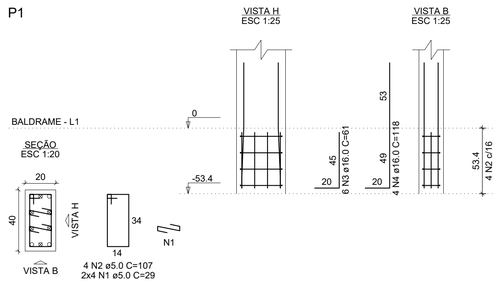
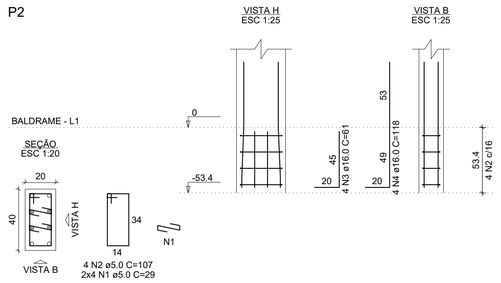
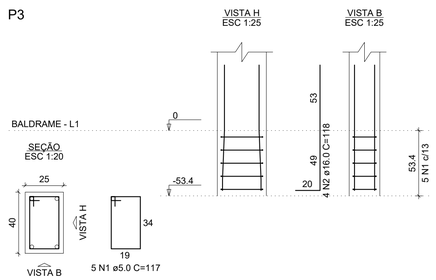
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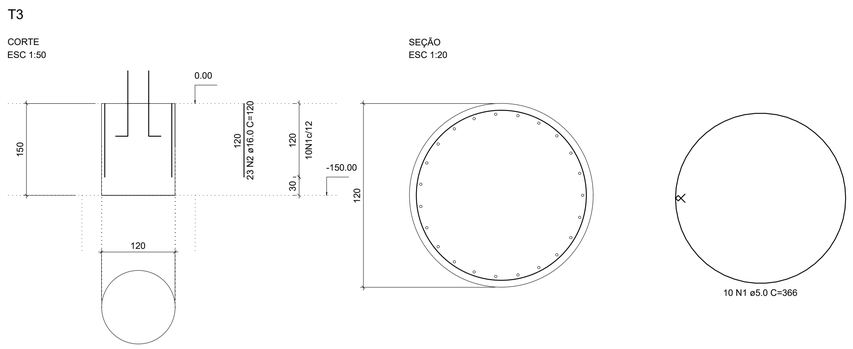
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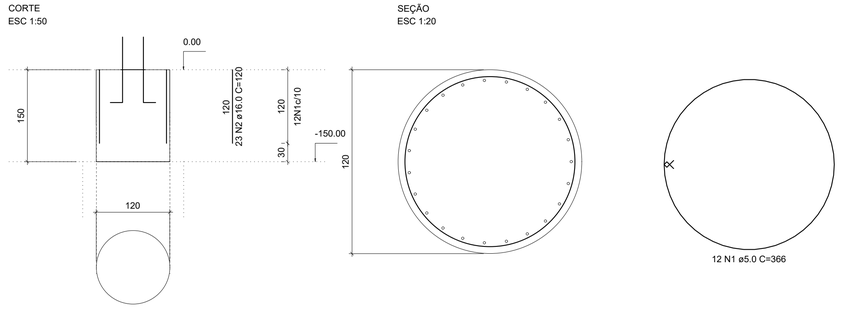
P3



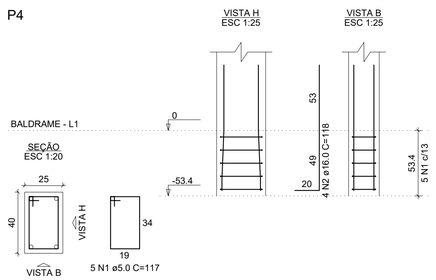
T3



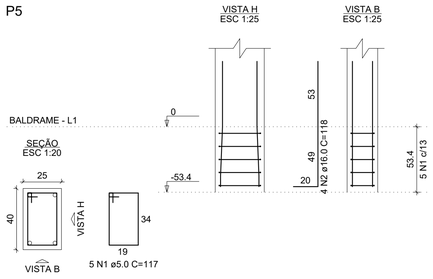
T4



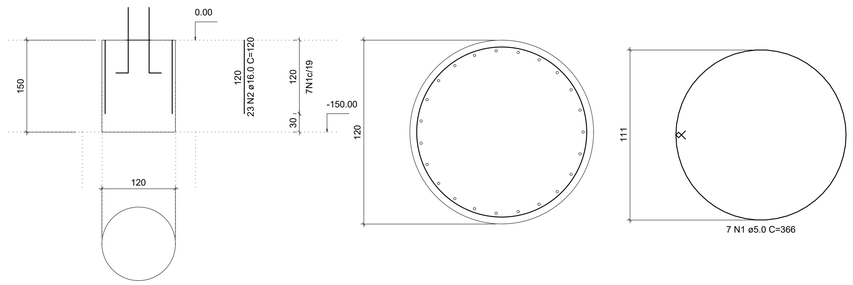
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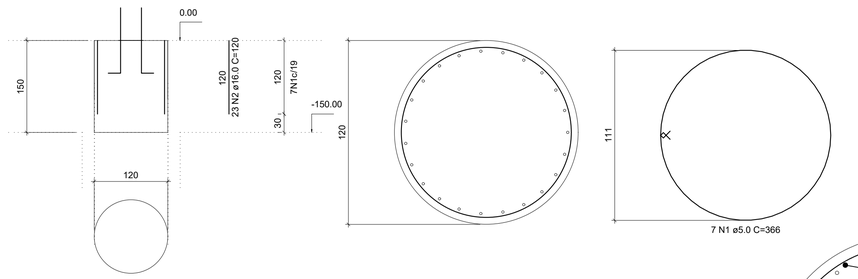
P5



T1=T7



T2=T8



RELAÇÃO DO AÇO

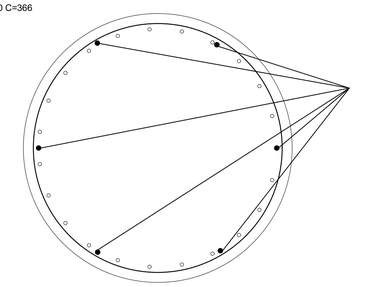
ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
P1	CA60	1	5.0	8	29	232
	CA60	2	5.0	4	107	428
	CA50	3	16.0	6	61	366
	CA50	4	16.0	4	118	472
P2	CA60	1	5.0	8	29	232
	CA60	2	5.0	4	107	428
	CA50	3	16.0	4	61	244
	CA50	4	16.0	4	118	472
P3	CA60	1	5.0	5	117	585
	CA50	2	16.0	4	118	472
P4	CA60	1	5.0	5	117	585
	CA50	2	16.0	4	118	472
P5	CA60	1	5.0	5	117	585
	CA50	2	16.0	4	118	472
P7	CA60	1	5.0	4	29	116
	CA60	2	5.0	4	107	428
	CA50	3	16.0	6	61	366
	CA50	4	16.0	4	118	472
P8	CA60	1	5.0	4	29	116
	CA60	2	5.0	4	107	428
	CA50	3	16.0	6	61	366
	CA50	4	16.0	4	118	472
T3	CA60	1	5.0	10	366	3660
	CA50	2	16.0	23	120	2760
T4	CA60	1	5.0	12	366	4392
	CA50	2	16.0	23	120	2760
2xT7	CA60	1	5.0	14	366	5124
	CA50	2	16.0	46	120	5520
2xT8	CA60	1	5.0	14	366	5124
	CA50	2	16.0	46	120	5520

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	16.0	212.1	368.2
CA60	5.0	224.6	38.1

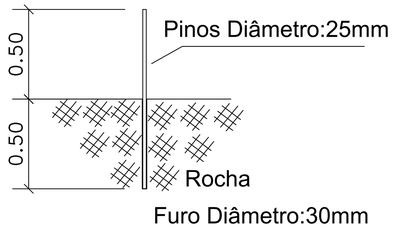
PESO TOTAL (kg)	
CA50	368.2
CA60	38.1

Volume de concreto (C-30) = 10.17 m³
Área de forma = 0.00 m²



6 Pinos
Diâmetro:25mm
em cada
Tubulão

Detalhe Pinamento



*Realizar os pinamentos com comprimento de 50cm ancorados na rocha

*Os pinos devem ser chumbados com nata de cimento

Cleiton Zanatta
engenheiro civil
CREA RS 238059

RST 472 Km 15-Palmitinho
CEP 98430 - 000
FONE: (55) 9615 3268

PINAMENTO / TUBULÕES

PONTE LINHA CALDEIRÃO	PRANCHA:	04/10	DATA:	28/10/2025
	ESCALA:	INDICADA	MET. TOTAL	52,80 m²

Documento assinado digitalmente
gov.br CLEITON ZANATTA
Data: 29/10/2025 14:46:23-0300
Verifique em https://validar.iti.gov.br

MUNICÍPIO DE PALMITINHO
PROPRIETÁRIO

Direitos Autorais Reservados Conforme Artigo 184 Do Código Penal, Lei 5.988 Do Código Civil e Resolução CONFEA 205/71