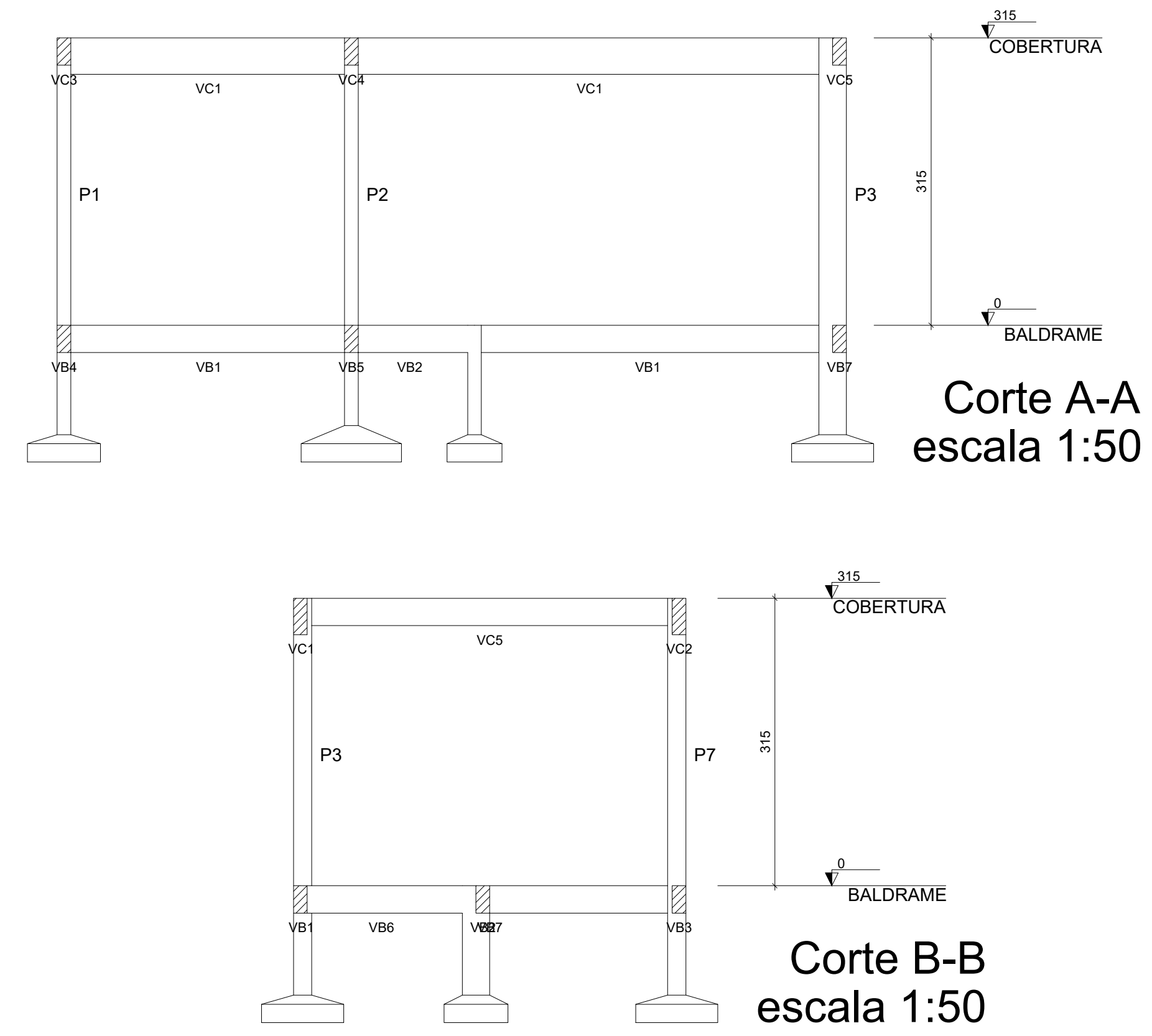
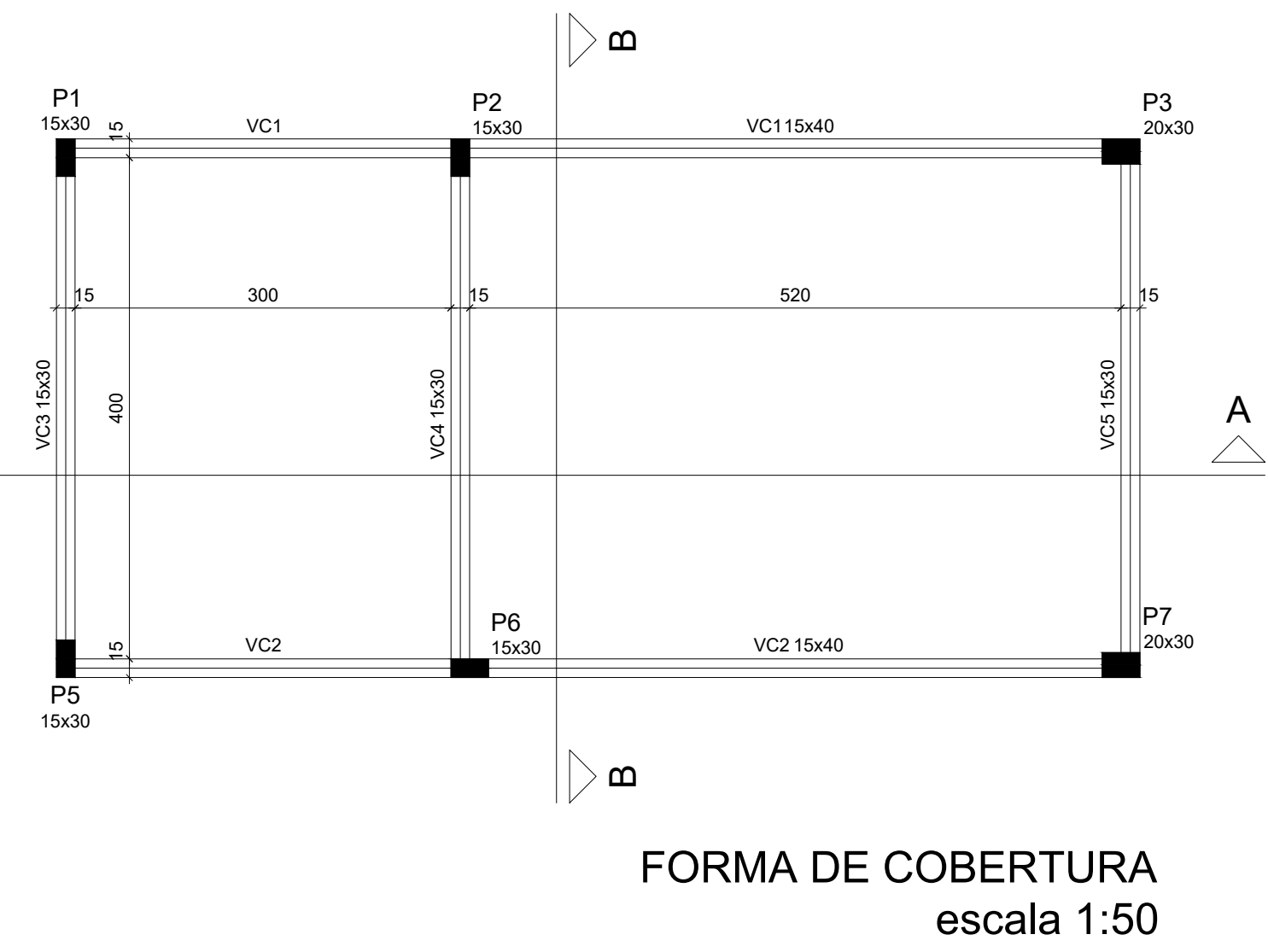
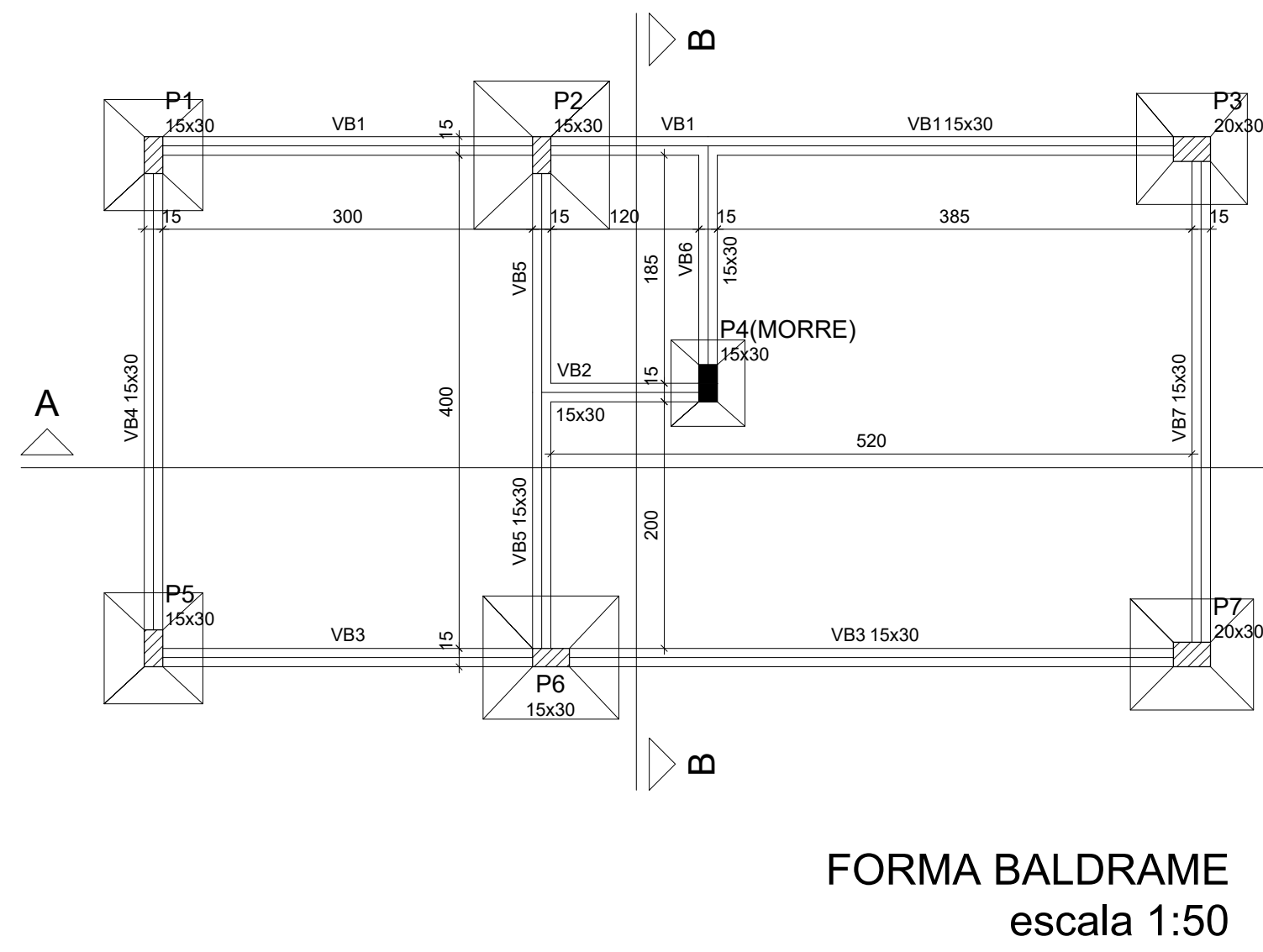
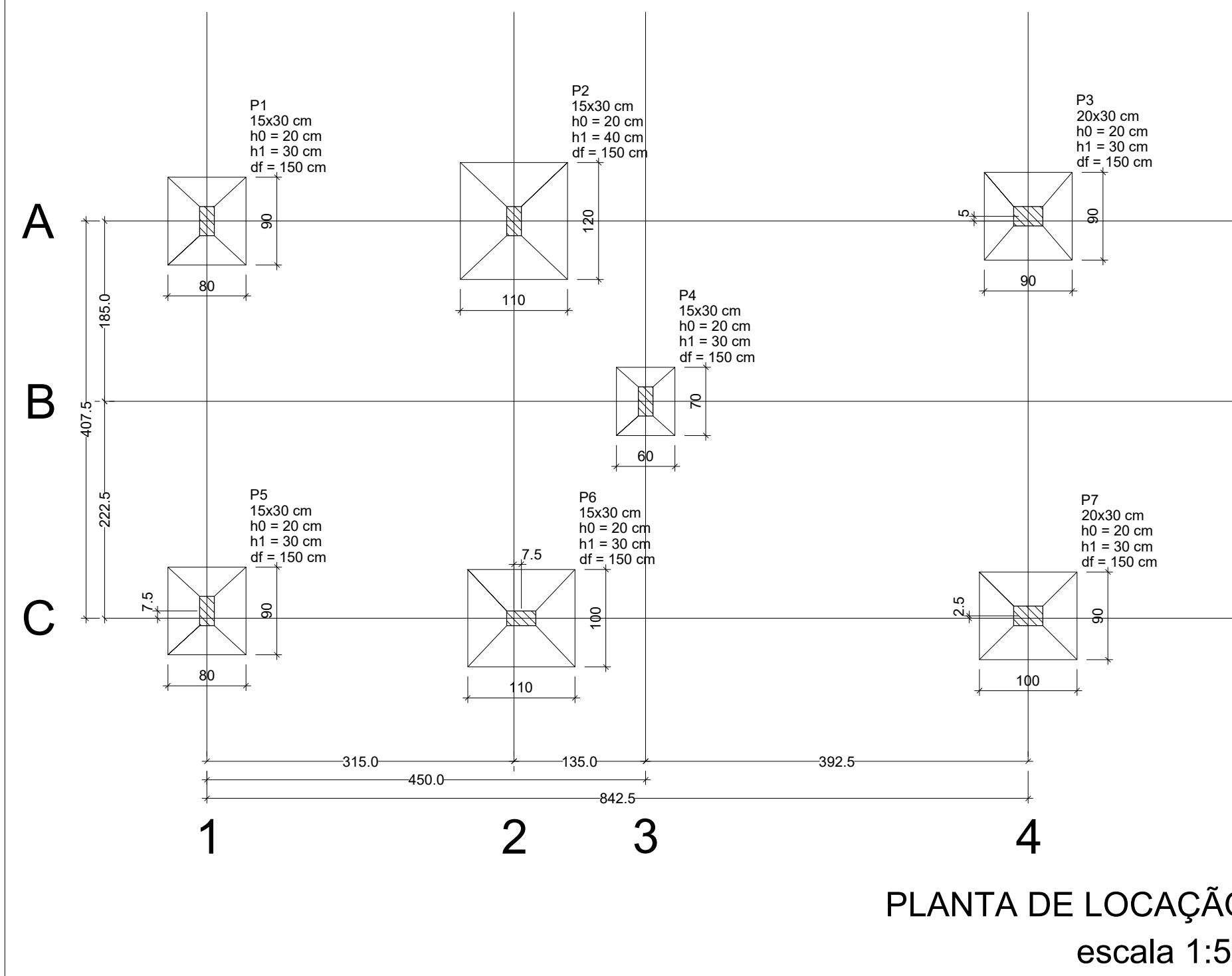


PLANTAS E CORTES DO NECROTÉRIO



Tabelas e Legendas dos Elementos									
Vigas					Vigas				
Nome	Seção	Classe	Elevação (cm)	Nível (cm)	Nome	Seção	Classe	Elevação (cm)	Nível (cm)
VB1 15x30	0	0	0	0	VC1 15x40	0	315	0	0
VB2 15x40	0	0	0	0	VC2 15x40	0	315	0	0
VB3 15x40	0	0	0	0	VC3 15x40	0	315	0	0
VB4 15x40	0	0	0	0	VC4 15x30	0	315	0	0
VB5 15x40	0	0	0	0	VC5 15x40	0	315	0	0
VB6 15x40	0	0	0	0	VC6 15x40	0	315	0	0
VB7 15x40	0	0	0	0	VC7 15x30	0	315	0	0
VB8 15x40	0	0	0	0	VC8 15x40	0	315	0	0
VB9 15x40	0	0	0	0	VC9 15x40	0	315	0	0
VB10 15x40	0	0	0	0	VC10 15x30	0	315	0	0
VB11 15x40	0	0	0	0	VC11 15x40	0	315	0	0
VB12 15x40	0	0	0	0	VC12 15x40	0	315	0	0
VB13 15x40	0	0	0	0	VC13 15x40	0	315	0	0
VB14 15x40	0	0	0	0	VC14 15x40	0	315	0	0
VB15 15x40	0	0	0	0	VC15 15x40	0	315	0	0
VB16 15x40	0	0	0	0	VC16 15x40	0	315	0	0
VB17 15x40	0	0	0	0	VC17 15x30	0	315	0	0
VB18 15x40	0	0	0	0					
VB19 15x40	0	0	0	0					
VB20 15x40	0	0	0	0					
VB21 15x40	0	0	0	0					
VB22 15x40	0	0	0	0					

Pilares				
Nome	Seção	Elevação (cm)	Nível (cm)	
P1	15 x 30	0	0	0,0315
P2	15 x 30	0	0	0,0315
P3	15 x 30	0	0	0,0315
P4	15 x 30	0	0	0,0315
P5	15 x 30	0	0	0,0315
P6	15 x 30	0	0	0,0315
P7	20 x 30	0	0	0,0315
P8	15 x 30	0	0	0,0315
P9	15 x 30	0	0	0,0315
P10	15 x 30	0	0	0,0315
P11	15 x 30	0	0	0,0315
P12	15 x 30	0	0	0,0315
P13	15 x 30	0	0	0,0315
P14	15 x 30	0	0	0,0315
P15	20 x 30	0	0	0,0315
P16	20 x 30	0	0	0,0315
P17	20 x 30	0	0	0,0315
P18	20 x 30	0	0	0,0315
P19	15 x 30	0	0	0,0315
P20	15 x 30	0	0	0,0315
P21	15 x 30	0	0	0,0315
P22	20 x 30	0	0	0,0315

Características dos materiais		
Idk (kgf/cm²)	Ecs (kgf/cm²)	Atenuamento (cm)
250	241500	5,00

Dimensão máxima do agregado = 19 mm

Legenda dos Pilares

Pilar que morre

Pilar que passa

Pilar que nasce

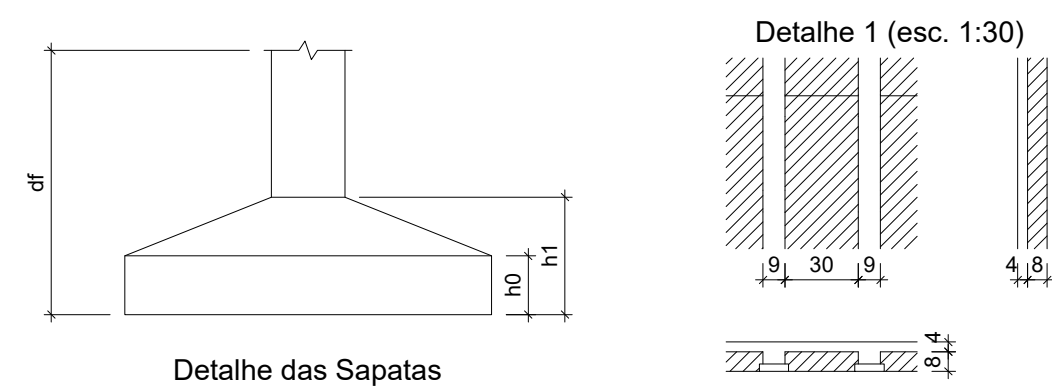
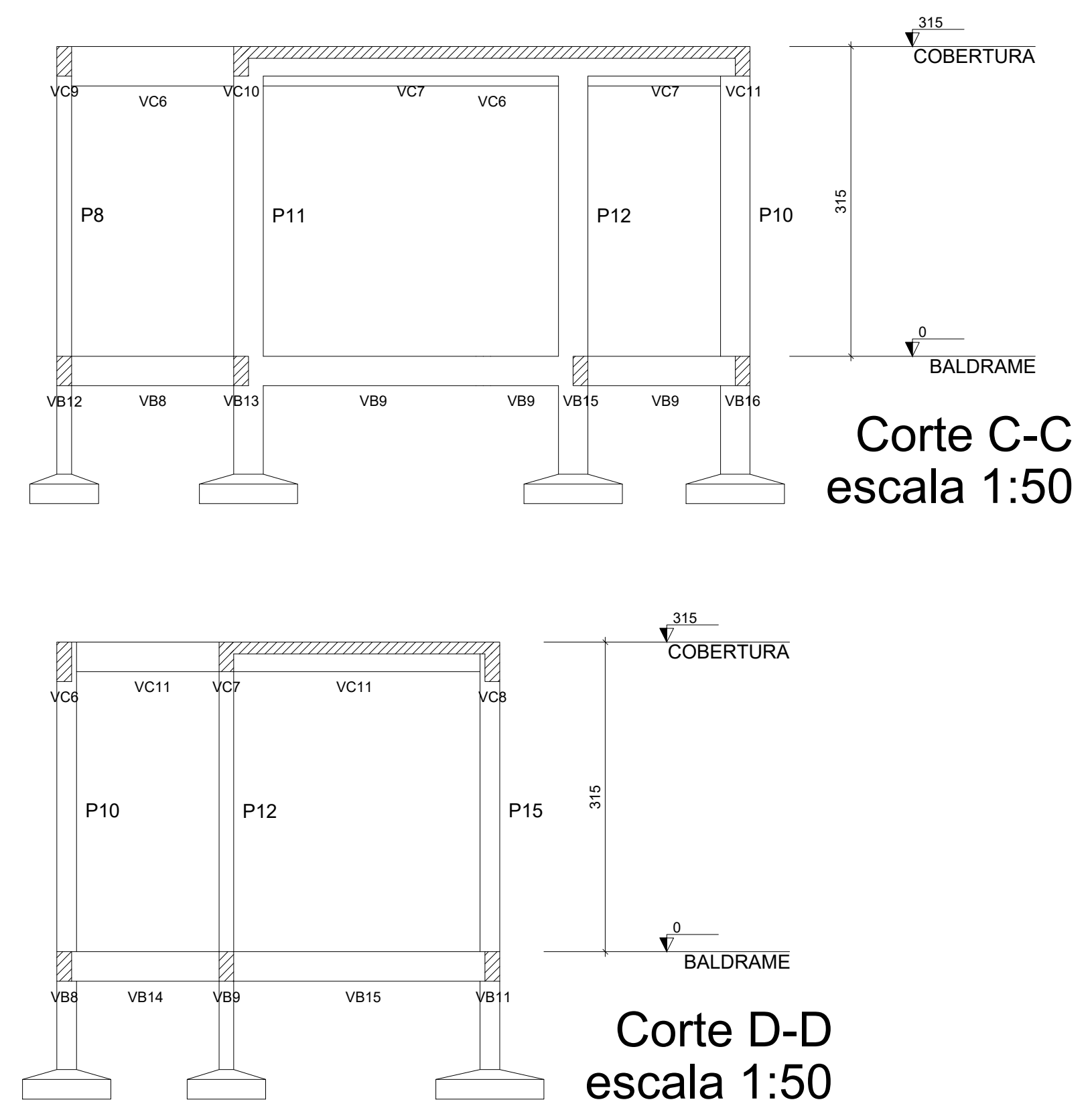
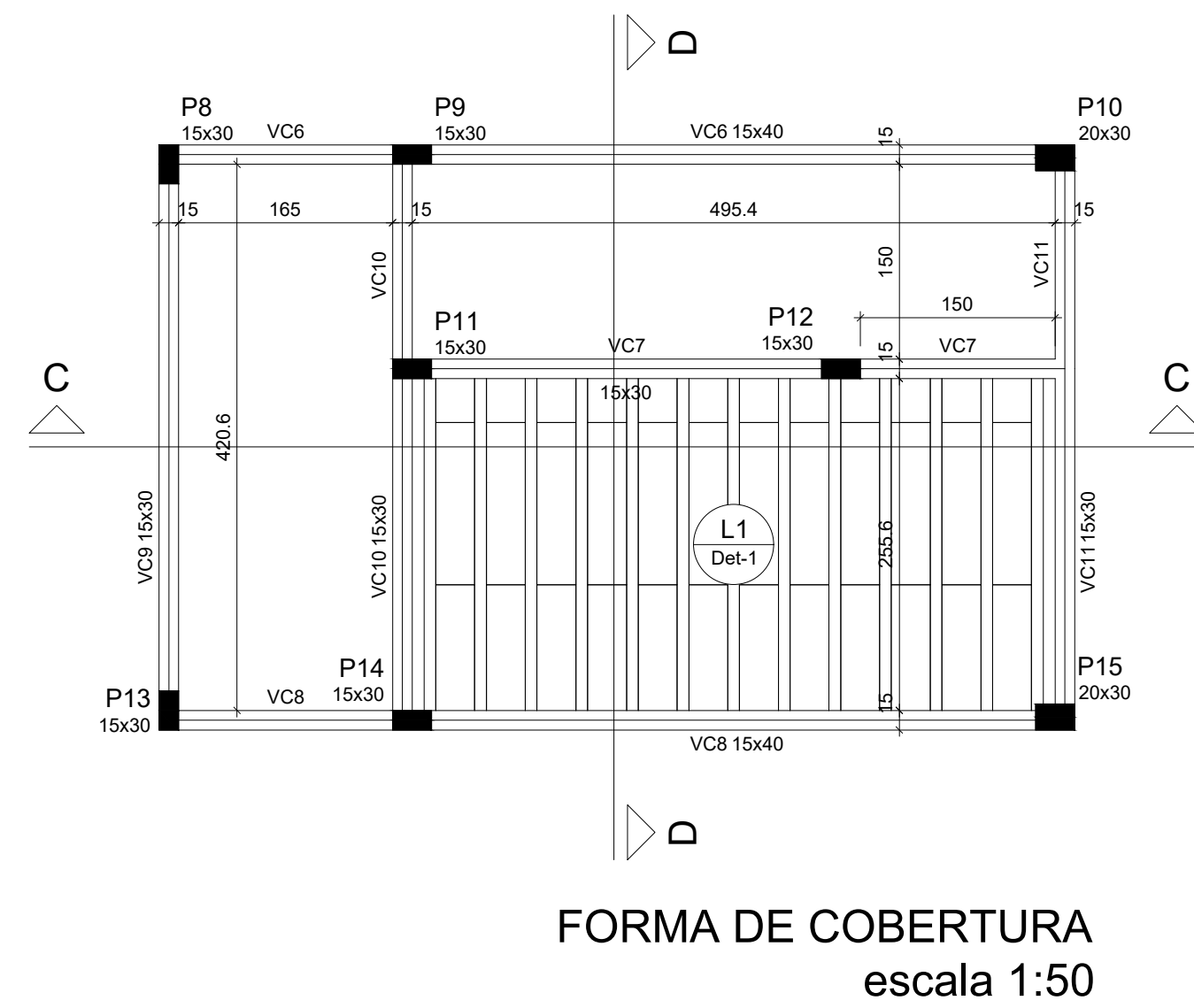
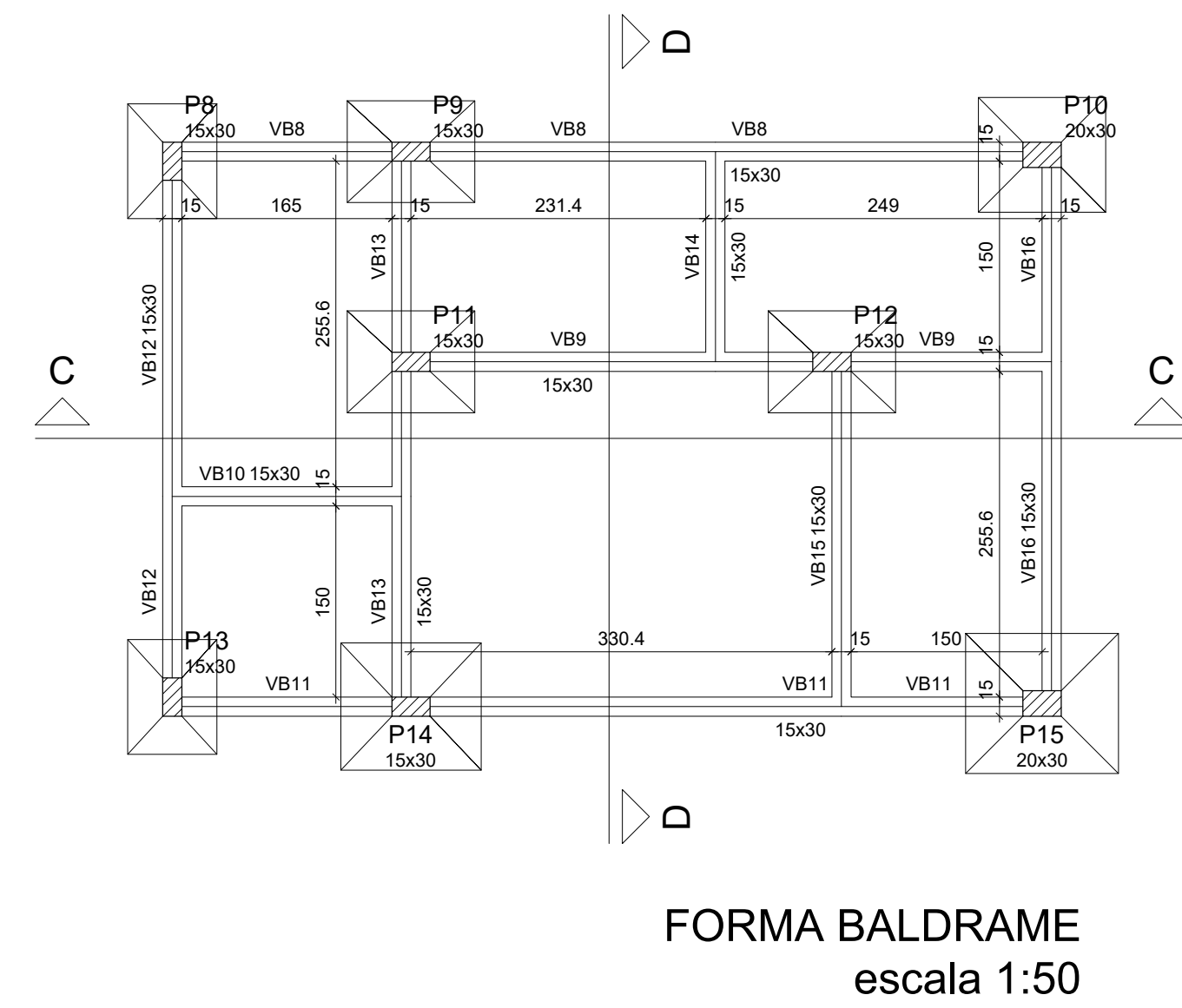
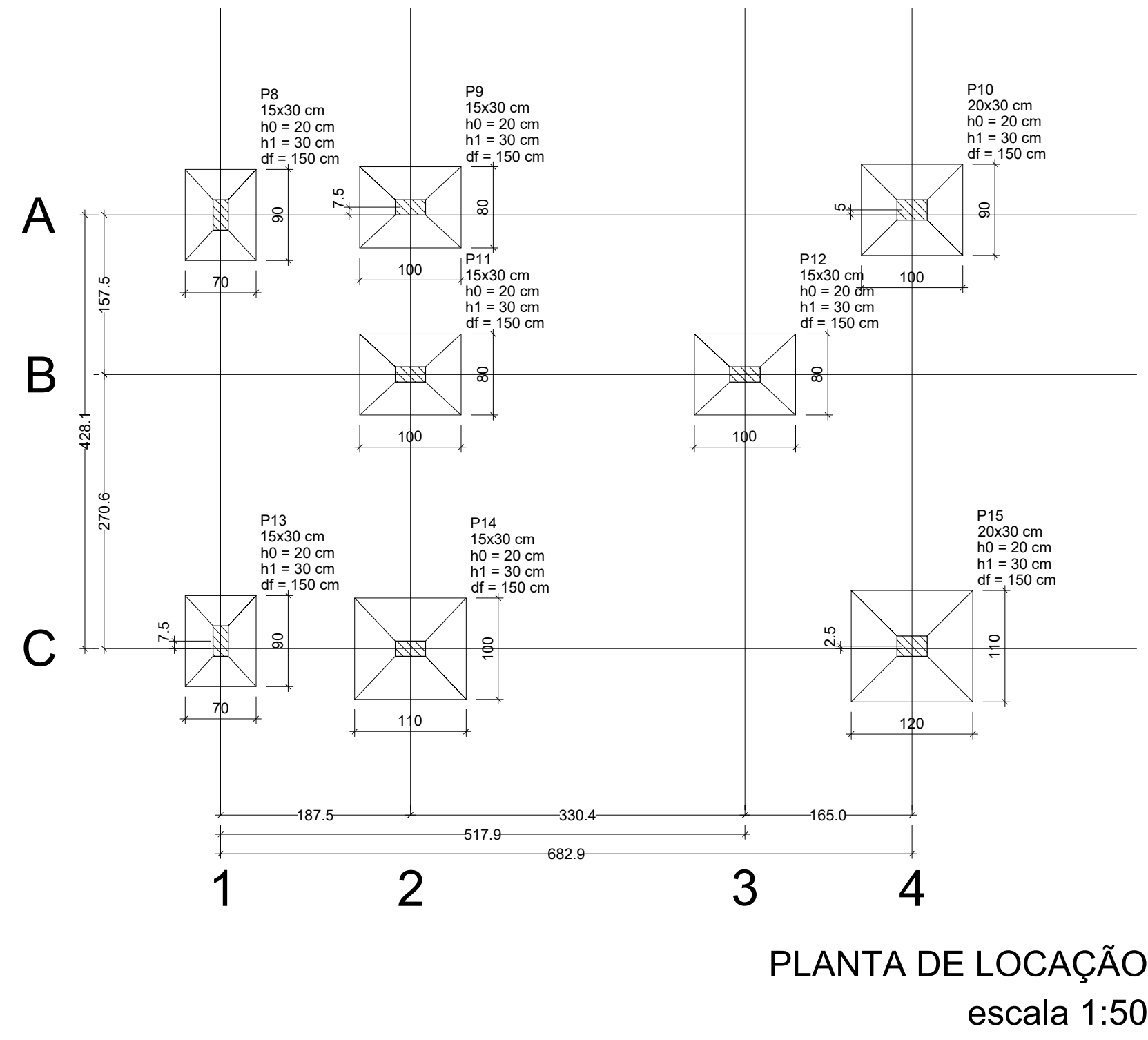
Pilar com mudança de seção

Características dos materiais		
fck (kgf/cm ²)	Ecs (kgf/cm ²)	Abatimento (cm)
250	241500	5.00

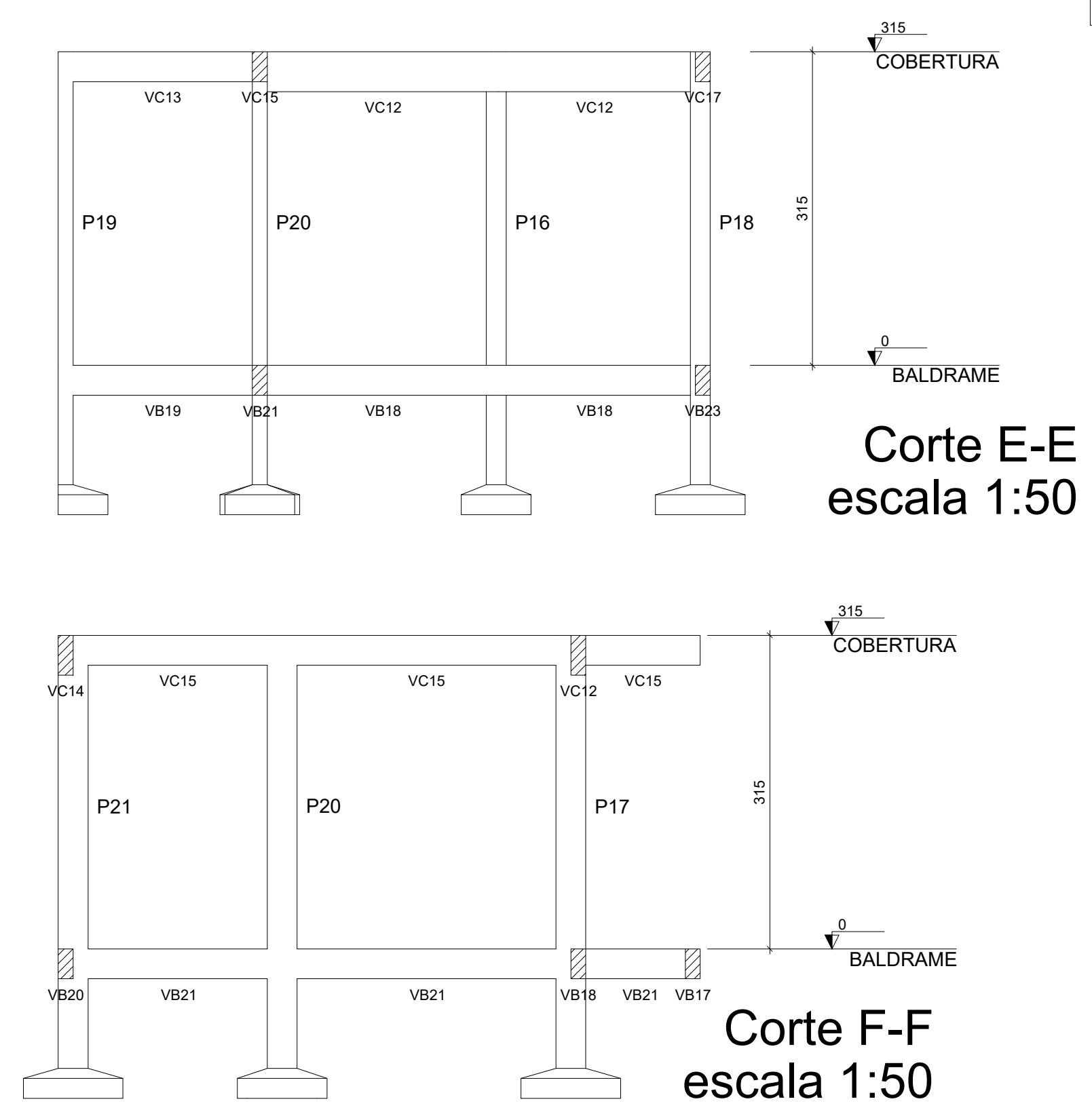
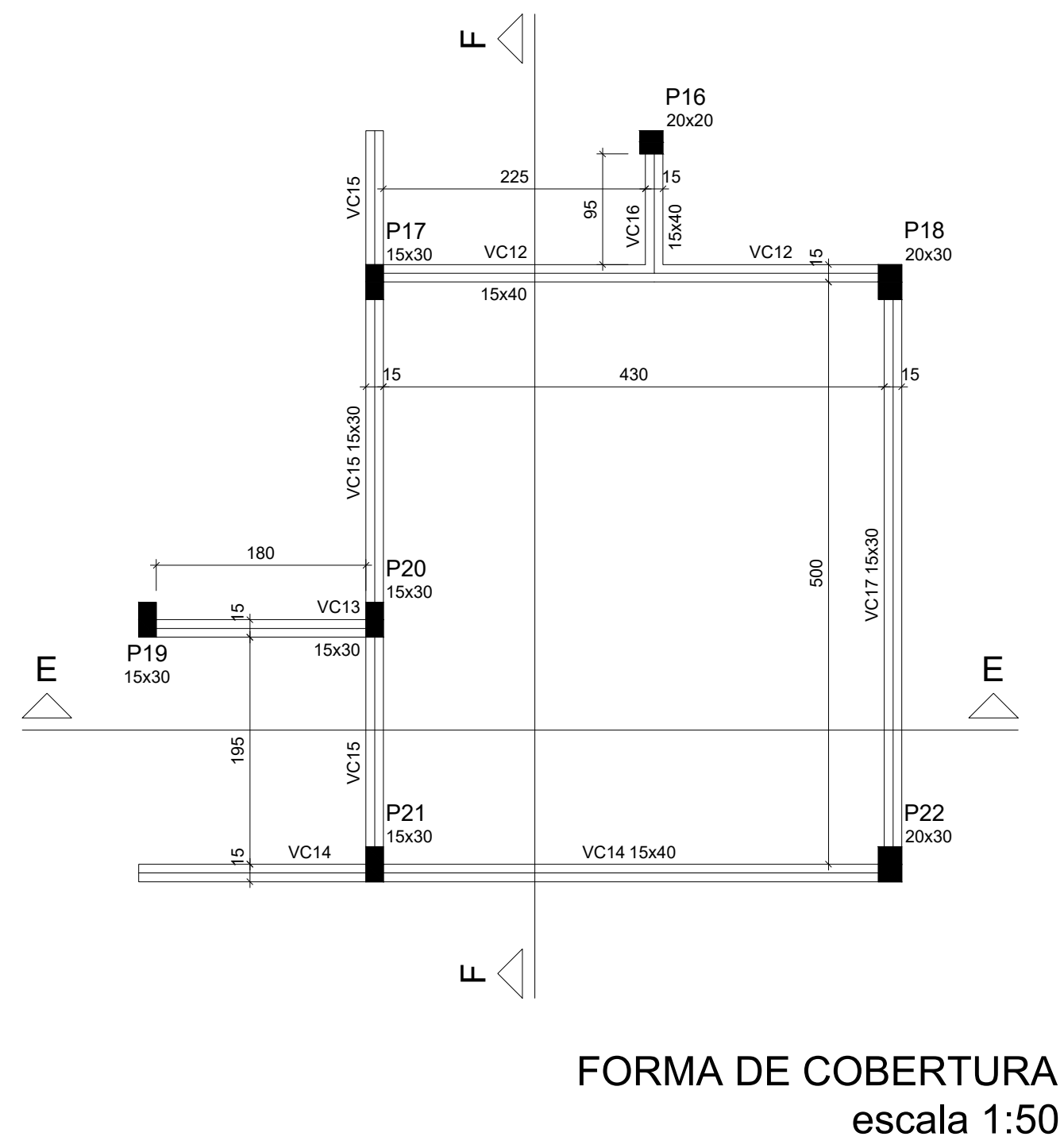
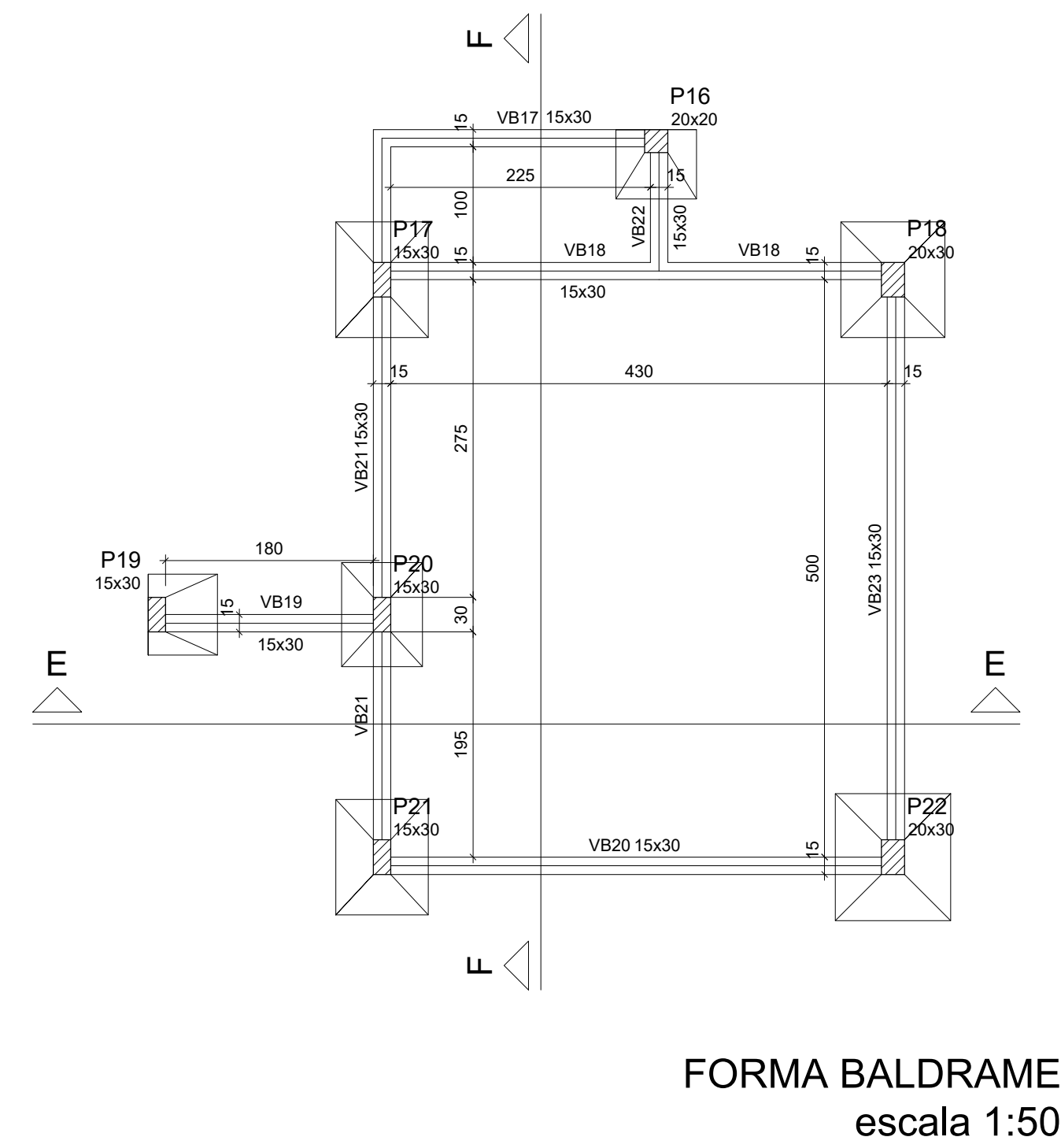
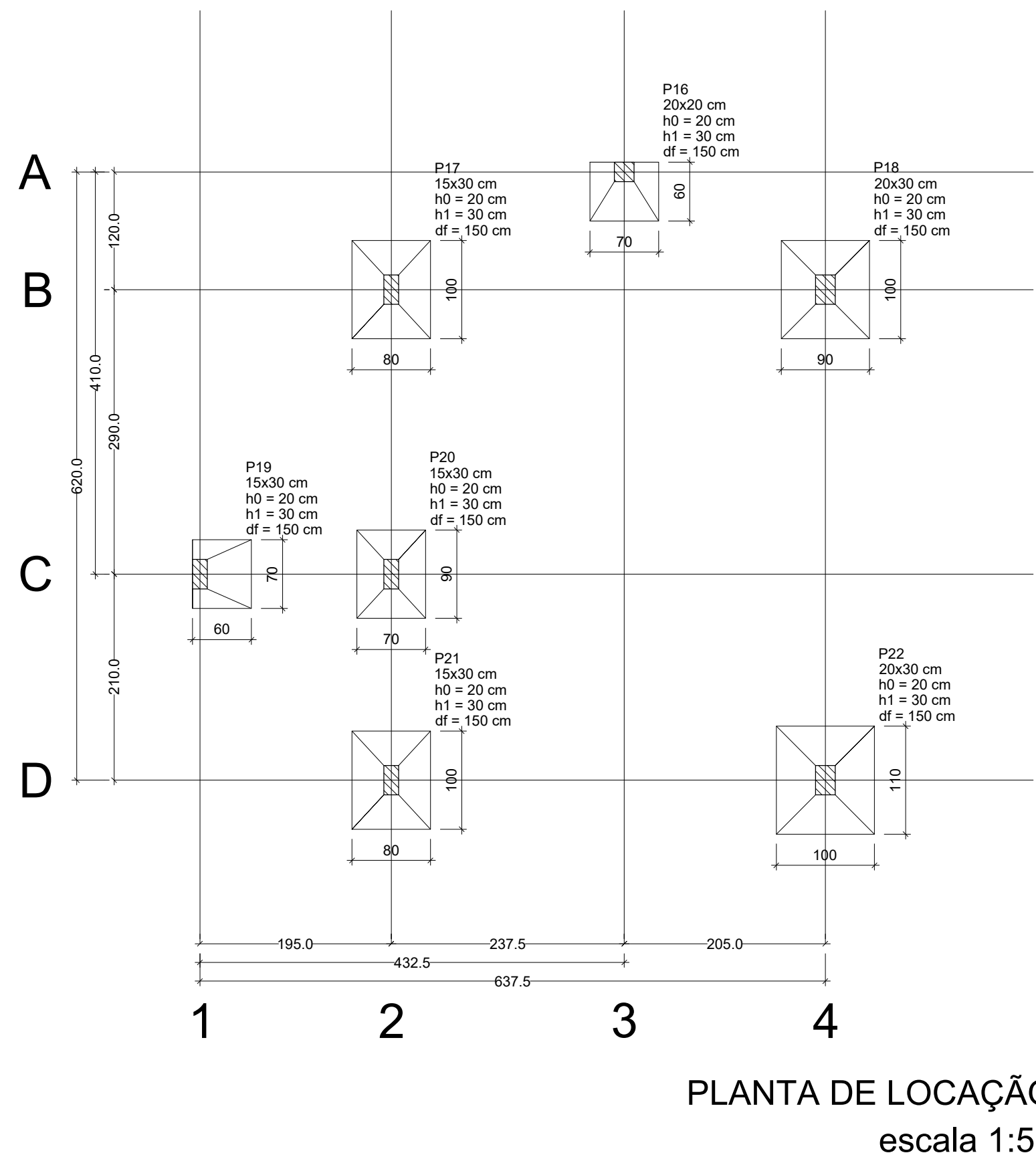
Dimensão máxima do agregado = 19 mm

Blocos de enchimento						
Detalhe	Tipo	Nome	Dimensões(cm)			Quantidade
			hb	bx	by	
1	EPS Unidirecional	B8'30'125	8	30	125	36

PLANTAS E CORTES DO RAIO-X



PLANTAS E CORTES DO PRONTO SOCORRO

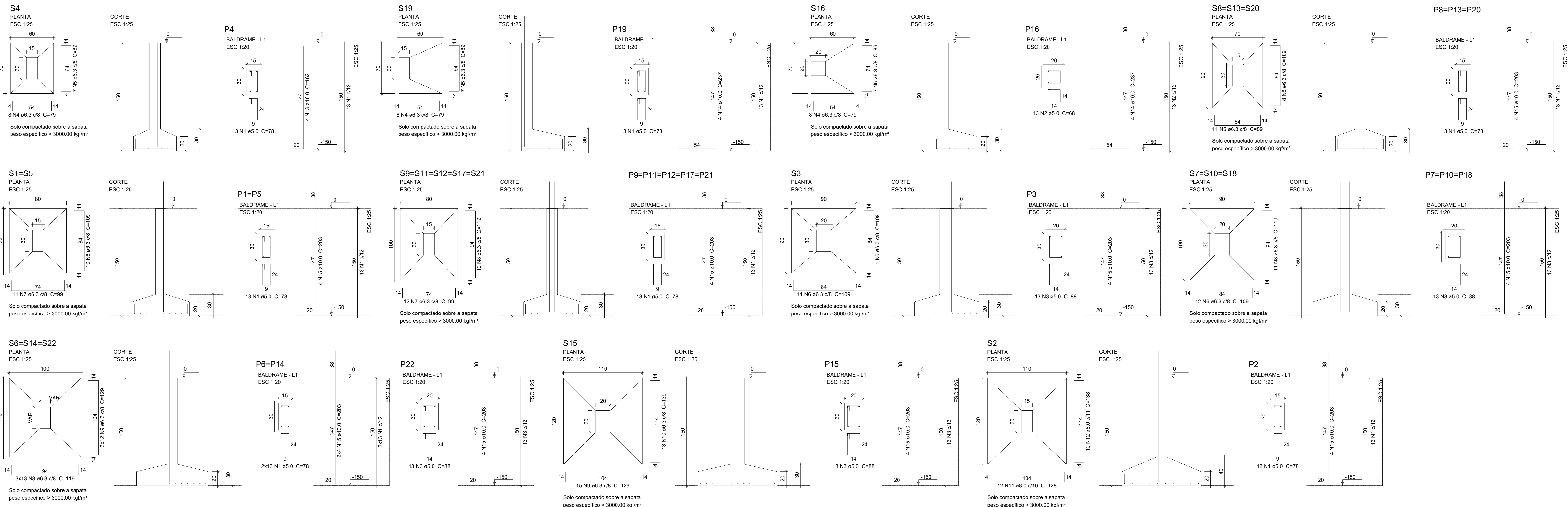


NOTAS

- Medidas e dimensões em centímetros;
- Fck do concreto = 250 kgf / cm²;
- Traço do concreto para 1 saco de cimento: 1 : 2,5 : 2,5 : 27,5 (cimento-sc : areia-pd : brita 1-pd : água-l);
- Altura de padiolas (45x35 cm) por dentro: areia h = 28,7 cm, brita 1 = 28,1 cm;
- Sentido obrigatório das treliças das lajes conforme mostra o projeto não podendo ser alterado;
- Autorizado a desforma dos pilares e vigas com 15 dias;
- Autorizado a desforma das lajes com 21 dias;
- O ponto "0,0" da planta de locação deverá ser conferido com a arquitetura;
- Projeto elaborado de acordo com as Normas Técnicas Brasileira - NBR 6118;
- Modificações deverão ser comunicadas ao Engenheiro.

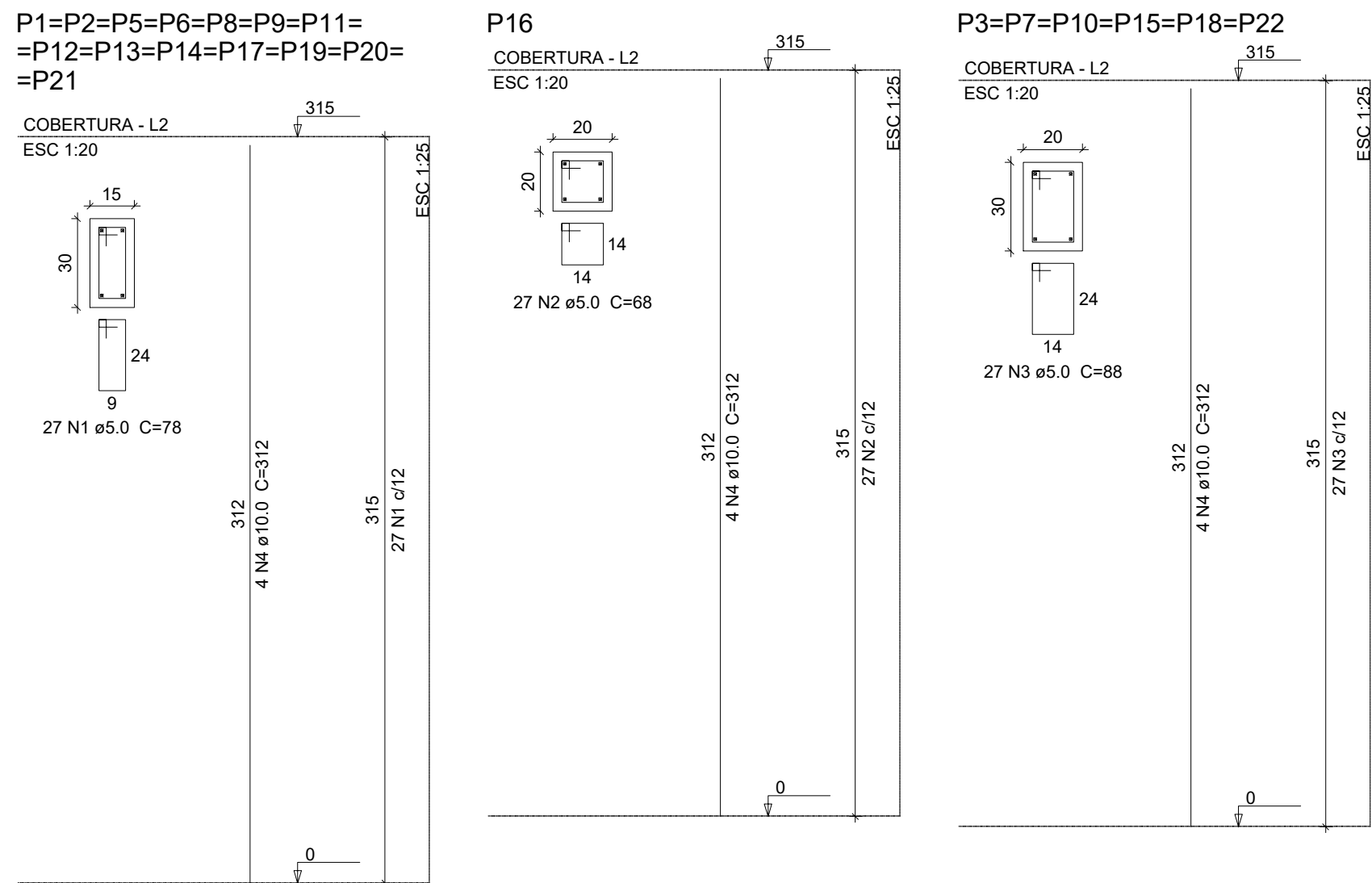
LEGENDA

- P = Pilar
- S = Sapata
- L = Laje
- VB = Viga Baldrame
- VC = Viga de Cobertura



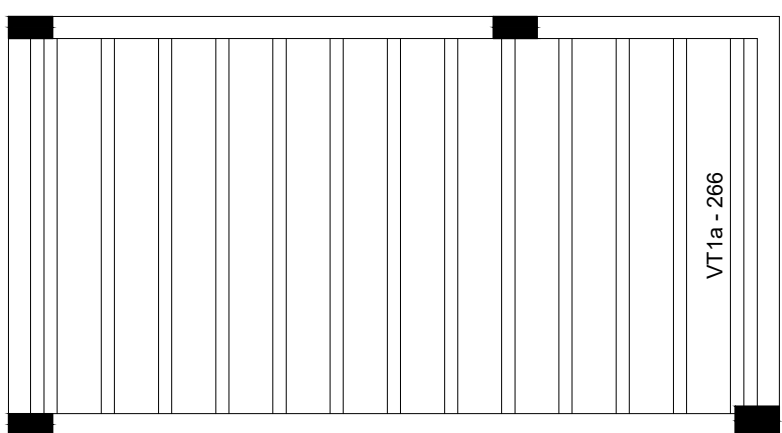
Relação do aço				
2xS1	S2	S3		
S4	3xS10	5xS11		
3xS13	S14	S15		
S16	S19			
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)
CA50	1	5.0	195	78
	2	5.0	13	68
	3	5.0	78	88
CA50	4	6.3	24	79
	5	6.3	54	89
	6	6.3	102	109
	7	6.3	82	99
	8	6.3	122	119
	9	6.3	51	129
	10	6.3	13	139
	11	8.0	12	128
	12	8.0	10	138
	13	10.0	4	162
	14	10.0	6	237
	15	10.0	76	293

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	488.5	131.5
	8.0	29.2	12.7
	10.0	179.8	121.9
CA60	5.0	229.6	36.9
PESO TOTAL (kg)			
CA50	266		
CA60	36.9		
Volume de concreto (C-25) = 6.06 m³			
Área de forma = 46.39 m²			



Relação do aço				
14xP1	6xP3	P16		
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)
CA60	1	5.0	378	78
	2	5.0	27	68
	3	5.0	162	88
CA50	4	10.0	84	312

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	262.1	177.7
CA60	5.0	458.8	77.3
PESO TOTAL (kg)			
CA50	177.7		
CA60	77.3		
Volume de concreto (C-25) = 3.24 m³			
Área de forma = 61.11 m²			



Planta de vigotas pré-moldadas da laje
escala 1:50



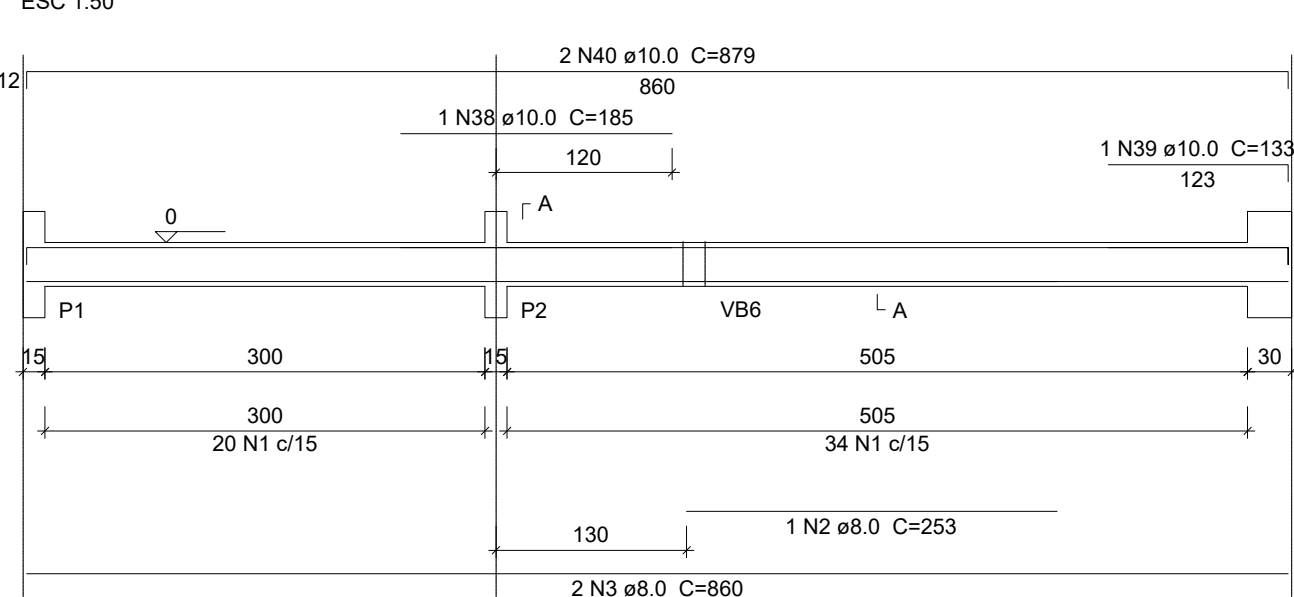
Governo do Estado do Tocantins
Secretaria de Estado da Saúde
Diretoria de Arquitetura e Engenharia
dos Estabelecimentos de Saúde

APPROVAÇÃO:	
APPROVAÇÃO:	

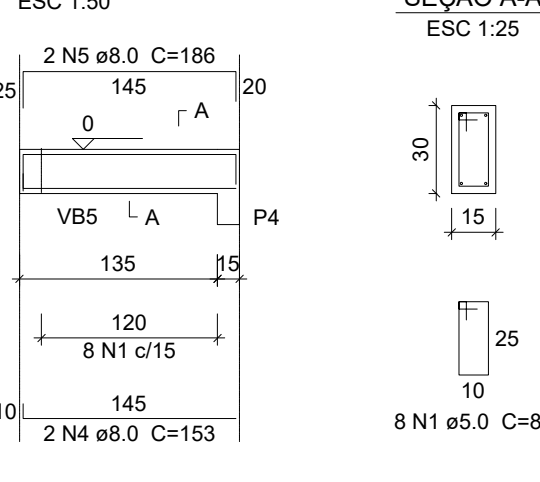
AUTORIA DO PROJETO:	
AUTORIA DO PROJETO:	

ÁREA TOTAL:	ÁREA HOSPITAL REGIONAL:	ÁREA HEMOCENTRO:	ÁREA CENTRO DE REABILITAÇÃO:	02/03
TORRENO:	NOME DO ARQUIVO:	DATA:	ORIENTADOR:	A0
	ECA-HRALV-AMPLIAÇÃO-ALV-PE-02	2017		

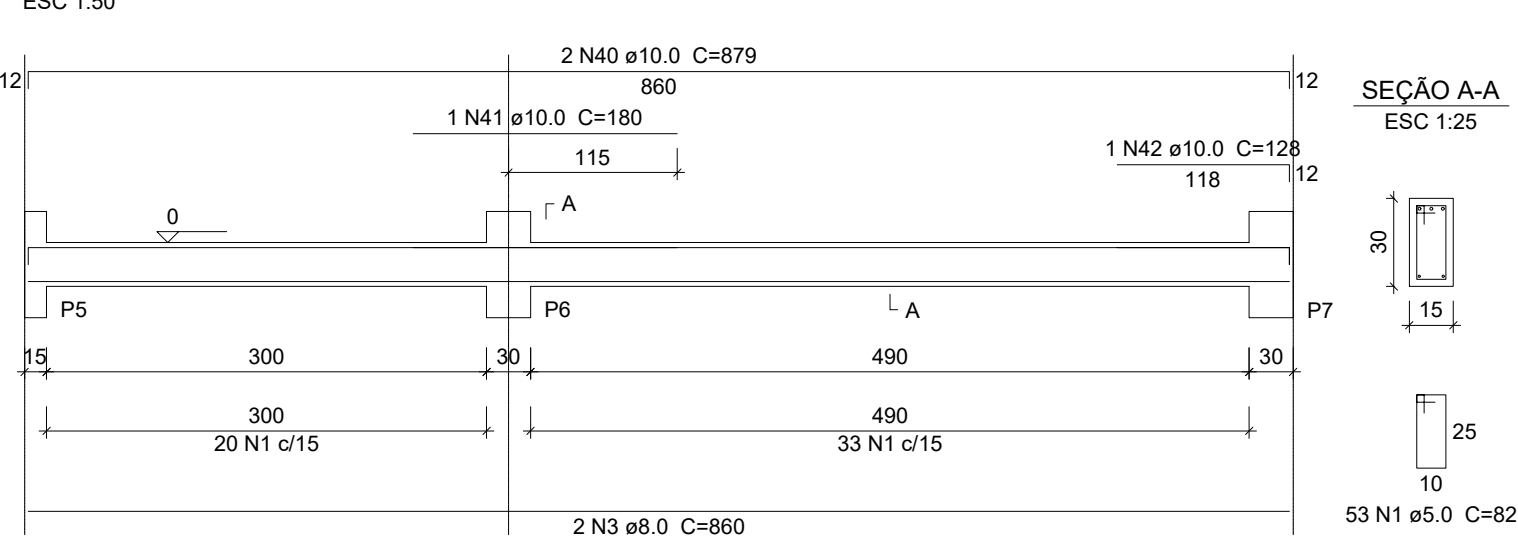
VB1 (15 x 30)



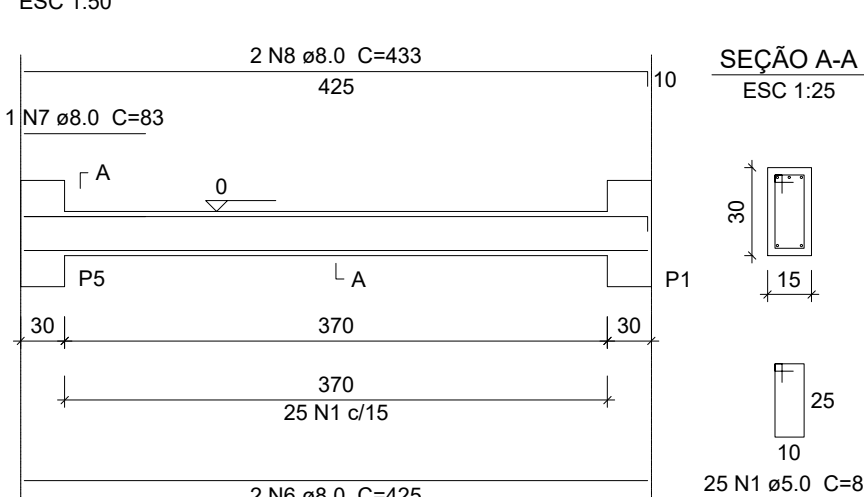
VB2 (15 x 30)



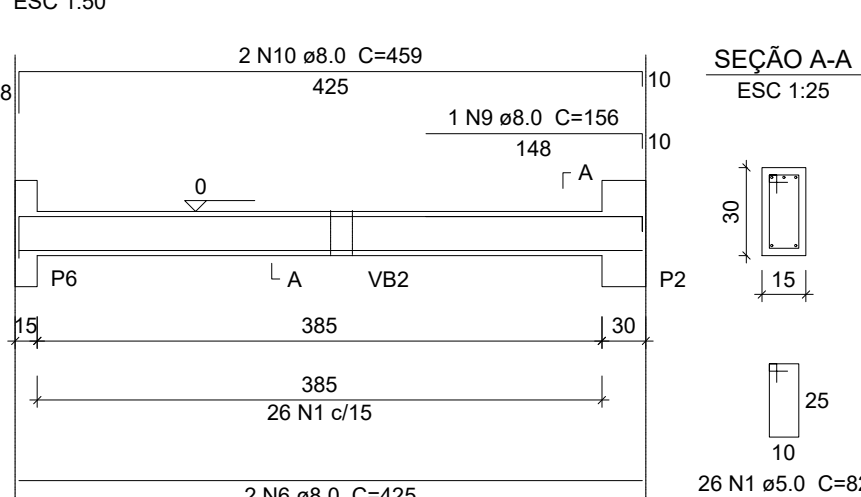
VB3 (15 x 30)



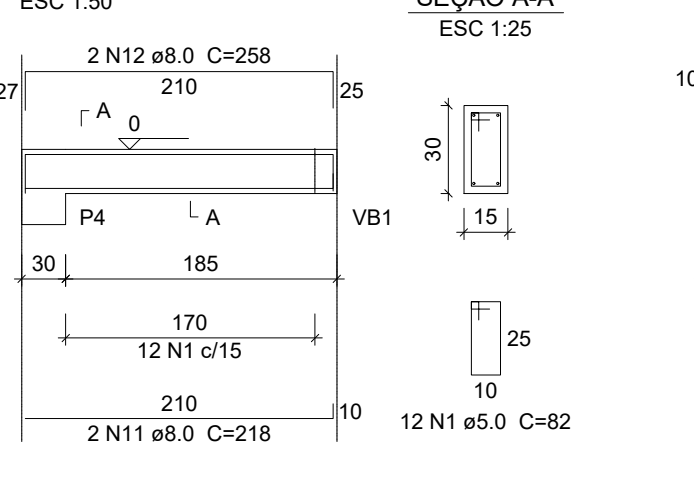
VB4 (15 x 30)



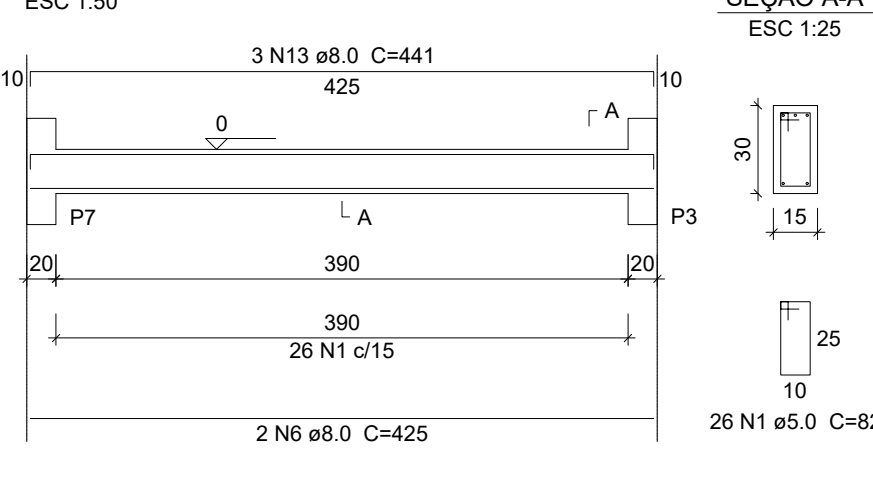
VB5 (15 x 30)



VB6 (15 x 30)



VB7 (15 x 30)



Relação do aço

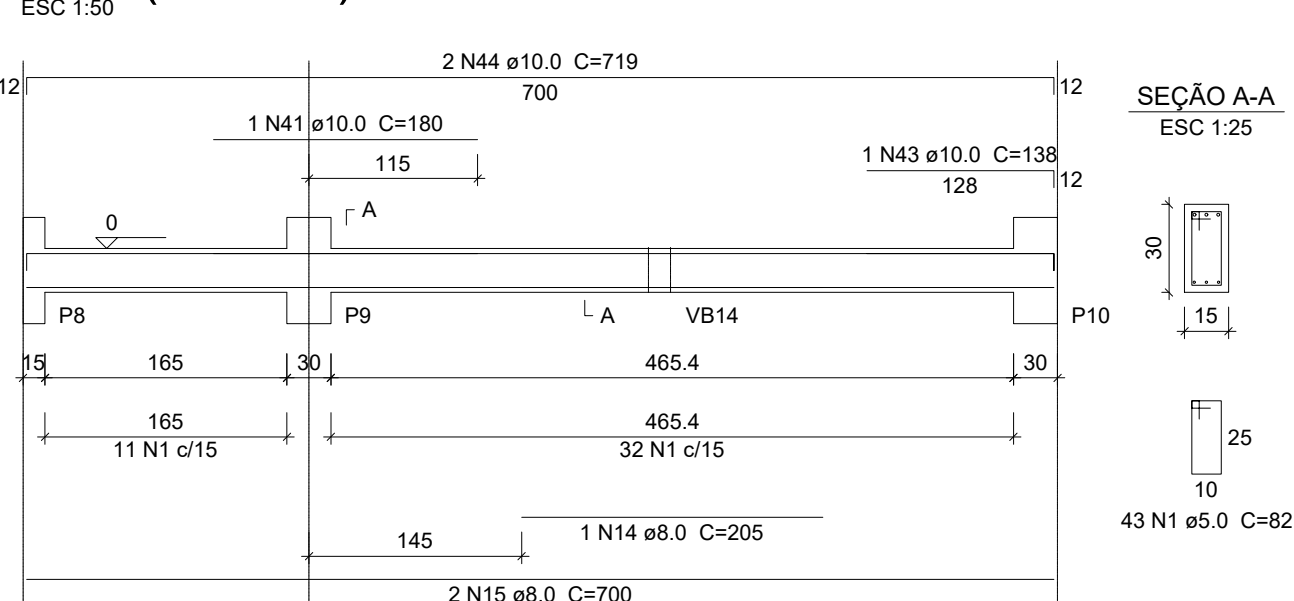
ACO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	697	82	49774
CA60	2	8.0	1	233	233
	3	8.0	4	860	3440
	4	8.0	2	153	306
	5	8.0	2	186	372
	6	8.0	6	425	2550
	7	8.0	1	83	83
	8	8.0	2	433	866
	9	8.0	1	156	156
	10	8.0	2	439	878
	11	8.0	2	218	436
	12	8.0	2	235	470
	13	8.0	3	441	1323
	14	8.0	3	205	615
	15	8.0	4	700	2800
	16	8.0	2	538	1076
	17	8.0	2	190	380
	18	8.0	2	221	442
	19	8.0	1	260	260
	20	8.0	6	446	2676
	21	8.0	2	482	964
	22	8.0	2	183	366
	23	8.0	2	216	432
	24	8.0	2	289	578
	25	8.0	2	325	650
	26	8.0	3	480	1440
	27	8.0	2	258	516
	28	8.0	2	281	562
	29	8.0	4	455	1820
	30	8.0	2	505	1010
	31	8.0	1	89	89
	32	8.0	1	141	141
	33	8.0	2	482	964
	34	8.0	2	658	1316
	35	8.0	2	663	1326
	36	8.0	2	143	286
	37	8.0	2	525	1050
	38	10.0	1	185	185
	39	10.0	1	133	133
	40	10.0	4	879	3516
	41	10.0	3	180	540
	42	10.0	2	128	256
	43	10.0	1	138	138
	44	10.0	4	719	2876
	45	10.0	2	543	1086
	46	10.0	1	153	153
	47	10.0	2	465	930
	48	10.0	2	224	448
	49	10.0	2	157	314
	50	10.0	1	118	118
	51	10.0	2	535	1070

Resumo do aço

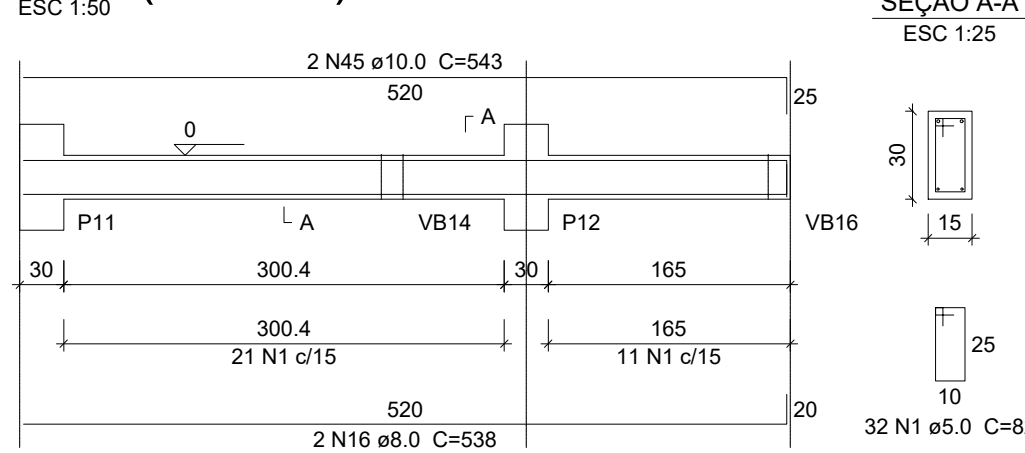
ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA60	8.0	530	143.2
CA60	10.0	117.7	79.3
CA60	5.0	497.8	84.4
PESO TOTAL			
	(kg)		
CA50	223		
CA60	84.4		

Volume de concreto (C-25) = 4.51 m³
Área de forma = 75.18 m²

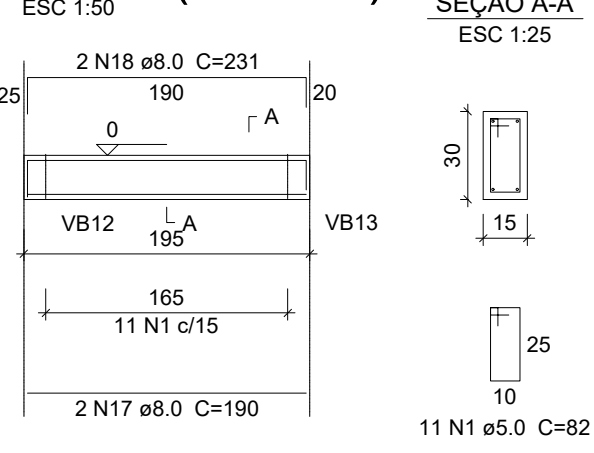
VB8 (15 x 30)



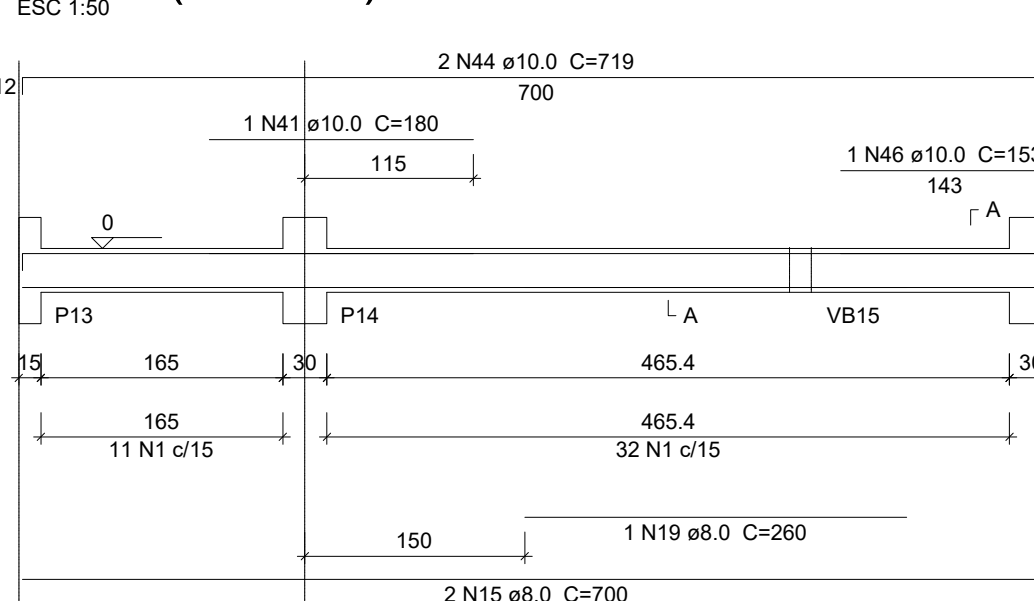
VB9 (15 x 30)



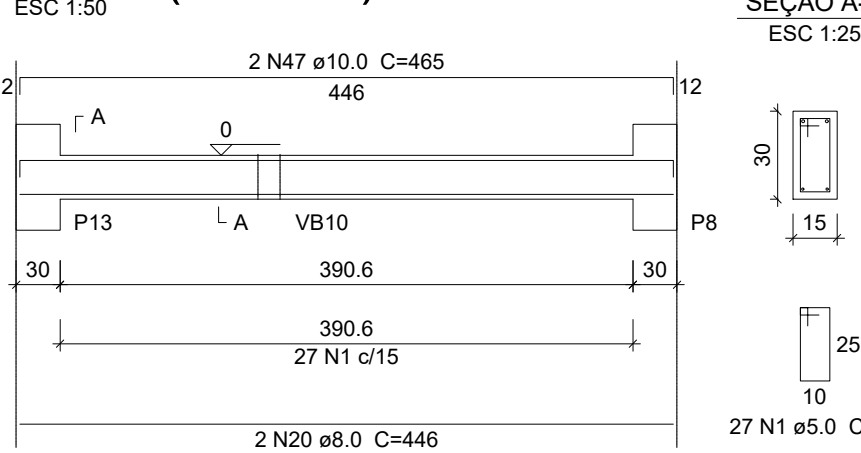
VB10 (15 x 30)



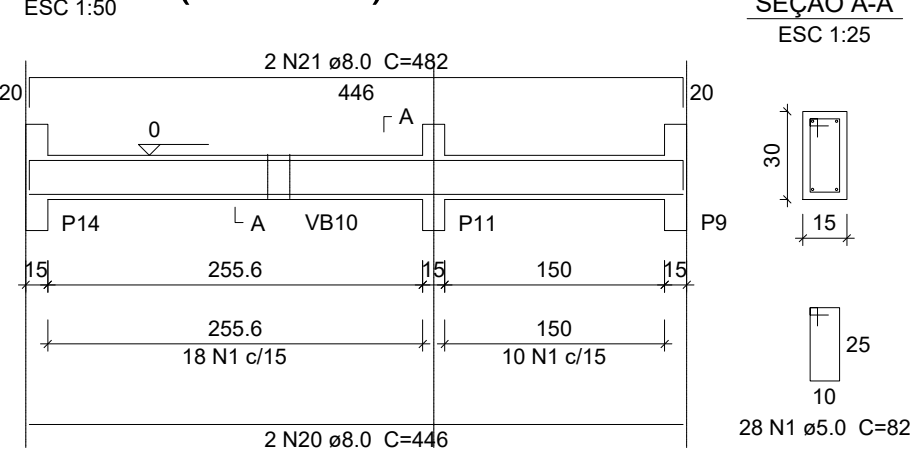
VB11 (15 x 30)



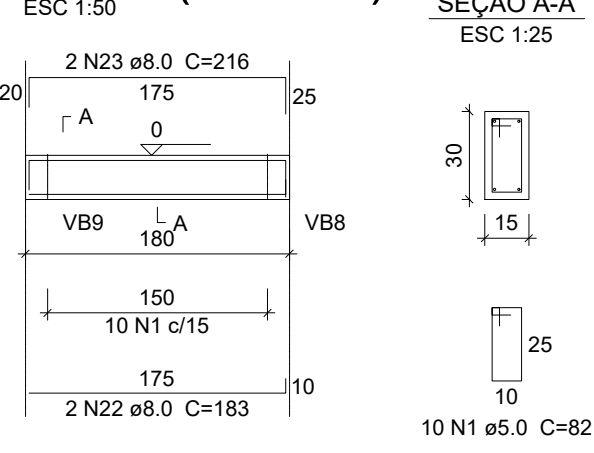
VB12 (15 x 30)



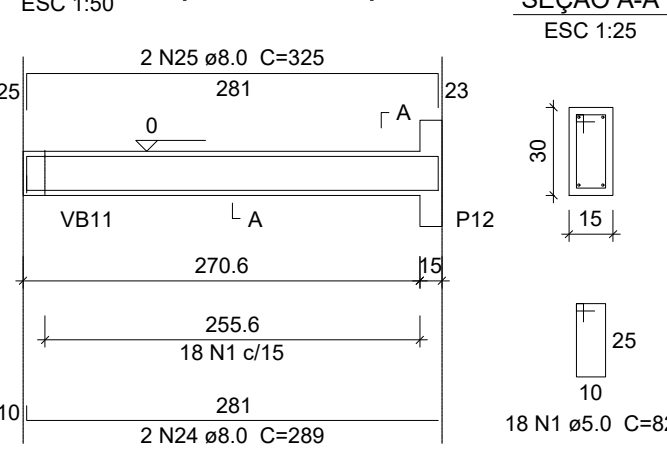
VB13 (15 x 30)



VB14 (15 x 30)



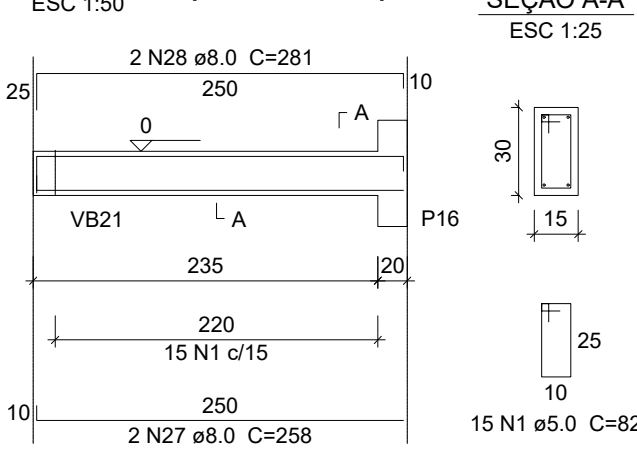
VB15 (15 x 30)



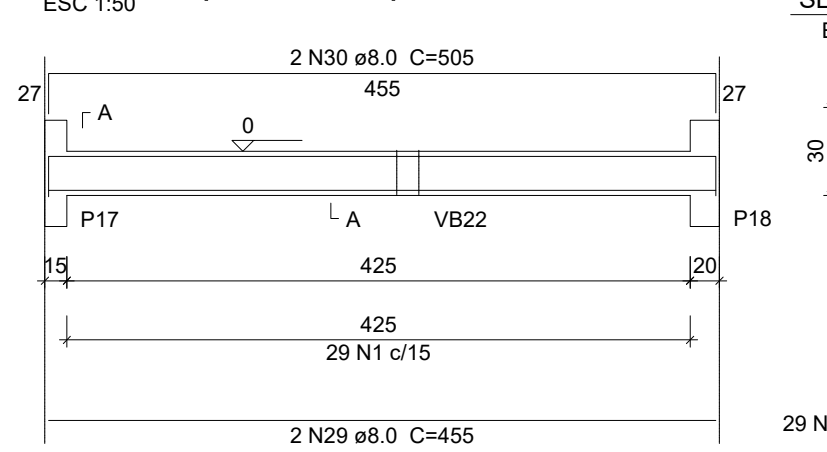
VB16 (15 x 30)



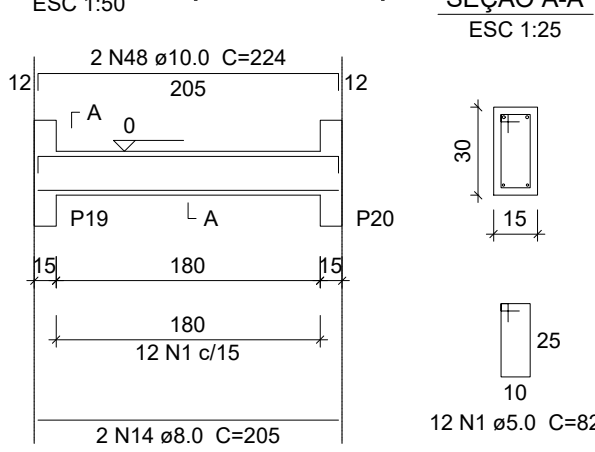
VB17 (15 x 30)



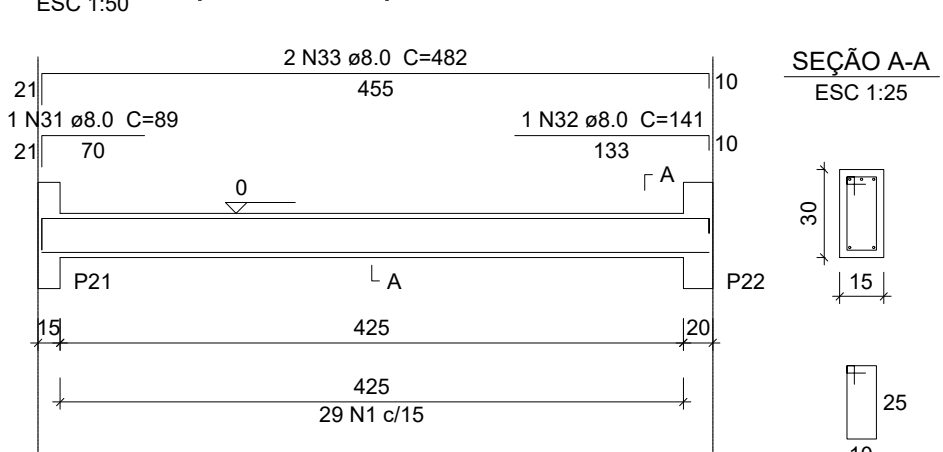
VB18 (15 x 30)



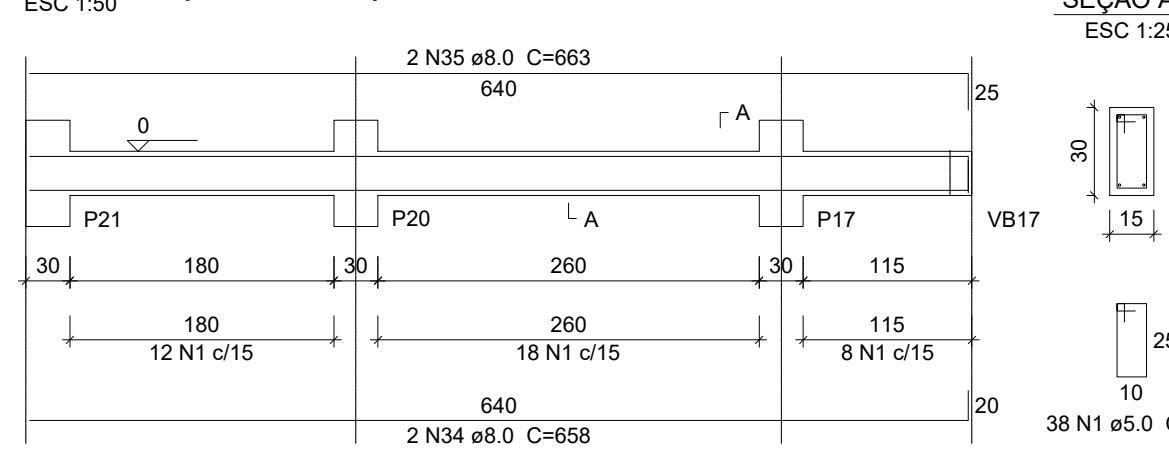
VB19 (15 x 30)



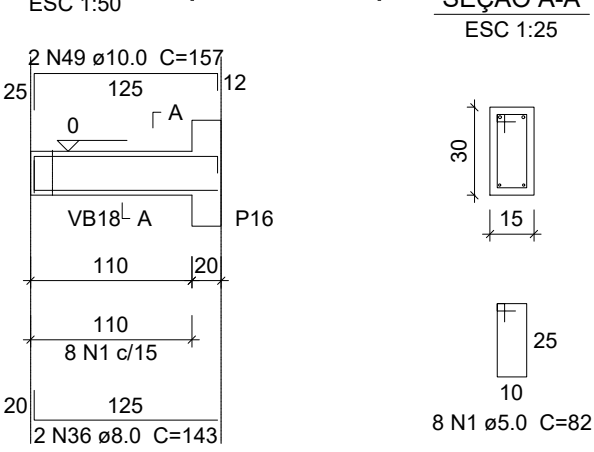
VB20 (15 x 30)



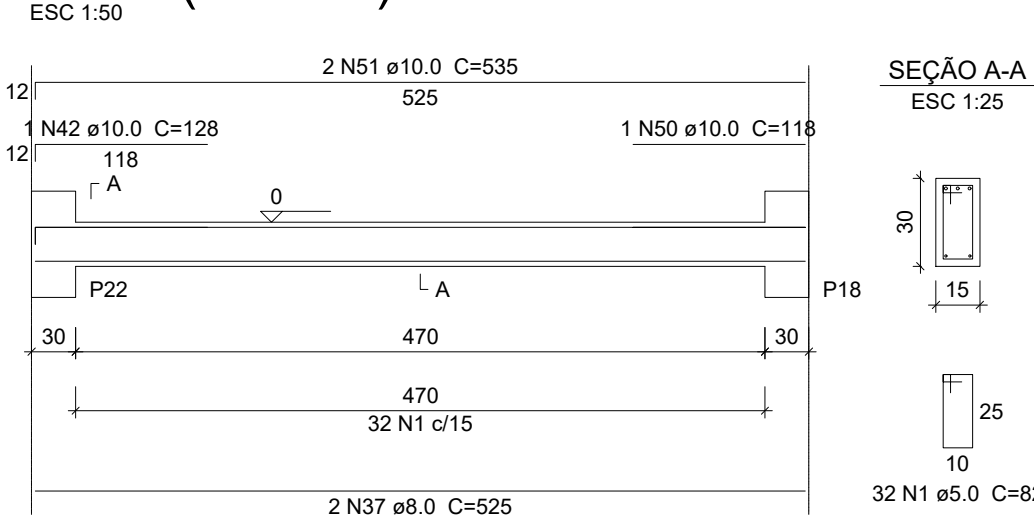
VB21 (15 x 30)



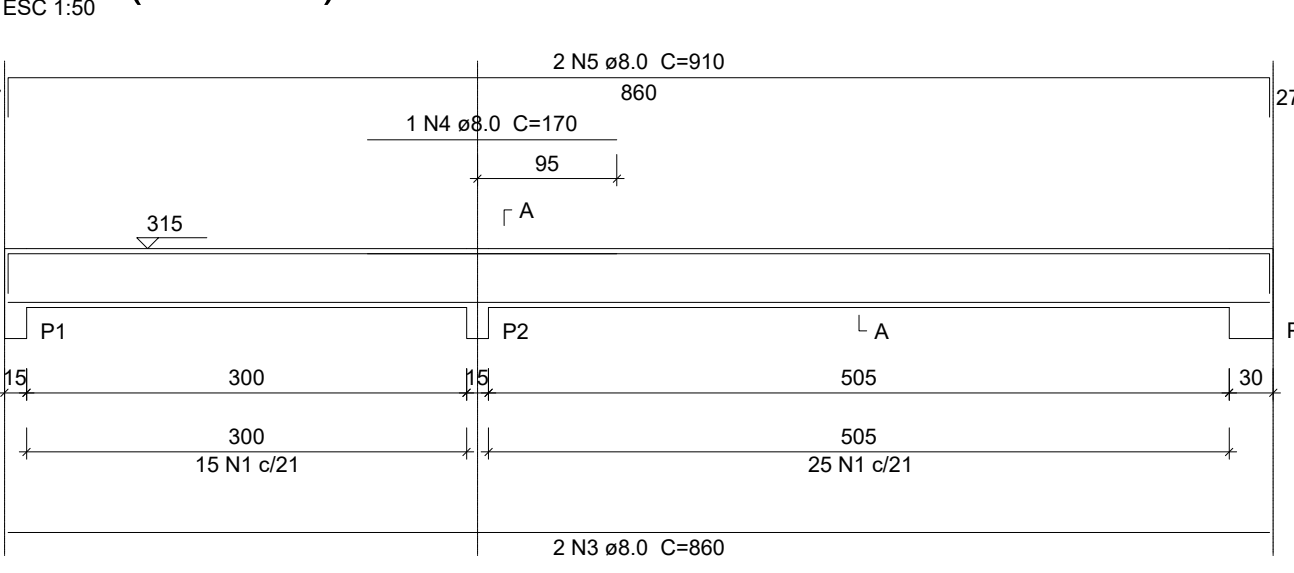
VB22 (15 x 30)



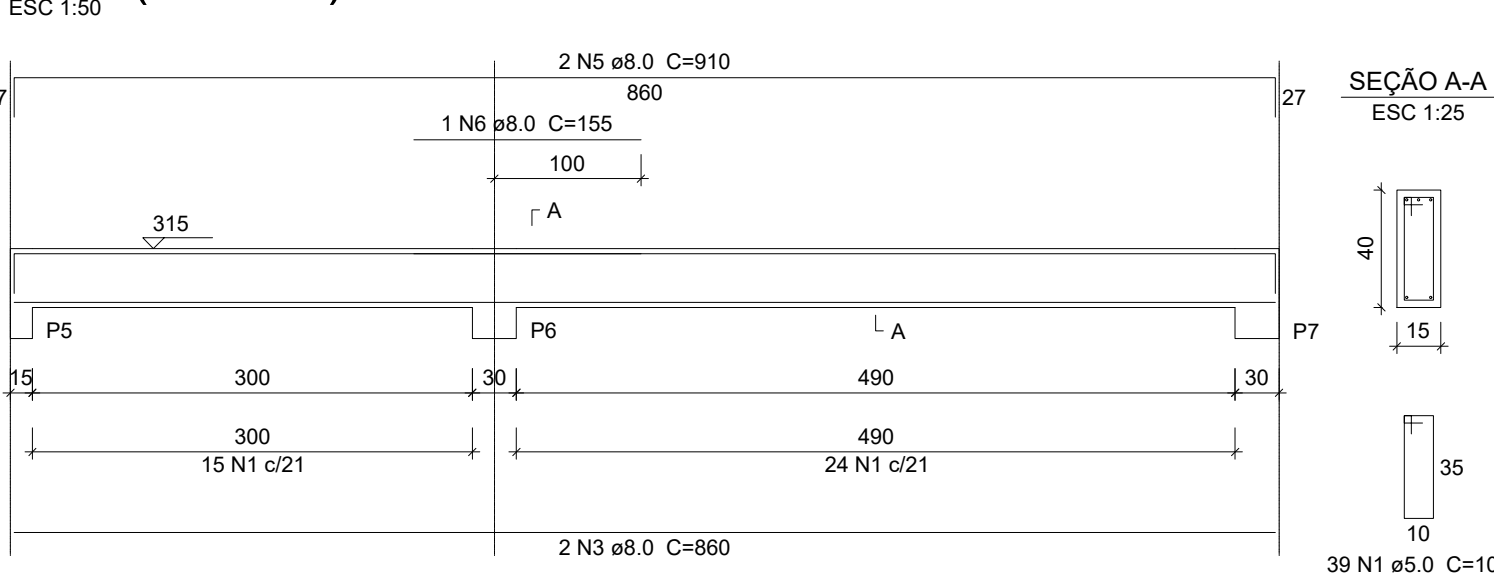
VB23 (15 x 30)



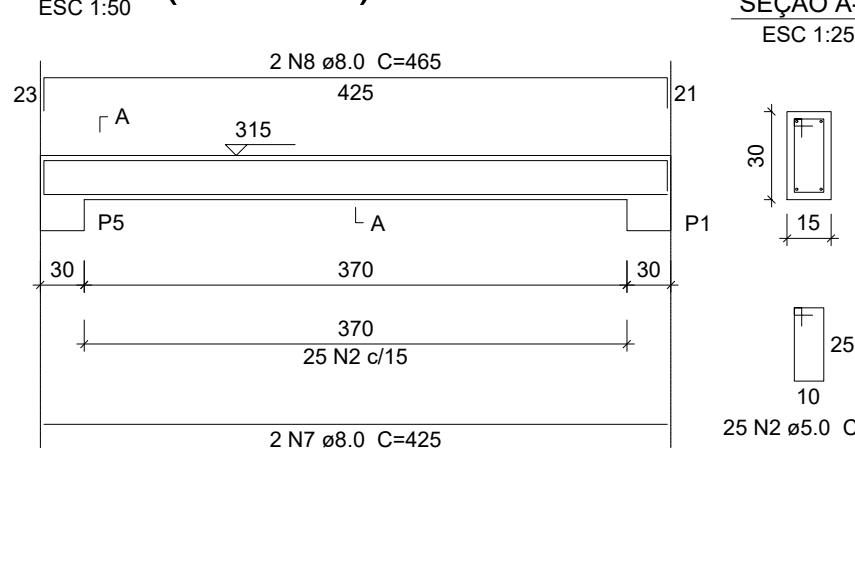
VC1 (15 x 40)



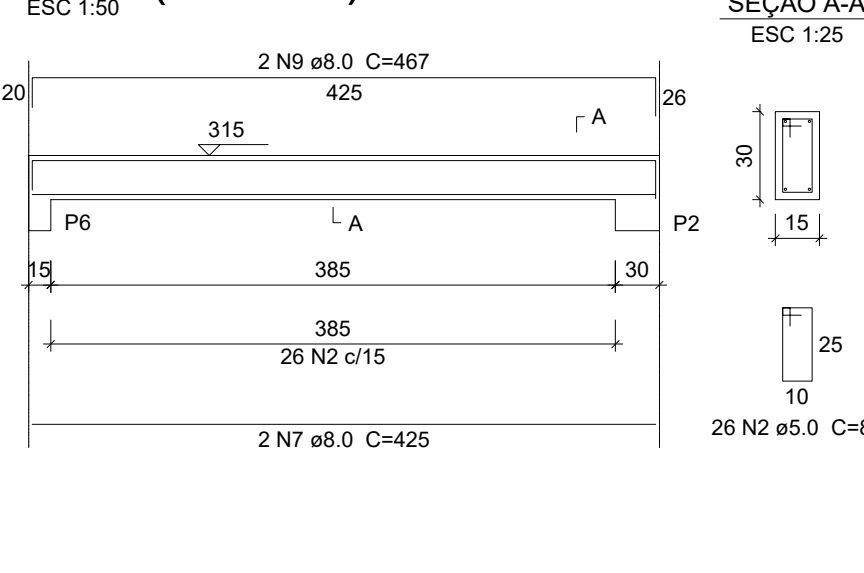
VC2 (15 x 40)



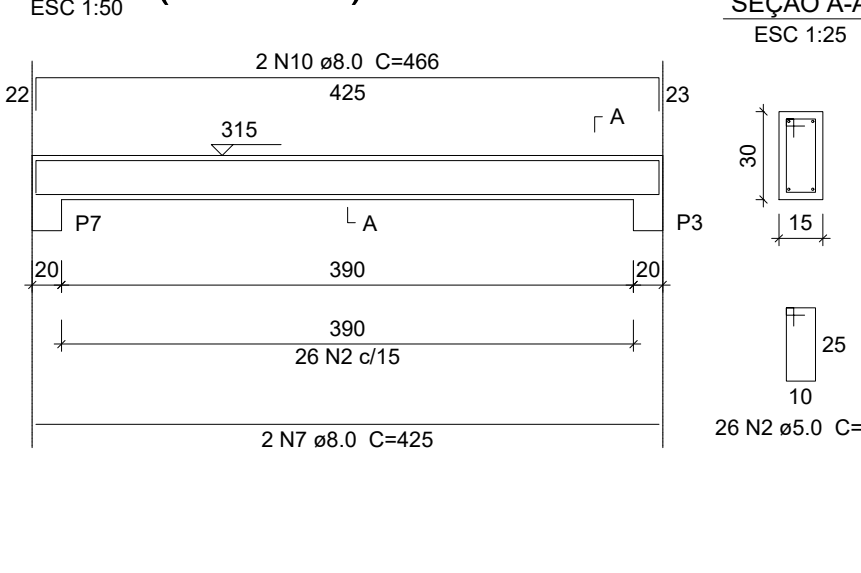
VC3 (15 x 30)



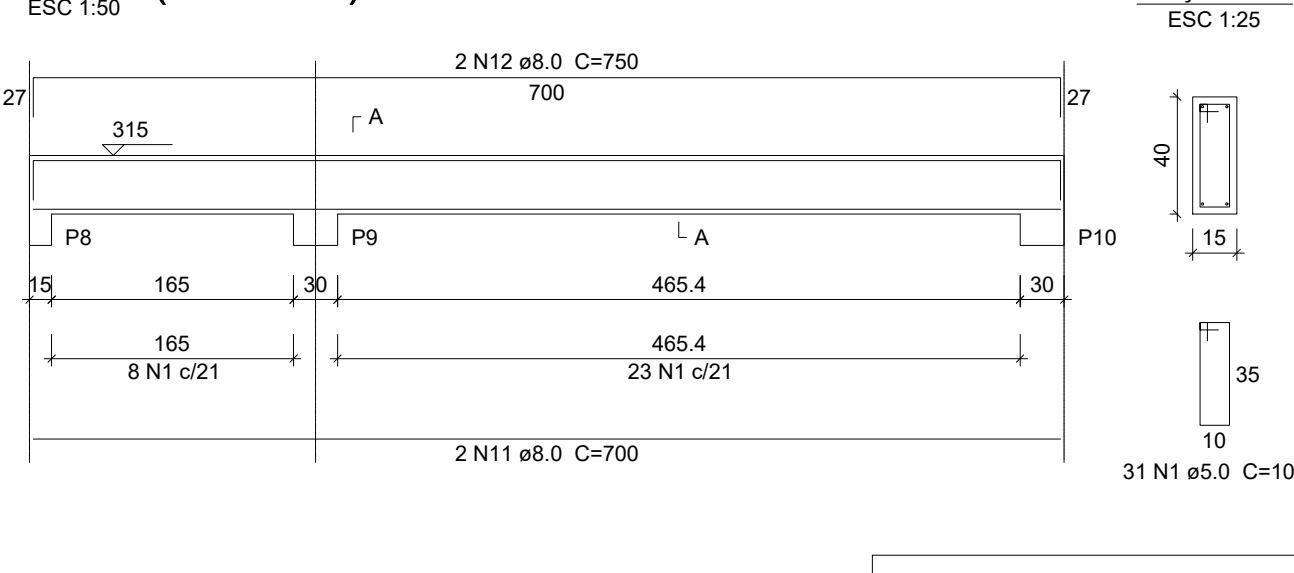
VC4 (15 x 30)



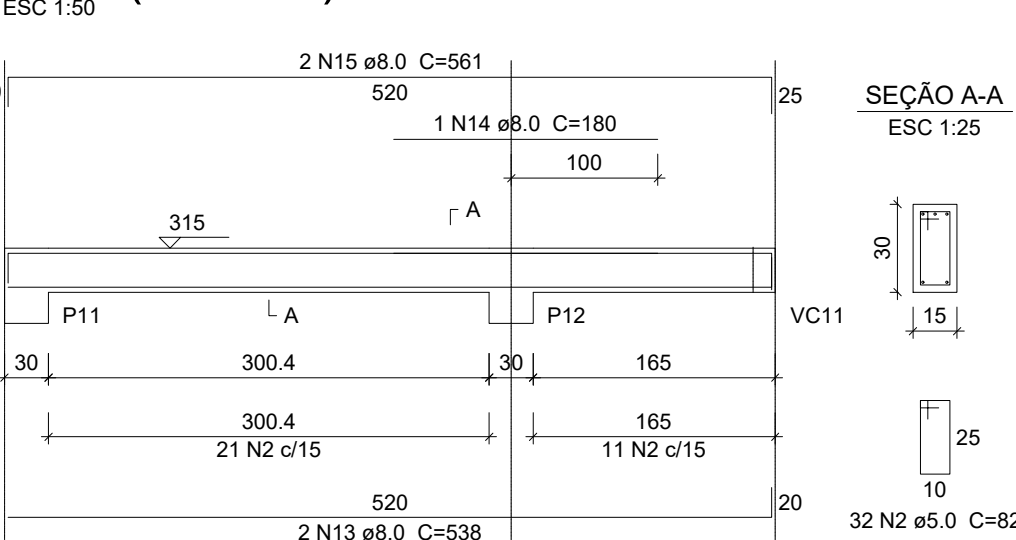
VC5 (15 x 30)



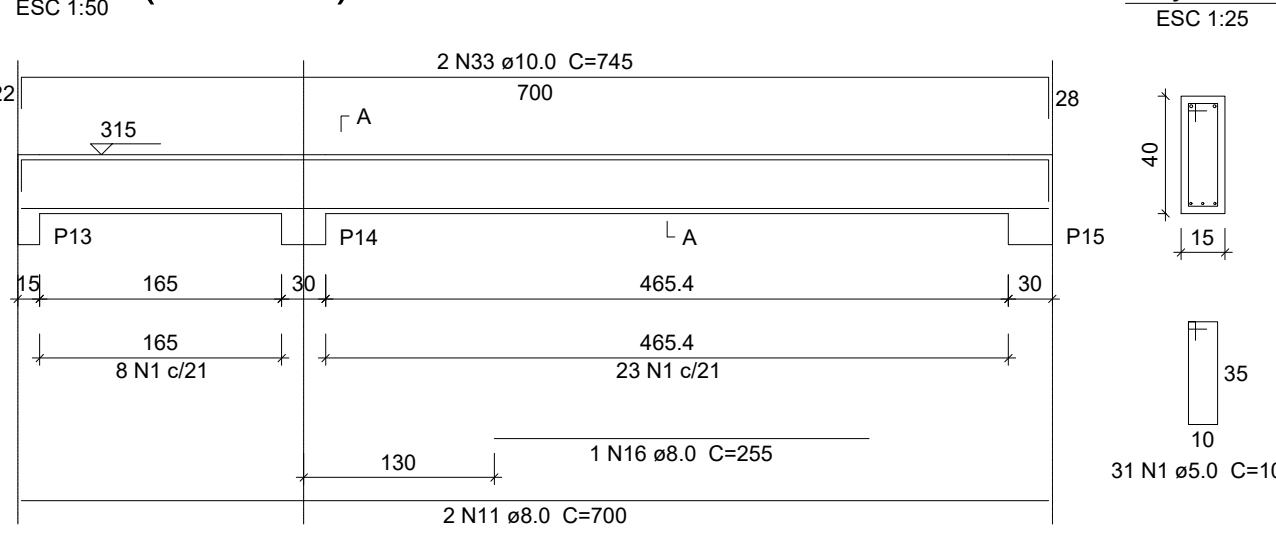
VC6 (15 x 40)



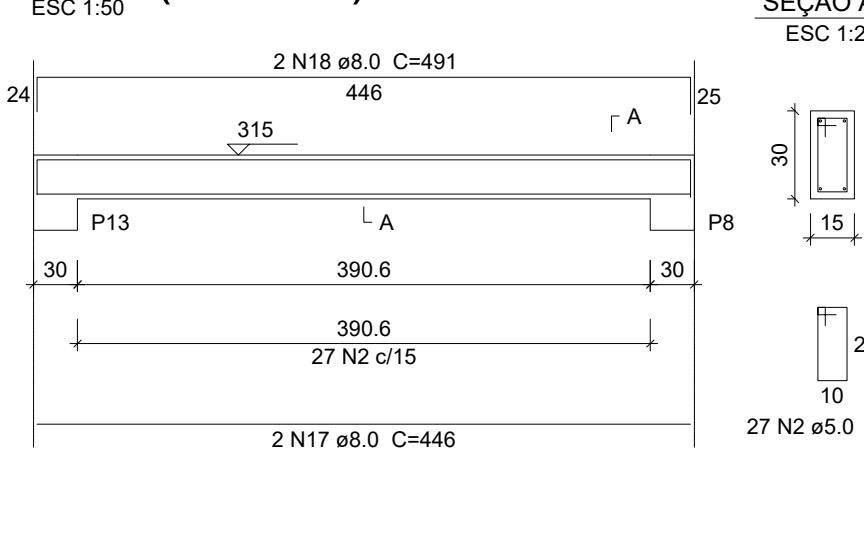
VC7 (15 x 30)



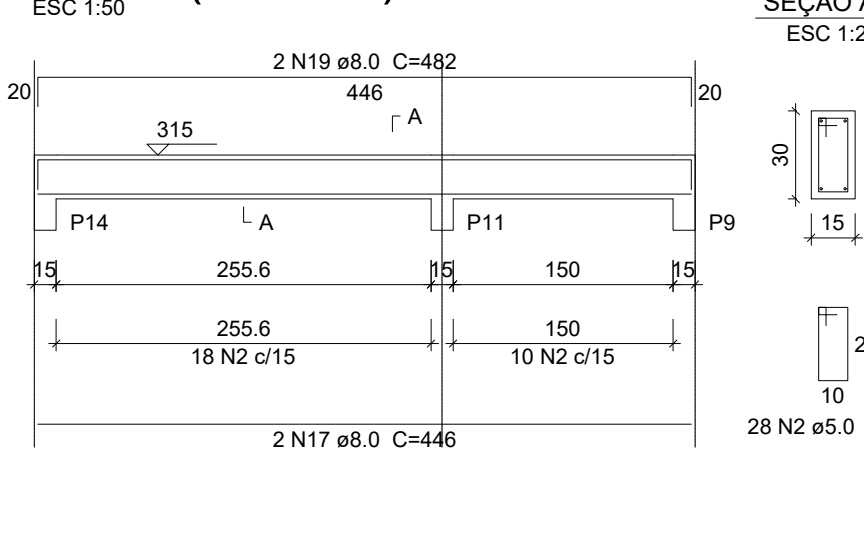
VC8 (15 x 40)



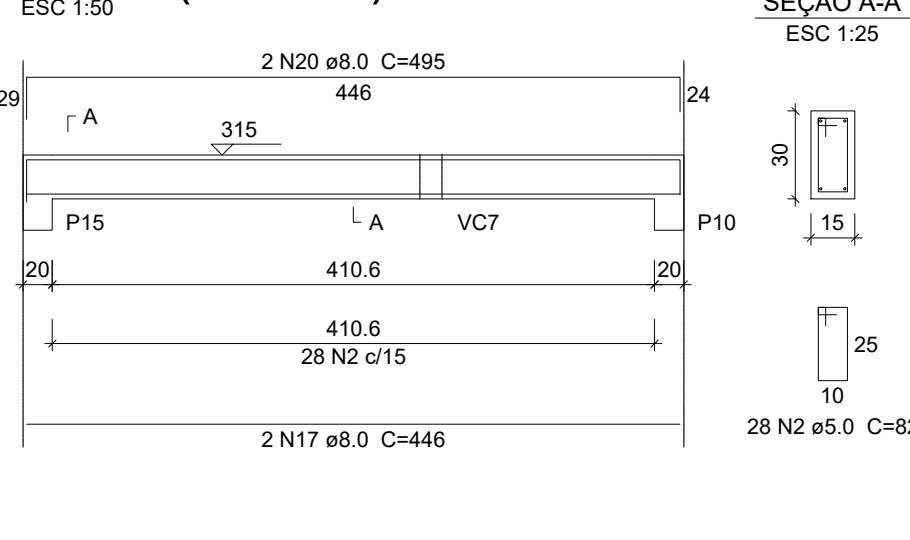
VC9 (15 x 30)



VC10 (15 x 30)



VC11 (15 x 30)



Relação do aço

ACO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	199	102	20298
CA60	2	5.0	274	82	22468
	3	8.0	4	860	3440
	4	8.0	1	170	170
	5	8.0	4	910	3640
	6	8.0	1	135	135
	7	8.0	6	425	2550
	8	8.0	2	465	930
	9	8.0	2	467	934
	10	8.0	2	466	932
	11	8.0	4	700	2800
	12	8.0	2	750	1500
	13	8.0	2	538	1076
	14	8.0	1	180	180
	15	8.0	2	561	1122
	16	8.0	1	255	255
	17	8.0	6	446	2676
	18	8.0	2	491	982
	19	8.0	2	482	964
	20	8.0	2	495	990
	21	8.0	2	455	910
	22	8.0	2	505	1010
	23	8.0	2	205	410
	24	8.0	2	241	482
	25	8.0	2	650	1300
	26	8.0	1	160	160
	27	8.0	2	708	1416
	28	8.0	2	640	1280
	29	8.0	2	681	1362
	30	8.0	2	130	260
	31	8.0	2	183	366
	32	8.0	2	525	1050
	33	10.0	2	745	1490
	34	10.0	2	579	1158

Resumo do aço

ACO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	353.5	153.4
	10.0	26.5	18
CA60	5.0	427.7	72.5
PESO TOTAL			
	(kg)		
CA50	171.4		
CA60	72.5		

Volume de concreto (C-25) = 4.88 m³
Área de forma = 75.81 m²



Governo do Estado do Tocantins
Secretaria de Estado da Saúde

Diretoria de Arquitetura e Engenharia
dos Estabelecimentos de Saúde

OPERAÇÃO DO HOSPITAL REGIONAL DE PEQUENO PORTE DE ALVORADA

ENDEREÇO: AVENIDA JK, nº715 - CENTRO

PROPOSTA: DETALHAMENTO DAS VIGAS BALDRAME E DE COBERTURA

AUTORIZAÇÃO DO PROJETO:

PAULO CHIANCA SILVA

ARQUITETO DE PROJETOS DE OBRAS CIVIS E ARQUITETONICAS

DATA: 10/08/2017

ASSINATURA: [Assinatura]

SECRETARIA:

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