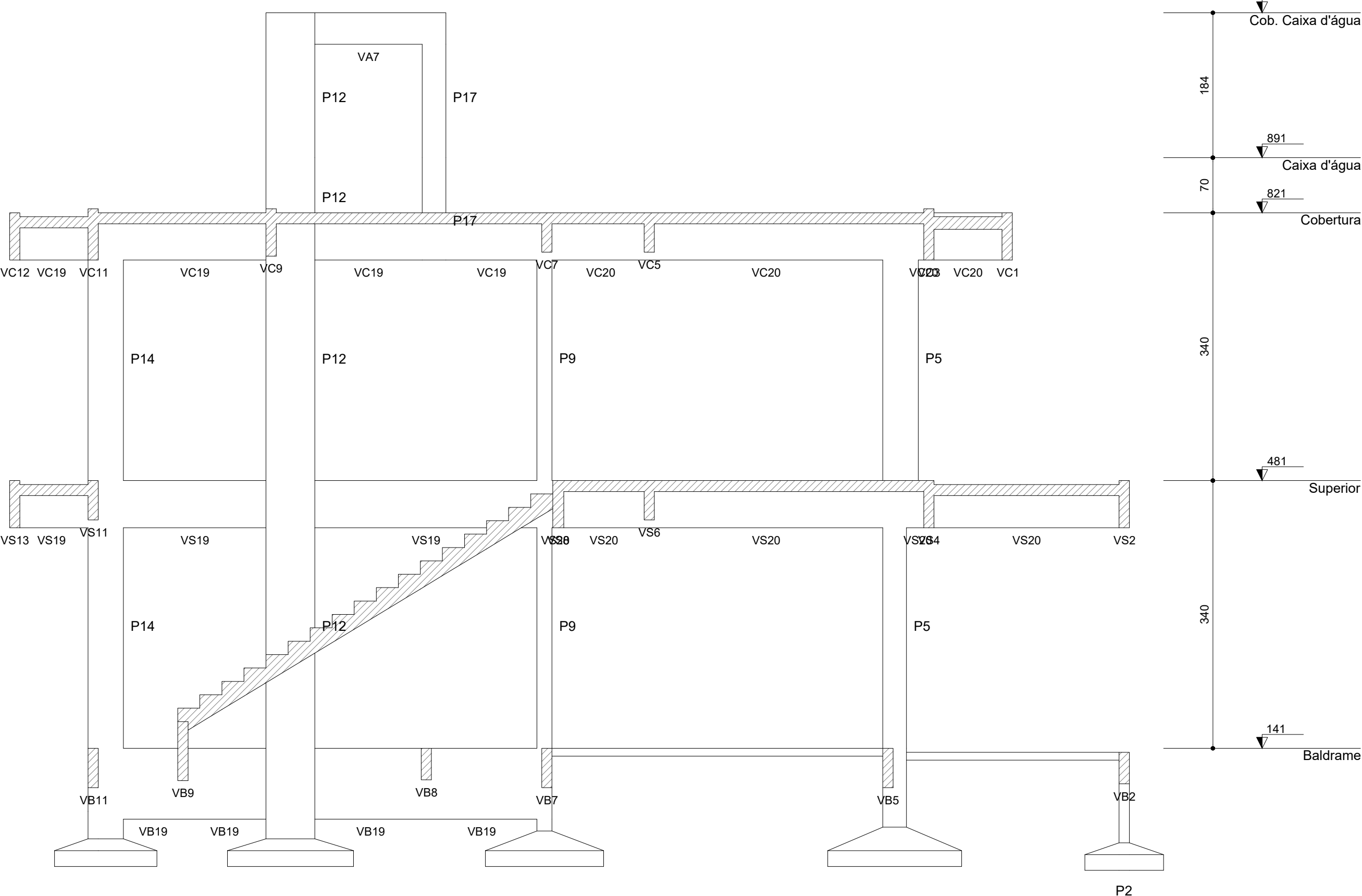


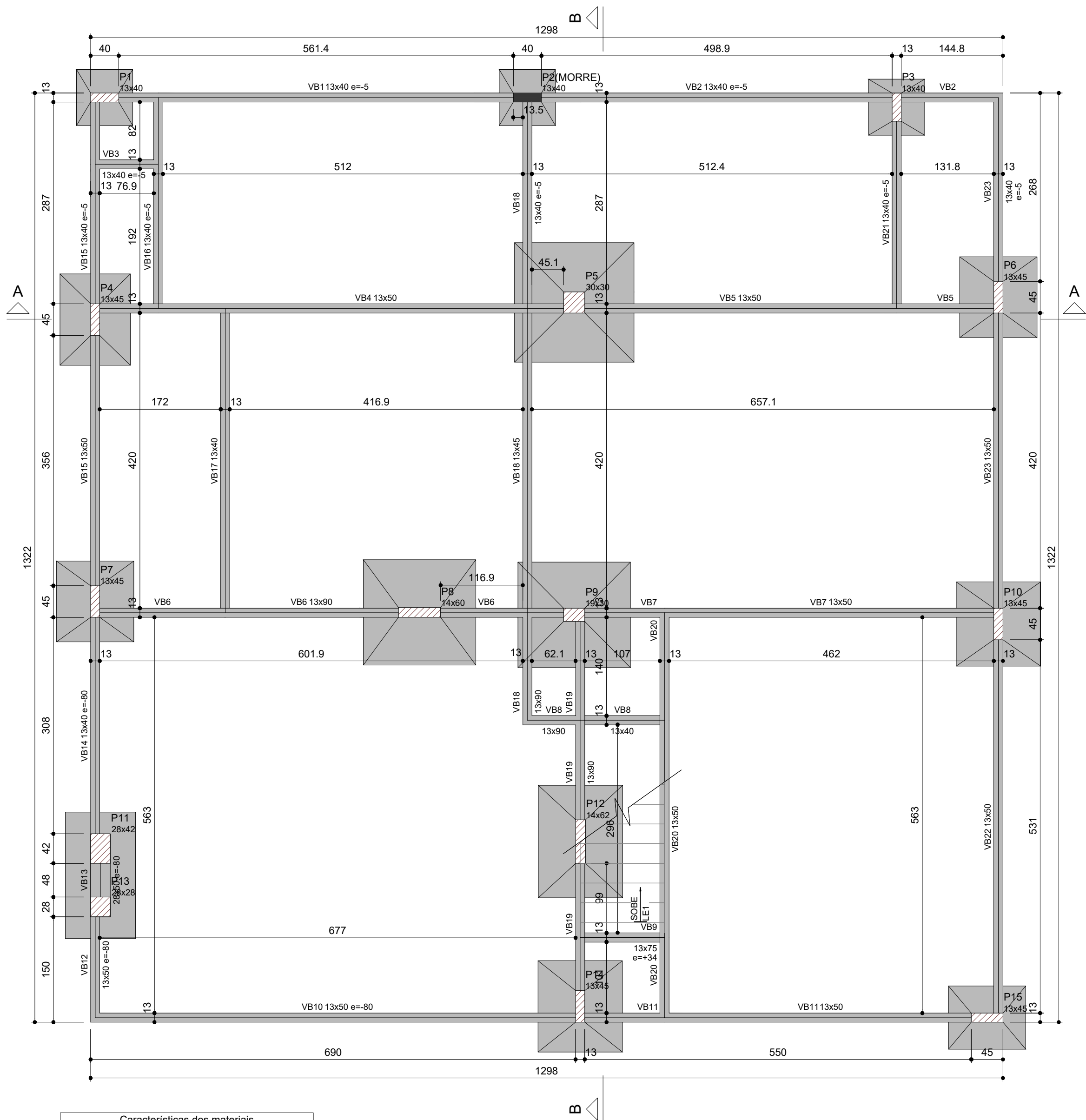


Os esforços indicados nesta tabela são os valores máximos obtidos pela envoltória de todas as combinações definidas para as fundações. Para análises complementares, deve-se consultar o relatório de esforços na fundação, que apresenta os valores calculados para cada combinação.



Corte B-B
escala 1:50





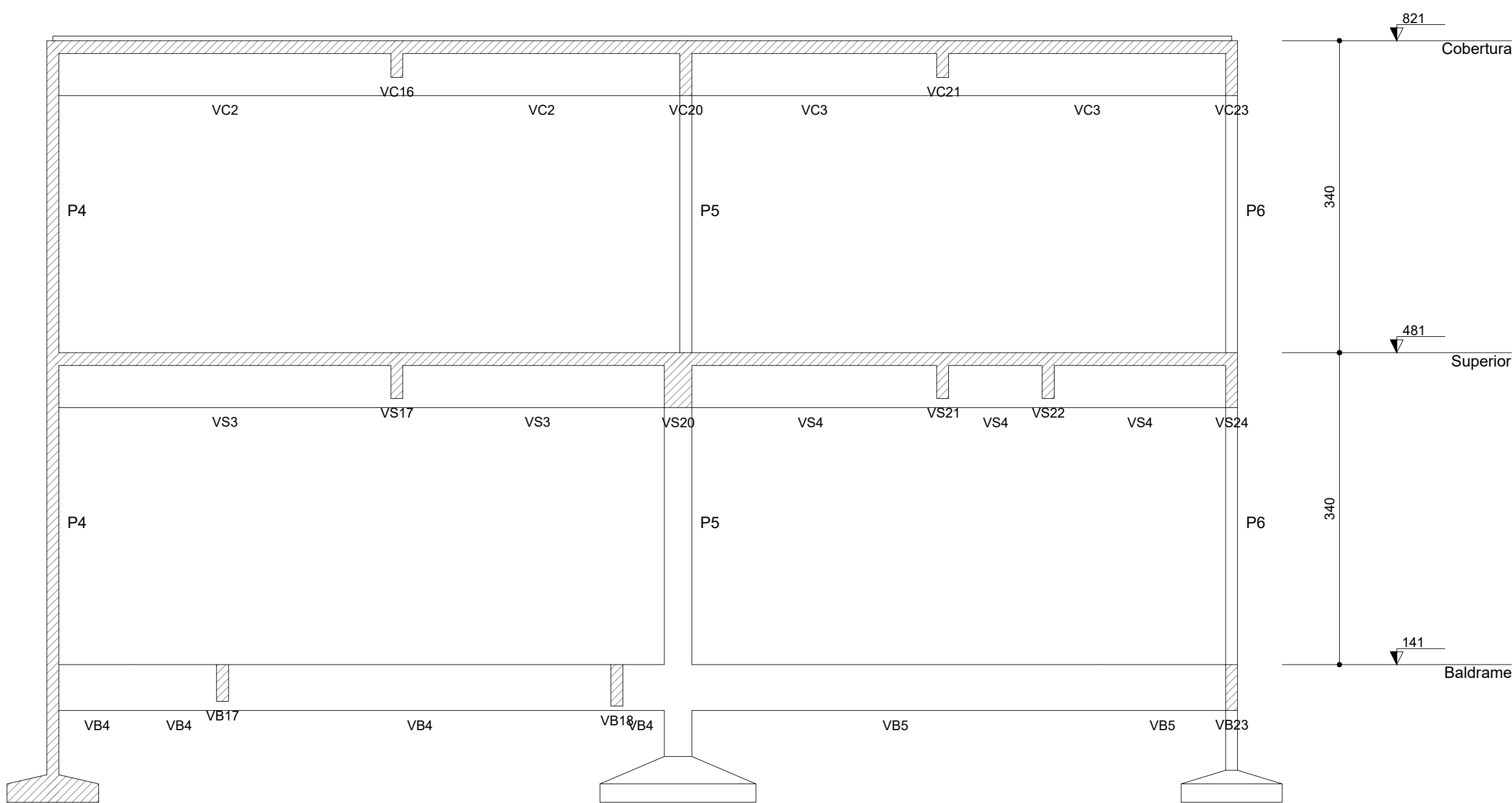
Características dos materiais		
fck (kgf/cm²)	Ecs (kgf/cm²)	Abatimento (cm)
300	268384	10.00

Dimensão máxima do agregado = 19 mm

Legenda dos pilares	
	Pilar que morre
	Pilar que passa

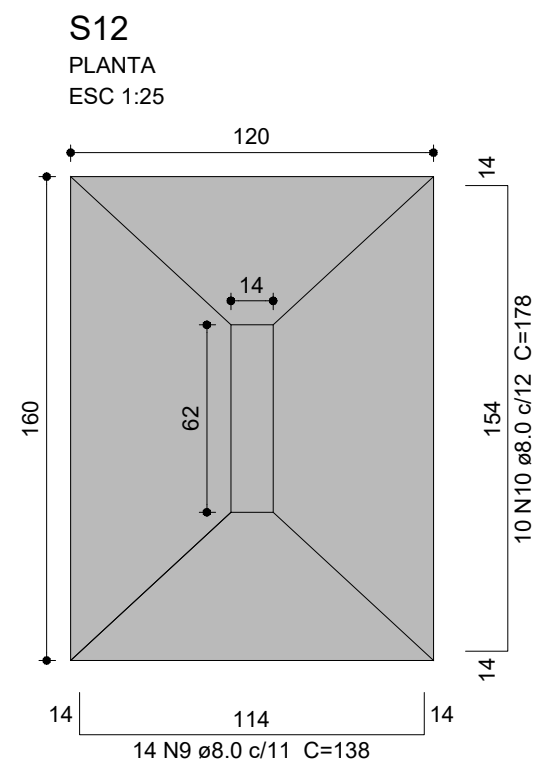
Forma do pavimento Baldrame (Nível 141)

escala 1:50

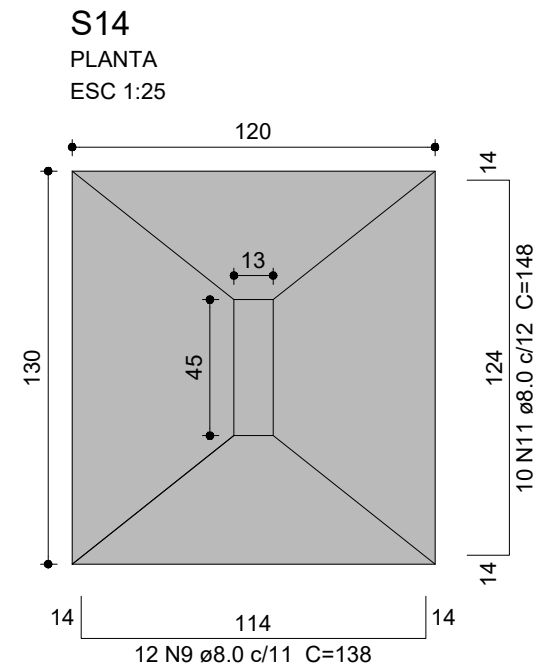


Corte A-A

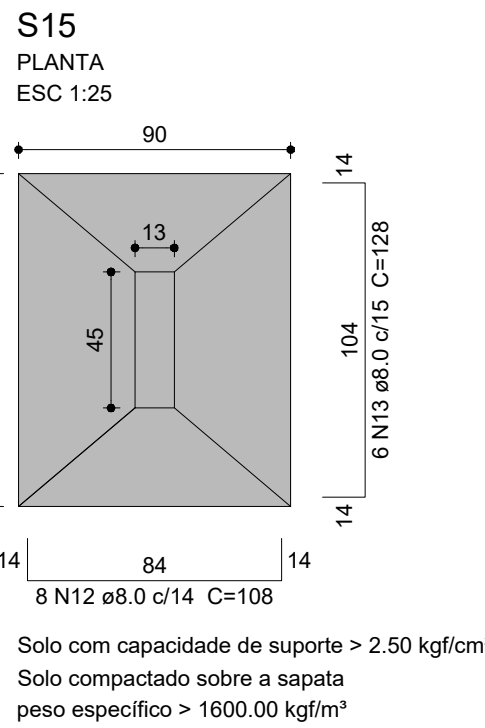
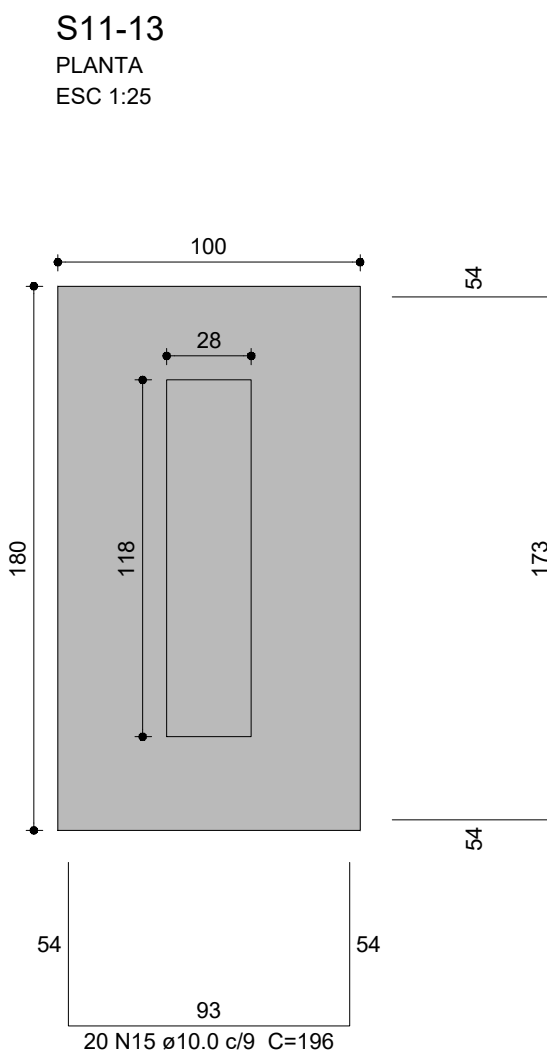
escala 1:50



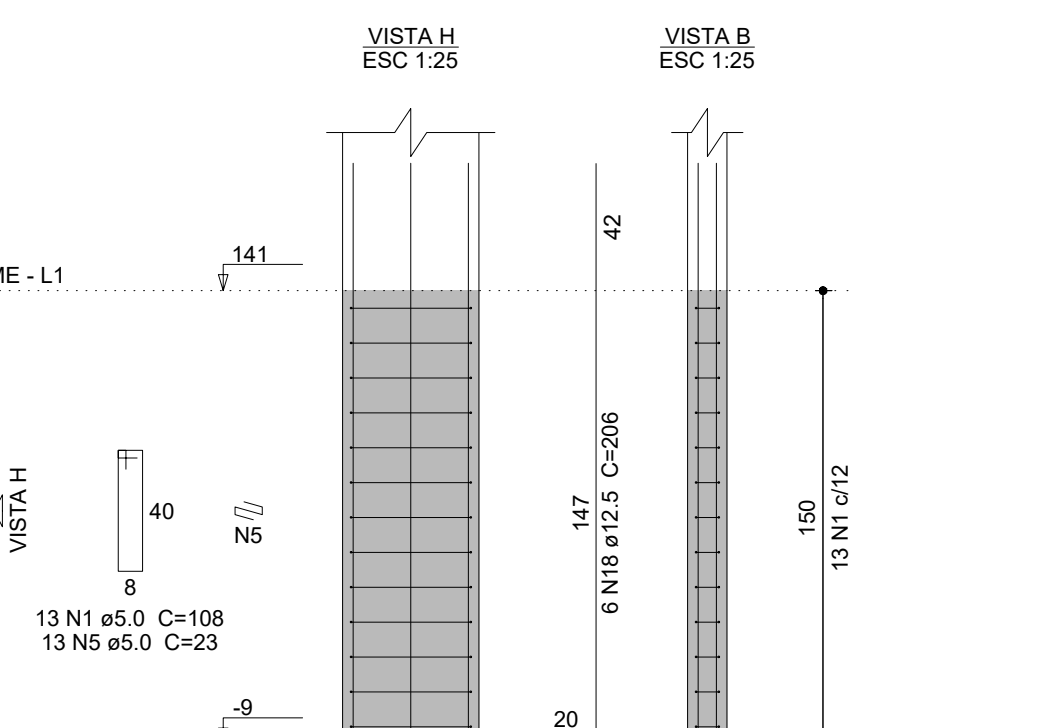
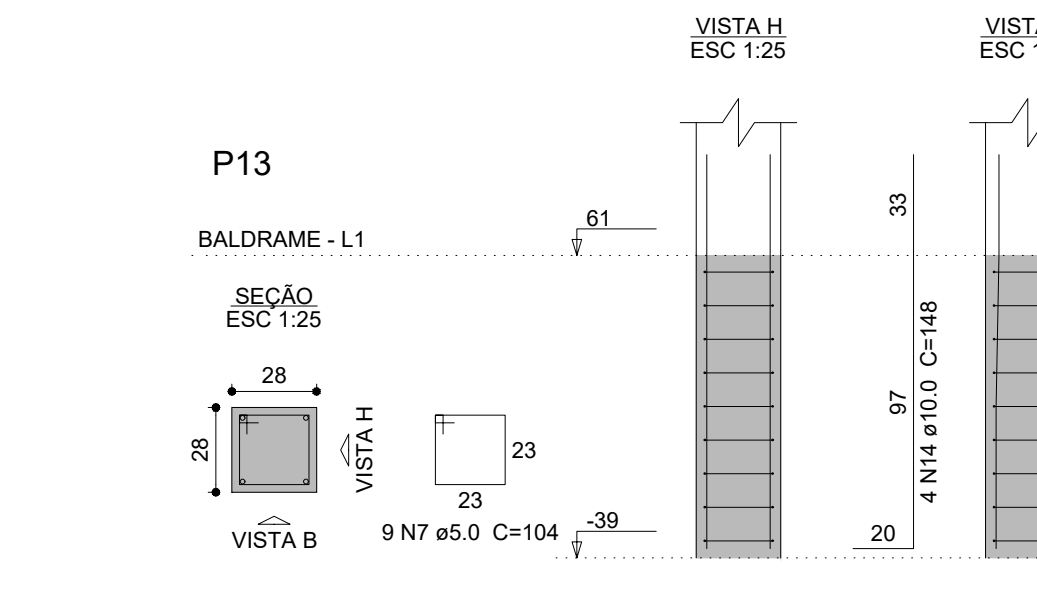
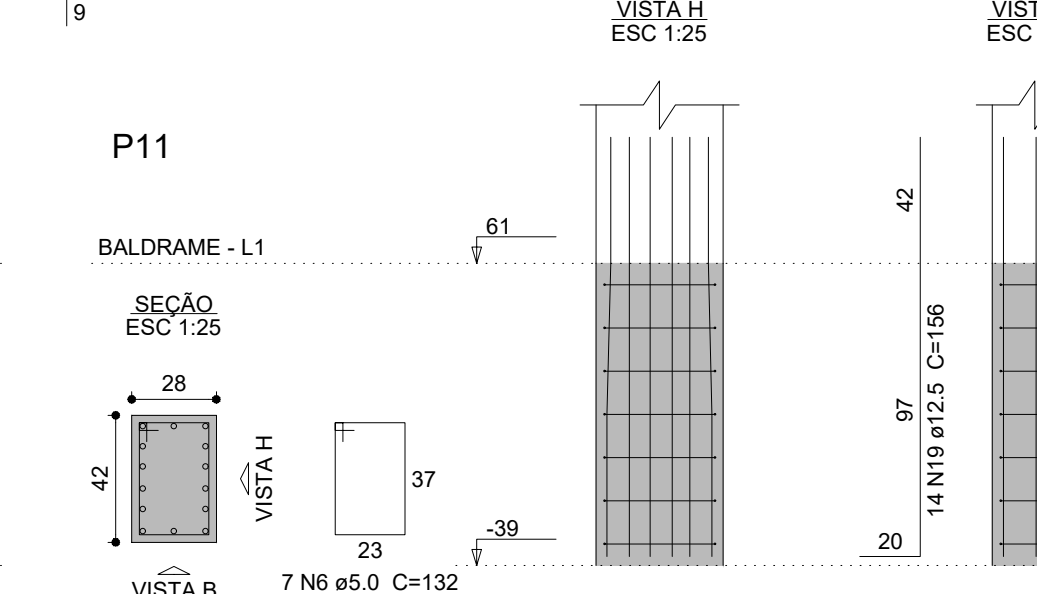
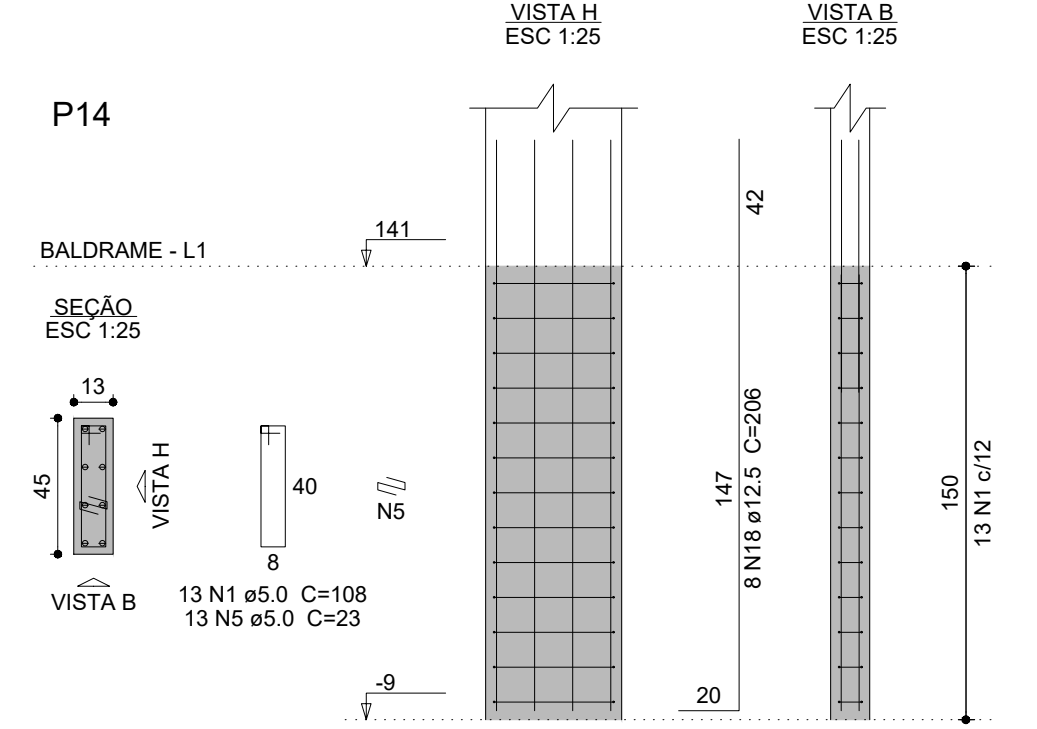
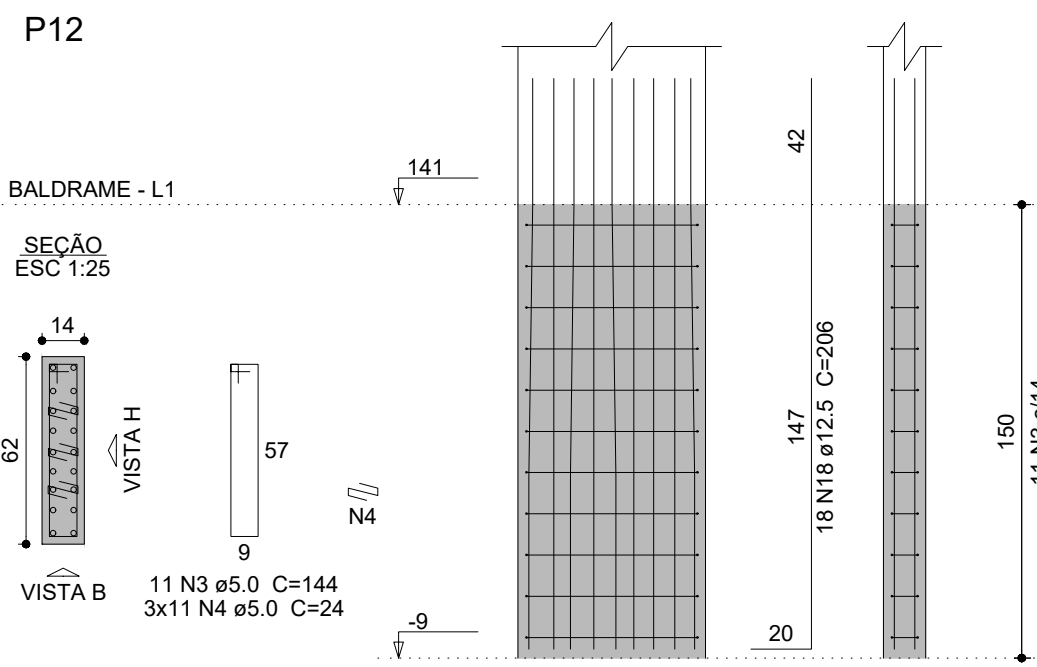
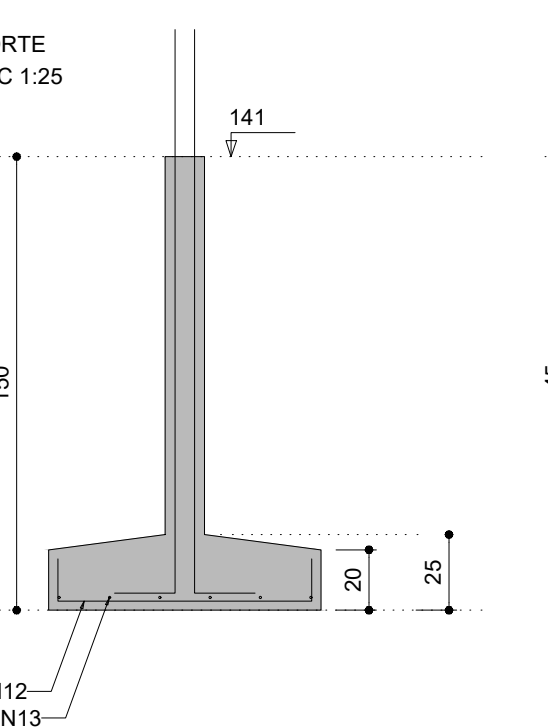
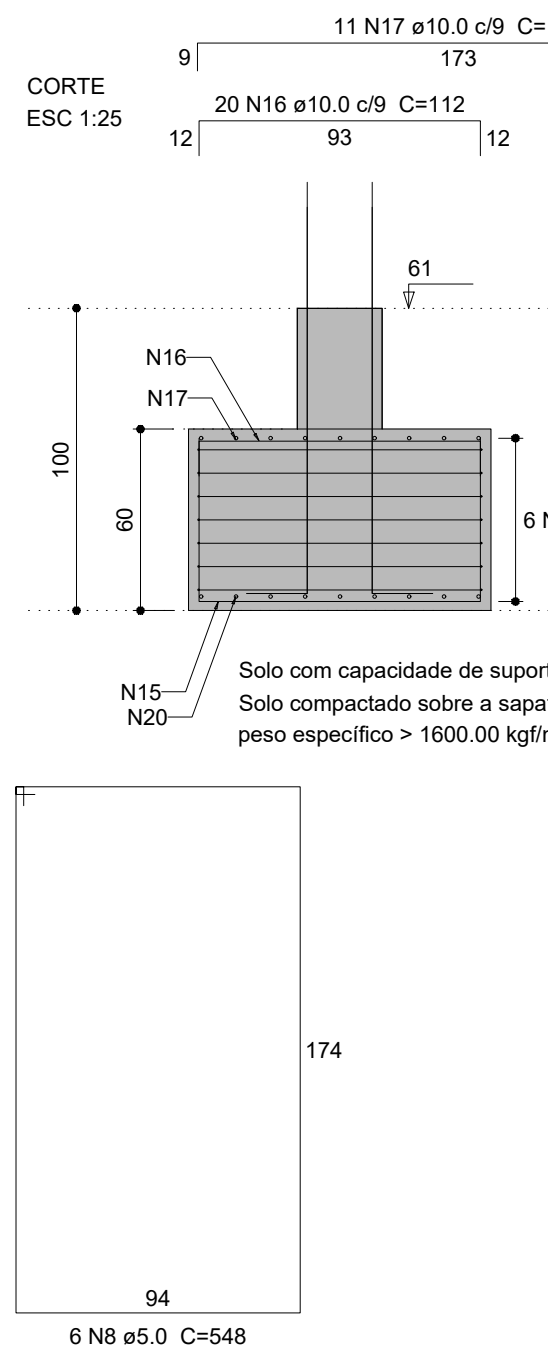
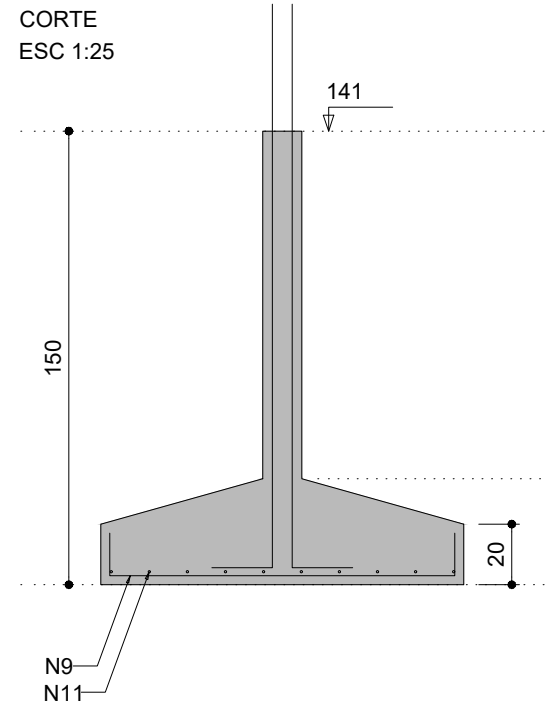
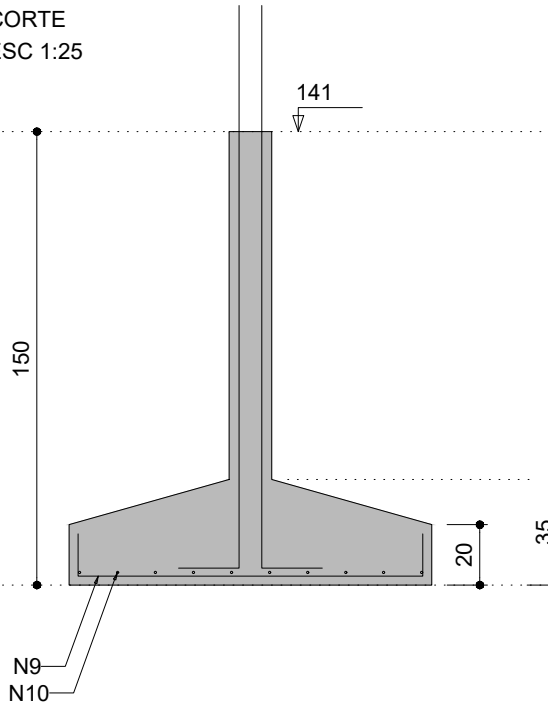
Solo com capacidade de suporte > 2.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



Solo com capacidade de suporte > 2.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



Solo com capacidade de suporte > 2.50 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kgf/m³



Relação do aço					
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	3	5.0	11	144	1584
	4	5.0	33	24	792
	5	5.0	26	108	2808
	6	5.0	7	132	924
CA50	7	5.0	9	104	936
	8	5.0	6	548	3288
	9	8.0	26	138	3588
	10	8.0	10	178	1780
	11	8.0	10	148	1480
	12	8.0	8	108	864
	13	8.0	6	128	768
	14	10.0	4	148	592
	15	10.0	20	196	3920
	16	10.0	20	112	2240
	17	10.0	11	186	2046
	18	12.5	32	206	6592
	19	12.5	14	156	2184
	20	12.5	9	275	2475

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	84.8	36.8
CA50	10.0	88	59.7
CA60	5.0	112.6	119.2
CA60	5.0	109.3	18.5

Volume de concreto (C-30) = 2.71 m³
Área de forma = 14.56 m²

RESP. PROJETO:

DESENHO:

ESPECIALIDADE: PROJETO DE CONCRETO ARMADO

REFERENCIA: FORMAS SAPATAS

CONTRATANTE:

OBRA:

PROPRIETÁRIO:

RESP. EXECUÇÃO:

RESP. PROJETO:

REVISÃO:

DATA:

EMISSÃO INICIAL:

DESCRIÇÃO:

Nº OS:

OS 037-20

DATA:

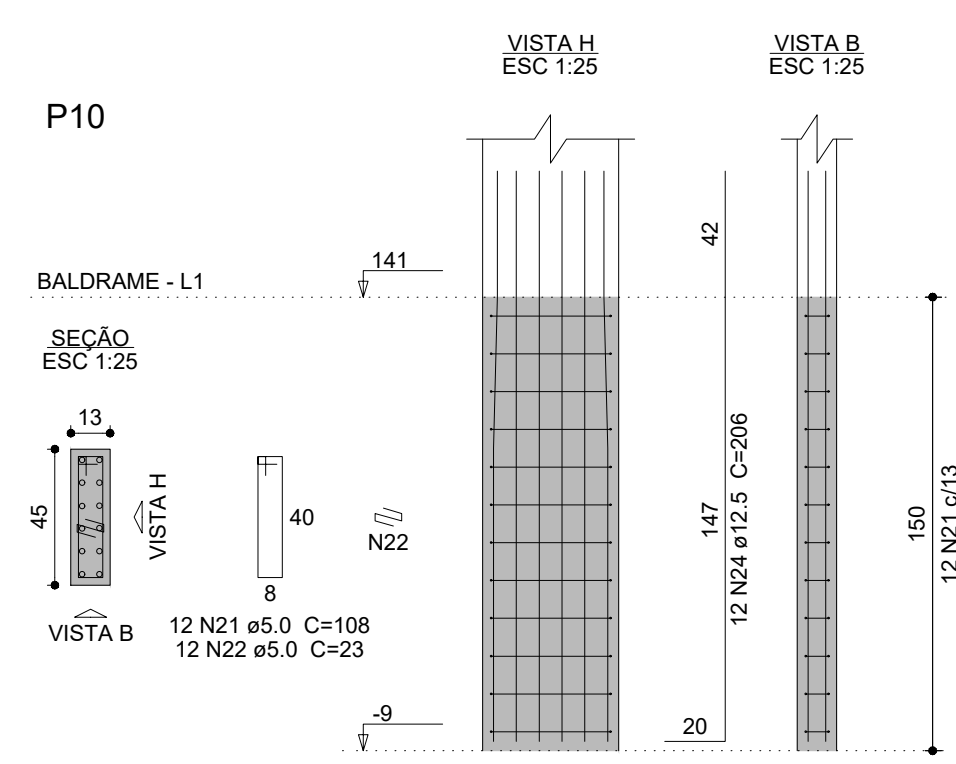
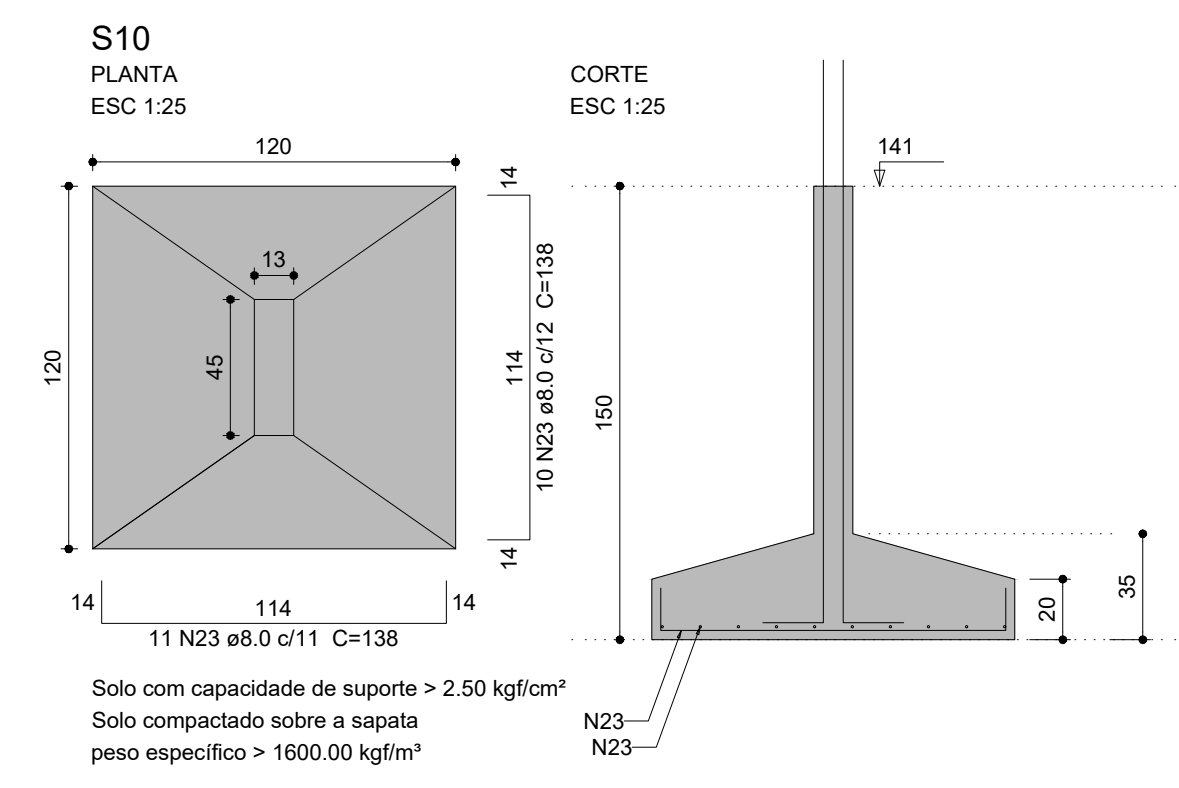
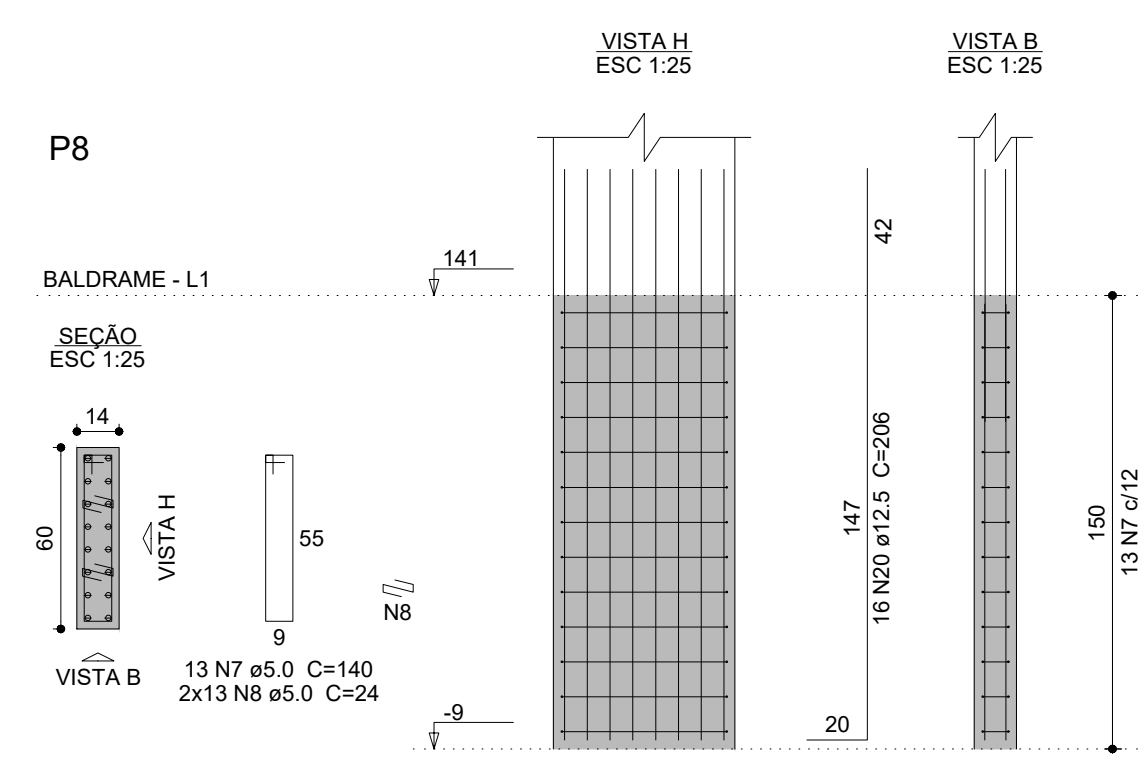
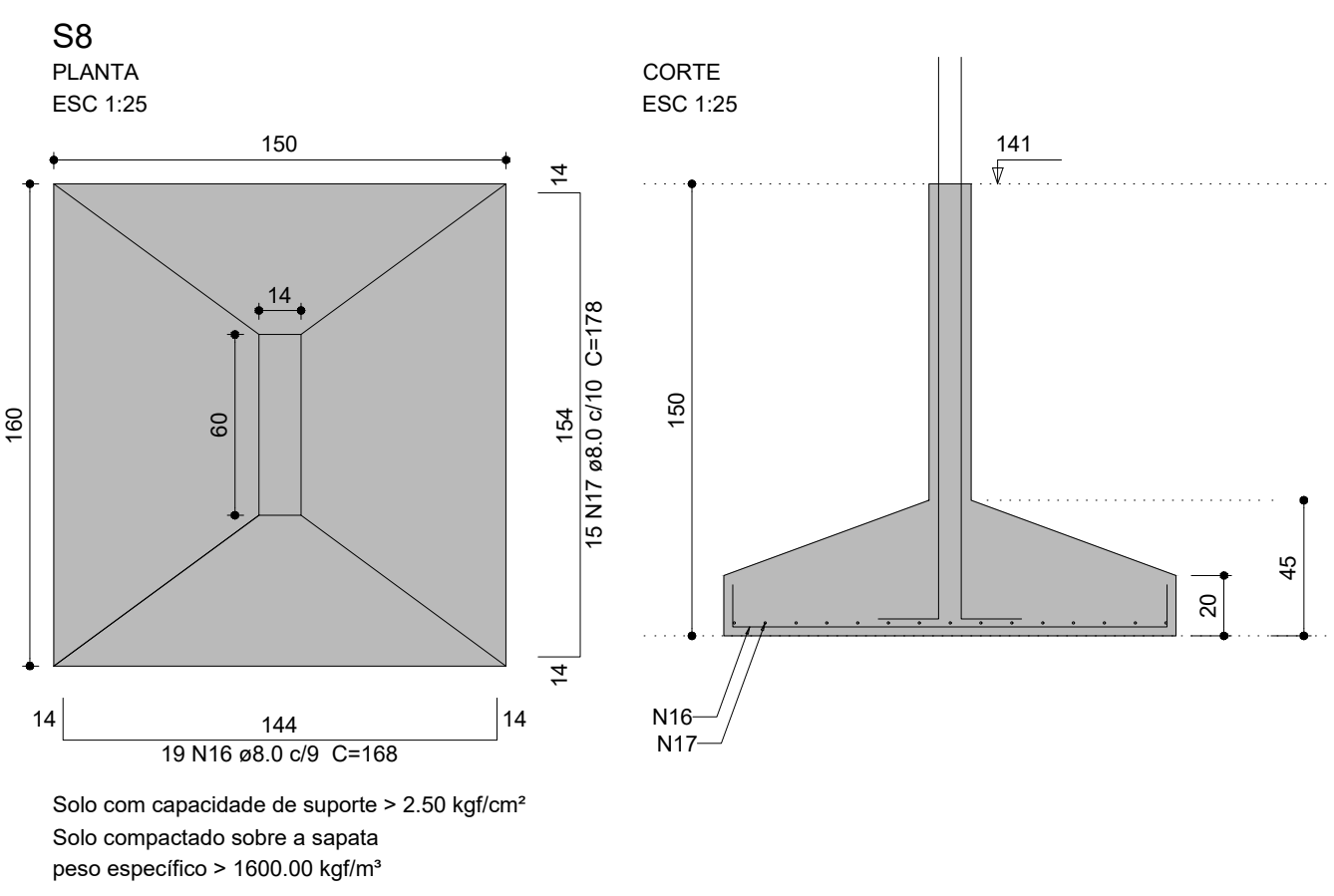
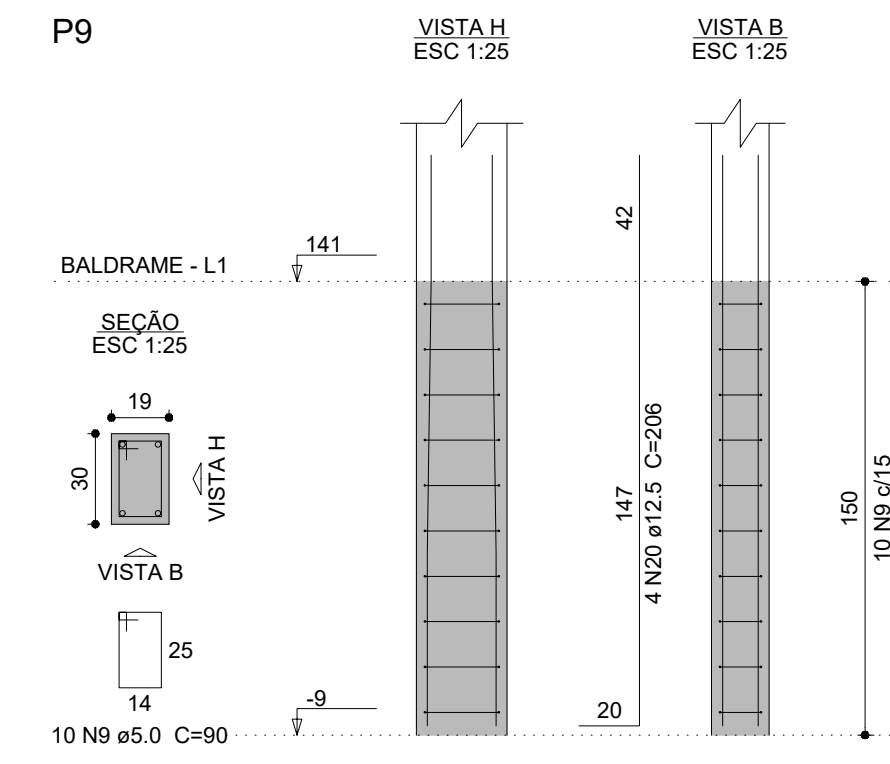
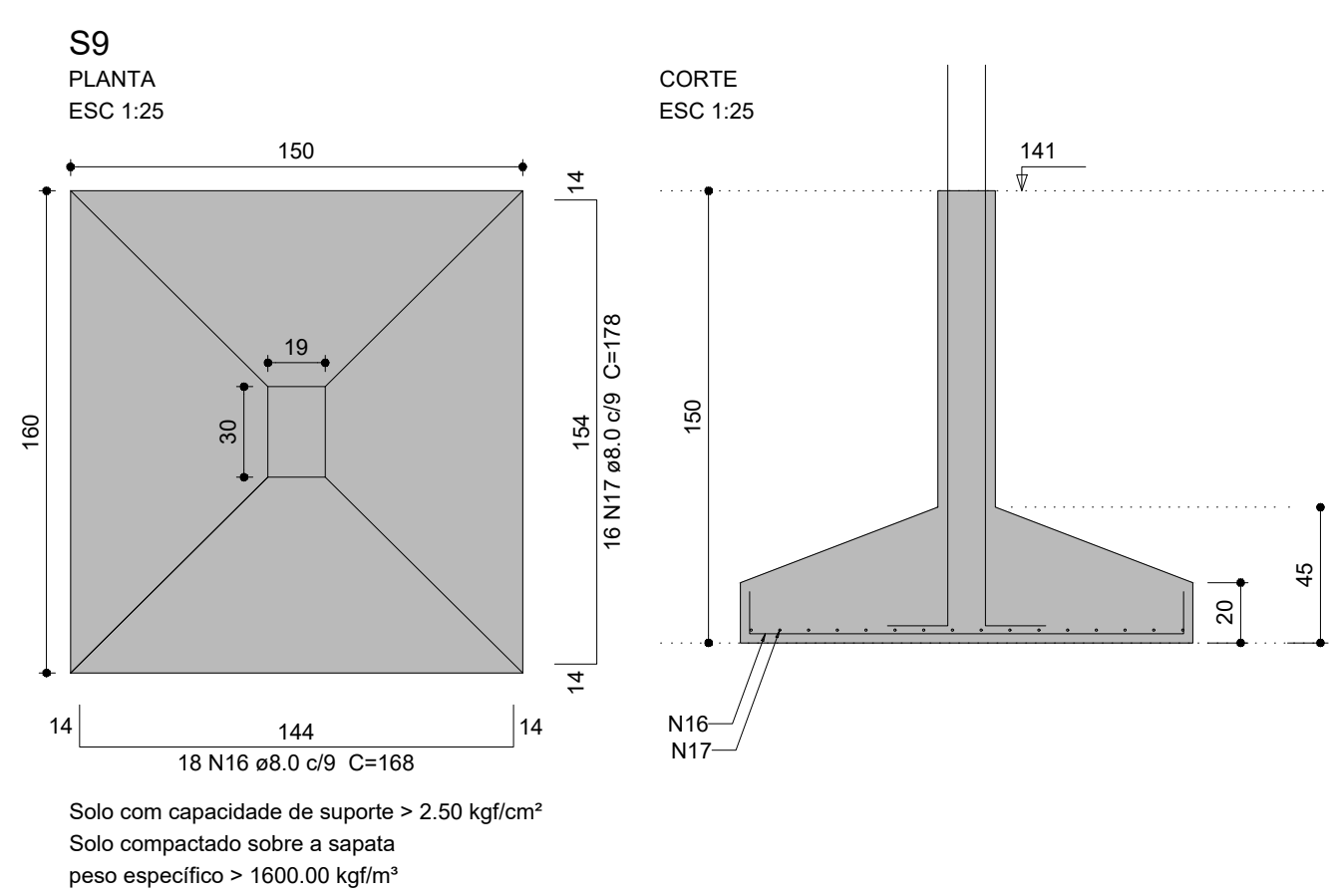
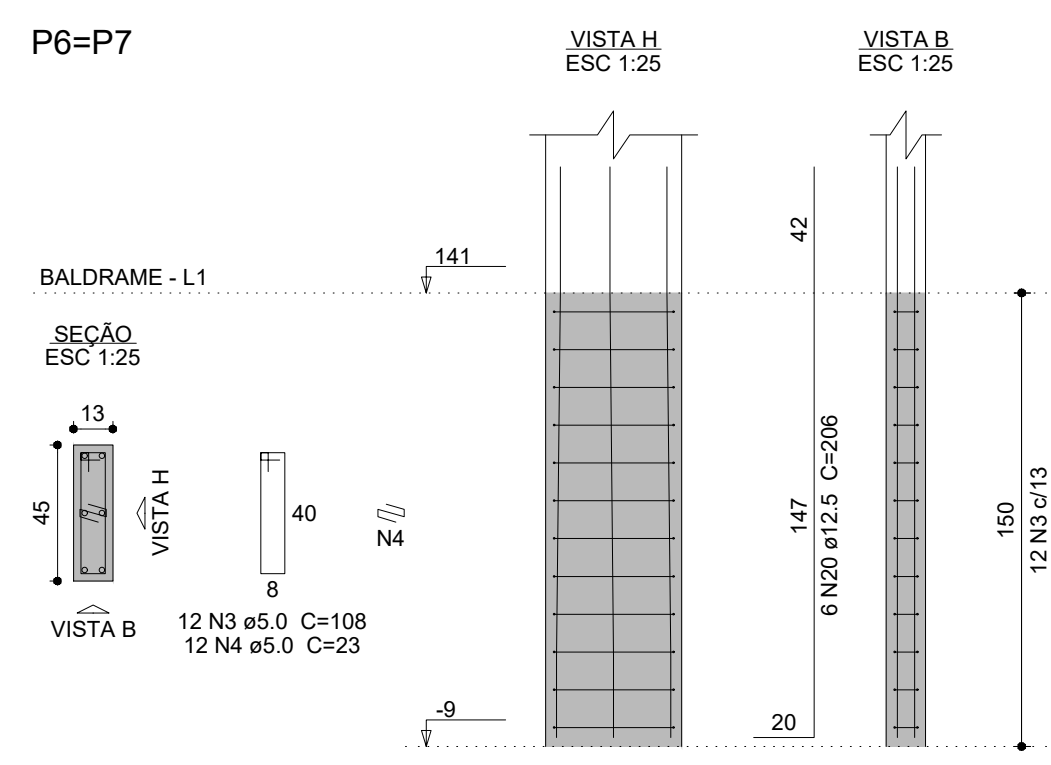
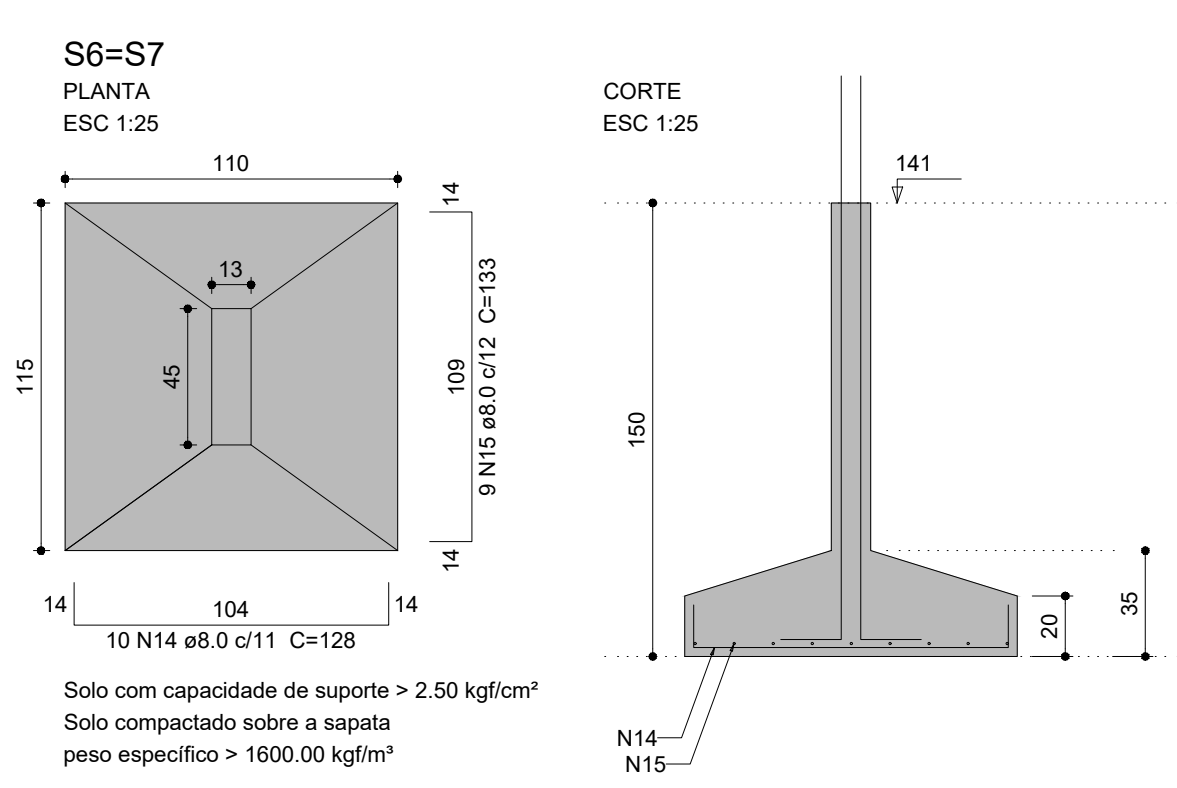
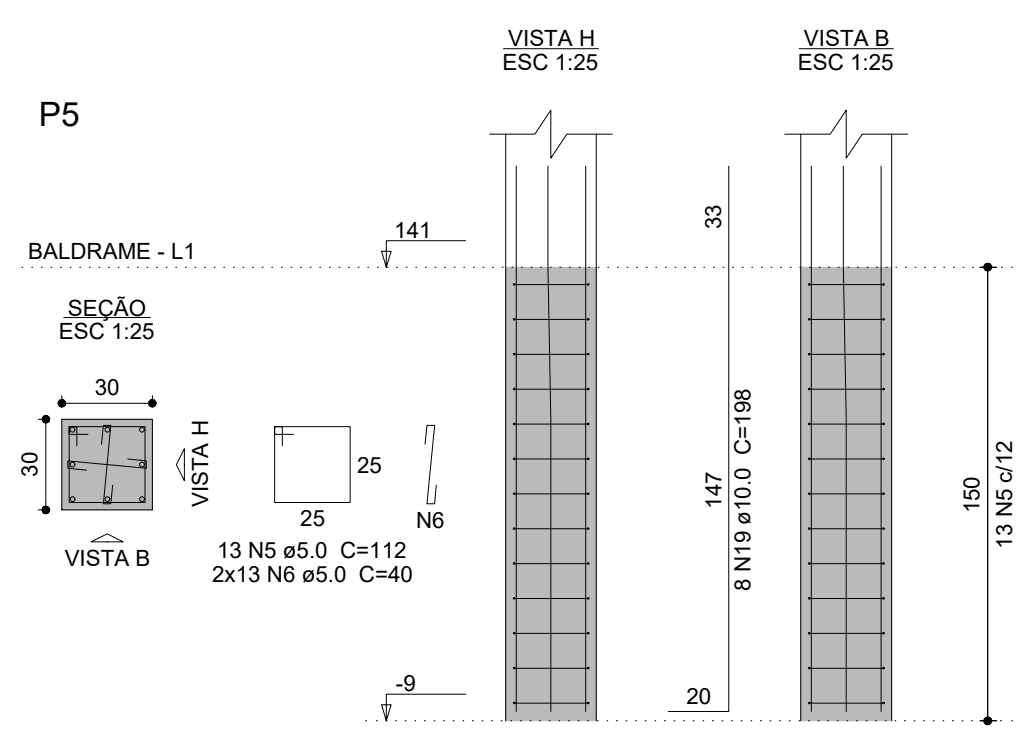
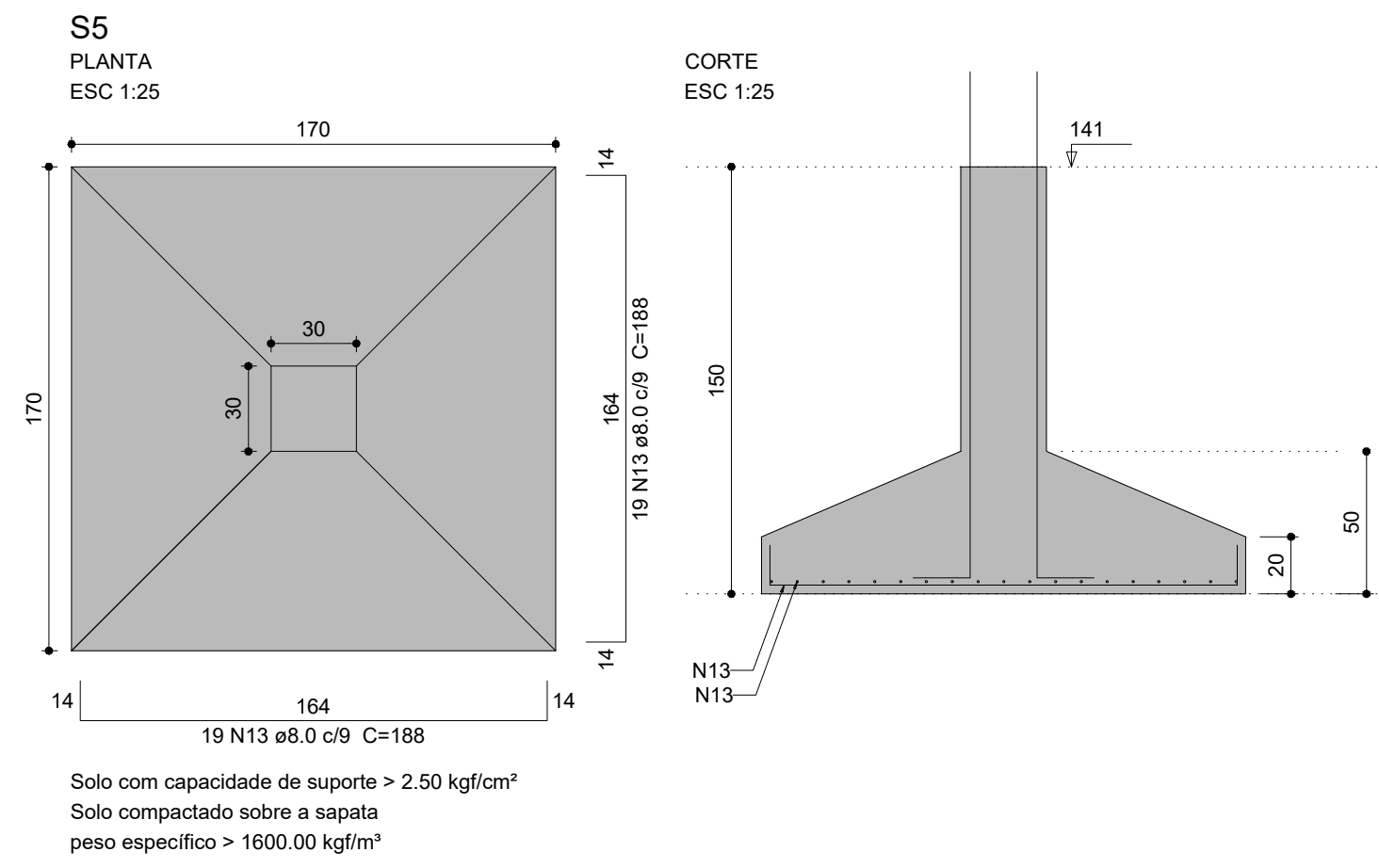
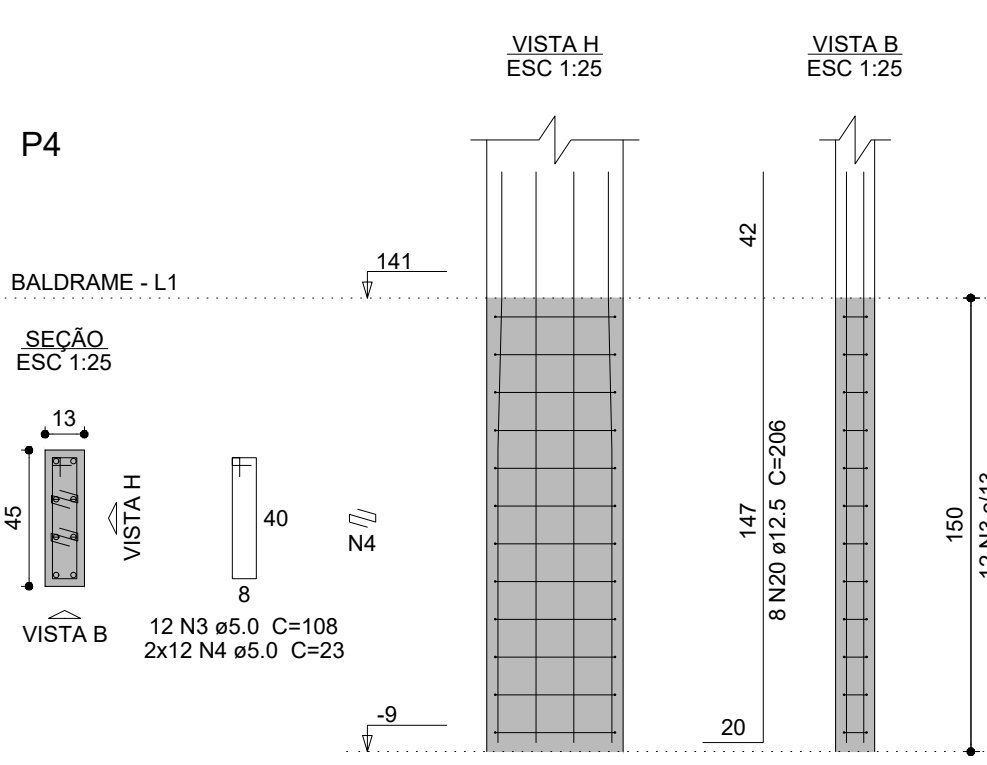
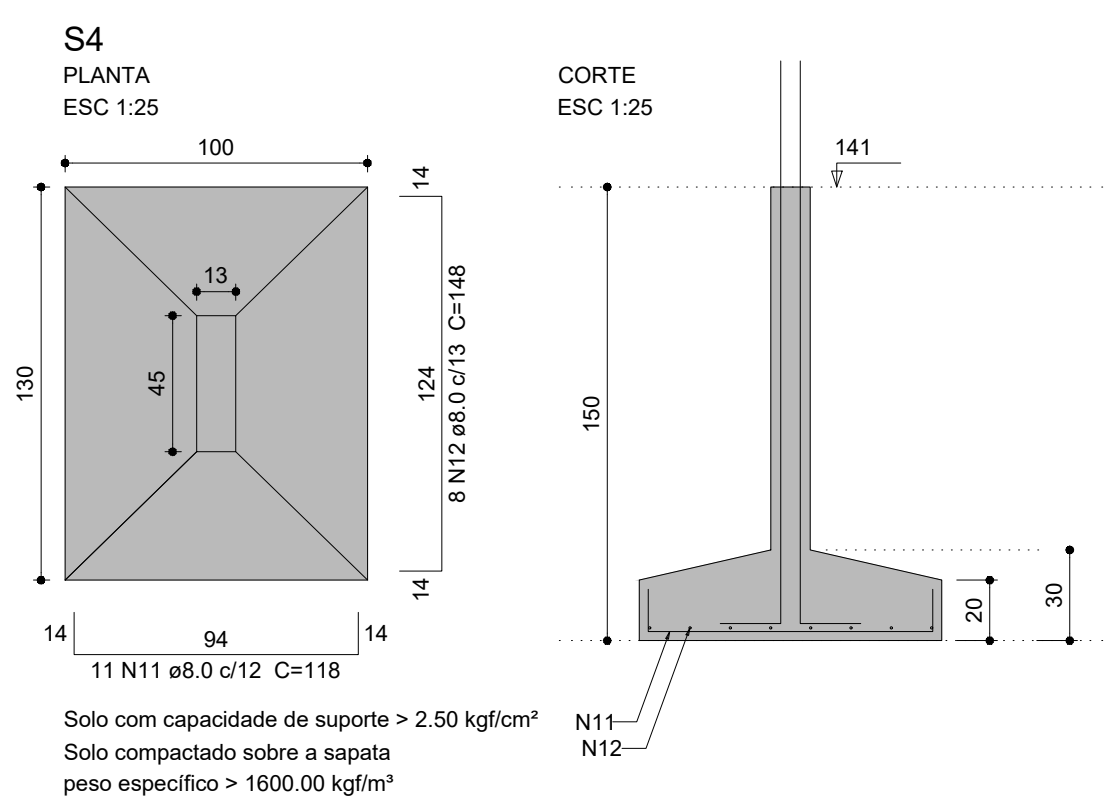
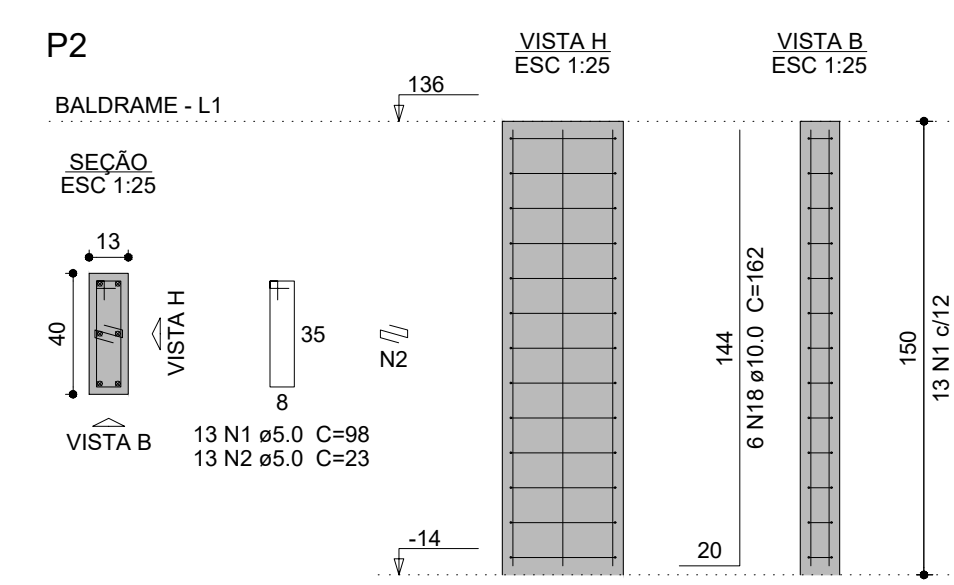
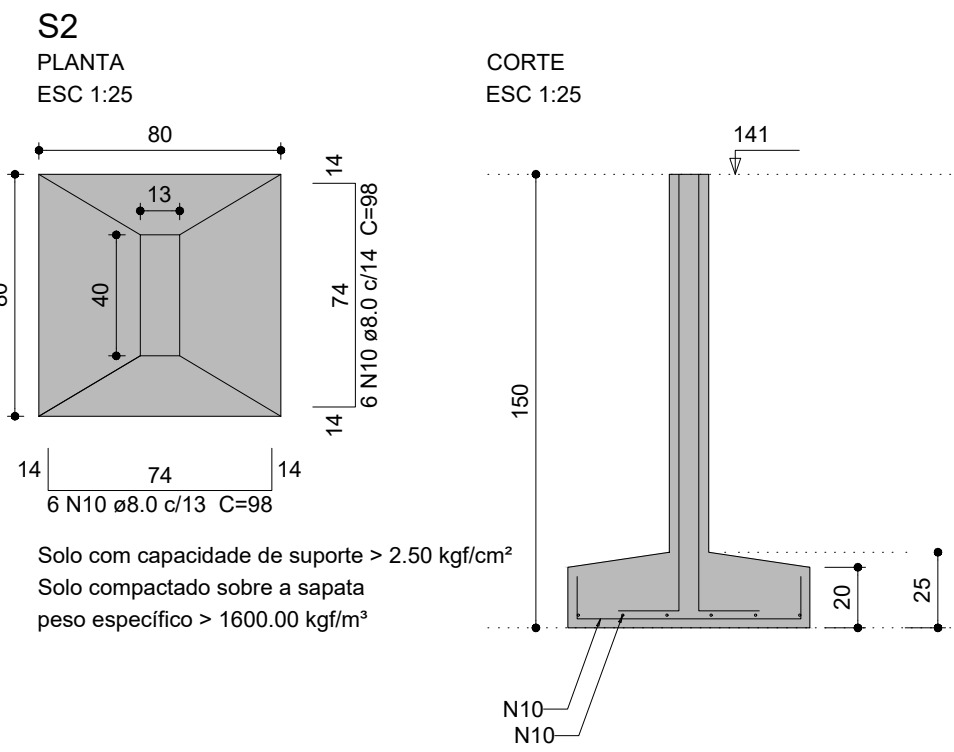
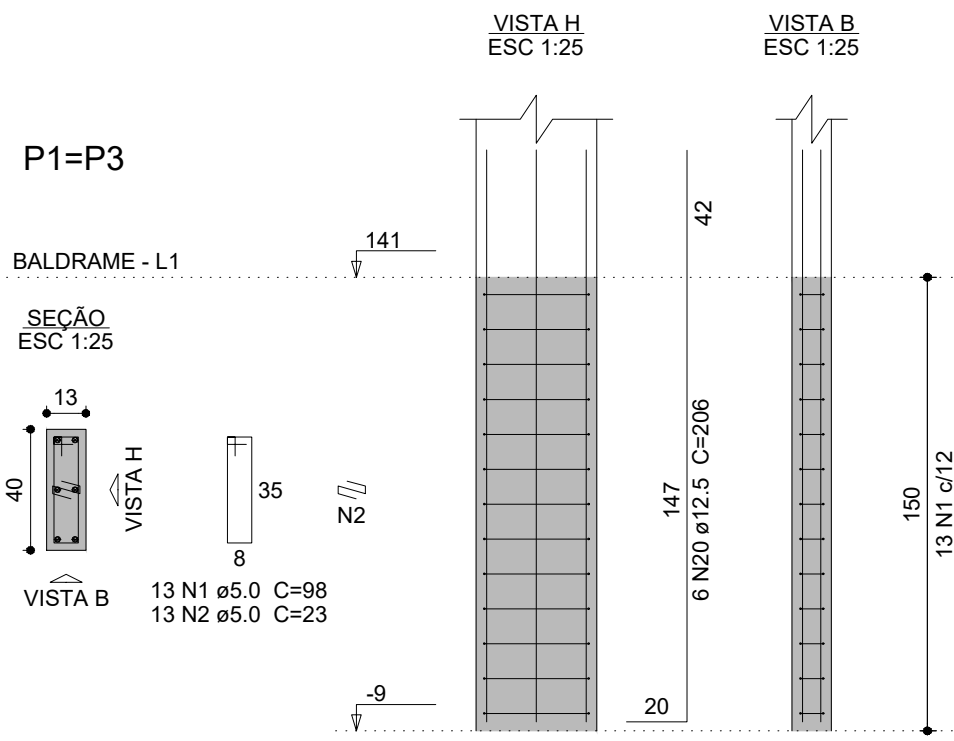
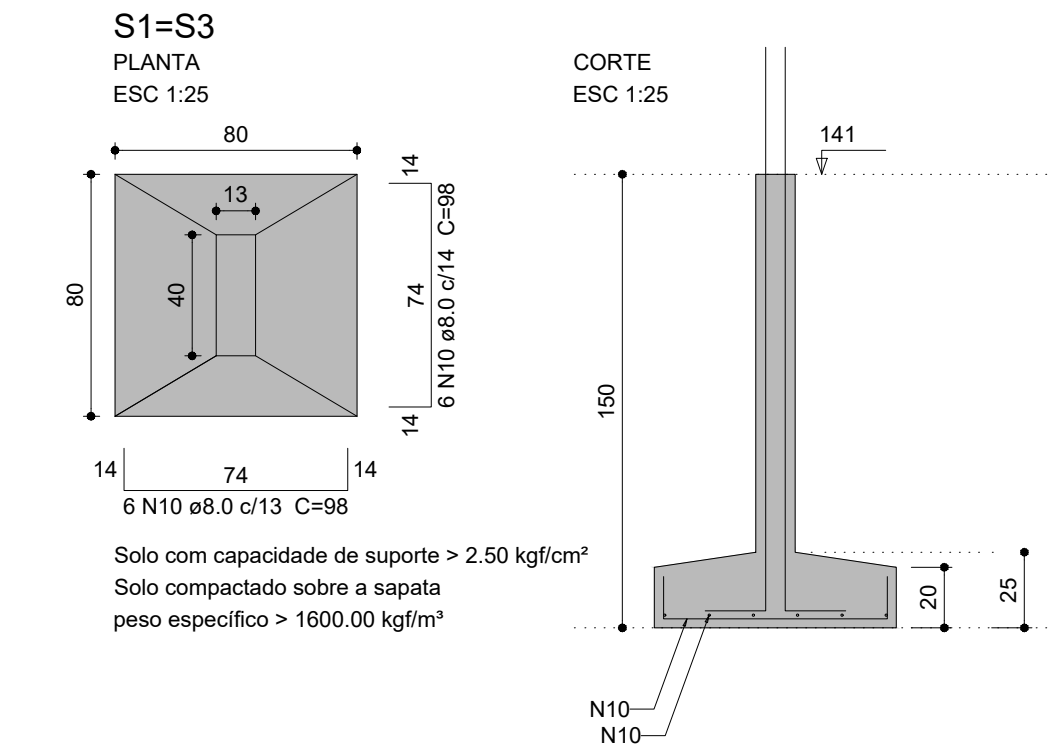
21/09/2020

ESCALA:

INDICADAS

FOLHA:

CA-02



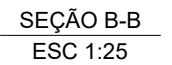
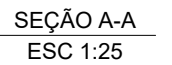
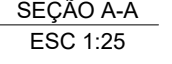
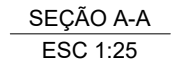
Relação do aço

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	39	98	3822
	2	5.0	39	23	897
	3	5.0	36	108	3888
	4	5.0	48	23	1104
	5	5.0	13	112	1456
	6	5.0	26	40	1040
	7	5.0	13	140	1820
	8	5.0	26	24	624
	9	5.0	10	90	900
	21	5.0	12	108	1296
	22	5.0	12	23	276
CA50	10	5.0	36	98	3528
	11	8.0	11	118	1298
	12	8.0	8	148	1184
	13	8.0	38	188	7144
	14	8.0	20	128	2560
	15	8.0	18	133	2394
	16	8.0	37	168	6216
	17	8.0	31	178	5518
	23	8.0	21	138	2898
	18	10.0	6	162	972
	19	10.0	8	198	1584
	20	12.5	52	206	10712
	24	12.5	12	206	2472

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	327.4	142.1
	10.0	25.6	17.3
	12.5	131.9	139.7
CA60	5.0	171.3	29
PESO TOTAL (kg)			
CA50		299.1	
CA60		29	

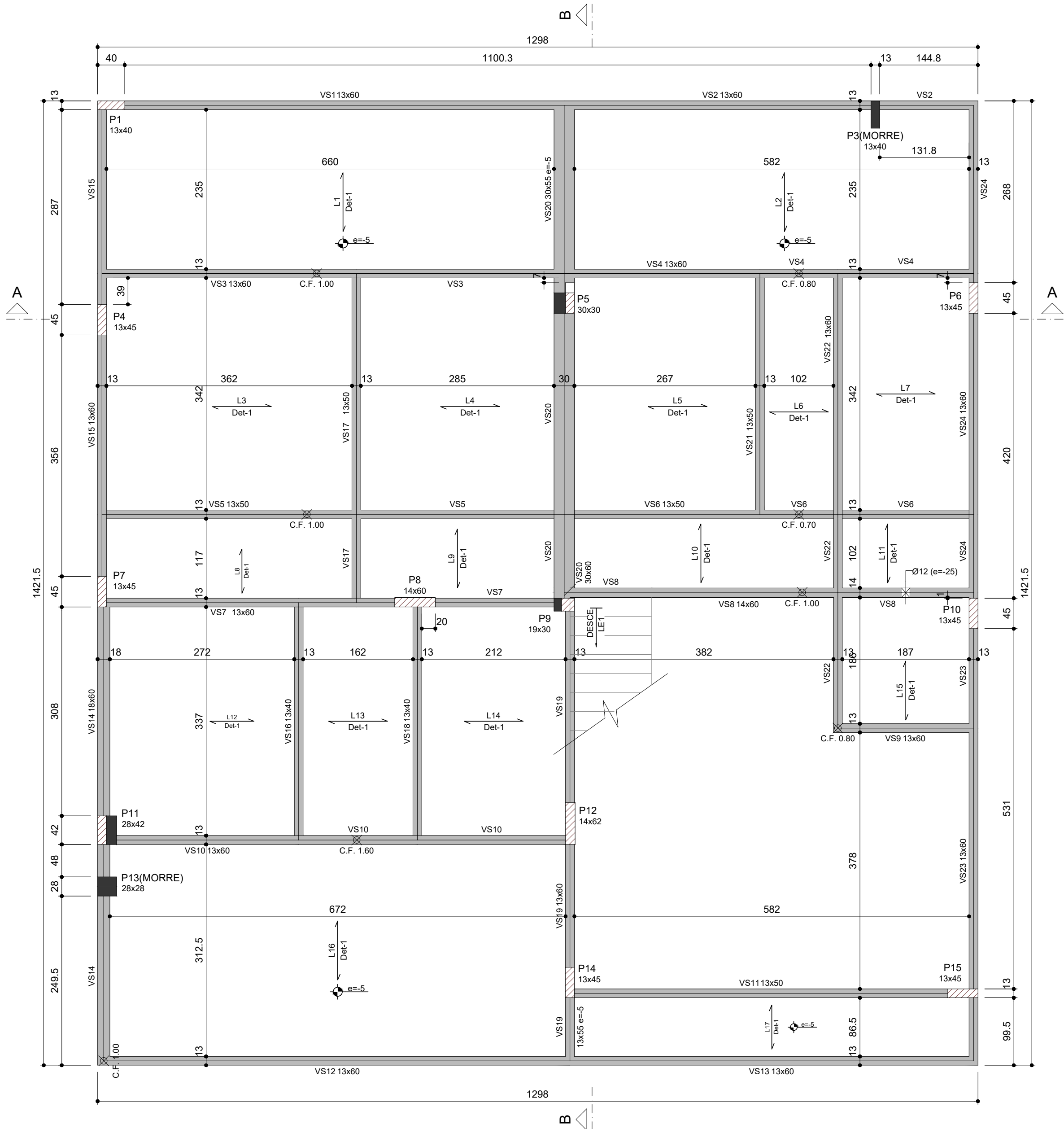
Volume de concreto (C=30) = 5.13 m³
Área de forma = 26.7 m²



Relação do aço

Resumo do aço

Volume de concreto (C-30)
Área de forma = 17.77 m²



Forma do pavimento Superior (Nível 481)
escala 1:50

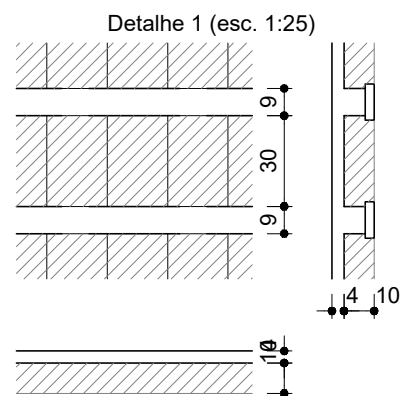
Blocos de enchimento					
Detalhe	Tipo	Nome	Dimensões(cm)		
			hb	bx	by
1	Lajota cerâmica	B10/30/20	10	30	20
			Quantidade		
			1468		

Lajes							
Dados						Sobrecarga (kgf/m²)	
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kgf/m²)	Total	Localizada
L1	Treliçada 1D	14	-5	476	296	305	sim
L2	Treliçada 1D	14	-5	476	296	305	-
L3	Treliçada 1D	14	0	481	296	305	sim
L4	Treliçada 1D	14	0	481	296	305	-
L5	Treliçada 1D	14	0	481	296	305	-
L6	Treliçada 1D	14	0	481	296	305	-
L7	Treliçada 1D	14	0	481	296	305	-
L8	Treliçada 1D	14	0	481	296	305	sim
L9	Treliçada 1D	14	0	481	296	305	-
L10	Treliçada 1D	14	0	481	296	305	-
L11	Treliçada 1D	14	0	481	296	332	-
L12	Treliçada 1D	14	0	481	296	305	-
L13	Treliçada 1D	14	0	481	296	332	-
L14	Treliçada 1D	14	0	481	296	305	-
L15	Treliçada 1D	14	0	481	296	332	-
L16	Treliçada 1D	14	-5	476	296	205	-
L17	Treliçada 1D	14	-5	476	296	205	-
LE1	Maciça	16	0	481	715	421	-

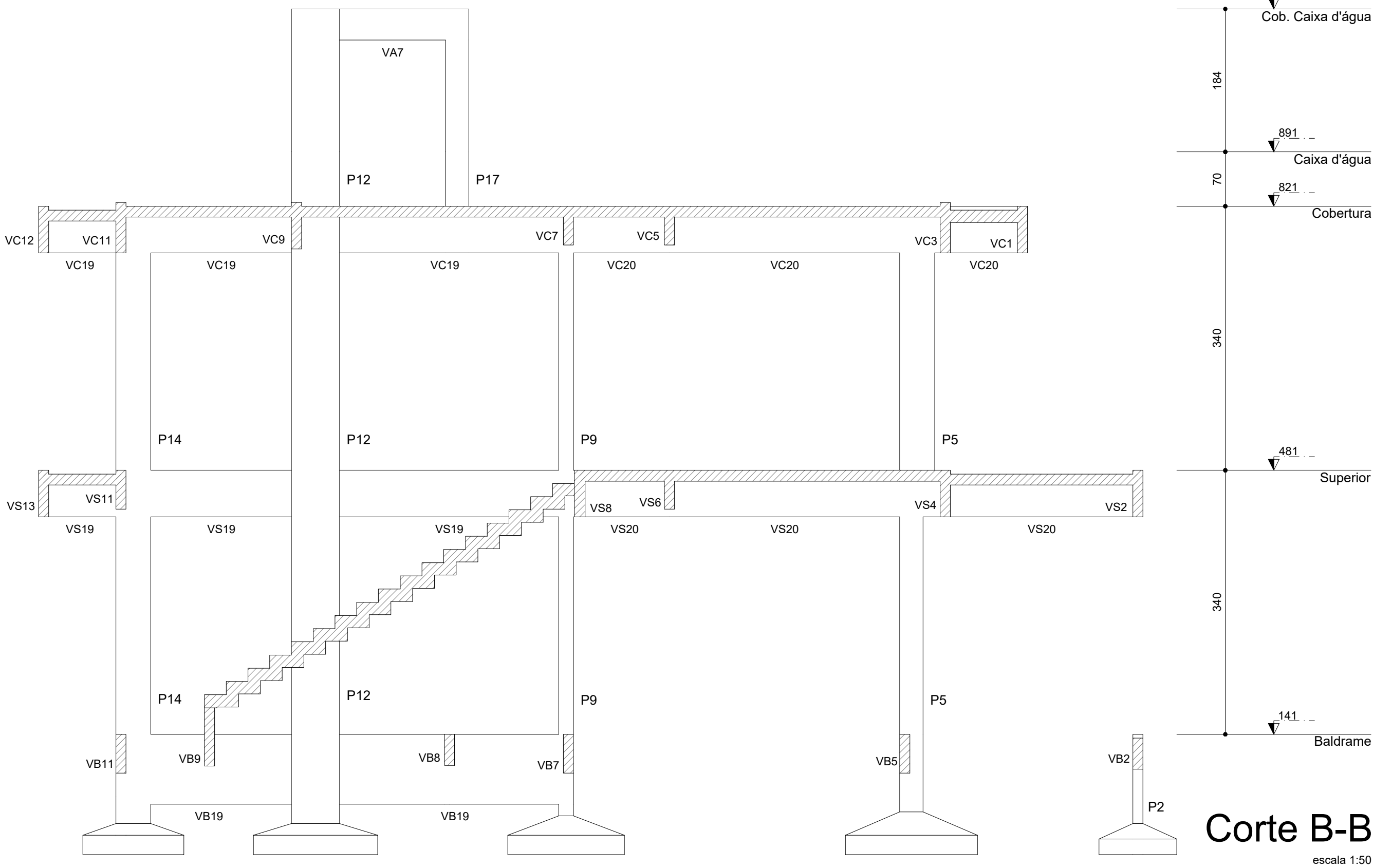
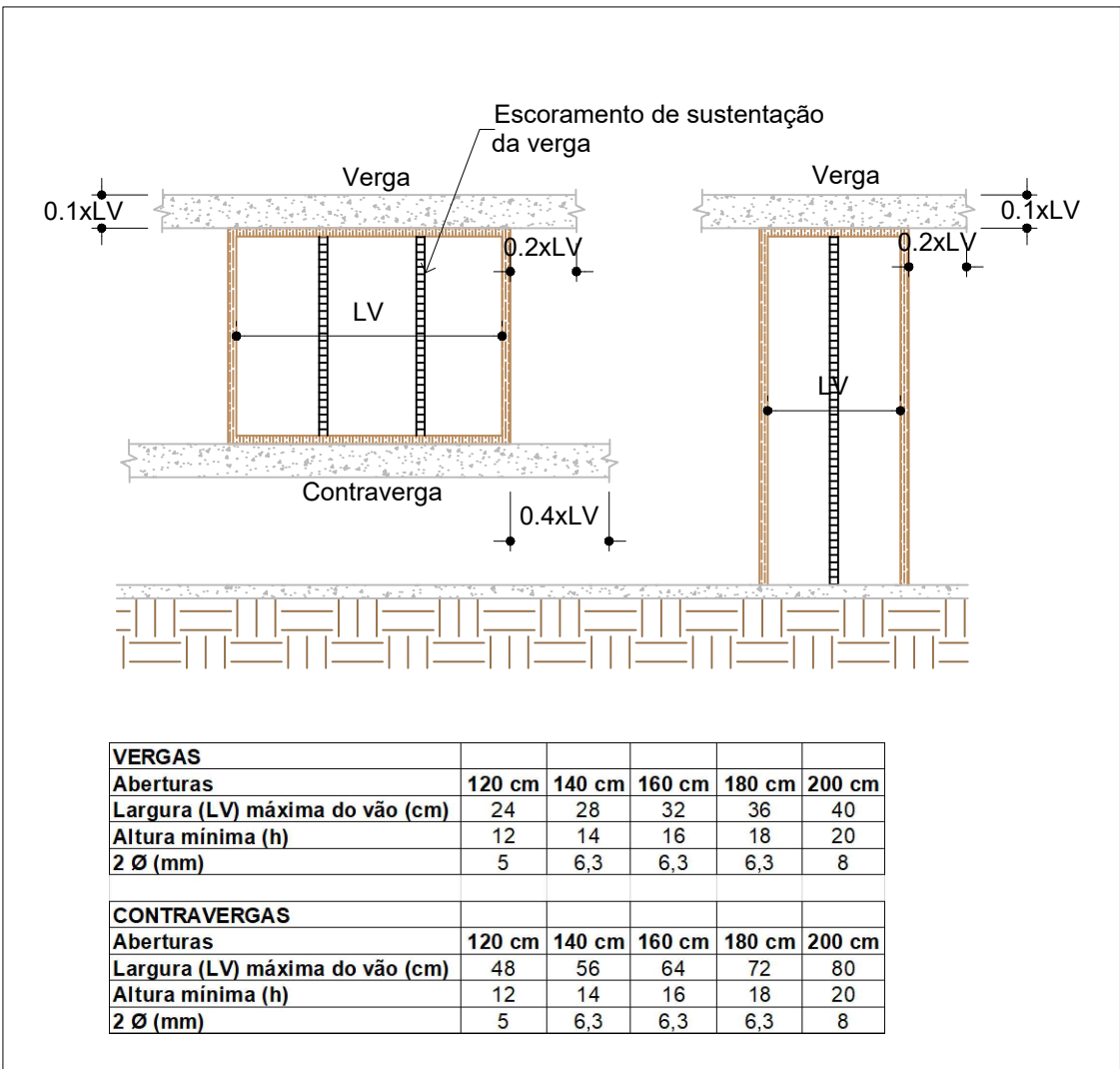
Características dos materiais		
fck (kgf/cm²)	Ecs (kgf/cm²)	Abatimento (cm)
300	268384	10.00
Dimensão máxima do agregado = 19 mm		

Legenda dos pilares	
	Pilar que morre
	Pilar que passa
	Pilar com mudança de seção

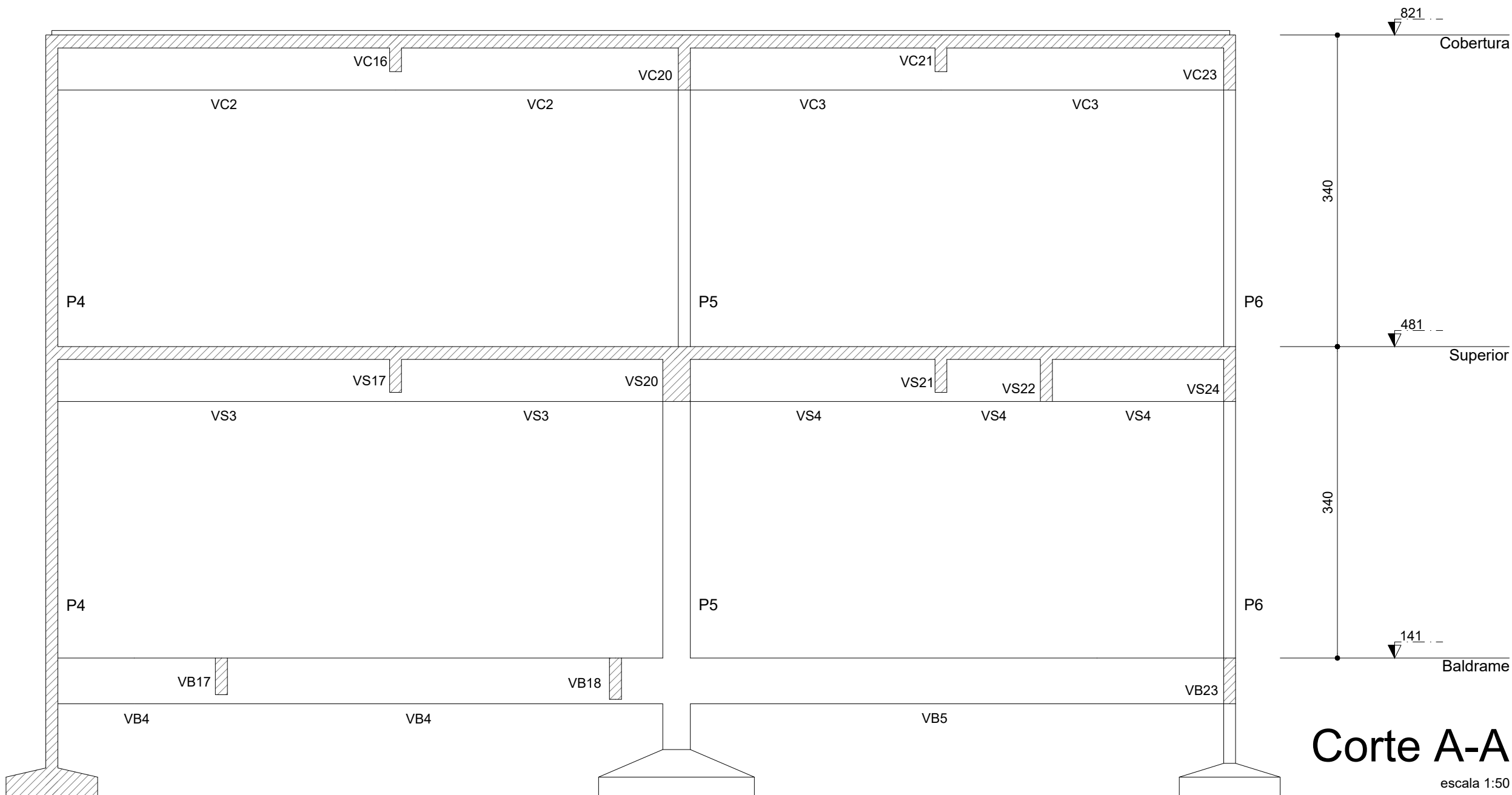
Legenda das vigas e paredes	
	Viga



Detalhe típico de verga e contraverga



Corte B-B
escala 1:50



Corte A-A
escala 1:50

RESP. PROJETO:

DESENHO:

ESPECIALIDADE: PROJETO DE CONCRETO ARMADO

PROJETO EXECUTIVO

FORMAS SUPERIOR

REFERENCIA:

CONTRATANTE:

OBRA:

EDIFICAÇÃO RESIDENCIAL

PROPRIETÁRIO:

RESP. EXECUÇÃO:

RESP. PROJETO:

Nº OS:

OS 037-20

DATA:

21/09/2020

ESCALA:

INDICADAS

FOLHA:

CA-06

RES.

PROJ.

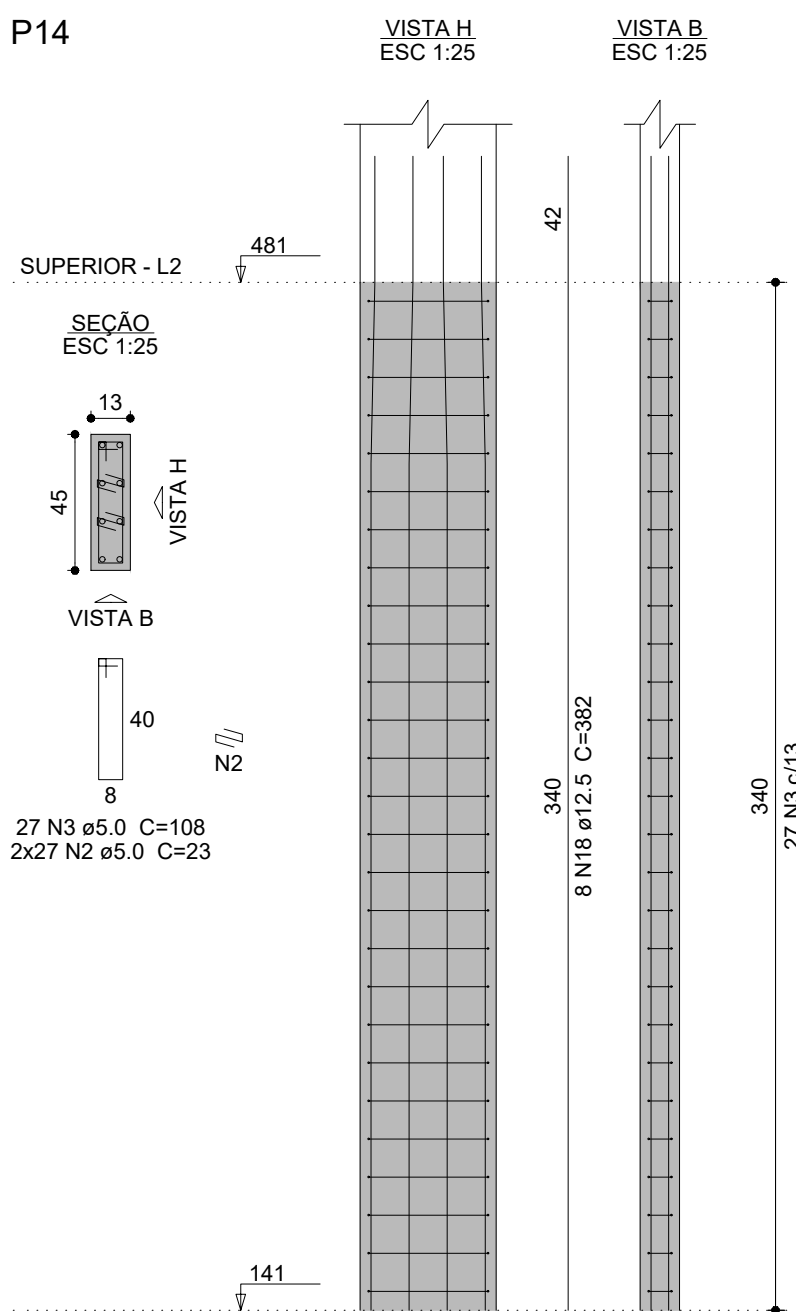
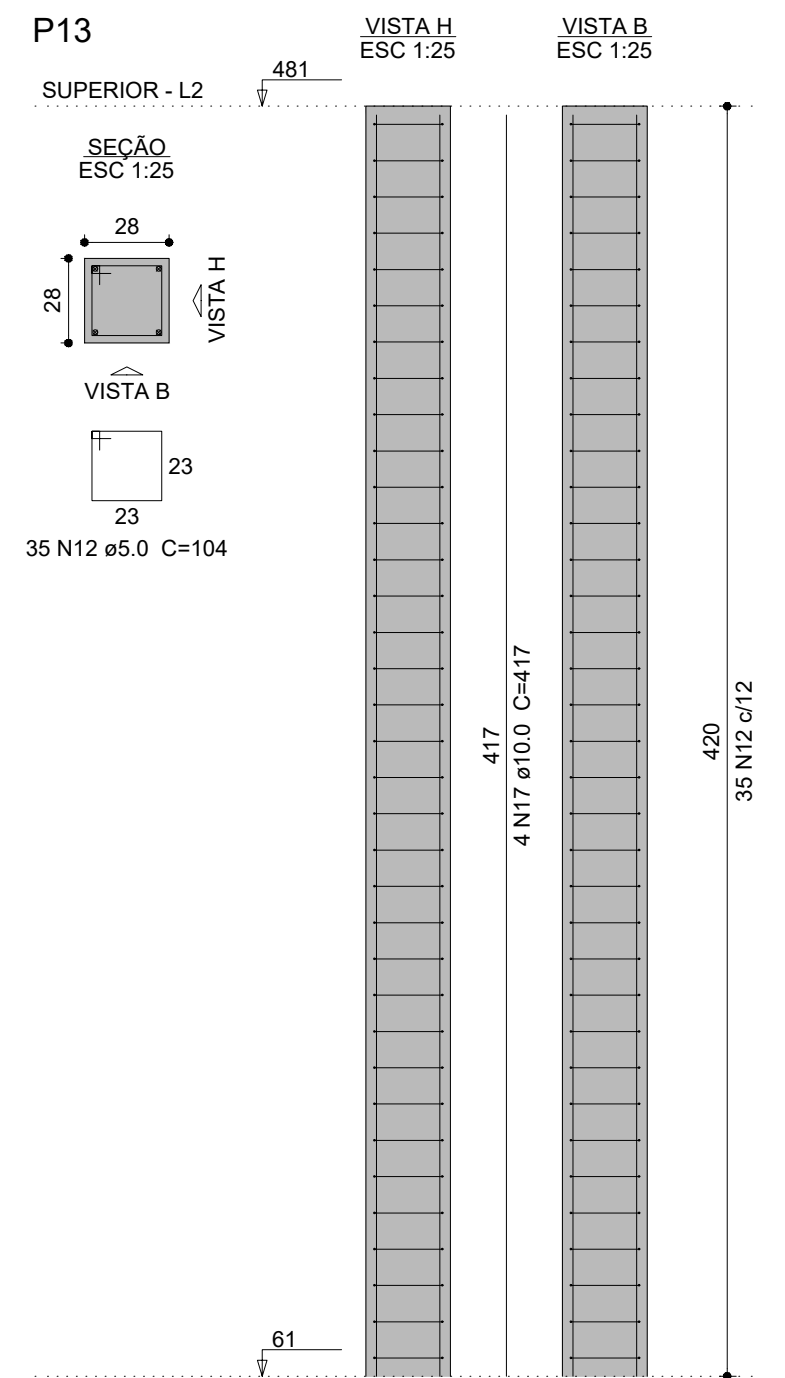
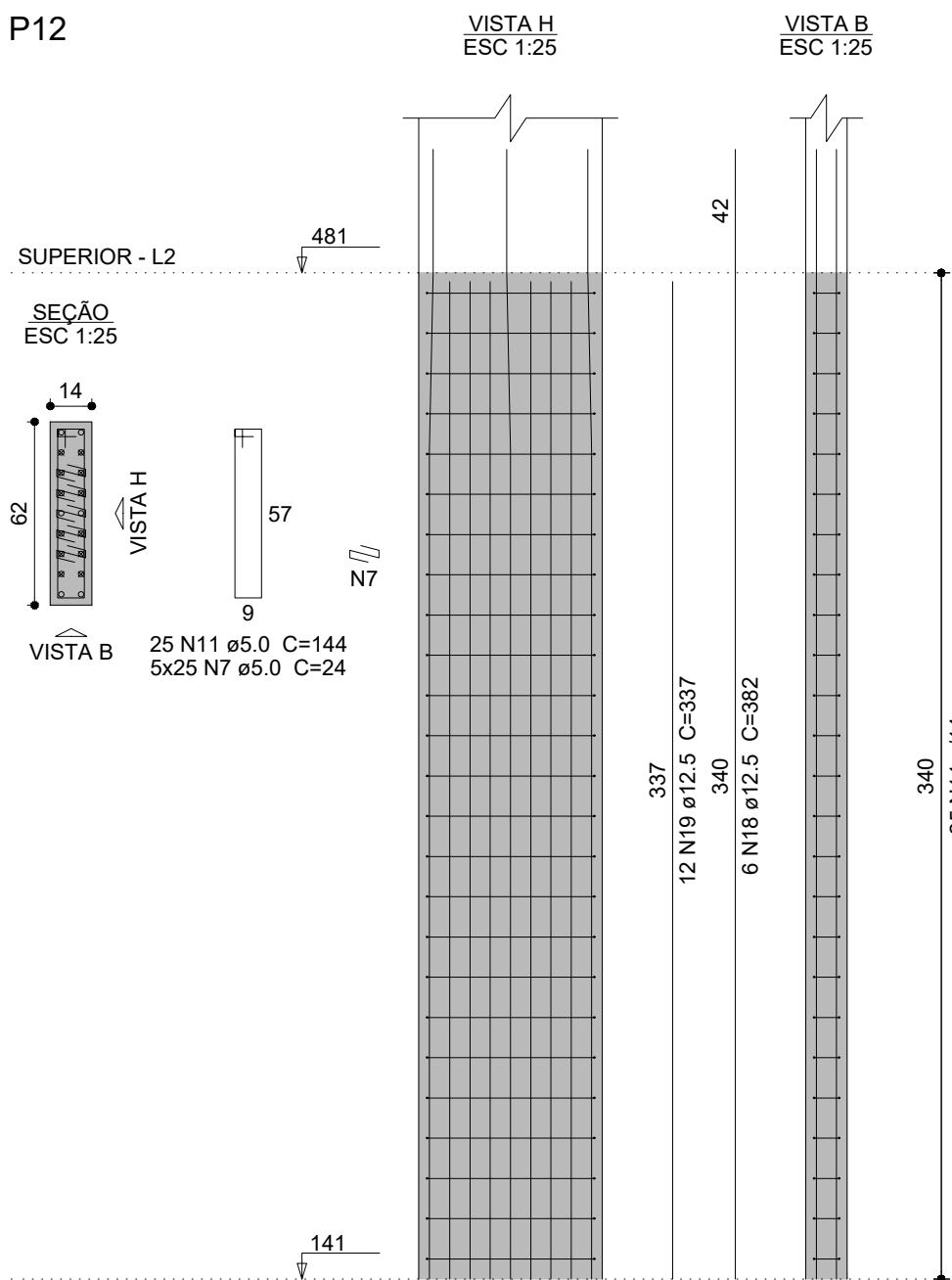
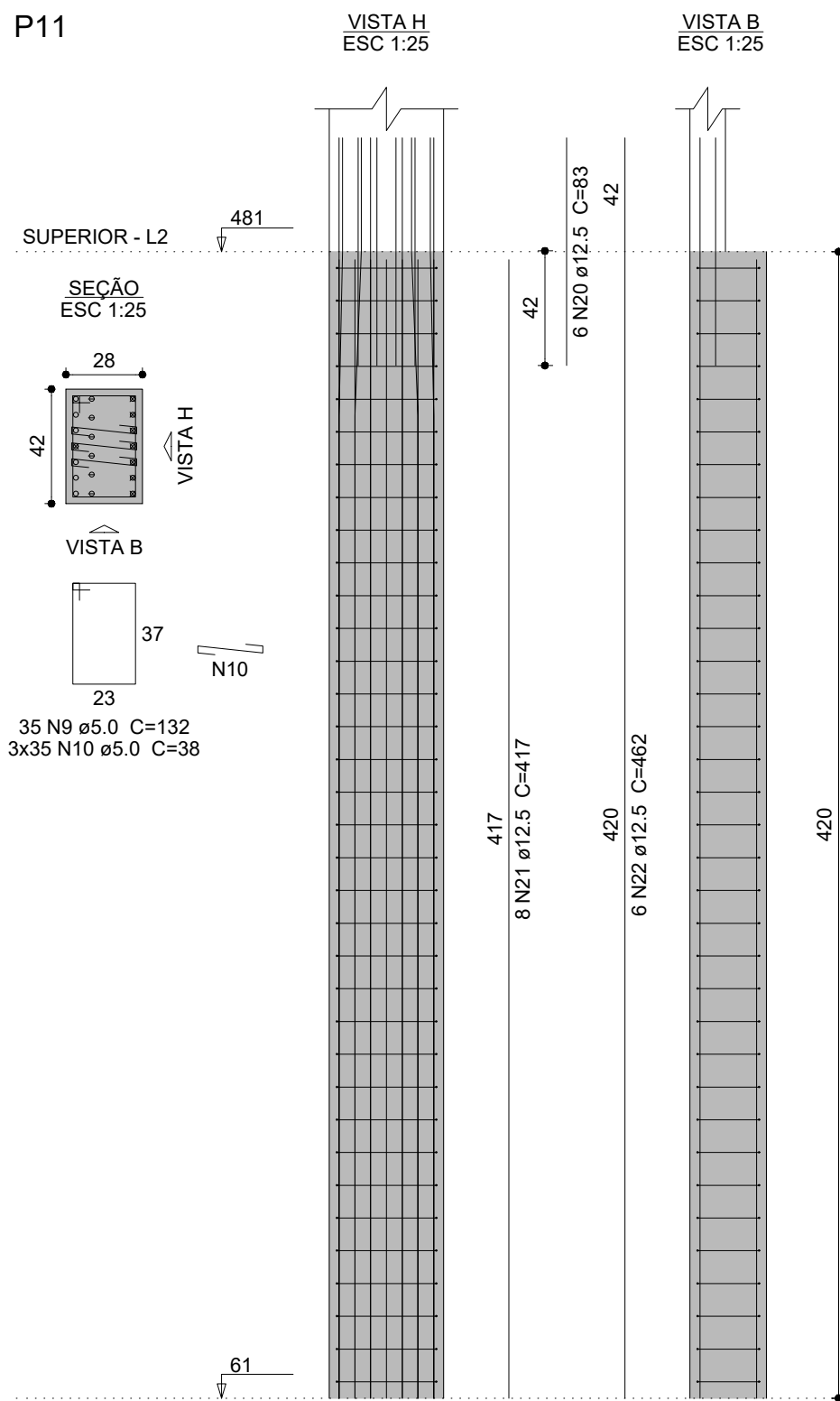
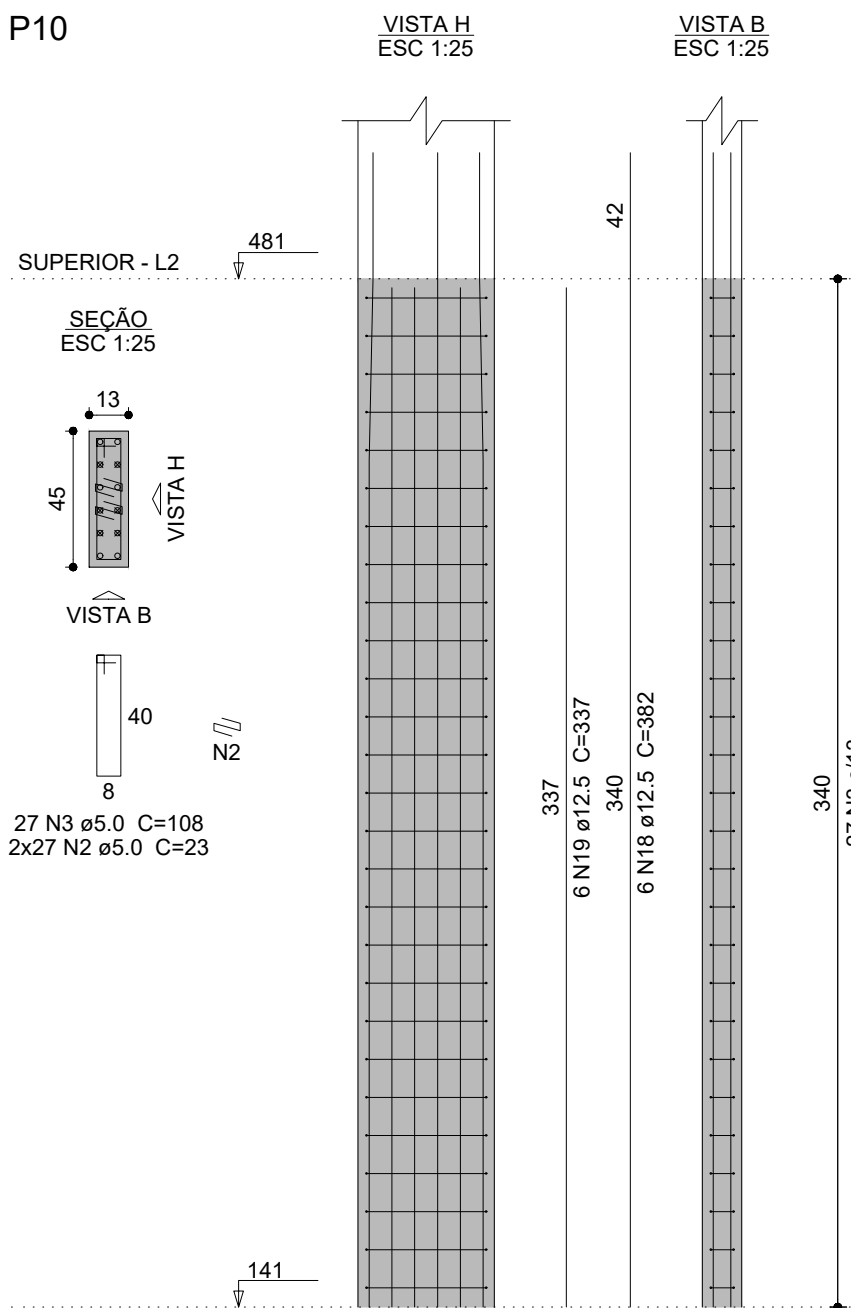
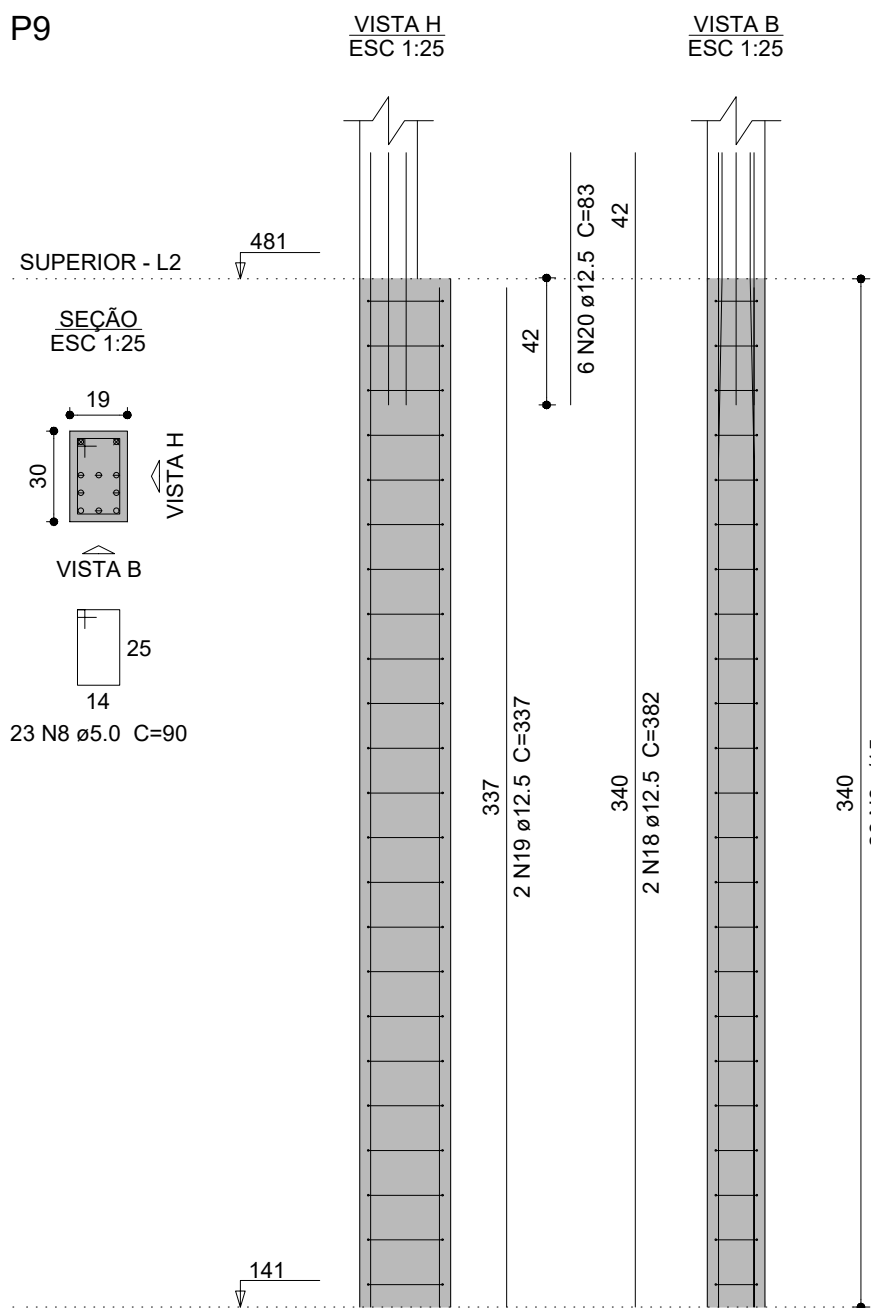
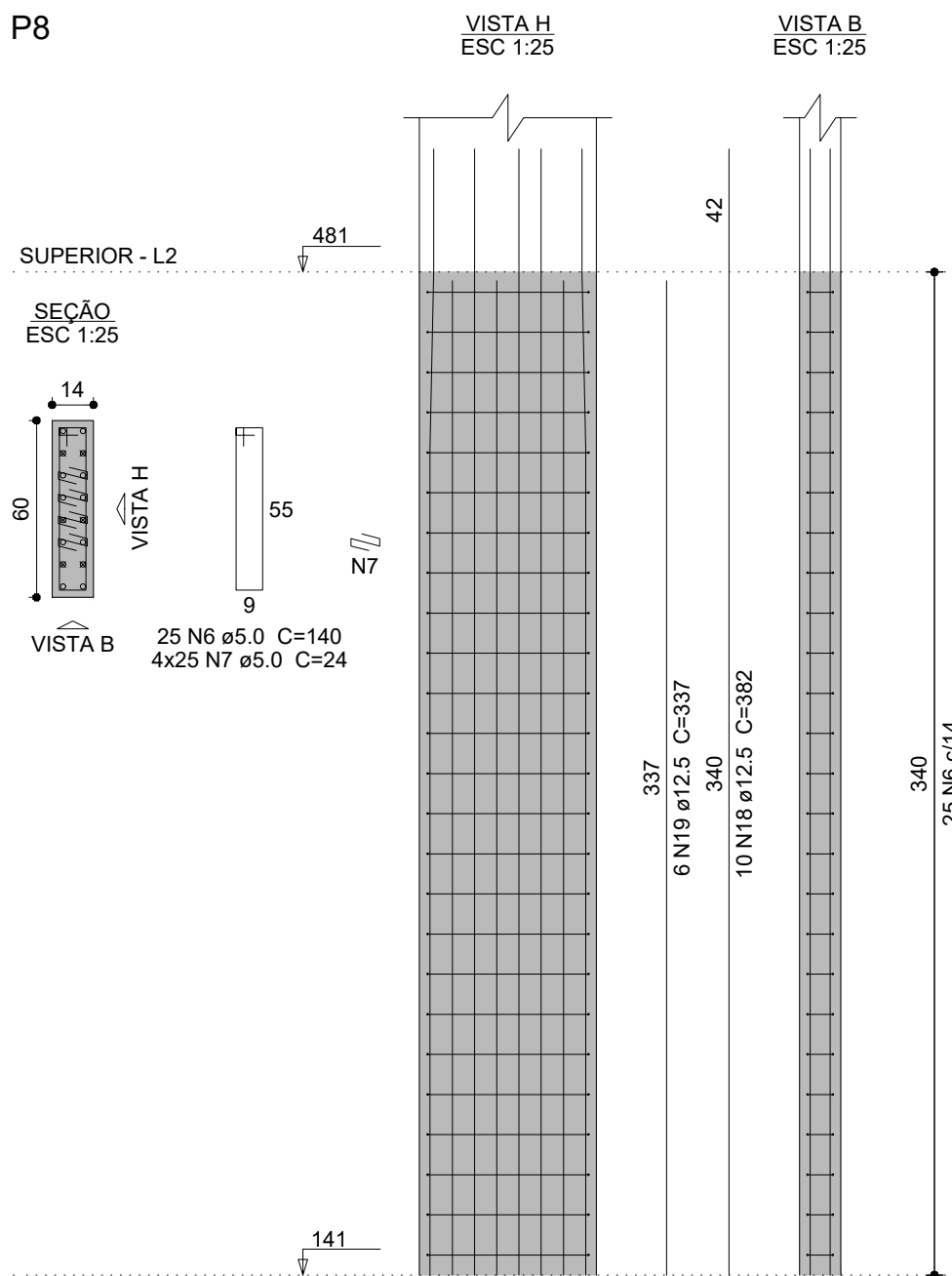
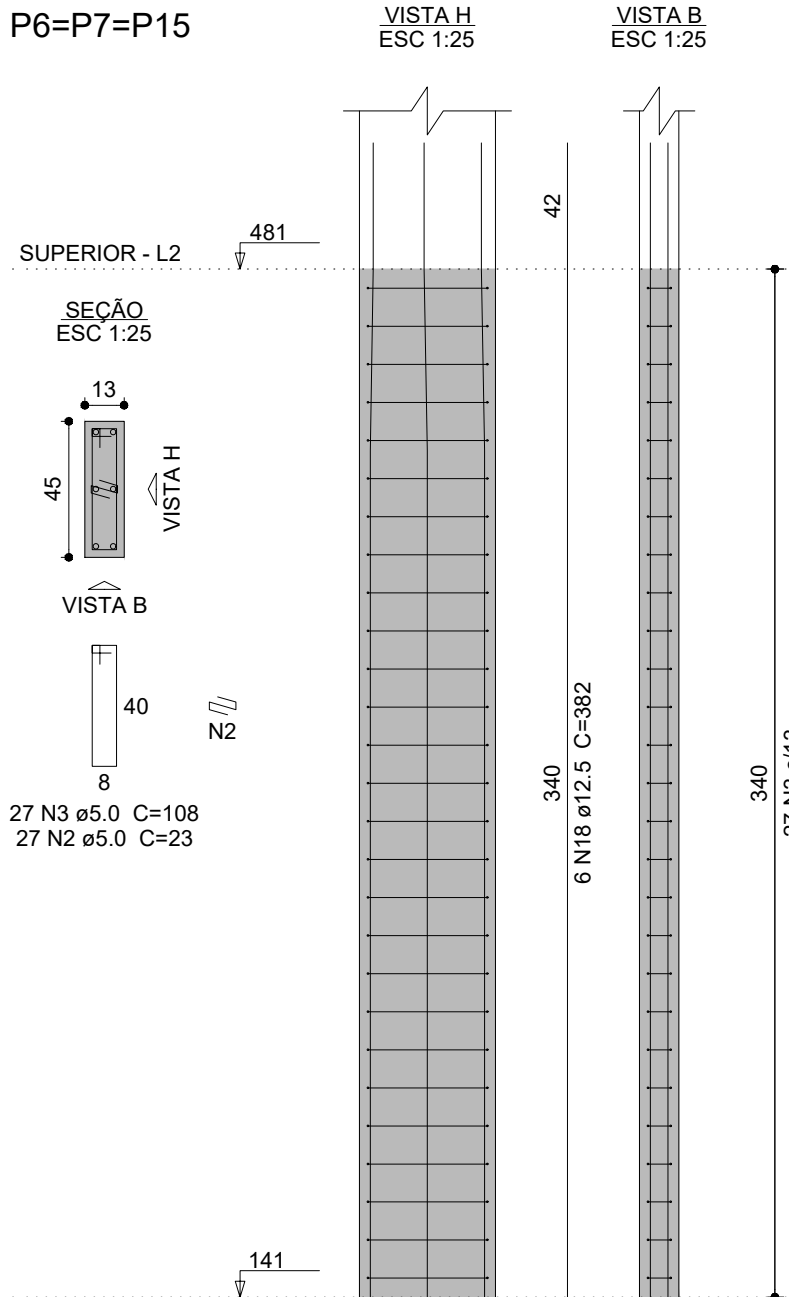
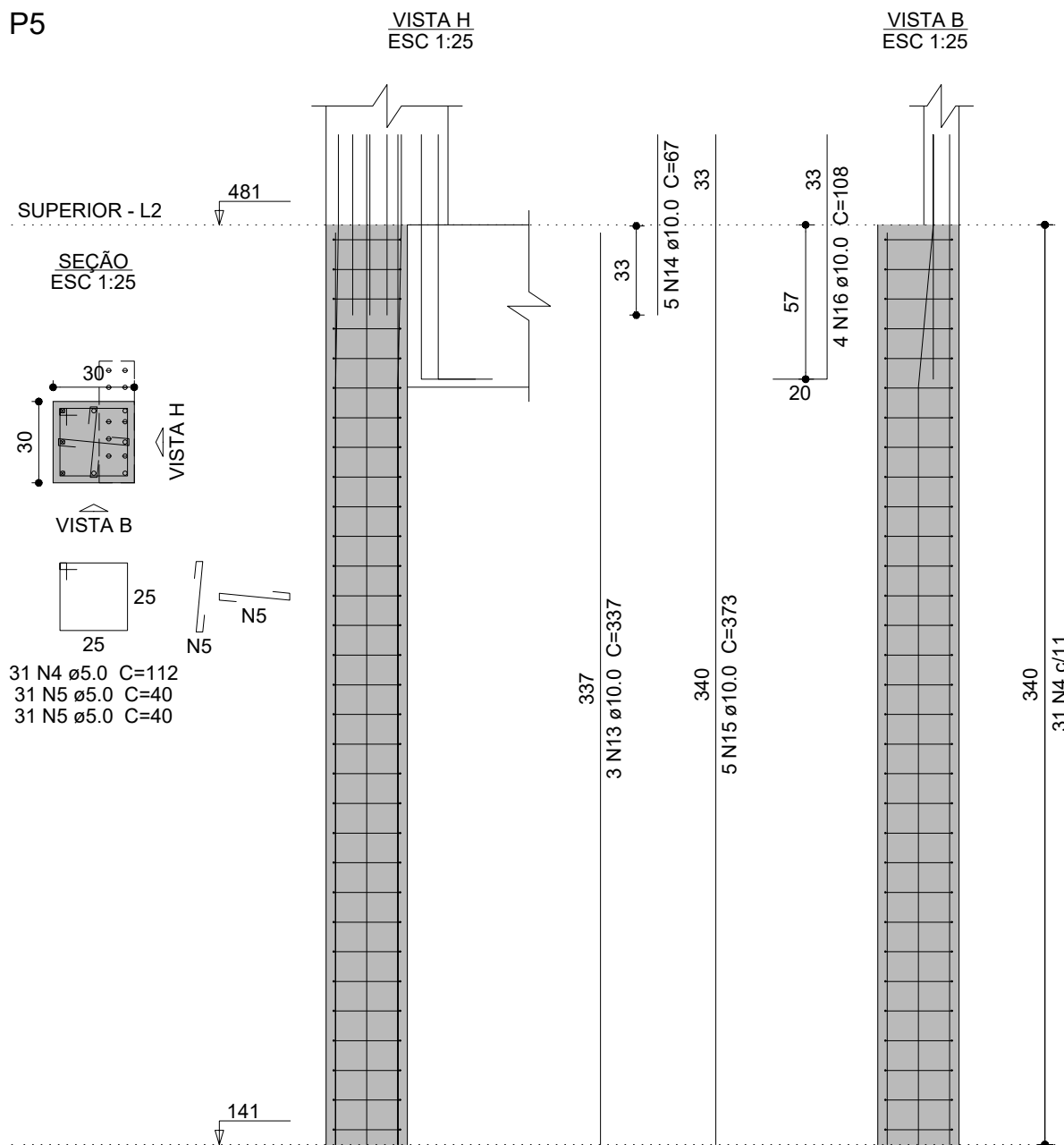
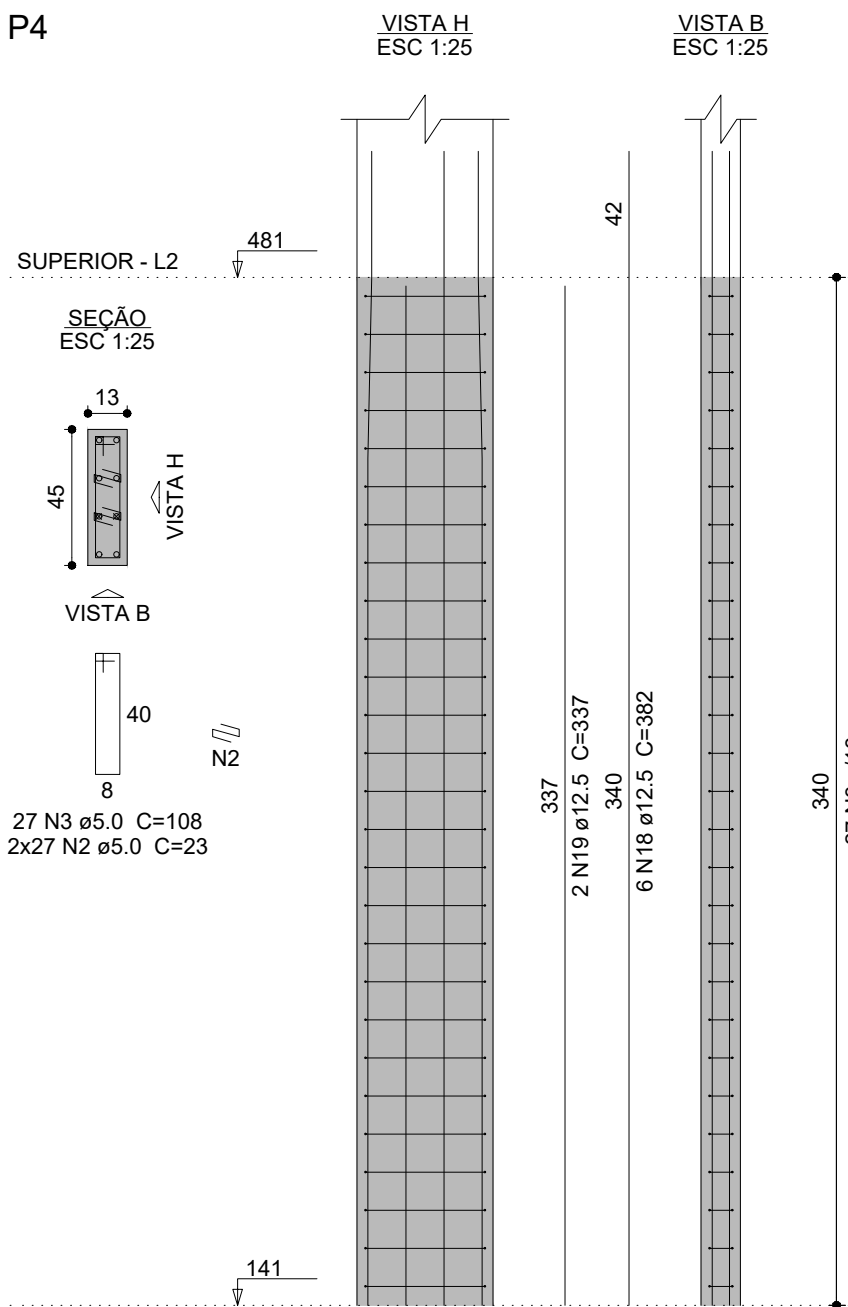
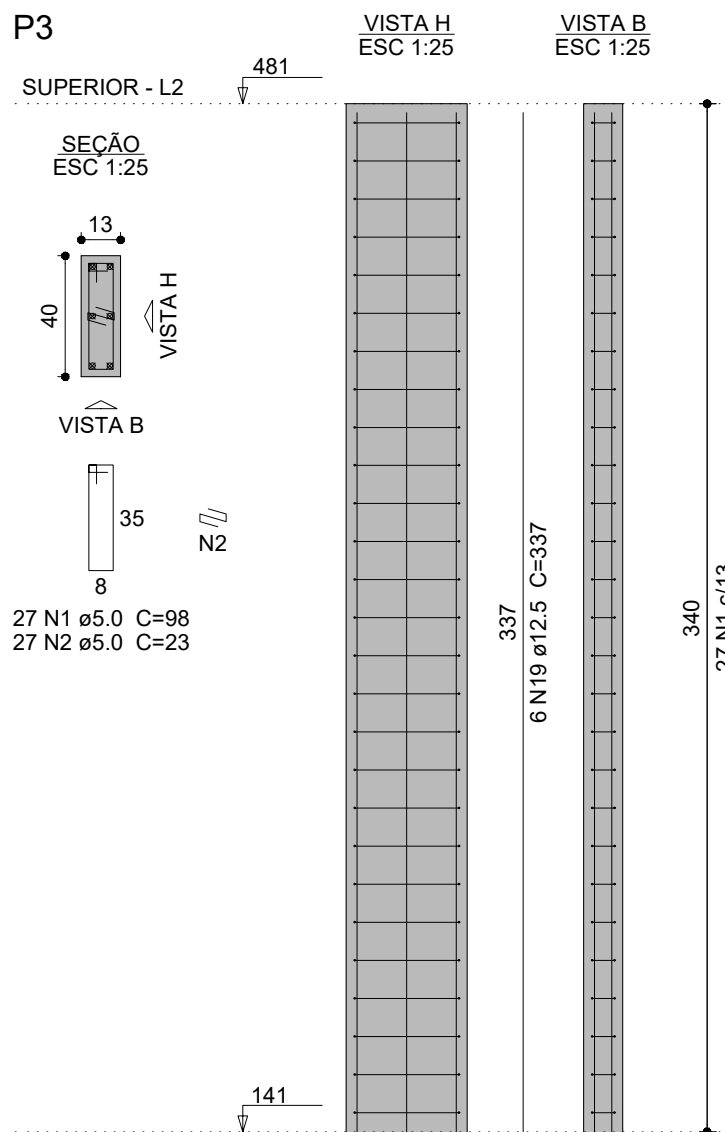
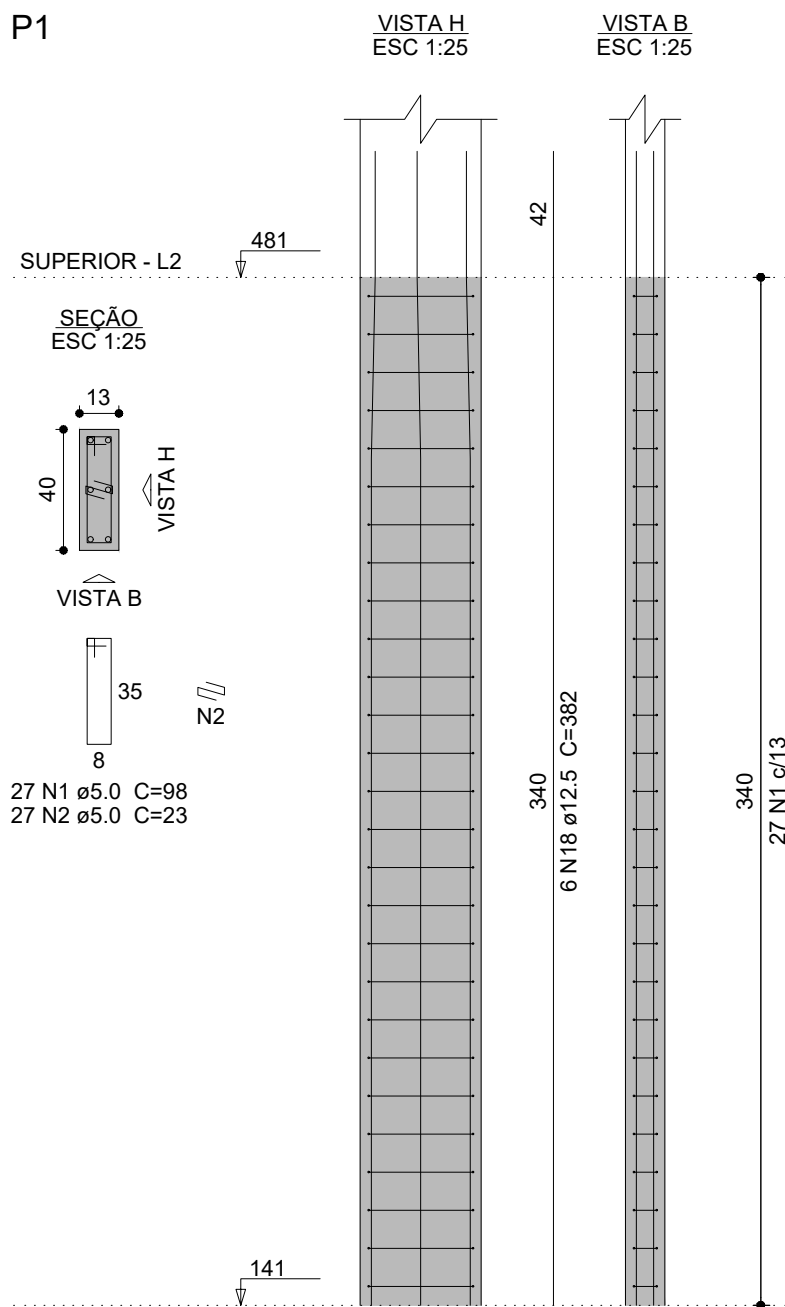
DATA

EMISSÃO INICIAL

DESCRÇÃO:

RES.

VISTO:



Relação do aço

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	54	98	5292
	2	5.0	297	23	6831
	3	5.0	162	108	17496
	4	5.0	31	112	3472
	5	5.0	62	40	2480
	6	5.0	25	140	3500
	7	5.0	225	24	5400
	8	5.0	23	90	2070
	9	5.0	35	132	4650
	10	5.0	105	38	3990
	11	5.0	25	144	3600
	12	5.0	35	104	3640
CA50	13	10.0	3	337	1011
	14	10.0	5	67	335
	15	10.0	5	373	1865
	16	10.0	4	108	432
	17	10.0	4	417	1668
	18	12.5	62	382	23684
	19	12.5	34	337	11458
	20	12.5	12	83	996
	21	12.5	8	417	3336
	22	12.5	6	462	2772

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	53.2	36
CA60	12.5	422.5	447.7
CA60	5.0	624	105.8
PESO TOTAL (kg)			
CA50	483.7		
CA60	105.8		

Volume de concreto (C-30) = 3.45 m³
Área de forma = 59.07 m²

RESP. PROJETO:

DESENHO:

PROJETO DE CONCRETO ARMADO
PROJETO EXECUTIVO
PILARES SUPERIOR

REFERÊNCIA:

OBSERVAÇÕES

REV.	DATA	EMISSÃO INICIAL	DESCRICAÇÃO	RESP.	VISTO:
R00	21/09/20				

CONTRATANTE:

OBRA:

EDIFICAÇÃO RESIDENCIAL

PROPRIETÁRIO

RESP. EXECUÇÃO

RESP. PROJETO

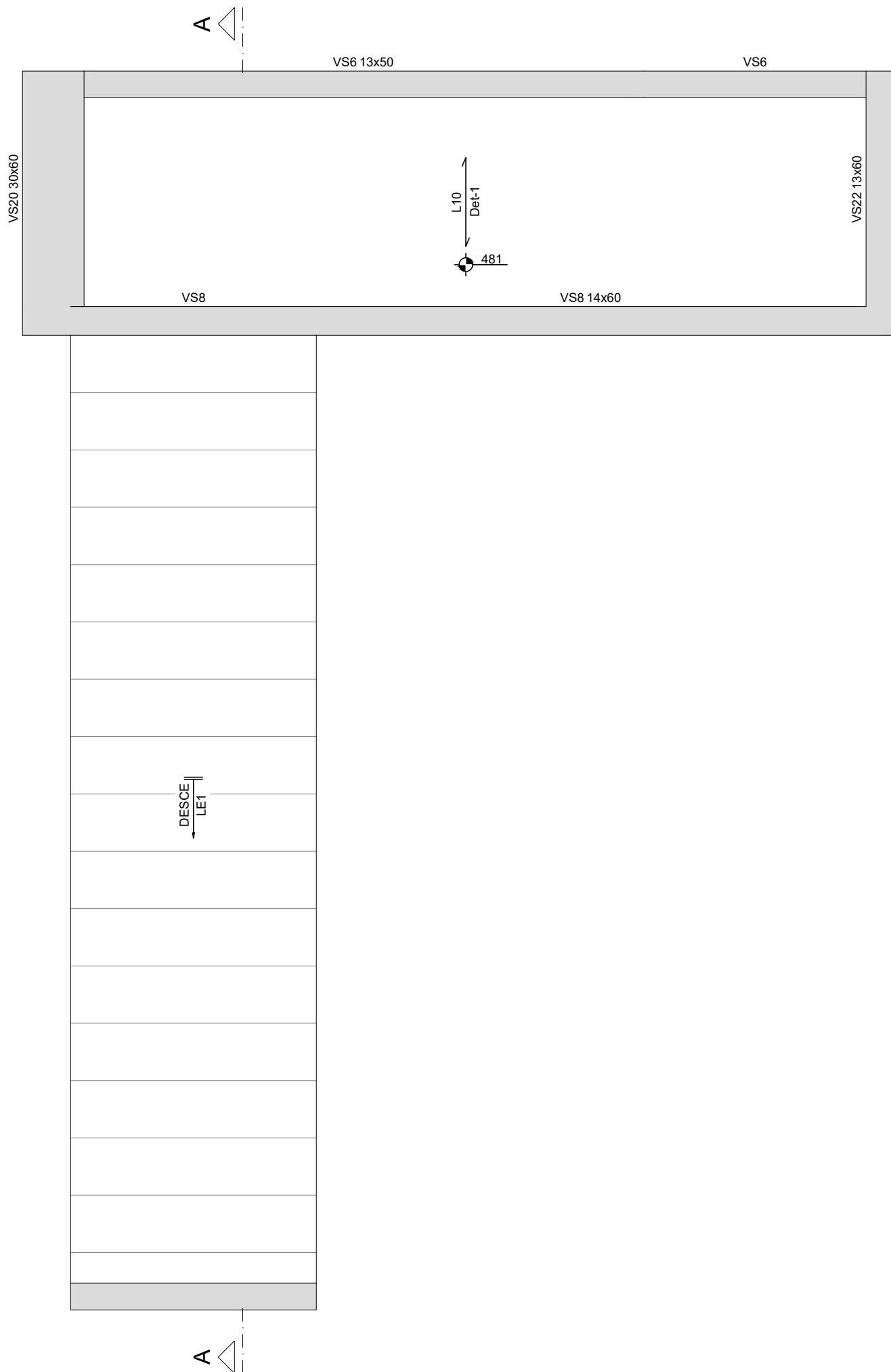
Nº OS: OS 037-20

DATA: 21/09/2020

ESCALA: INDICADAS

FOLHA:

CA-07

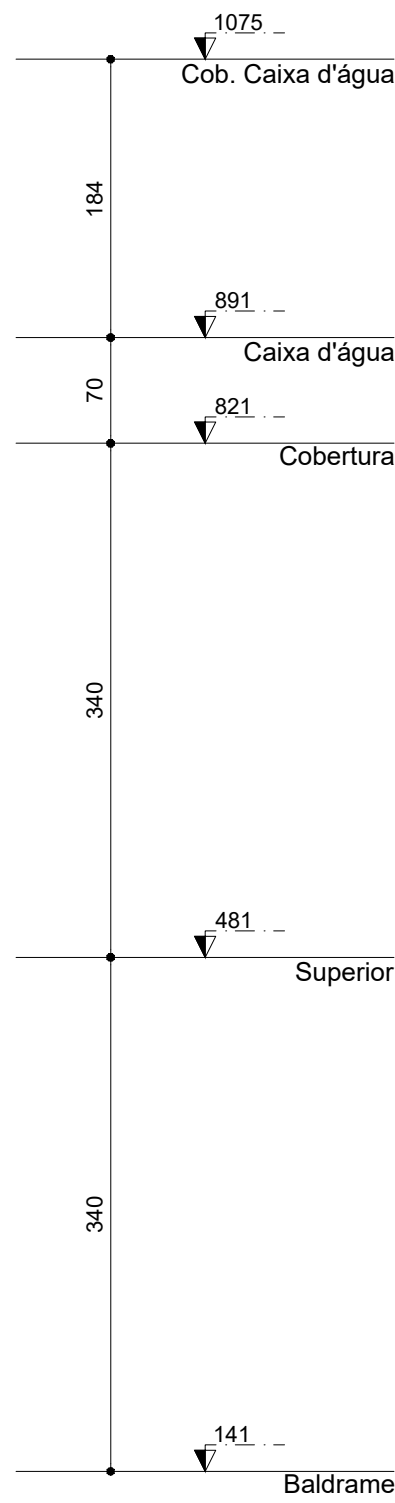
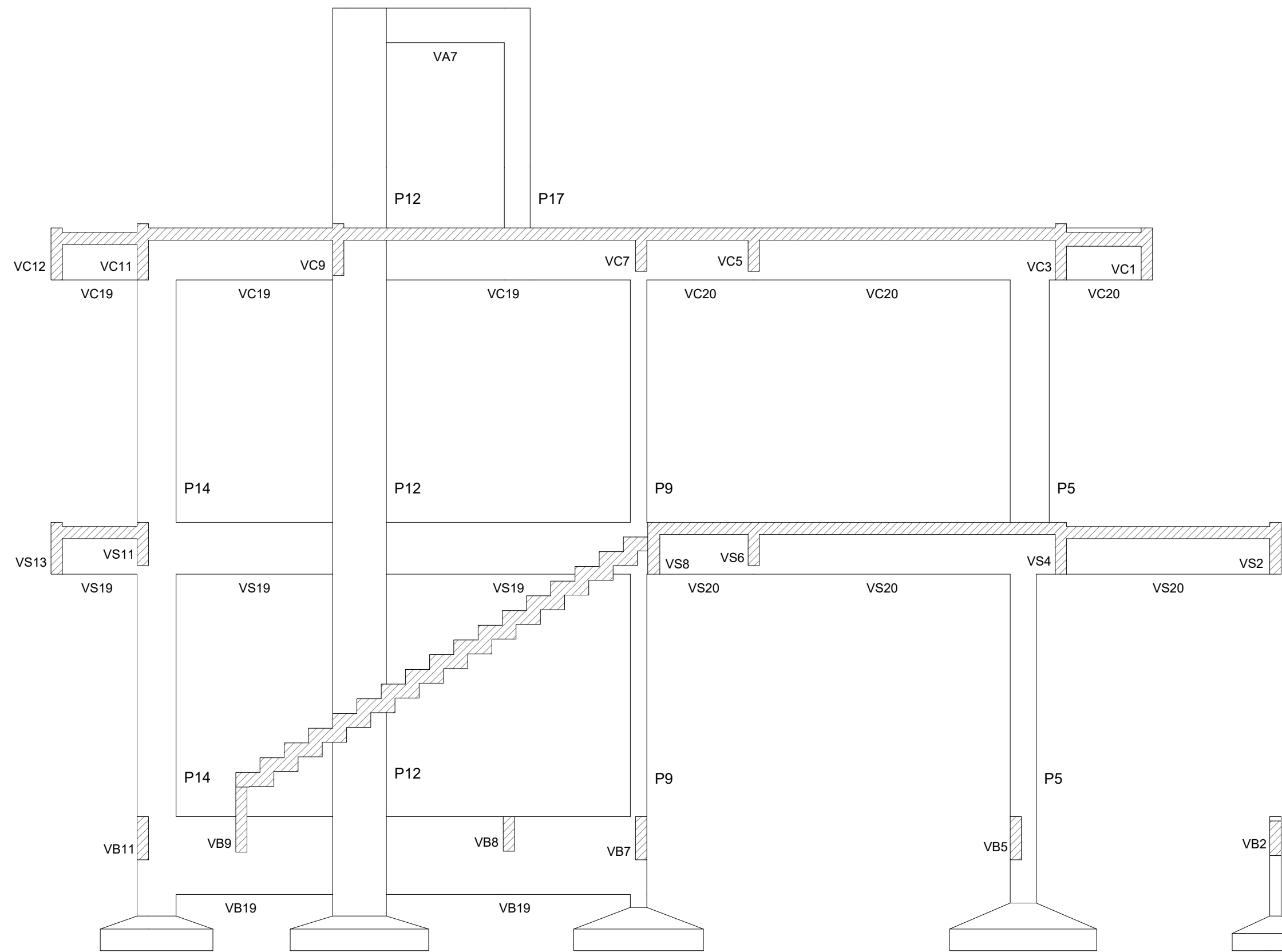


Armação positiva da escada E1
ESC 1:25

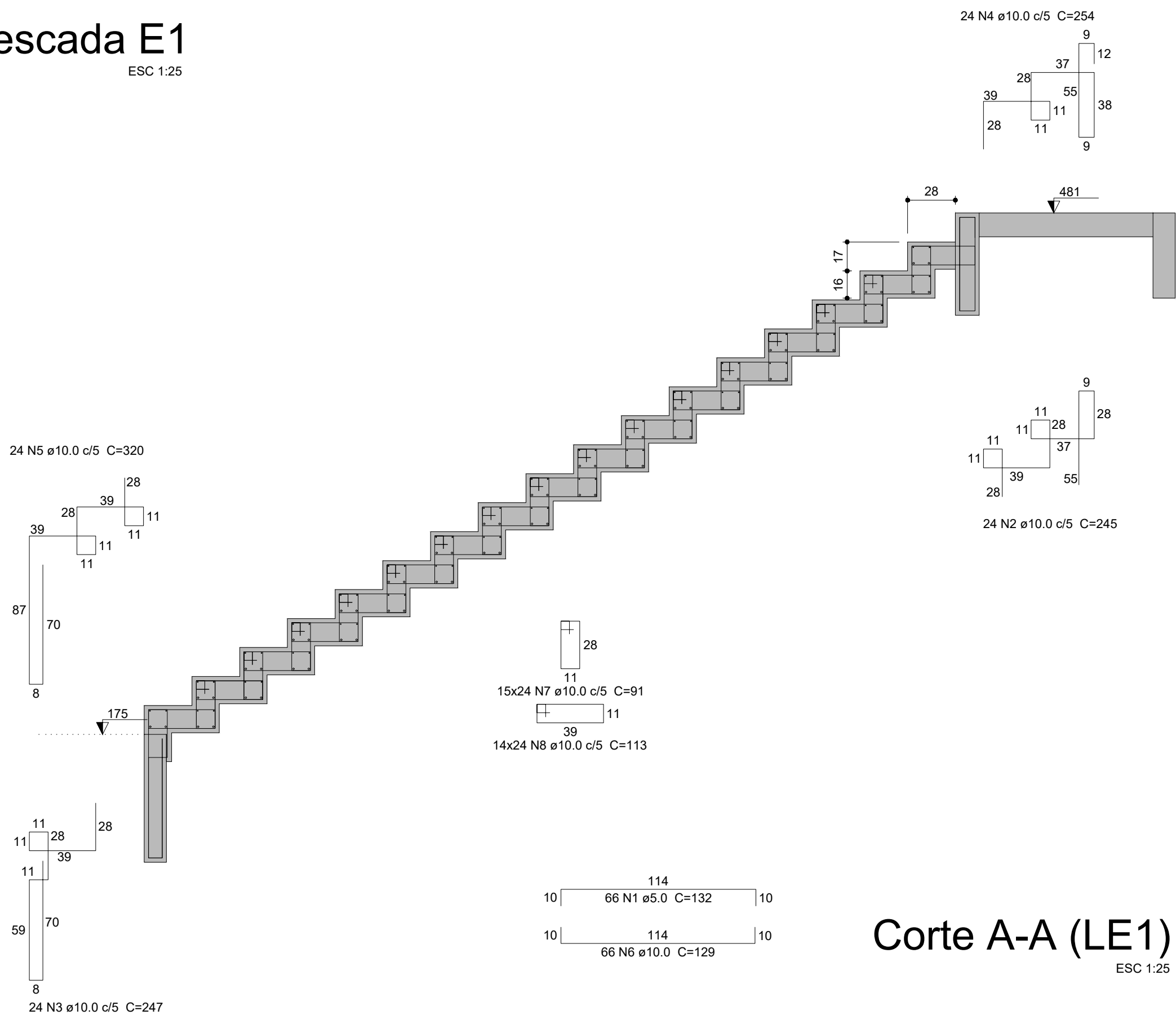
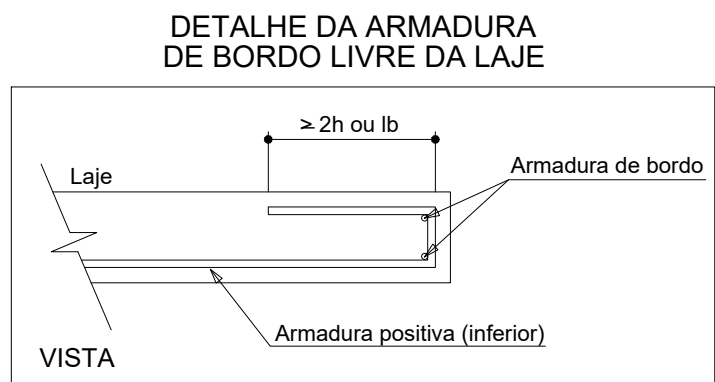
Relação do aço					
LE1					
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	66	132	8712
CA50	2	10.0	24	245	5880
	3	10.0	24	247	5928
	4	10.0	24	254	6096
	5	10.0	24	320	7680
	6	10.0	66	129	8514
	7	10.0	360	91	32760
	8	10.0	336	113	37968

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	1048.3	710.9
CA60	5.0	87.2	14.8
PESO TOTAL (kg)			
CA50	710.9		
CA60	14.8		

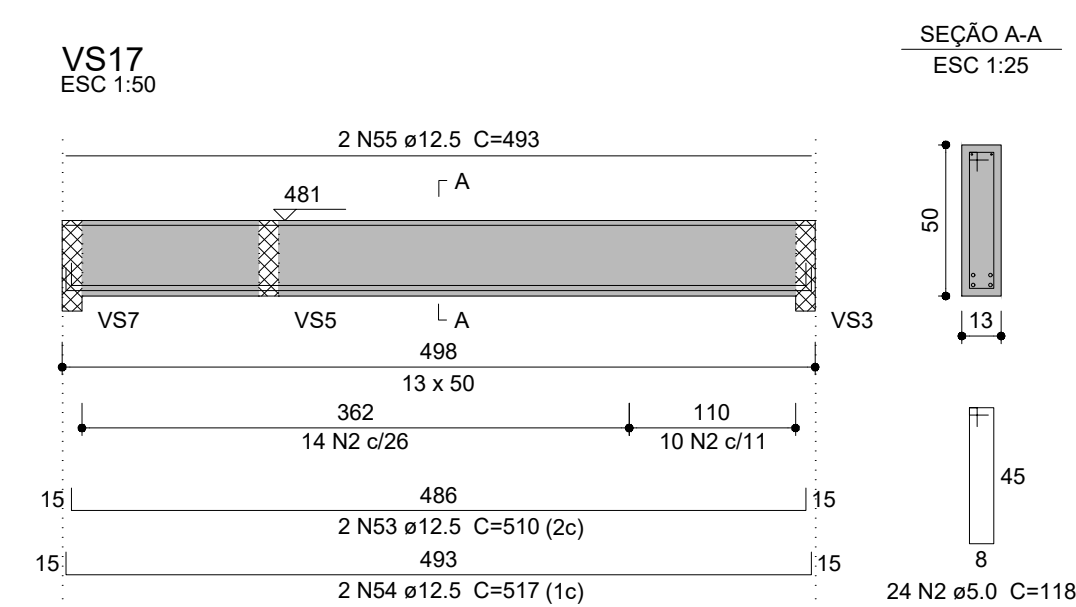
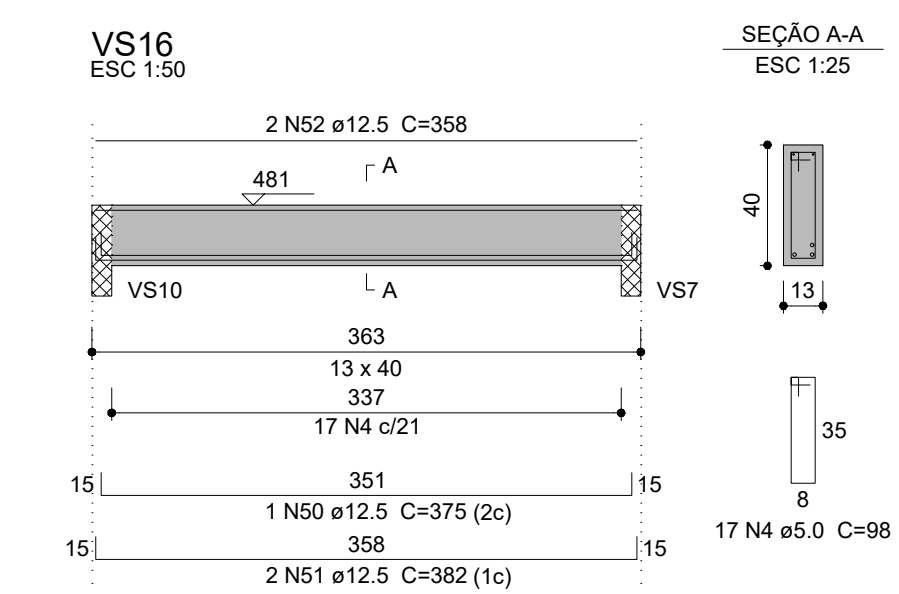
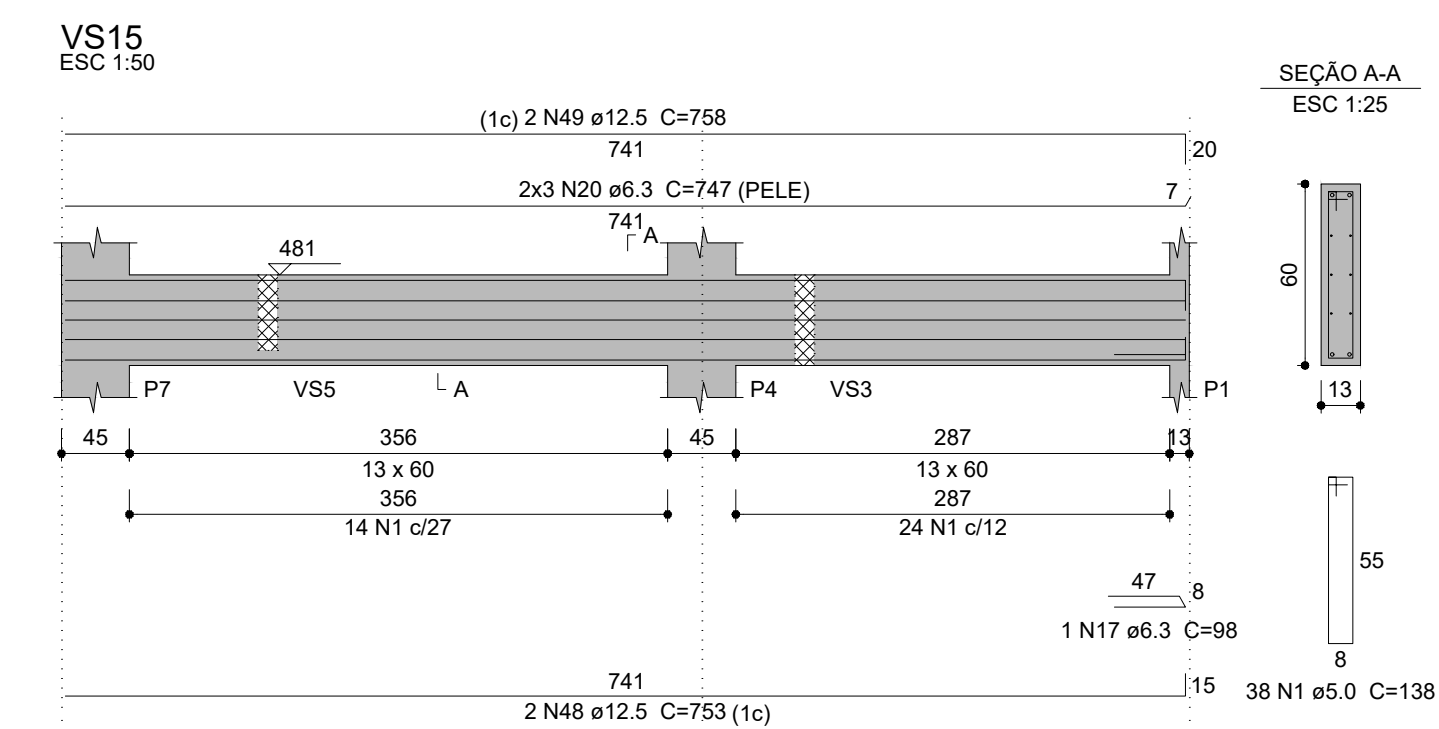
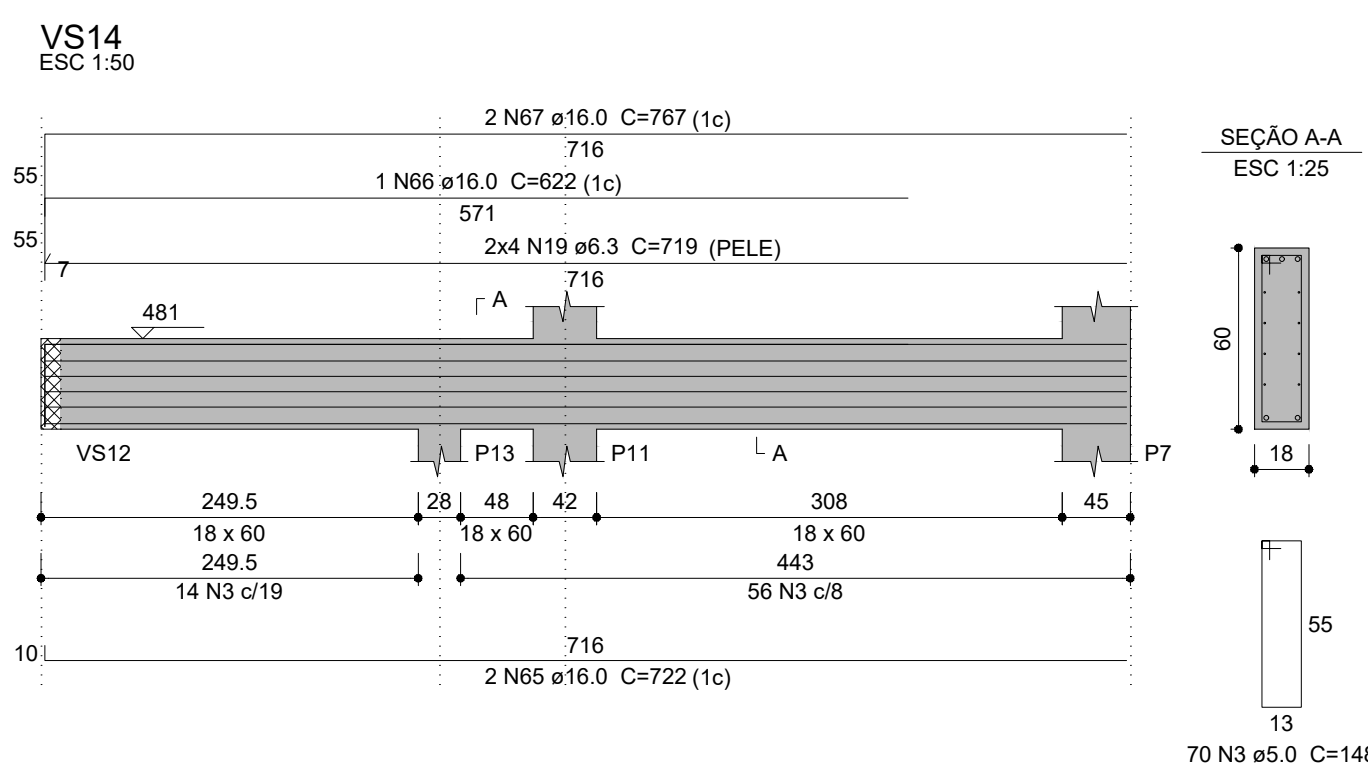
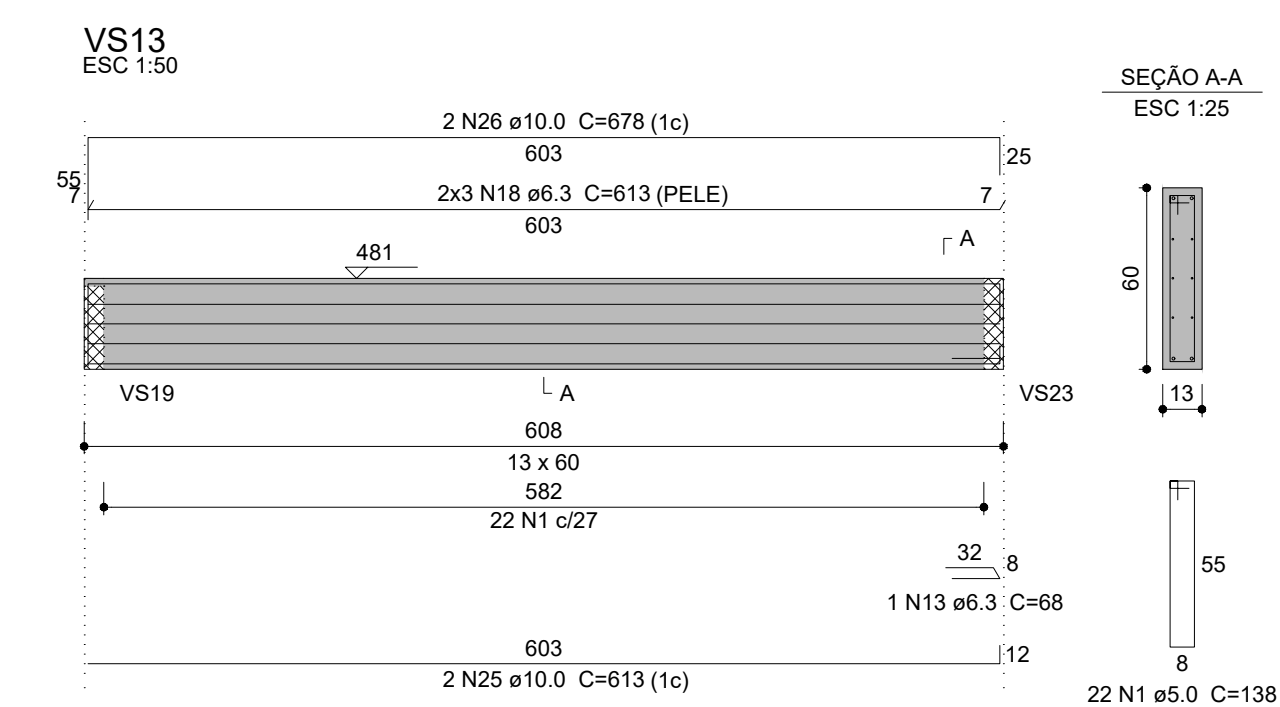
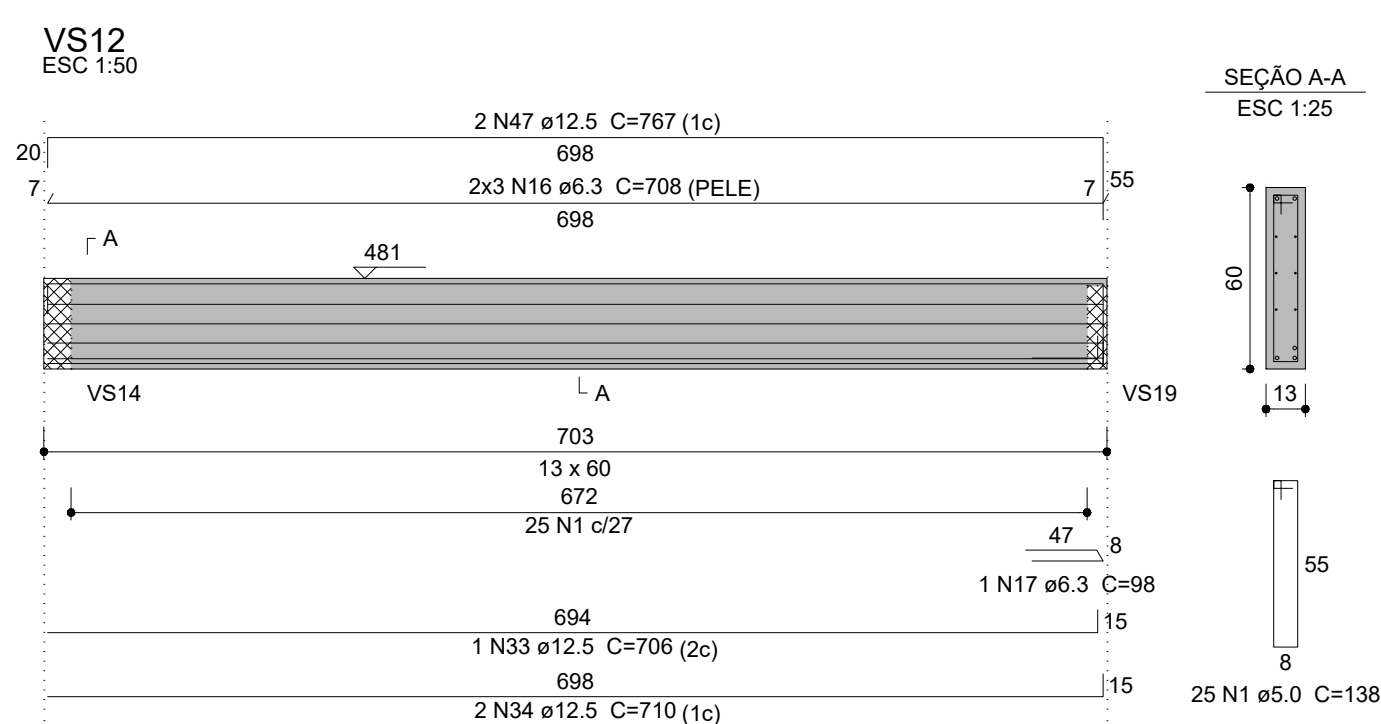
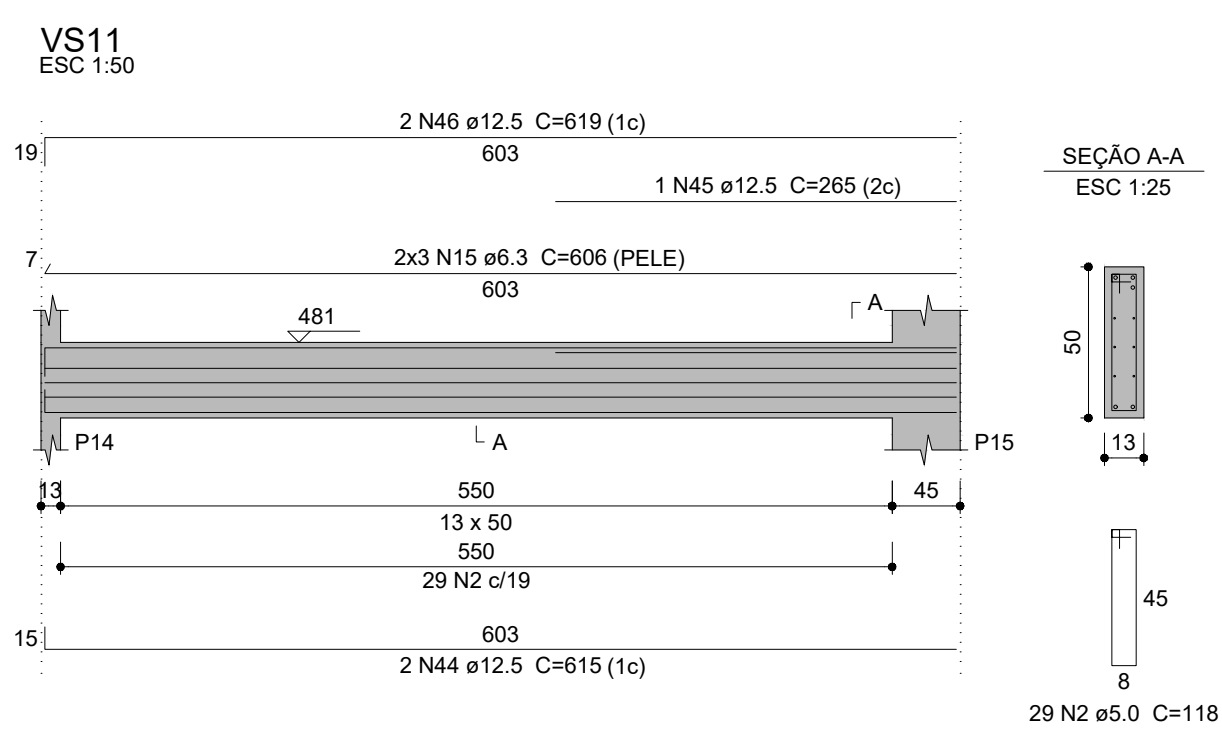
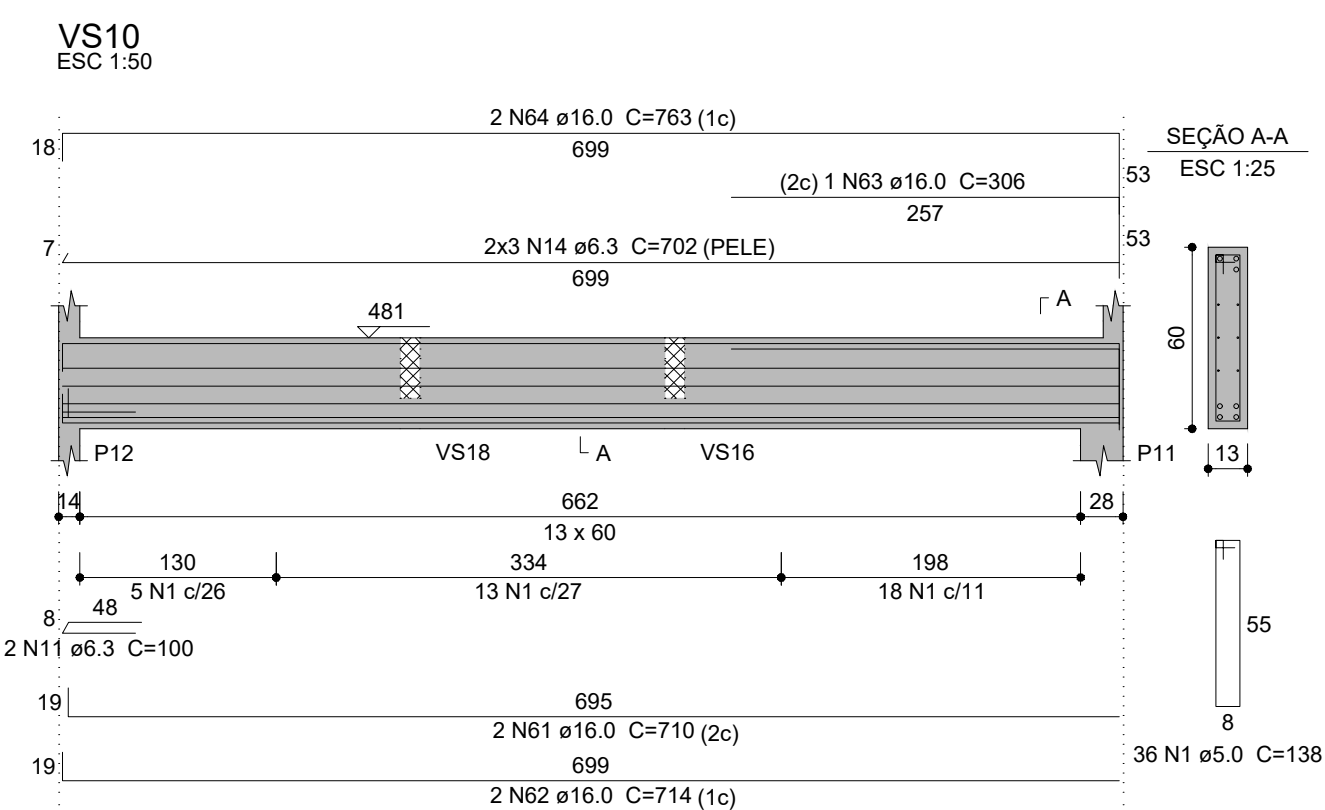
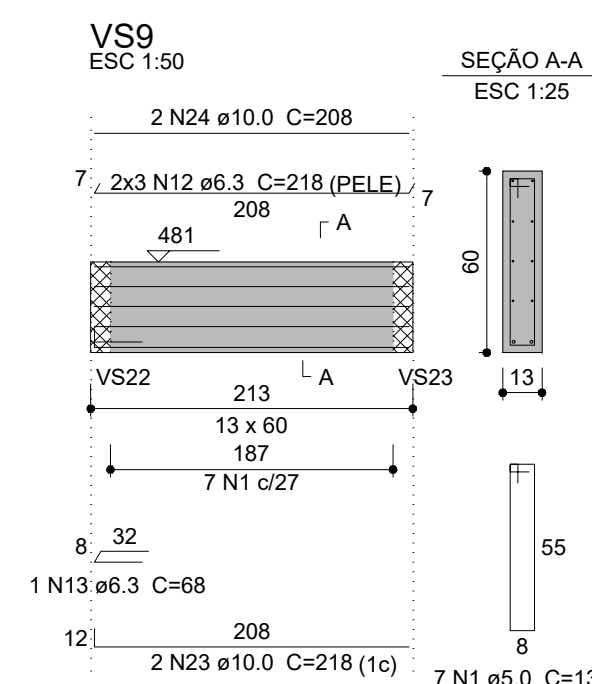
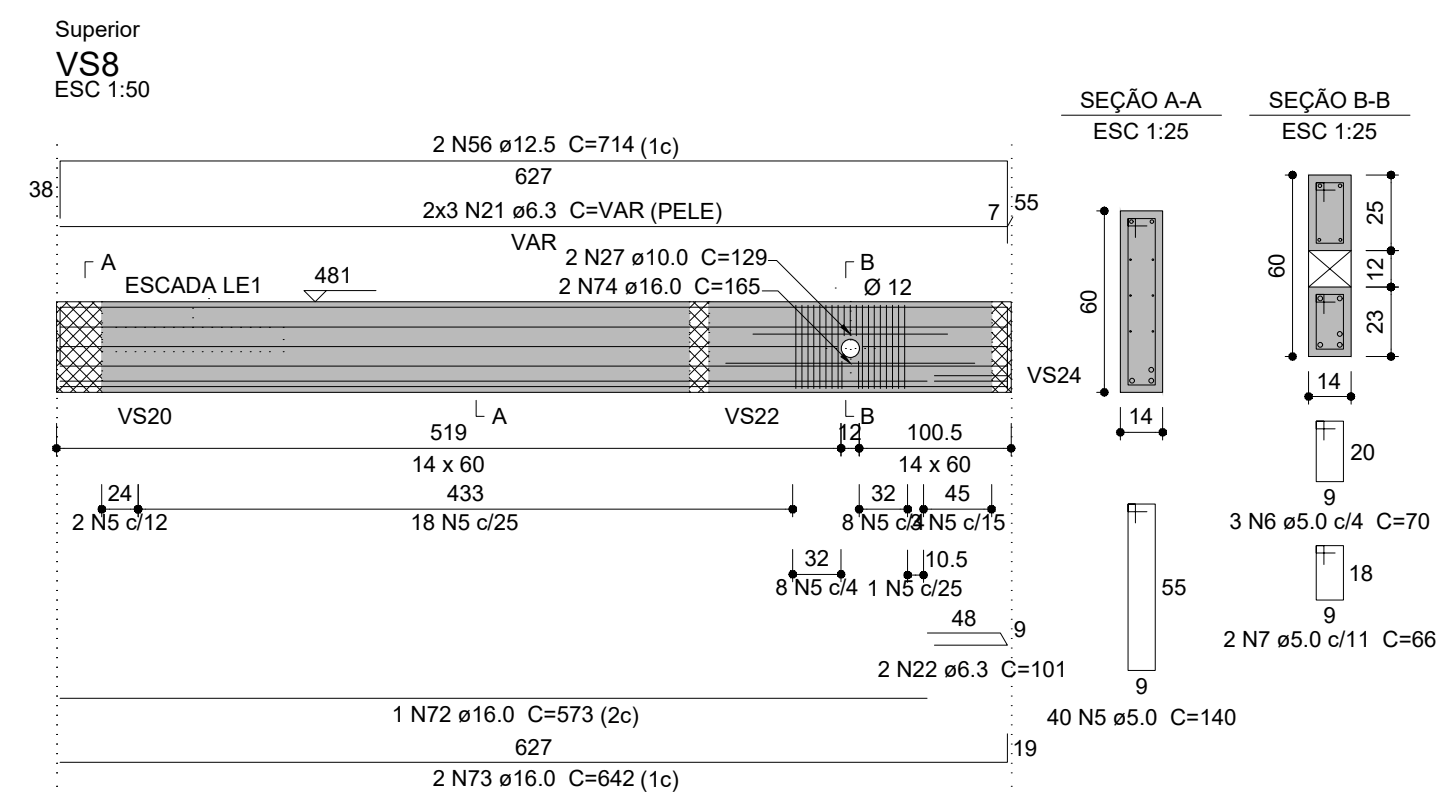
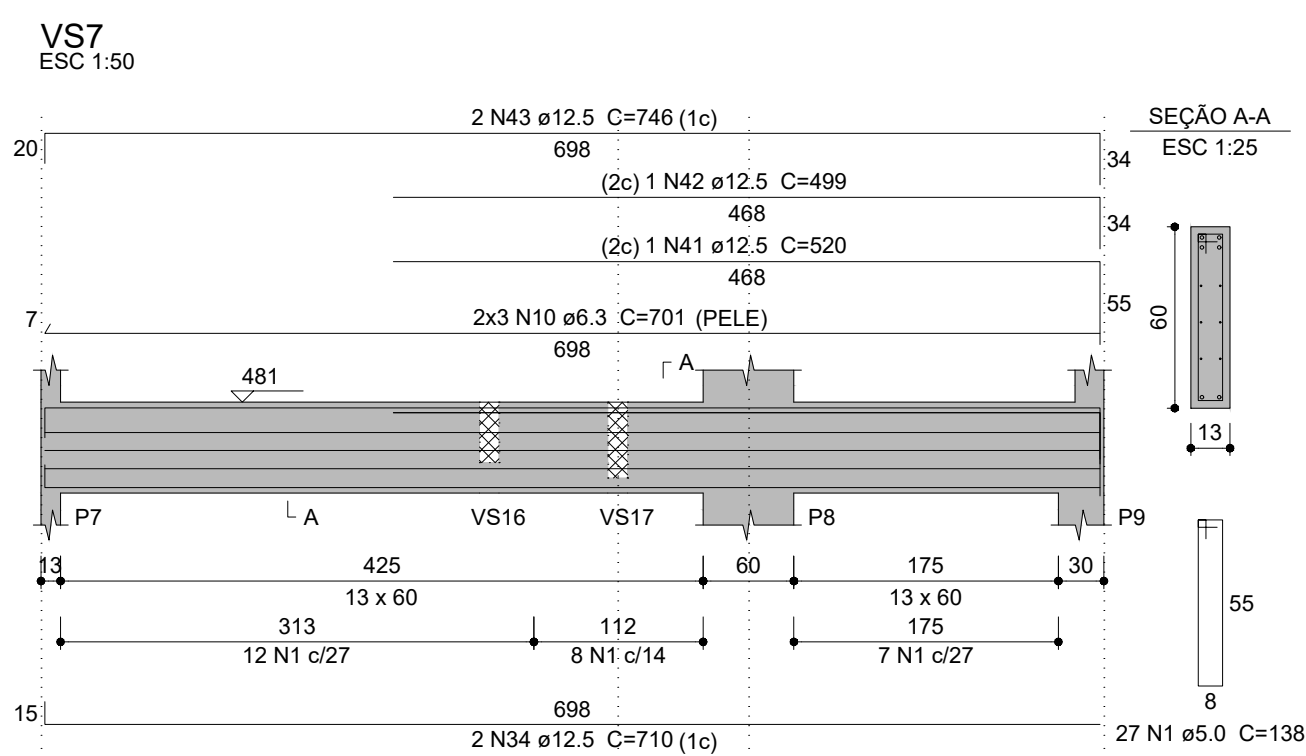
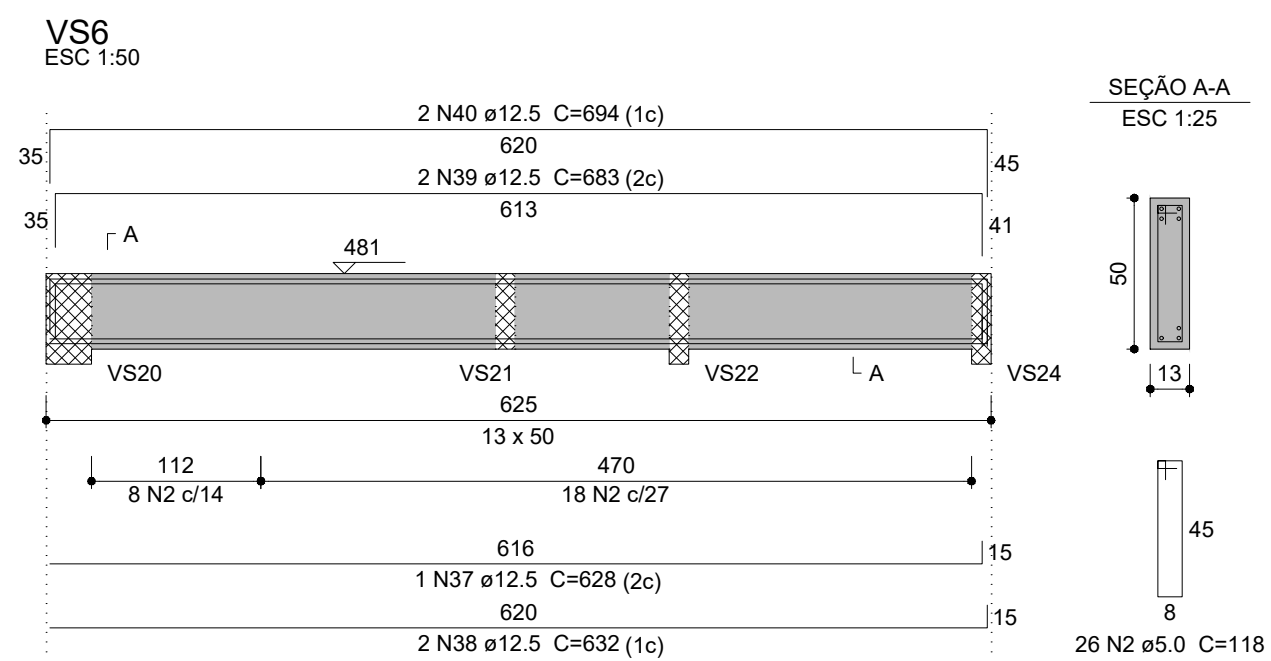
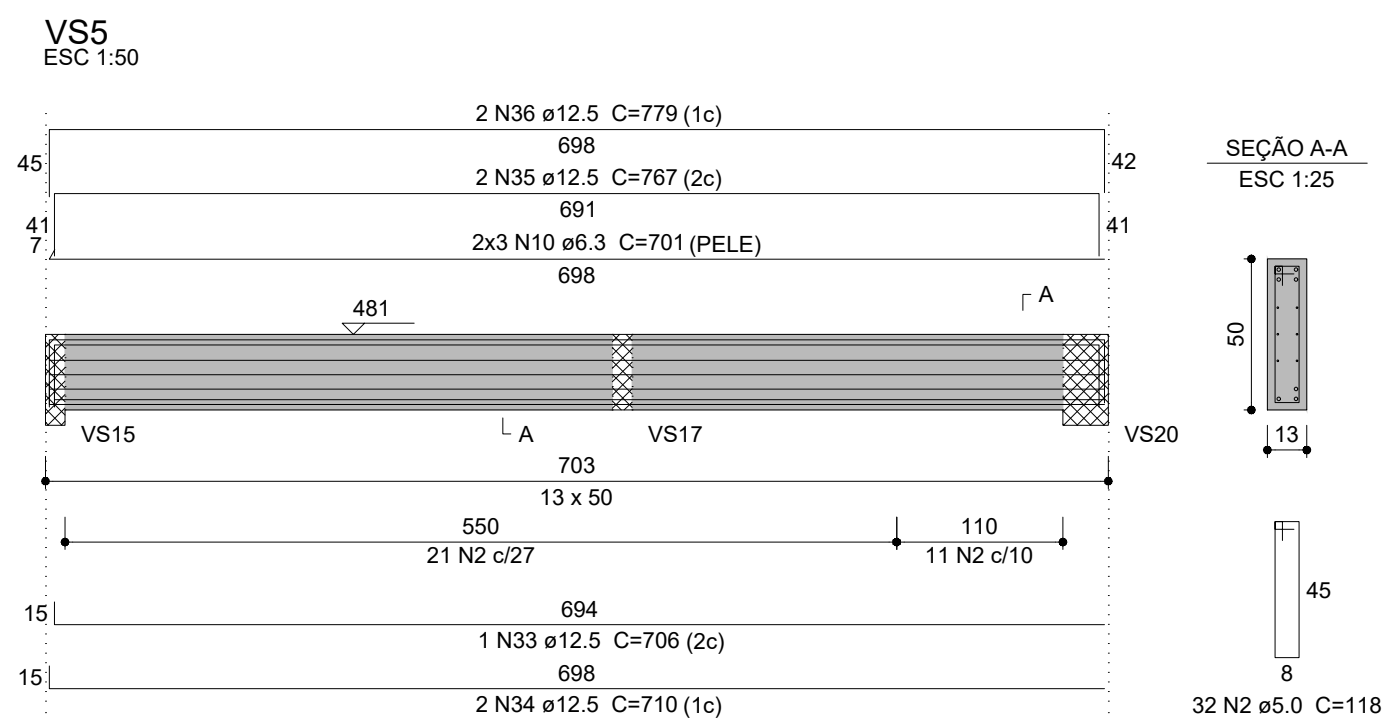
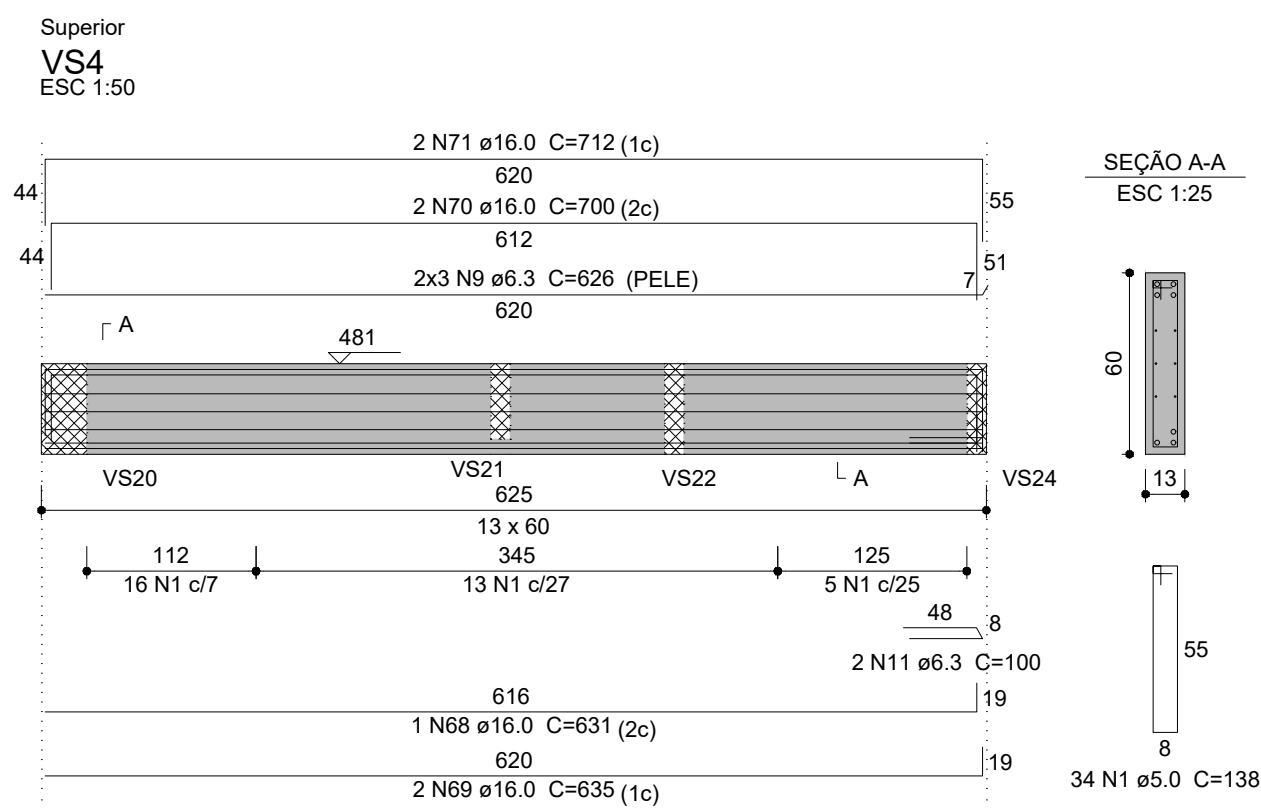
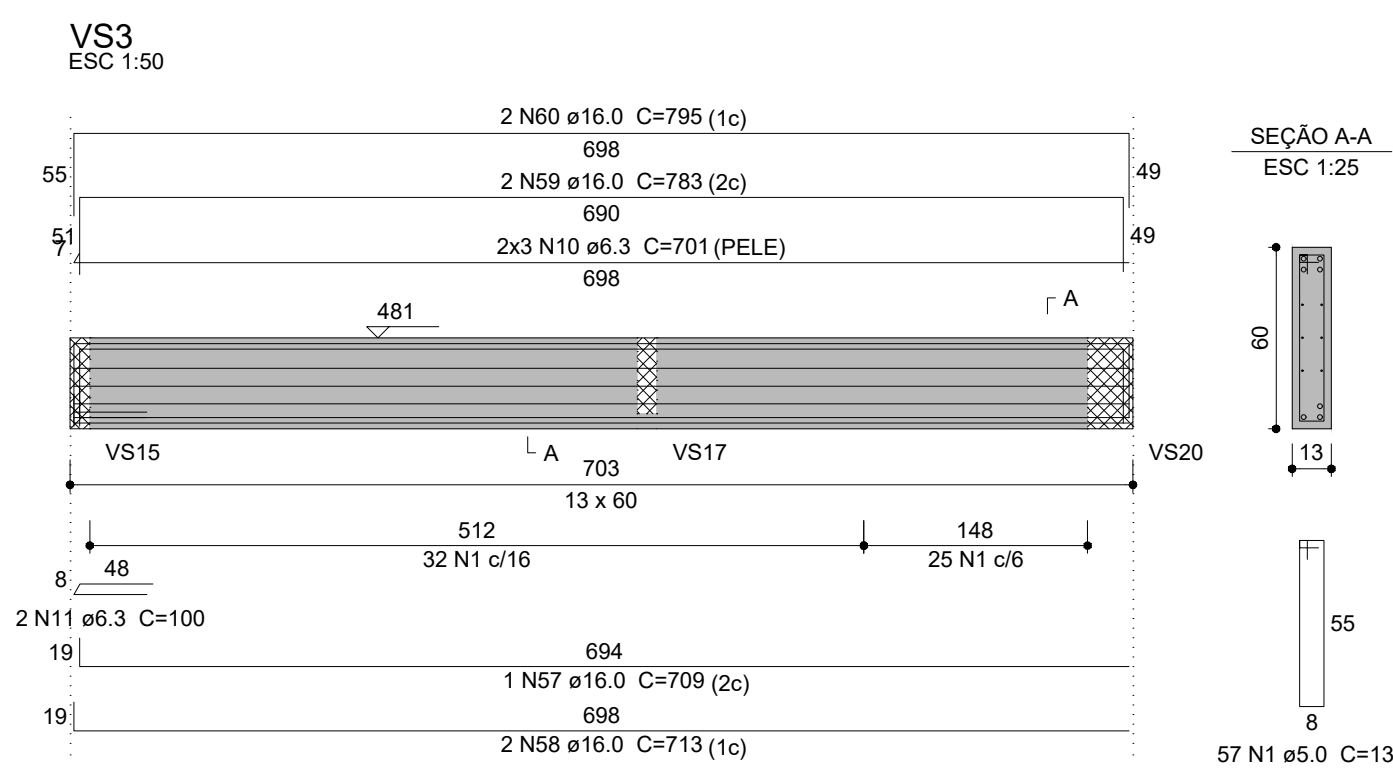
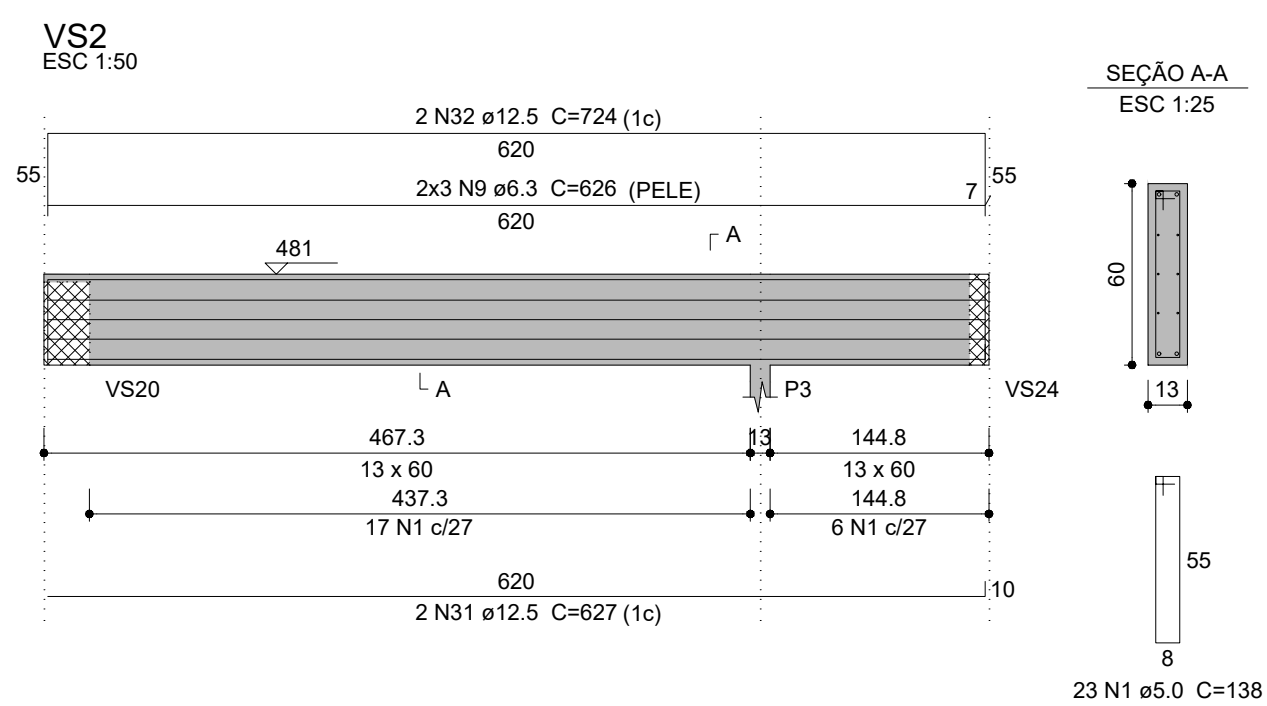
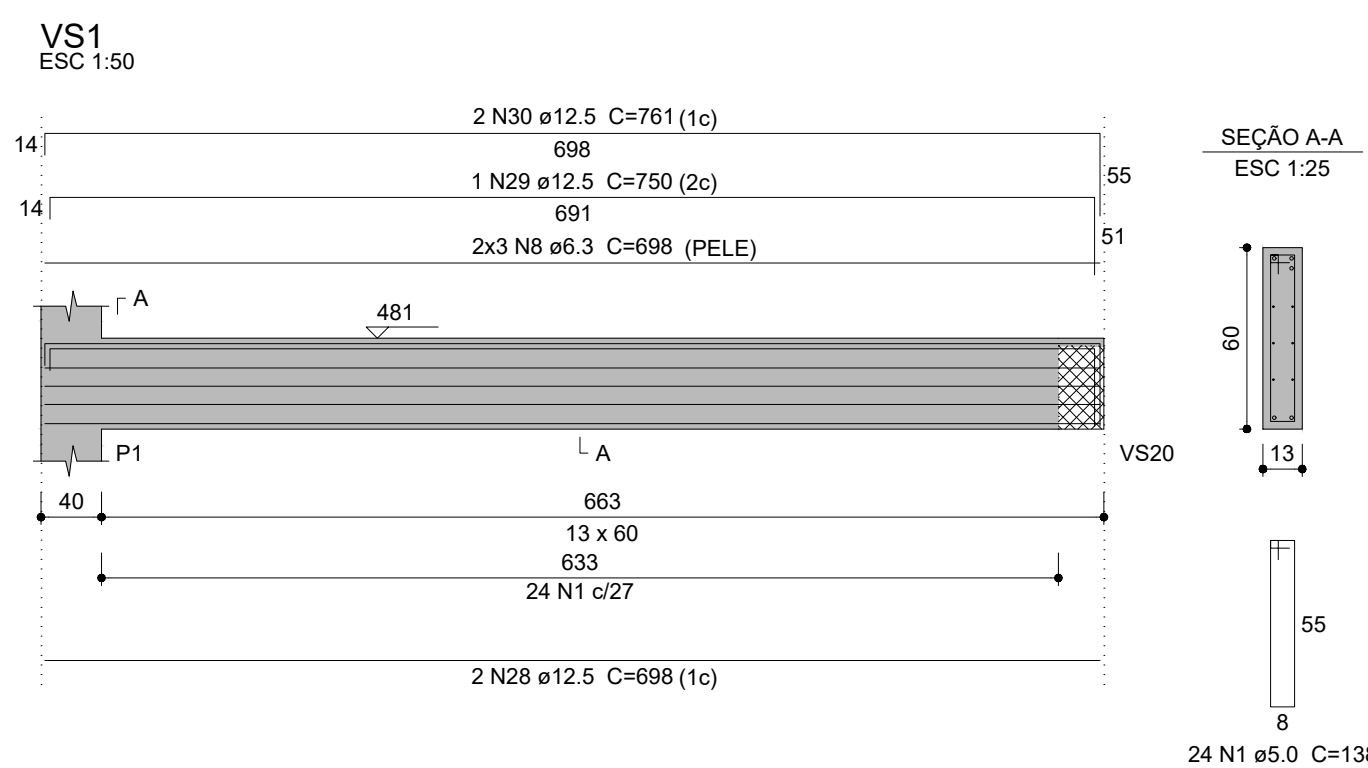
Volume de concreto (C-30) = 1.49 m³
Área de forma = 15.55 m²



Corte B-B
escala 1:50



Corte A-A (LE1)
ESC 1:25



Relação do aço

VS1		VS2		VS3		
VS4		VS5		VS6		
VS7		VS8		VS9		
VS10		VS11		VS12		
VS13		VS14		VS15		
VS16		VS17				

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	293	138	40434
	2	5.0	111	118	13098
	3	5.0	70	148	10360
	4	5.0	17	98	1666
	5	5.0	40	140	5600
CA50	6	5.0	3	70	210
	7	5.0	2	66	132
	8	6.3	6	696	4168
	9	6.3	12	626	7512
	10	6.3	18	701	12618
	11	6.3	6	100	600
	12	6.3	6	218	1308
	13	6.3	2	68	136
	14	6.3	6	702	4212
	15	6.3	6	606	3636
	16	6.3	6	708	4248
	17	6.3	2	98	196
	18	6.3	6	613	3678
	19	6.3	8	719	5752
	20	6.3	6	747	4482
	21	6.3	6	VAR	VAR
	22	6.3	2	101	202
CA40	23	10.0	2	218	436
	24	10.0	2	208	416
	25	10.0	2	613	1226
	26	10.0	2	678	1356
	27	10.0	2	129	258
	28	12.5	2	698	1396
	29	12.5	1	750	750
	30	12.5	2	761	1522
	31	12.5	2	627	1254
	32	12.5	2	724	1448
	33	12.5	2	706	1412
	34	12.5	6	710	4260
	35	12.5	2	767	1534
	36	12.5	2	779	1558
	37	12.5	1	628	628
	38	12.5	2	632	1264
	39	12.5	2	683	1366
	40	12.5	2	694	1388
	41	12.5	1	520	520
	42	12.5	1	499	499
	43	12.5	2	746	1492
	44	12.5	2	615	1230
	45	12.5	1	265	265
	46	12.5	2	619	1238
	47	12.5	2	767	1534
	48	12.5	2	753	1506
	49	12.5	2	758	1516
50	12.5	1	375	375	
51	12.5	2	382	764	
52	12.5	2	358	716	
53	12.5	2	510	1020	
54	12.5	2	517	1034	
55	12.5	2	493	986	
56	12.5	2	714	1428	
57	16.0	1	709	709	
58	16.0	2	713	1426	
59	16.0	2	783	1566	
60	16.0	2	795	1590	
61	16.0	2	710	1420	
62	16.0	2	714	1428	
63	16.0	1	306	306	
64	16.0	2	763	1526	
65	16.0	2	722	1444	
66	16.0	1	622	622	
67	16.0	2	767	1534	
68	16.0	1	631	631	
69	16.0	2	635	1270	
70	16.0	2	700	1400	
71	16.0	2	712	1420	
72	16.0	1	573	573	
73	16.0	2	642	1284	
74	16.0	2	165	330	

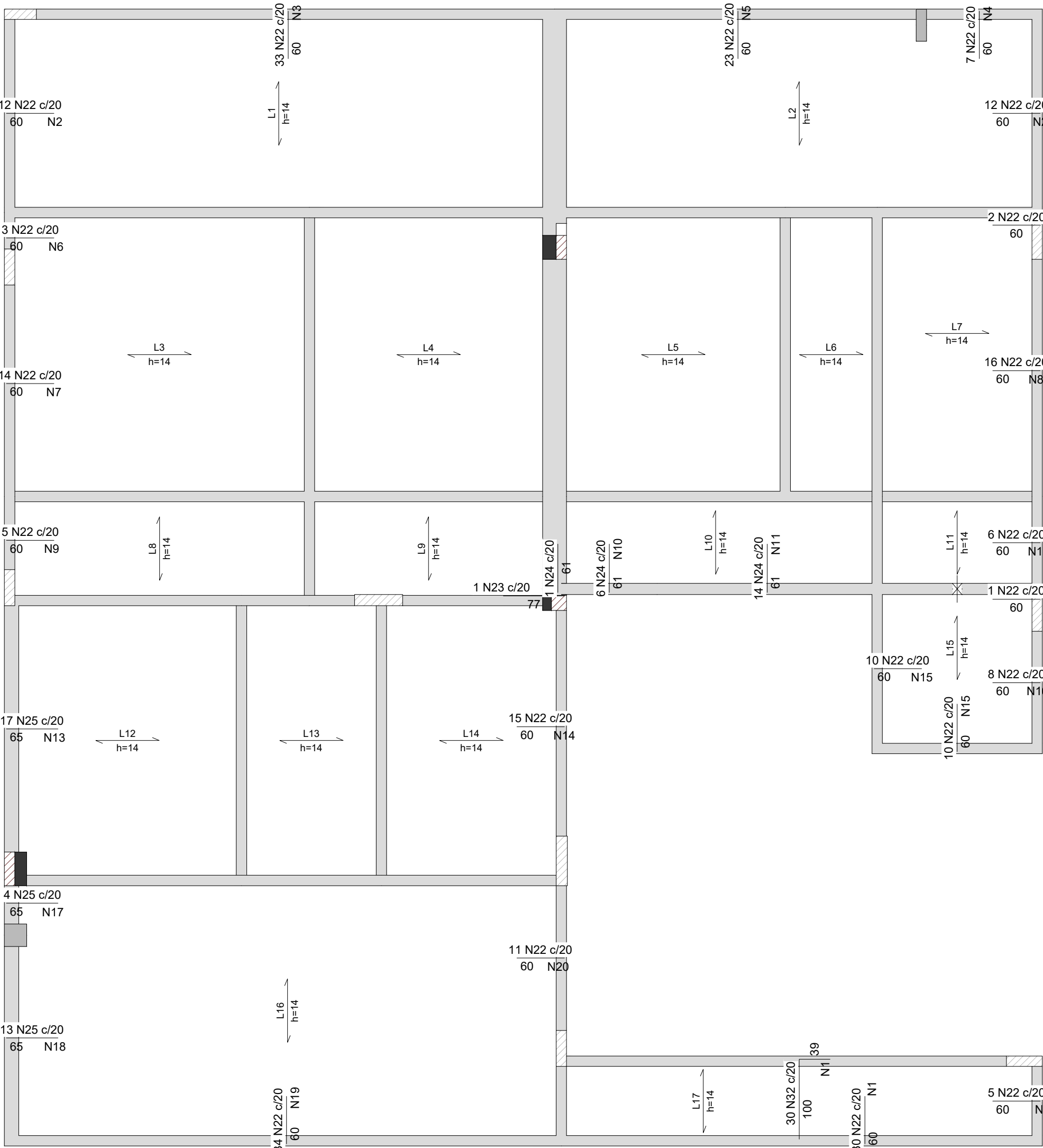
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	565.7	152.3
	10.0	37	25
	12.5	359.1	380.5
	16.0	204.9	355.6
CA60	5.0	715	121.2
PESO TOTAL (kg)			
CA50	913.4		
CA60	121.2		

Volume de concreto (C-30) = 8.02 m³
Área de forma = 133.51 m²

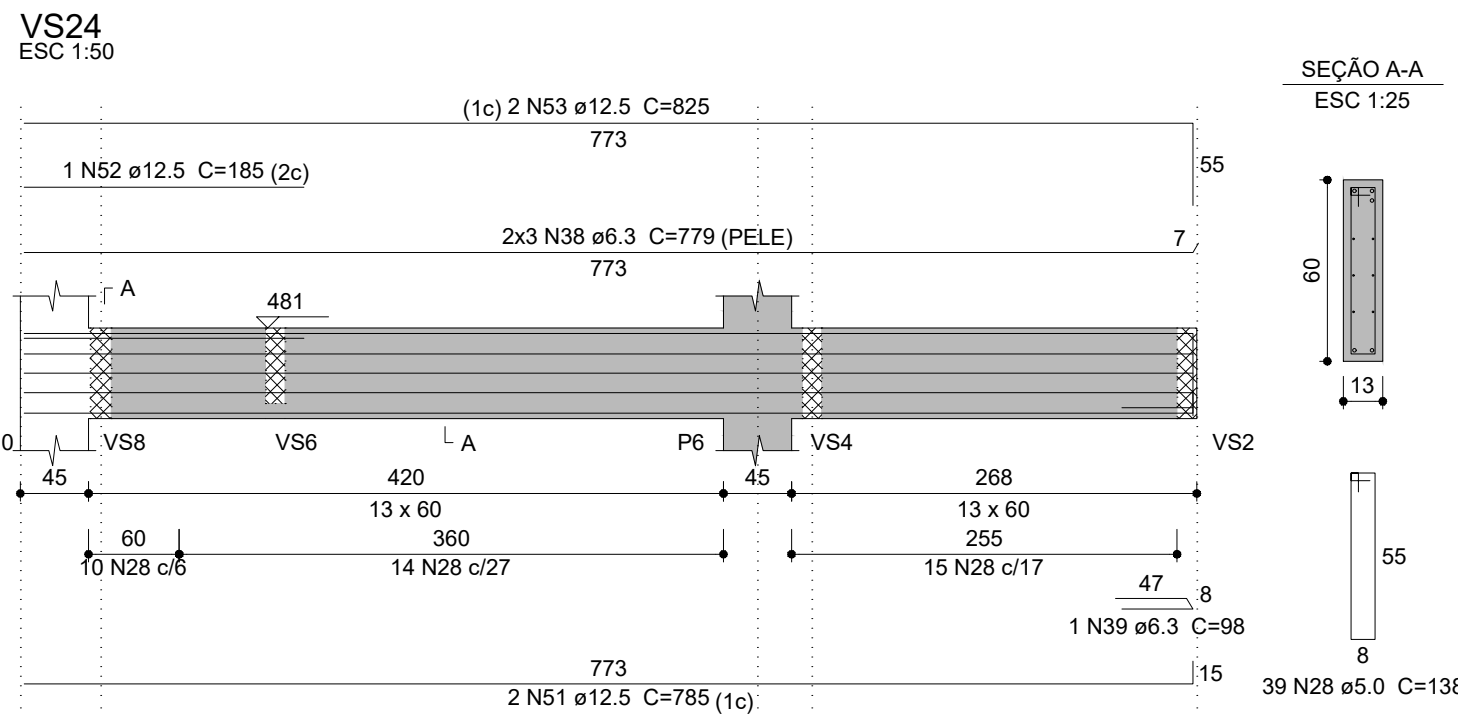
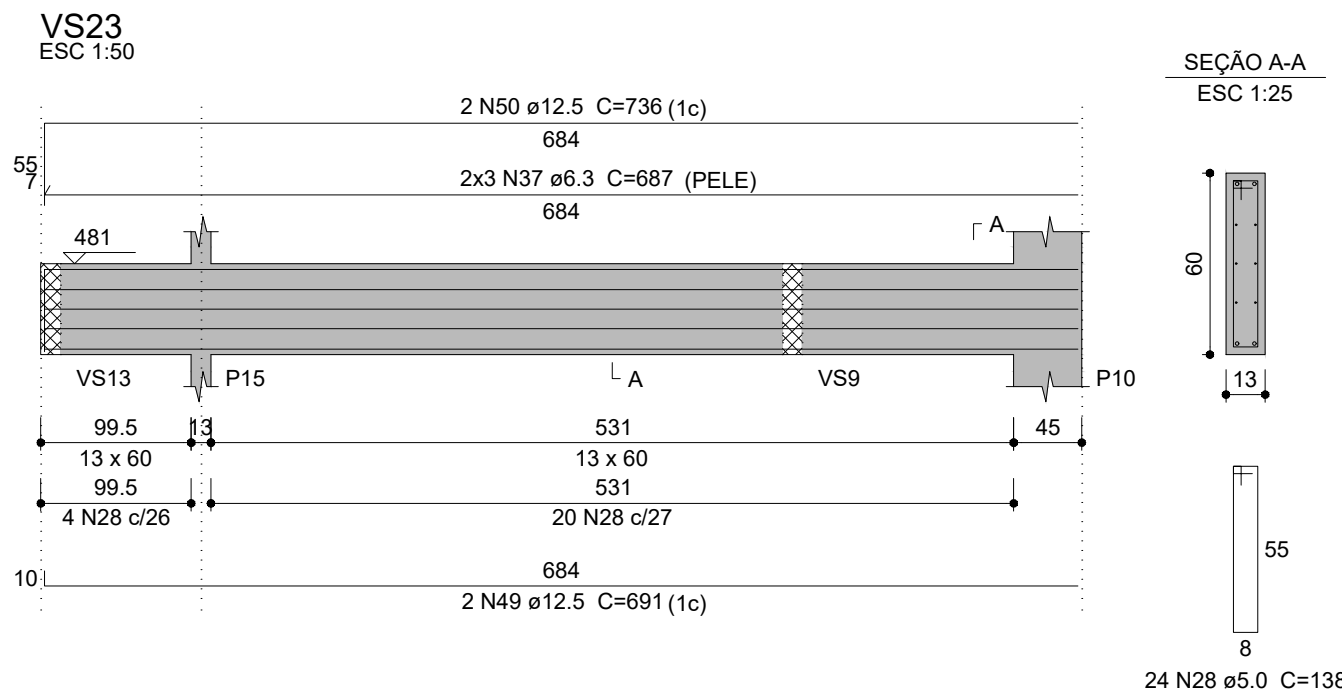
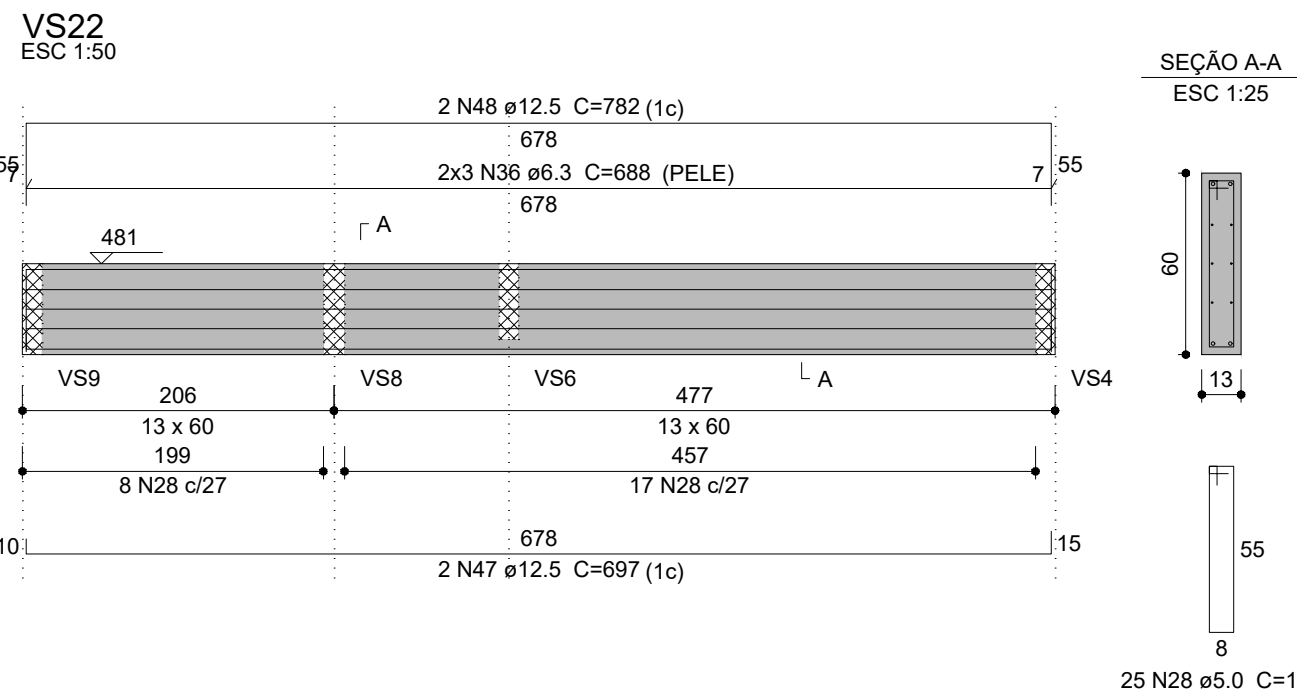
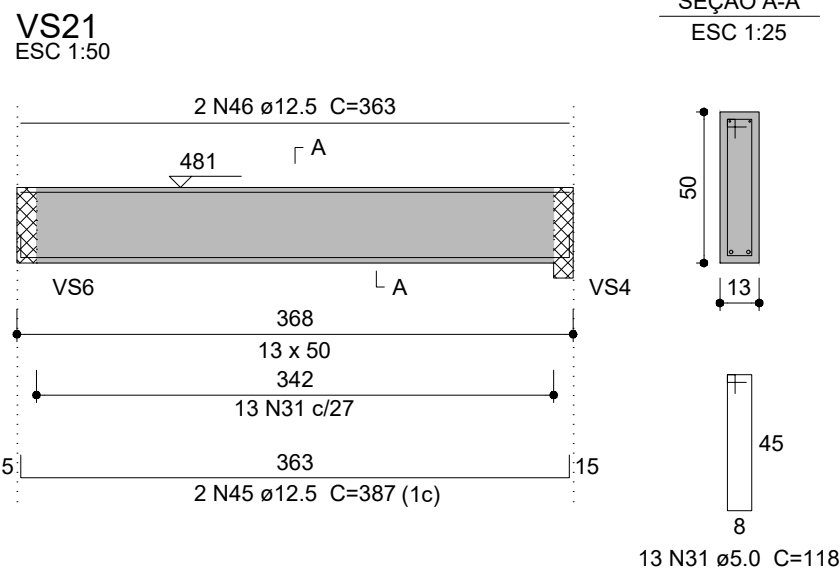
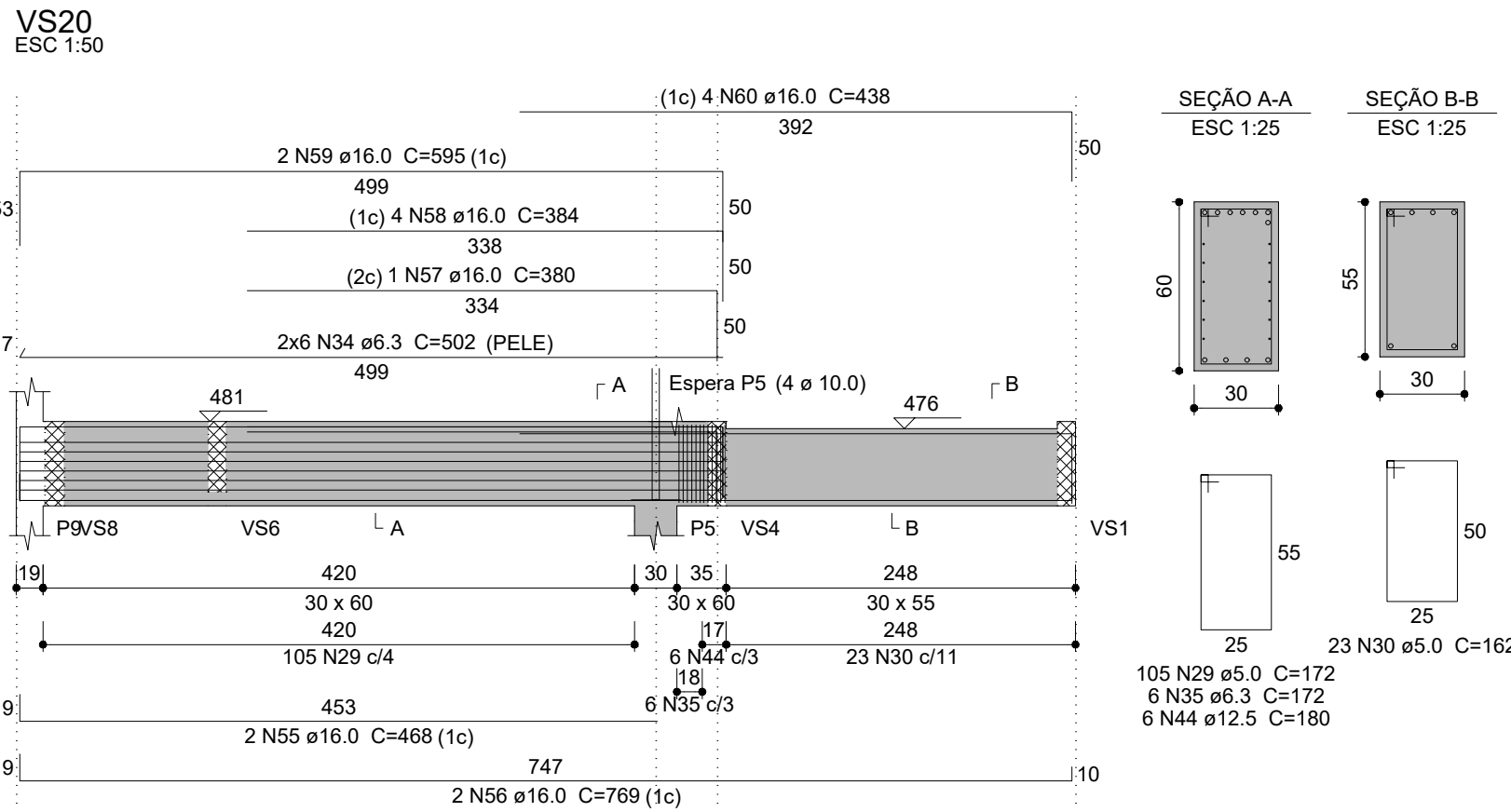
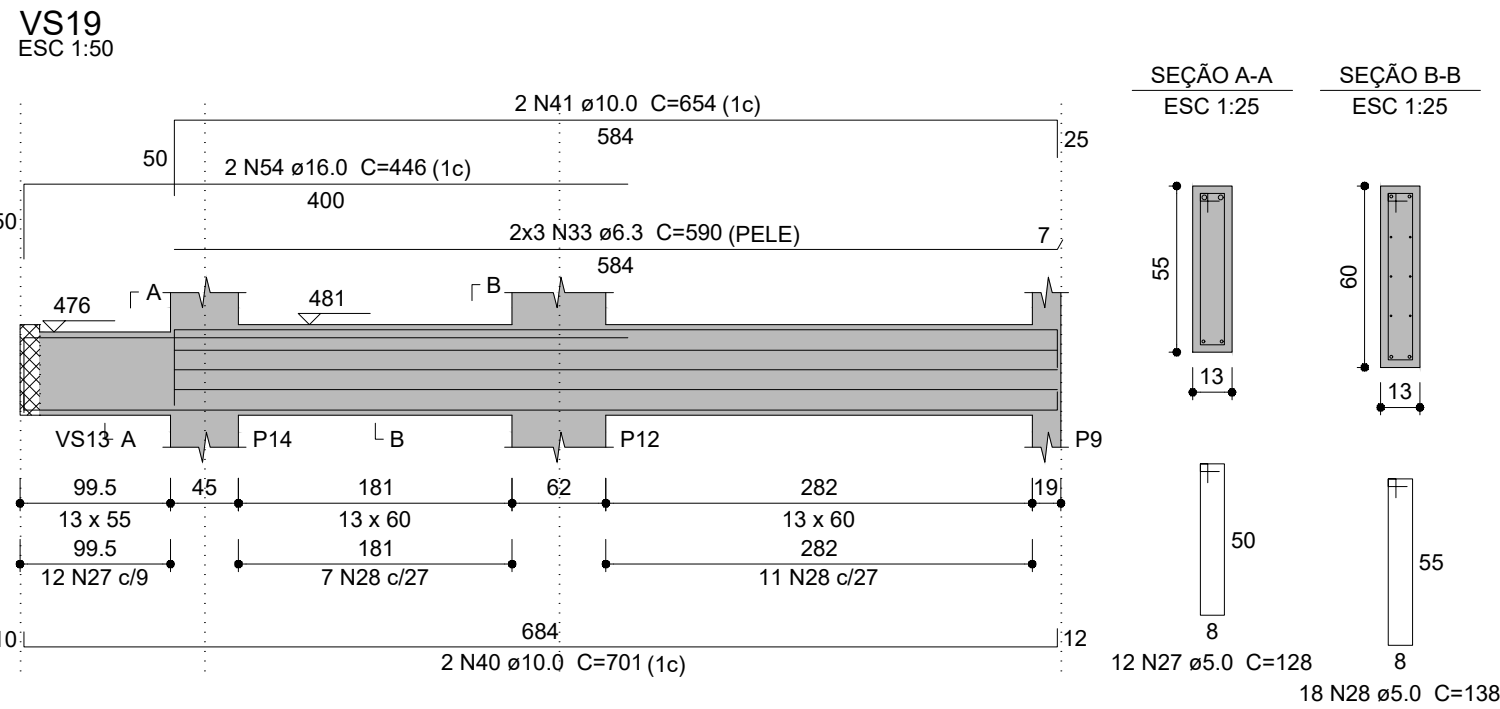
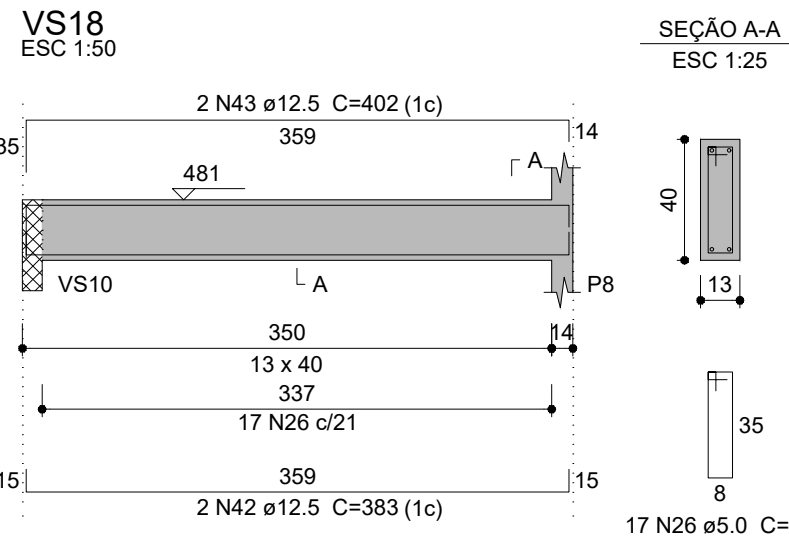
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PROPRIETÁRIO
RESP. EXECUÇÃO
RESP. PROJETO
Nº OS:
OS 037-20
DATA:
21/09/2020
ESCALA:
INDICADAS
FOLHA:
CA-09



Armação negativa das lajes do pavimento Superior

escala 1:50



Relação do aço

Negativos
VS20
VS23

VS18
VS21
VS24

VS19
VS22

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	11	595	6545
	22	5.0	257	60	15420
	2	5.0	8	248	1984
	3	5.0	4	666	2664
	4	5.0	4	145	580
	5	5.0	4	459	1836
	6	5.0	4	64	256
	7	5.0	4	283	1132
	8	5.0	4	315	1260
	9	5.0	4	110	440
	23	5.0	1	77	77
	24	5.0	21	61	1281
	10	5.0	4	120	480
	11	5.0	4	275	1100
	12	5.0	4	116	464
	25	5.0	34	65	2210
	13	5.0	5	344	1720
	14	5.0	4	310	1240
	15	5.0	8	200	1600
	16	5.0	4	165	660
	17	5.0	5	80	400
	18	5.0	5	257	1285
	19	5.0	4	688	2752
CA50	20	5.0	4	217	868
	21	5.0	4	100	400
	26	5.0	17	98	1666
	27	5.0	12	128	1536
	28	5.0	106	138	14828
	29	5.0	105	172	18060
	30	5.0	23	162	3726
	31	5.0	13	118	1534
	32	6.3	30	138	4140
	33	6.3	6	590	3540
	34	6.3	12	502	6024
	35	6.3	6	172	1032
	36	6.3	6	688	4128
	37	6.3	6	687	4122
	38	6.3	6	779	4674
	39	6.3	1	98	98
	40	10.0	2	701	1402
	41	10.0	2	654	1308
	42	12.5	2	383	766
	43	12.5	2	402	804
	44	12.5	6	180	1080
	45	12.5	2	387	774
	46	12.5	2	363	726
	47	12.5	2	687	1394
	48	12.5	2	782	1564
	49	12.5	2	691	1382
	50	12.5	2	736	1472
	51	12.5	2	785	1570
	52	12.5	1	185	185
	53	12.5	2	825	1650
	54	16.0	2	446	892
	55	16.0	2	468	936
	56	16.0	2	769	1538
	57	16.0	1	380	380
	58	16.0	4	384	1536
	59	16.0	2	595	1190
	60	16.0	4	438	1752

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	277.6	74.7
	10.0	27.1	18.4
	12.5	133.7	141.6
	16.0	82.3	142.8
CA60	5.0	898.1	152.3
PESO TOTAL (kg)			
CA50		377.5	
CA60		152.3	

Volume de concreto (C-30) = 11.54 m³
Área de forma = 56.19 m²

RESP. PROJETO:

DESENHO:

PROJETO DE CONCRETO ARMADO

PROJETO EXECUTIVO

VIGAS SUPERIOR

LAJES SUPERIOR

ESPECIALIDADE:

PROJETO DE CONCRETO ARMADO

PROJETO EXECUTIVO

VIGAS SUPERIOR

LAJES SUPERIOR

ESPECIALIDADE:

PROJETO DE CONCRETO ARMADO

PROJETO EXECUTIVO

VIGAS SUPERIOR

LAJES SUPERIOR

OBSERVAÇÕES

ESP. PROJETO:

DESENHO:

PROJETO DE CONCRETO ARMADO

PROJETO EXECUTIVO

VIGAS SUPERIOR

LAJES SUPERIOR

ESP. PROJETO:

DESENHO:

PROJETO DE CONCRETO ARMADO

PROJETO EXECUTIVO

VIGAS SUPERIOR

LAJES SUPERIOR

ESP. PROJETO:

DESENHO:

PROJETO DE CONCRETO ARMADO

PROJETO EXECUTIVO

VIGAS SUPERIOR

LAJES SUPERIOR

PROPRIETÁRIO

RESP. EXECUÇÃO

RESP. PROJETO

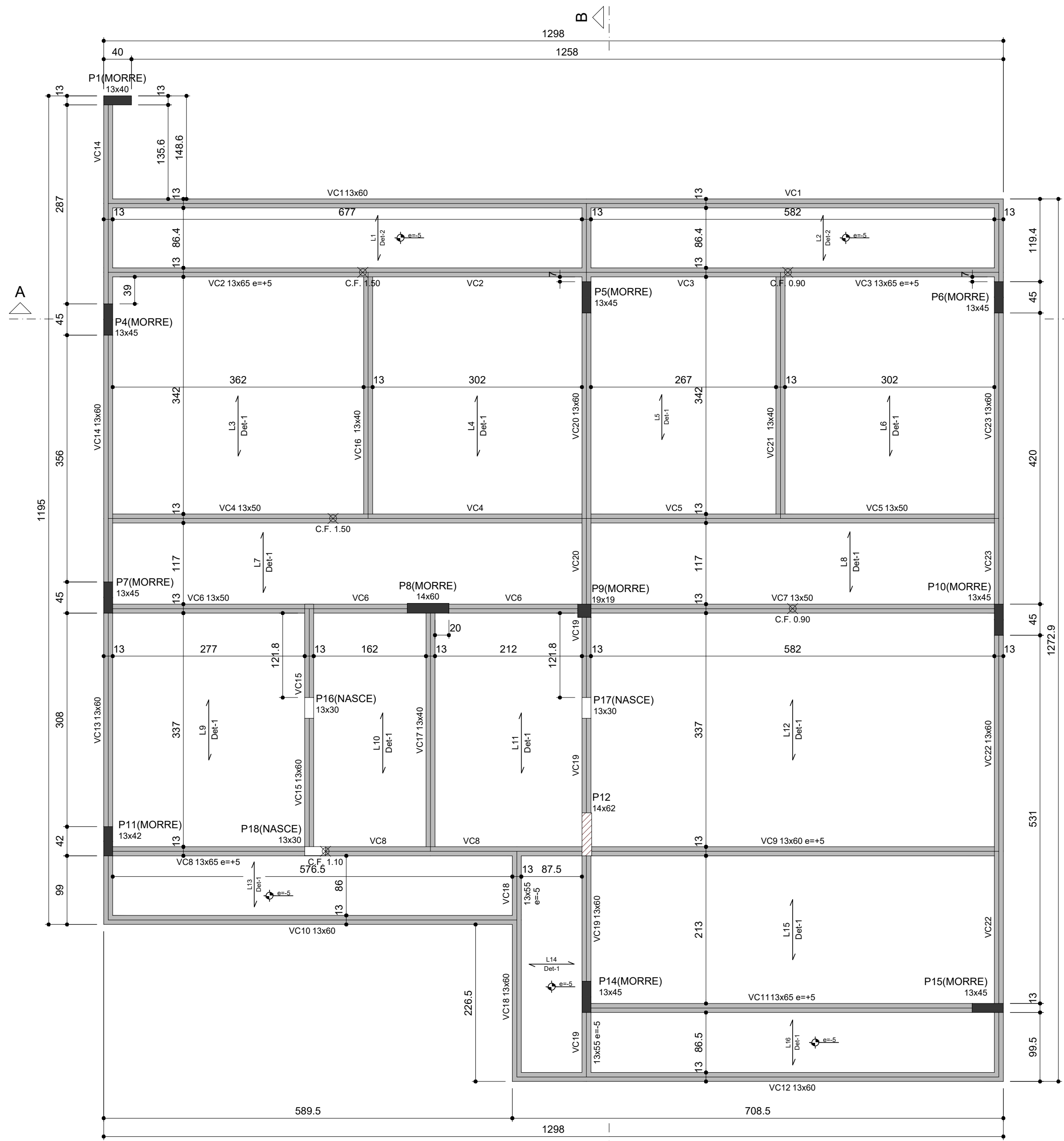
Nº OS: OS 037-20

DATA: 21/09/2020

ESCALA: INDICADAS

FOLHA:

CA-10



Forma do pavimento Cobertura (Nível 821)

escala 1:50

Blocos de enchimento				
Detalhe	Tipo	Nome	Dimensões(cm)	Quantidade
1	Lajota cerâmica	B10/30/20	10 30 20	2040

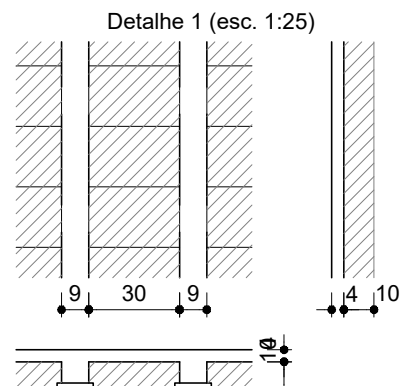
Lajes						Sobrecarga (kgf/m²)	
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kgf/m²)	Total	Localizada
L1	Trelçada 1D	16	-5	816	335	205	-
L2	Trelçada 1D	16	-5	816	335	205	-
L3	Trelçada 1D	14	0	821	296	205	-
L4	Trelçada 1D	14	0	821	296	205	-
L5	Trelçada 1D	14	0	821	296	205	-
L6	Trelçada 1D	14	0	821	296	205	-
L7	Trelçada 1D	14	0	821	296	205	-
L8	Trelçada 1D	14	0	821	296	205	-
L9	Trelçada 1D	14	0	821	296	205	-
L10	Trelçada 1D	14	0	821	296	205	-
L11	Trelçada 1D	14	0	821	296	205	-
L12	Trelçada 1D	14	0	821	296	205	-
L13	Trelçada 1D	14	-5	816	296	205	-
L14	Trelçada 1D	14	-5	816	296	205	-
L15	Trelçada 1D	14	0	821	296	205	-
L16	Trelçada 1D	14	-5	816	296	205	-

Características dos materiais		
f _{cd}	Ecs	Abatimento
300	(kgf/cm²)	(cm)
268384		10,00

Dimensão máxima do agregado = 19 mm

Legenda dos pilares	
	Pilar que morre
	Pilar que passa
	Pilar que nasce

Legenda das vigas e paredes	
	Viga



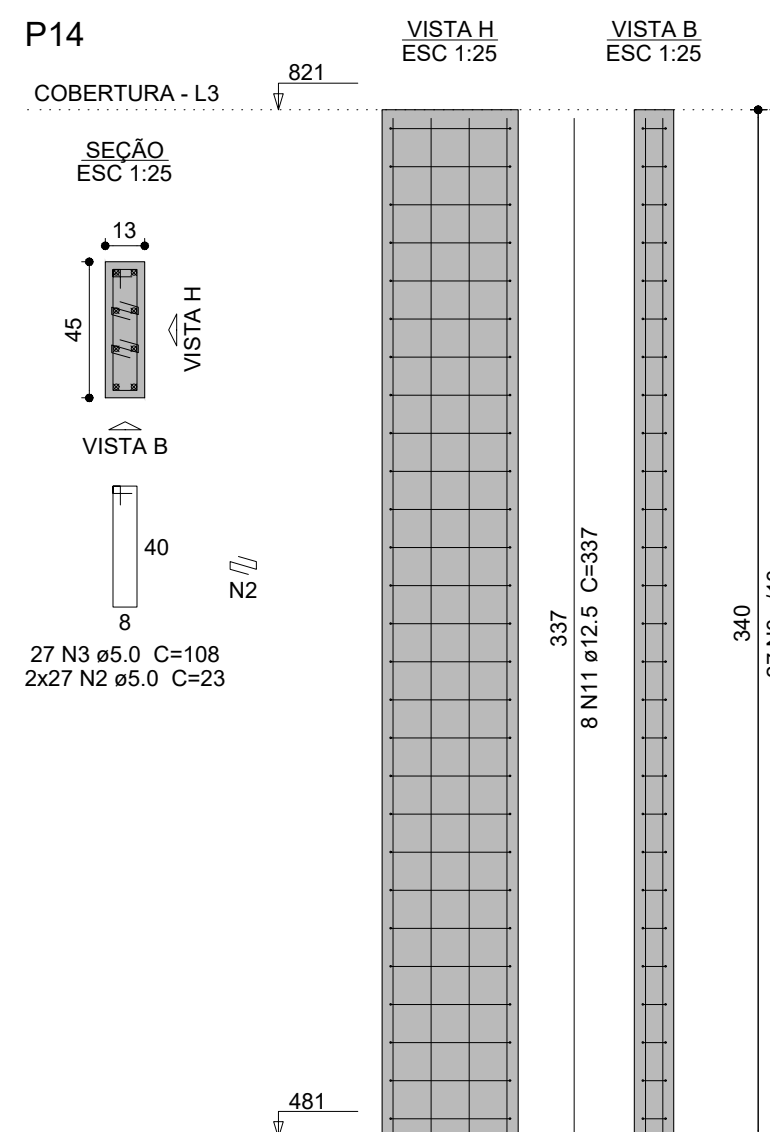
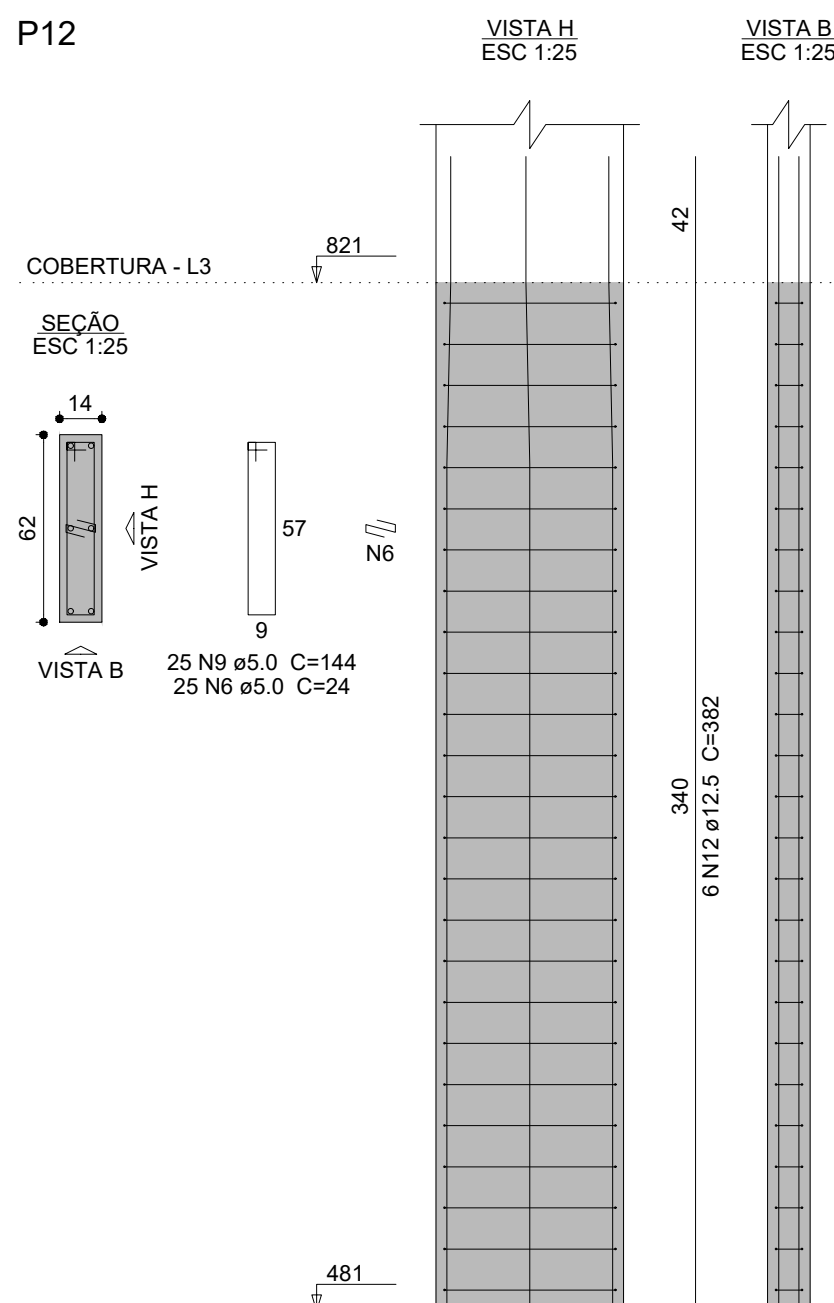
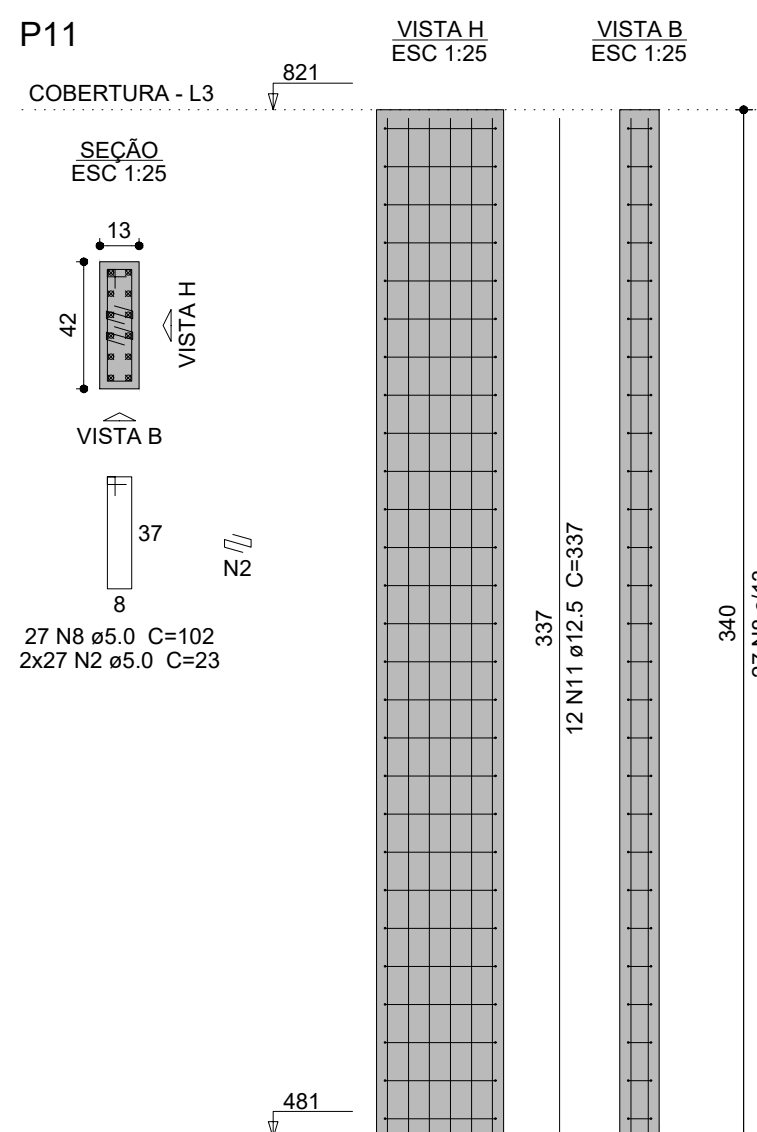
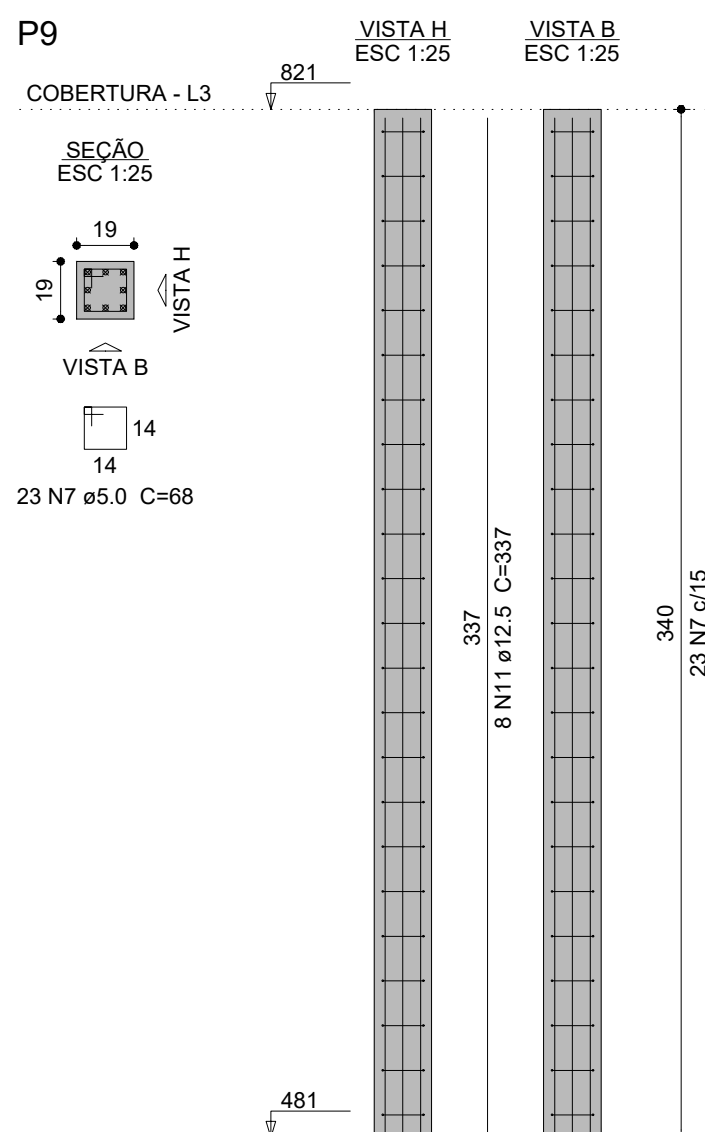
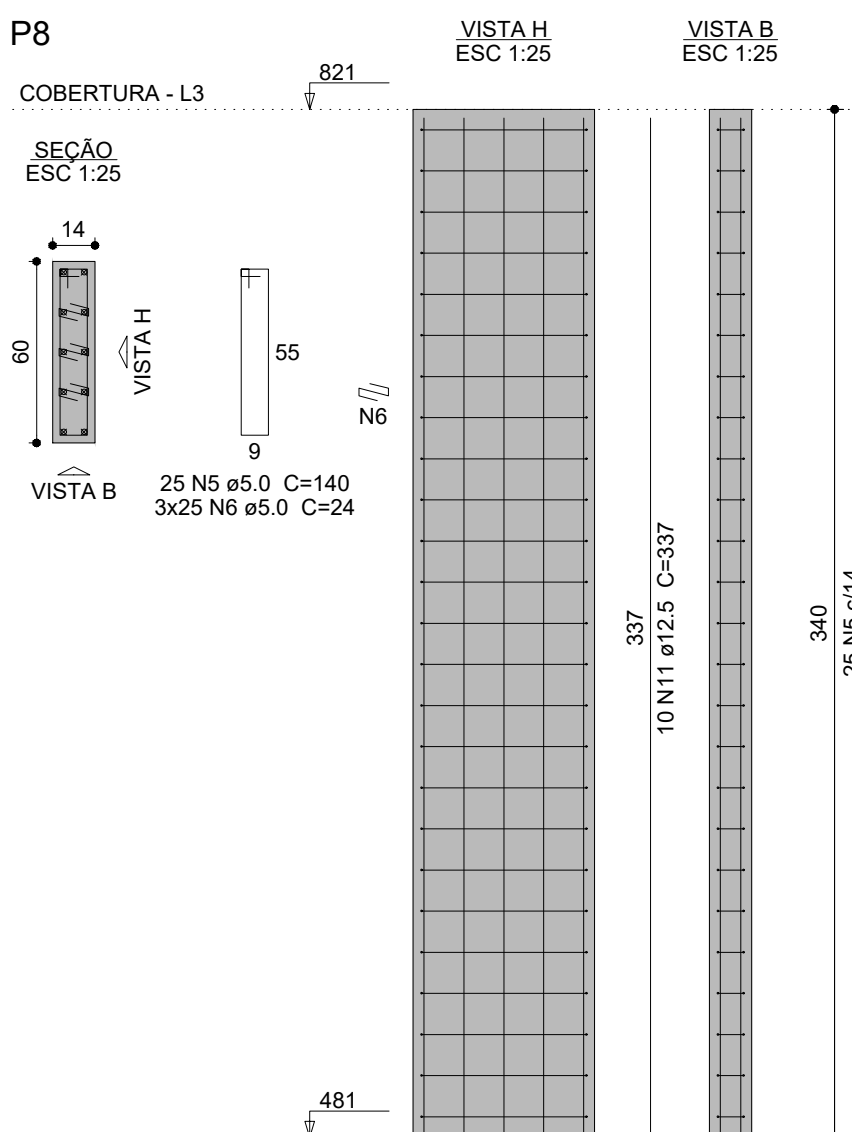
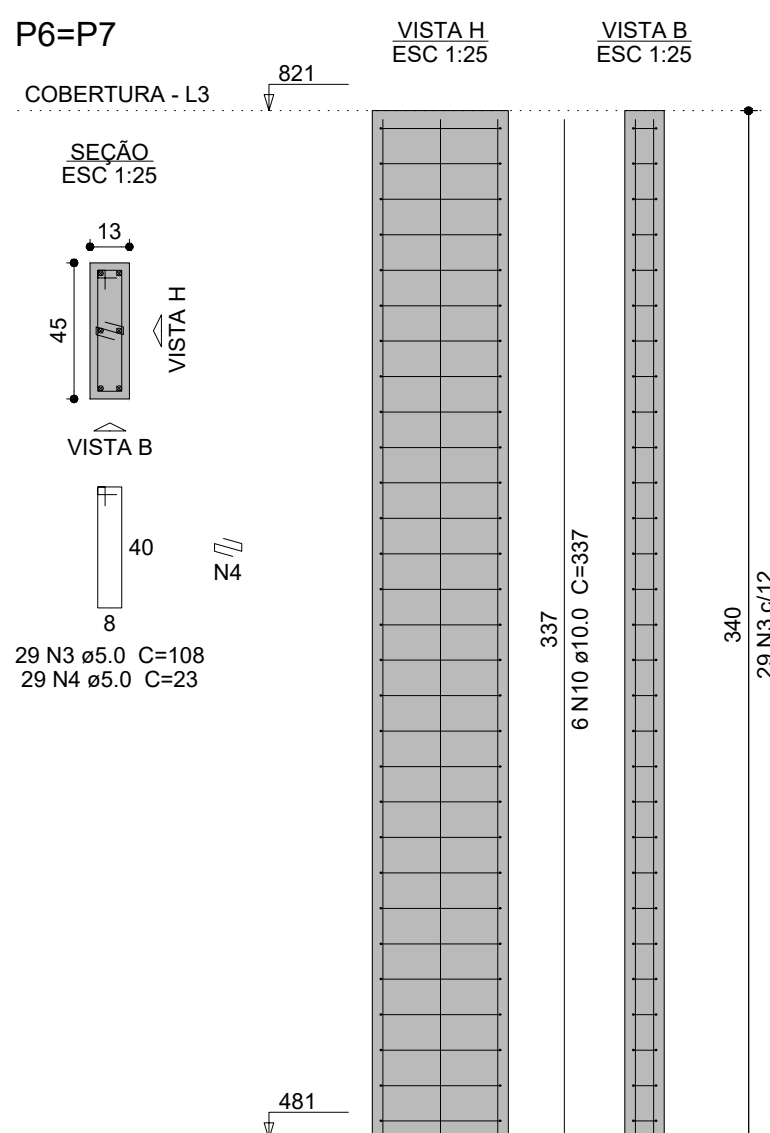
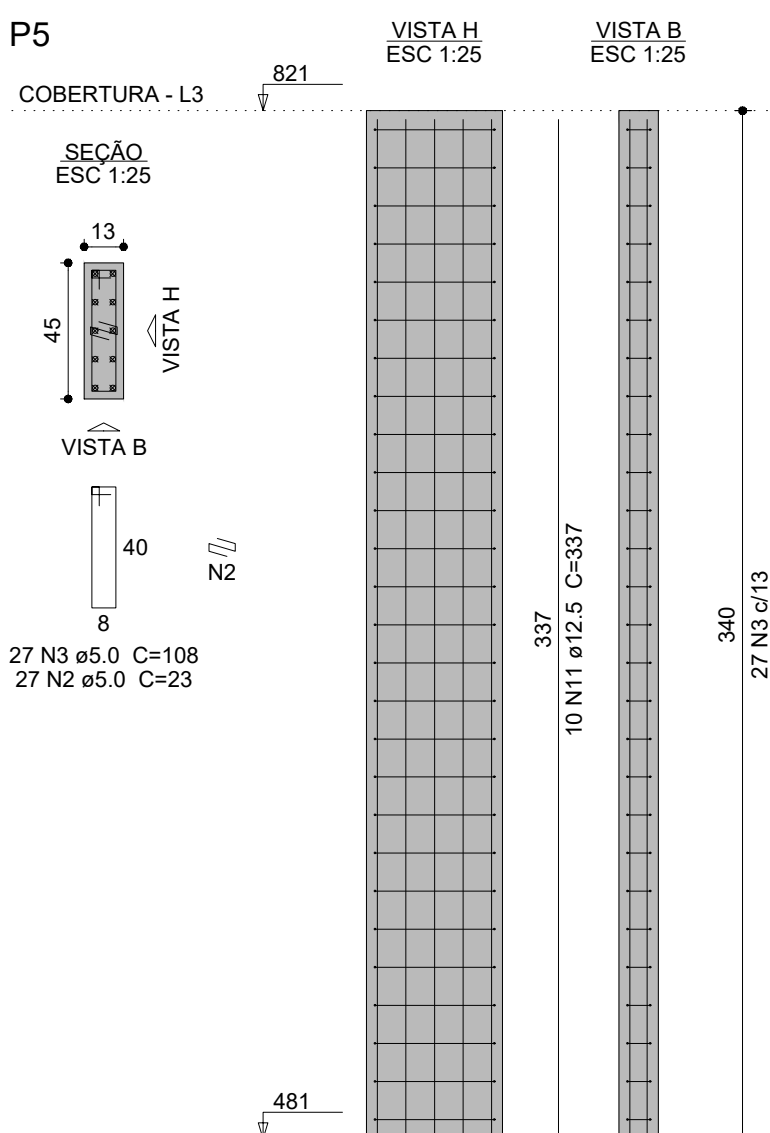
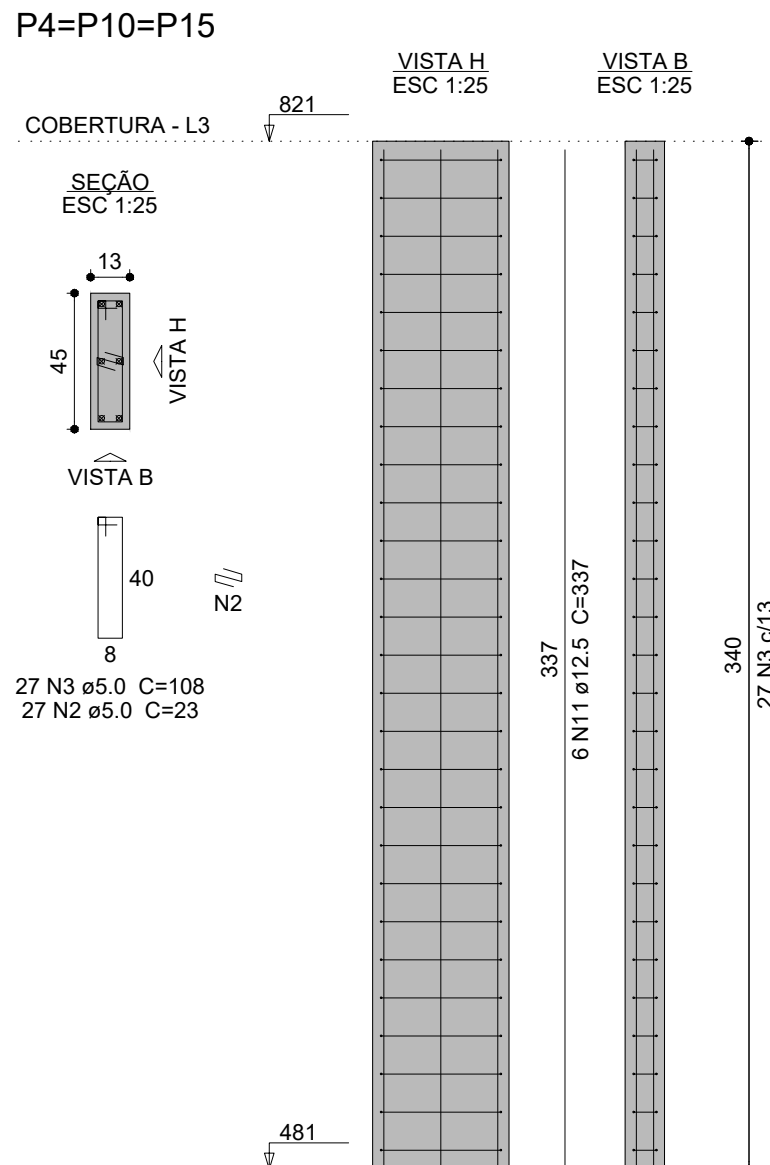
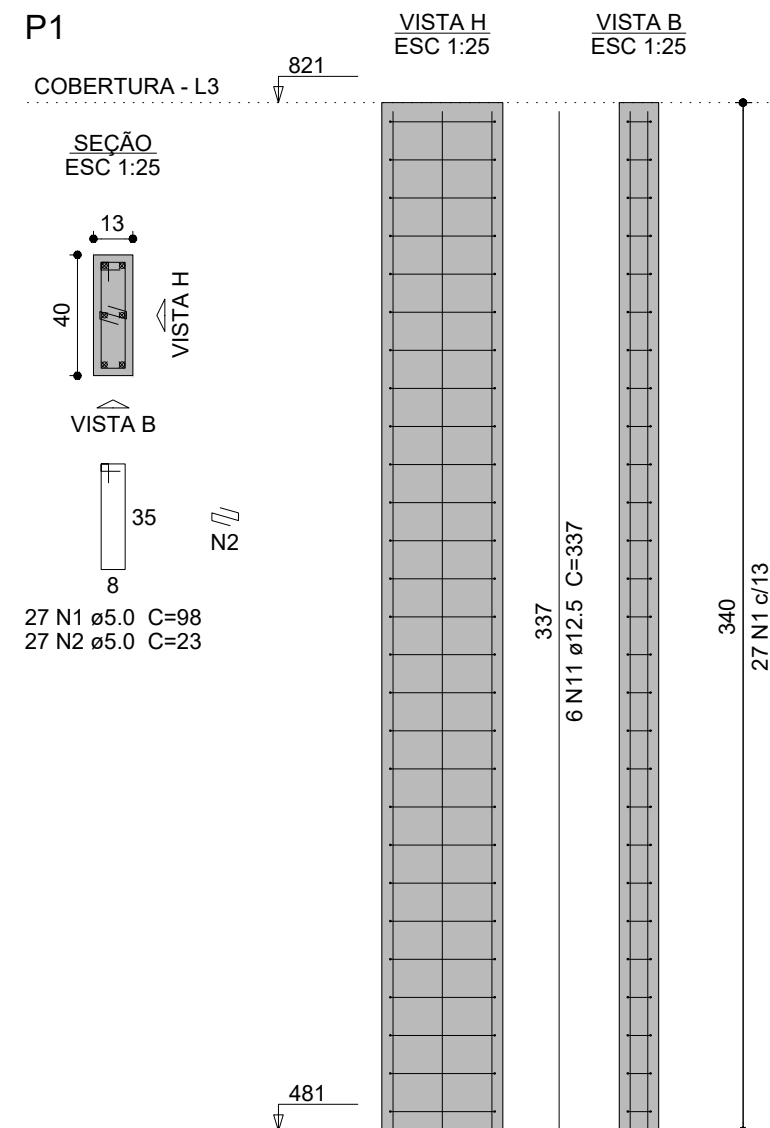
Relação do aço

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	27	98	2646
	2	5.0	243	23	5589
	3	5.0	193	108	20844
	4	5.0	58	23	1334
	5	5.0	25	140	3500
	6	5.0	100	24	2400
	7	5.0	23	68	1564
	8	5.0	27	102	2754
	9	5.0	25	144	3600
	10	10.0	12	337	4044
	11	12.5	72	337	24264
	12	12.5	6	382	2292

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	40.5	27.4
CA60	12.5	265.6	281.4
CA60	5.0	442.4	75
PESO TOTAL (kg)			
CA50	308.8		
CA60	75		

Volume de concreto (C-30) = 2.46 m³
Área de forma = 47.74 m²



RESP. PROJETO:

DESENHO:

PROJETO EXECUTIVO

FORMAS COBERTURA

PLARES COBERTURA

REFERENCIA:

ESPECIALIDADE:

PROJETO DE CONCRETO ARMADO

PROJETO EXECUTIVO

FORMAS COBERTURA

PLARES COBERTURA

REFERENCIA:

OBSERVAÇÕES

CONTRATANTE:

OBRA:

EDIFICAÇÃO RESIDENCIAL

PROPRIETÁRIO

RESP. EXECUÇÃO

RESP. PROJETO

Nº OS:

OS 037-20

DATA:

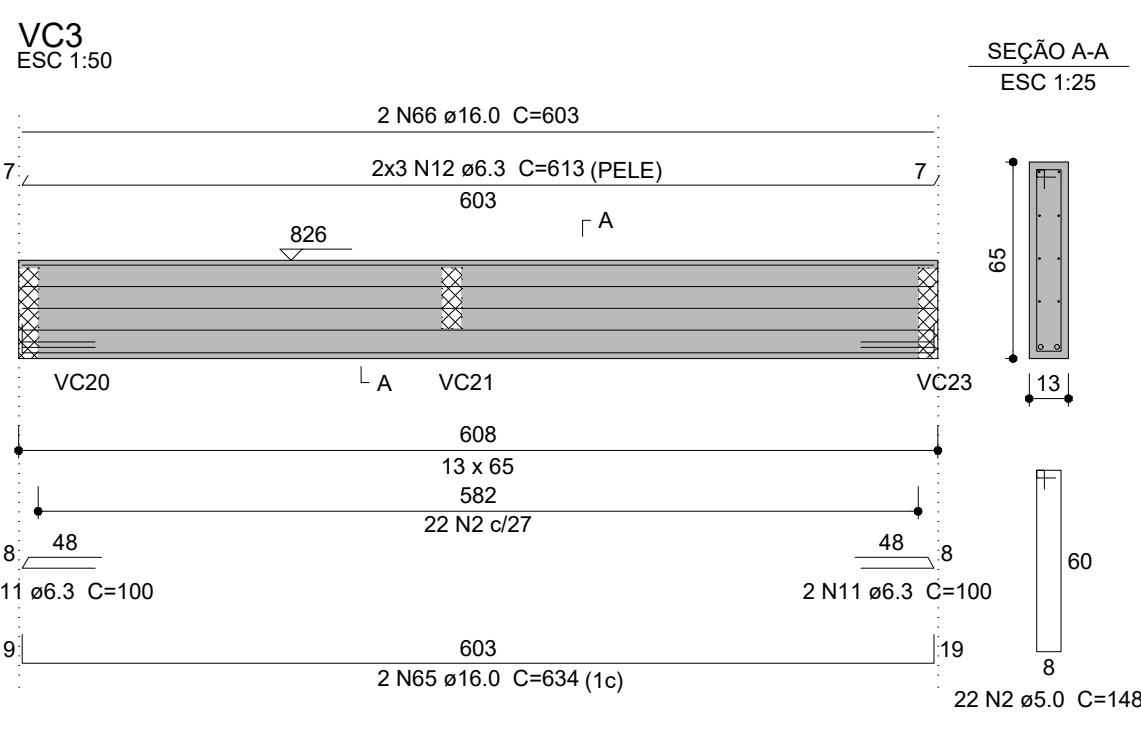
21/09/2020

ESCALA:

INDICADAS

FOLHA:

CA-11

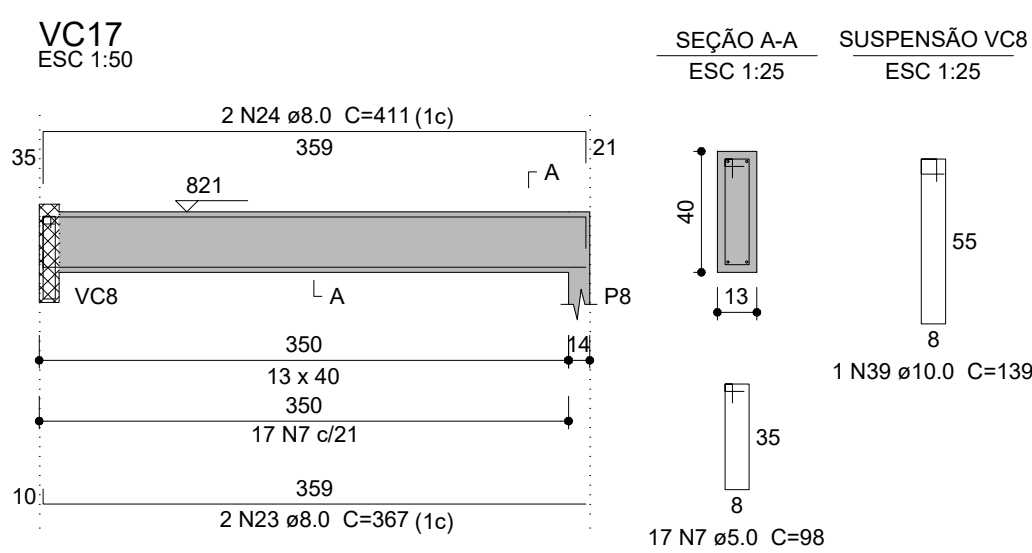
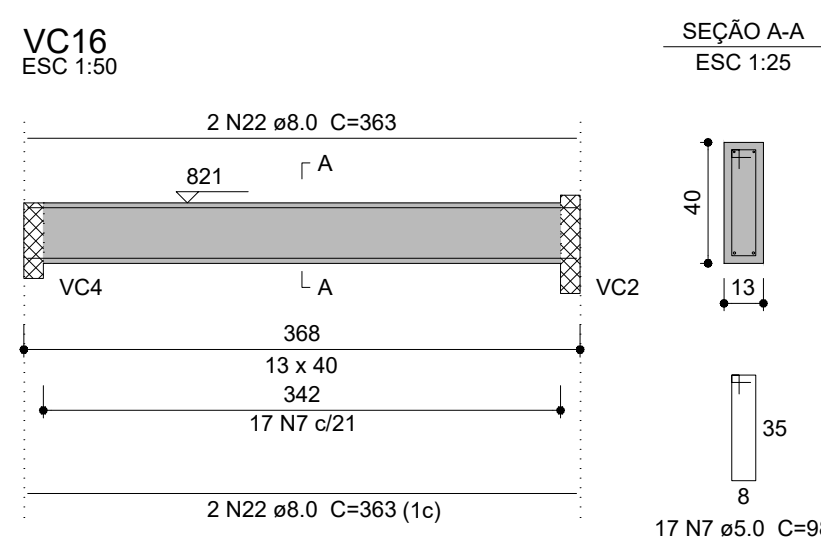
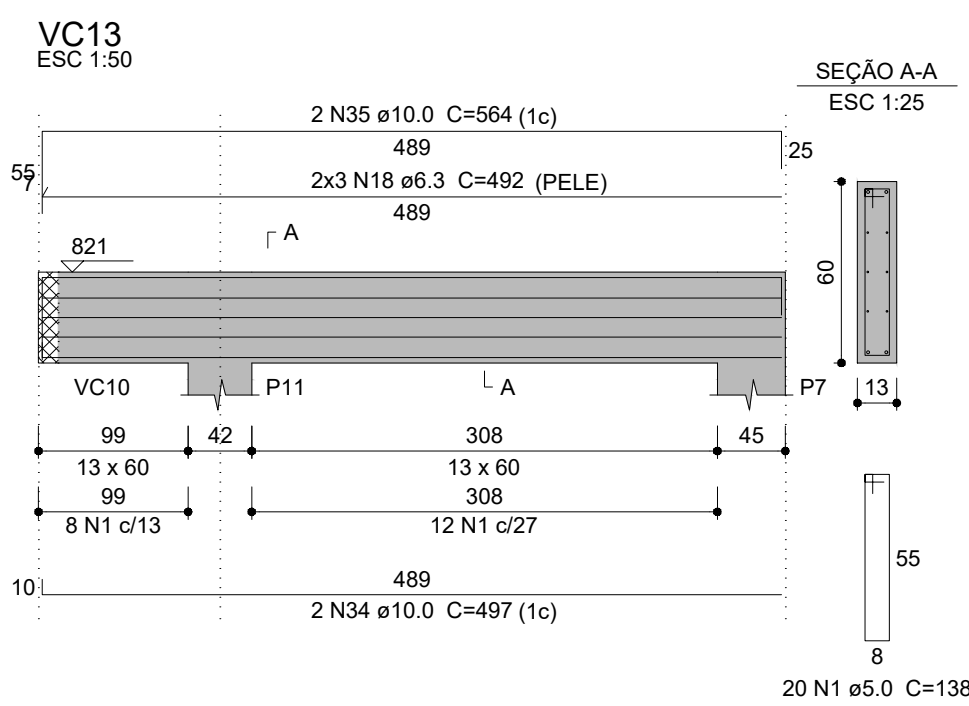
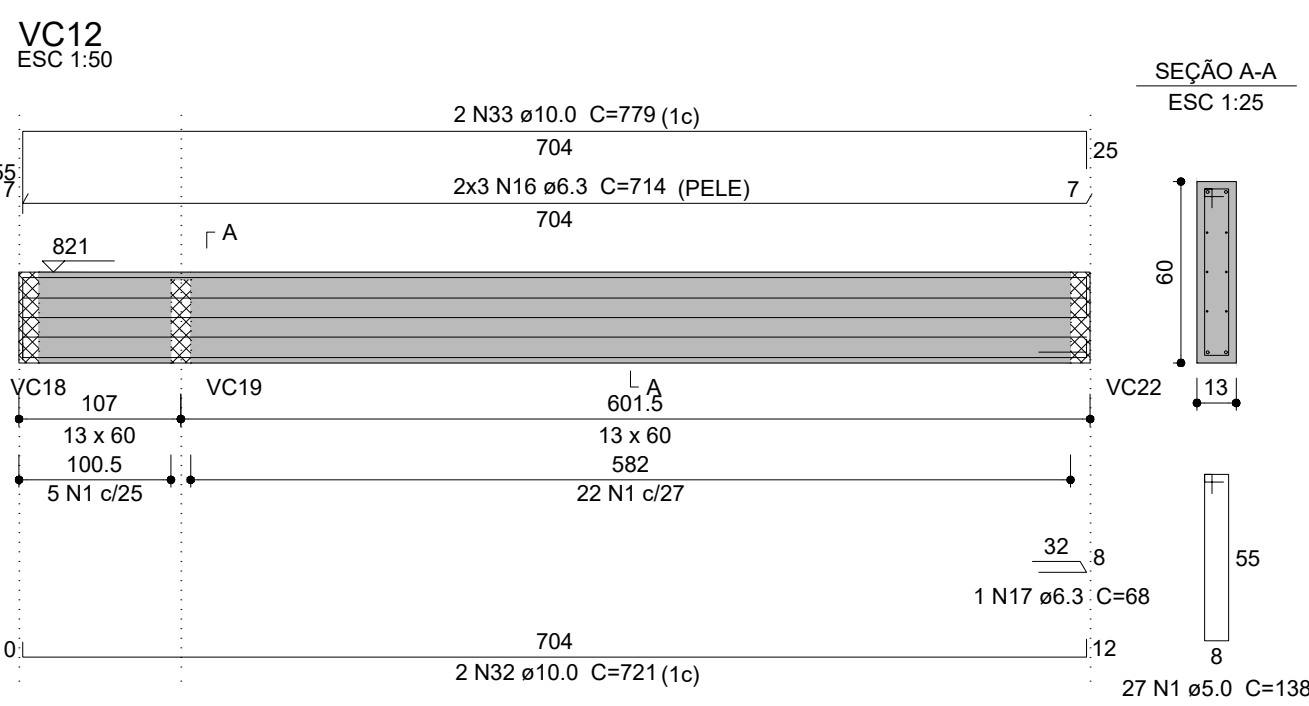
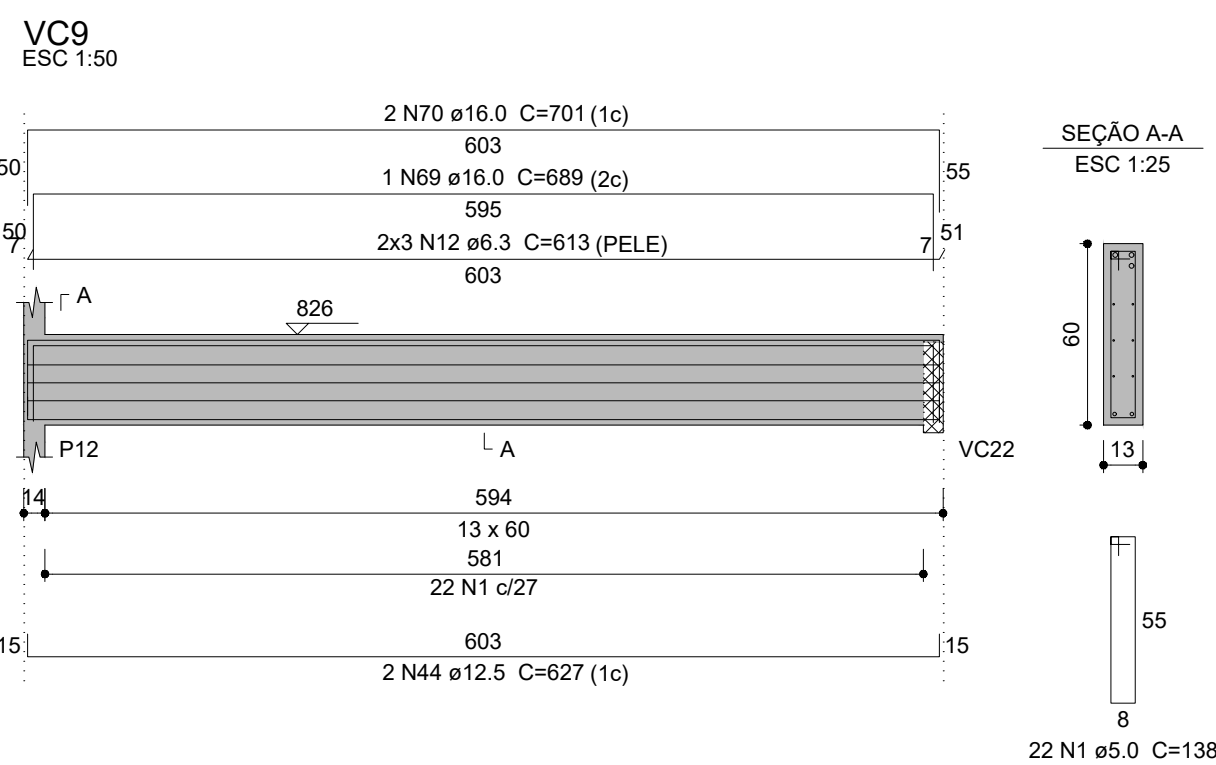
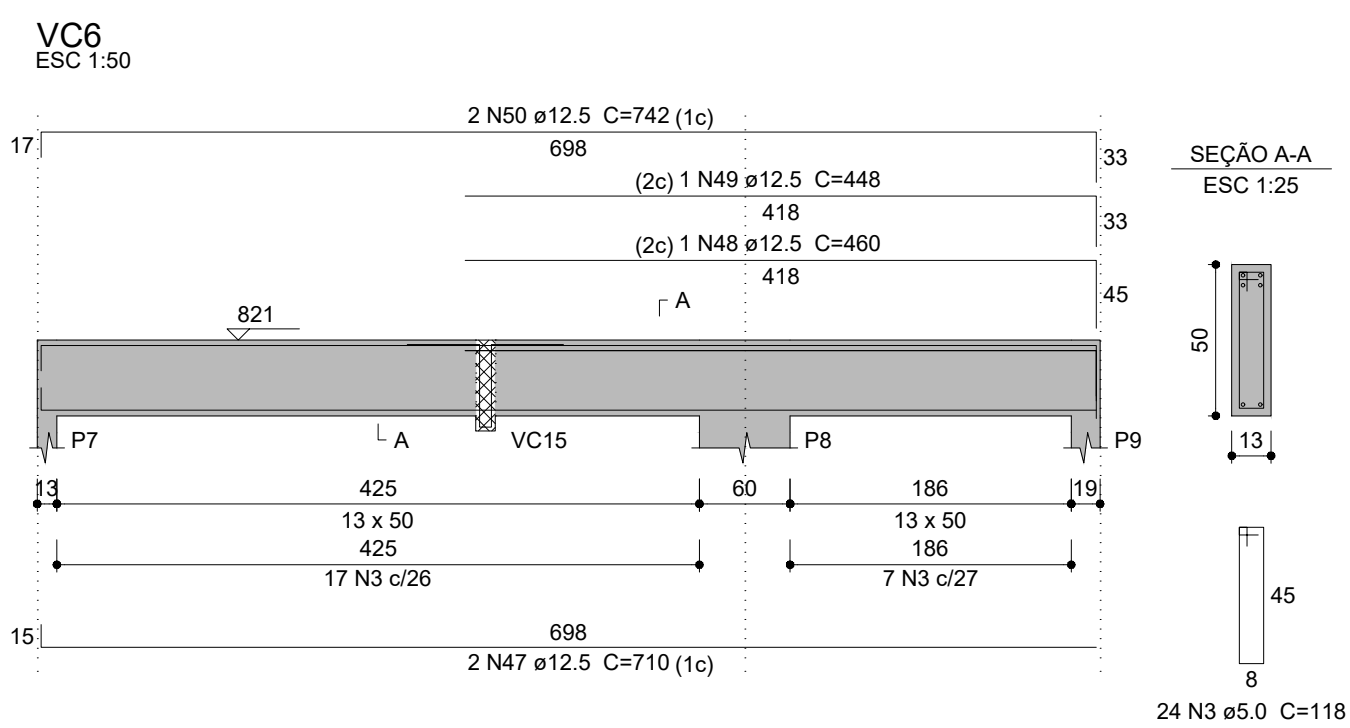


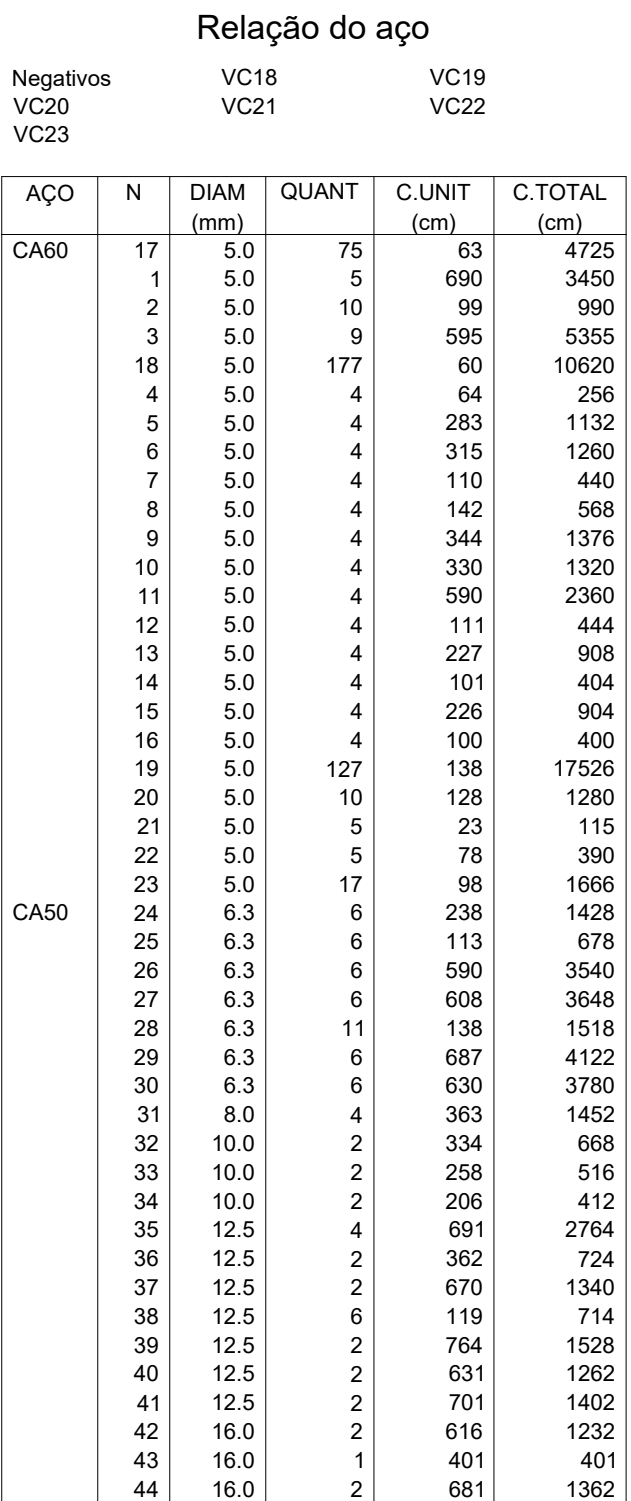
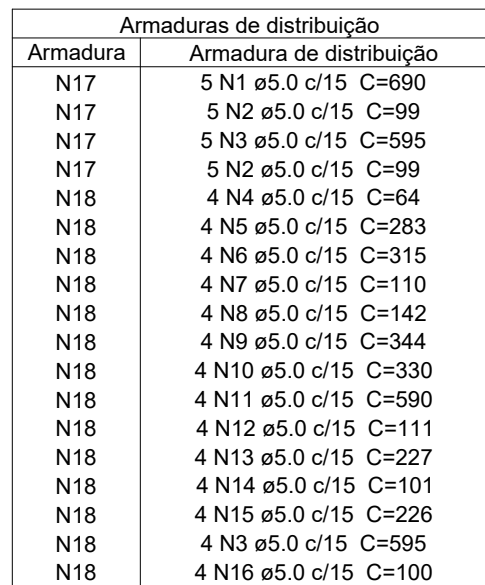
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	467.1	125.7
	8.0	30.1	13.1
	10.0	186.5	126.5
	12.5	255.9	271.1
	16.0	96.5	167.5
CA60	TOTAL	590.3	98.4

PESO TOTAL (kg)	
CA50	703.9
CA60	98.4

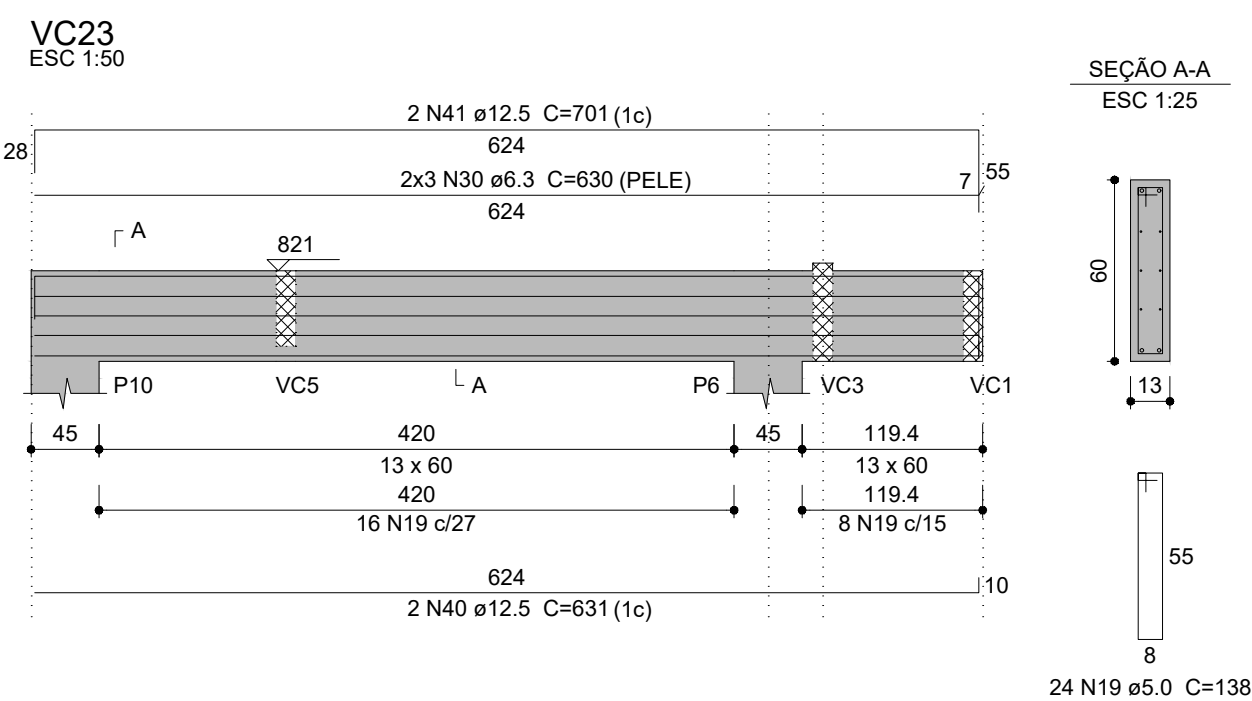
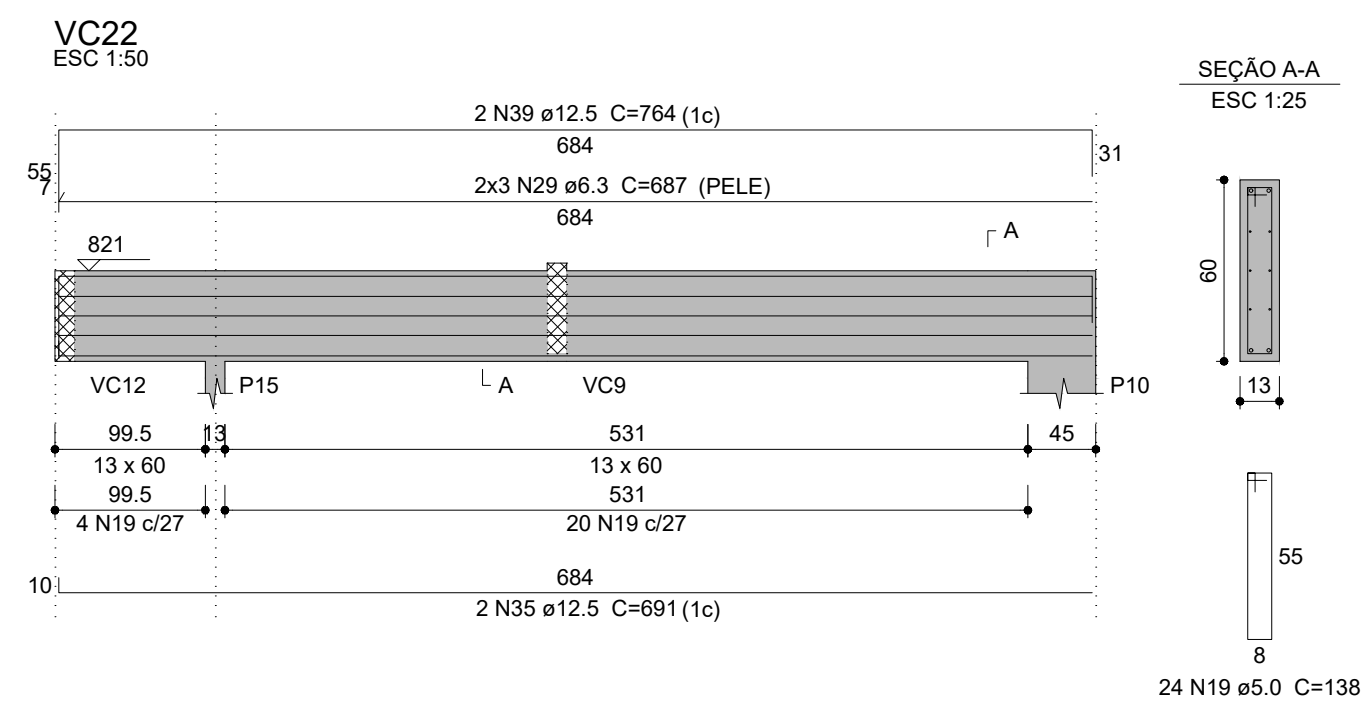
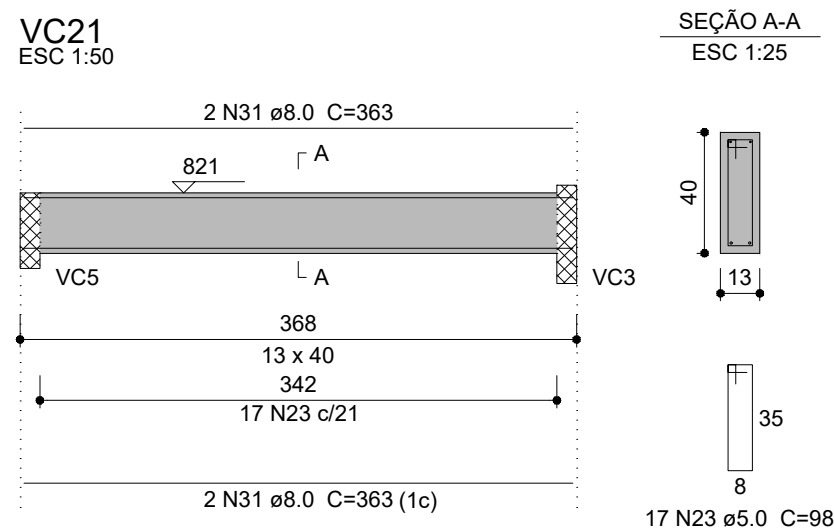
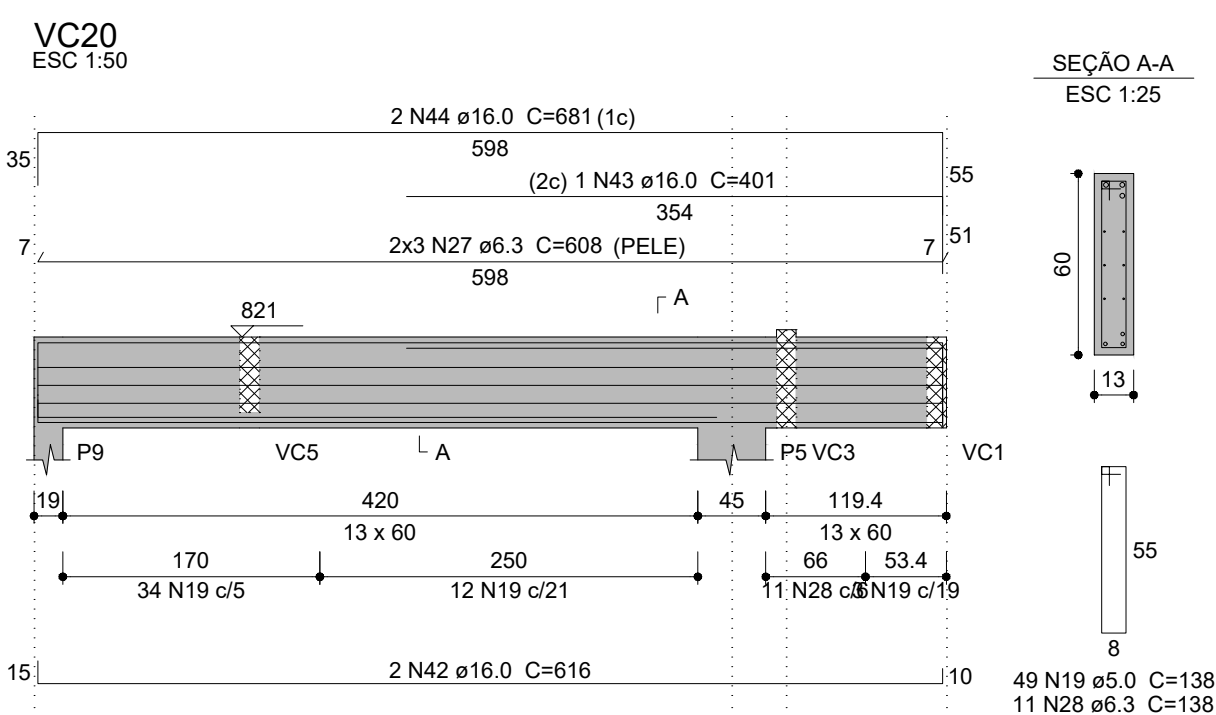
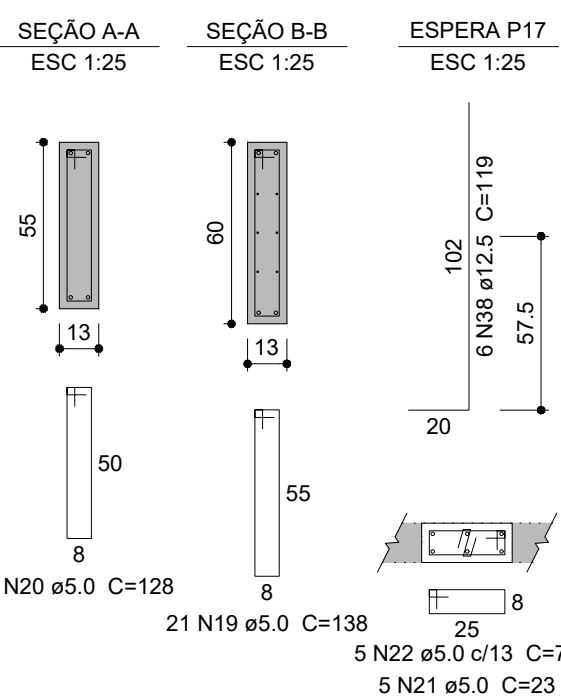
Volume de concreto (C-30) = 8.06 m³
 Área de forma = 138.12 m²

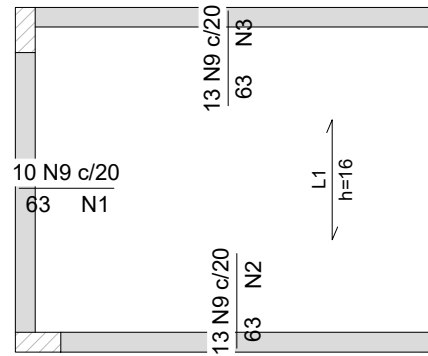
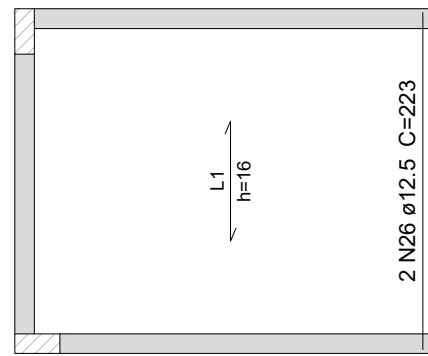
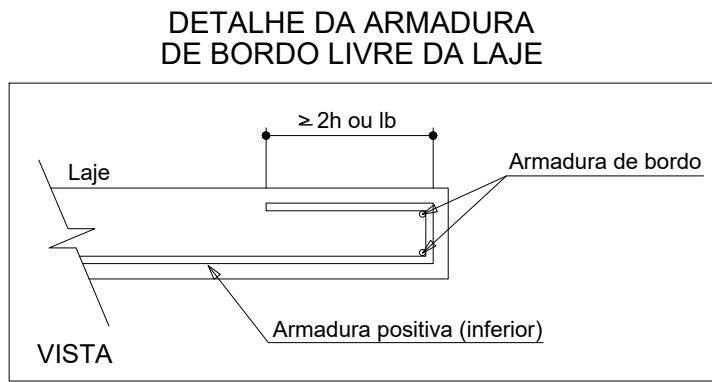




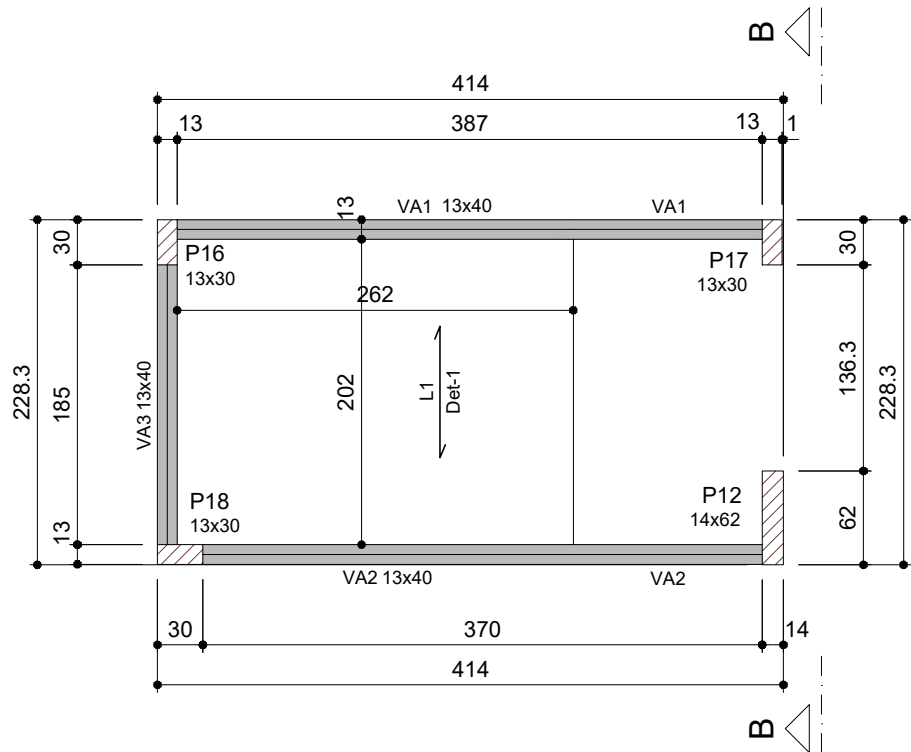
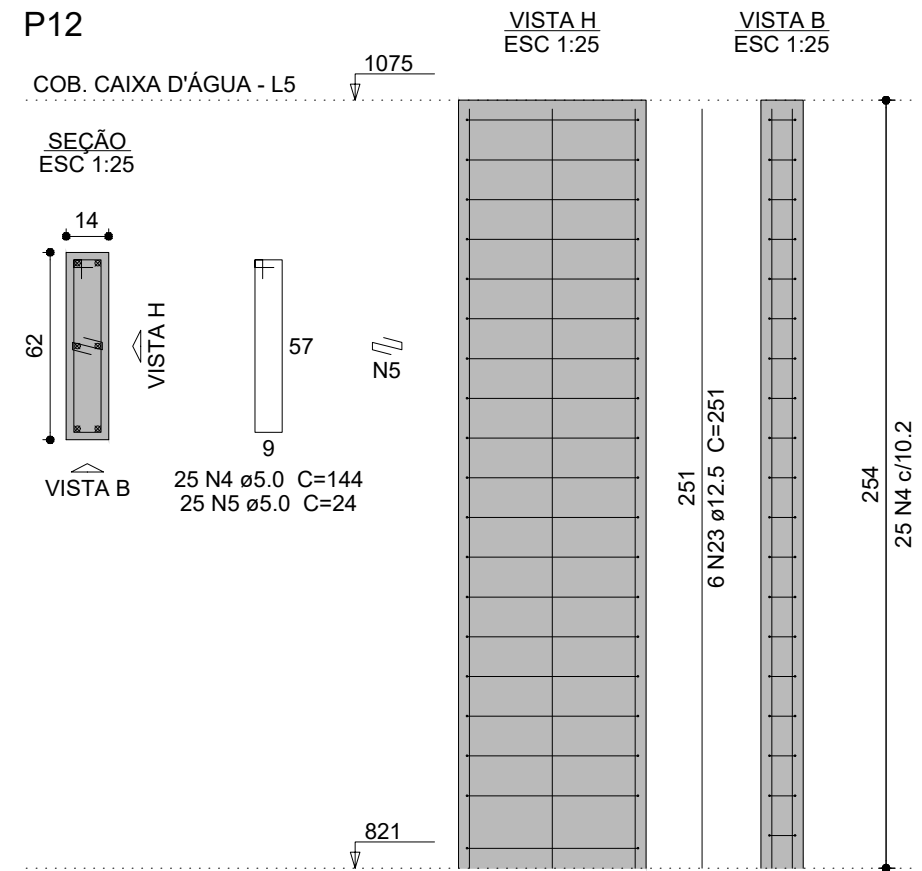
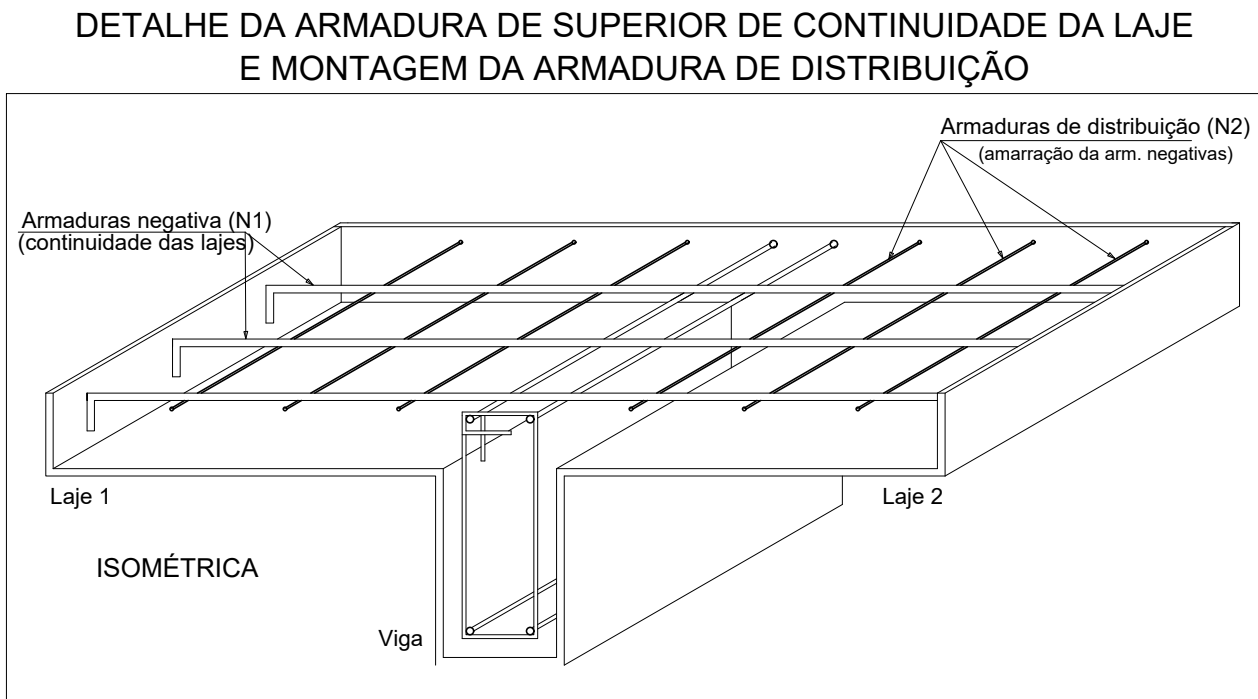
Volume de concreto (C-30) = 10.09 m³
Área de forma = 42.41 m²

escala 1:50





Armaduras de distribuição	
Armadura	Armadura de distribuição
N9	5 N1 ø5.0 c/15 C=204
N9	5 N2 ø5.0 c/15 C=257
N9	5 N3 ø5.0 c/15 C=269



Forma do pavimento Caixa d'água (Nível 891)

Blocos de enchimento				
Detalhe	Tipo	Nome	Dimensões(cm) hb bx by	Quantidade
1	Lajota cerâmica	B12/30/20	12 30 20	54

Lajes					
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Sobrecarga (kgf/m²)
L1	Trelçada 1D	16	0	891	335 164 sim

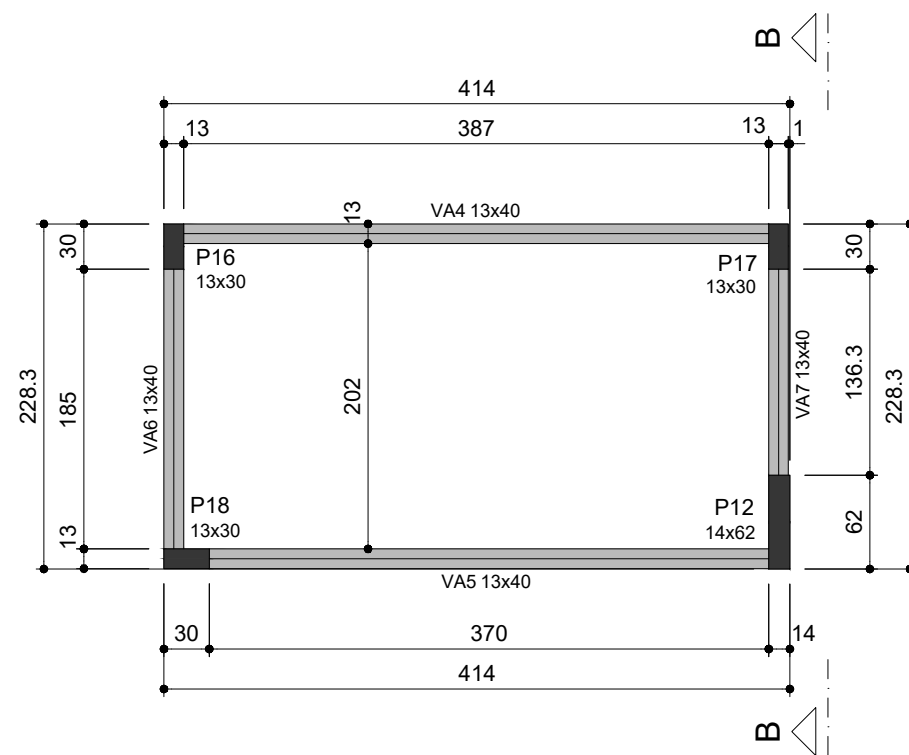
Características dos materiais		
fck (kgf/cm²)	Ecs (kgf/cm²)	Abatimento (cm)
300	268384	10.00

Dimensão máxima do agregado = 19 mm

Legenda dos pilares	
	Pilar que passa

Legenda das vigas e paredes	
	Viga

Detalhe 1 (esc. 1:25)



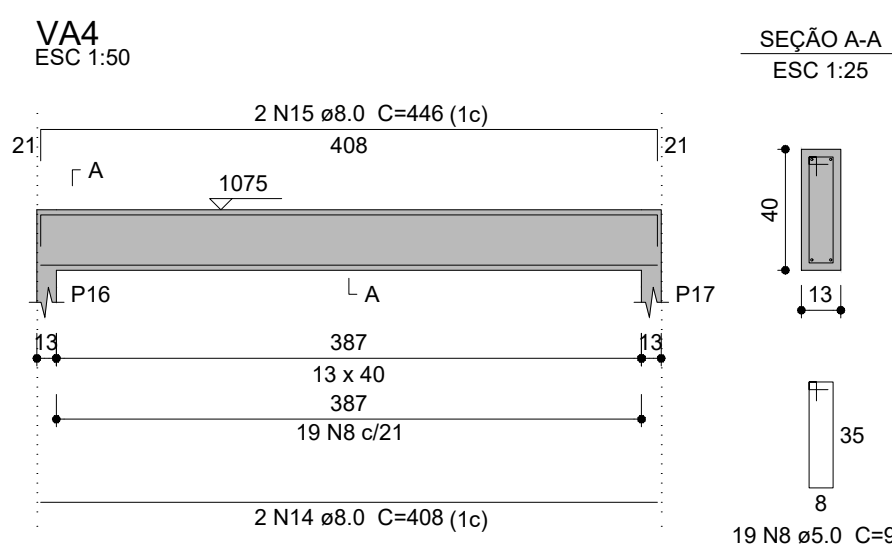
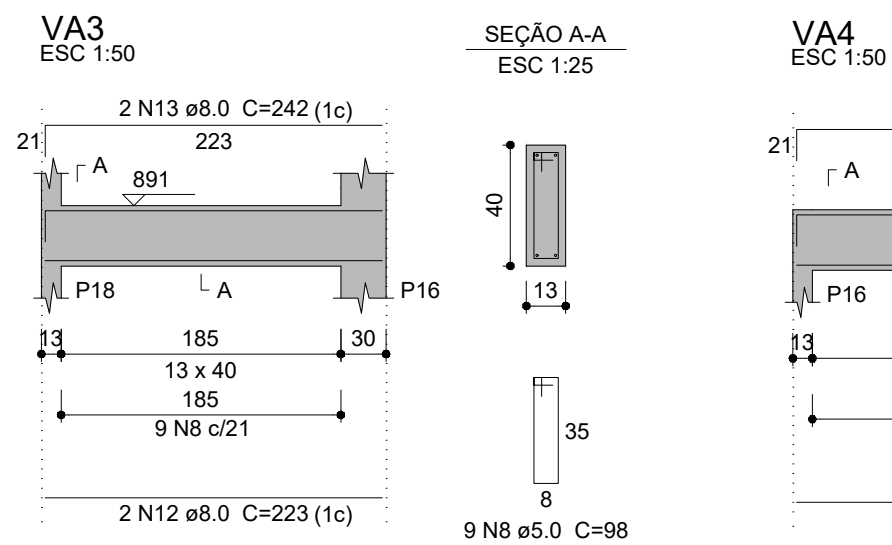
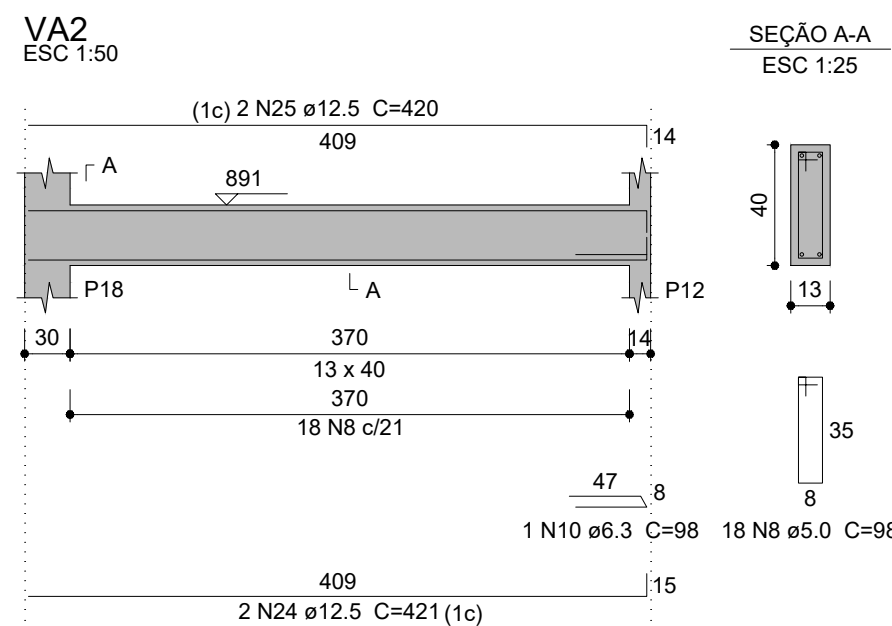
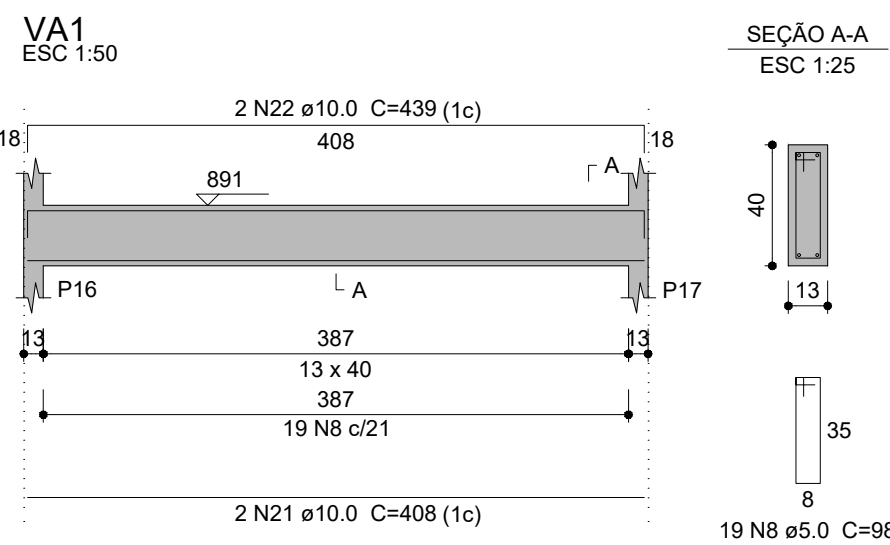
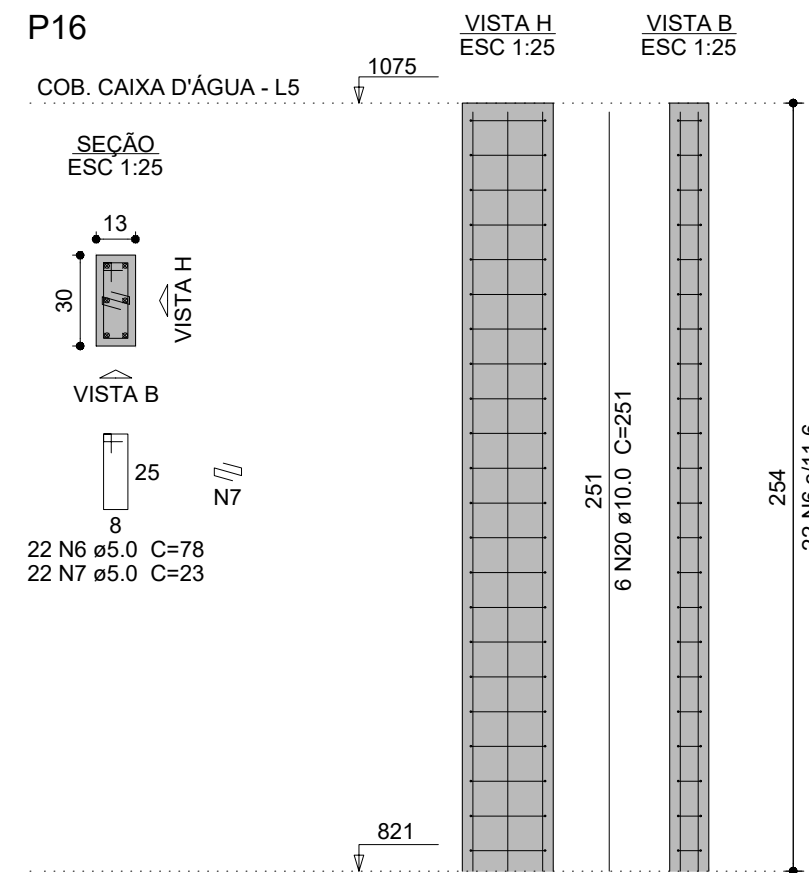
Características dos materiais		
fck (kgf/cm²)	Ecs (kgf/cm²)	Abatimento (cm)
300	268384	10.00

Dimensão máxima do agregado = 19 mm

Legenda dos pilares	
	Pilar que morre

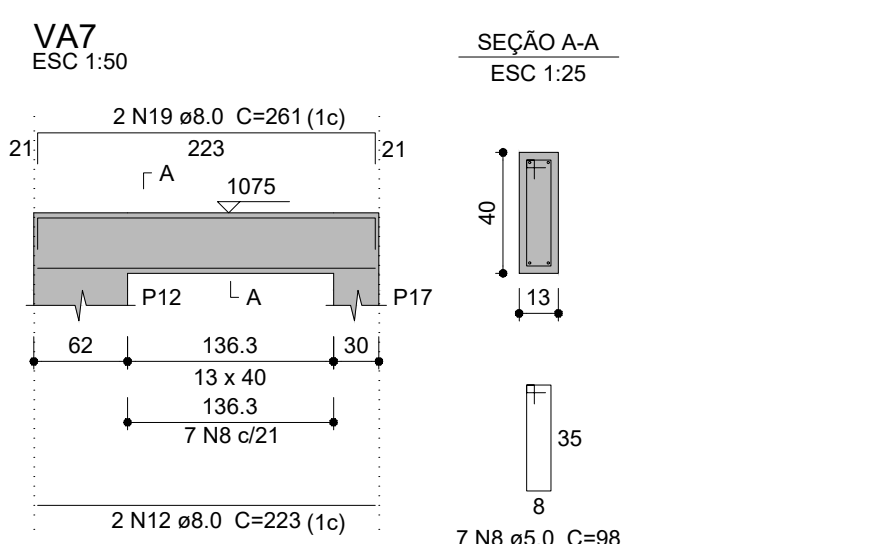
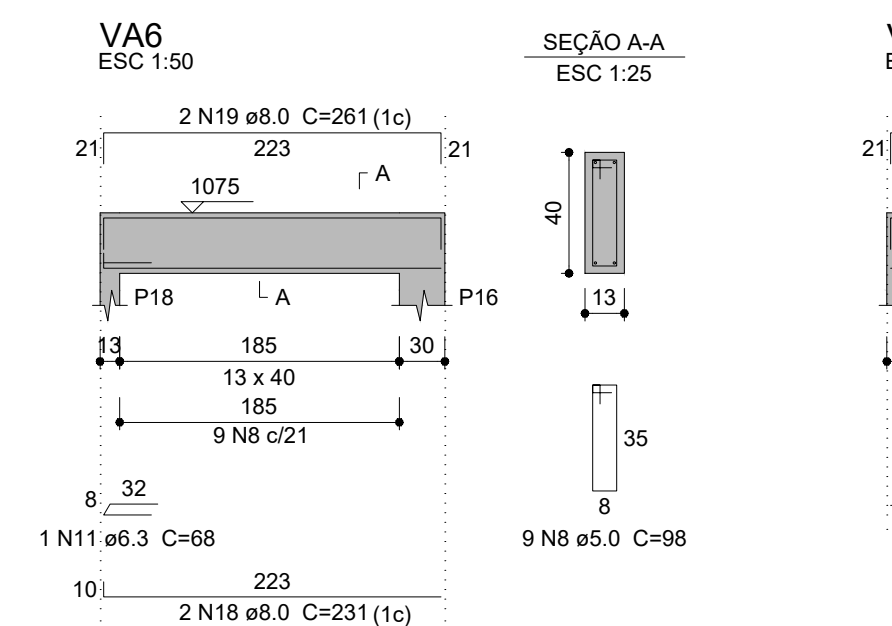
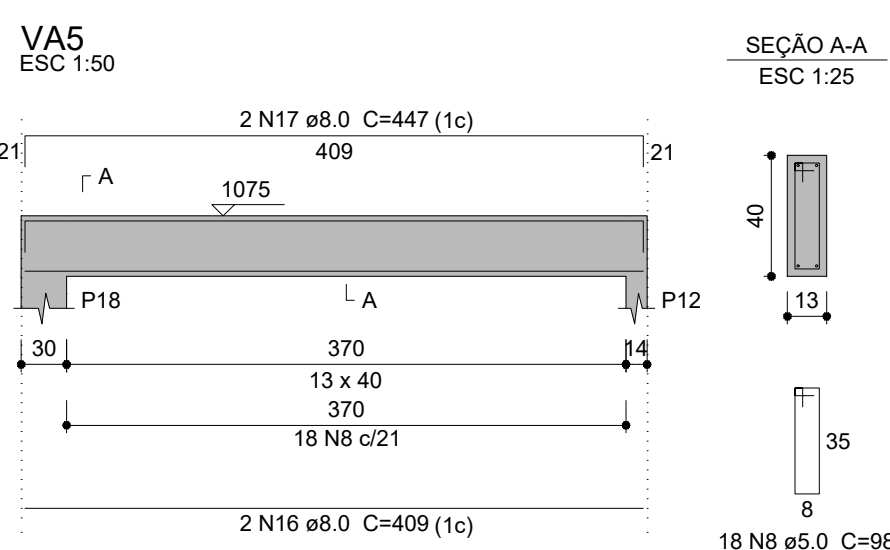
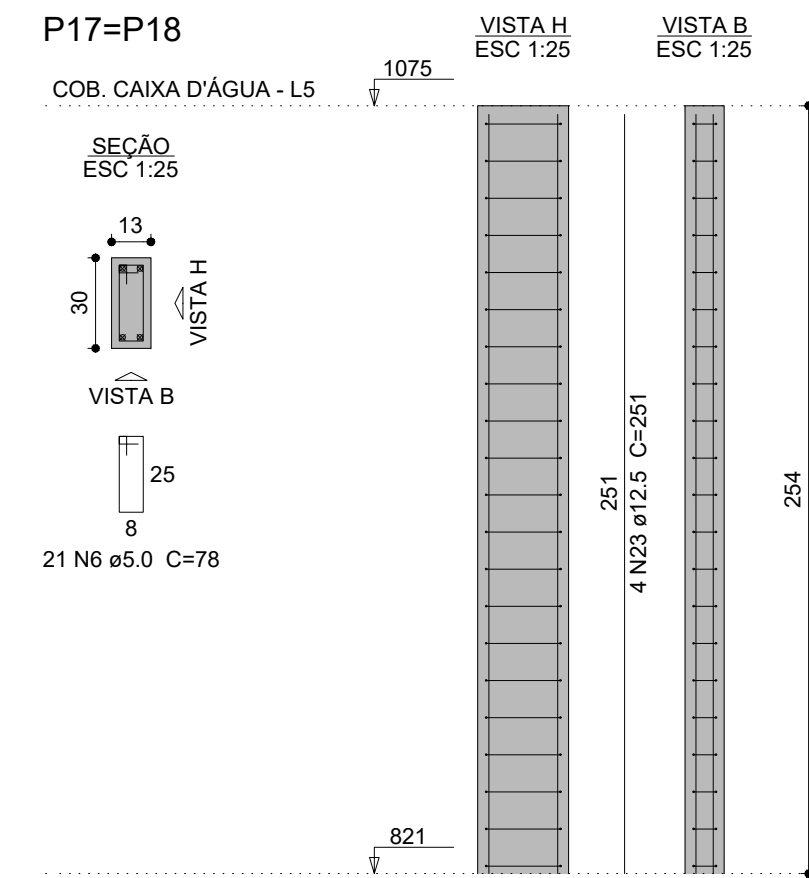
Legenda das vigas e paredes	
	Viga

Forma do pavimento Cob. Caixa d'água (Nível 1075)



Relação do aço

CAIXA D'ÁGUA:	CAIXA D'ÁGUA:	CAIXA D'ÁGUA:	CAIXA D'ÁGUA:	CAIXA D'ÁGUA:	CAIXA D'ÁGUA:
CA60	CA50	CA60	CA50	CA60	CA50
N	N	N	N	N	N
DIAM (mm)	DIAM (mm)	DIAM (mm)	DIAM (mm)	DIAM (mm)	DIAM (mm)
QUANT	QUANT	QUANT	QUANT	QUANT	QUANT
C.UNIT (cm)	C.UNIT (cm)	C.UNIT (cm)	C.UNIT (cm)	C.UNIT (cm)	C.UNIT (cm)
C.TOTAL (cm)	C.TOTAL (cm)	C.TOTAL (cm)	C.TOTAL (cm)	C.TOTAL (cm)	C.TOTAL (cm)



Resumo do aço

CAIXA D'ÁGUA:	CAIXA D'ÁGUA:	CAIXA D'ÁGUA:	CAIXA D'ÁGUA:	CAIXA D'ÁGUA:	CAIXA D'ÁGUA:
CA50	CA60	CA50	CA60	CA50	CA60
DIAM (mm)	DIAM (mm)	DIAM (mm)	DIAM (mm)	DIAM (mm)	DIAM (mm)
C.TOTAL (m)	C.TOTAL (m)	C.TOTAL (m)	C.TOTAL (m)	C.TOTAL (m)	C.TOTAL (m)
PESO + 10 % (kg)	PESO + 10 % (kg)	PESO + 10 % (kg)	PESO + 10 % (kg)	PESO + 10 % (kg)	PESO + 10 % (kg)

Volume de concreto (C-30) = 1.59 m³

Área de forma = 29.29 m²