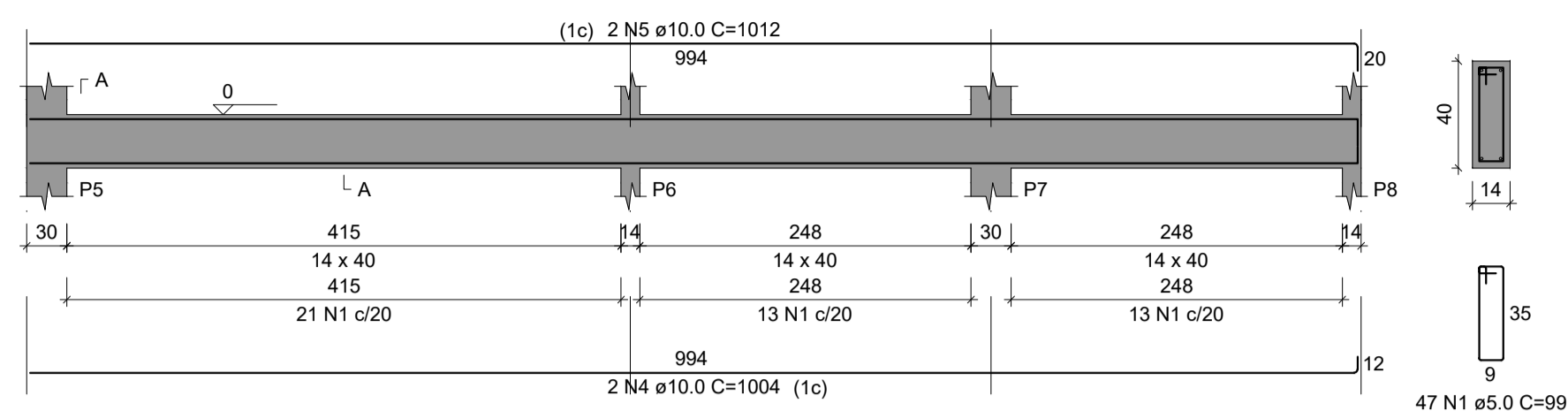
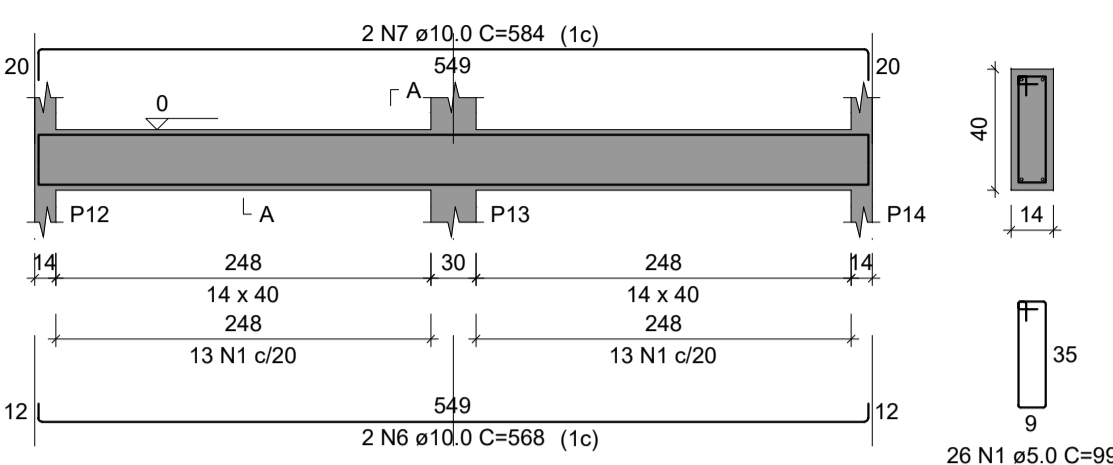


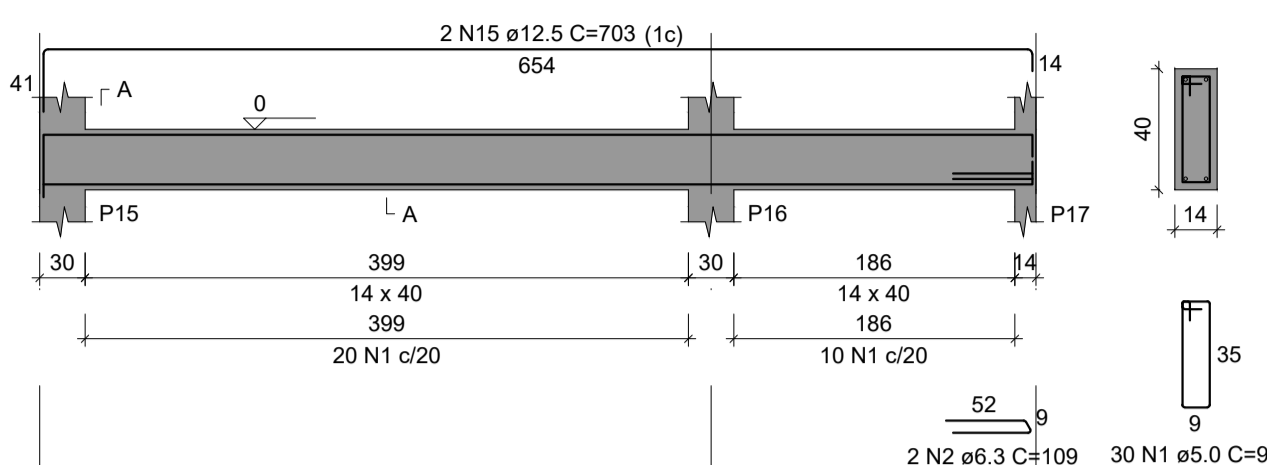
V1  
ESC 1:50



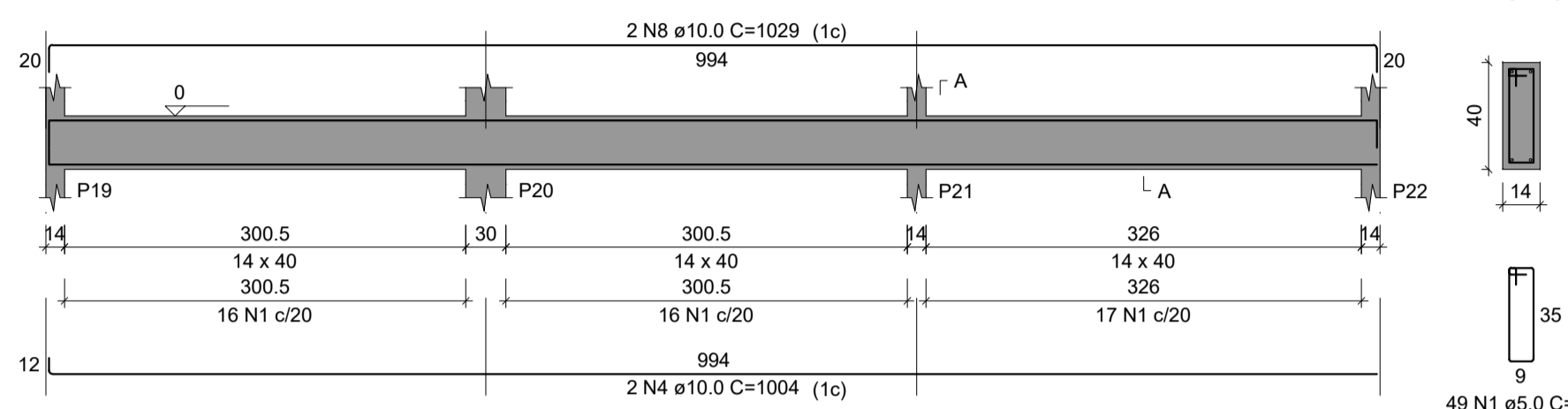
V2  
ESC 1:50



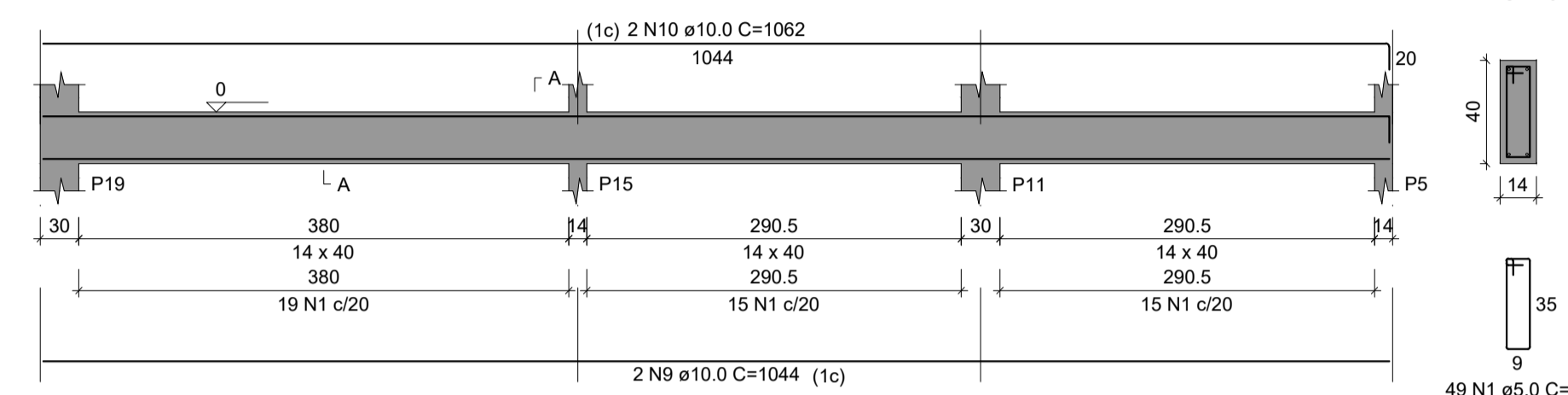
V3  
ESC 1:50



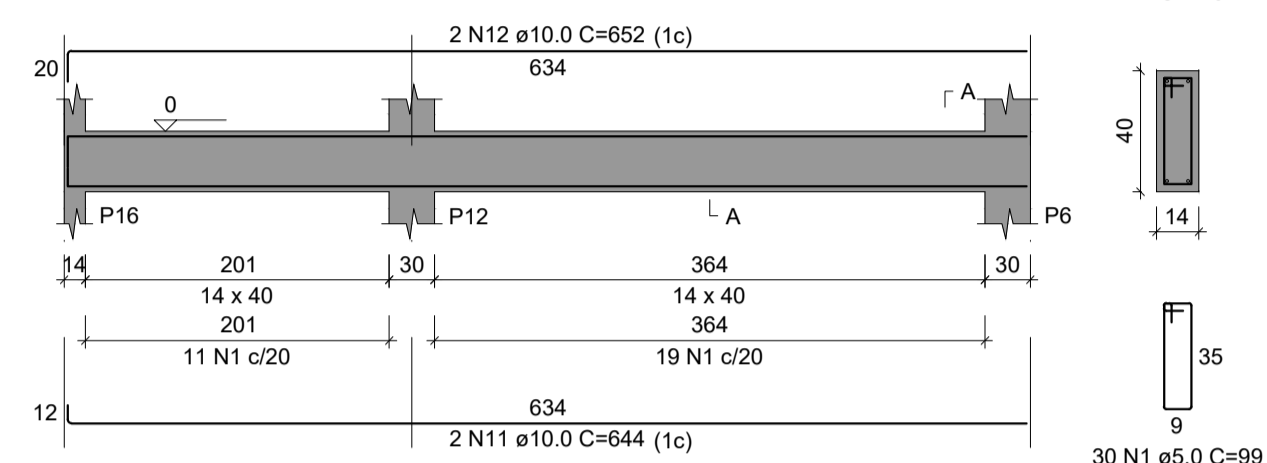
V4  
ESC 1:50



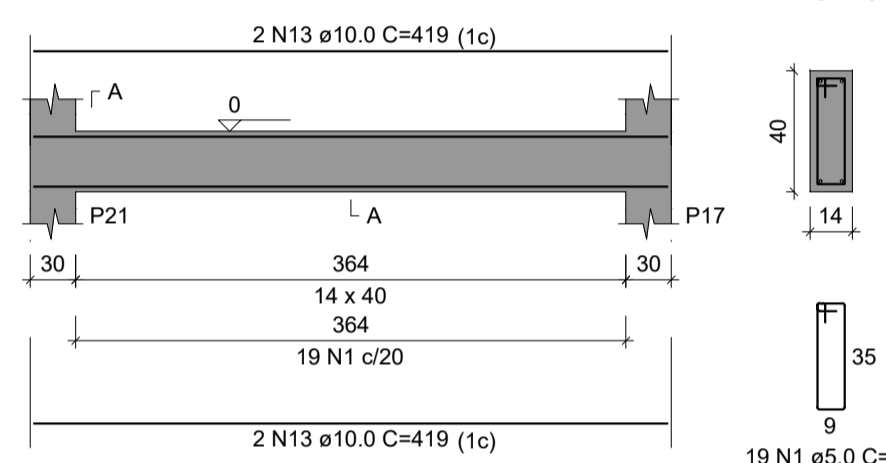
V5  
ESC 1:50



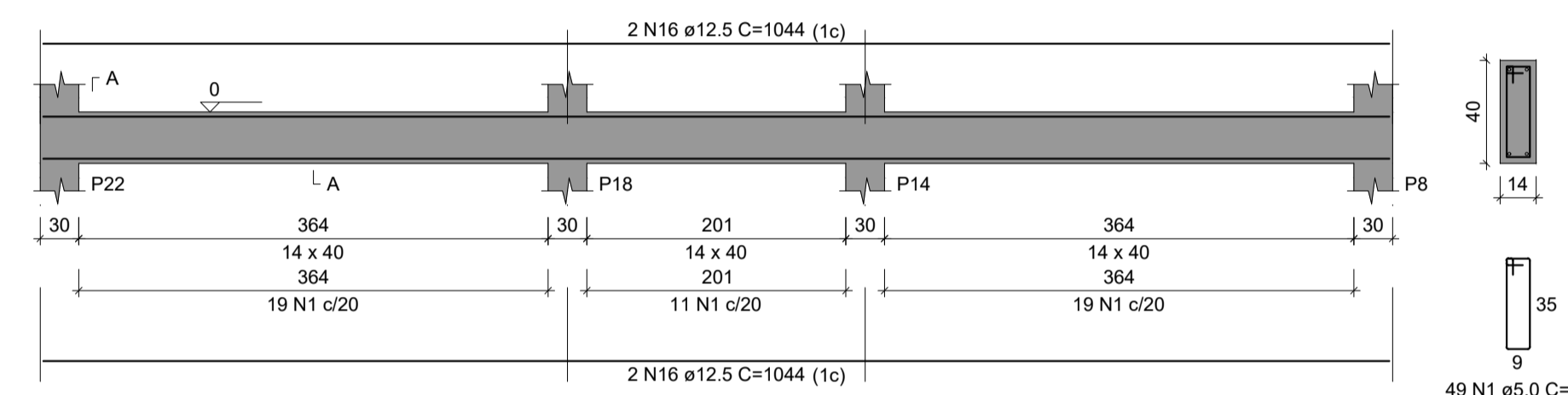
V6  
ESC 1:50



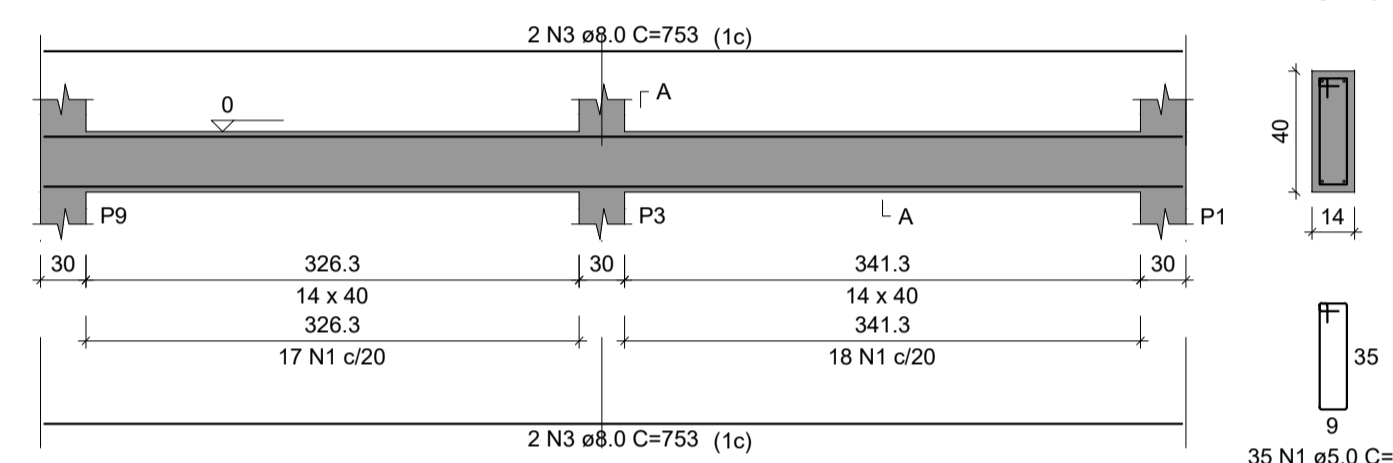
V7  
ESC 1:50



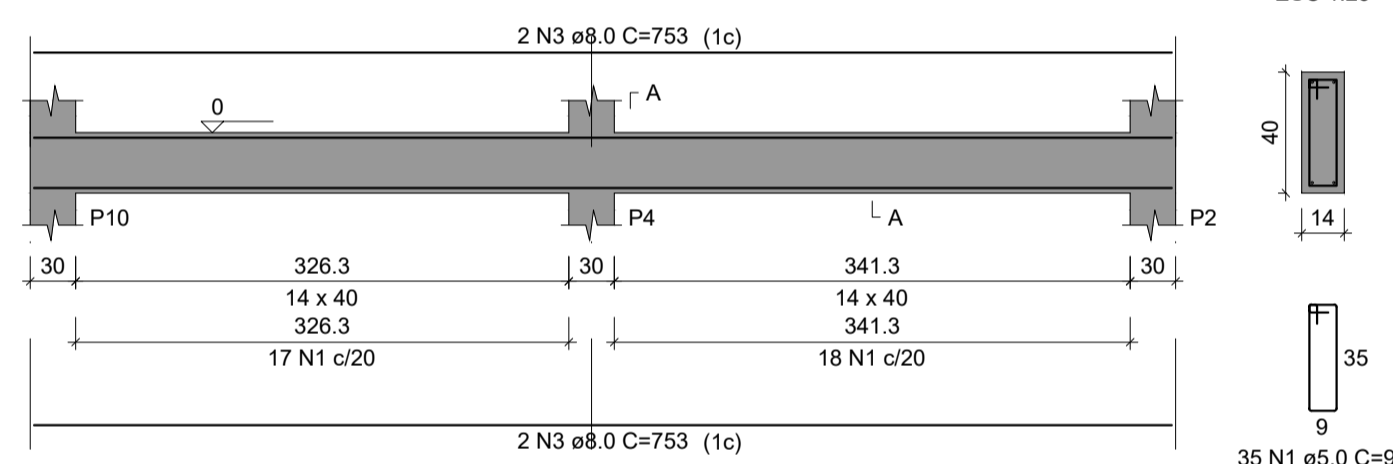
V8  
ESC 1:50



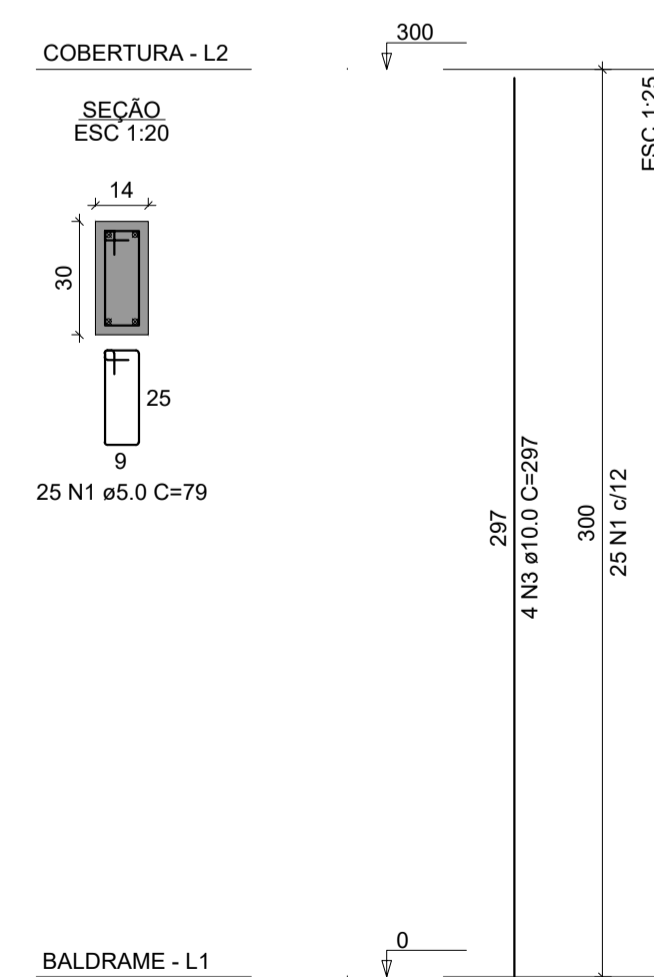
V9  
ESC 1:50



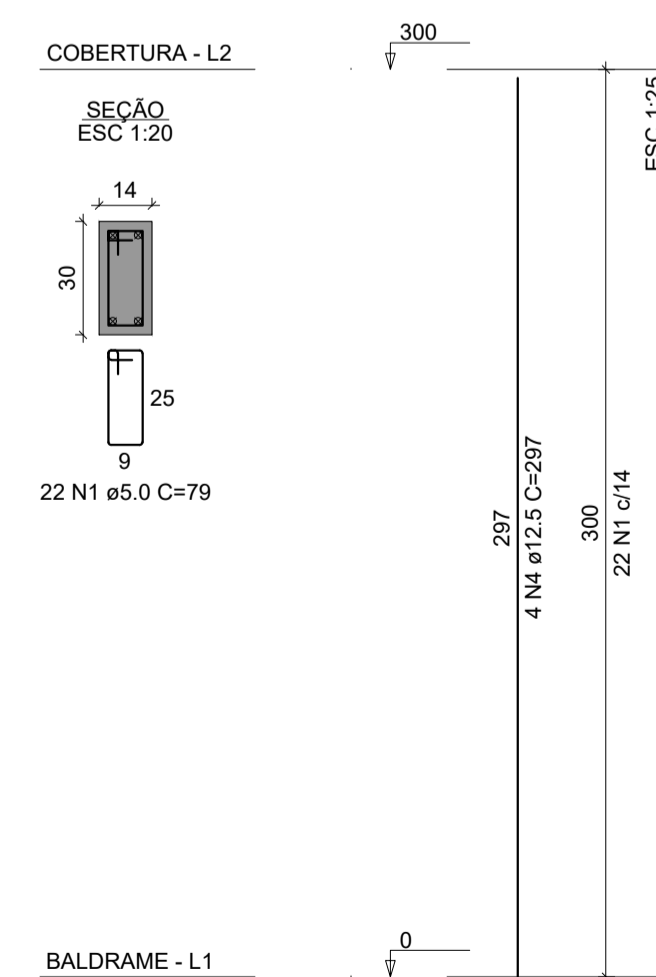
V10  
ESC 1:50



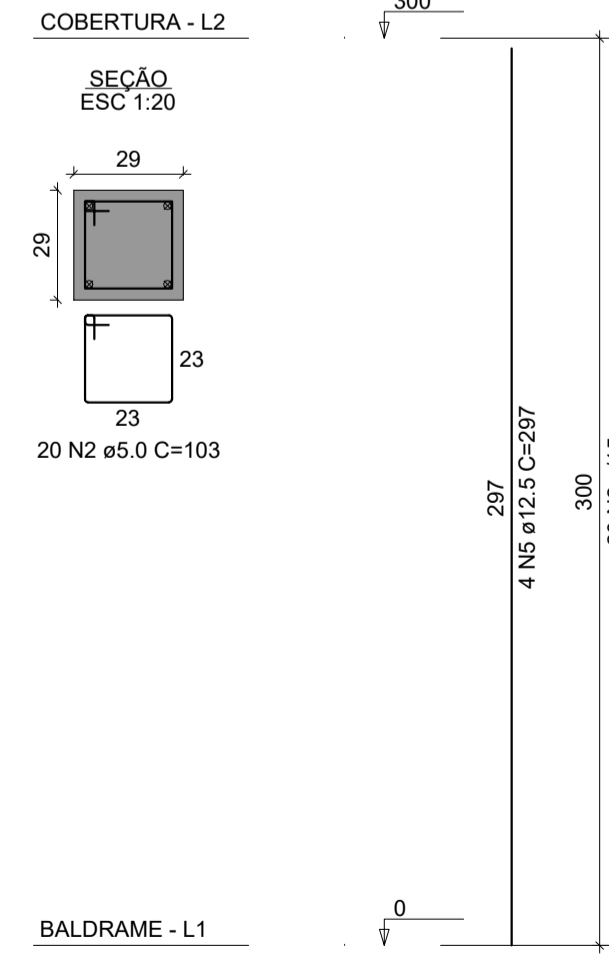
P1=P2=P3=P4=P5=P6=P9=P10=P11  
=P12=P13=P17=P19=P21



P7=P8=P14=P15=P16=P18P20=P22



P23=P24



RELAÇÃO DO AÇO

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	526	79	41554
CA50	2	5.0	40	103	4120
	3	10.0	56	297	16632
	4	12.5	32	297	9504
	5	12.5	8	297	2376

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10% (Barras)
CA50	10.0	166.3	16
CA60	5.0	456.7	42

PESO TOTAL (kg)  
CA50 238.7  
CA60 77.4

Volume de concreto (C-25) = 3.28 m³  
Área de forma = 65.04 m²

RELAÇÃO DO AÇO

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	369	99	36531
CA50	2	6.3	2	109	218
	3	8.0	8	753	6024
	4	10.0	4	1004	4016
	5	10.0	2	1012	2024
	6	10.0	2	568	1136
	7	10.0	2	584	1168
	8	10.0	2	1029	2058
	9	10.0	2	1044	2088
	10	10.0	2	1062	2124
	11	10.0	2	644	1288
	12	10.0	2	652	1304
	14	12.5	2	666	1332
	15	12.5	2	703	1406
	16	12.5	4	1044	4176

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10% (Barras)
CA50	6.3	2.2	1
	8.0	60.2	6
	10.0	188.8	18
	12.5	69.1	7
	5.0	365.3	34

PESO TOTAL (kg)  
CA50 228.1  
CA60 61.9

Volume de concreto (C-25) = 4.42 m³  
Área de forma = 74.14 m²



Rua Planalto, S/N, bairro Jardim Planalto  
CEP: 68.193-000 - Novo Progresso - PA

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## PROJETO ESTRUTURAL

OBRA: Reforma e Ampliação do Hospital Municipal de Novo Progresso  
ENDEREÇO: Rua Jucelino Kubischek, nº 98, Bairro Rui Pires de Lima, Novo Progresso - PA

PROPRIETÁRIO:  
**SECRETARIA MUNICIPAL DE SAÚDE DE NOVO PROGRESSO - PA**  
CNPJ: 11.287.726/000-173

AUTOR DO PROJETO:  
**ROBERTO TONELLI JUNIOR**  
CPF: 013.576.712-10

ÁREAS:  
- Área do Terreno:.....6.185,28 m²  
- Área a Construir:.....206,14 m²  
- Área a Reformar:.....1.410,21 m²  
- Área Total Edificação:.....1.616,35 m²

ASSUNTO/CONTEUDO:  
- Armação Vigas Baldrame;  
- Pilares em Prumada.

DATA:  
**NOVEMBRO/2023**

FOLHA:  
**03/05**

ESCALA:  
INDICADA