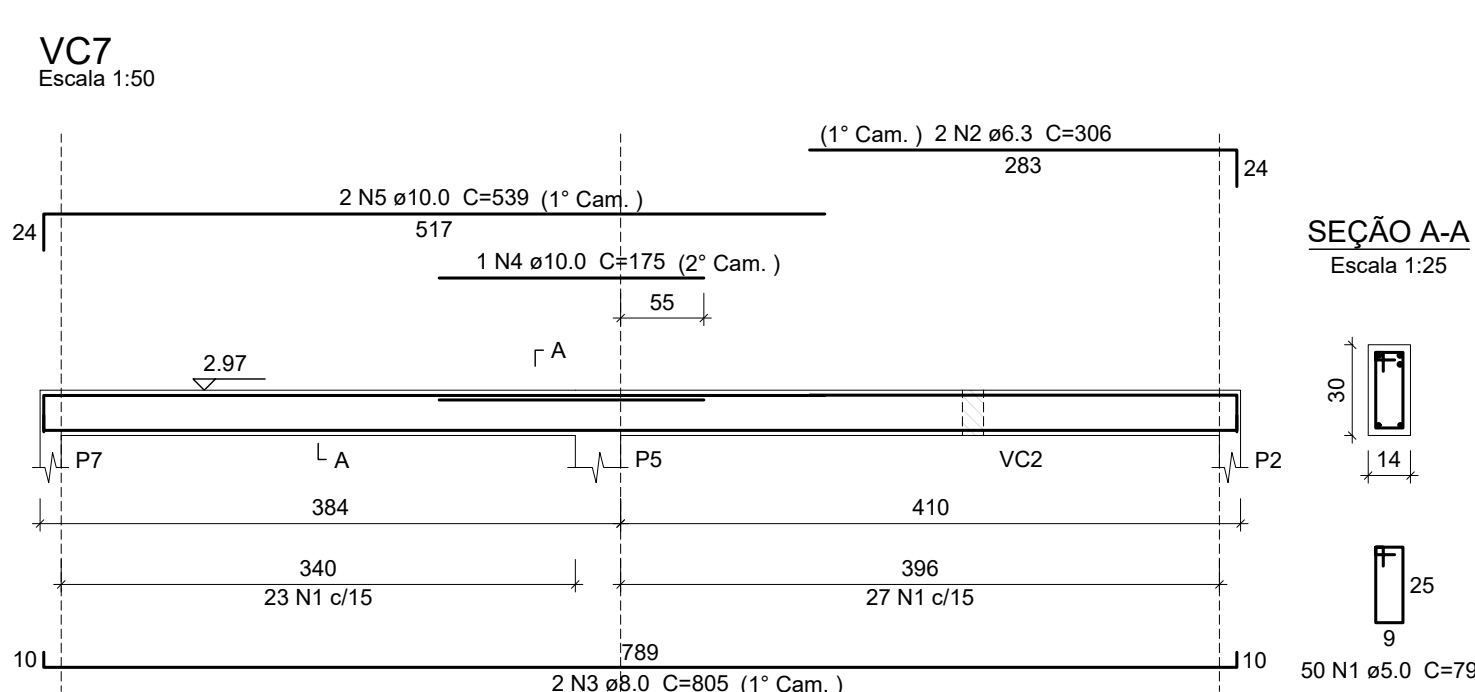
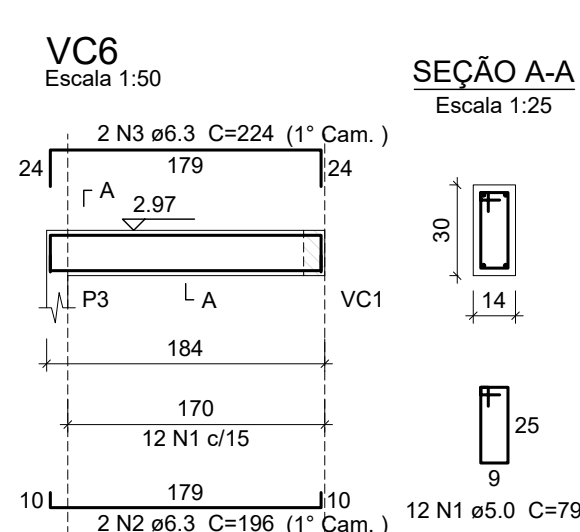
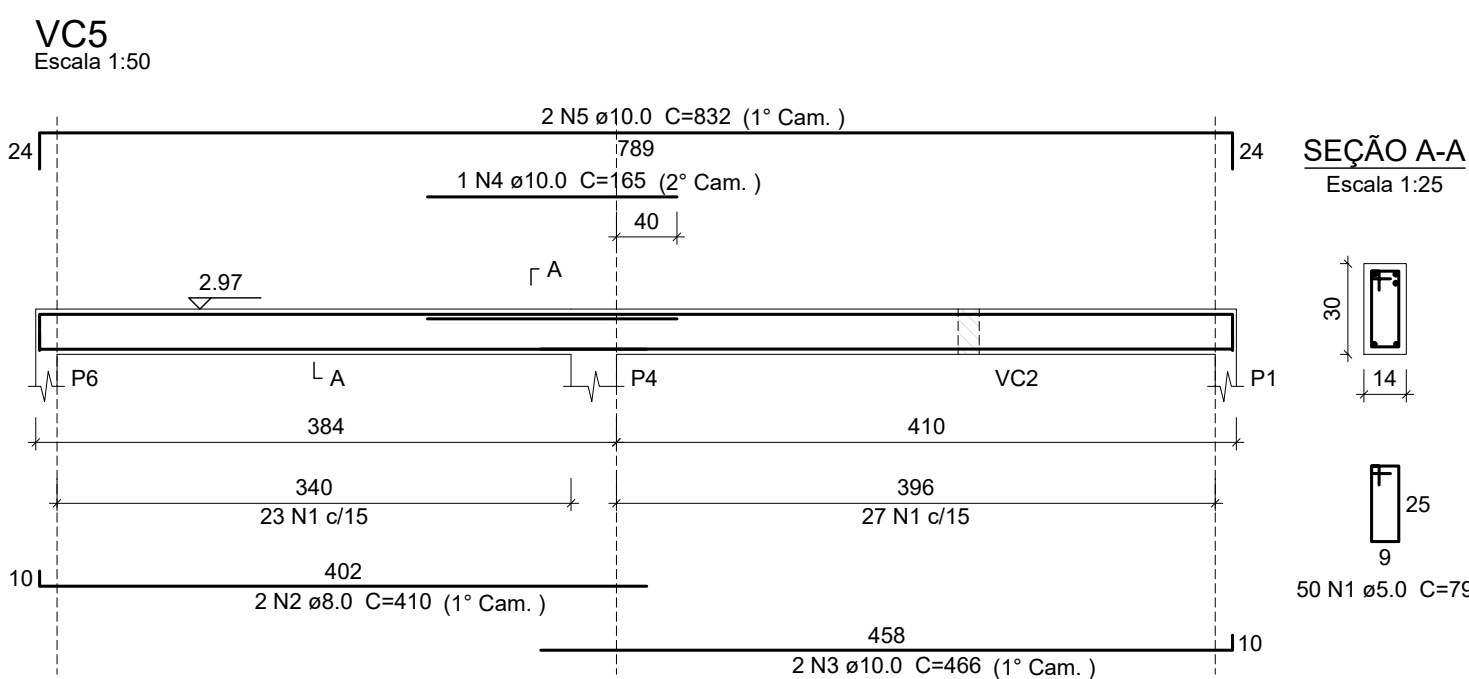
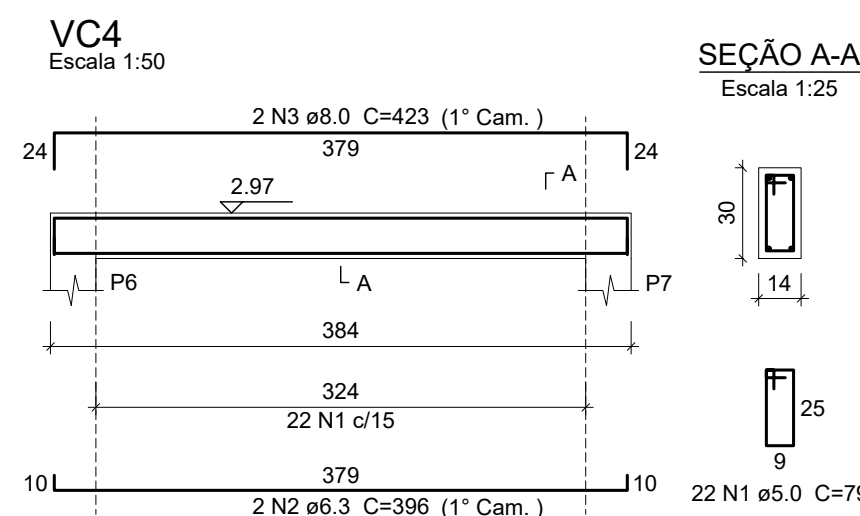
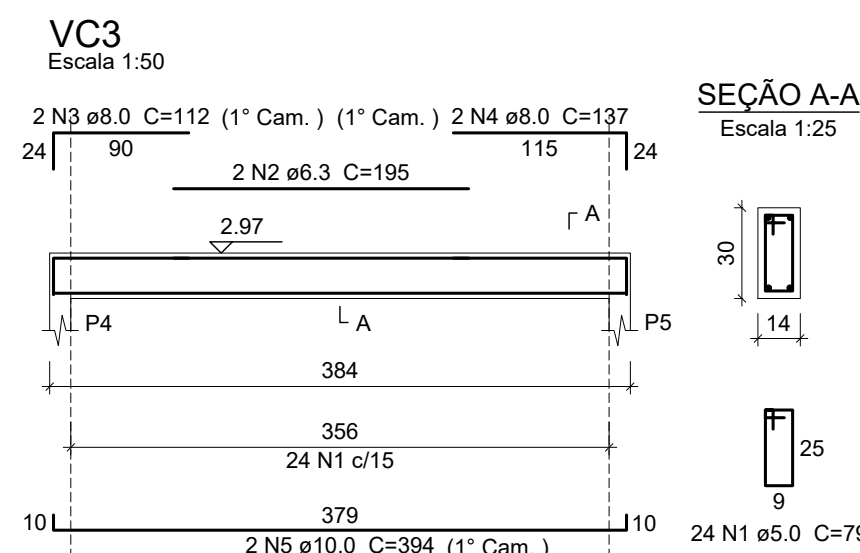
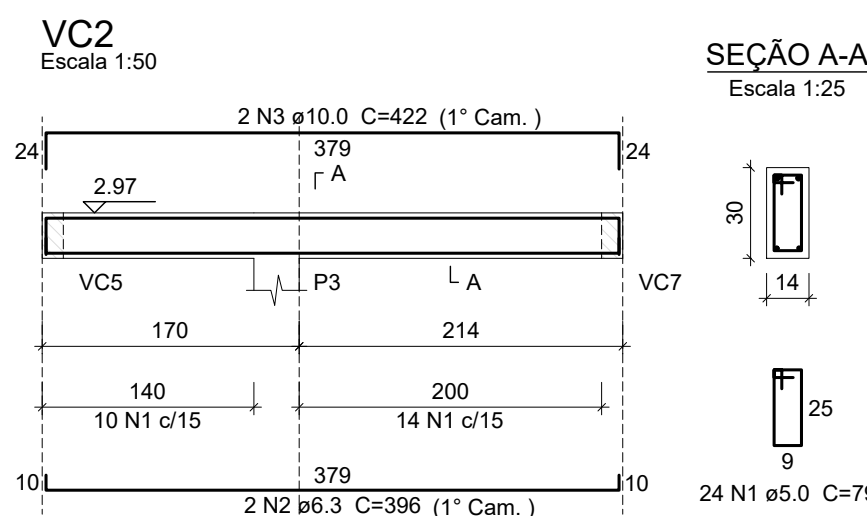
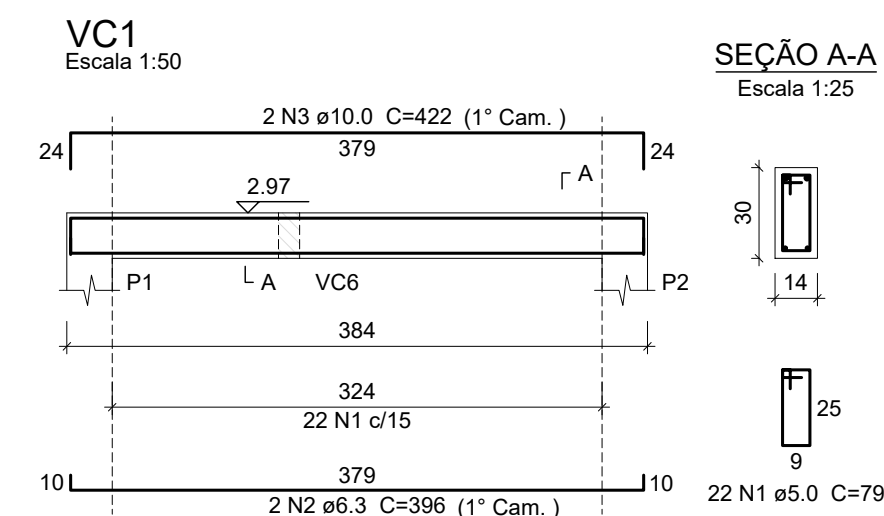
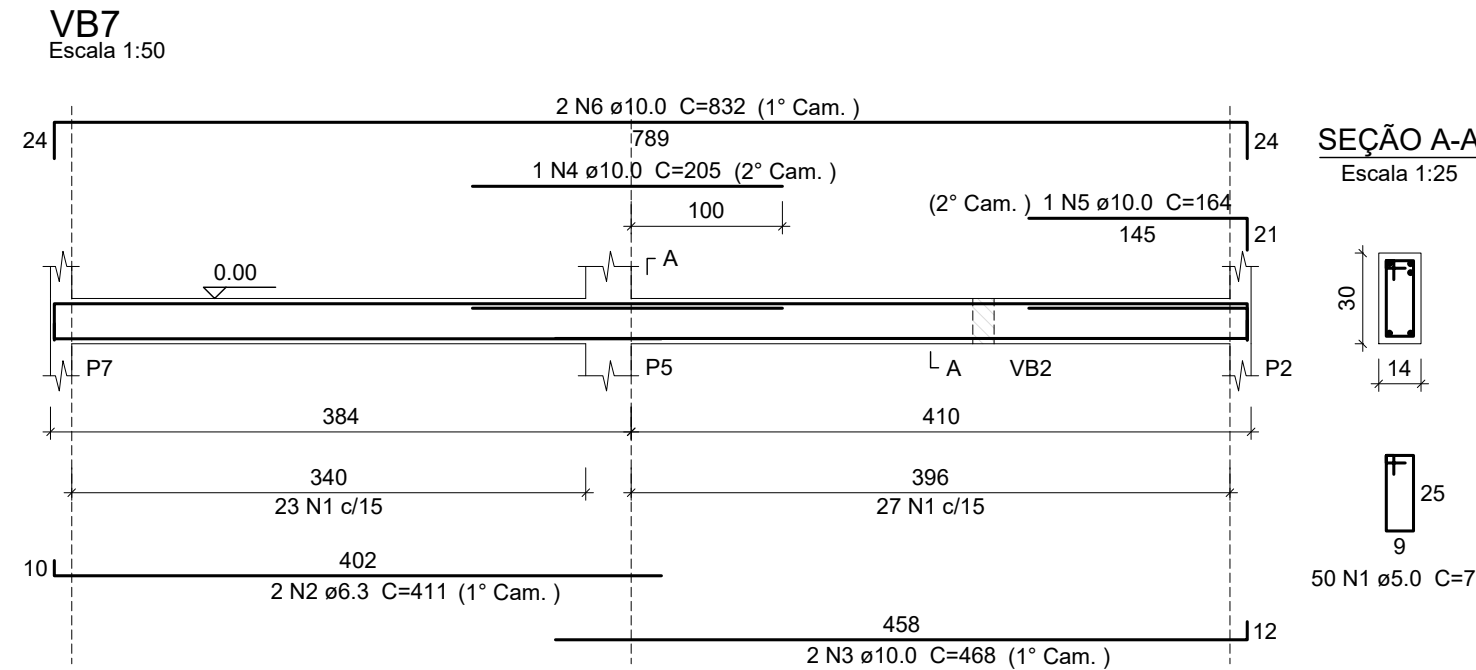
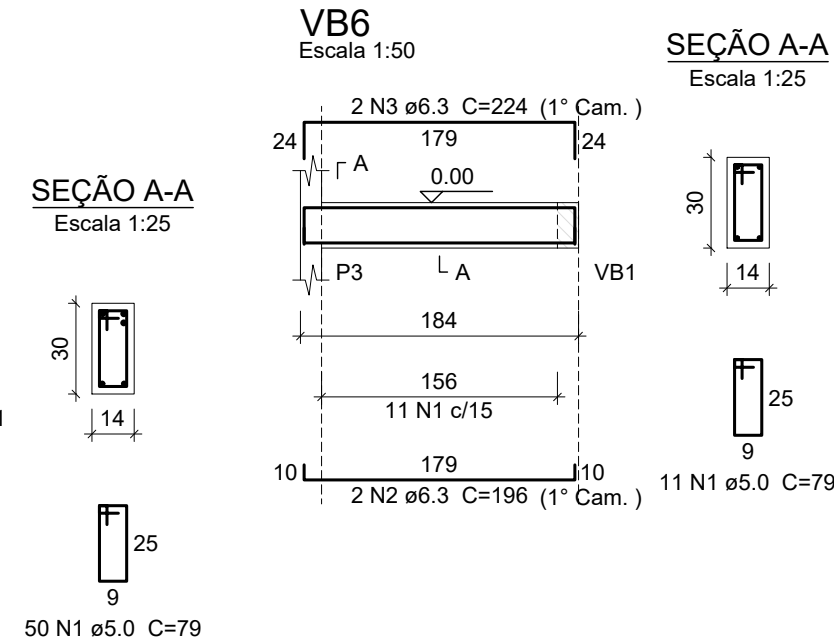
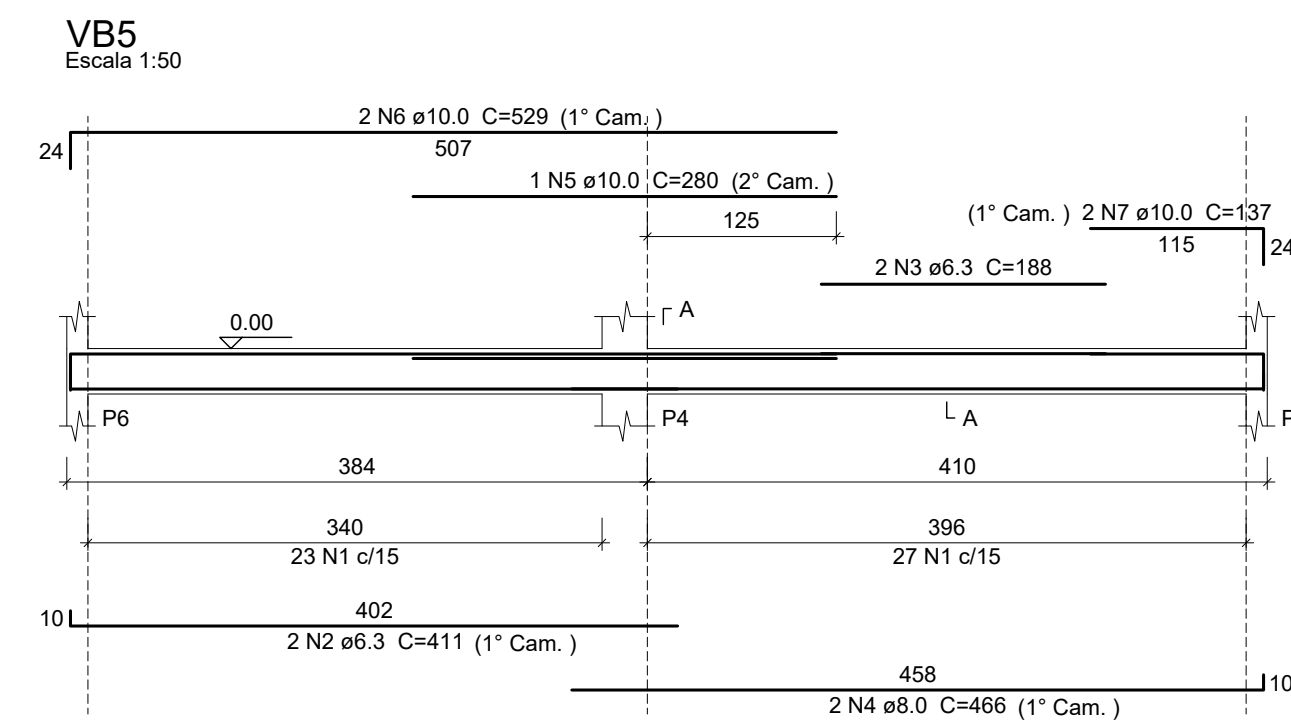
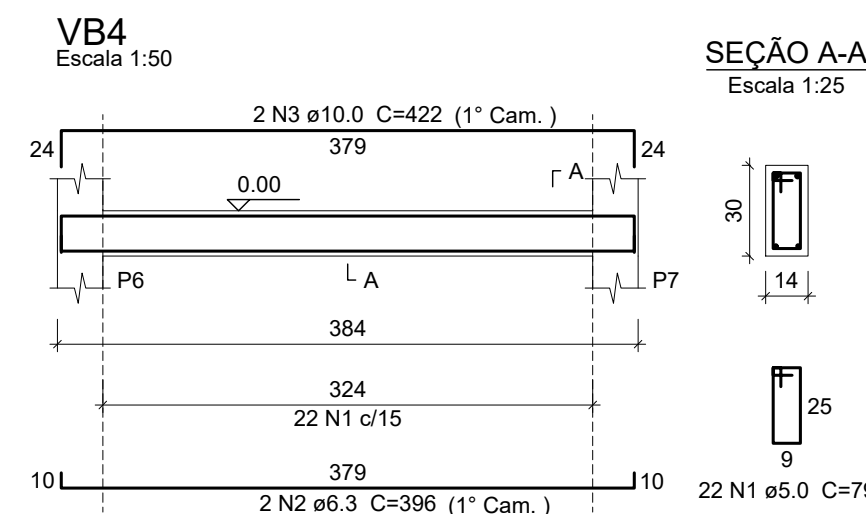
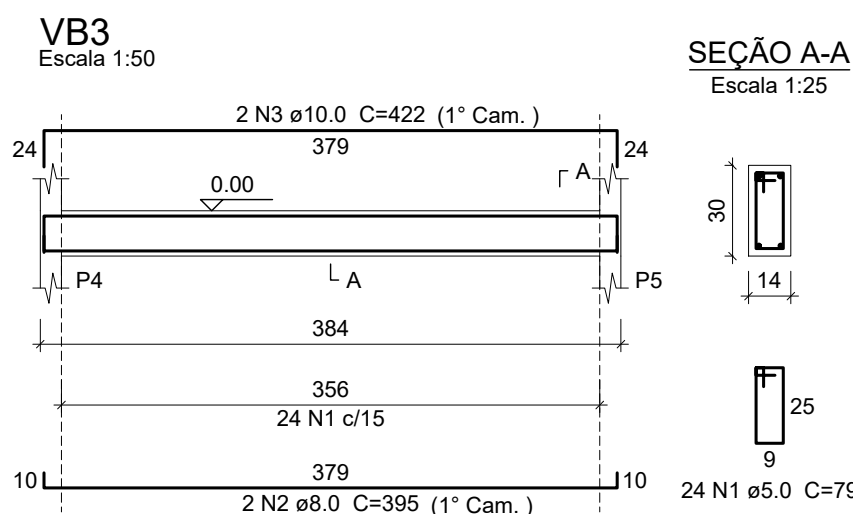
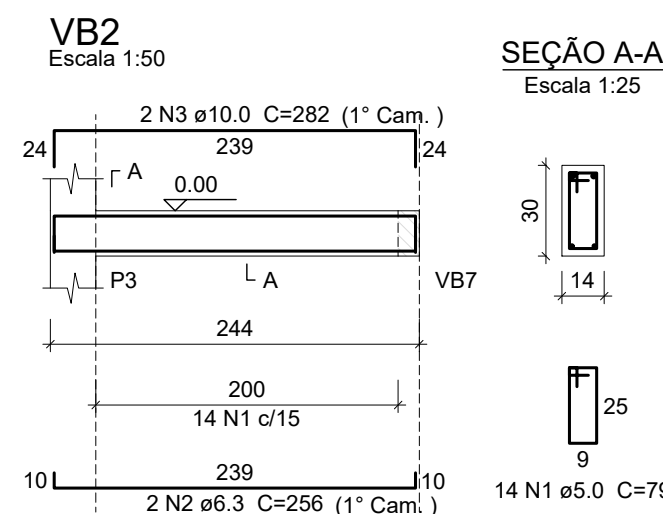
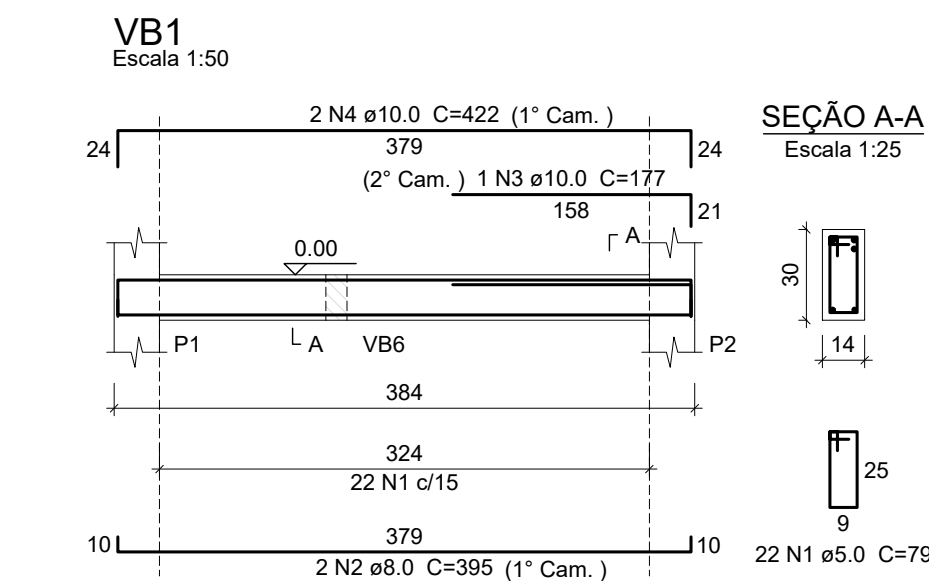


PROJETO ESTRUTURAL - REVITALIZAÇÃO DO PARQUE NATURAL MUNICIPAL DE POUSO ALEGRE  
ESCALA INDICADA

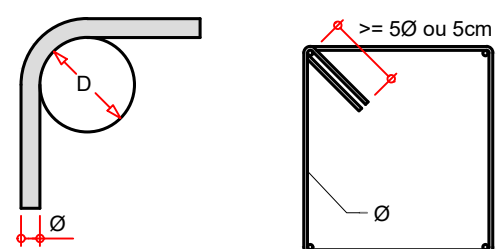


DETALHE DE DOBRAS  
SEM ESCALA

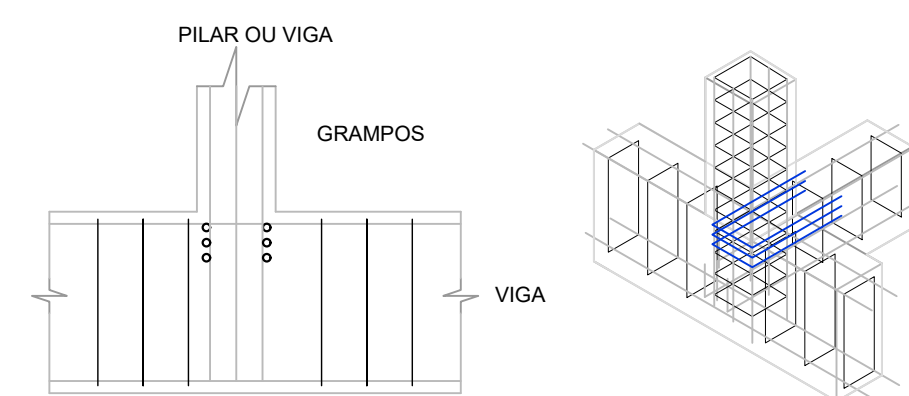
DIÂMETRO MÍNIMO DOS PINOS DE DOBRAMENTO DAS BARRAS

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

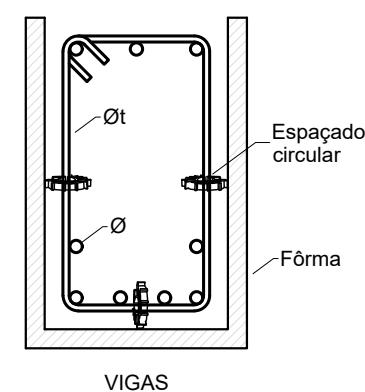


NOTA: gancho em ângulo de 45



**ATENÇÃO:** Os grampos devem envolver as armaduras longitudinais das vigas e dos pilares na região do apoio

A posição do grampo (superior ou inferior) deve ser verificada no detalhamento da viga.



VIGAS

Relação do aço

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
Baldrame						
VB1	CA60	1	5,0	22	79	1738
	CA50	2	8,0	2	395	790
	CA50	4	10,0	2	177	177
VB2	CA50	4	10,0	2	442	884
	CA60	5	5,0	14	79	1106
	CA50	2	6,3	2	256	512
VB3	CA50	3	10,0	2	282	564
	CA60	1	5,0	24	79	1896
	CA50	2	8,0	2	395	790
VB4	CA50	3	10,0	2	422	844
	CA60	1	5,0	22	79	1738
	CA50	2	6,3	2	396	792
VB5	CA50	3	10,0	2	422	844
	CA60	1	5,0	50	79	3950
	CA50	2	6,3	2	411	822
	CA50	3	6,3	2	188	376
	CA50	4	8,0	2	466	932
	CA50	5	10,0	1	280	280
VB6	CA50	6	10,0	2	528	1056
	CA50	7	10,0	2	137	274
	CA60	1	5,0	11	79	869
VB7	CA50	2	6,3	2	196	392
	CA50	3	6,3	2	224	448
	CA60	1	5,0	50	79	3950
	CA50	2	6,3	2	411	822
	CA50	3	10,0	2	468	936
VB8	CA50	4	10,0	1	205	205
	CA50	5	10,0	1	164	164
	CA50	6	10,0	2	832	1664

Cobertura						
VC1	CA60	1	5.0	22	79	1738
	CA50	2	8.3	2	386	844
	CA50	3	10.0	2	422	844
VC2	CA60	1	5.0	24	79	1896
	CA50	2	6.3	2	396	792
	CA50	3	10.0	2	422	844
VC3	CA60	1	5.0	24	79	1896
	CA50	2	6.3	2	195	390
	CA50	3	8.0	2	112	224
VC4	CA60	1	5.0	22	79	1738
	CA50	2	8.0	2	137	274
	CA50	5	10.0	2	394	788
VC5	CA60	1	5.0	22	79	1738
	CA50	2	6.3	2	396	792
	CA50	3	8.0	2	423	846
VC6	CA60	1	5.0	50	79	3950
	CA50	2	8.0	2	410	820
	CA50	3	10.0	2	465	932
VC7	CA60	1	5.0	50	79	3950
	CA50	2	6.3	2	306	612
	CA50	3	8.0	2	185	370
VC8	CA60	1	5.0	12	79	948
	CA50	2	6.3	2	196	392
	CA50	3	8.3	2	224	448
VC9	CA60	1	5.0	50	79	3950
	CA50	2	6.3	2	306	612
	CA50	3	8.0	2	185	370
VC10	CA60	1	5.0	10	79	175
	CA50	2	6.3	2	105	210
	CA50	5	10.0	2	539	1078

## Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	QUANT (Barras)	PESO (kg)
CA50	6.3	83.9	7	20.5
	8.0	62.9	6	24.8
CA60	10.0	143.5	12	88.4
	5.0	313.7	27	48.3
PESO TOTAL (kg)				
CA50	133.8			
CA60	48.3			

Volume de concreto (C-30) = 2.44 m<sup>3</sup>  
Área de forma = 38.51 m<sup>2</sup>


REV. 00	02/06/23	EMIÇÃO INICIAL	DAC
REVISÃO:	DATA :	DESCRIÇÃO:	RESP.:

CLIENTE



Prefeitura Municipal  
de **Pouso Alegre**

<p>PROJETO</p> <div data-bbox="2404 1646 2626 1661">  <p><b>DAC</b> engenharia</p> </div> <p>Rua Miguel Vianna, n° 81, 2° Andar Bairro Merro, Chic CEP: 37500-000 – Itajubá / MG Tel: (35) 3623-8846 www.dacengenharia.com.br</p>	<p>COORDENAÇÃO</p> <p><b>ALOISIO CAETANO FERREIRA</b></p>
	<p>RESPONSÁVEL TÉCNICO E AUTOR</p>
	<p>ENG. CIVIL FLÁVIA BARBOSA      CREA MG-187.842/D</p>

EMPREENDIMENTO

REVITALIZAÇÃO DO PARQUE NATURAL MUNICIPAL DE POUSO ALEGRE

AVENIDA WALDEMAR AZEVEDO JUNQUEIRA  
POUSO ALEGRE – MINAS GERAIS

ASSUNTO

CANTINA  
PROJETO ESTRUTURAL EM CONCRETO ARMADO  
DETALHAMENTO DAS VIGAS

DISCIPLINA

FASE DO PROJETO

EXECUTIVO

FOI HA N°

03/04

DATA INICIAL	ESCALA	REVISÃO	ARQUIVO
02/06/2023	INDICADA	R00	DAC-PMPA-PNM-CAN-PE-EST-R00.DWG