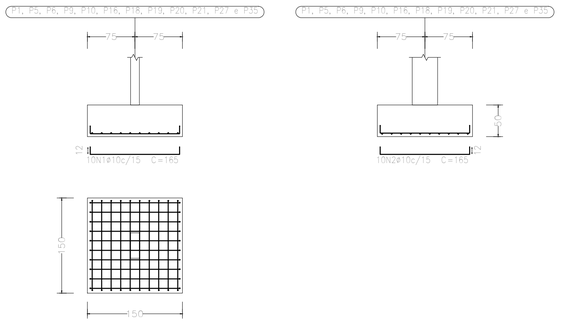
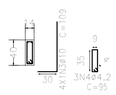
P1, P5, P6, P9, P10, P16, P18, P19, P20, P21, P27 e P35



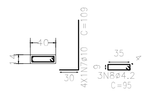
P1, P5, P6, P9, P10, P16, P18, P19, P20, P21, P27 e P35



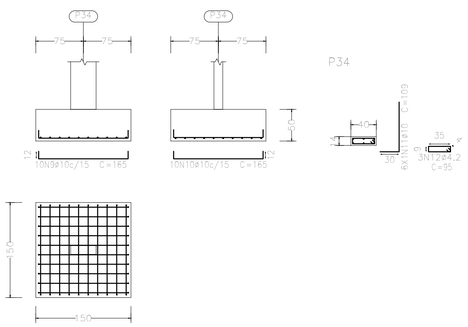
P2, P3, P4, P7, P8, P11, P12, P13, P14, P15, P17, P22, P23, P24, P25, P26, P28, P29, P30, P31, P32 e P33



P2, P3, P4, P7, P8, P11, P12, P13, P14, P15, P17, P22, P23, P24, P25, P26, P28, P29, P30, P31, P32 e P33



P34

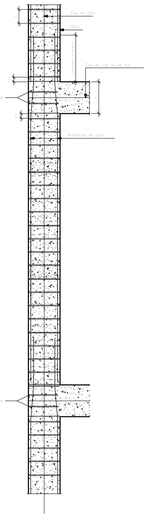


P34

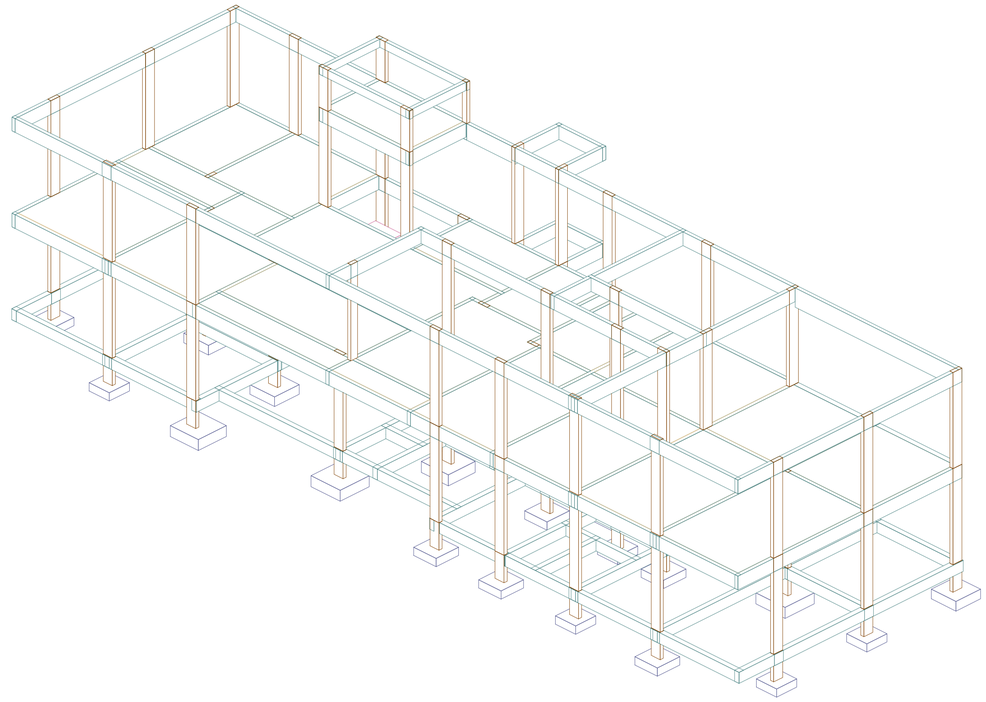
Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)
P1=P5=P6=P9=P10 P16=P18=P19=P20 P21=P27=P35	1	ø10	10	12	141	12	165	1650	10.4	
	2	ø10	10	12	141	12	165	1650	10.4	
	3	ø10	4	30	79		109	436	2.7	
	4	ø4.2	3		95		95	285		0.3
								Total+10%: (x12):	25.9 310.8	0.3 3.6
P2=P3=P4=P7=P8 P11=P12=P13=P14 P15=P17=P22=P23 P24=P25=P26=P28 P29=P30=P31=P32 P33	5	ø10	10	12	141	12	165	1650	10.4	
	6	ø10	10	12	141	12	165	1650	10.4	
	7	ø10	4	30	79		109	436	2.7	
	8	ø4.2	3		95		95	285		0.3
								Total+10%: (x22):	25.9 569.8	0.3 6.6
P34	9	ø10	10	12	141	12	165	1650	10.4	
	10	ø10	10	12	141	12	165	1650	10.4	
	11	ø10	6	30	79		109	654	4.1	
	12	ø4.2	3		95		95	285		0.3
								Total+10%:	27.4	0.3
								ø4.2: ø10: Total:	0.0 308.0 308.0	10.5 0.0 10.5

Resumo Aço Subsolo Detalhamento fundação	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	1309.8	905	905
CA-60-B ø4.2	99.8	12	12
Total			917

Detalhe dos estribos de pilares



P1=P6 P16=P18 P19=P27 P35	P2=P7=P8 P15=P23 P24=P25 P26=P28 P29=P31 P32=P33	P3	P4=P13 P14=P17 P22=P30	P4.B	P5	P9=P10	P11=P12	P20=P21	P30.B	P34	
		40 4ø10 C=148 12 1ø45c/12 C=102		40 4ø10 C=148 4ø10 C=121 12 1ø45c/12 C=62			40 4ø10 C=148 35 1ø45c/12 C=102				Piso 4
40 4ø10 C=348 12 3ø45c/12 C=102	40 4ø10 C=348 12 3ø45c/12 C=102	40 4ø10 C=385 12 3ø45c/12 C=102			40 4ø10 C=348 12 3ø45c/12 C=102	40 4ø10 C=348 35 3ø45c/12 C=102	40 4ø10 C=385 35 3ø45c/12 C=102		30 4ø10 C=348 4ø10 C=111 12 3ø45c/12 C=82	40 4ø10 C=348 35 3ø45c/12 C=102	Cobertura
40 4ø10 C=485 4ø10 C=109 35 4ø45c/12 C=102	40 4ø10 C=485 4ø10 C=109 12 4ø45c/12 C=102	40 4ø10 C=485 4ø10 C=109 12 4ø45c/12 C=102	40 4ø10 C=448 4ø10 C=109 12 4ø45c/12 C=102		40 4ø10 C=485 4ø10 C=109 12 4ø45c/12 C=102	40 4ø10 C=485 4ø10 C=109 35 4ø45c/12 C=102	40 4ø10 C=485 4ø10 C=109 30 4ø45c/12 C=102	40 4ø10 C=448 4ø10 C=109 35 4ø45c/12 C=102		40 4ø10 C=485 4ø10 C=109 N3 30 4N3ø45c/12 C=102 4N4ø45c/12 C=27	Piso 1
											Térreo
											Subsolo



Quadro de pilares
Concreto: C25, usina.rigor
Aço: CA-50-A e CA-60-B
Escala: 1:50

Resumo Aço Pisos 1 até 4 Pilares	Comp. total (m)	Peso+10% (kg)	Total
CA-50-A ø10	1258.5	869	869
CA-60-B ø5	2405.5	415	415
Total			1284

HAMILTON LIMA PAULA:00251548694
Assinado de forma digital por HAMILTON LIMA PAULA:00251548694
Dados: 2026.08.06 13:13:40 -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 11:07:36 -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 SAPATAS E QUADRO DE PILARES
CONF.:	DATA:		LOCALIDADE: CAVA GRANDE MARLIÉRIA – MG
			NÚMERO: FOLHA 02/15
			SEM ESCALA ESTR.