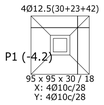
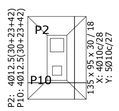
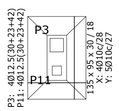
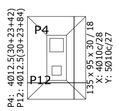
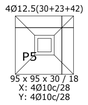
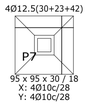


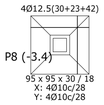




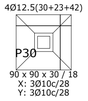








Nivel laje interna (+3.13m)
Desenho de vigas
Concreto: C30, em geral
Aço das barras: CA-50 e CA-60
Aço dos estribos: CA-50 e CA-60
Escala vigas 1:50
Escala seções 1:25
Escala aberturas 1:25

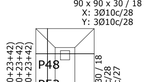


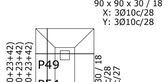
QUADRO DE ELEMENTOS DE FUNDAÇÃO				
Referências	Dimensões (cm)	Altura (cm)	Armadura inf. X	Armadura inf. Y
P1, P7, P8, P36 e P64	95x95	30 / 18	4Ø10c/28	4Ø10c/28
P5, P33, P57 e P62	95x95	30 / 18	4Ø10c/28	4Ø10c/28
P16, P18, P20, P23, P26, P27, P30, P32, P39, P41, P43 e P46	90x90	30 / 18	3Ø10c/28	3Ø10c/28
P24 e P25	90x90	30 / 18	3Ø10c/28	3Ø10c/28
P28	100x100	30 / 18	4Ø10c/28	4Ø10c/28
P29 e P35	95x95	30 / 18	4Ø10c/28	4Ø10c/28
P31, P37 e P63	95x95	30 / 18	4Ø10c/28	4Ø10c/28
P34	90x90	30 / 18	3Ø10c/28	3Ø10c/28
P65	95x95	30 / 18	4Ø10c/25	4Ø10c/28
(P2-P10), (P3-P11) e (P4-P12)	135x95	30 / 18	4Ø10c/28	5Ø10c/27
(P51-P56)	155x85	30 / 18	3Ø10c/29	6Ø10c/27
(P58-P47-P52)	150x205	30 / 18	8Ø10c/27	6Ø10c/27
(P59-P48-P53), (P60-P49-P54) e (P61-P50-P55)	205x95	30 / 18	4Ø10c/28	8Ø10c/27

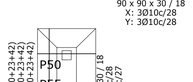
Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
(P2-P10)=(P3-P11)	1	Ø10	4		164		164	656	4.0	
	2	Ø10	5		124		124	620	3.8	
	3	Ø12.5	4	30	65		95	380	3.7	
	4	Ø6.3	3		78		78	234	0.6	
	5	Ø12.5	4	30	65		95	380	3.7	
	6	Ø6.3	3		50		50	150	0.4	
								Total+10%:	17.8	
								(x2):	35.6	
(P4-P12)	7	Ø10	4		164		164	656	4.0	
	8	Ø10	5		124		124	620	3.8	
	9	Ø12.5	4	30	65		95	380	3.7	
	10	Ø6.3	3		78		78	234	0.6	
	11	Ø12.5	4	30	107		137	548	5.3	
	12	Ø6.3	3		50		50	150	0.4	
								Total+10%:	19.6	
(P51-P56)	13	Ø10	3	9	166	9	184	552	3.4	
	14	Ø10	6		77		77	462	2.8	
	15	Ø12.5	4	30	65		95	380	3.7	
	16	Ø6.3	3		50		50	150	0.4	
	17	Ø12.5	4	30	65		95	380	3.7	
	18	Ø6.3	3		50		50	150	0.4	
								Total+10%:	15.8	
(P58-P47-P52)	19	Ø10	8		179		179	1432	8.8	
	20	Ø10	6		234		234	1404	8.7	
	21	Ø12.5	4	30	65		95	380	3.7	
	22	Ø6.3	3		70		70	210	0.5	
	23	Ø12.5	4	30	65		95	380	3.7	
	24	Ø6.3	3		50		50	150	0.4	
	25	Ø12.5	4	30	65		95	380	3.7	
	26	Ø6.3	3		50		50	150	0.4	
								Total+10%:	32.9	
(P59-P48-P53) (P60-P49-P54) (P61-P50-P55)	27	Ø10	4		234		234	936	5.8	
	28	Ø10	8		124		124	992	6.1	
	29	Ø12.5	4	30	65		95	380	3.7	
	30	Ø6.3	3		78		78	234	0.6	
	31	Ø12.5	4	30	65		95	380	3.7	
	32	Ø6.3	3		50		50	150	0.4	
	33	Ø12.5	4	30	65		95	380	3.7	
	34	Ø6.3	3		50		50	150	0.4	
								Total+10%:	26.8	
								(x3):	80.4	
								Ø6.3:	10.0	0.0
								Ø10:	91.2	0.0
								Ø12.5:	83.1	0.0
								Total:	184.3	0.0

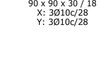
Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)
V 3	1	Ø10	4	406 (25 / 25)	456	1824	11.2	
	2	Ø12.5	1	330	330	330	3.2	
	3	Ø5	14	45 / 5 / 10	118	1652		2.6
						Total+10%:	15.8	2.9
V 4	1	Ø10	2	401	401	802	4.9	
	2	Ø12.5	2	401 (25 / 25)	465	930	9.0	
	3	Ø16	2	401 (25)	426	852	13.4	
	4	Ø5	17	45 / 5 / 10	118	2006		3.1
						Total+10%:	30.0	3.4
						Ø5:	0.0	6.3
						Ø6.3:	0.0	0.0
						Ø10:	17.7	0.0
						Ø12.5:	13.4	0.0
						Ø16:	14.7	0.0
						Total:	45.8	6.3

Resumo Aço FUNDAÇÃO (-1.5m) Detalhamento fundação		Comp. total (m)	Peso+10% (kg)	Total
CA-50	Ø6.3	104.0	28	
	Ø10	341.2	231	
	Ø12.5	211.6	224	
	Ø16	10.6	18	501



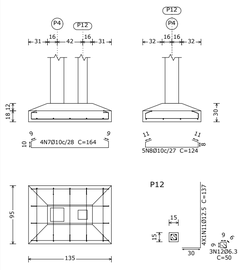






FUNDAÇÃO (-1.5m)
Fundação
Concreto: C30, em geral
Escala: 1:50

(P4-P12)



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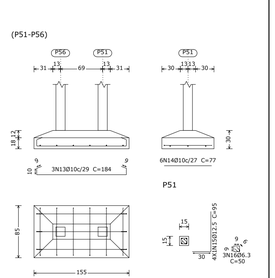
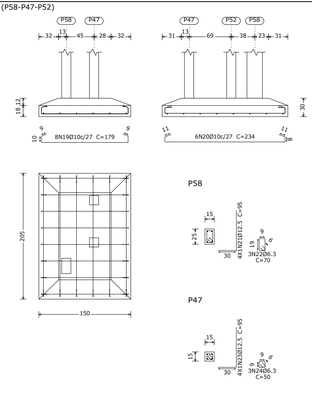
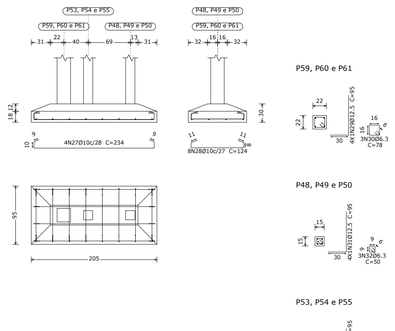
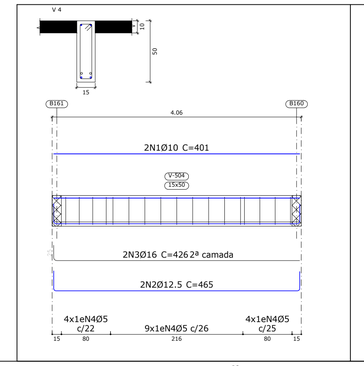


(P58-P47-P52)



(P59-P48-P53), (P60-P49-P54) e (P61-P50-P55)





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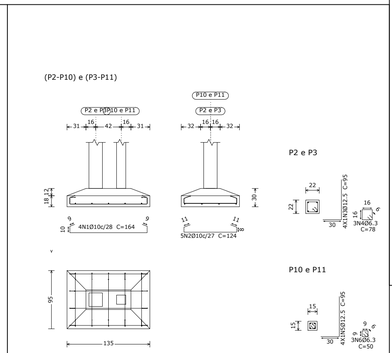

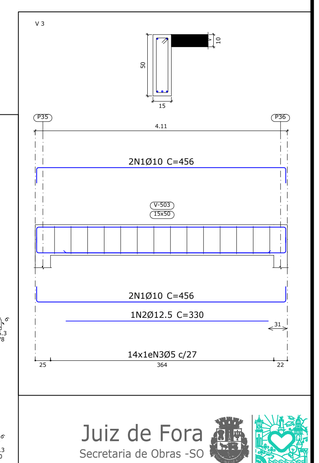

Juiz de Fora
Secretaria de Obras -SO

REVISÕES

REV	POR	DATA	DESCRIÇÃO
00	00	00	

PROJETO ESTRUTURAL EM CONCRETO ARMADO

E.M CASSIO VIEIRA MARQUES
ENDEREÇO : BAIRRO GRAMA JUIZ DE FORA-MG

| DET. FUNDAÇÕES.

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CARLOS RENATO PRUCOLI
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AUTOR: VIVIANE CATTEM MORENO:12363215740 — ARQ, VIVIANE CATTEM MORENO — CAU/ES A158072/8
SECRETÁRIA: ENG. CARLOS RENATO PRUCOLI — CREA/ ES: 031715/D
ENG, CLAYTON MONTANARO — CREA/ ES: 047798/D

DESENHO: **CLAYTON MONTANARO**
ESCALA: **INDICADA**
DATA: **22/10/2023**
CODIGO:
PRANCHA:
03|29
RV0- 21/10/2023

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MUNIC.- ES. 26.469.001

DE ACORDO COM A LEGISLAÇÃO VIGENTE,CABE AO AUTOR DO PROJETO QUALQUER ALTERAÇÃO, BEM COMO OS DIREITOS AUTORAIS SOBRE O MESMO.
TODAS AS MEDIDAS DEVERÃO SER CONFERIDAS NO LOCAL.