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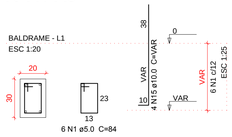

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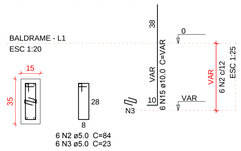

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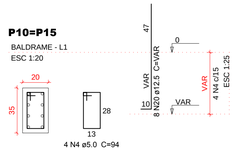

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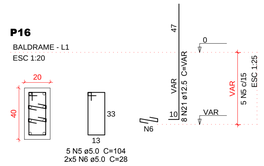

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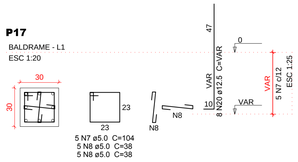

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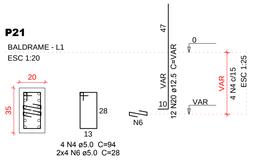

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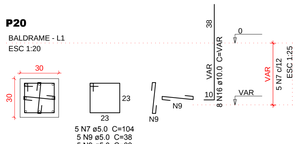

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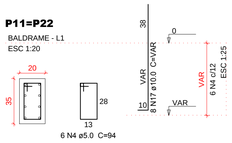

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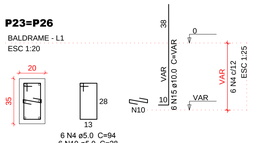

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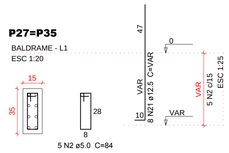
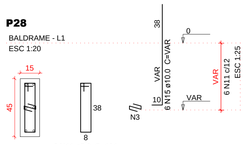


P28



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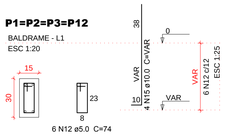

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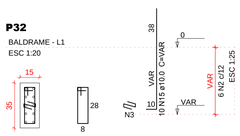
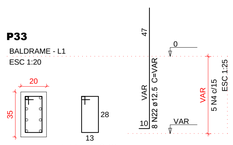
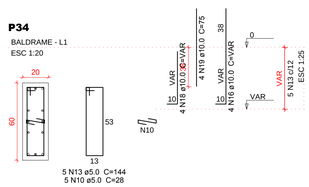


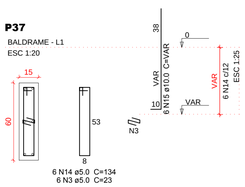
P33



P34



P37



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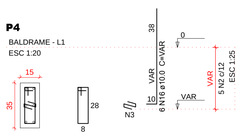

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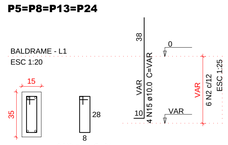
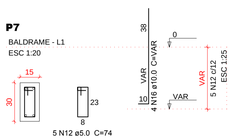


P7



Relação do aço

4xP1	3xP6	P4
4xP5	P7	5xP25
2xP15	P16	P17
P20	P21	2xP22
2xP23	2xP27	P28
P32	P33	P34
P37		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	18	84	1512
	2	5.0	75	84	7812
	3	5.0	53	23	1357
	4	5.0	41	94	2914
	5	5.0	5	104	520
	6	5.0	18	28	504
	7	5.0	10	104	1040
	8	5.0	10	38	380
	9	5.0	10	38	380
	10	5.0	17	28	476
	11	5.0	6	104	624
	12	5.0	29	74	2146
	13	5.0	5	144	720
	14	5.0	6	134	804
CA50	15	10.0	108	VAR	VAR
	16	10.0	22	VAR	VAR
	17	10.0	16	VAR	VAR
	18	10.0	4	VAR	VAR
	19	10.0	4	75	300
	20	12.5	36	VAR	VAR
	21	12.5	24	VAR	VAR
	22	12.5	8	VAR	VAR

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10 % (Barras)	PESO + 10 % (kg)
CA50	10.0	165.8	16	112.4
	12.5	69	7	73.1
CA60	5.0	213.6	-	36.2

PESO TOTAL (kg)	
CA50	185.5
CA60	36.2

Volume de concreto (C-30) = 1.45 m³
Área de forma = 24.81 m²

APROVAÇÕES :

A APROVAÇÃO DO PRESENTE PROJETO PELA PREFEITURA, NÃO RECONHECE A PROPRIEDADE DO IMÓVEL

CLEBER LUIS HAHN
ENGENHEIRO CIVIL - CREA PR 94.816/D

PROJETO & OBRAS

TÍTULO :
PROJETO ESTRUTURAL

OBRA :
Comercial em Alvenaria

PRETENDENTE :
ACIM - Associação Comercial e Empresarial de Mercedes

ENDEREÇO DA OBRA :
Rua Doutor Flores / Lote 07 / Quadra 32 / Centro / Mercedes / PR

REFERÊNCIA :
Armadura de pilares/ arranque do pavimento BALDRAME

DADOS ESTATÍSTICOS :
VER PROJETO ARQUITETÔNICO

ASSINATURA DO PRETENDENTE :
Associação Comercial e Empresarial de Mercedes
CNPJ : 72.326.820 / 0001 - 89

RESPONSÁVEL PROJETO / DESENHO :
Documento assinado digitalmente
gov.br CLEBER LUIS HAHN
Data: 23/05/2025 15:38:20-0300
Verifique em https://validar.iti.gov.br

RESPONSÁVEL EXECUÇÃO:

DATA :
01 / 2025

PRANCHA:
EST_004