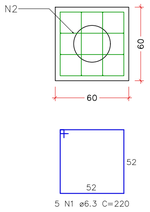
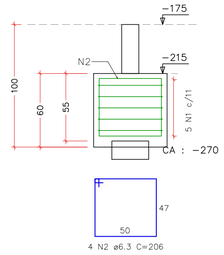
PROJETO ESTRUTURAL – AMPLIAÇÃO DO CEIM MARILISA LOPES DE OLIVEIRA
ESCALA INDICADA

B1=B6
1xC30

PLANTA
ESCALA 1:25

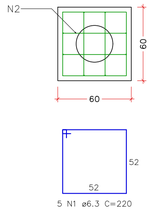


CORTE
ESCALA 1:25

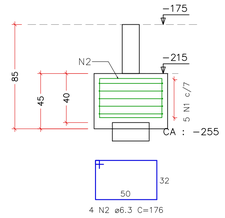


B2=B3=B4=B5=B8
1xC30

PLANTA
ESCALA 1:25

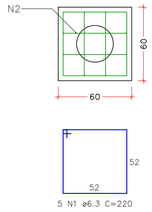


CORTE
ESCALA 1:25

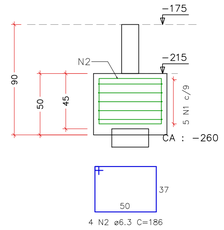


B7
1xC30

PLANTA
ESCALA 1:25

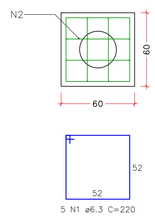


CORTE
ESCALA 1:25

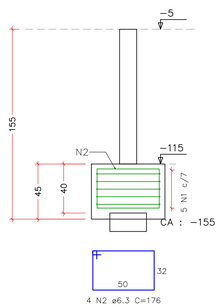


B9=B10=B11=B12
1xC30

PLANTA
ESCALA 1:25

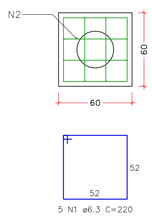


CORTE
ESCALA 1:25

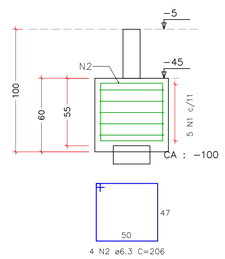


B13=B18
1xC30

PLANTA
ESCALA 1:25

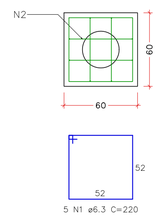


CORTE
ESCALA 1:25

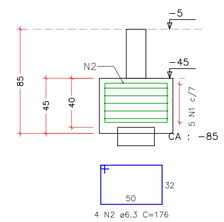


B14=B15=B16=B17
1xC30

PLANTA
ESCALA 1:25

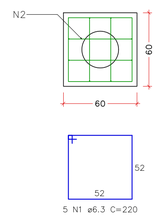


CORTE
ESCALA 1:25

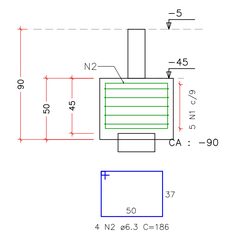


B19
1xC30

PLANTA
ESCALA 1:25

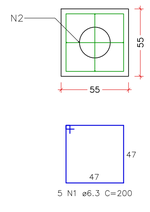


CORTE
ESCALA 1:25

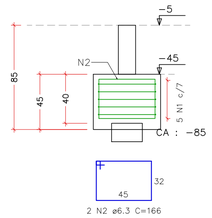


BP1=BP2=BP3=BP4
1xC25

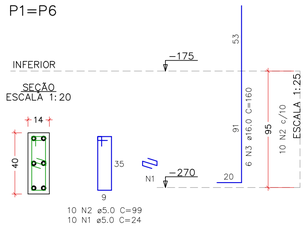
PLANTA
ESCALA 1:25



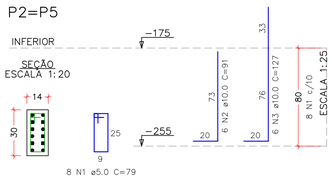
CORTE
ESCALA 1:25



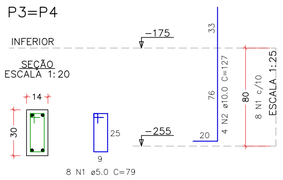
P1=P6



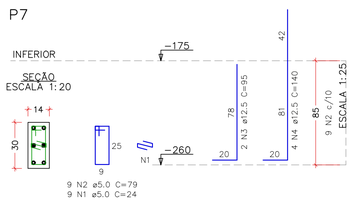
P2=P5



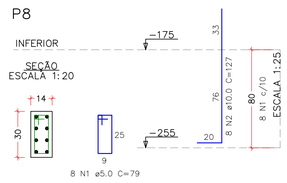
P3=P4



P7



P8



RELAÇÃO DO AÇO – PAV INFERIOR

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
2xB6	CA50	1	6.3	10	220	2200
	CA50	2	6.3	8	206	1648
B7	CA50	1	6.3	5	220	1100
	CA50	2	6.3	4	186	744
5xB8	CA50	1	6.3	25	220	5500
	CA50	2	6.3	20	176	3520

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	147.1	39.6
PESO TOTAL (kg)			
CA50	39.6		

VOLUME DE CONCRETO (C-30) = 1.39 m³
ÁREA DE FORMA = 9.48 m²

RELAÇÃO DO AÇO – PAV TERREO

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
4xB12	CA50	1	6.3	20	220	4400
	CA50	2	6.3	16	176	2816
4xB17	CA50	1	6.3	20	220	4400
	CA50	2	6.3	16	176	2816
2xB18	CA50	1	6.3	10	220	2200
	CA50	2	6.3	8	206	1648
B19	CA50	1	6.3	5	220	1100
	CA50	2	6.3	4	186	744
4xBP4	CA50	1	6.3	20	200	4000
	CA50	2	6.3	8	166	1328

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	254.5	68.5
PESO TOTAL (kg)			
CA50	68.5		

VOLUME DE CONCRETO (C-30) = 2.40 m³
ÁREA DE FORMA = 16.68 m²

RELAÇÃO DO AÇO – PAV INFERIOR

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
2xP1	CA60	1	5.0	20	24	480
	CA60	2	5.0	20	99	1980
	CA50	3	16.0	12	160	1920
2xP2	CA60	1	5.0	16	79	1264
	CA50	2	10.0	12	91	1092
	CA50	3	10.0	12	127	1524
2xP3	CA60	1	5.0	16	79	1264
	CA50	2	10.0	8	127	1016
P7	CA60	1	5.0	9	24	216
	CA60	2	5.0	9	79	711
	CA50	3	12.5	2	95	190
	CA50	4	12.5	4	140	560
P8	CA60	1	5.0	8	79	632
	CA50	2	10.0	8	127	1016

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	46.5	31.5
	12.5	7.5	7.9
	16.0	19.2	33.3
CA60	5.0	65.5	11.1
PESO TOTAL (kg)			
CA50	72.8		
CA60	11.1		

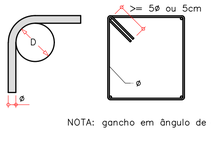
VOLUME DE CONCRETO (C-30) = 0.15 m³
ÁREA DE FORMA = 2.98 m²

DETALHE DE DOBRAS
SEM ESCALA

DIÂMETRO MÍNIMO DOS PINOS DE DOBRAMENTO DAS BARRAS:

ESTRIBOS	
ø (mm)	D (mm)
5,0	15,0
6,3	18,9
8,0	24,0
10,0	30,0
12.5	62,5
16,0	80,0
>= 20,0	8xø

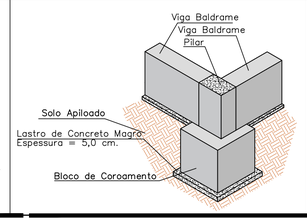
BARRAS DE TRAÇÃO	
ø (mm)	D (mm)
5,0	30,0
6,3	31,5
8,0	40,0
10,0	50,0
12,5	62,5
16,0	80,0
>= 20,0	8xø



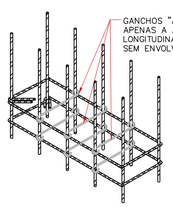
GANCHO DOS ESTRIBOS:

NOTA: gancho em ângulo de 45°

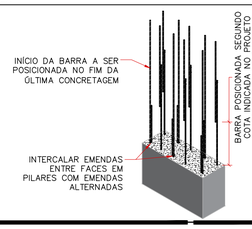
POSICIONAMENTO DOS BLOCOS
SEM ESCALA



POSICIONAMENTO DOS GANCHOS
SEM ESCALA

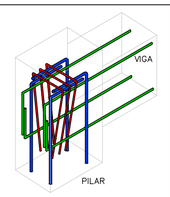


MONTAGEM DE ARMADURAS ALTERNADAS – PILARES
SEM ESCALA



GRAMPOS DE ANCORAGEM – PILAR
SEM ESCALA

IMPORTANTE: OS GRAMPOS VERTICIAS DEVEM AMARRAR A ARMADURA PRINCIPAL DOS PILARES COM A ARMADURA HORIZONTAL DAS VIGAS. A QUANTIDADE DE GRAMPOS DEVE SER VERIFICADA NO DETALHEMANTO DO ÚLTIMO LANCE DO PILAR.



LEGENDA DAS BARRAS – PILARES
SEM ESCALA

BARRA QUE NASCE
BARRA QUE MORRE
BARRA QUE PASSA

REV.	DATA	EMISSÃO	
00	17/07/24	INICIAL	DAC

REVISÃO | DATA : | DESCRIÇÃO: | RESP.:

CLIENTE

Prefeitura Municipal de **Pouso Alegre**

PROJETO

DAC engenharia
Rua Cel. Joaquim Francisco, 341, Bairro Varginha
CEP: 37501-052 – Itajubá / MG
Tel: (35) 2143 – 9087
www.dacengenharia.com.br

COORDENAÇÃO

Rafael Barbosa Carreira
Assinado de forma digital por Rafael Barbosa Carreira
Dados: 2024.09.30 09:02:20 -03'00'
RAFAEL BARBOSA CARREIRA CAU: 00A155411-5

RESPONSÁVEL TÉCNICO E AUTOR

Aloísio Caetano Ferreira
Assinado de forma digital por Aloísio Caetano Ferreira
Dados: 2024.09.30 09:02:37 -03'00'
ALOISIO CAETANO FERREIRA CREA: MG-97.132/D

EMPREENDIMENTO

AMPLIAÇÃO DO CEIM MARILISA LOPES DE OLIVEIRA

ENDEREÇO

RUA LUÍS BARBATO, 336 – B. JARDIM AURELIANO
POUSO ALEGRE – MINAS GERAIS

DISCIPLINA: ESTRUTURAL

FASE DO PROJETO: EXECUTIVO

ASSUNTO

PROJETO ESTRUTURAL EM CONCRETO ARMADO
BANHEIROS
DETALHAMENTO DOS BLOCOS DE COROAMENTO E PILARES

FOLHA Nº. 19/25

DATA INICIAL	ESCALA	REVISÃO	ARQUIVO
17/07/2024	INDICADA	R00	DAC-PMPA-MLO-PE-EST.DWG