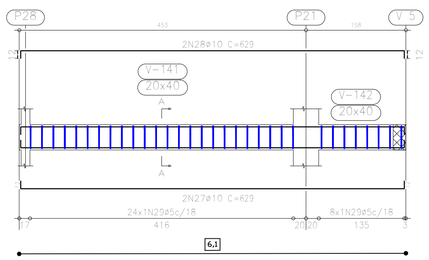
V 16
Escala 1:50



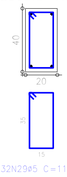
Corte A
Escala 1:20

28N26ø5 C=110

V 17
Escala 1:50

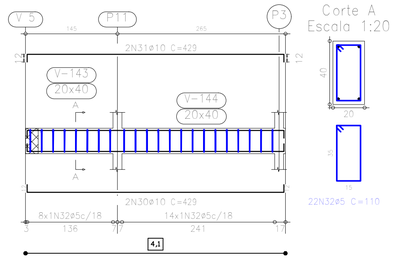


Corte A
Escala 1:20



32N29ø5 C=110

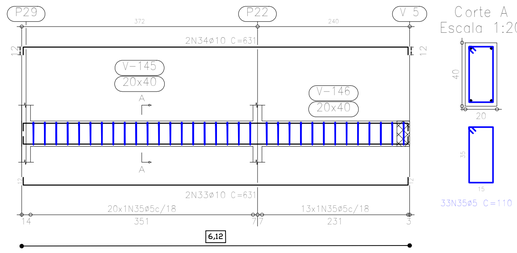
V 18
Escala 1:50



Corte A
Escala 1:20

22N32ø5 C=110

V 19
Escala 1:50



Corte A
Escala 1:20

33N35ø5 C=110

HAMILTON LIMA PAULA:00251548694

Assinado de forma digital por HAMILTON LIMA PAULA:00251548694
Dados: 2026.08.06 13:15:47 -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 11:12:25 -03'00'	DATA:09/2026	PROJETO: REGIONAL DE CAVA GRANDE	NÚMERO: FOLHA 05/15
LUIZ JOSÉ DE FREITAS – CREA MG 177.128/D	VISTO	CONTEÚDO: ARMAÇÃO DE VIGAS BALDRAME	
DES. / APROV.	APROV.	LOCALIDADE: CAVA GRANDE MARLIÉRIA – MG	SEM ESCALA
CONF.: / DATA:			ESTR.