

PLANTA DE LOCAÇÃO E COBERTA
ESCALA 1/200

GOVERNO DO ESTADO DA PARAÍBA
GERÊNCIA DE ACOMPANHAMENTO E MANUTENÇÃO DE OBRAS * COTESE

Projeto: UNIDADE ESCOLAR 4 SALAS

Local: Rua Manoel José Ferreira, s/n - Jardim Novo, Jatoí/ PB

Este Projeto, todos os direitos reservados ao Governo do Estado/ PB

Arquiteto: ROSANE TOSCANO DE THEORGA FREIRE

Projeto: CAU - A10259-B

Engenheiros: JOSÉ PAULO FALCÃO

Resp. CAD: ALINE KELLEN

Escala: 1:200

Data: 11/2015

01/05

LOCAÇÃO E COBERTA

ÁREA CONSTRUÍDA = 466,00 m²
TERRENO = 40 X 90m

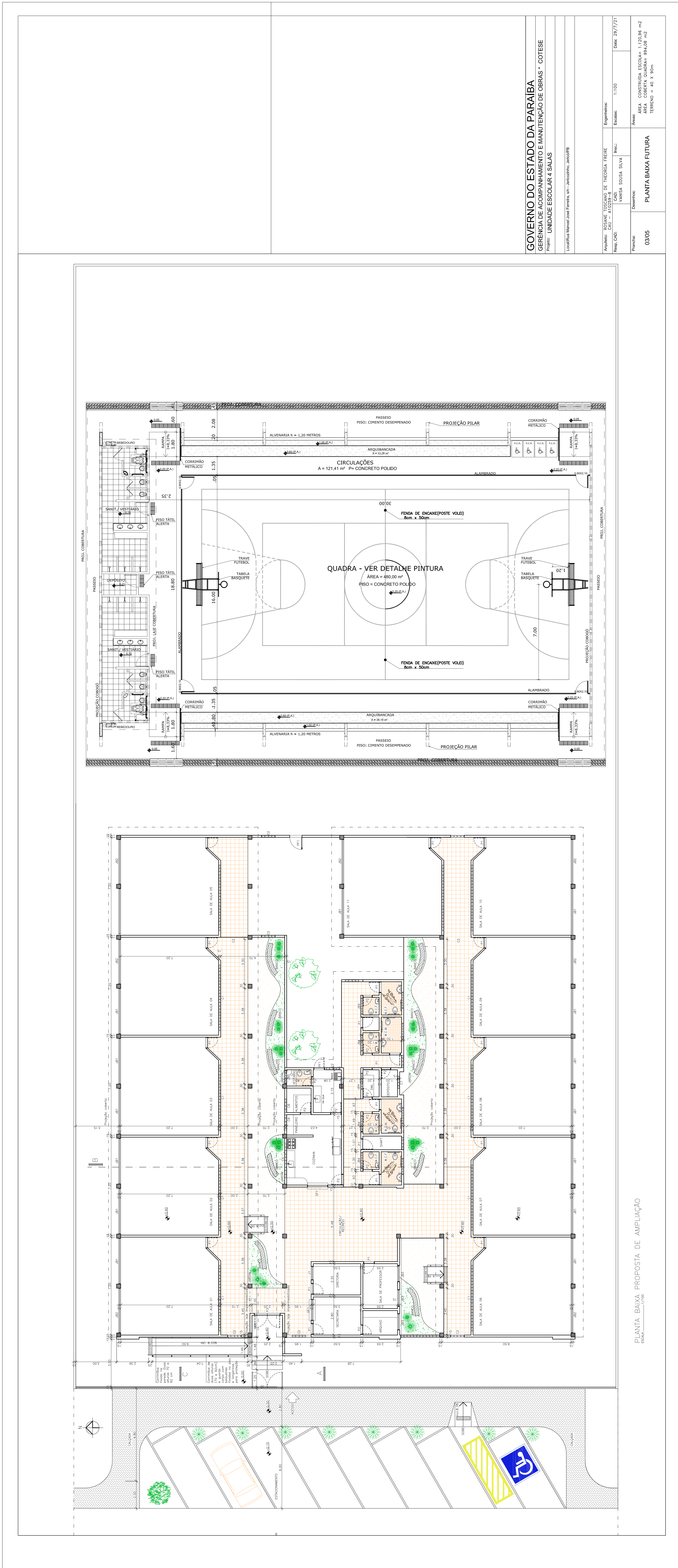


PLANTA BAIXA
ESCALA 1/100

Convenções:						
Discriminação:	L x H:	Qt.:	Qt.:			
Portas:	P1	0,80X2,10	09	C1	4,85X0,60	04
	P2	0,70X2,10	07	C2	1,00X2,10	06
	P3	1,80X2,10	01	C3	1,20X0,60	01
	P4	0,90X2,10	02	C4	2,40X0,60	01
Janelas:	JB1	3,37X1,30	06	C5	3,37X2,10	01
	JB2	3,30X1,30	02	C6	1,00X0,60	02
	JB3	1,20X1,30	03	C7	0,90X0,60	02
	JB4	1,20X0,30	05	PF1	0,90X2,10	02
	JB5	1,00X0,30	02	GF1	1,50X1,00	02
	J1	1,00X1,00	01	PF2	2,25X2,00	01
				PF3	3,00X2,00	01

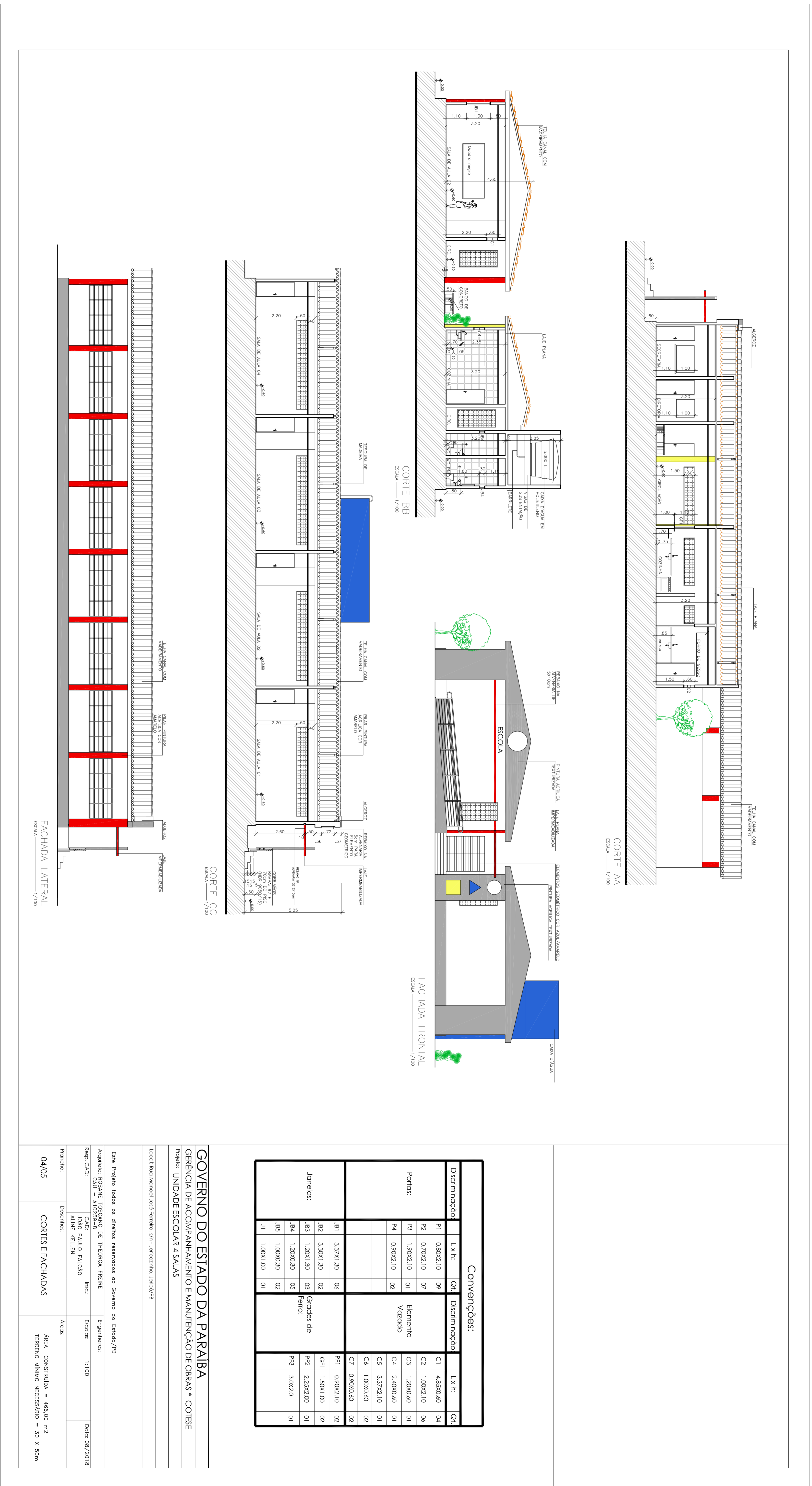
GOVERNO DO ESTADO DA PARAIBA
GERÊNCIA DE ACOMPANHAMENTO E MANUTENÇÃO DE OBRAS * COTESE
 Projeto: UNIDADE ESCOLAR 4 SALAS

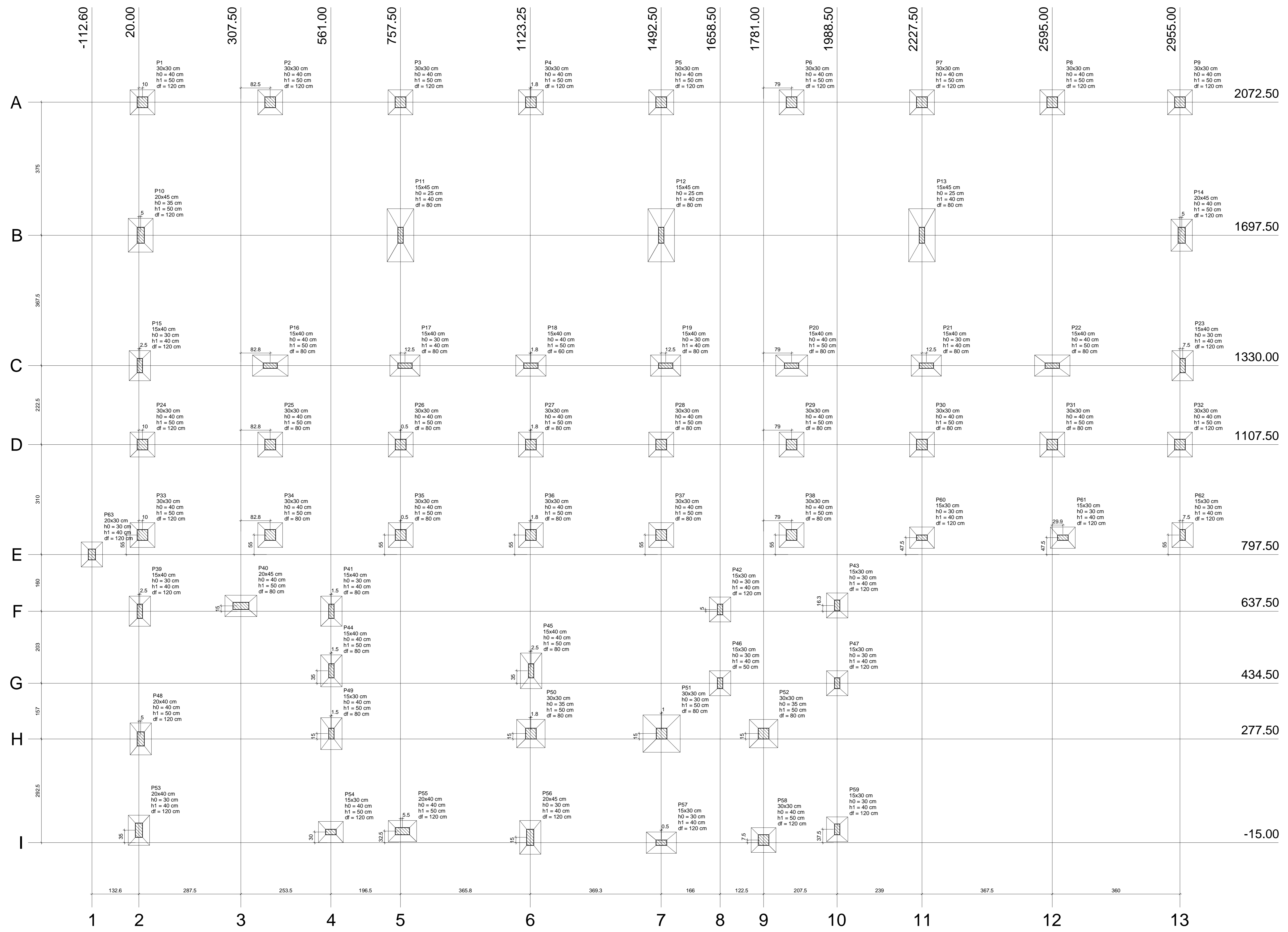
Local: Rua Manoel José Ferreira, s/n - Jericoatino, João Pessoa/PB	
Este Projeto todos os direitos reservados ao Governo do Estado/PB	
Arquiteto: ROSANE TOSSCANO DE THEORGA FREIRE	Engenheiro: JOÃO PAULO FALCÃO
Resp. CAD: CAU - A10299-8	Insc: ALINE KELLEN
Escala: 1:100	Data: 08/2018
Desenho: ALINE KELLEN	Áreas: ÁREA CONSTRUÍDA = 466,00 m ² TERRENO = 40 X 90m
Planta: 02/05	PLANTA BAIXA ATUAL



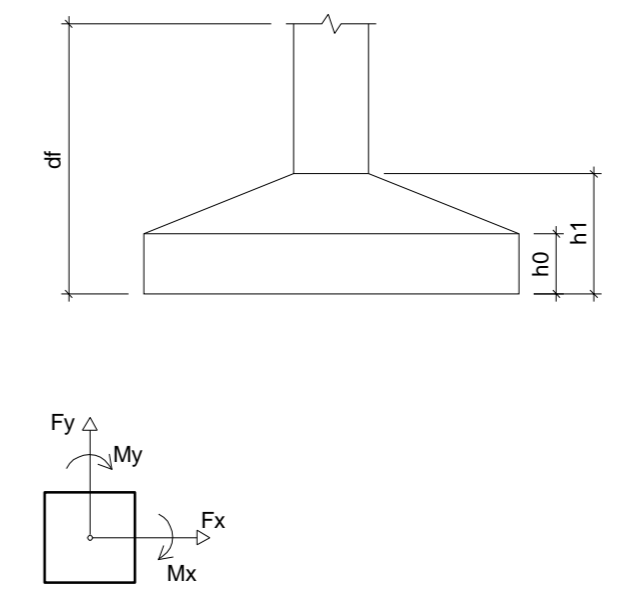
PLANTA BAIXA PROPOSTA DE AMPLIAÇÃO

GOVERNO DO ESTADO DA PARAIBA	
GERÊNCIA DE ACOMPANHAMENTO E MANUTENÇÃO DE OBRAS - COTISE	
Projeto: UNIDADE ESCOLAR 4 SALAS	
Localização: Avenida José F. de Almeida, s/n, JARDIM DO SOL, JOÃO PESSOA, PB	
Arquiteto: EDUARDO REIS DE MENEZES FREIRE	Engenheiro: []
Projeto: []	Escala: 1:100
Revisão: []	Última: 29/07/21
Área: 1122,98 m ²	
Área Coberta: 994,08 m ²	
Térreo: 40 x 50m	
Projeto: 03/05	PLANTA BAIXA FUTURA





Nome	Seção	X (cm)	Y (cm)	Pilar		Mx (kgf.m)	My (kgf.m)	Fx (kgf)	Fy (kgf)	Fundação				
				Carga Máx. (tf)	Carga Min. (tf)					Lado B (cm)	Lado H (cm)	H / ha (cm)	h1 / hb (cm)	d (cm)
P1	30x30	30.00	2072.50	6.0	5.4	0	0	0.3	0.2	70	70	40	50	120
P2	30x30	390.00	2072.50	9.1	8.4	0	0	0.1	0.7	70	70	40	50	120
P3	30x30	787.50	2072.50	9.3	8.5	0	0	0.1	0.1	70	70	40	50	120
P4	30x30	1125.00	2072.50	8.3	7.6	0	0	0.2	0.5	70	70	40	50	120
P5	30x30	1492.50	2072.50	9.3	8.5	0	0	0.1	0.3	70	70	40	50	120
P6	30x30	1860.00	2072.50	8.2	7.6	0	0	0.1	0.5	70	70	40	50	120
P7	30x30	2227.50	2072.50	9.4	8.5	0	0	0.1	0.1	70	70	40	50	120
P8	30x30	2595.00	2072.50	9.1	8.4	0	0	0.1	0.7	70	70	40	50	120
P9	30x30	2955.00	2072.50	5.3	4.7	0	0	0.4	0.3	70	70	40	50	120
P10	20x45	25.00	1697.50	14.3	13.4	0	0	0.3	0.2	70	95	35	50	120
P11	15x45	757.50	1697.50	29.0	27.1	0	0	0.1	0.4	75	150	25	40	80
P12	15x45	1492.50	1697.50	26.4	24.6	0	0	0.1	0.7	75	150	25	40	80
P13	15x45	2227.50	1697.50	29.0	27.1	0	0	0.2	0.4	75	150	25	40	80
P14	20x45	2960.00	1697.50	12.9	12.0	0	0	0.3	0.3	60	90	40	50	120
P15	15x40	22.50	1330.00	7.9	7.1	0	0	0.1	0.2	60	85	30	40	120
P16	15x40	390.25	1330.00	14.8	13.8	0	0	0.3	0.1	60	100	40	50	80
P17	15x40	770.00	1330.00	12.3	11.3	0	0	0.2	0.3	60	85	30	40	80
P18	15x40	1125.00	1330.00	12.7	11.8	0	0	0.5	0.1	60	85	40	50	80
P19	15x40	1505.00	1330.00	12.2	11.3	0	0	0.2	0.3	60	85	30	40	80
P20	15x40	1860.00	1330.00	12.7	11.8	0	0	0.5	0.1	60	90	40	50	80
P21	15x40	2240.00	1330.00	12.3	11.3	0	0	0.1	0.3	60	85	30	40	80
P22	15x40	2595.00	1330.00	14.3	13.3	0	0	0.4	0.1	60	100	40	50	80
P23	15x40	2962.50	1330.00	6.1	5.3	0	0	0.1	0.7	60	85	30	40	120
P24	30x30	30.00	1107.50	9.8	9.7	0	0	0.7	0.4	70	70	40	50	120
P25	30x30	390.25	1107.50	6.4	5.8	0	0	0.2	0.2	70	70	40	50	80
P26	30x30	758.00	1107.50	6.5	5.7	0	0	0.2	0.2	70	70	40	50	80
P27	30x30	1125.00	1107.50	5.3	4.8	0	0	0.1	0.1	70	70	40	50	80
P28	30x30	1492.50	1107.50	7.1	6.5	0	0	0.1	0.6	70	70	40	50	80
P29	30x30	1860.00	1107.50	5.4	4.8	0	0	0.1	0.2	70	70	40	50	80
P30	30x30	2227.50	1107.50	6.5	5.9	0	0	0.1	0.2	70	70	40	50	80
P31	30x30	2595.00	1107.50	5.0	4.6	0	0	0.1	0.2	70	70	40	50	80
P32	30x30	2965.00	1107.50	5.0	4.5	0	0	0.1	0.2	70	70	40	50	80
P33	30x30	30.00	852.50	6.9	5.8	0	0	0.2	0.2	70	70	40	50	120
P34	30x30	390.25	852.50	7.5	6.9	0	0	0.2	0.2	70	70	40	50	80
P35	30x30	758.00	852.50	8.9	8.2	0	0	0.2	0.7	70	70	40	50	80
P36	30x30	1125.00	852.50	9.8	8.9	0	0	0.1	0.2	70	70	40	50	80
P37	30x30	1492.50	852.50	11.7	11.0	0	0	0.1	0.4	70	70	40	50	80
P38	30x30	1860.00	852.50	7.3	6.5	0	0	0.2	0.3	70	70	40	50	80
P39	15x40	22.50	637.50	7.9	7.1	0	0	0.2	0.4	60	85	30	40	120
P40	20x45	307.50	637.50	11.6	10.9	0	0	0.2	0.5	60	90	40	50	80
P41	15x40	662.50	637.50	6.9	5.0	0	0	0.1	0.4	60	85	30	40	80
P42	15x30	1068.00	642.50	6.8	5.8	0	0	0.1	0.3	60	70	30	40	120
P43	15x30	1488.00	642.50	5.4	4.7	0	0	0.1	0.3	60	70	30	40	120
P44	15x40	1862.50	642.50	13.0	11.4	0	0	0.1	0.6	60	80	40	50	80
P45	15x40	2242.50	642.50	14.2	12.6	0	0	0.2	0.4	60	100	40	50	80
P46	15x30	2628.00	642.50	6.7	6.2	0	0	0.2	0.2	60	70	30	40	50
P47	15x30	2988.00	642.50	3.5	2.7	0	0	0.2	0.1	70	70	30	40	120
P48	20x40	25.00	277.50	11.9	11.0	0	0	1.1	0.5	60	90	40	50	120
P49	15x30	662.50	292.50	12.6	11.4	0	0	0.1	0.2	60	90	40	50	80
P50	30x30	1125.00	292.50	15.2	12.7	0	0	0.8	0.5	80	80	35	50	80
P51	30x30	1493.00	292.50	25.7	21.1	0	0	0.7	0.6	105	105	30	50	80
P52	30x30	1781.00	292.50	14.3	11.8	0	0	0.8	0.6	80	80	35	50	80
P53	20x40	20.00	20.00	6.9	5.9	0	0	0.3	0.4	60	85	30	40	120
P54	15x30	561.00	15.00	8.7	7.7	0	0	0.3	0.2	60	70	40	50	120
P55	20x40	763.00	17.50	5.4	4.5	0	0	0.3	0.3	60	80	40	50	120
P56	20x45	1123.25	0.00	13.3	9.9	0	0	0.3	0.5	60	95	30	40	120
P57	15x30	1493.00	-15.00	12.7	8.9	0	0	0.2	0.5	60	85	30	40	120
P58	30x30	1781.00	-7.50	10.6	7.9	0	0	0.4	0.6	70	70	40	50	120
P59	15x30	2098.50	22.50	4.9	4.5	0	0	0.2	0.9	60	70	30	40	120
P60	15x30	2227.50	845.00	3.3	3.0	0	0	0.1	0.2	60	70	30	40	120
P61	15x30	2624.90	845.00	3.2	3.0	0	0	0.1	0.1	60	70	30	40	120
P62	15x30	2962.50	852.50	3.1	2.5	0	0	0.3	0.4	60	70	30	40	120
P63	20x30	-112.60	797.50	3.5	3.1	0	0	0.1	0.4	60	70	30	40	120



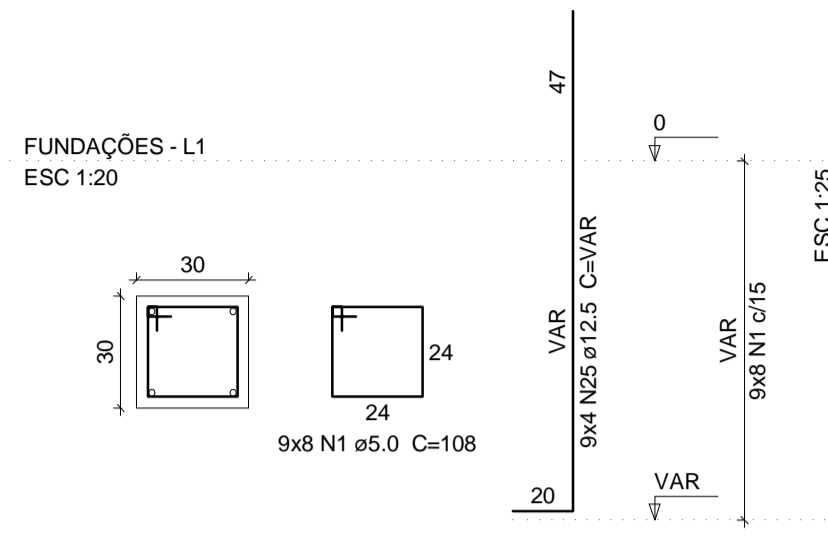
Localização no eixo X		Localização no eixo Y	
Coordenadas (cm)	Nome	Coordenadas (cm)	Nome
-112.60	P63	2072.50	P1, P2, P3, P4, P5, P6, P7, P8, P9
20.00	P53	1697.50	P10, P11, P12, P13, P14
22.50	P15, P39	1330.00	P15, P16, P17, P18, P19, P20, P21, P22, P23
25.00	P10, P48	1107.50	P24, P25, P26, P27, P28, P29, P30, P31, P32
30.00	P1, P24, P33	852.50	P33, P34, P35, P36, P37, P38, P62
307.50	P40	845.00	P60, P61
390.00	P2	797.50	P63
390.25	P16, P25, P34	663.75	P43
561.00	P54	652.50	P40
562.50	P41, P44, P49	642.50	P42
757.50	P3, P11	637.50	P39, P41
758.00	P26, P35	469.50	P46, P45
763.00	P55	434.50	P46, P47
770.00	P17	292.50	P48, P50, P51, P52
1123.25	P56	277.50	P48
1125.00	P4, P18, P27, P36, P50	22.50	P59
1125.75	P45	20.00	P63
1492.50	P5, P12, P28, P37	17.50	P55
1493.00	P57	15.00	P54
1493.00	P51	0.00	P56
1505.00	P19	-7.50	P58
1658.50	P42, P46	-15.00	P57
1781.00	P52, P58		
1860.00	P6, P20, P38		
1868.50	P43, P47, P59		
2227.50	P7, P13, P30, P60		
2240.00	P21		
2595.00	P8, P22, P31		
2624.90	P61		
2655.00	P9, P32		
2960.00	P14		
2962.50	P23, P62		

Planta de localização escala 1:50

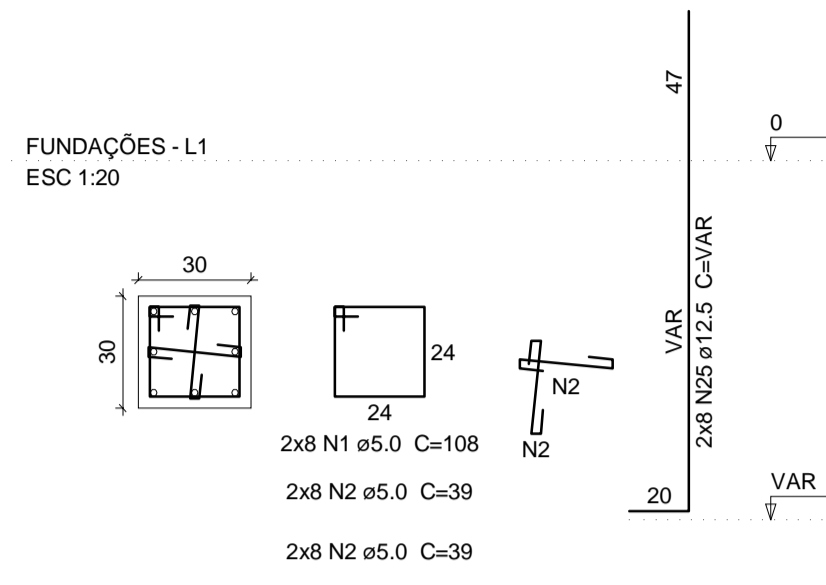
TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 1619993570

TL	TIAGO LAMEQUE DE SOUSA E SILVA ENGENHEIRO CIVIL - CREA-PB 1619993570	
	CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB	
	OBRA: ESCOLA 4 SALAS	
	ENDEREÇO: RUA MANOEL JOSE FERREIRA, JERICÓ-PB	
PROJETO ESTRUTURAL		FORMA: 02/17
LOCAÇÃO DE FUNDAÇÕES		REV: 0
		DATA: 25/09/2021

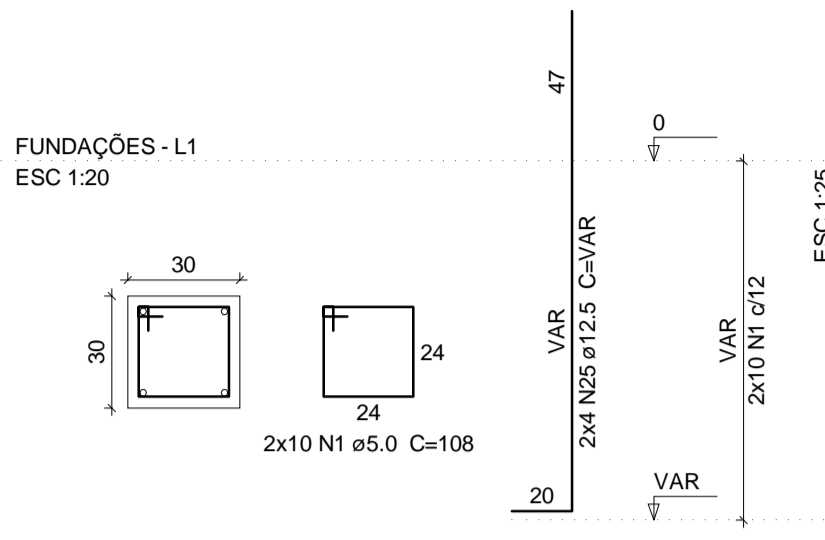
P1=P3=P4=P5=P6=P7=P9=P32=P33



P2=P8

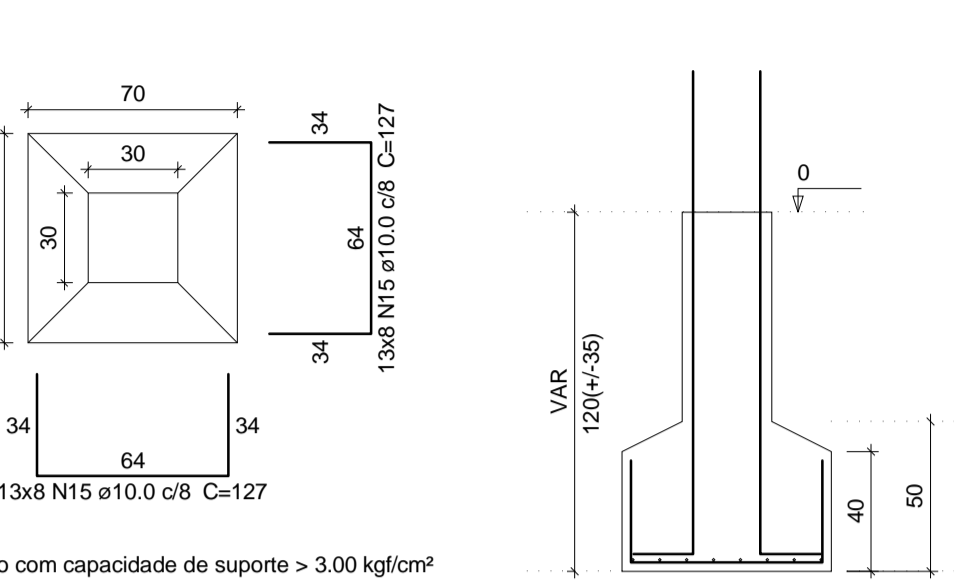


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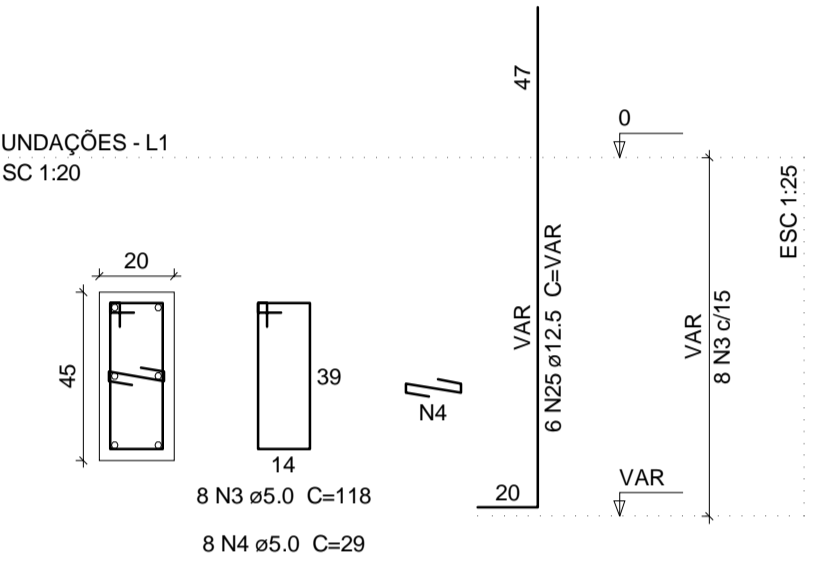


S1=S2=S3=S4=S5=S6=S7=S8=S9=S24=S32=S33 =S58

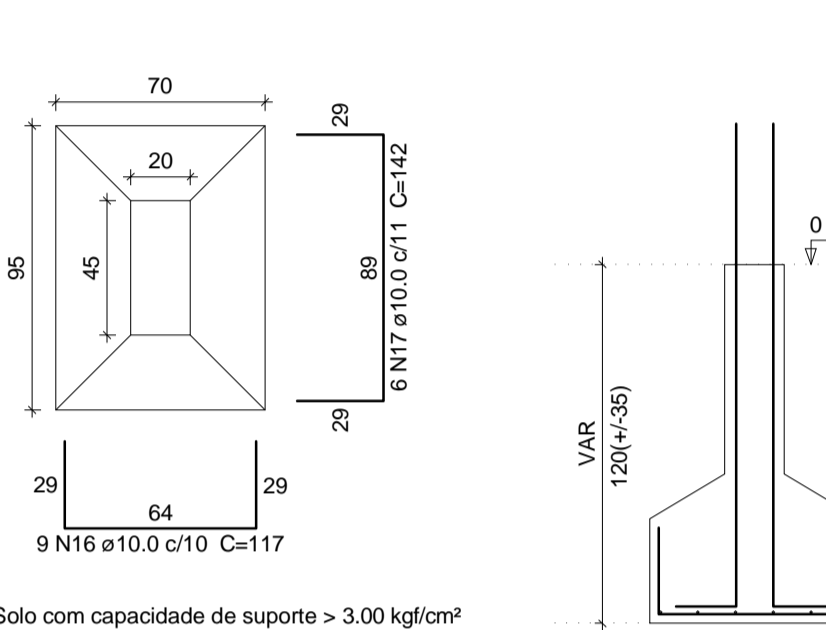
PLANTA ESC 1:25 CORTE ESC 1:25



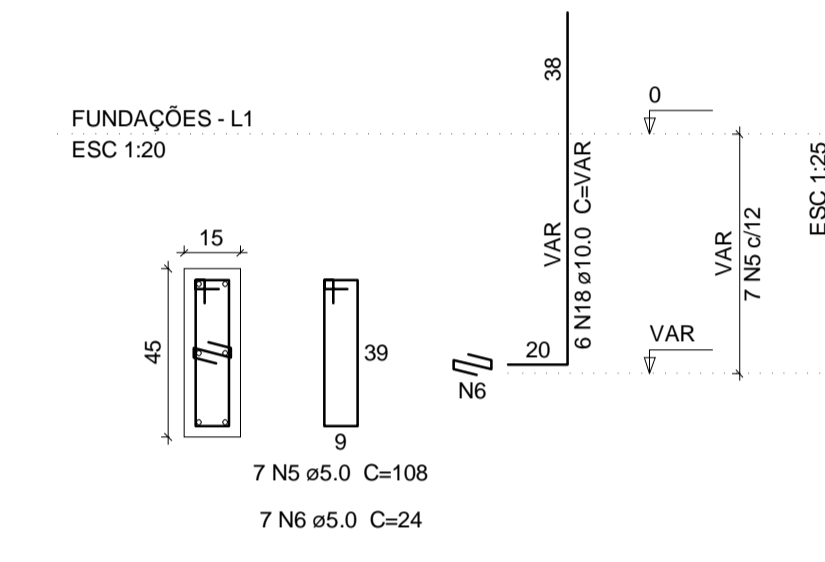
P10



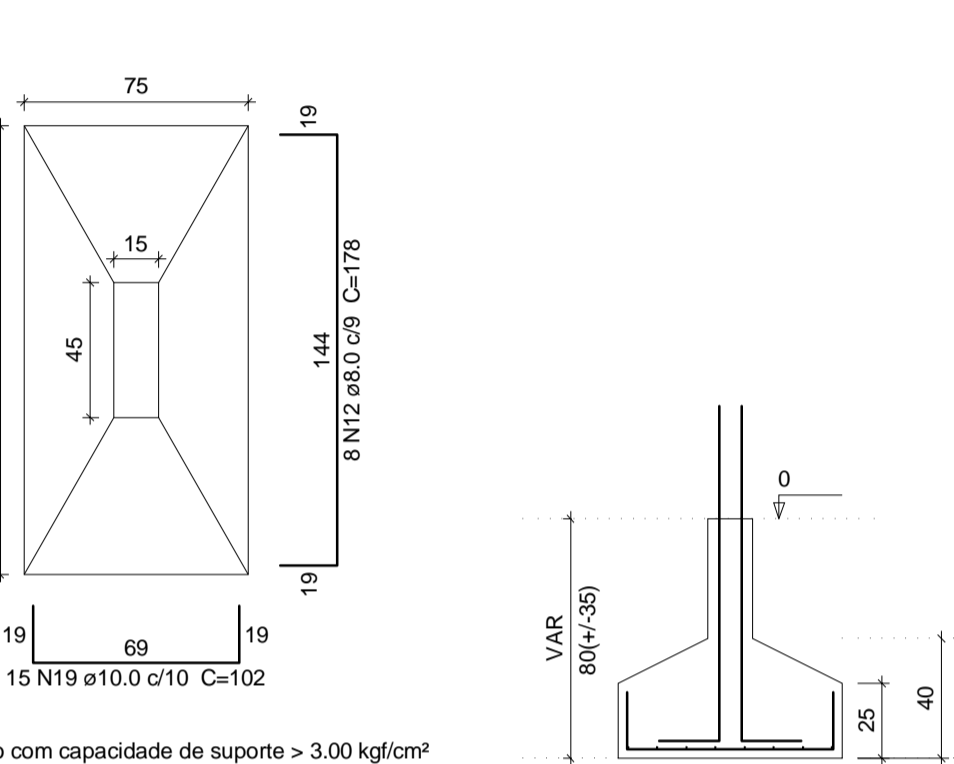
S10



P11=P12=P13



S11=S12=S13



Relação do aço

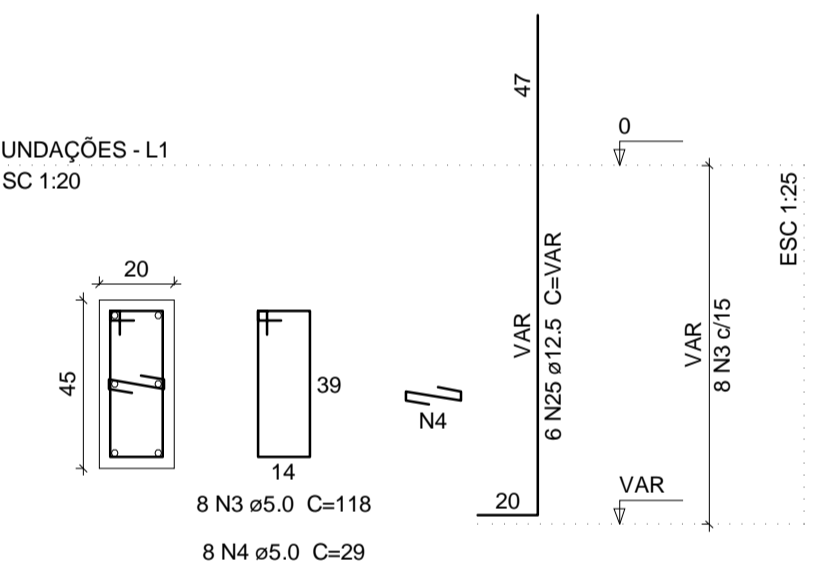
ACO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)	
CA60	1	5.0	108	108	11664	
	2	5.0	32	39	1248	
	3	5.0	16	118	1888	
	4	5.0	24	29	696	
	5	5.0	21	108	2268	
	6	5.0	79	24	1896	
	7	5.0	18	108	1944	
	8	5.0	80	98	7840	
	9	5.0	10	29	290	
	10	5.0	10	78	780	
	11	5.0	40	24	960	
	CA50	12	8.0	24	178	4272
		13	8.0	86	98	8428
		14	8.0	59	123	7257
		15	10.0	208	127	26416
		16	10.0	9	117	1053
		17	10.0	6	142	852
18		10.0	42	VAR	VAR	
19		10.0	45	102	4590	
20		10.0	61	117	7137	
21		10.0	12	147	1764	
22	10.0	28	VAR	VAR		
23	10.0	18	157	2826		
24	10.0	6	142	852		
25	12.5	78	VAR	VAR		
26	12.5	24	VAR	VAR		
27	12.5	6	VAR	VAR		

Resumo do aço

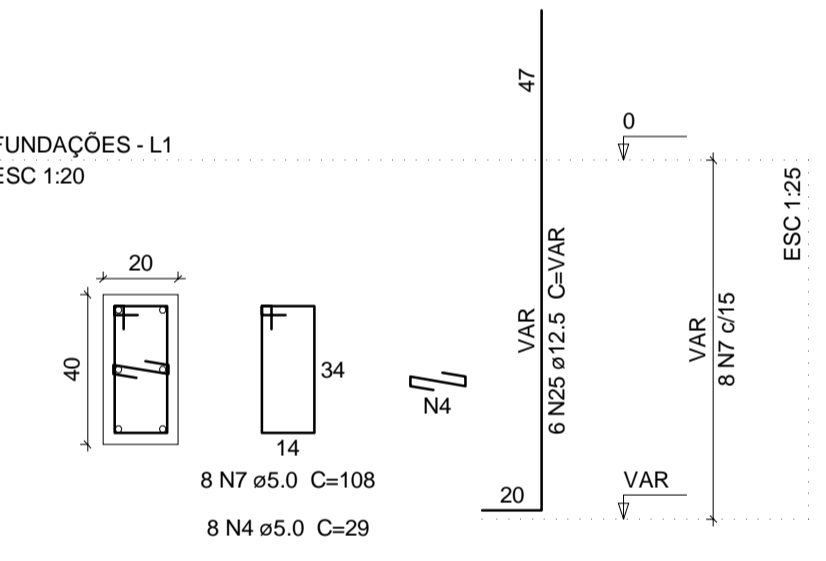
ACO	DIAM	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	199.6	86.6
	10.0	551.3	380.7
	12.5	185.6	196.6
CA60	5.0	314.8	53.4
PESO TOTAL			
CA50		663.9	
CA60		53.4	

Vol. de concreto total (C-25) = 9.97 m³
Área de forma total = 73.78 m²

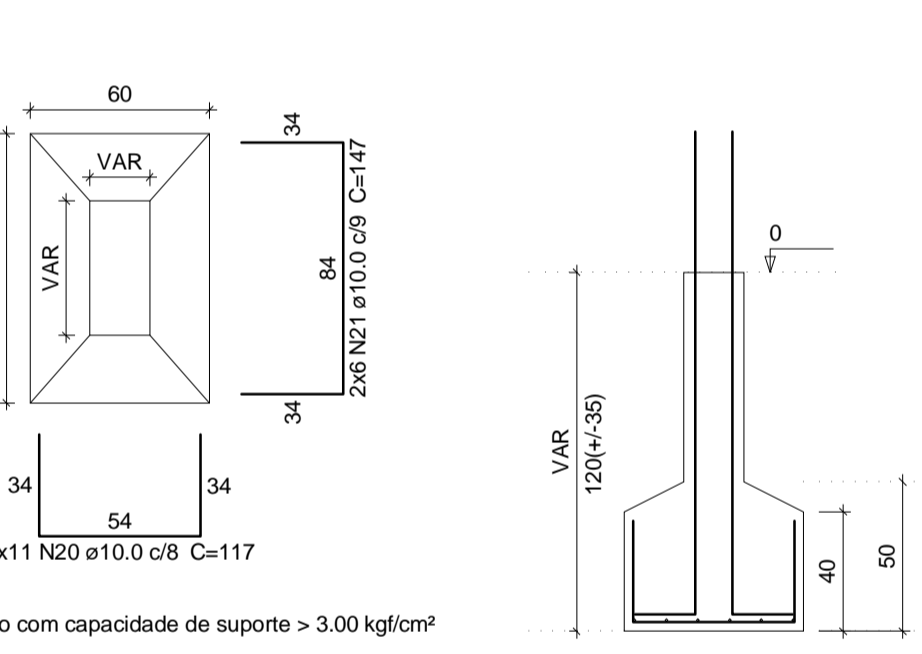
P14



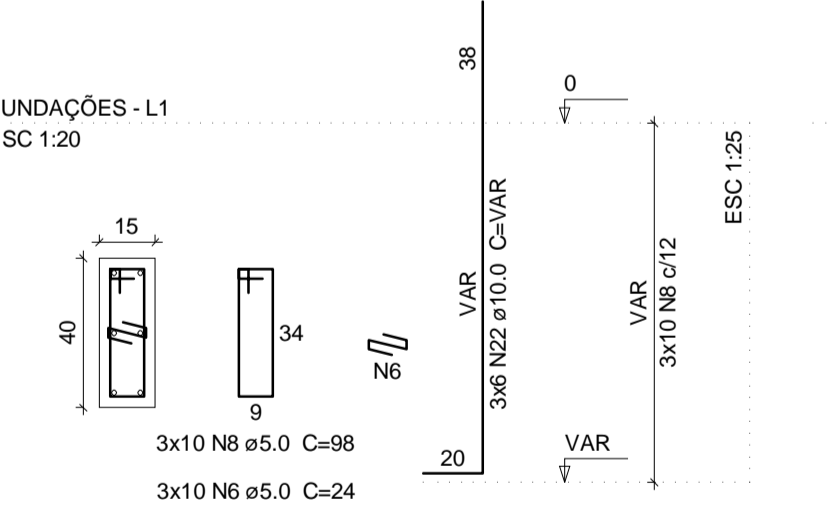
P48



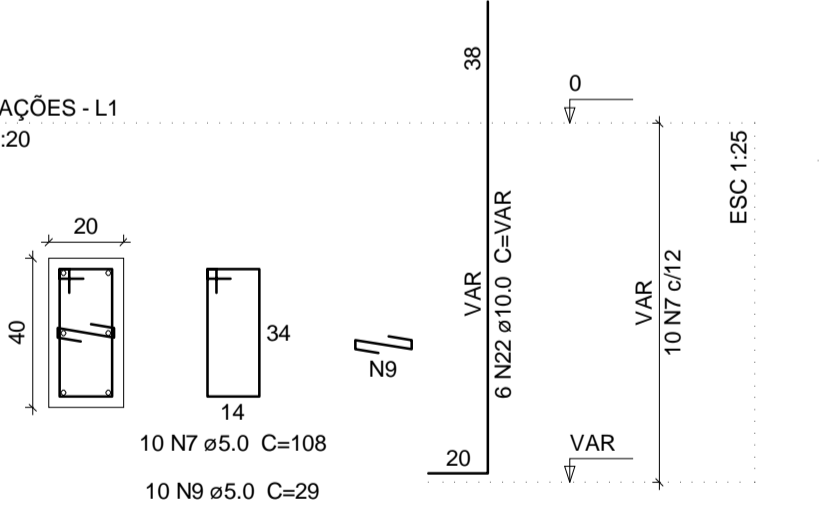
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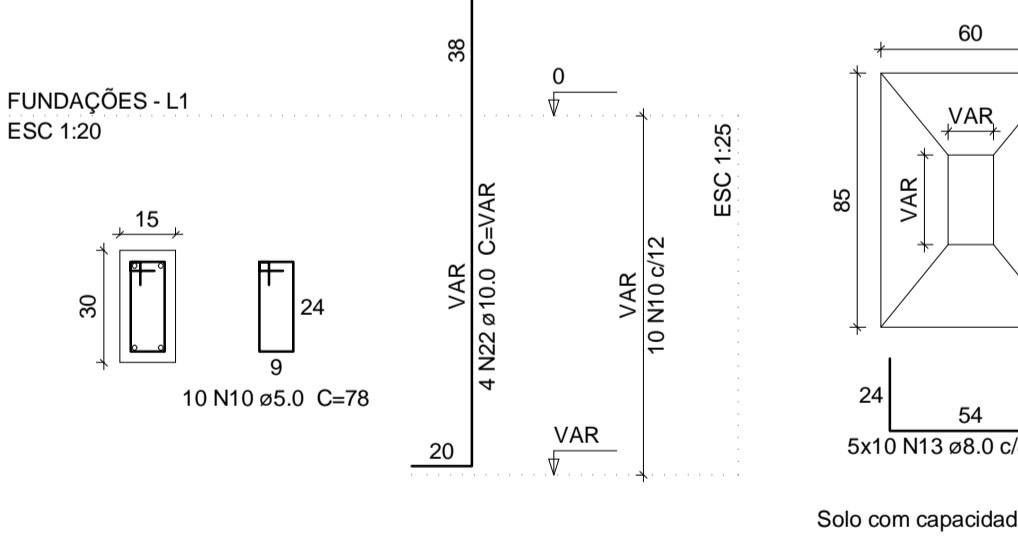
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P53

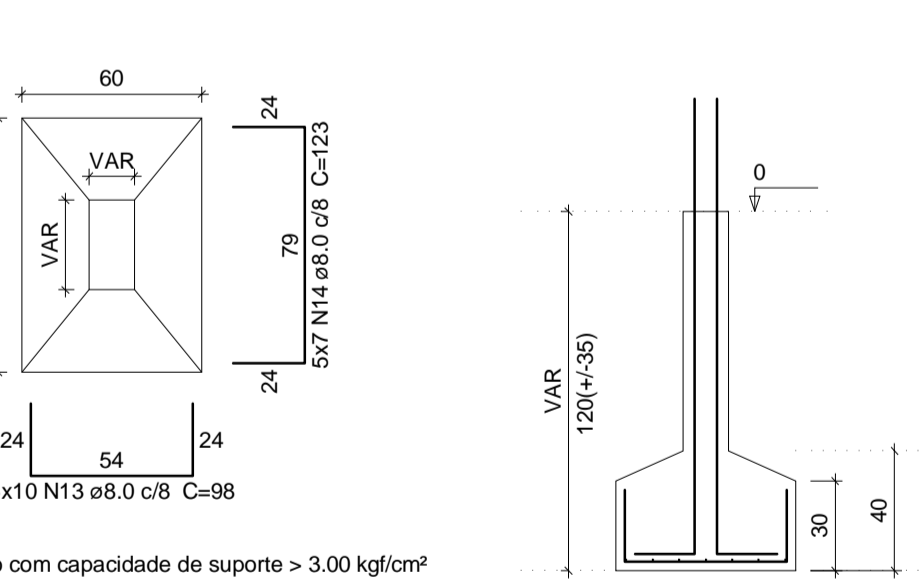


P57

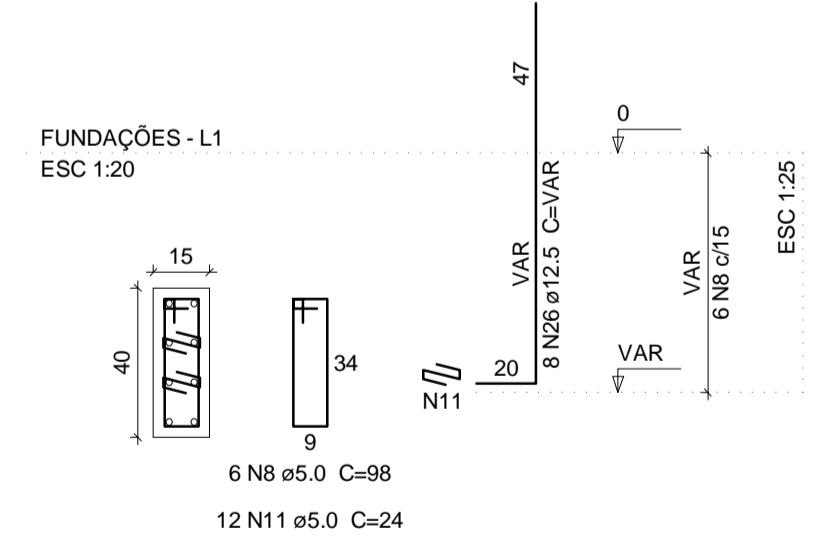


S15=S23=S39=S53=S57

PLANTA ESC 1:25 CORTE ESC 1:25

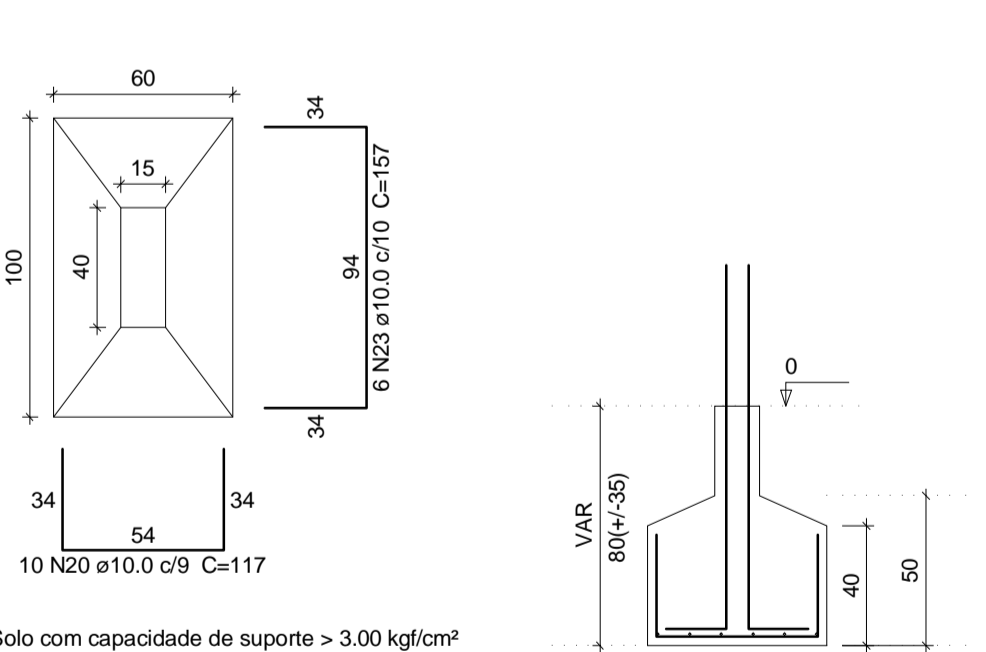


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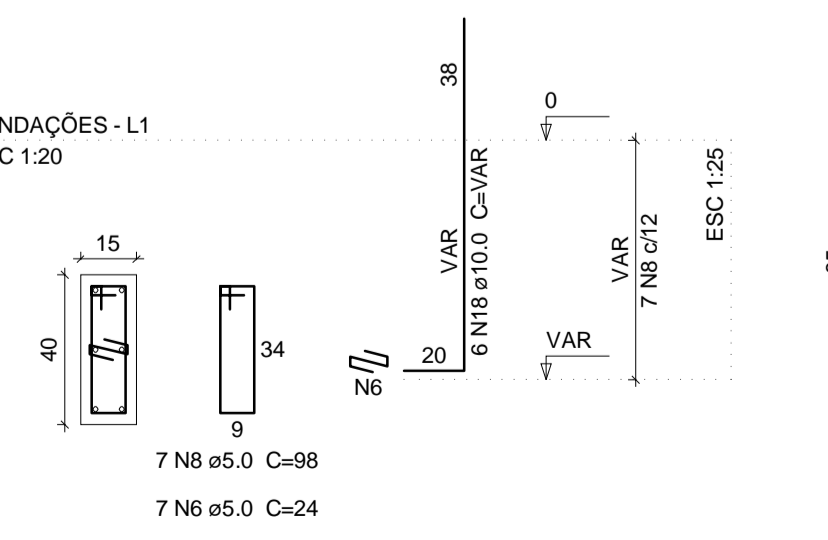


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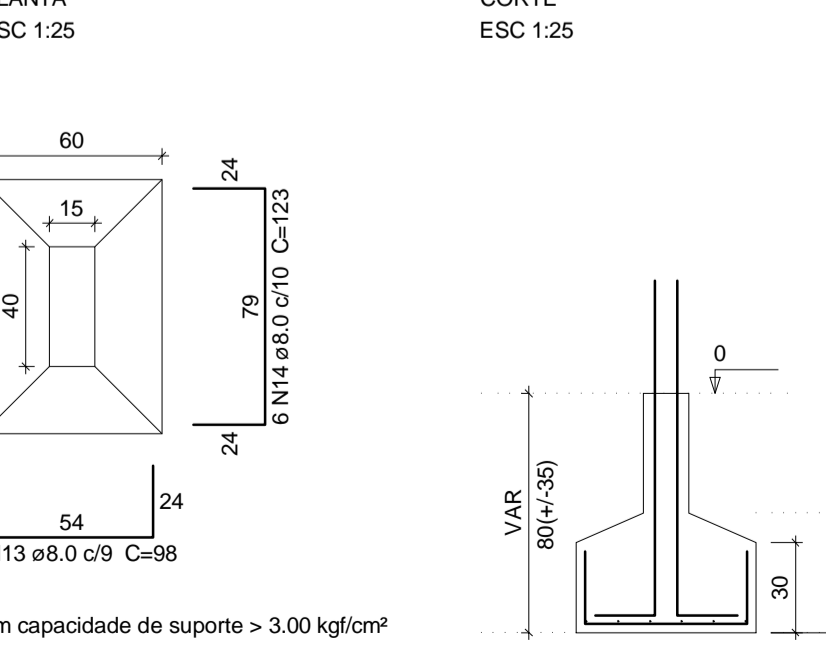
PLANTA ESC 1:25 CORTE ESC 1:25



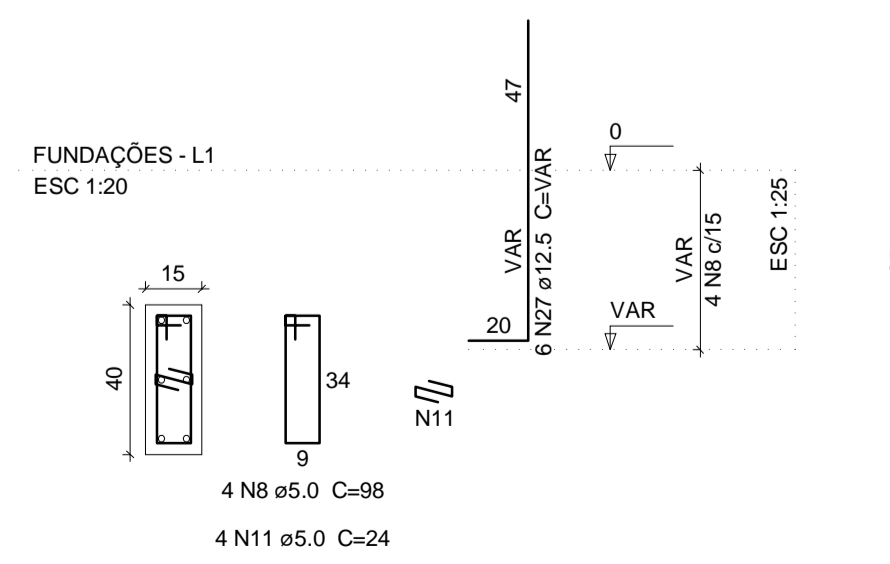
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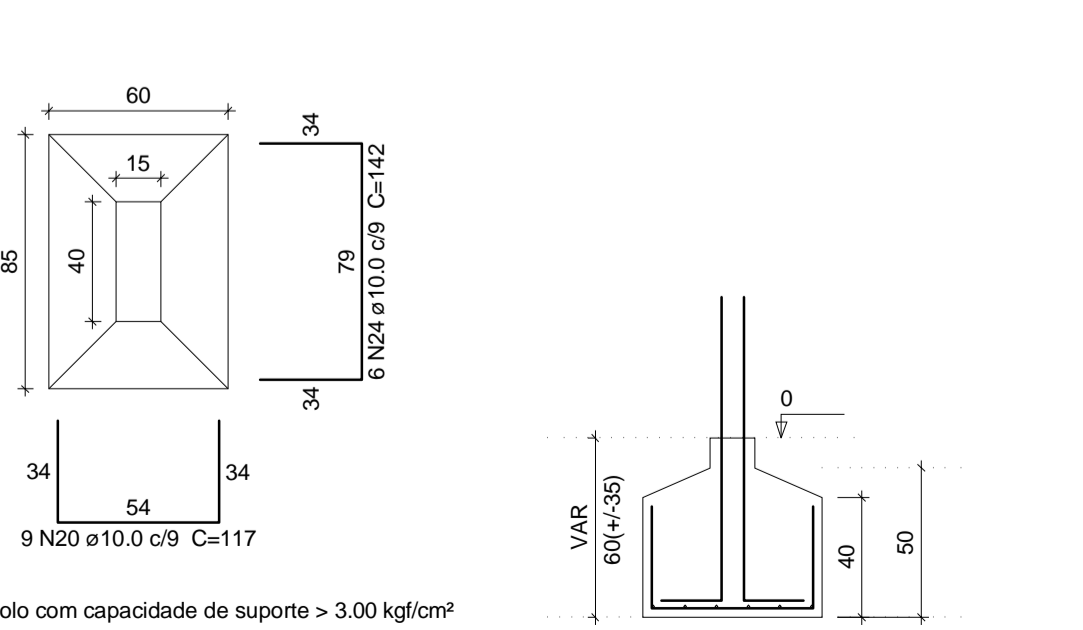
S17=S19=S21=S41



P18



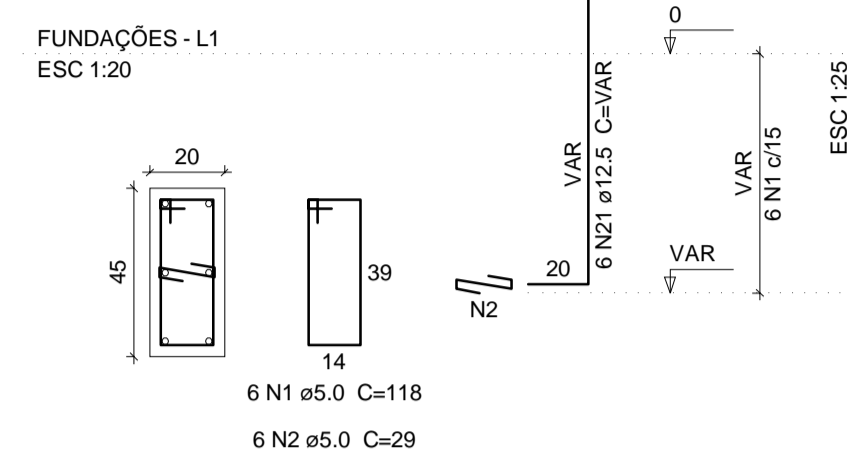
S18



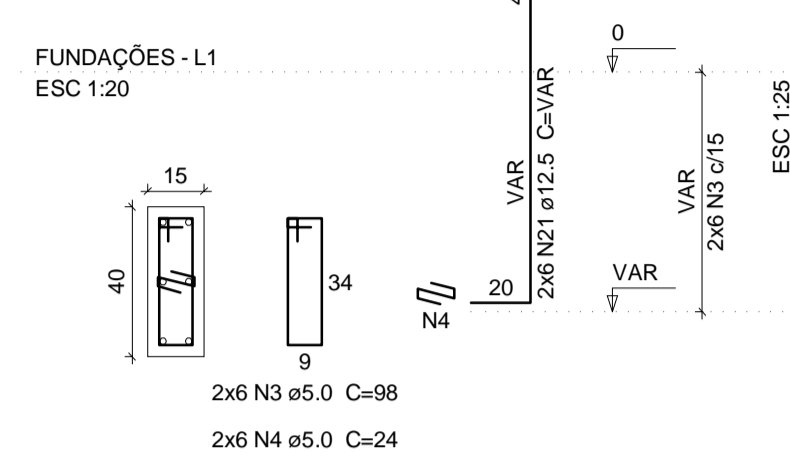
TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 1619993570

	TIAGO LAMEQUE DE SOUSA E SILVA ENGENHEIRO CIVIL - CREA-PB 1619993570	
	CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB	FOLHA: 03/17
OBRA: ESCOLA 4 SALAS	ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB	REV: 0
PROJETO ESTRUTURAL SAPATAS E PILARES 1		ESC: Indicada
		DATA: 25/09/2021

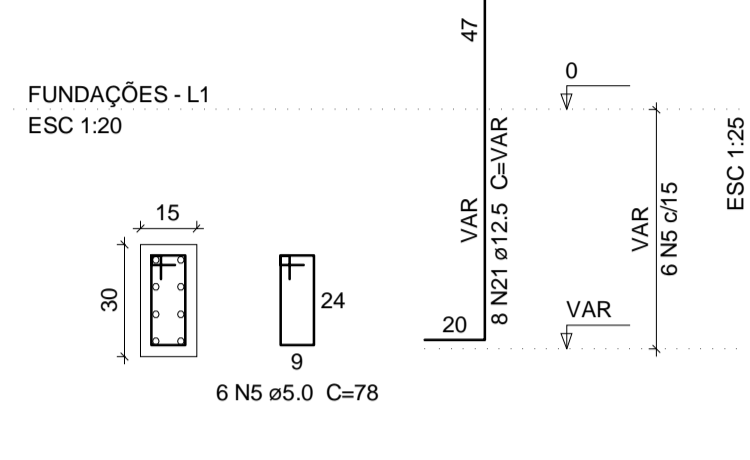
P40



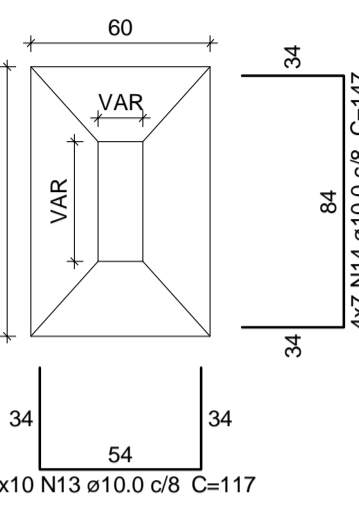
P20=P44



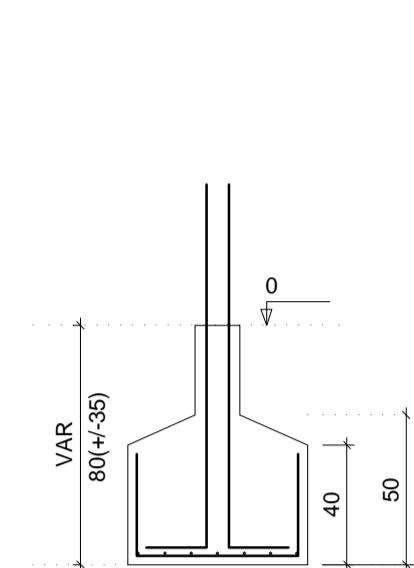
P49



S20=S40=S44=S49



COORTE



Solo com capacidade de suporte > 3.00 kgf/cm²

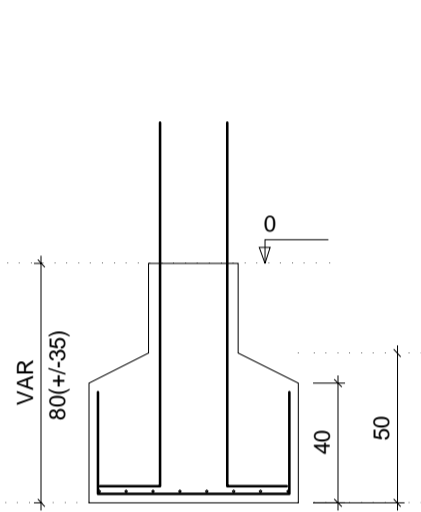
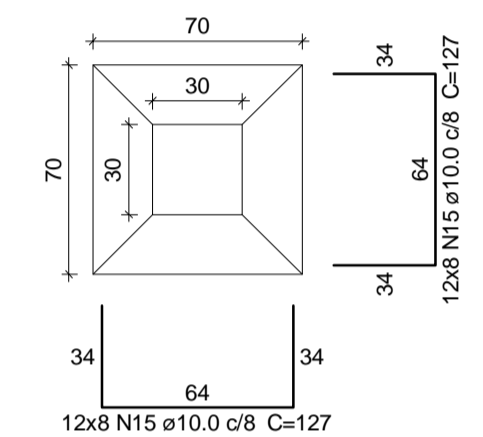
S25=S26=S27=S28=S29=S30=S31=S34=S35=S36=S37=S38

PLANTA

ESC 1:25

COORTE

ESC 1:25



Solo com capacidade de suporte > 3.00 kgf/cm²

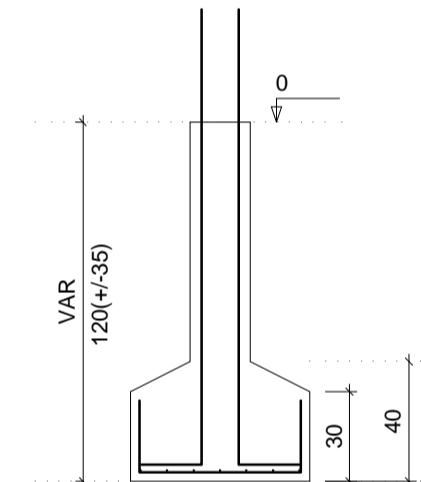
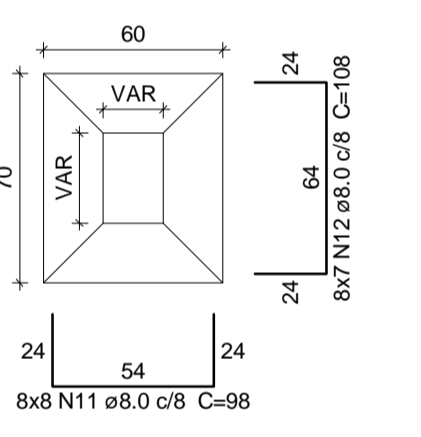
S42=S43=S47=S59=S60=S61=S62=S63

PLANTA

ESC 1:25

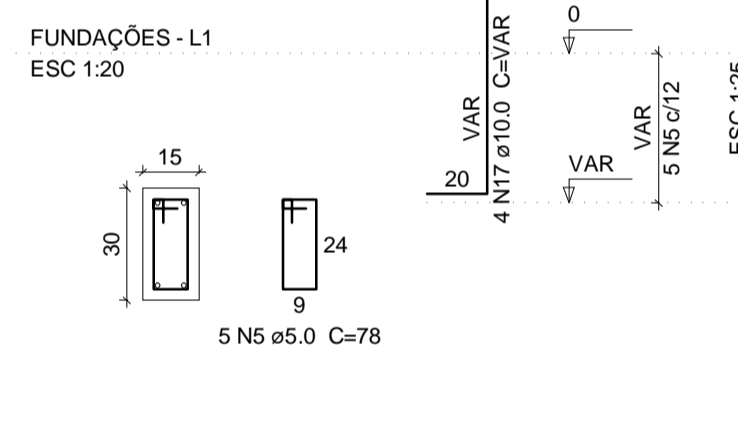
COORTE

ESC 1:25



Solo com capacidade de suporte > 3.00 kgf/cm²

P46



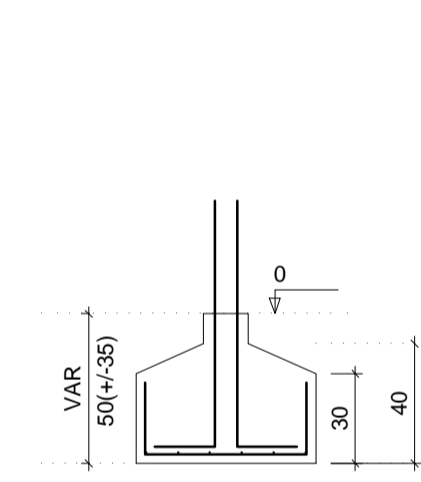
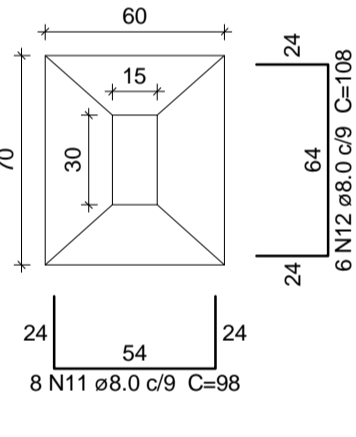
S46

PLANTA

ESC 1:25

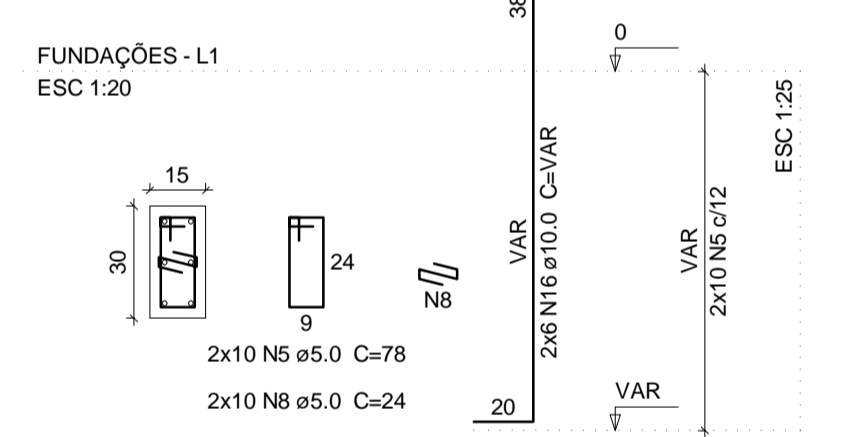
COORTE

ESC 1:25

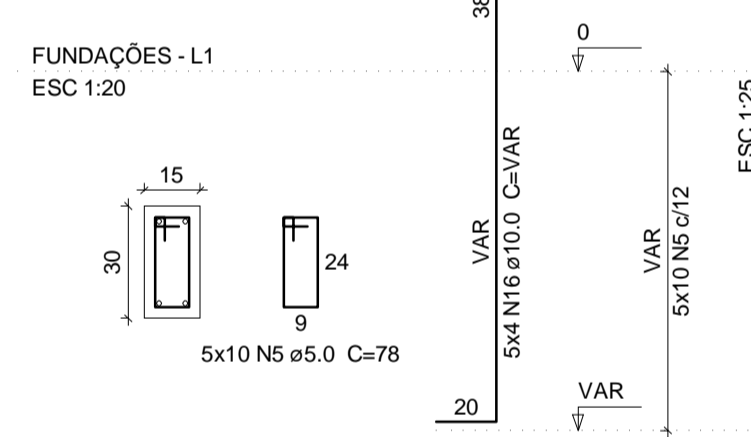


Solo com capacidade de suporte > 3.00 kgf/cm²

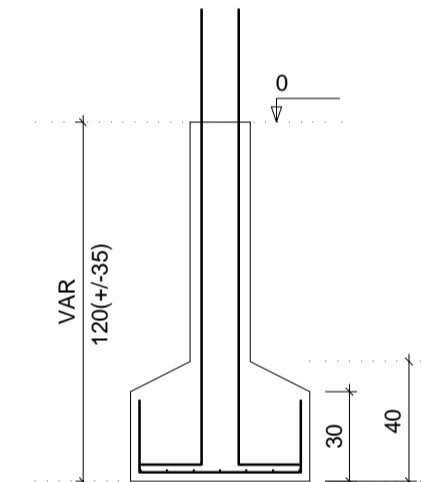
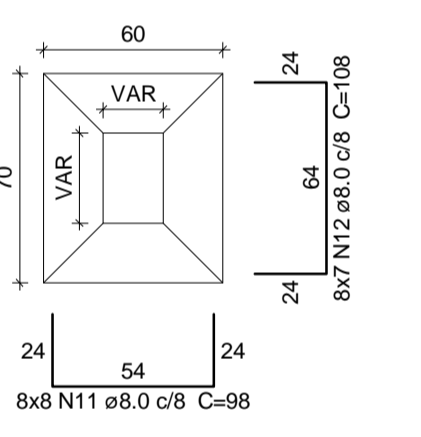
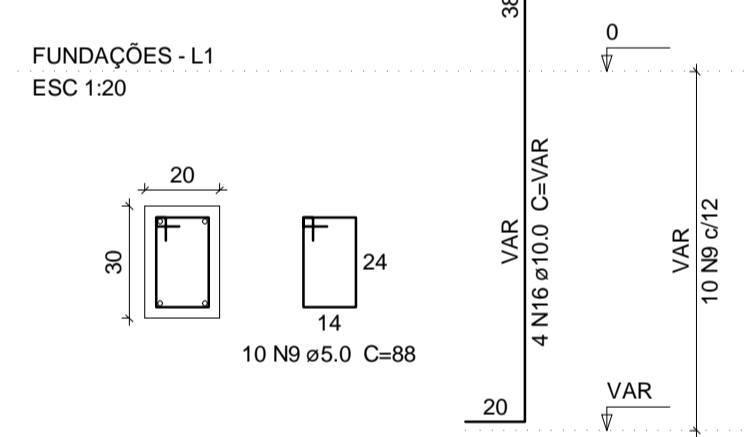
P42=P43



P47=P59=P60=P61=P62



P63



Solo com capacidade de suporte > 3.00 kgf/cm²

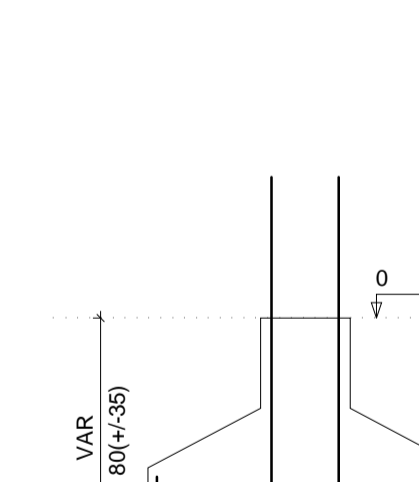
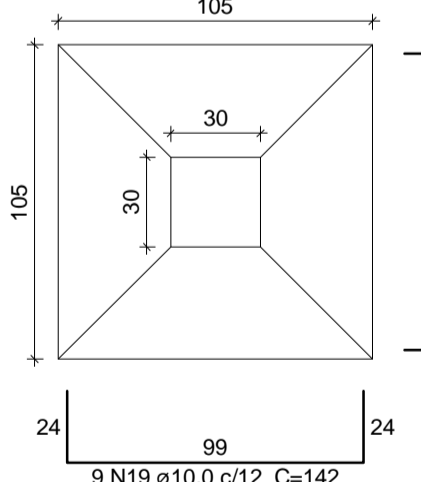
S51

PLANTA

ESC 1:25

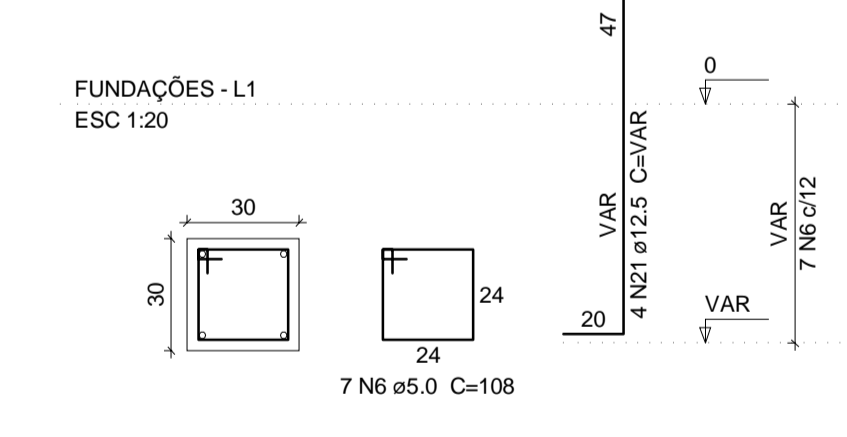
COORTE

ESC 1:25



Solo com capacidade de suporte > 3.00 kgf/cm²

P50=P52



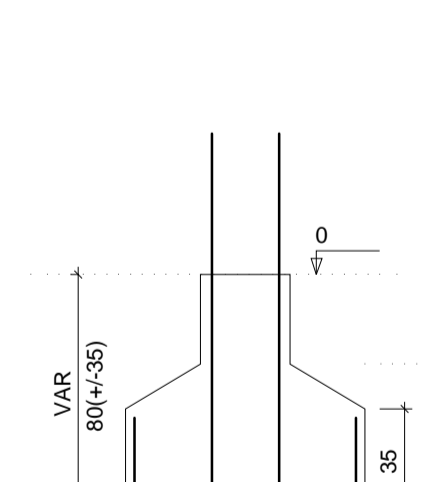
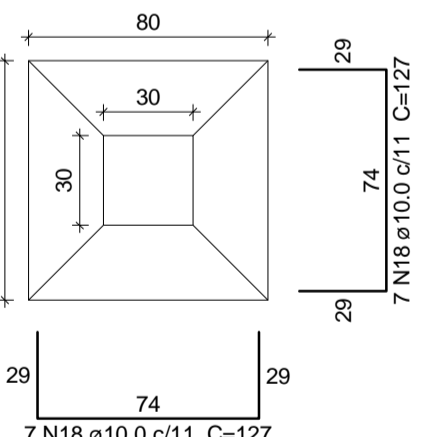
S50=S52

PLANTA

ESC 1:25

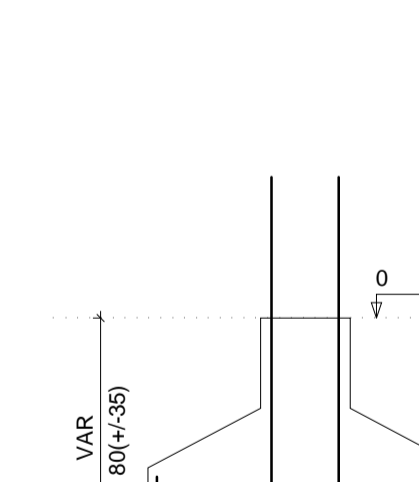
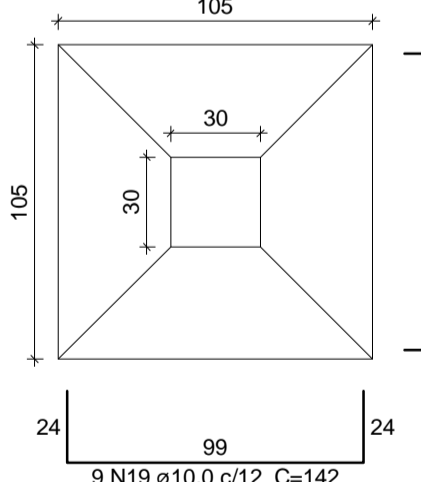
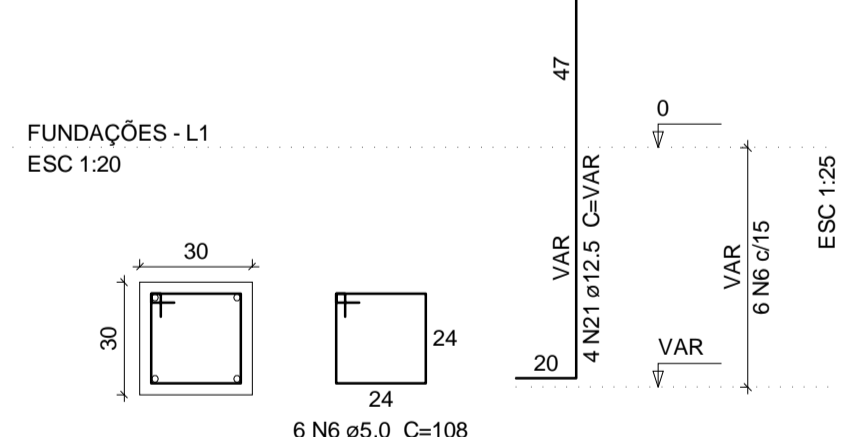
COORTE

ESC 1:25



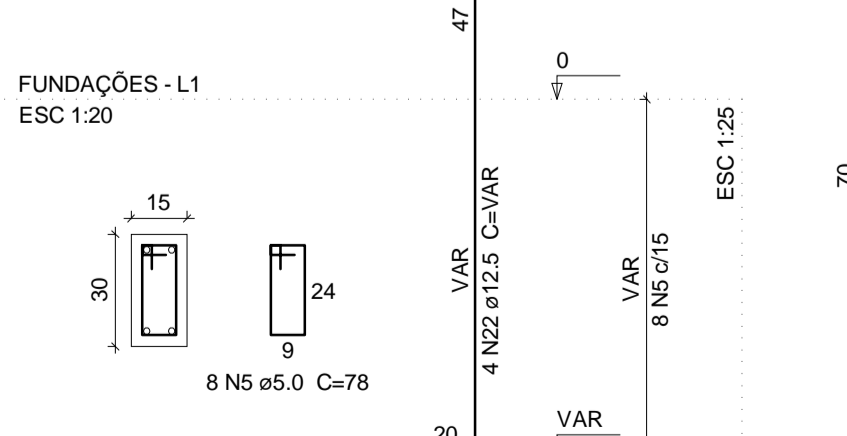
Solo com capacidade de suporte > 3.00 kgf/cm²

P51



Solo com capacidade de suporte > 3.00 kgf/cm²

P54



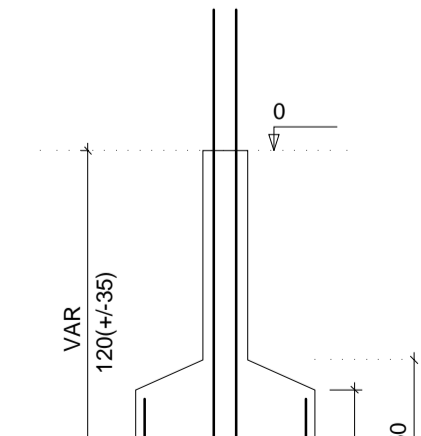
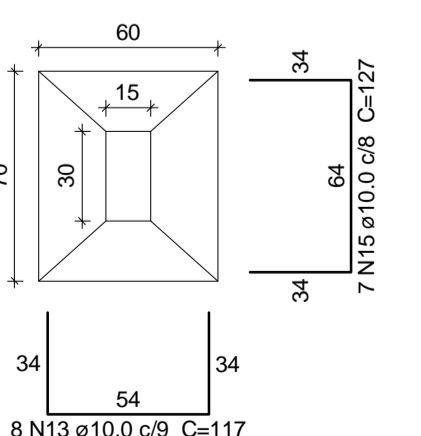
S54

PLANTA

ESC 1:25

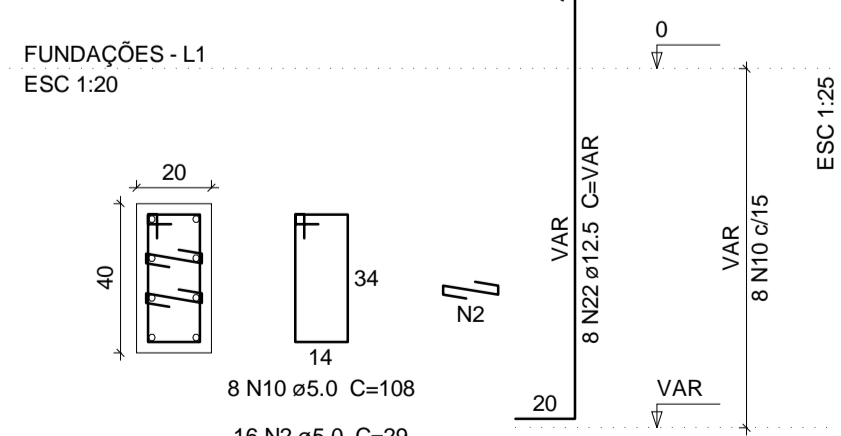
COORTE

ESC 1:25



Solo com capacidade de suporte > 3.00 kgf/cm²

P55



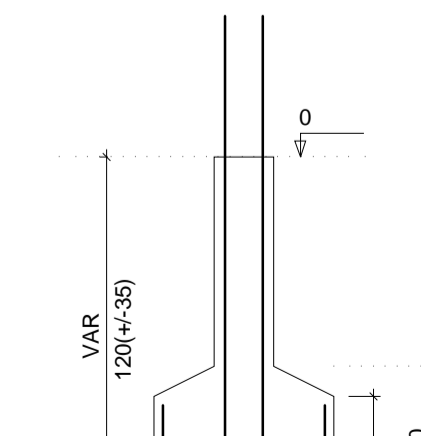
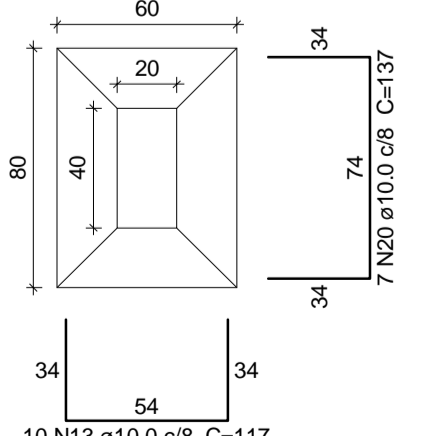
S55

PLANTA

ESC 1:25

COORTE

ESC 1:25



Solo com capacidade de suporte > 3.00 kgf/cm²

Relação do aço

CAÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	6	118	708
	2	5.0	22	29	638
	3	5.0	12	98	1176
	4	5.0	12	24	288
	5	5.0	89	78	6942
	6	5.0	92	108	9936
	7	5.0	36	39	1404
	8	5.0	20	24	480
	9	5.0	10	88	880
	10	5.0	8	108	864
CA50	11	8.0	72	98	7056
	12	8.0	62	108	6696
	13	10.0	58	117	6798
	14	10.0	28	147	4116
	15	10.0	199	127	25273
	16	10.0	36	VAR	VAR
	17	10.0	4	VAR	VAR
	18	10.0	28	127	3556
	19	10.0	18	142	2556
	20	10.0	7	137	959
21	12.5	98	VAR	VAR	
22	12.5	12	VAR	VAR	

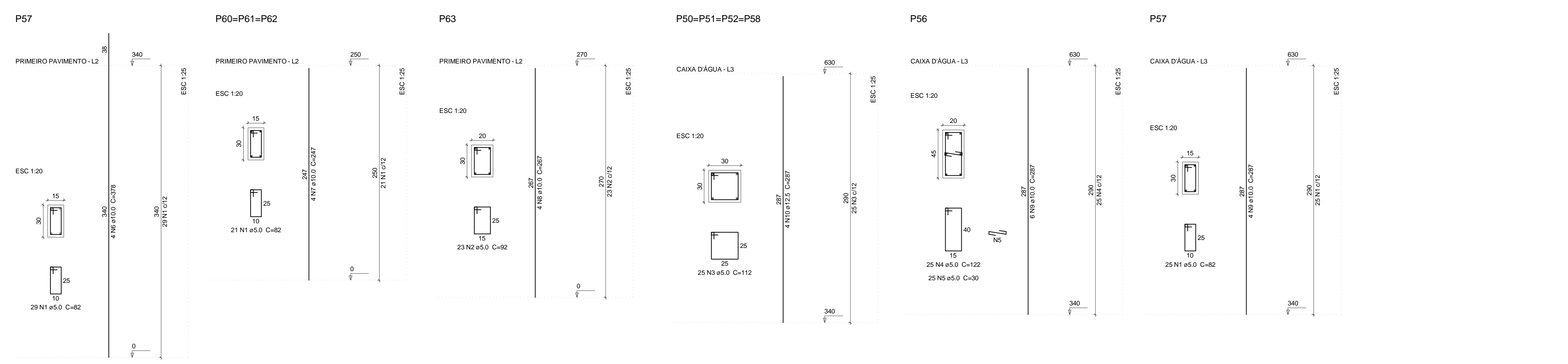
Resumo do aço

CAÇO	DIAM	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	137.6	59.7
	10.0	500.1	339.1
	12.5	163.2	172.9
CA60	5.0	233.2	39.5
	PESO TOTAL		
CA50		571.8	
CA60		39.5	

Vol. de concreto total (C-25) = 8.25 m³
Área de forma total = 60.57 m²

Eng. Tiago Lameque de Sousa e Silva
ENGENHEIRO CIVIL - TIAGO LAMEQUE DE SOUSA E SILVA
CREA NAC - 161999370

TL	TIAGO LAMEQUE DE SOUSA E SILVA ENGENHEIRO CIVIL - CREA-PB 161999370	
	CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB	FOLHA: 04/17
OBRA: ESCOLA 4 SALAS	REV: 0	
ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB	ESC: Indicada	
PROJETO ESTRUTURAL	DATA: 25/09/2021	
SAPATAS E PILARES 2	DWG	



Relação do aço

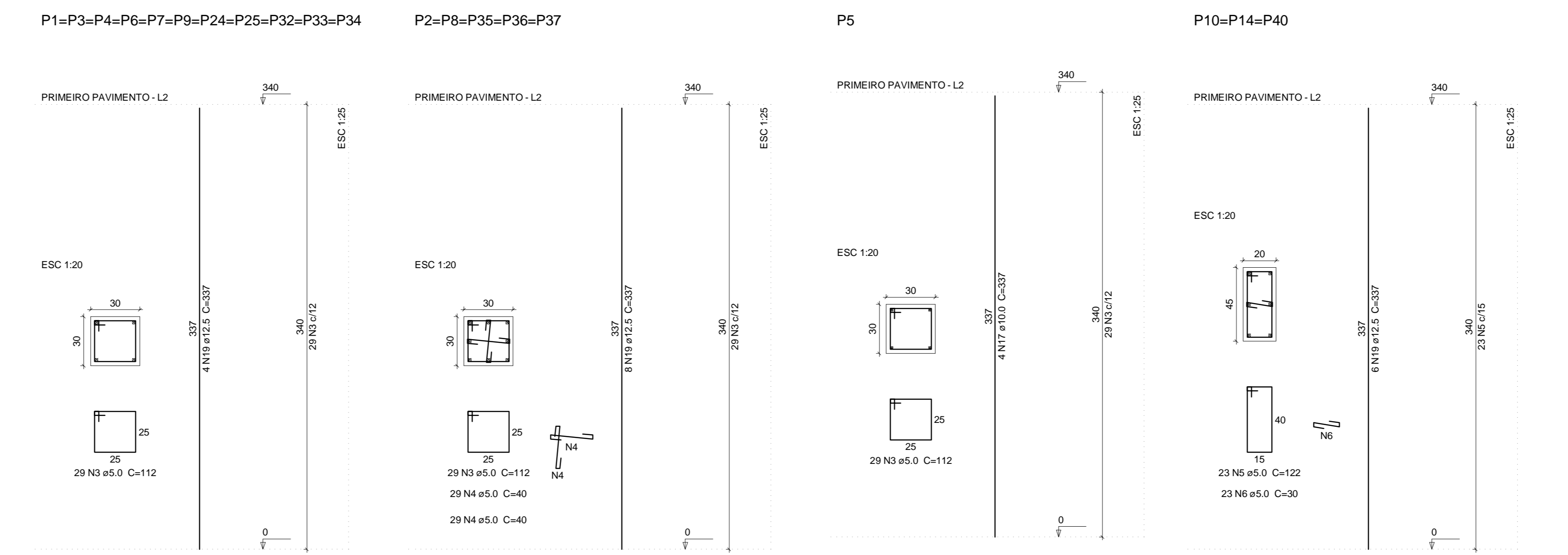
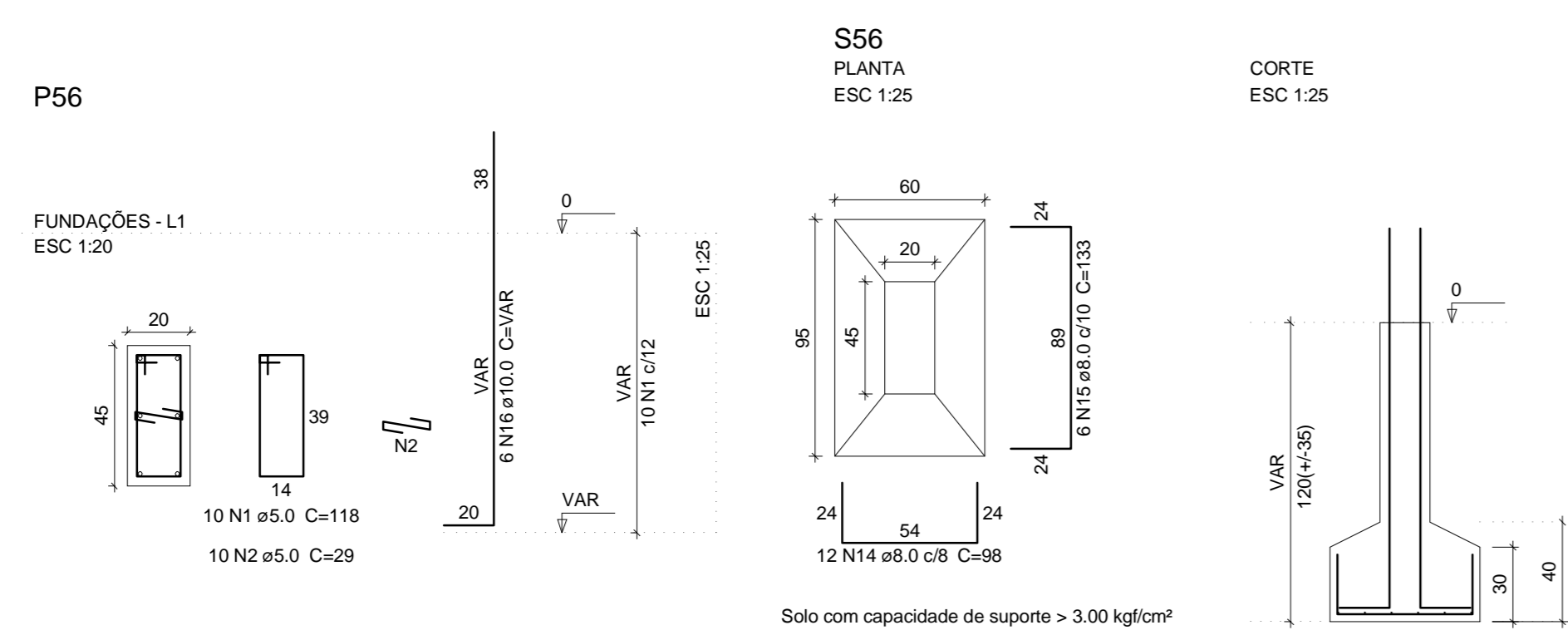
Caixa D'água: 4xP50 P56
P57
Primeiro pavimento:P57 3xP60
P63

AÇO	N	DIAM	Q	UNIT	C.TOTAL
CA60	1	5.0	117	(cm)	954
	2	5.0	23		216
	3	5.0	100		1120
	4	5.0	25		305
CA50	5	5.0	25		75
	6	10.0	4		1512
	7	10.0	12		264
	8	10.0	4		287
	9	10.0	10		287
	10	12.5	16		4562

Resumo do aço

AÇO	DIAM	C.TOTAL	PESO + 10%
CA50	10.0	84.2	57.1
CA60	5.0	287.1	45.3
PESO TOTAL			
CA50		105.7	
CA60		45.3	

Vol. de concreto total (C-25) = 2.09 m³
Área de forma total = 32.81 m²



Relação do aço

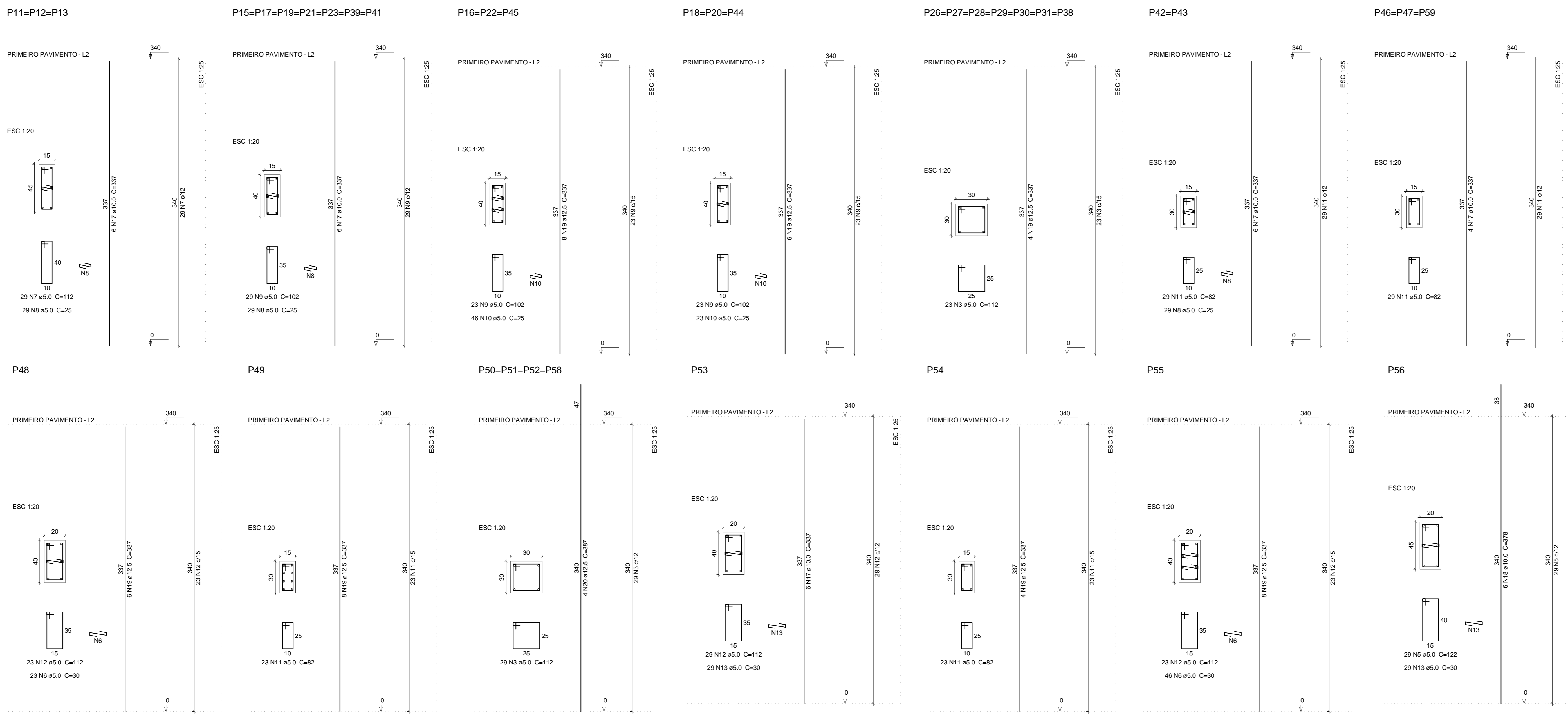
Fundações: S56 5xP2
Primeiro pavimento:P1 3xP10
P5 3xP15
3xP16 2xP18
7xP28 2xP42
3xP46 P48
P49 4xP50
P53 P54
P55 P56

AÇO	N	DIAM	Q	UNIT	C.TOTAL
CA60	1	5.0	10		118
	2	5.0	10		29
	3	5.0	770		8630
	4	5.0	290		1190
	5	5.0	98		11956
	6	5.0	136		4440
	7	5.0	87		9744
	8	5.0	348		8700
	9	5.0	341		34782
	10	5.0	207		5175
	11	5.0	191		10562
	12	5.0	75		6400
	13	5.0	58		1740
	14	8.0	12		1176
	15	8.0	6		798
	16	10.0	6	VAR	VAR
	17	10.0	94		31678
	18	10.0	6		2208
	19	12.5	198		66720
	20	12.5	16		6192

Resumo do aço

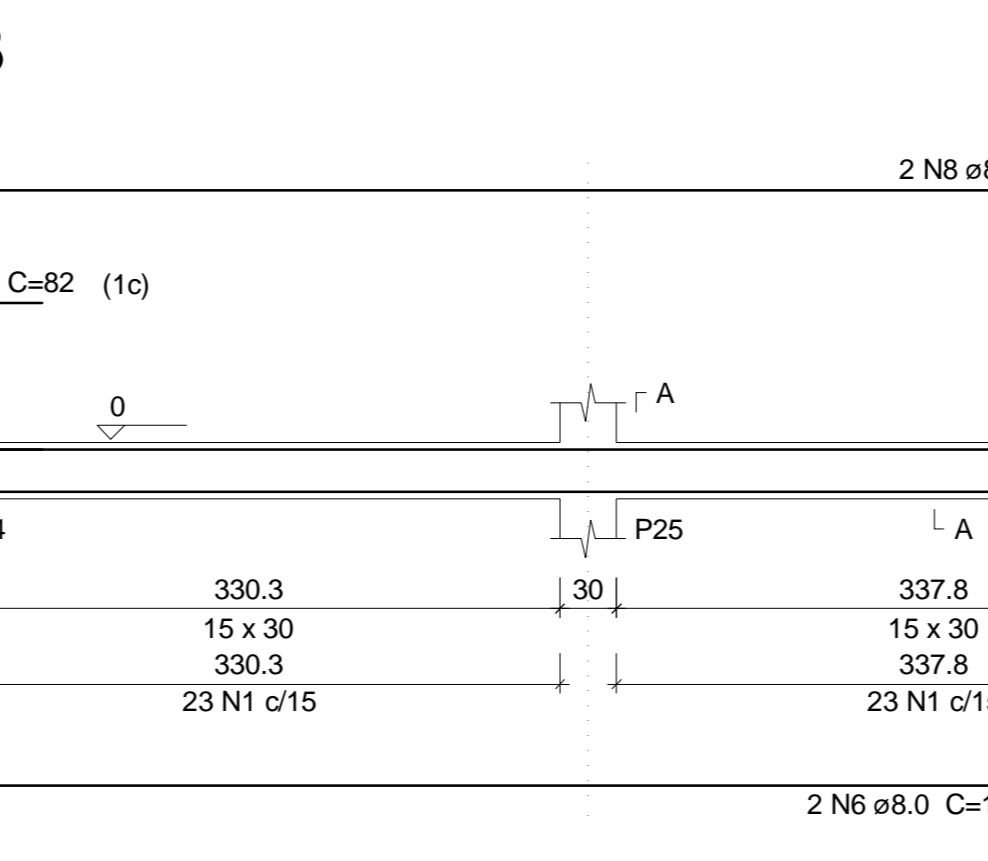
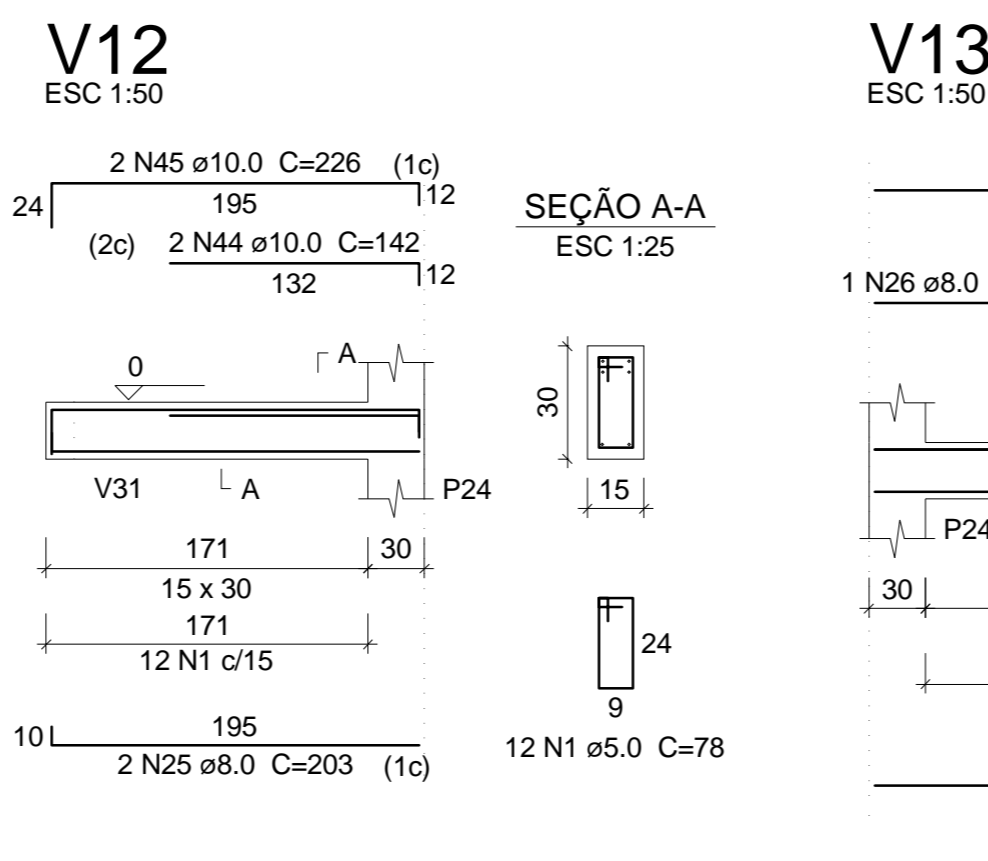
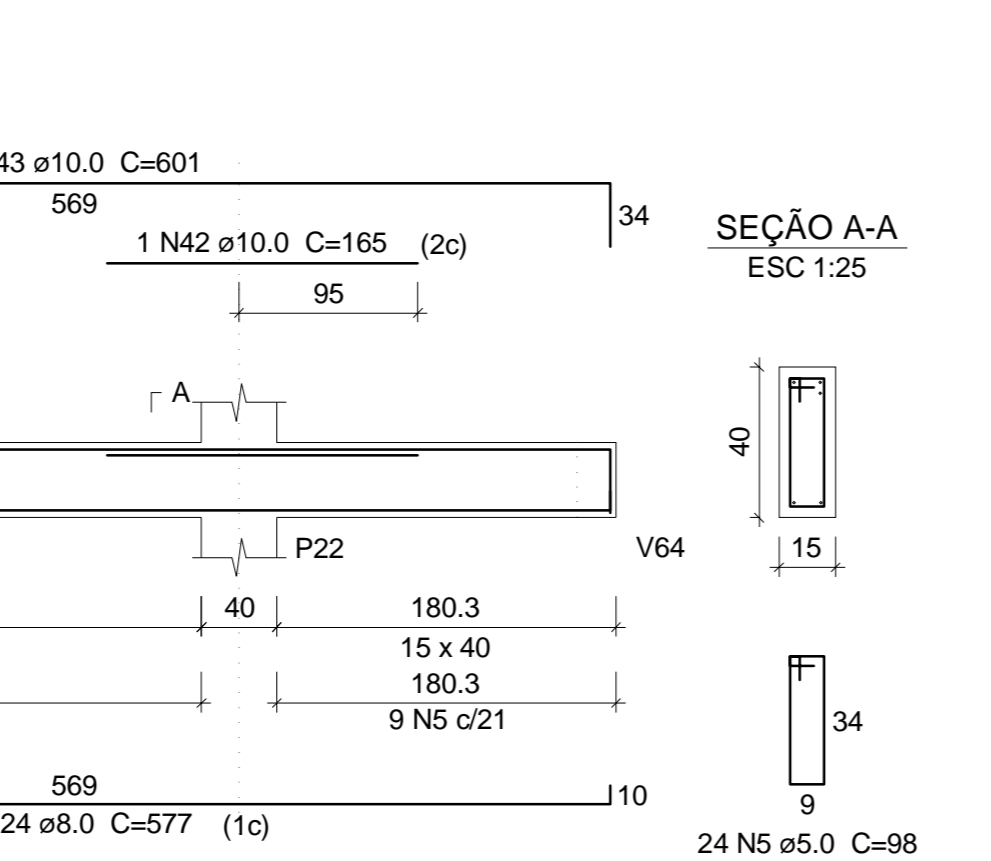
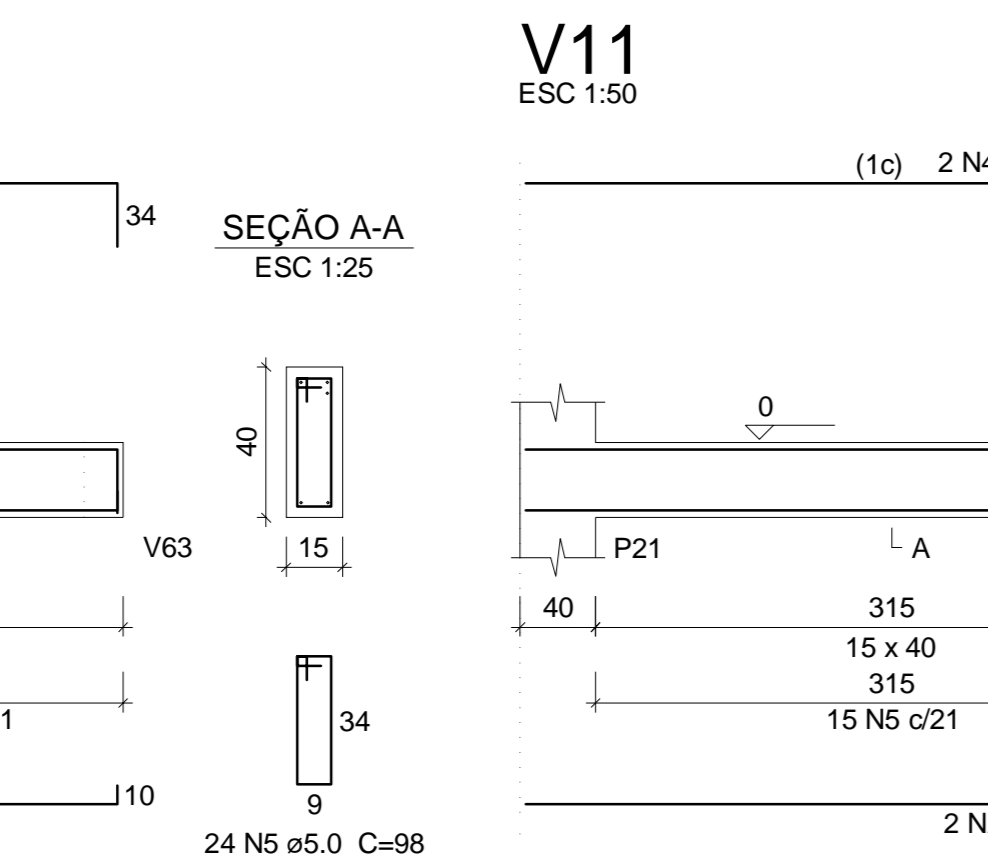
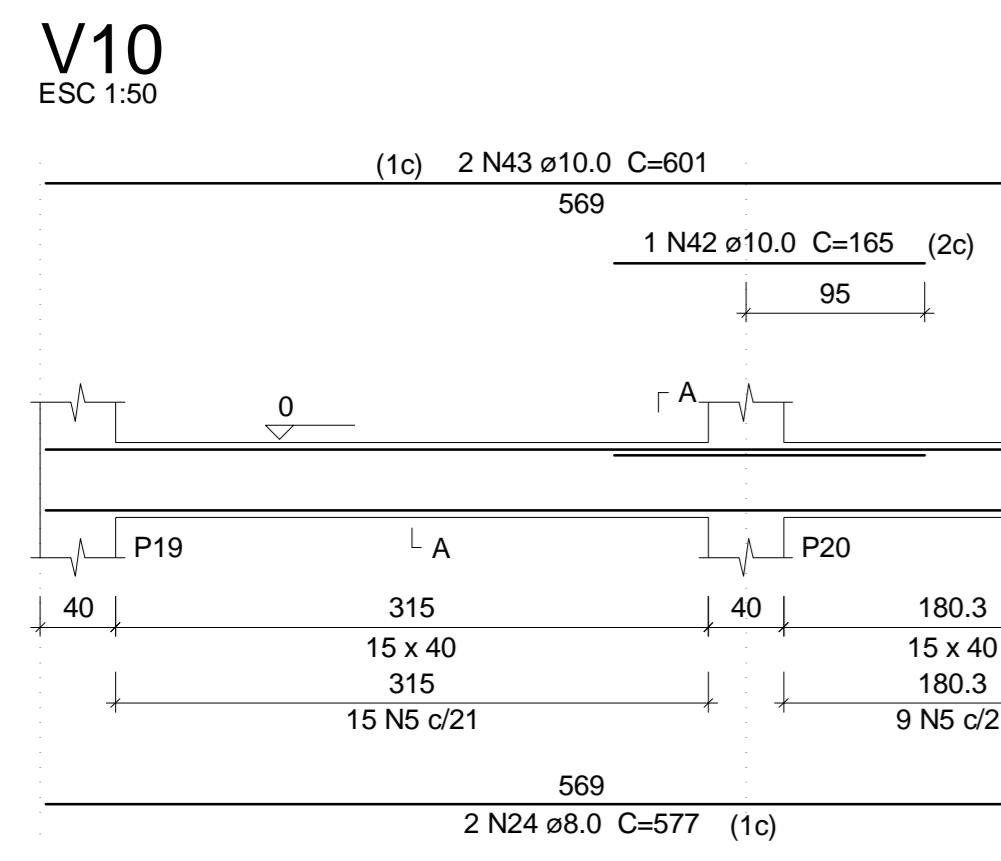
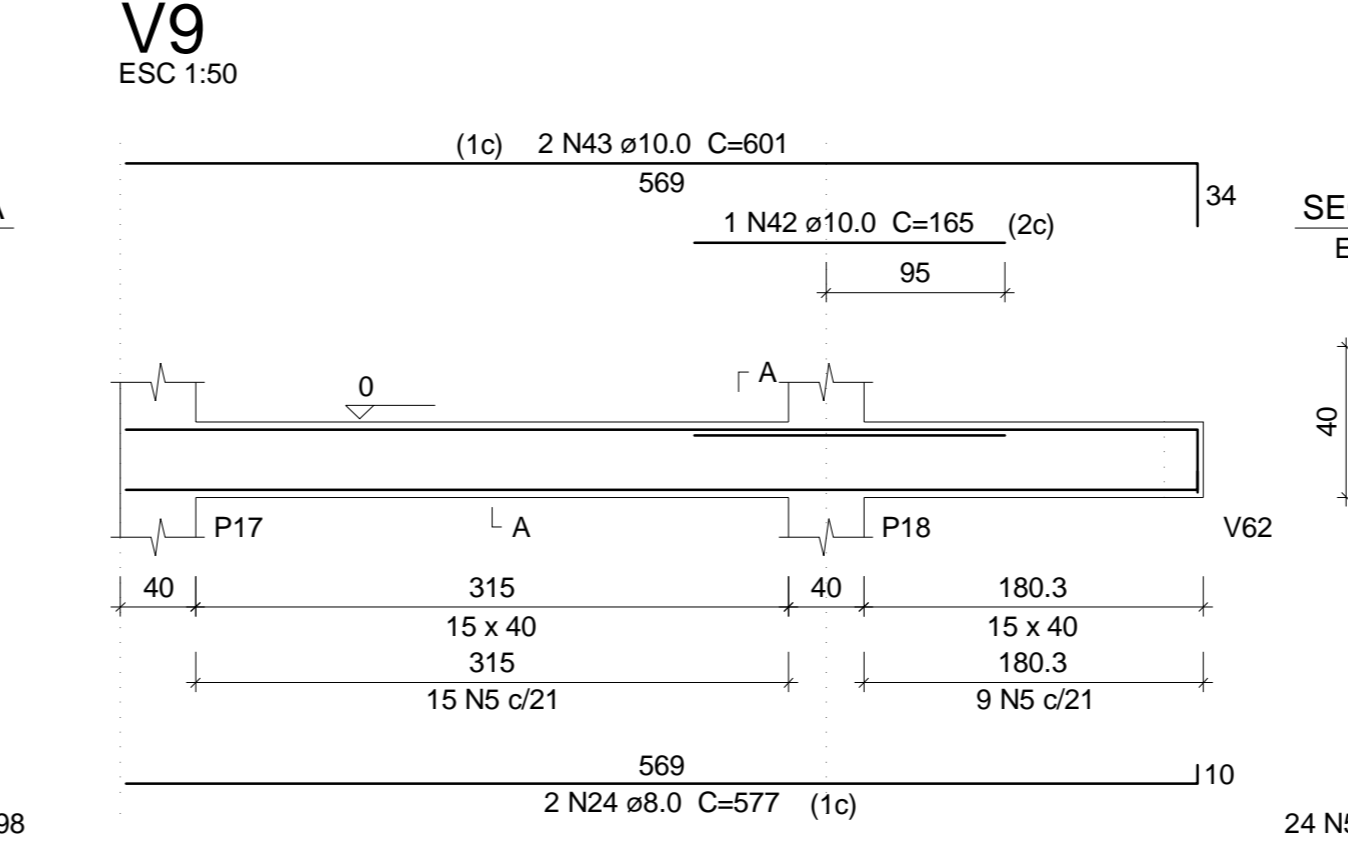
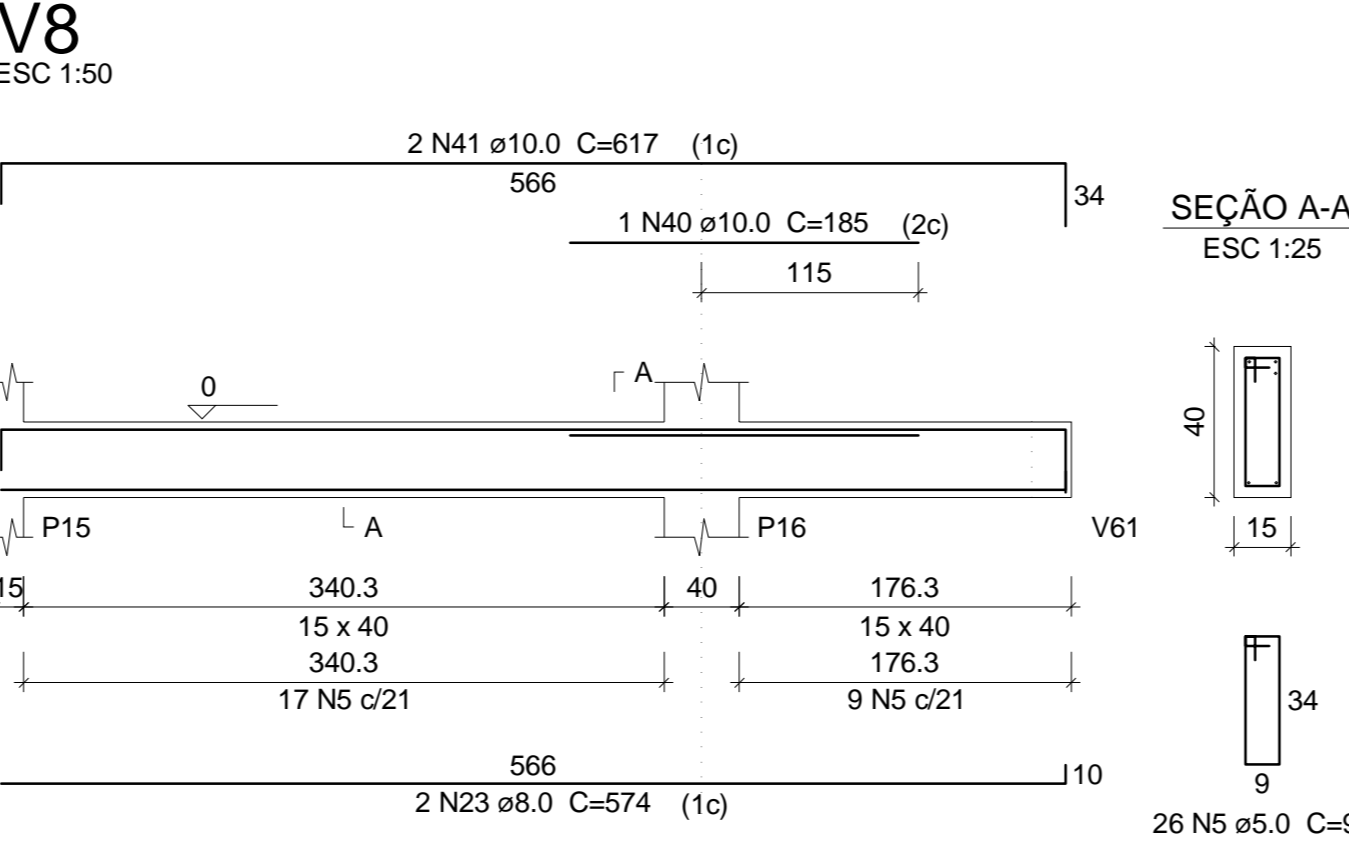
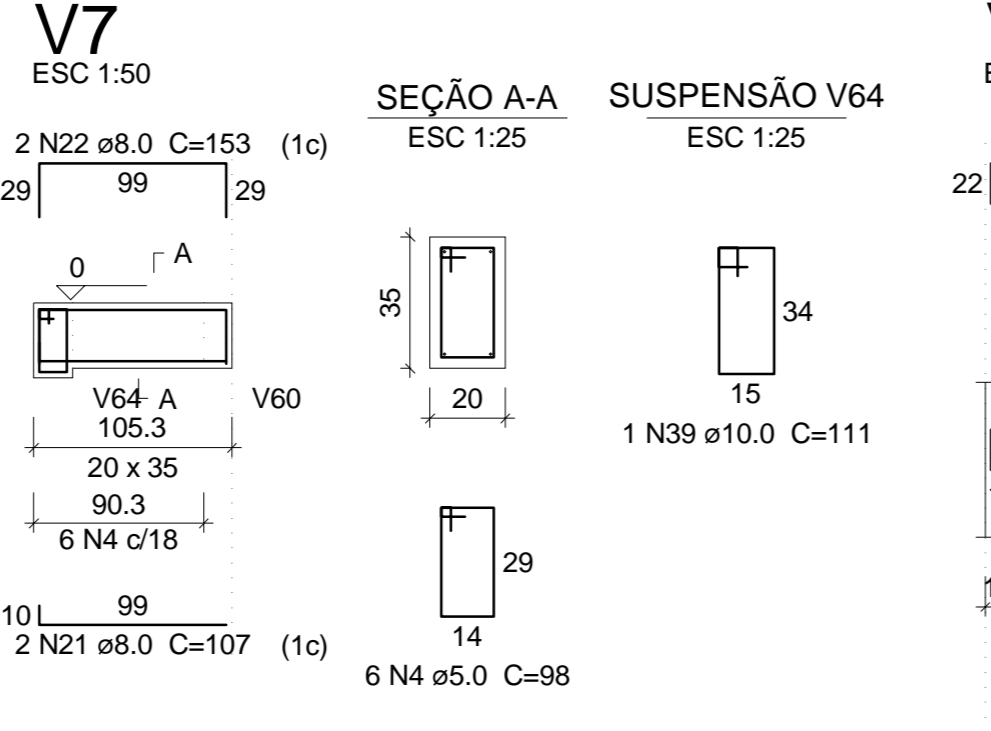
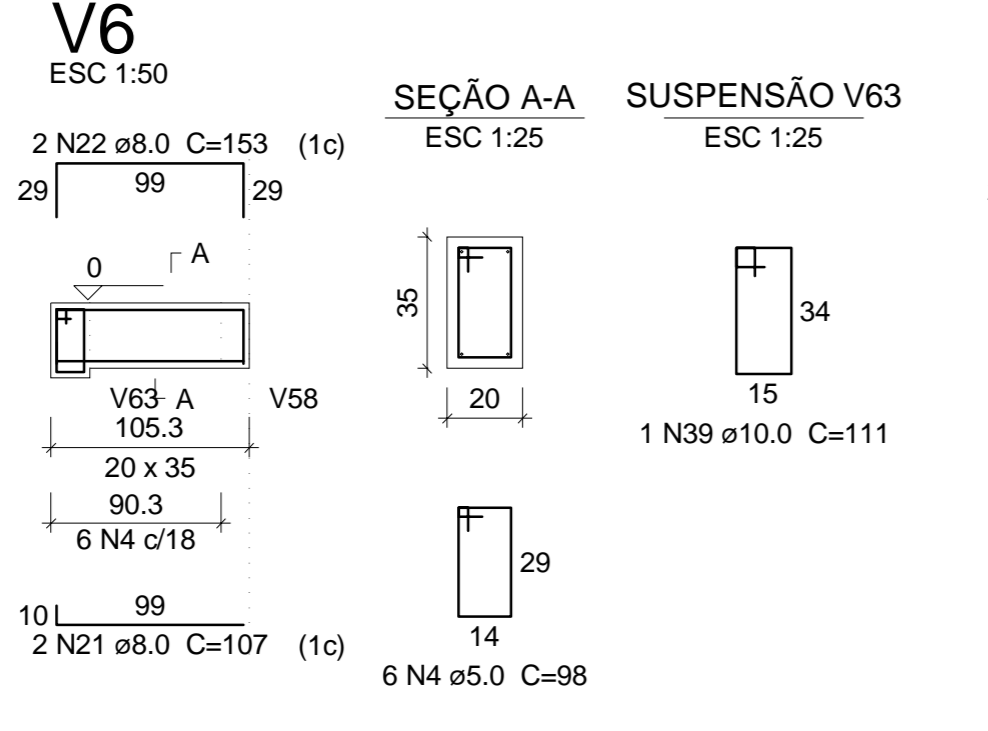
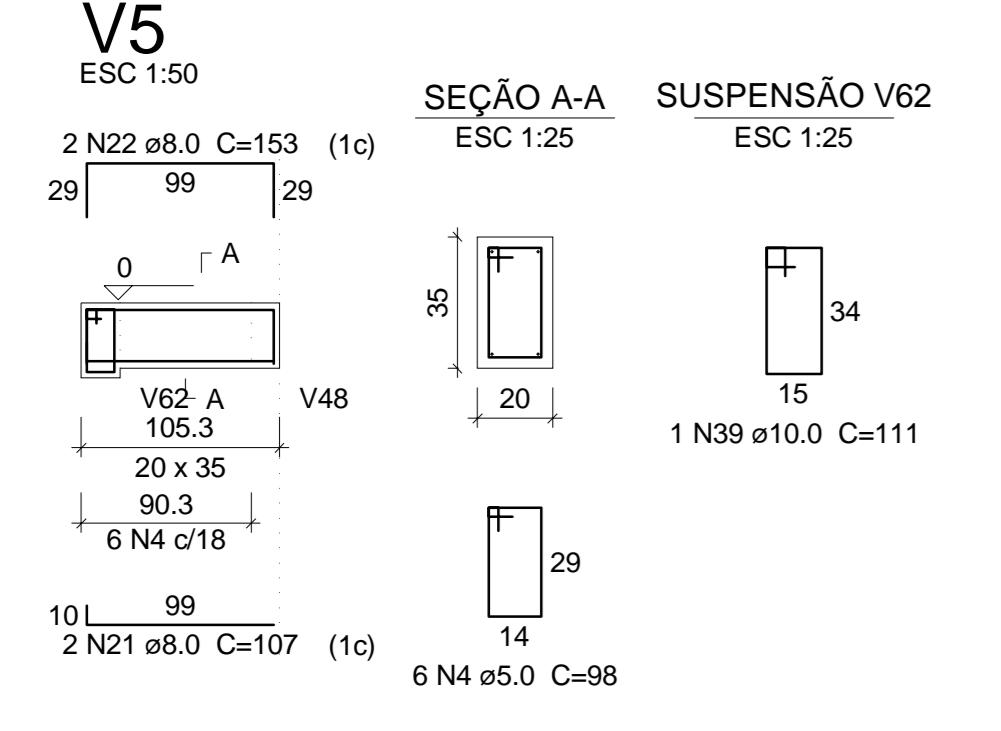
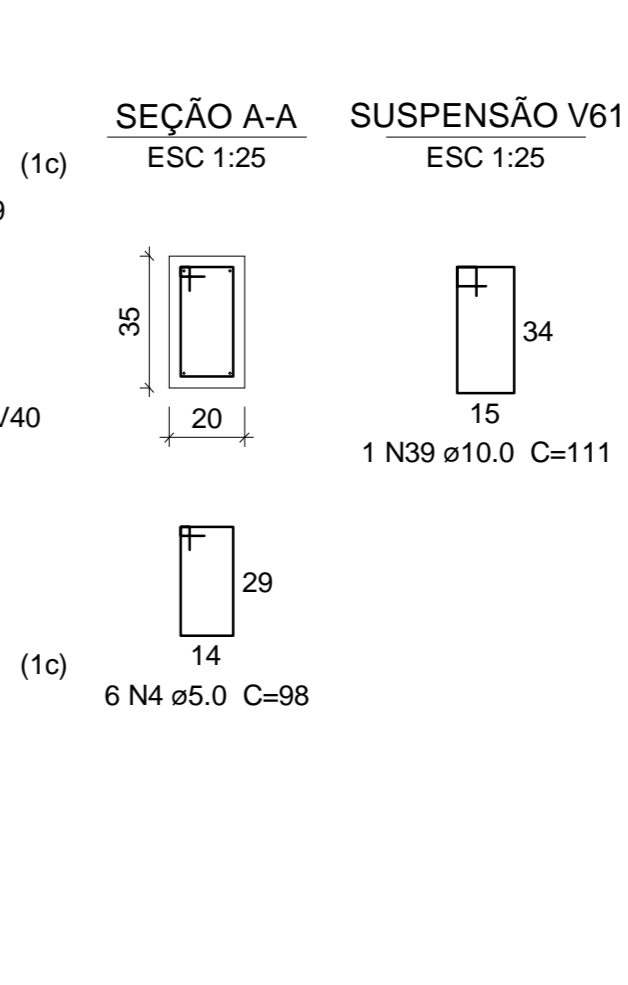
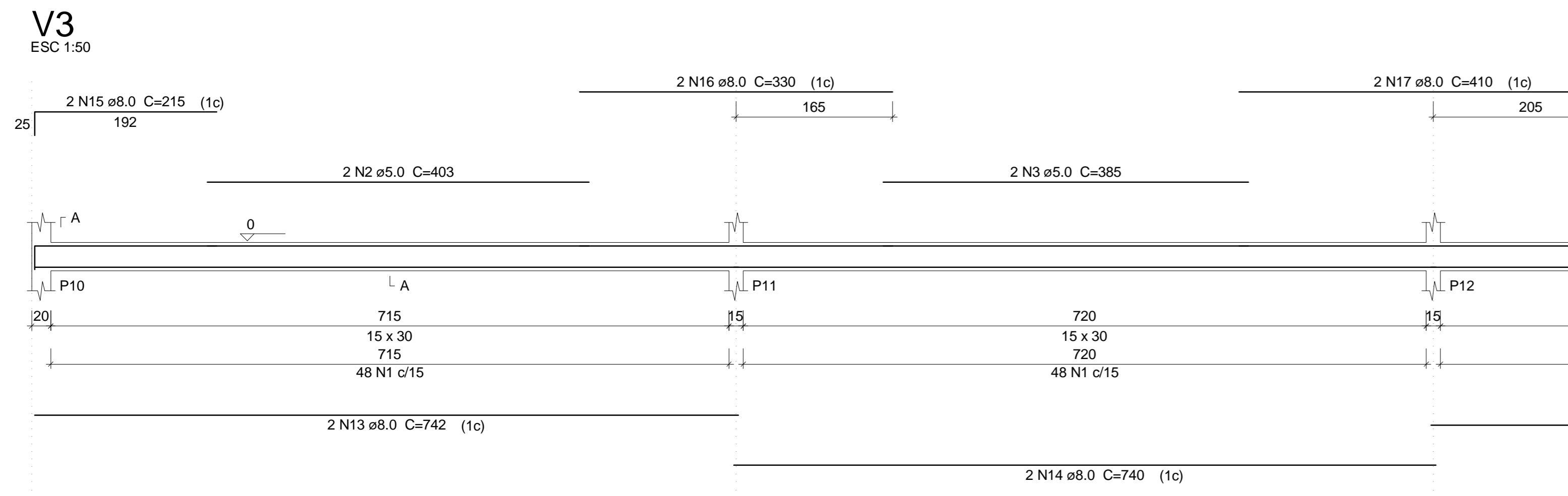
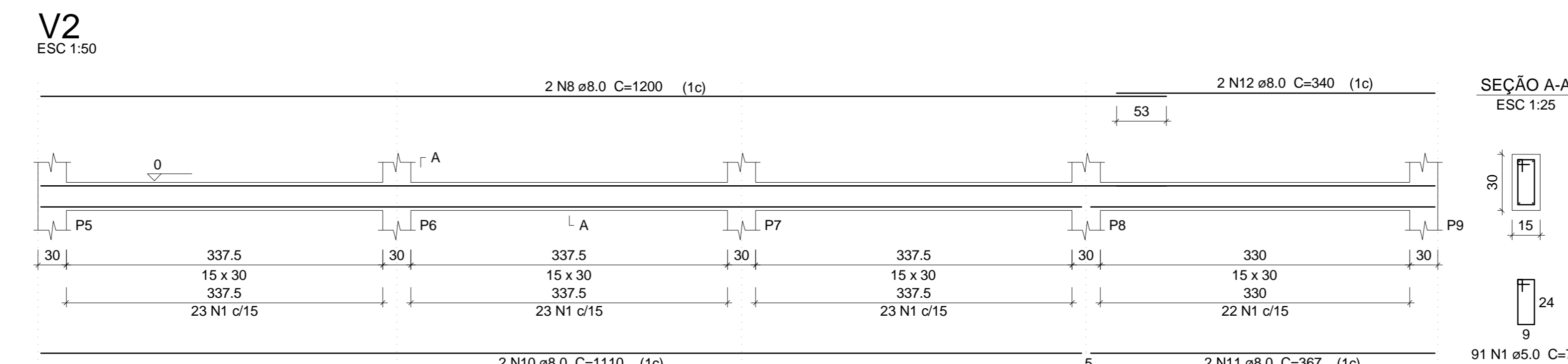
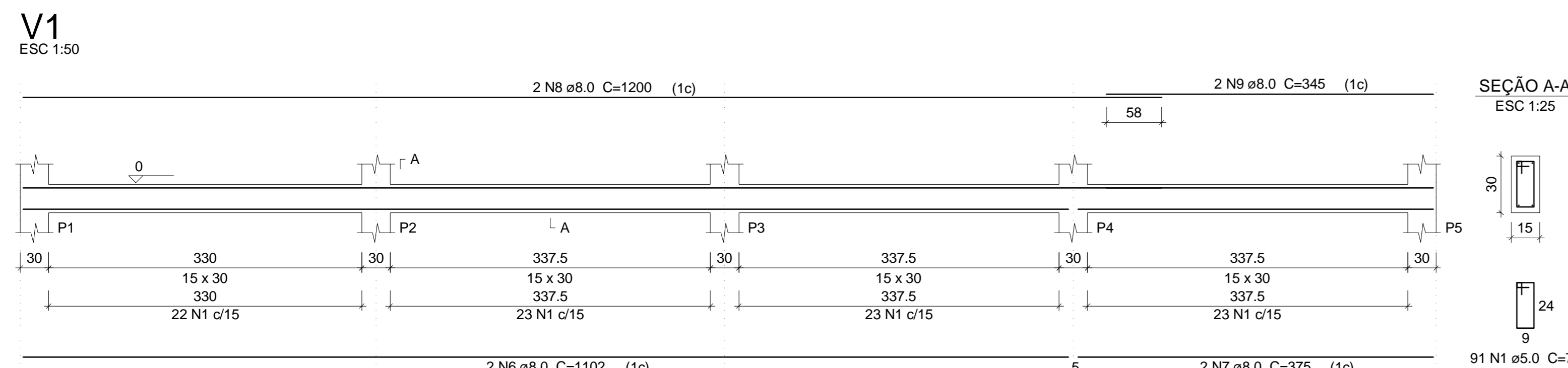
AÇO	DIAM	C.TOTAL	PESO + 10%
CA50	8.0	13.8	8.6
	10.0	350.1	237.4
	12.5	723.2	172.7
CA60	5.0	1996.1	338.4
PESO TOTAL			
CA50		1018.6	
CA60		338.4	

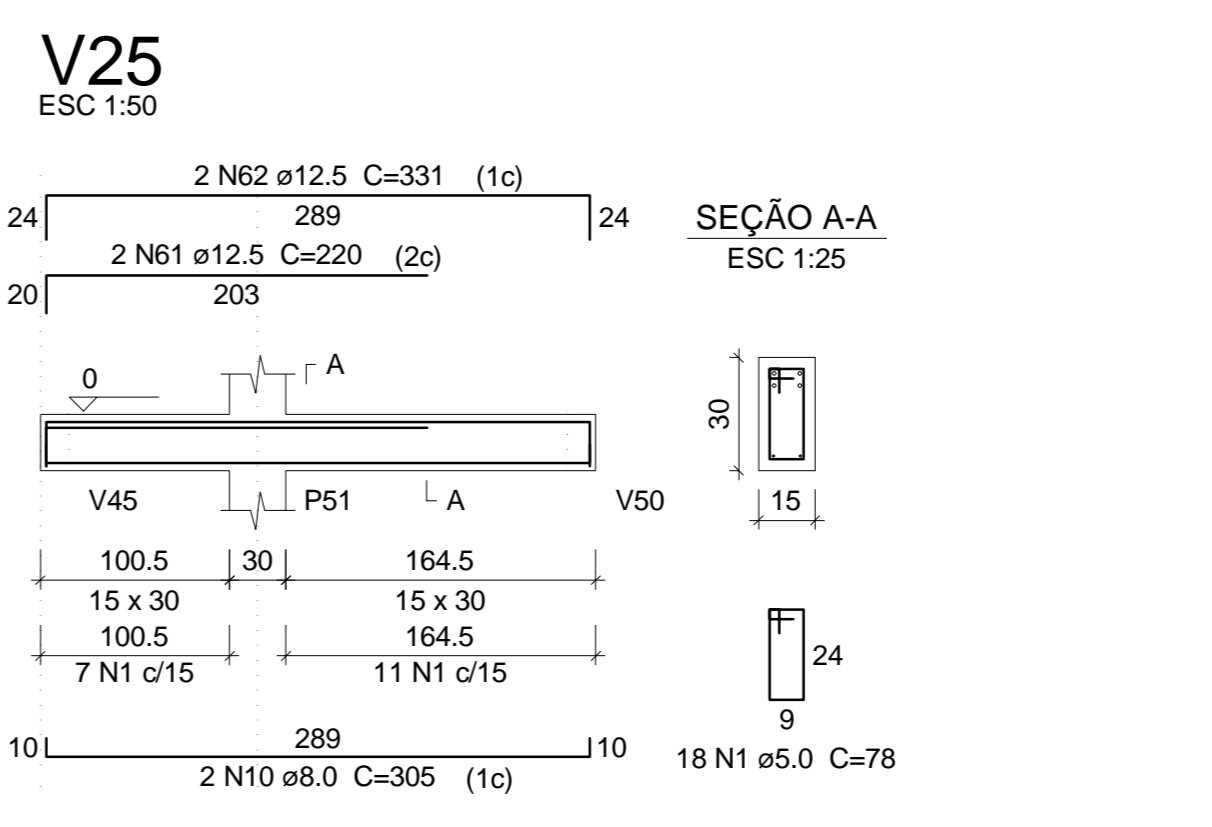
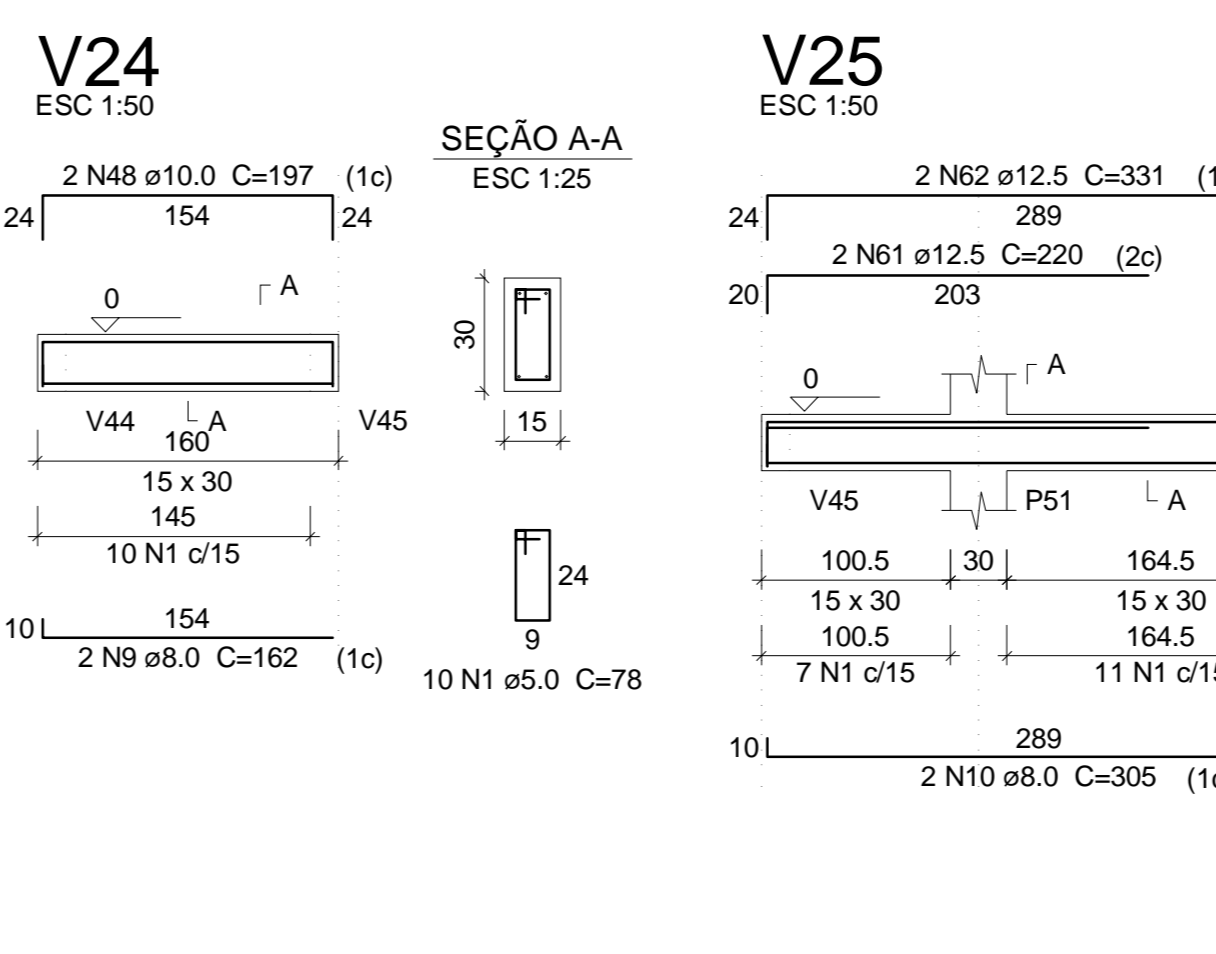
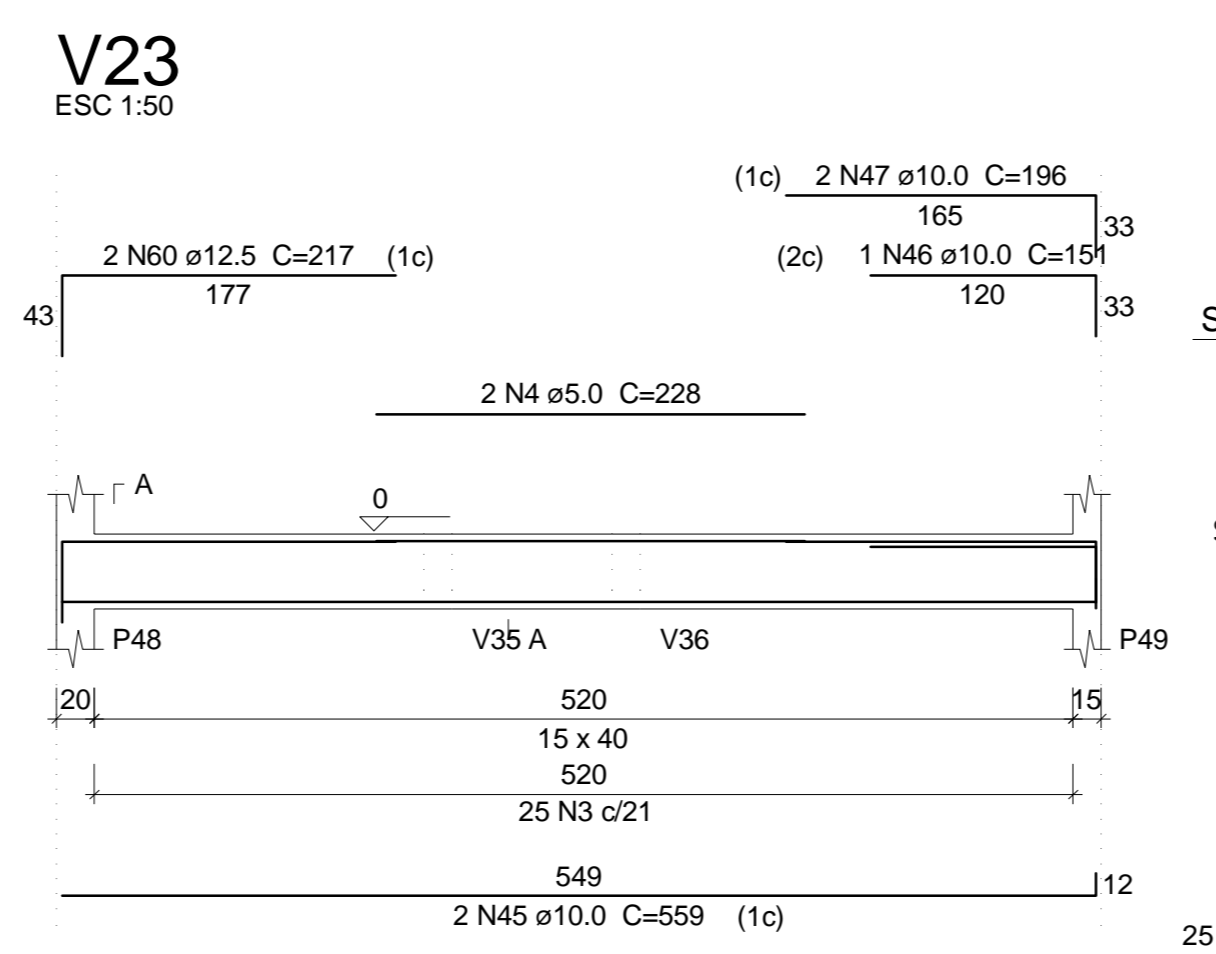
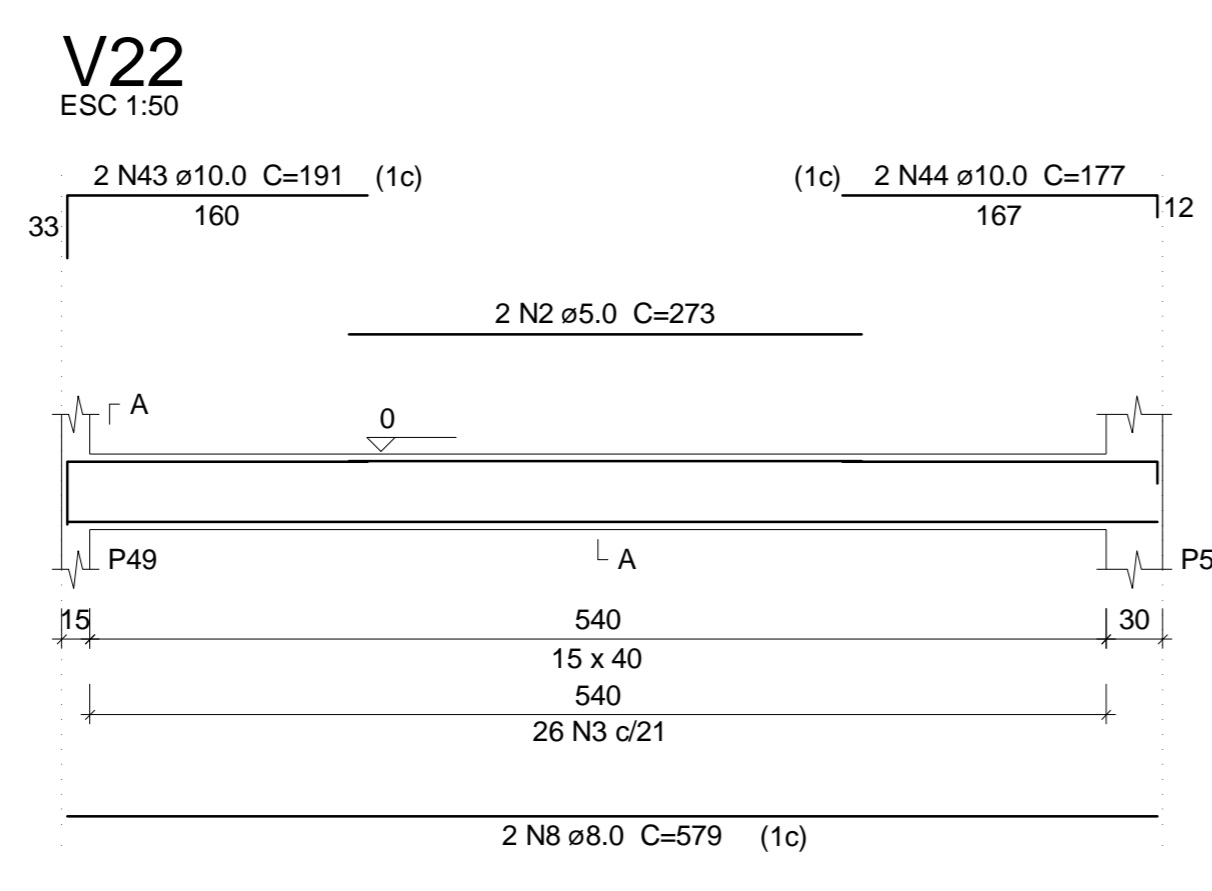
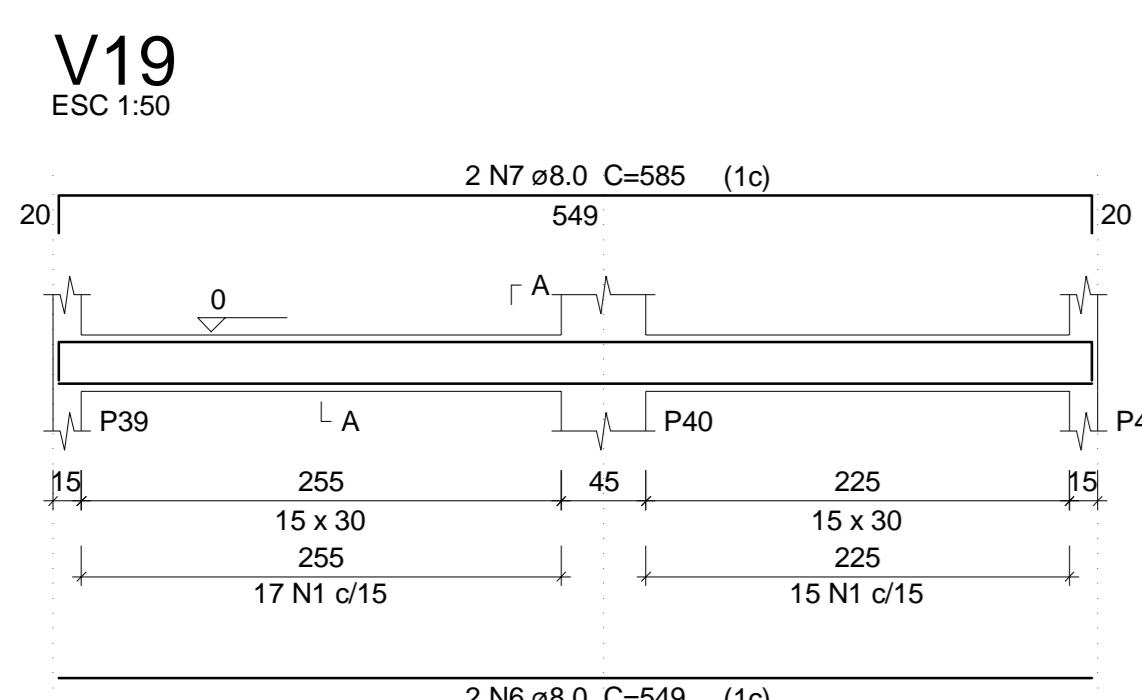
Vol. de concreto total (C-25) = 15.33 m³
Área de forma total = 238.50 m²



João Domingos de Sousa e Silva
ENGENHEIRO CIVIL - TÍTULO LAMEQUE DE SOUSA E SILVA
CREA Nº: 10000000

TL	TIAGO LAMEQUE DE SOUSA E SILVA ENGENHEIRO CIVIL - CREA-PB 1619993570	
	PREFEITURA MUNICIPAL DE JERICOÓ-PB	
	ESCOLA 4 SALAS	
	ENDEREÇO: RUA MANOEL JOSE FERREIRA, JERICOÓ-PB	
PROJETO ESTRUTURAL		FORMA: 05/17
SAPATAS E PILARES 3		REV: 0
		INDICADA: 25/09/2021





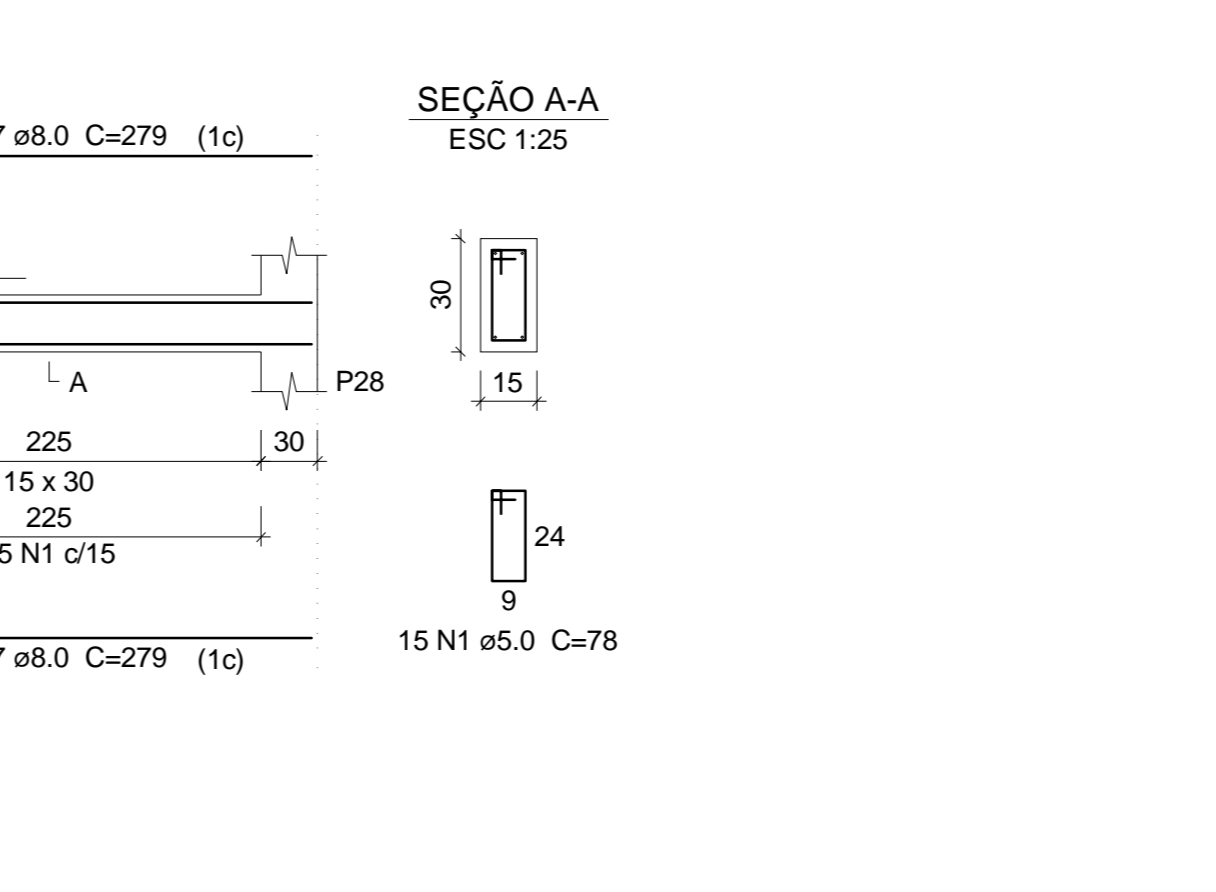
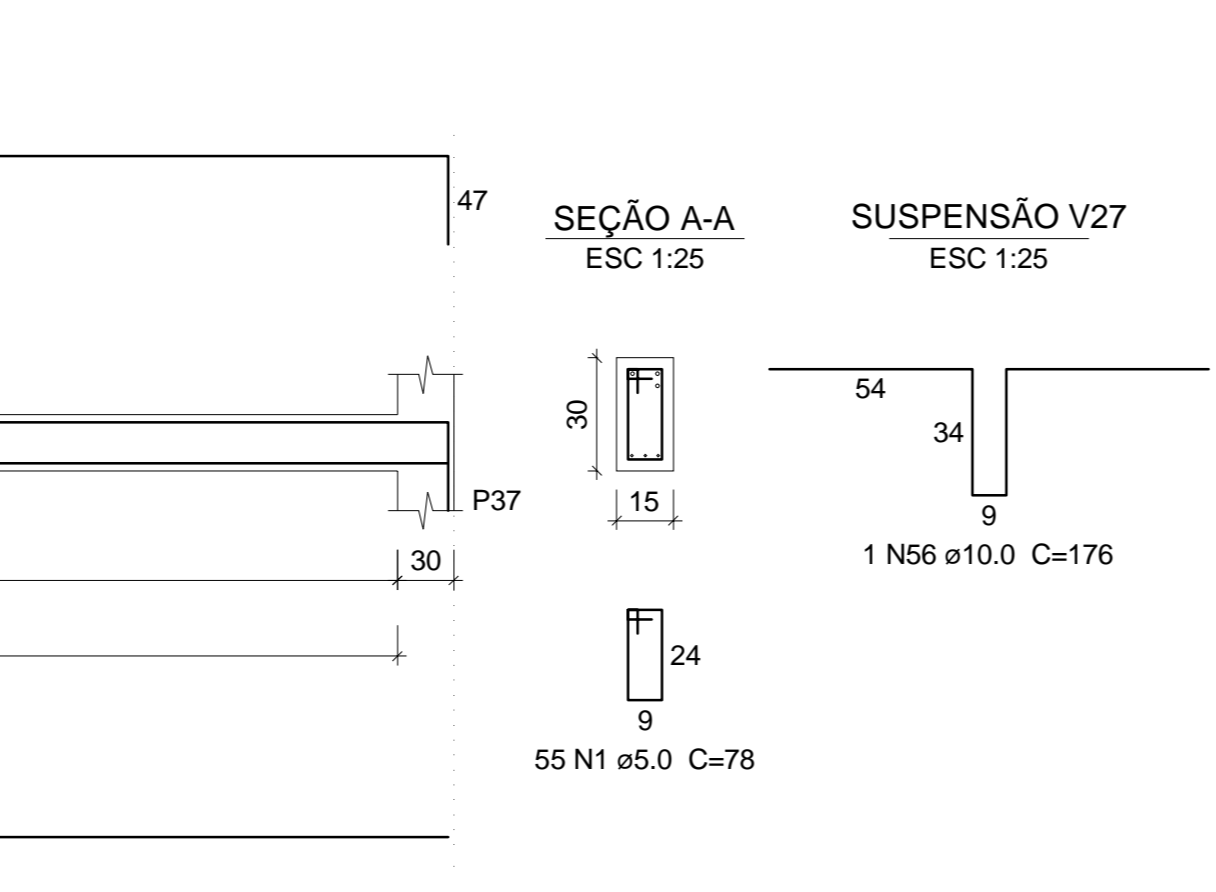
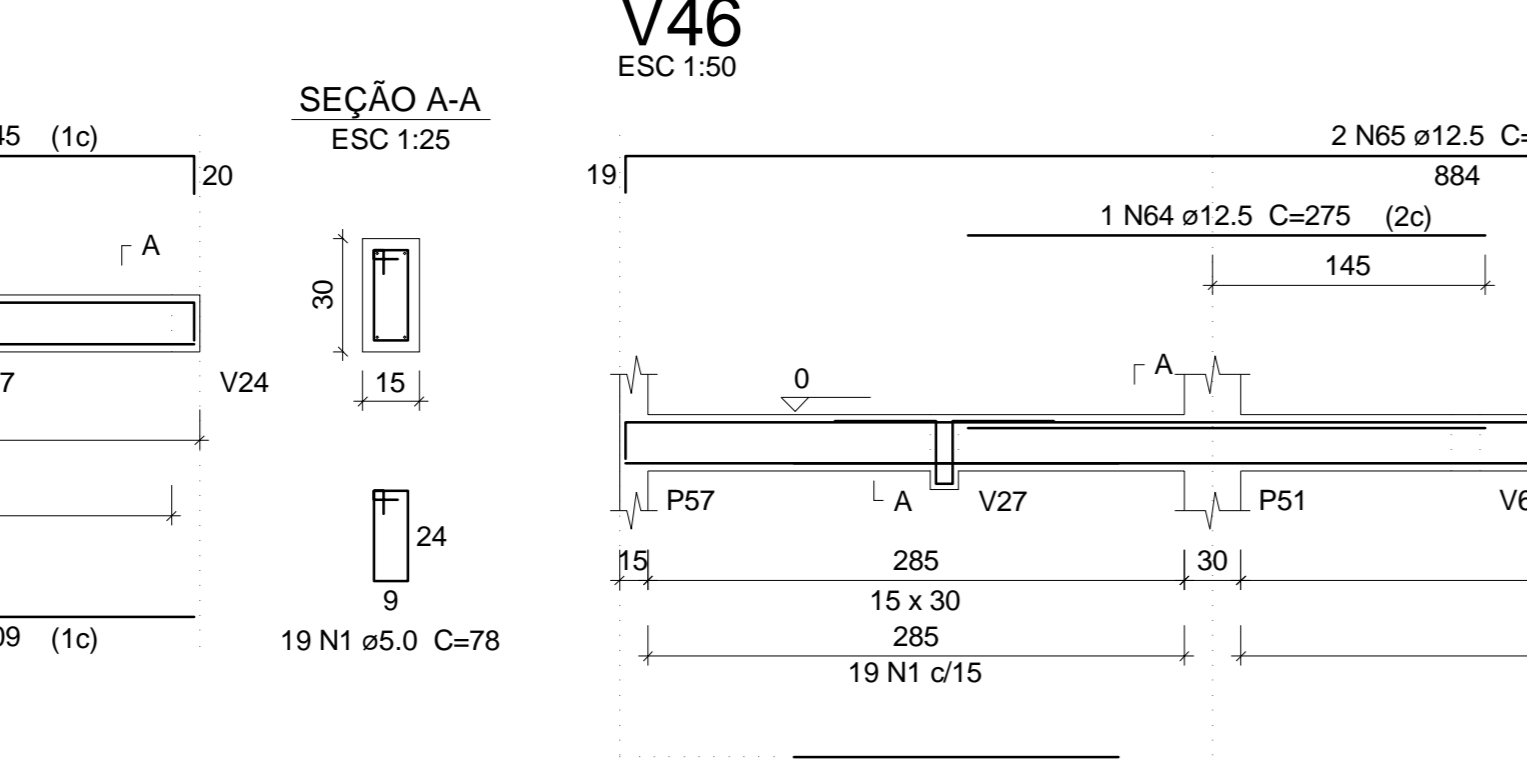
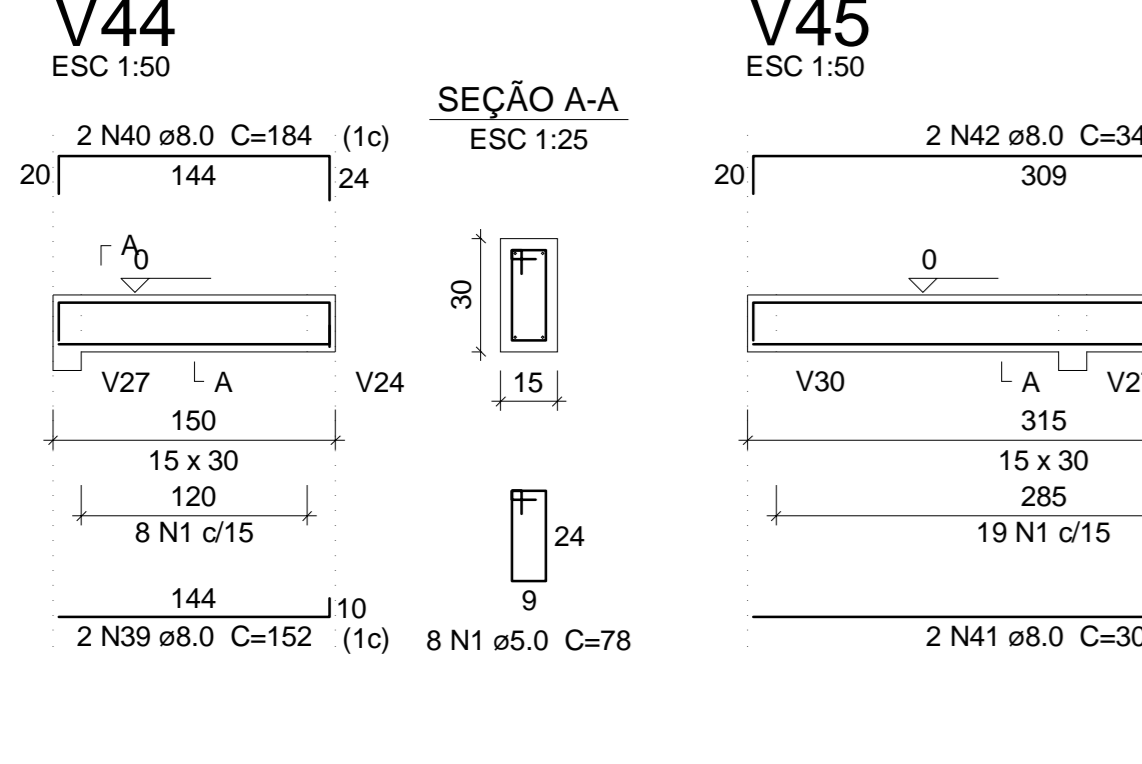
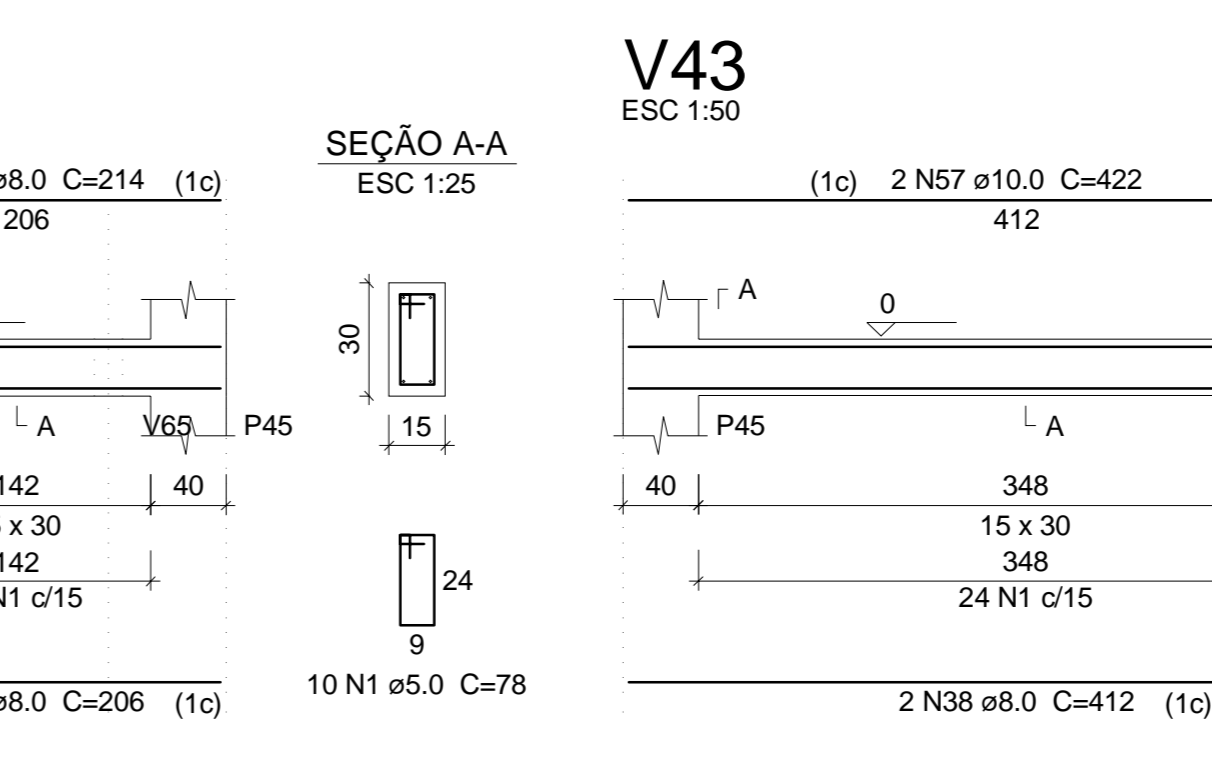
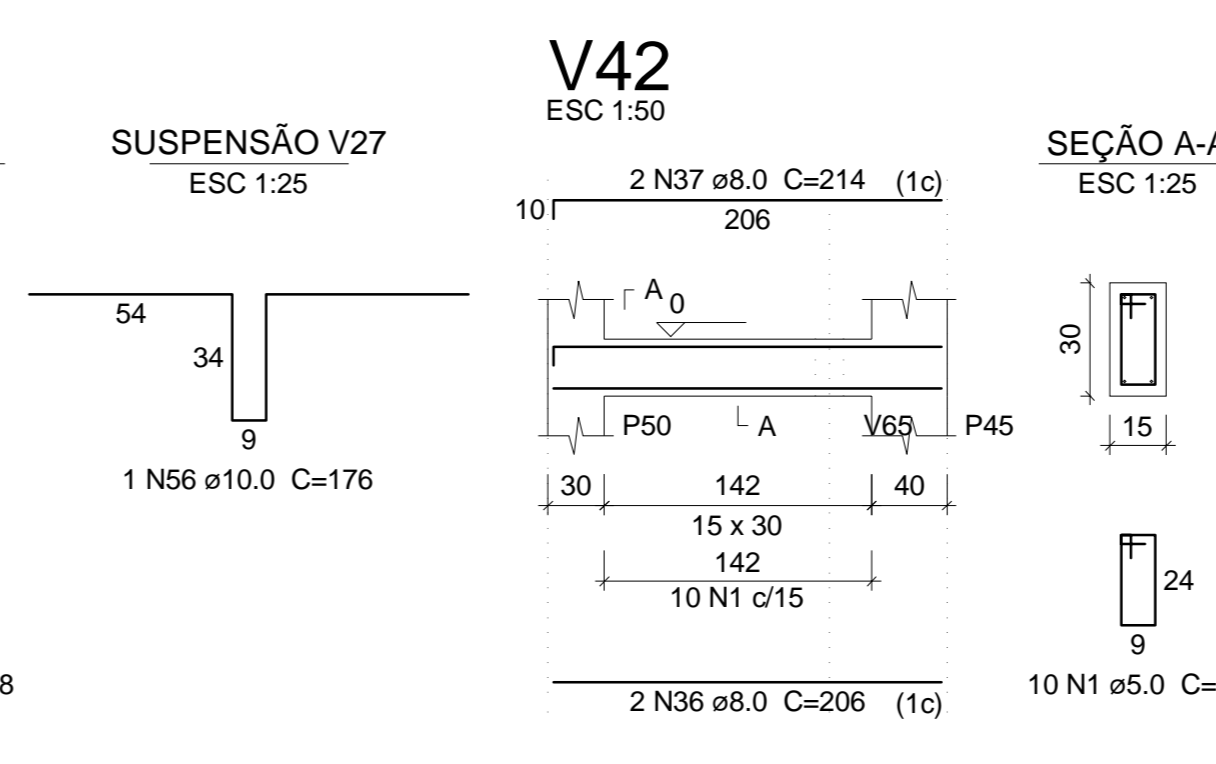
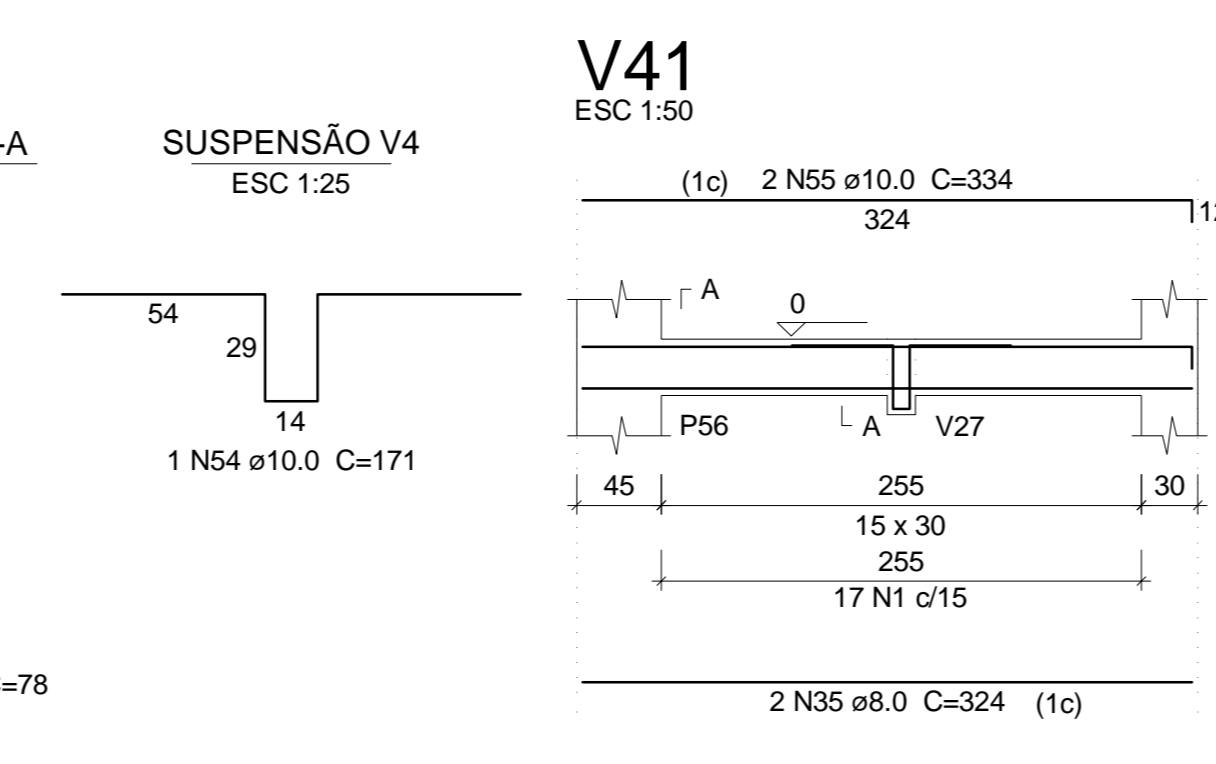
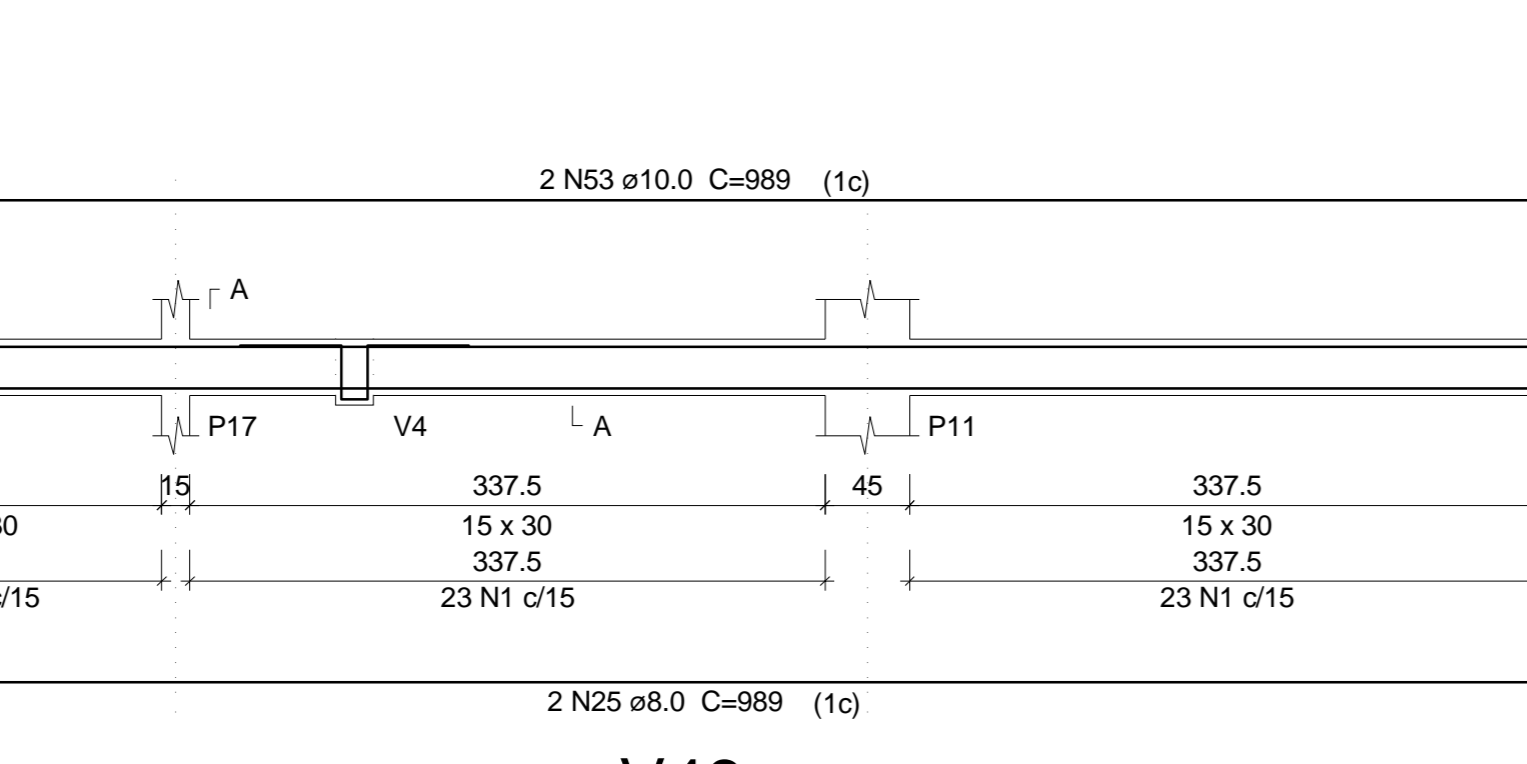
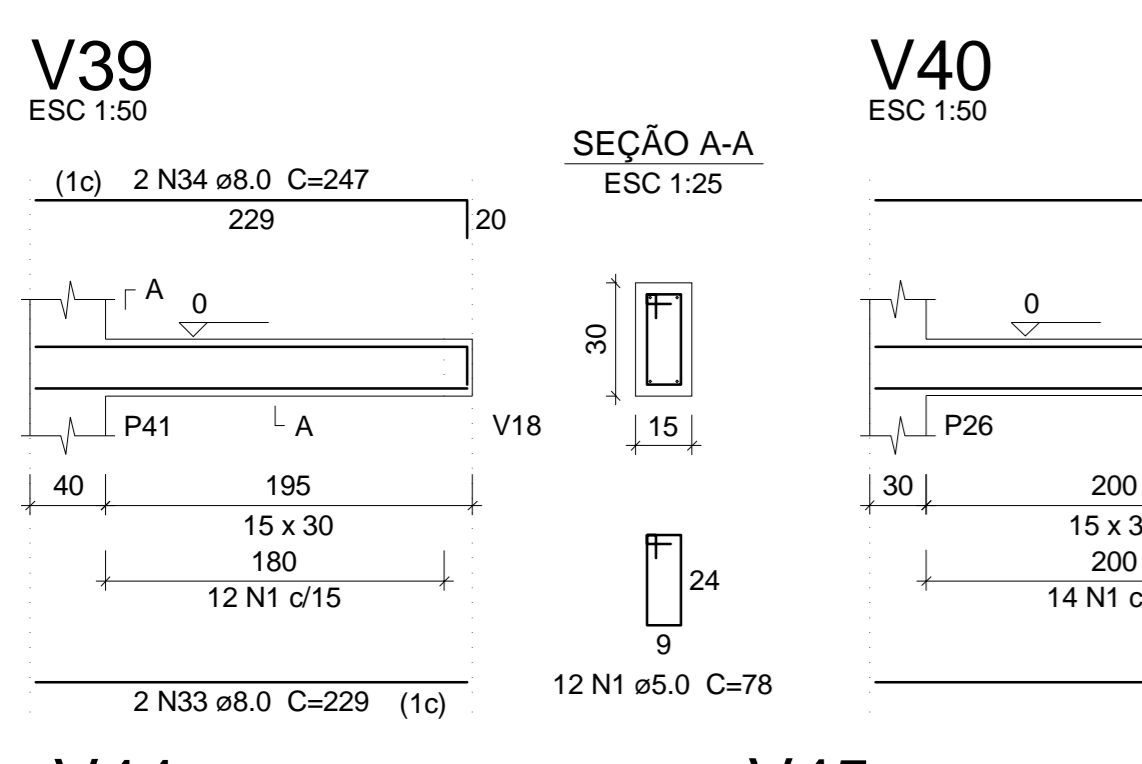
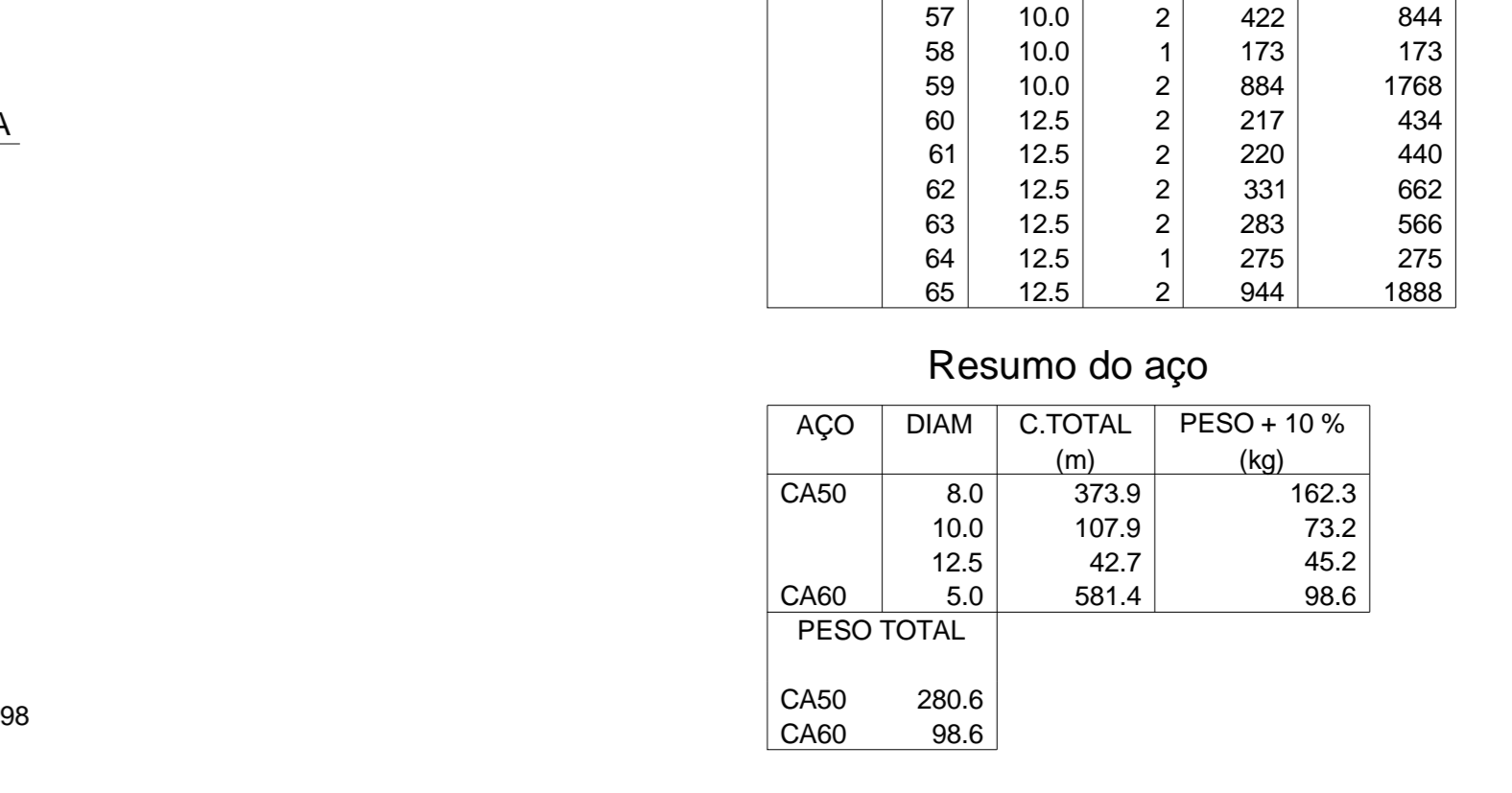
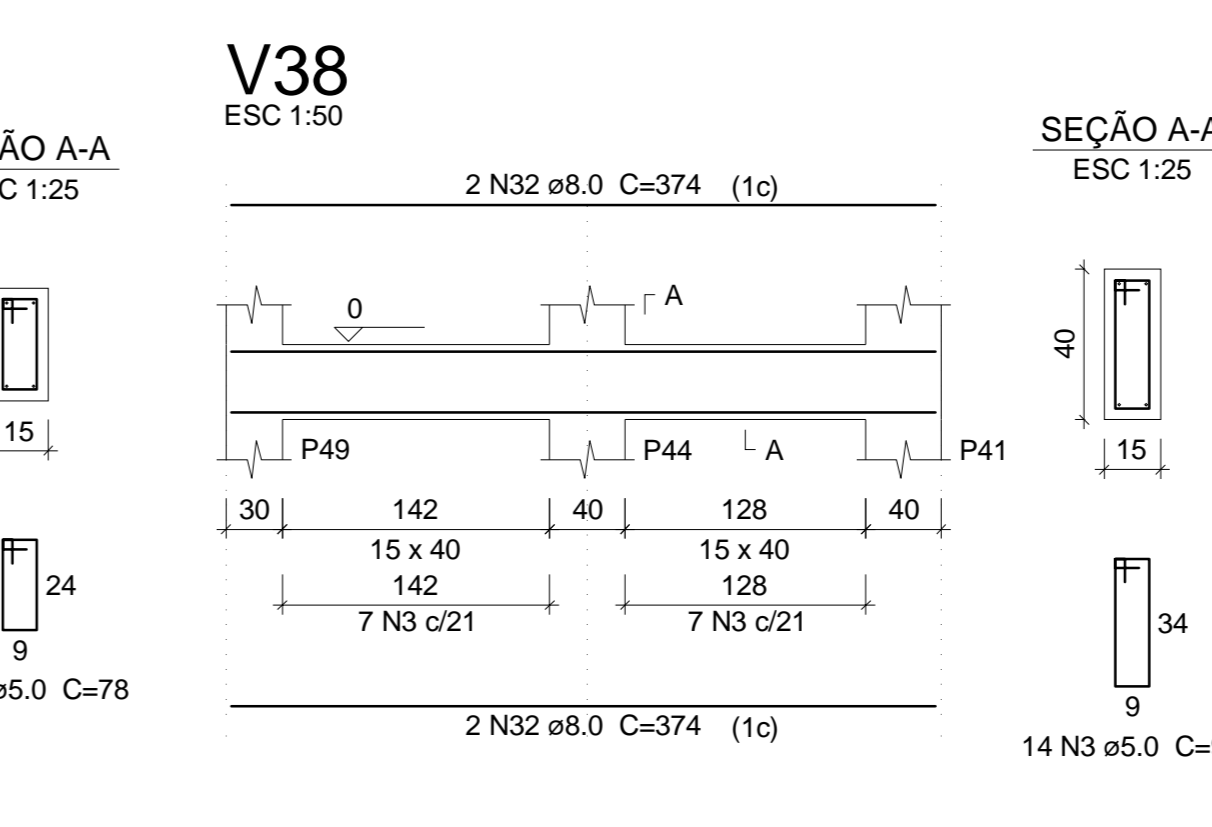
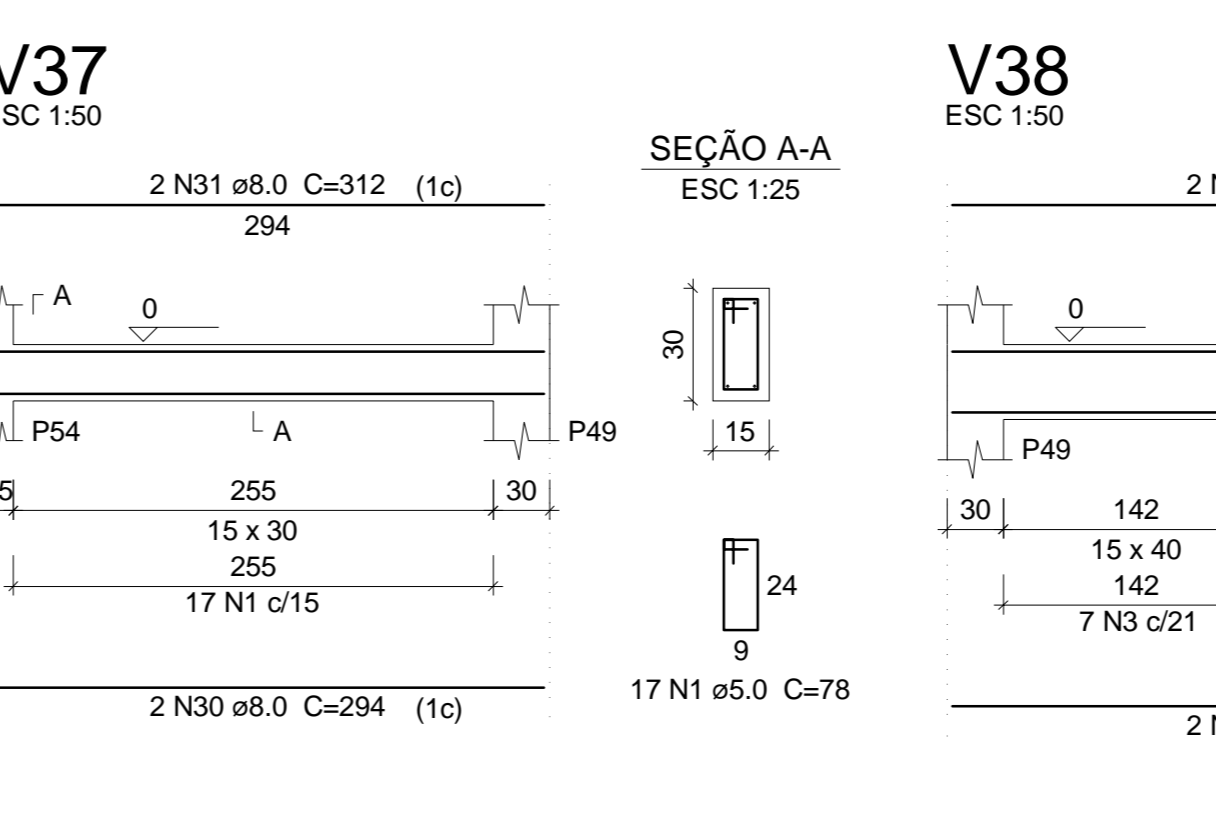
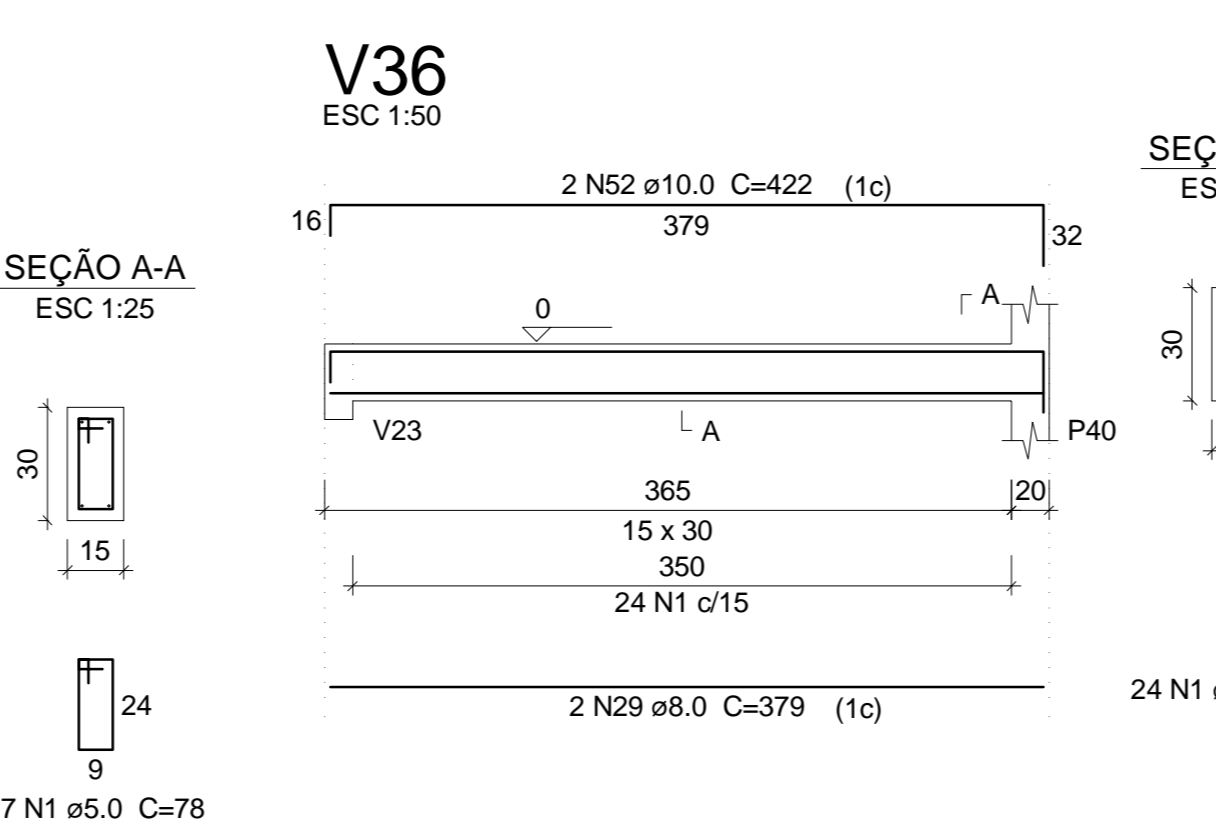
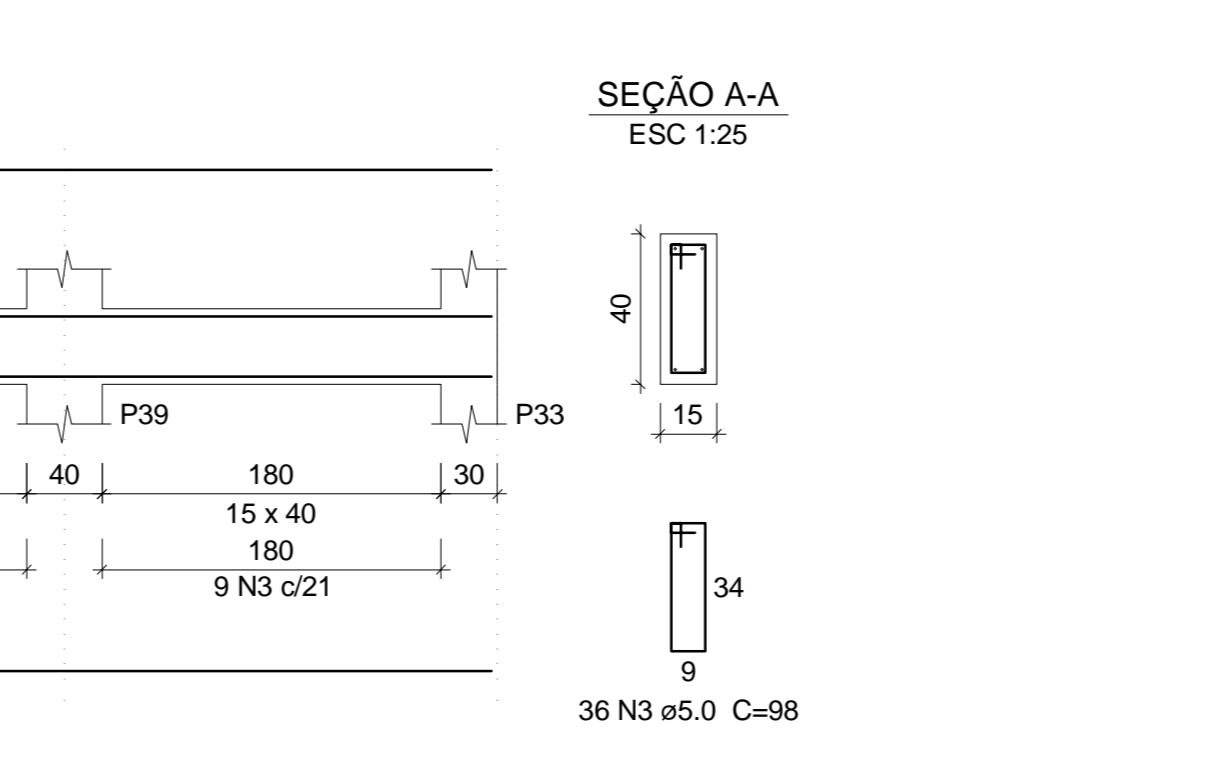
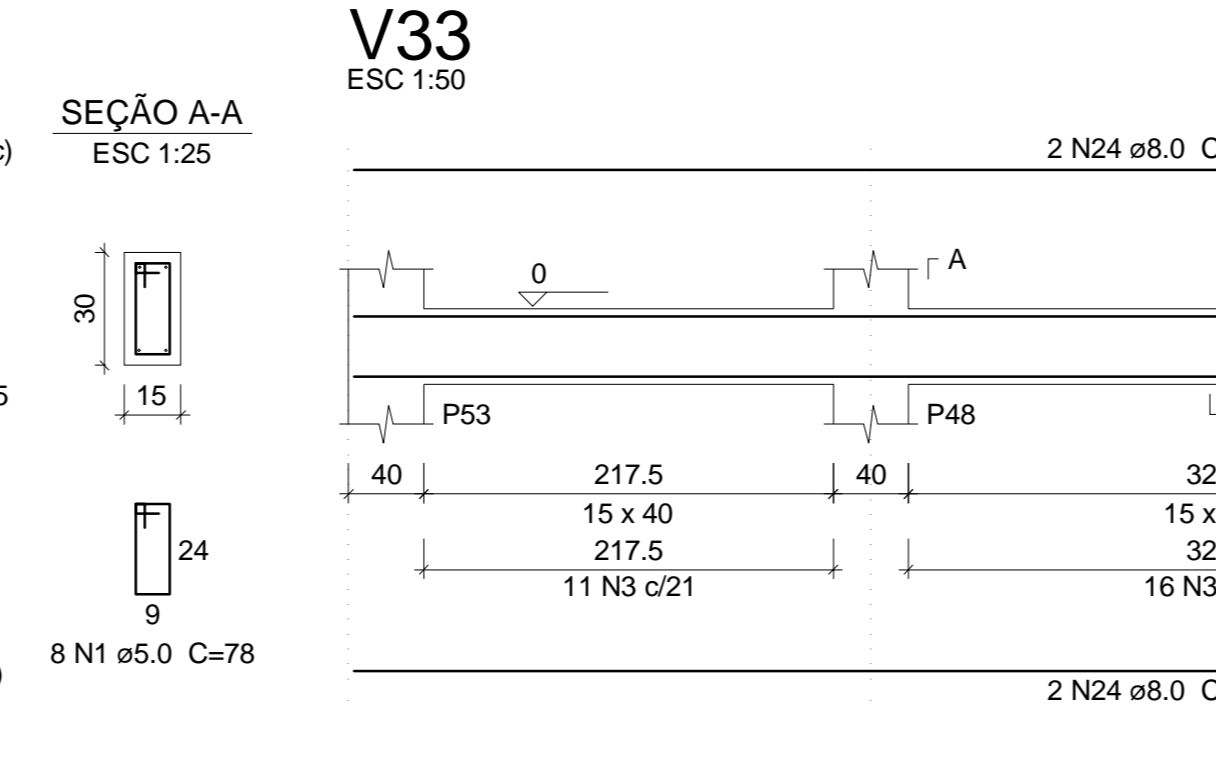
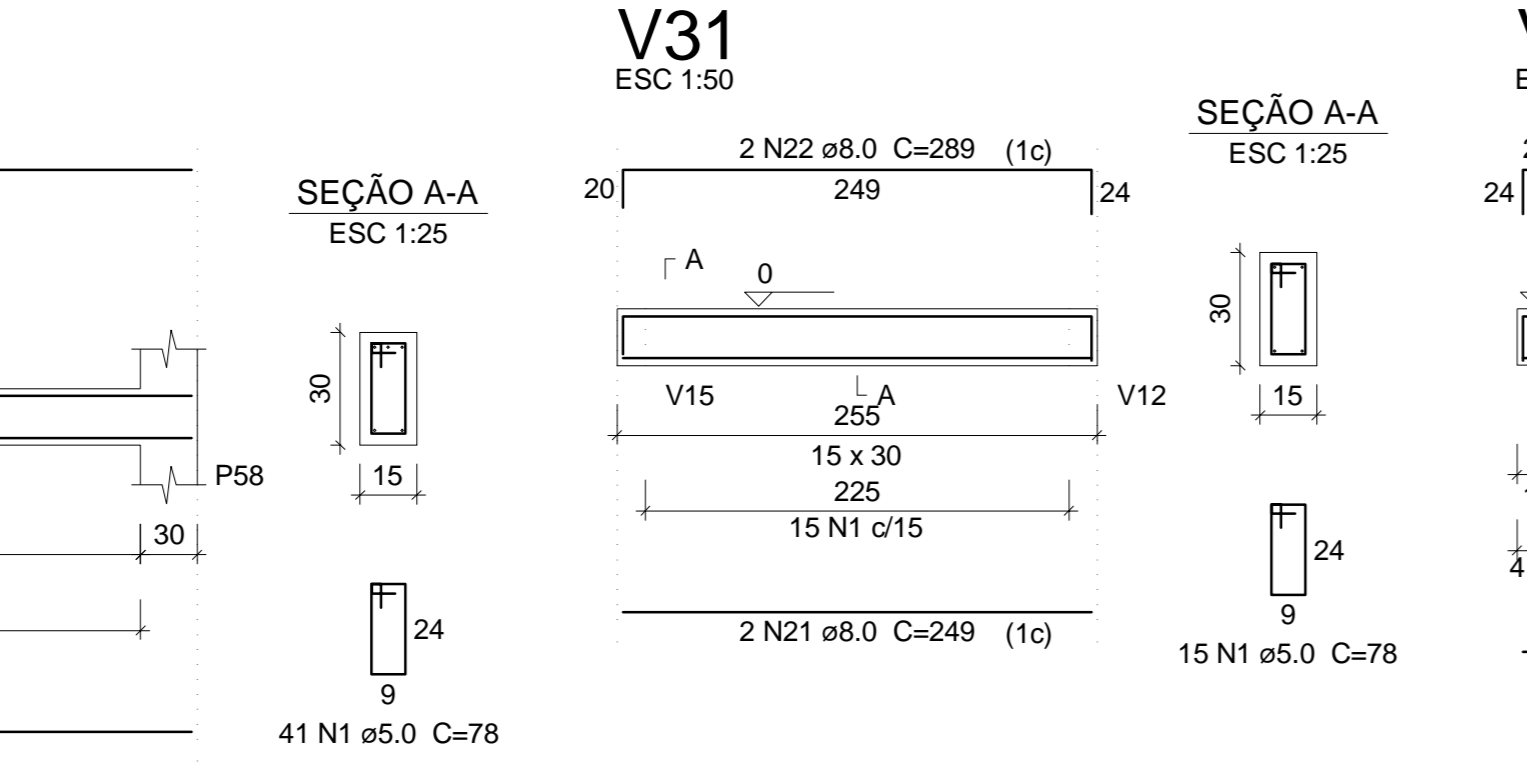
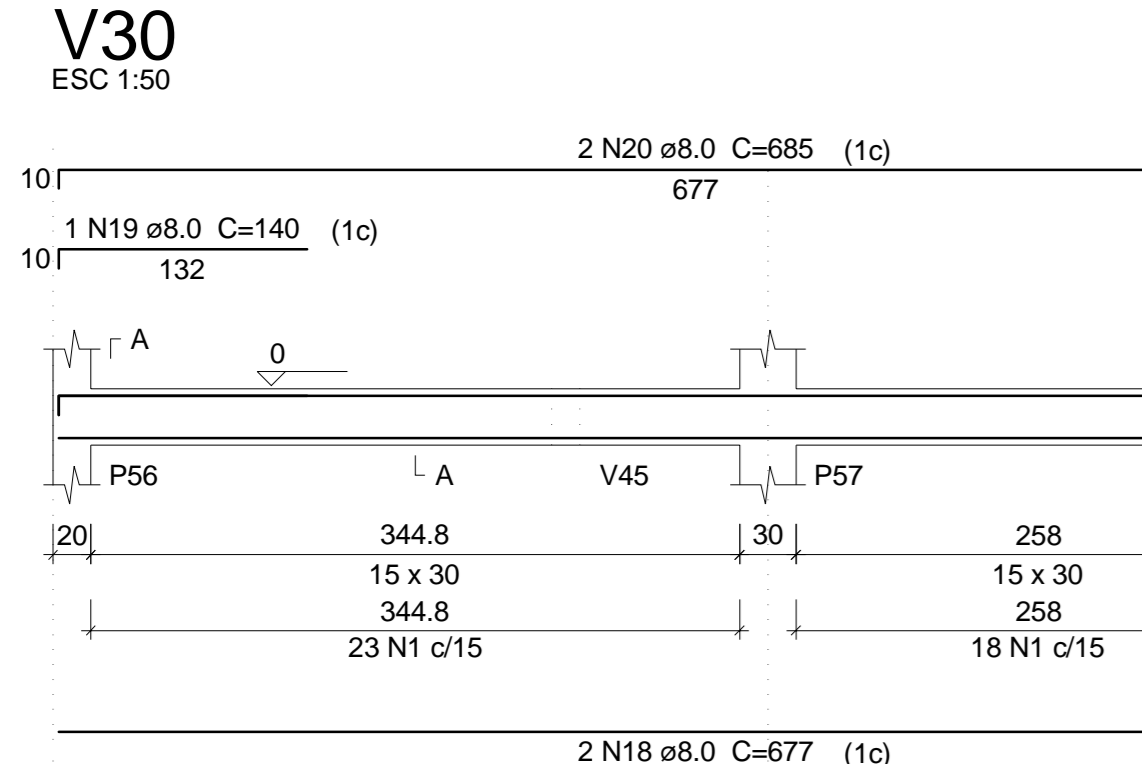
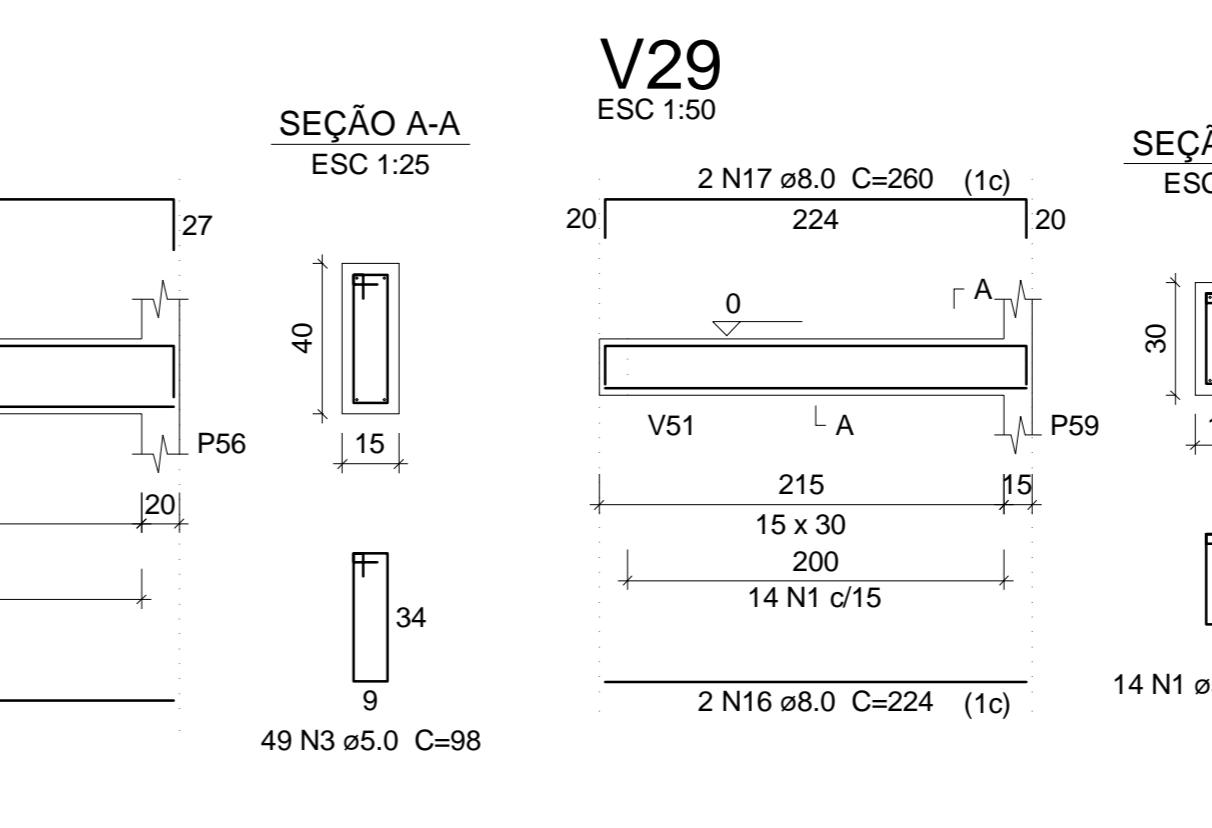
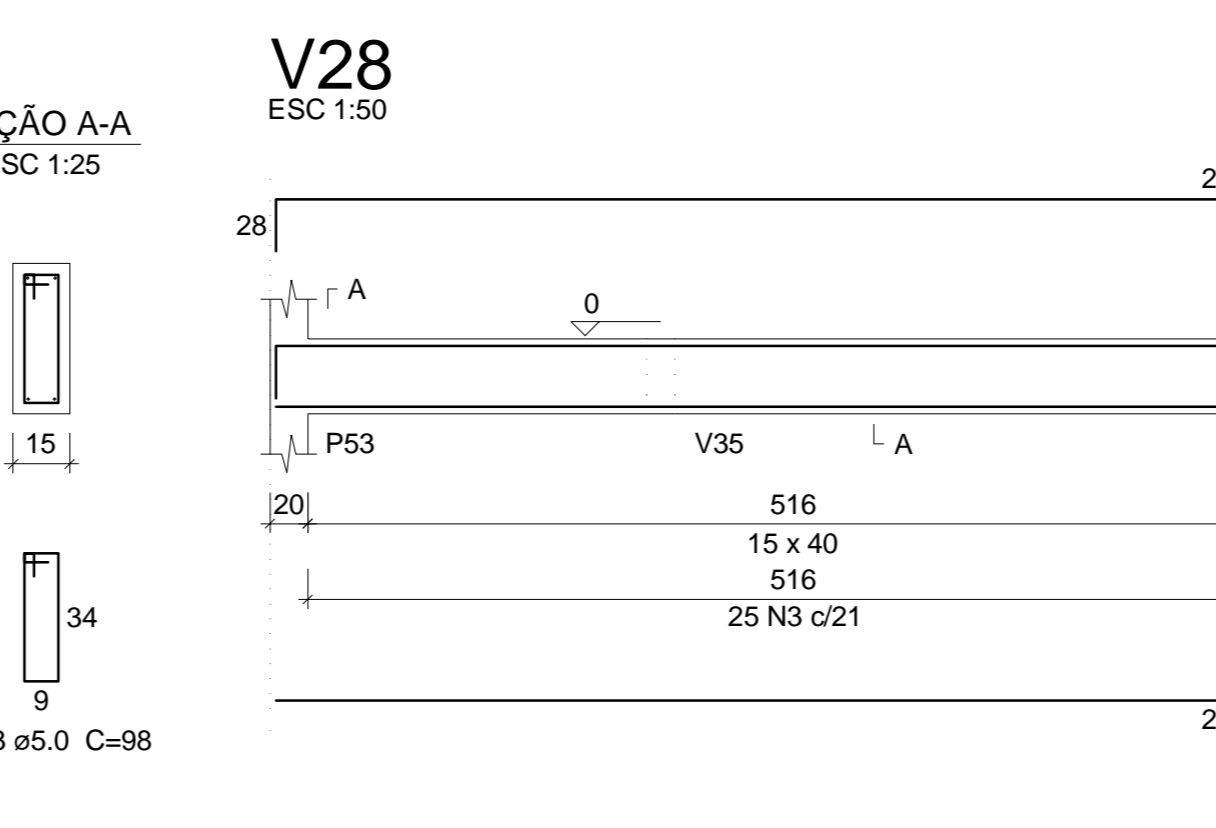
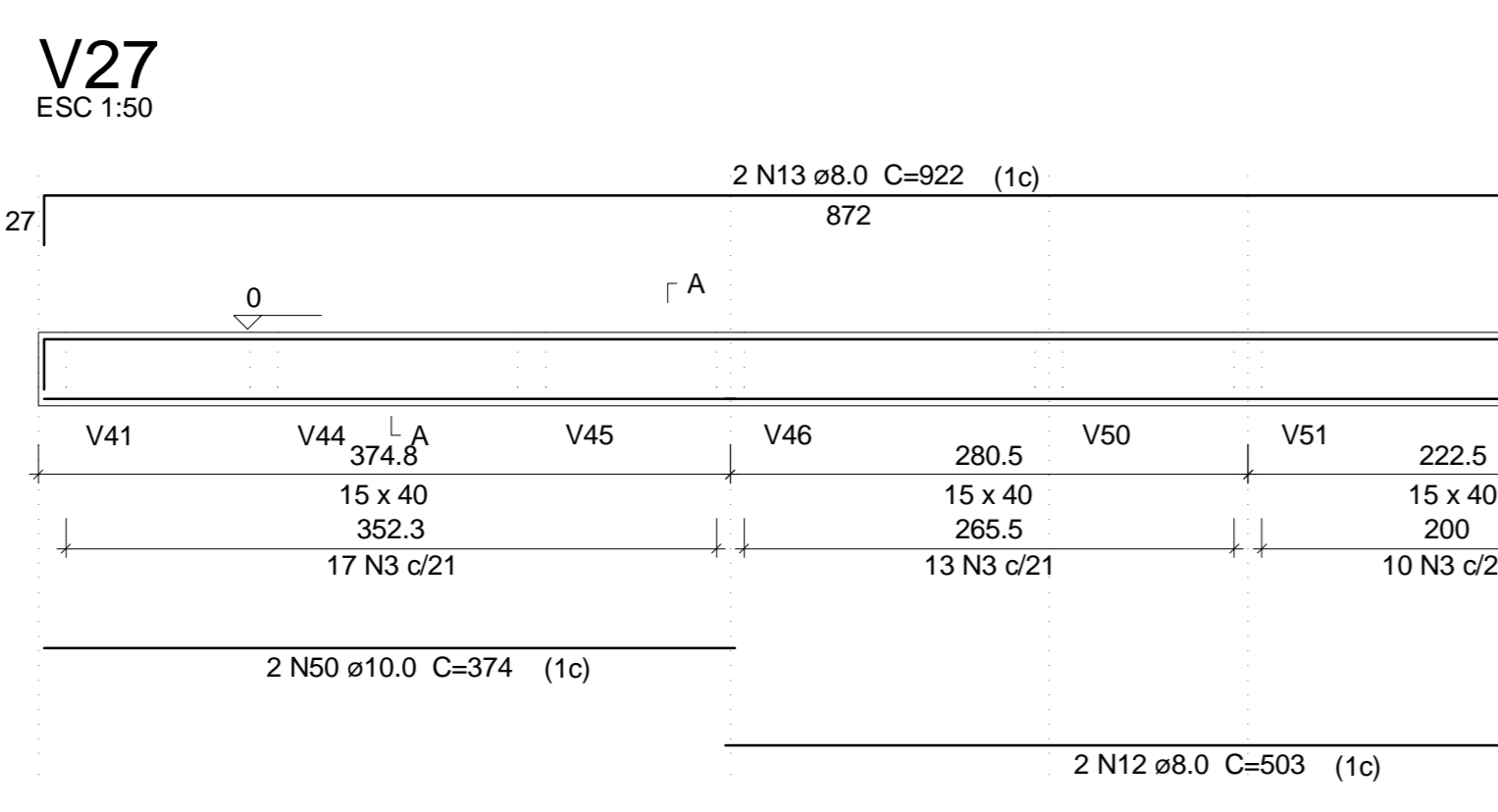
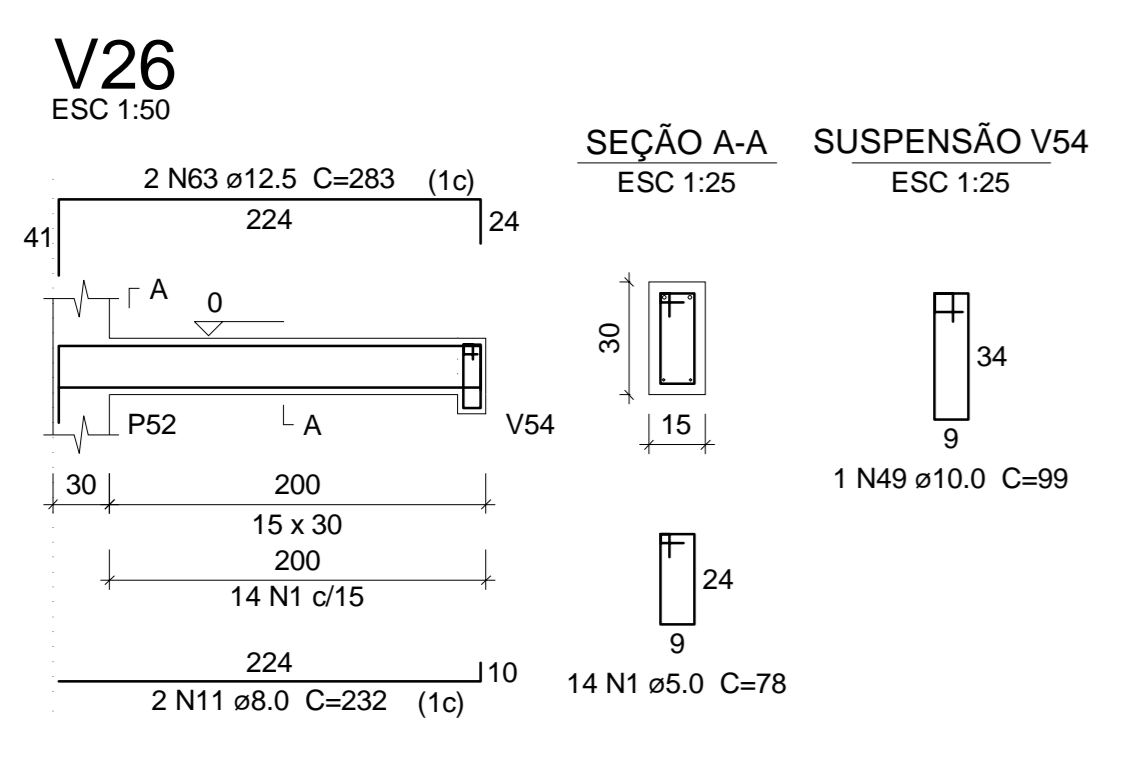
Relação do aço

ACO	N	DIAM	Q	UNIT	C.TOTAL
				(cm)	(cm)
V19	V22	V23			
V24	V25	V26			
V27	V28	V29			
V30	V31	V32			
V33	V34	V35			
V36	V37	V38			
V39	V40	V41			
V42	V43	V44			
V45	V46	V47			
CA50	1	5.0	488	78	38064
	2	5.0	2	273	546
	3	5.0	190	98	18620
	4	5.0	2	228	456
	5	5.0	2	225	450
CA50	6	8.0	2	549	1098
	7	8.0	2	585	1170
	8	8.0	2	579	1158
	9	8.0	2	162	324
	10	8.0	2	305	610
	11	8.0	2	232	464
	12	8.0	2	503	1006
	13	8.0	2	922	1844
	14	8.0	2	1117	2234
	15	8.0	2	1168	2336
	16	8.0	2	224	448
	17	8.0	2	260	520
	18	8.0	2	677	1354
	19	8.0	1	140	280
	20	8.0	2	685	1370
	21	8.0	2	249	498
	22	8.0	2	289	578
	23	8.0	2	142	284
	24	8.0	4	862	3448
	25	8.0	4	989	3956
	26	8.0	2	997	1994
	27	8.0	6	279	1674
	28	8.0	2	83	166
	29	8.0	2	379	758
	30	8.0	2	294	588
	31	8.0	2	312	624
	32	8.0	4	374	1496
	33	8.0	2	229	458
	34	8.0	2	247	494
	35	8.0	2	324	648
	36	8.0	2	206	412
	37	8.0	2	214	428
	38	8.0	2	412	824
	39	8.0	2	152	304
	40	8.0	2	194	388
	41	8.0	2	309	618
	42	8.0	2	345	690
	43	10.0	2	191	382
	44	10.0	2	177	354
	45	10.0	2	559	1118
	46	10.0	1	151	302
	47	10.0	2	196	392
	48	10.0	2	197	394
	49	10.0	1	99	198
	50	10.0	2	374	748
	51	10.0	2	177	354
	52	10.0	2	422	844
	53	10.0	2	989	1978
	54	10.0	1	171	342
	55	10.0	2	334	668
	56	10.0	2	176	352
	57	10.0	2	422	844
	58	10.0	1	173	346
	59	10.0	2	844	1688
	60	12.5	2	217	434
	61	12.5	2	220	440
	62	12.5	2	331	662
	63	12.5	2	293	586
	64	12.5	1	275	550
	65	12.5	2	944	1888

Resumo do aço

ACO	DIAM	C.TOTAL	PESO + 10 %
		(m)	(kg)
CA50	8.0	373.9	162.3
	10.0	107.9	73.2
	12.5	42.7	45.2
CA60	5.0	581.4	98.6
PESO TOTAL			
CA50		280.6	
CA60		98.6	

Vol. de concreto total (C-25) = 6.39 m³
Área de forma total = 104.26 m²



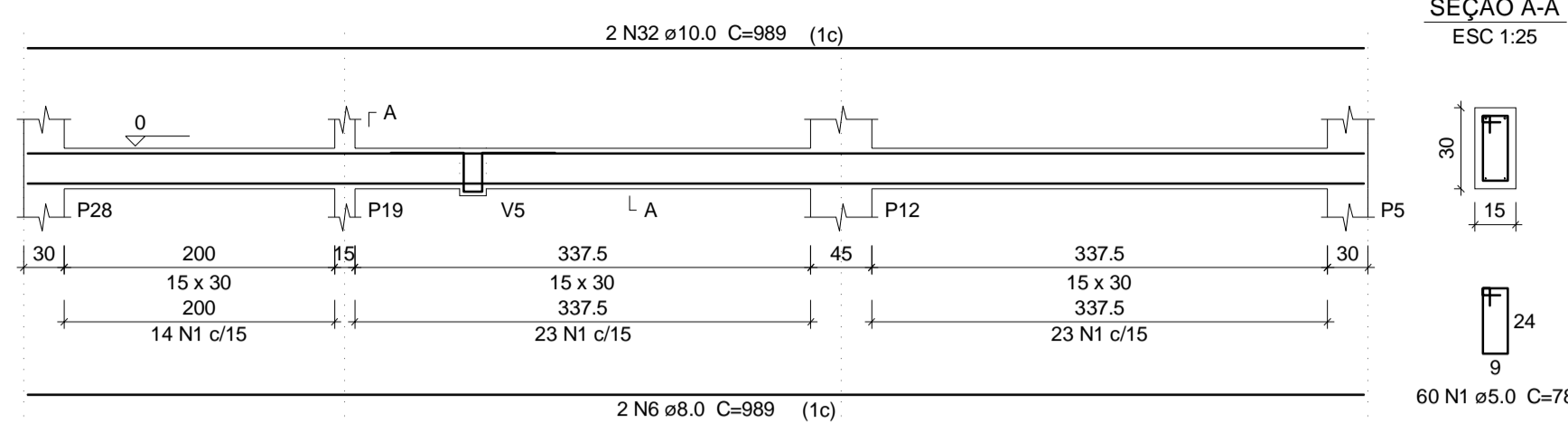
TL TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 161999/3570

CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB
OBRA: ESCOLA 4 SALAS
ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB

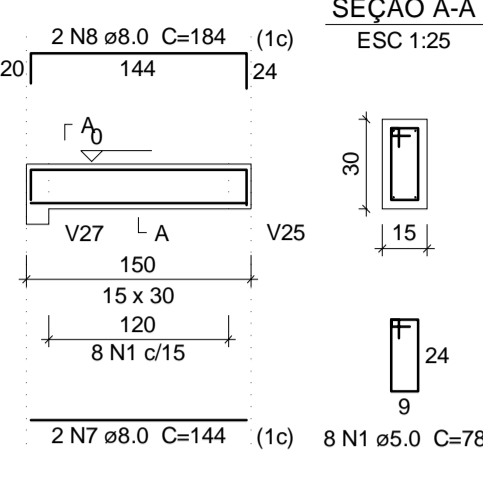
FOLHA: **07/17**
REV: **0**
ESC: **Indicada**
DATA: **25/09/2021**

PROJETO ESTRUTURAL
VIGAS BALDRAMES 2

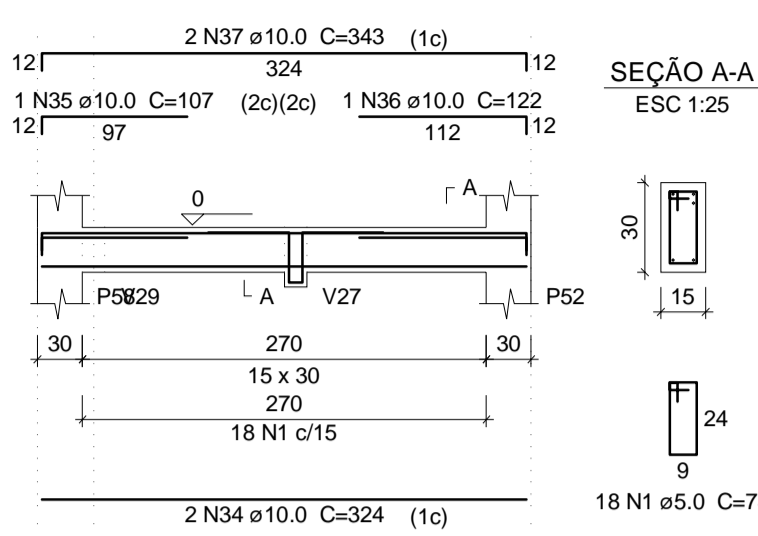
V48
ESC 1:50



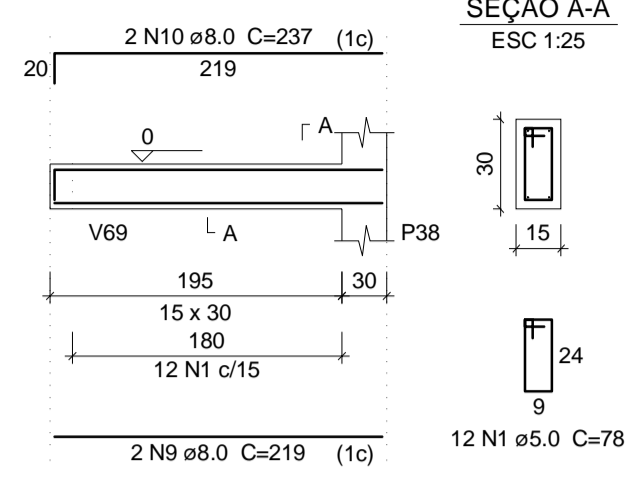
V50
ESC 1:50



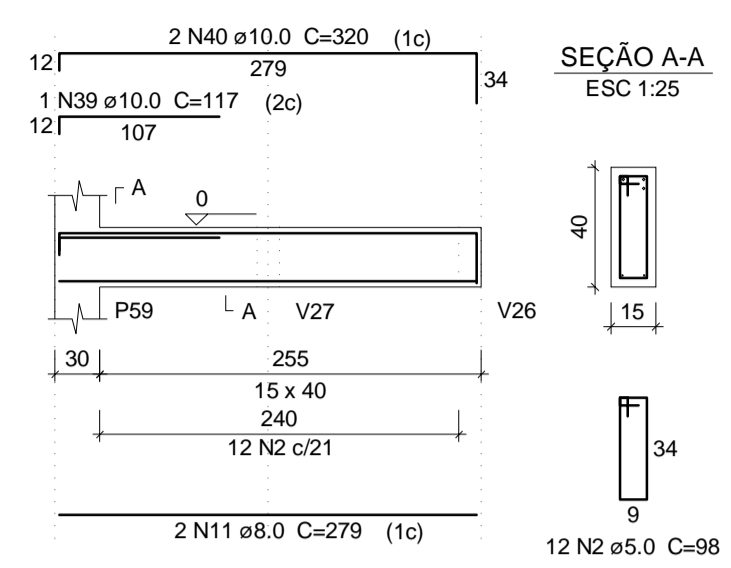
V51
ESC 1:50



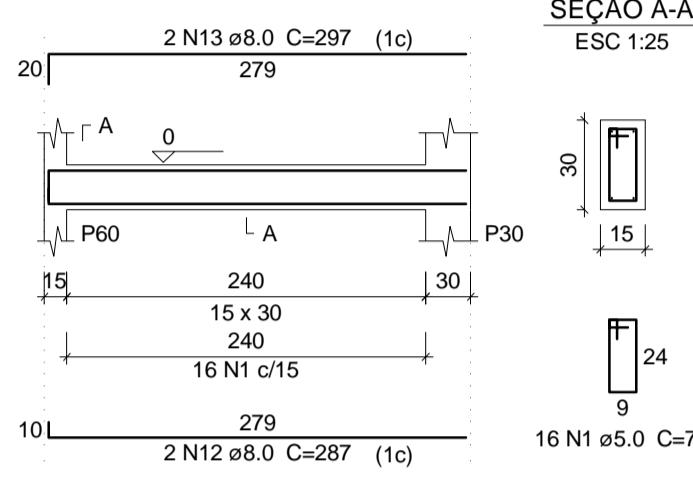
V53
ESC 1:50



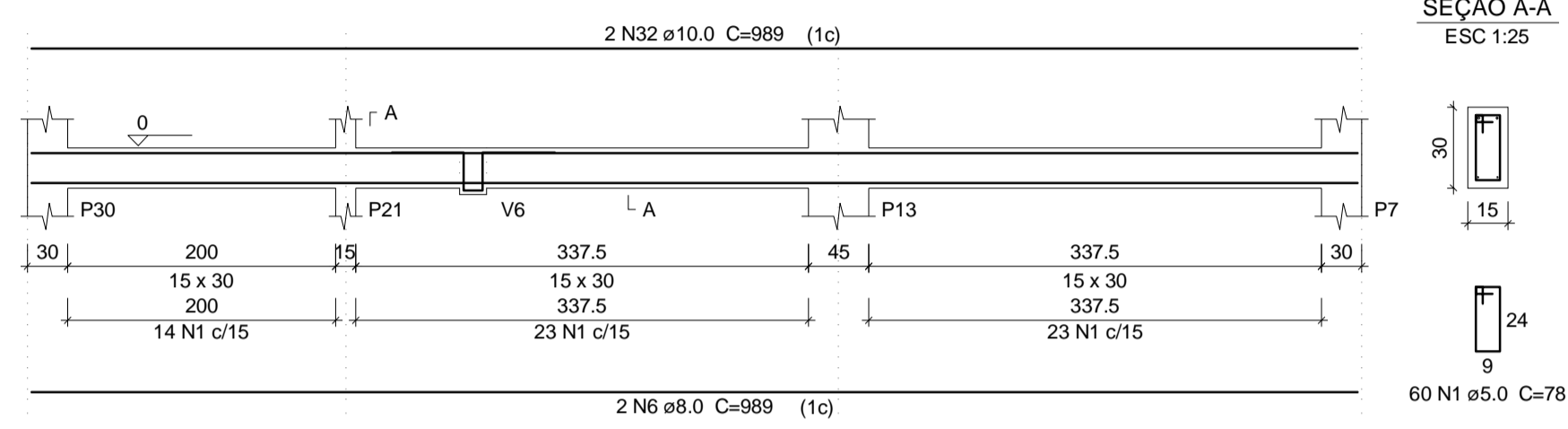
V54
ESC 1:50



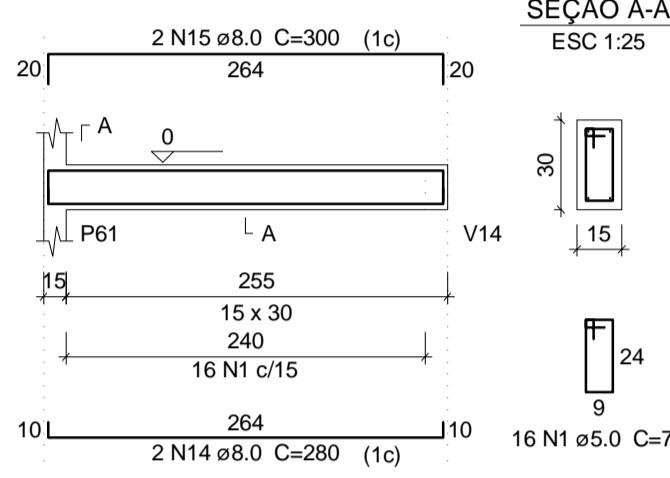
V57
ESC 1:50



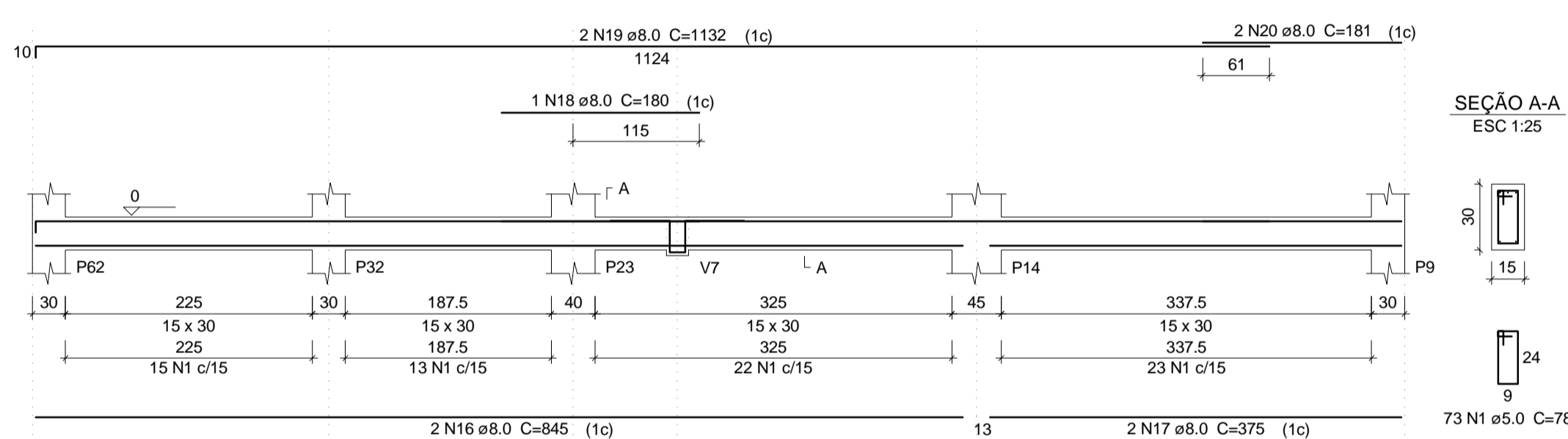
V58
ESC 1:50



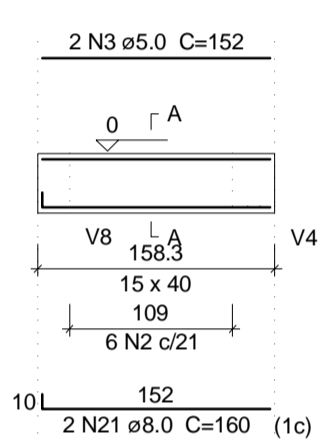
V59
ESC 1:50



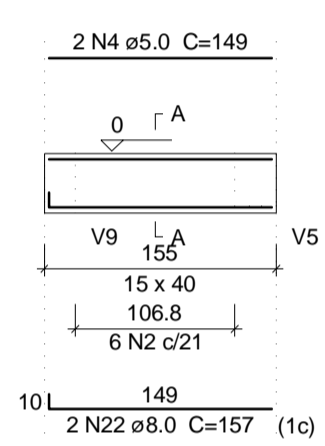
V60
ESC 1:50



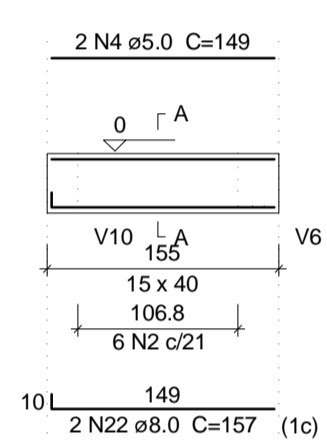
V61
ESC 1:50



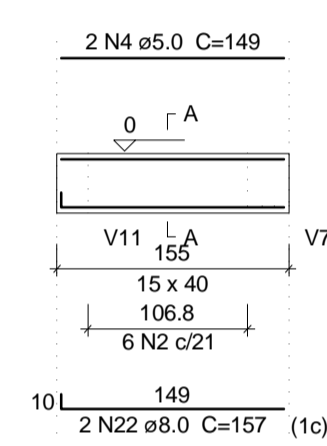
V62
ESC 1:50



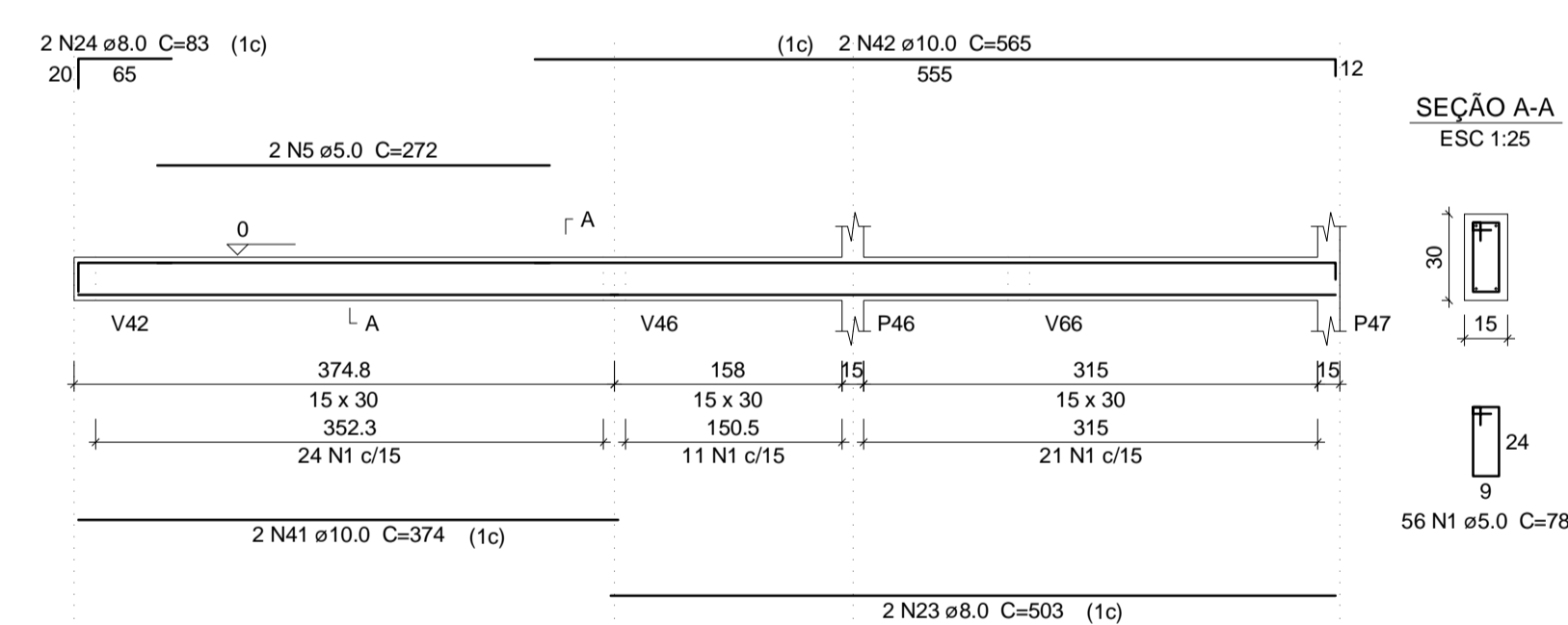
V63
ESC 1:50



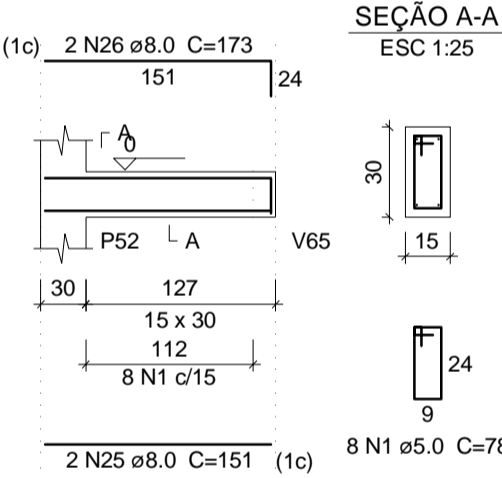
V64
ESC 1:50



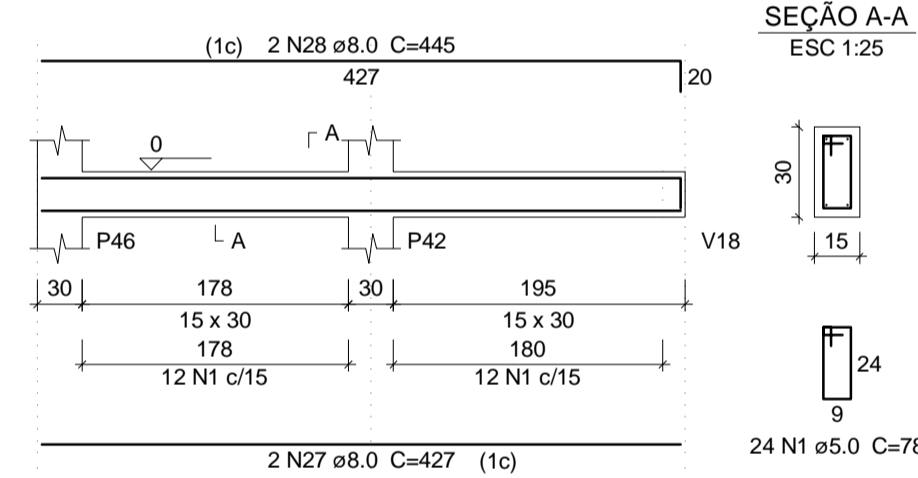
V65
ESC 1:50



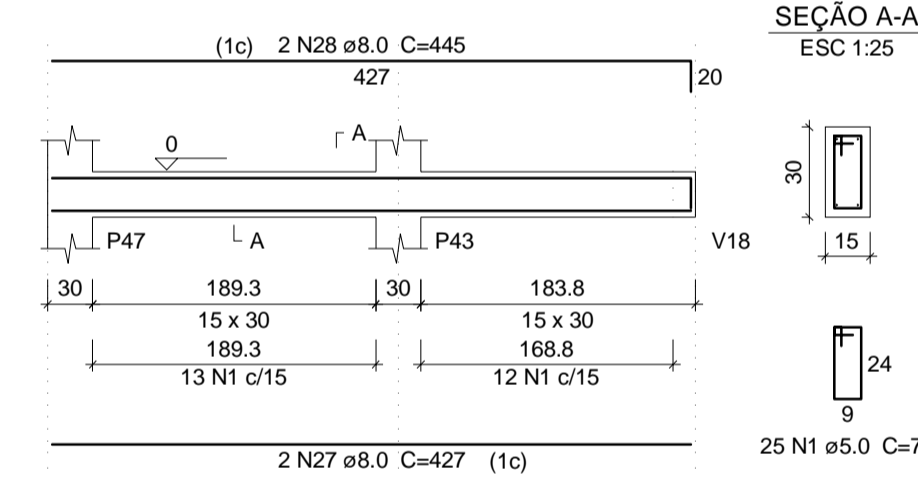
V66
ESC 1:50



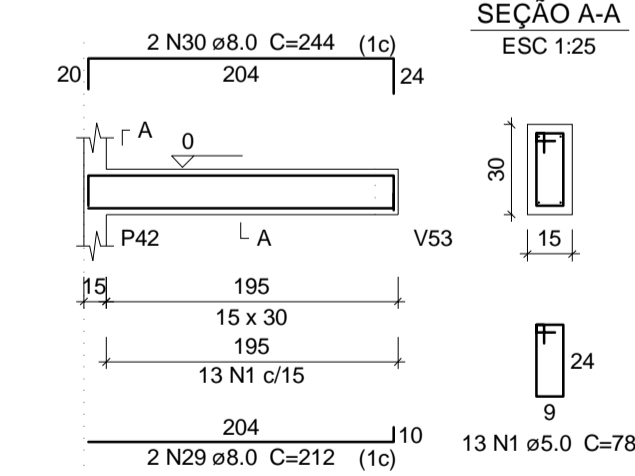
V67
ESC 1:50



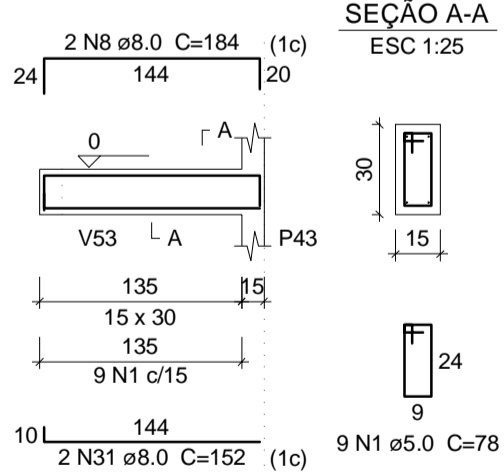
V68
ESC 1:50



V69
ESC 1:50



V70
ESC 1:50



Relação do aço

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	398	78	31044
	2	5.0	36	98	3528
	3	5.0	2	152	304
	4	5.0	6	149	894
	5	5.0	2	272	544
	6	8.0	4	989	3956
	7	8.0	2	144	288
	8	8.0	4	184	736
	9	8.0	2	219	438
	10	8.0	2	237	474
	11	8.0	2	279	558
	12	8.0	2	287	574
	13	8.0	2	297	594
	14	8.0	2	280	560
	15	8.0	2	300	600
	16	8.0	2	845	1690
	17	8.0	2	375	750
	18	8.0	1	180	180
	19	8.0	2	1132	2264
	20	8.0	2	181	362
	21	8.0	2	160	320
	22	8.0	6	157	942
	23	8.0	2	503	1006
	24	8.0	2	83	166
	25	8.0	2	151	302
	26	8.0	2	173	346
	27	8.0	4	427	1708
	28	8.0	4	445	1780
	29	8.0	2	212	424
	30	8.0	2	244	488
	31	8.0	2	152	304
	32	10.0	4	989	3956
	33	10.0	3	171	513
	34	10.0	2	324	648
	35	10.0	1	107	107
	36	10.0	1	122	122
	37	10.0	2	343	686
	38	10.0	1	176	176
	39	10.0	1	117	117
	40	10.0	2	320	640
	41	10.0	2	374	748
	42	10.0	2	565	1130

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10% (kg)
CA50	8.0	218.1	94.7
CA60	10.0	88.5	60
CA60	5.0	363.2	61.6
PESO TOTAL			
CA50		154.6	
CA60		61.6	

Vol. de concreto total (C-25) = 3.59 m³
Área de forma total = 59.33 m²

TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 1619993570

TL TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 1619993570

CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB
OBRA: ESCOLA 4 SALAS
ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB

PROJETO ESTRUTURAL
VIGAS BALDRAMES 3

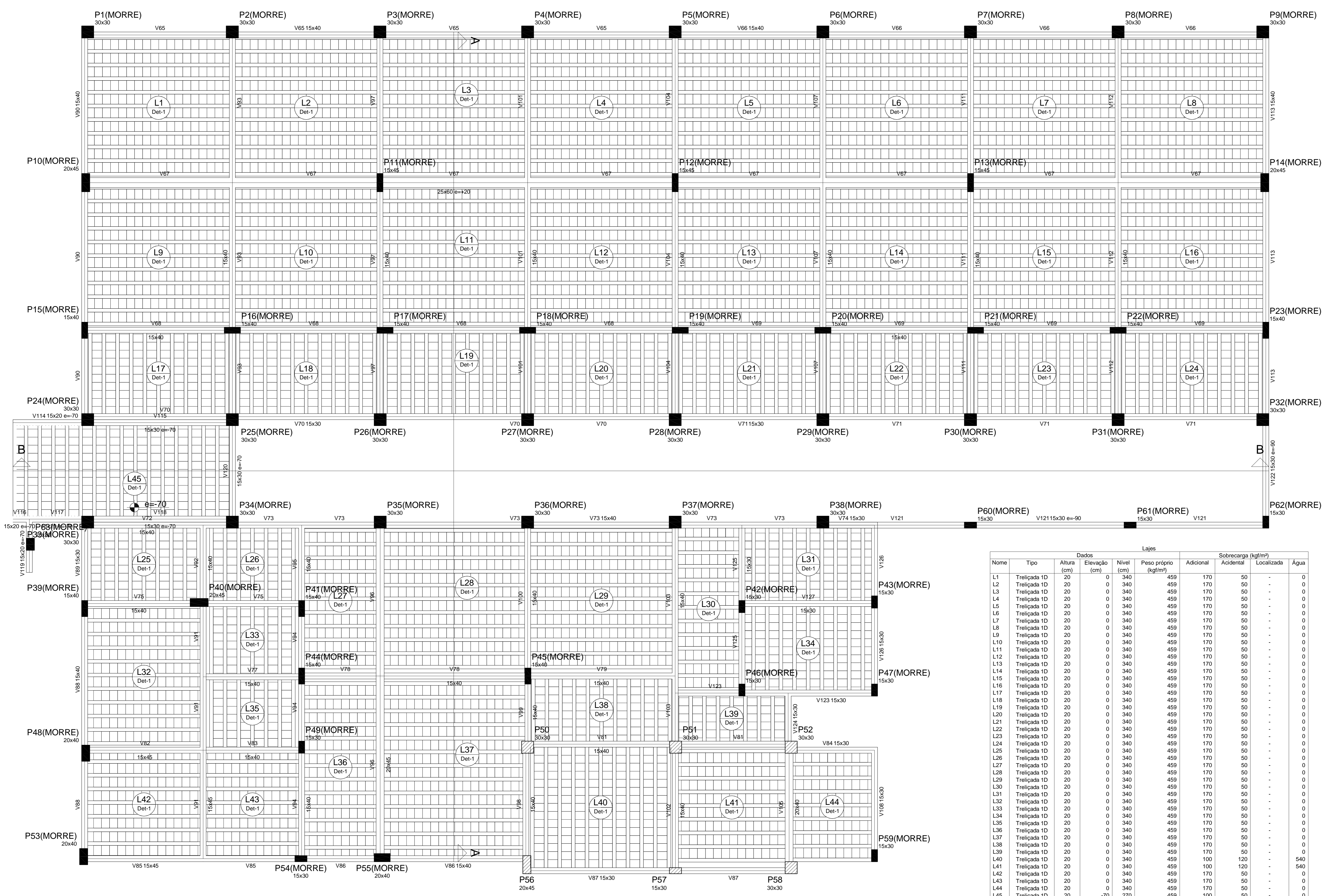
FOLHA: 08/17
REV.: 0
ESC.: Indicada
DATA: 25/09/2021

Detalhe	Tipo	Blocos de enchimento			Quantidade
		Nome	Dimensões(cm)	Quantidade	
1	Lajota cerâmica	B8/25/20	8 25 20	5851	

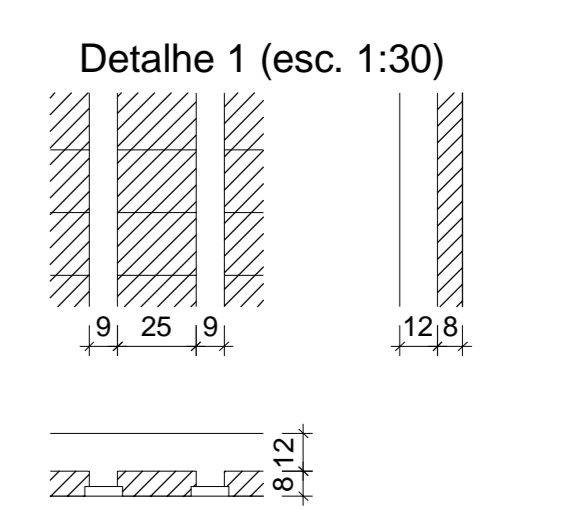
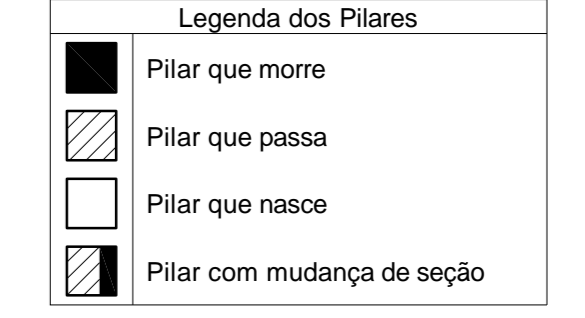
Características dos materiais			
Nome	Seção (cm)	Elevação (cm)	Nível (cm)
250	250	230000	

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
V65	15x40	0	340
V66	15x40	0	340
V67	25x60	20	360
V68	15x40	0	340
V69	15x40	0	340
V70	15x30	0	340
V71	15x30	0	340
V72	15x40	0	340
V73	15x40	0	340
V74	15x30	0	340
V75	15x40	0	340
V76	15x40	0	340
V77	15x40	0	340
V78	15x40	0	340
V79	15x40	0	340
V80	15x40	0	340
V81	15x40	0	340
V82	15x45	0	340
V83	15x40	0	340
V84	15x30	0	340
V85	15x45	0	340
V86	15x40	0	340
V87	15x40	0	340
V88	15x40	0	340
V89	15x30	0	340
V90	15x40	0	340
V91	15x45	0	340
V92	15x40	0	340
V93	15x40	0	340
V94	15x40	0	340
V95	15x40	0	340
V96	20x45	0	340
V97	15x40	0	340
V98	15x40	0	340
V99	15x40	0	340
V100	15x40	0	340
V101	15x40	0	340
V102	15x40	0	340
V103	15x40	0	340
V104	15x40	0	340
V105	20x40	0	340
V106	15x40	0	340
V107	15x40	0	340
V108	15x30	0	340
V109	15x40	0	340
V110	15x40	0	340
V111	15x40	0	340
V112	15x40	0	340
V113	15x40	0	340
V114	15x20	-70	270
V115	15x30	-70	270
V116	15x20	-70	270
V117	15x20	-70	270
V118	15x30	-70	270
V119	15x20	-70	270
V120	15x30	-70	270
V121	15x30	-90	250
V122	15x30	-90	250
V123	15x30	0	340
V124	15x30	0	340
V125	15x30	0	340
V126	15x30	0	340
V127	15x30	0	340

Nome	Seção (cm)	Elevação (cm)	Nível (cm)
P1	30 x 30	0	340
P2	30 x 30	0	340
P3	30 x 30	0	340
P4	30 x 30	0	340
P5	30 x 30	0	340
P6	30 x 30	0	340
P7	30 x 30	0	340
P8	30 x 30	0	340
P9	30 x 30	0	340
P10	20 x 45	0	340
P11	15 x 45	0	340
P12	15 x 45	0	340
P13	15 x 45	0	340
P14	20 x 45	0	340
P15	15 x 40	0	340
P16	15 x 40	0	340
P17	15 x 40	0	340
P18	15 x 40	0	340
P19	15 x 40	0	340
P20	15 x 40	0	340
P21	15 x 40	0	340
P22	15 x 40	0	340
P23	15 x 40	0	340
P24	30 x 30	0	340
P25	30 x 30	0	340
P26	30 x 30	0	340
P27	30 x 30	0	340
P28	30 x 30	0	340
P29	30 x 30	0	340
P30	30 x 30	0	340
P31	30 x 30	0	340
P32	30 x 30	0	340
P33	30 x 30	0	340
P34	30 x 30	0	340
P35	30 x 30	0	340
P36	30 x 30	0	340
P37	30 x 30	0	340
P38	30 x 30	0	340
P39	15 x 40	0	340
P40	20 x 45	0	340
P41	15 x 40	0	340
P42	15 x 30	0	340
P43	15 x 30	0	340
P44	15 x 40	0	340
P45	15 x 40	0	340
P46	15 x 30	0	340
P47	15 x 30	0	340
P48	20 x 40	0	340
P49	15 x 30	0	340
P50	30 x 30	0	340
P51	30 x 30	0	340
P52	20 x 40	0	340
P53	20 x 40	0	340
P54	15 x 30	0	340
P55	20 x 40	0	340
P56	20 x 45	0	340
P57	15 x 30	0	340
P58	30 x 30	0	340
P59	15 x 30	0	340
P60	15 x 30	-90	250
P61	15 x 30	-90	250
P62	15 x 30	-90	250
P63	20 x 30	-70	270



Lajes									
Nome	Tipo	Altura (cm)	Elevação (cm)	Nível (cm)	Peso próprio (kg/m²)	Adicional	Sobrecarga (kg/m²)		Água
L1	Trelçada ID	20	0	340	459	170	50	-	0
L2	Trelçada ID	20	0	340	459	170	50	-	0
L3	Trelçada ID	20	0	340	459	170	50	-	0
L4	Trelçada ID	20	0	340	459	170	50	-	0
L5	Trelçada ID	20	0	340	459	170	50	-	0
L6	Trelçada ID	20	0	340	459	170	50	-	0
L7	Trelçada ID	20	0	340	459	170	50	-	0
L8	Trelçada ID	20	0	340	459	170	50	-	0
L9	Trelçada ID	20	0	340	459	170	50	-	0
L10	Trelçada ID	20	0	340	459	170	50	-	0
L11	Trelçada ID	20	0	340	459	170	50	-	0
L12	Trelçada ID	20	0	340	459	170	50	-	0
L13	Trelçada ID	20	0	340	459	170	50	-	0
L14	Trelçada ID	20	0	340	459	170	50	-	0
L15	Trelçada ID	20	0	340	459	170	50	-	0
L16	Trelçada ID	20	0	340	459	170	50	-	0
L17	Trelçada ID	20	0	340	459	170	50	-	0
L18	Trelçada ID	20	0	340	459	170	50	-	0
L19	Trelçada ID	20	0	340	459	170	50	-	0
L20	Trelçada ID	20	0	340	459	170	50	-	0
L21	Trelçada ID	20	0	340	459	170	50	-	0
L22	Trelçada ID	20	0	340	459	170	50	-	0
L23	Trelçada ID	20	0	340	459	170	50	-	0
L24	Trelçada ID	20	0	340	459	170	50	-	0
L25	Trelçada ID	20	0	340	459	170	50	-	0
L26	Trelçada ID	20	0	340	459	170	50	-	0
L27	Trelçada ID	20	0	340	459	170	50	-	0
L28	Trelçada ID	20	0	340	459	170	50	-	0
L29	Trelçada ID	20	0	340	459	170	50	-	0
L30	Trelçada ID	20	0	340	459	170	50	-	0
L31	Trelçada ID	20	0	340	459	170	50	-	0
L32	Trelçada ID	20	0	340	459	170	50	-	0
L33	Trelçada ID	20	0	340	459	170	50	-	0
L34	Trelçada ID	20	0	340	459	170	50	-	0
L35	Trelçada ID	20	0	340	459	170	50	-	0
L36	Trelçada ID	20	0	340	459	170	50	-	0
L37	Trelçada ID	20	0	340	459	170	50	-	0
L38	Trelçada ID	20	0	340	459	170	50	-	0
L39	Trelçada ID	20	0	340	459	170	50	-	0
L40	Trelçada ID	20	0	340	459	100	120	-	540
L41	Trelçada ID	20	0	340	459	100	120	-	540
L42	Trelçada ID	20	0	340	459	170	50	-	0
L43	Trelçada ID	20	0	340	459	170	50	-	0
L44	Trelçada ID	20	0	340	459	170	50	-	0
L45	Trelçada ID	20	-70	270	459	100	50	-	0



TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 161999/3570

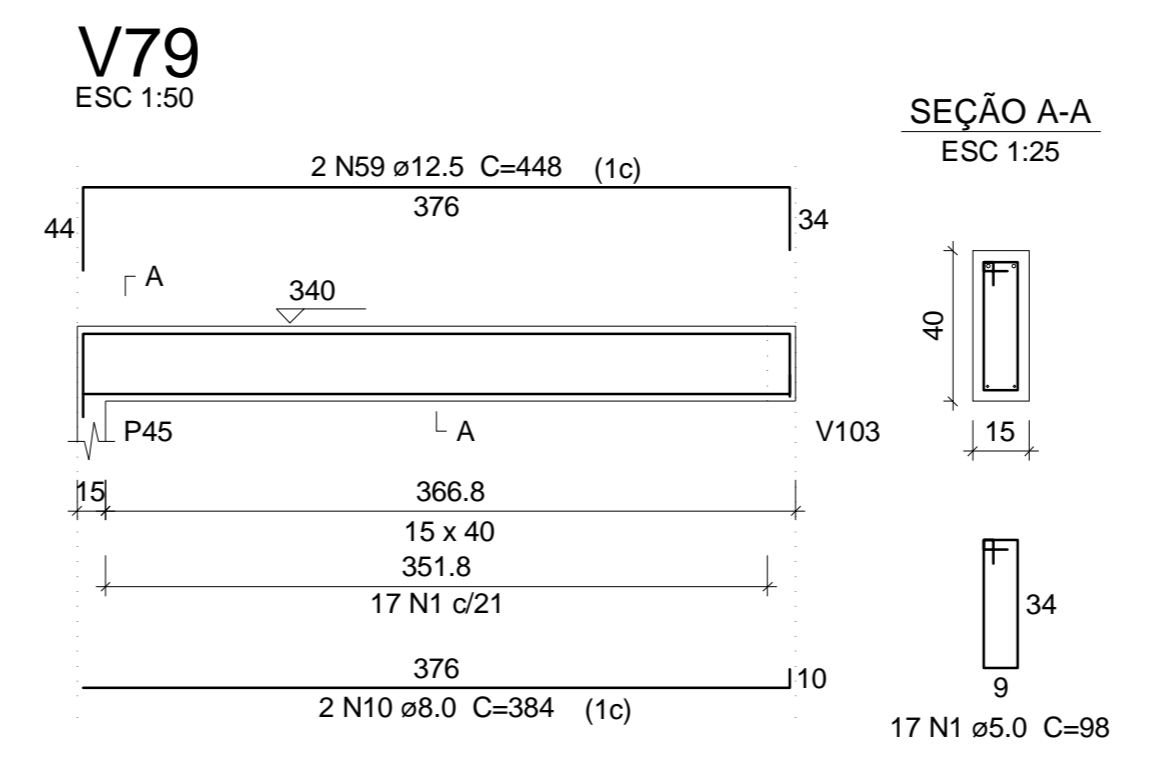
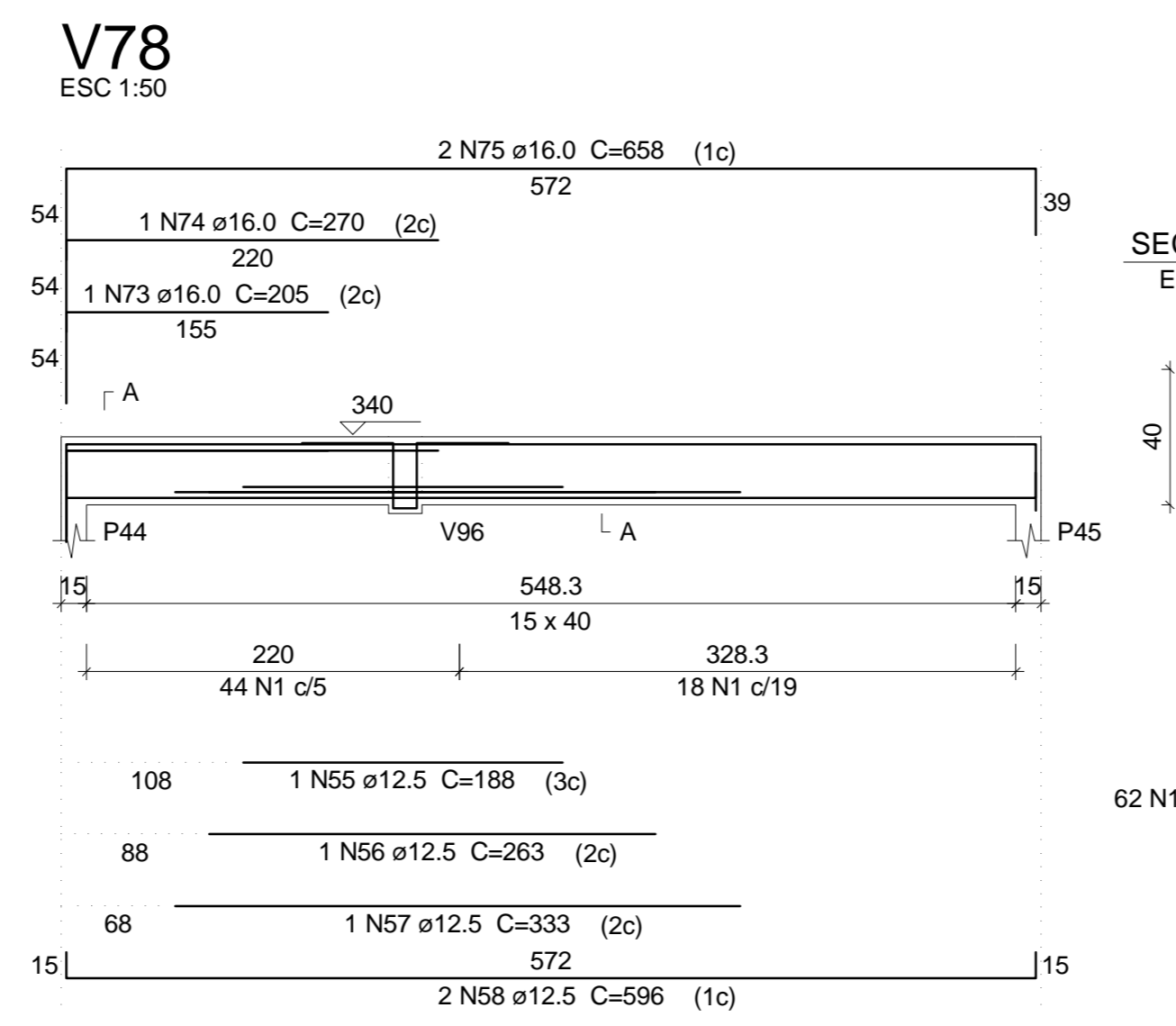
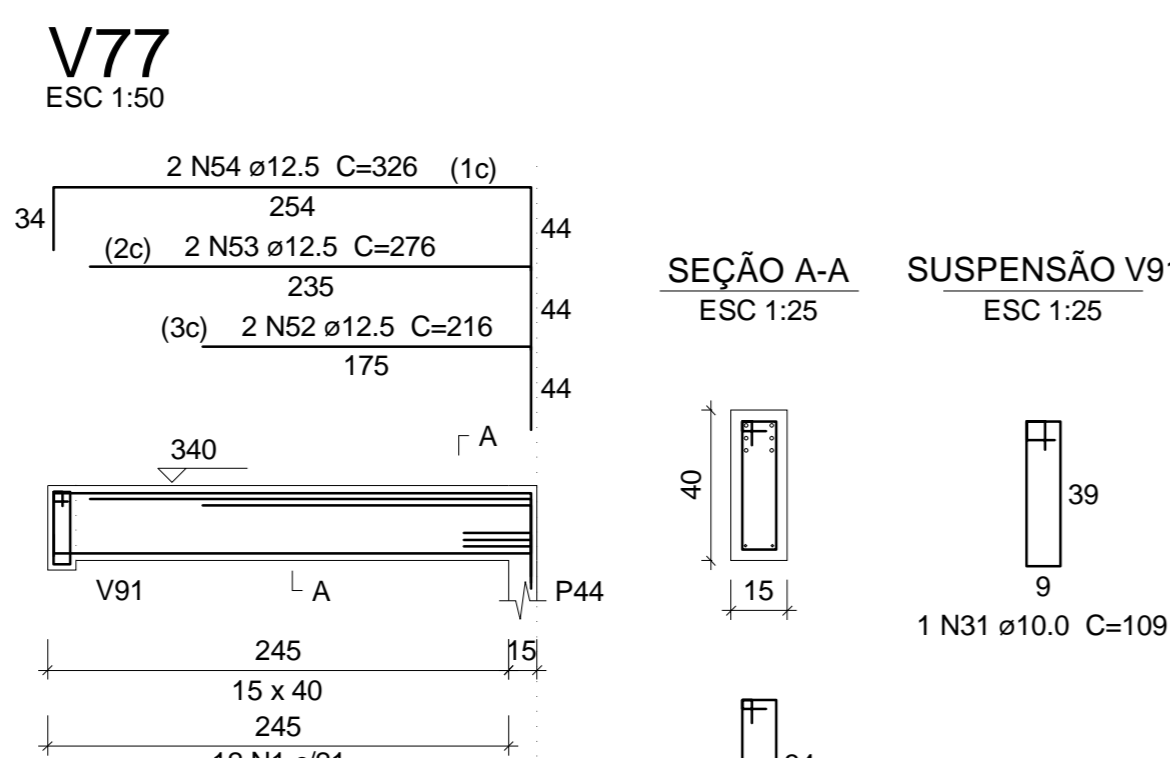
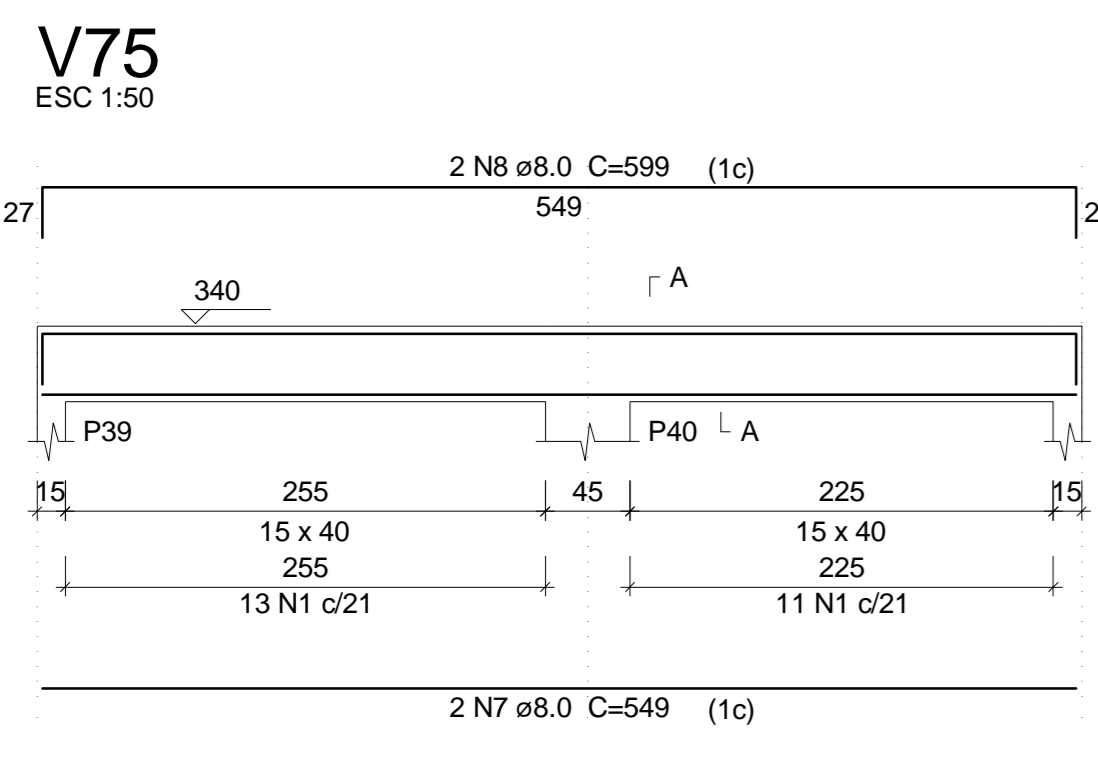
TL TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 161999/3570

CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB
OBRA: ESCOLA 4 SALAS
ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB

FOLHA: 09/17
REV: 0
ESC: Indicada
DATA: 25/09/2021

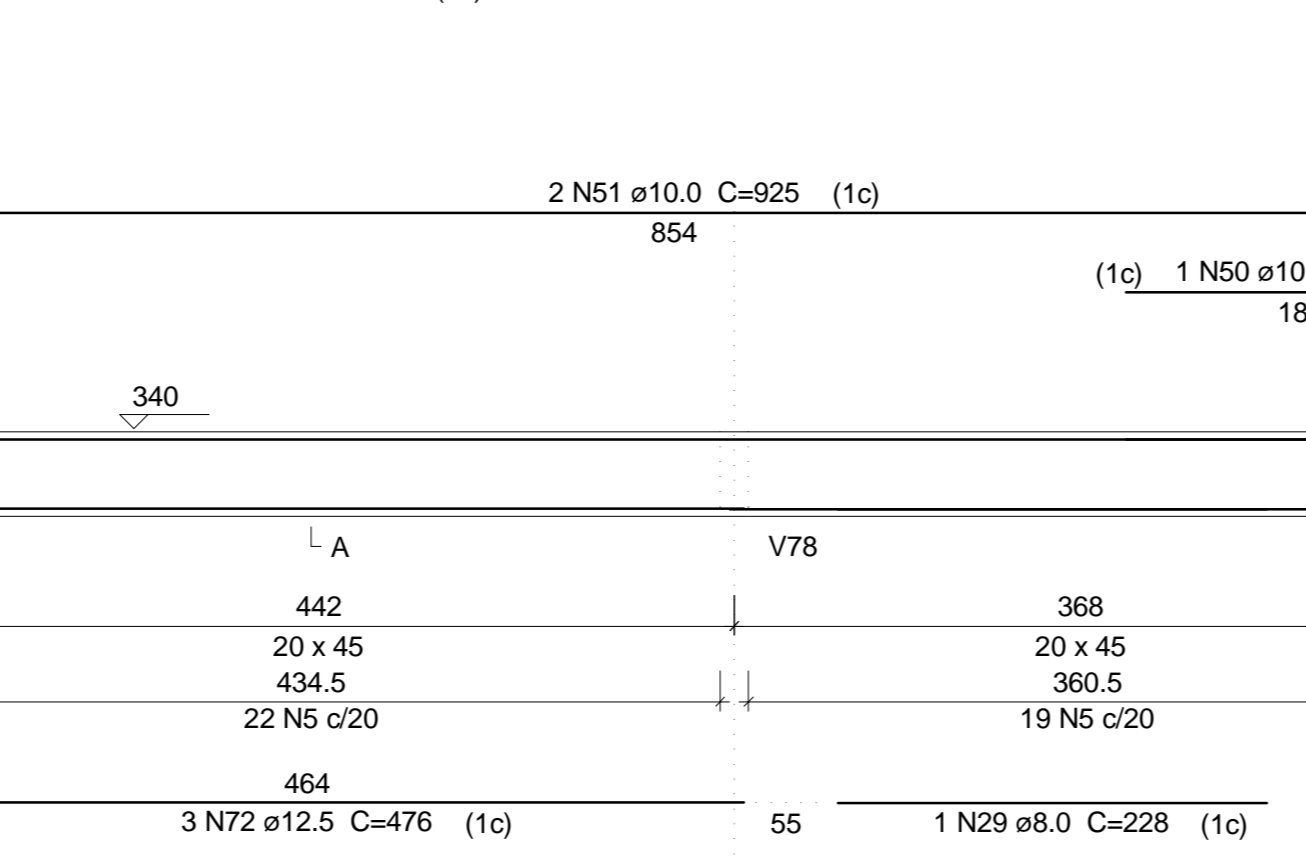
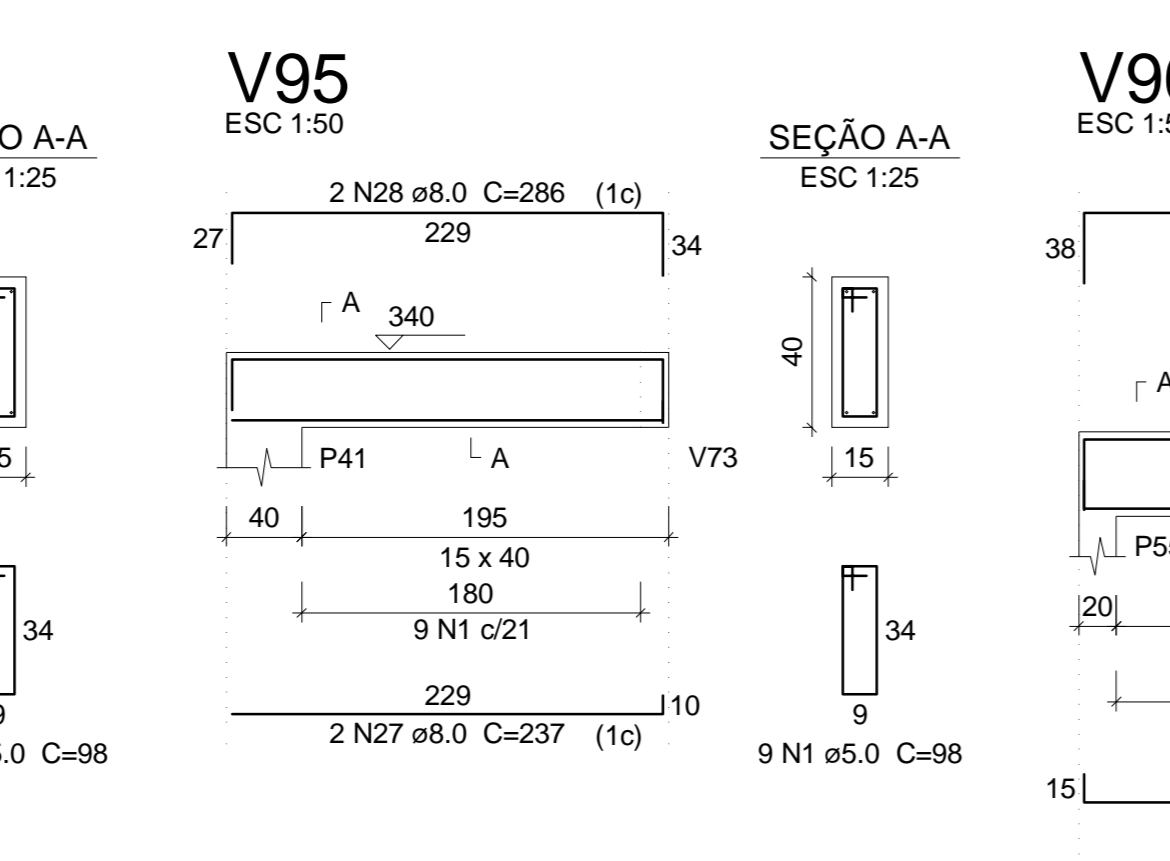
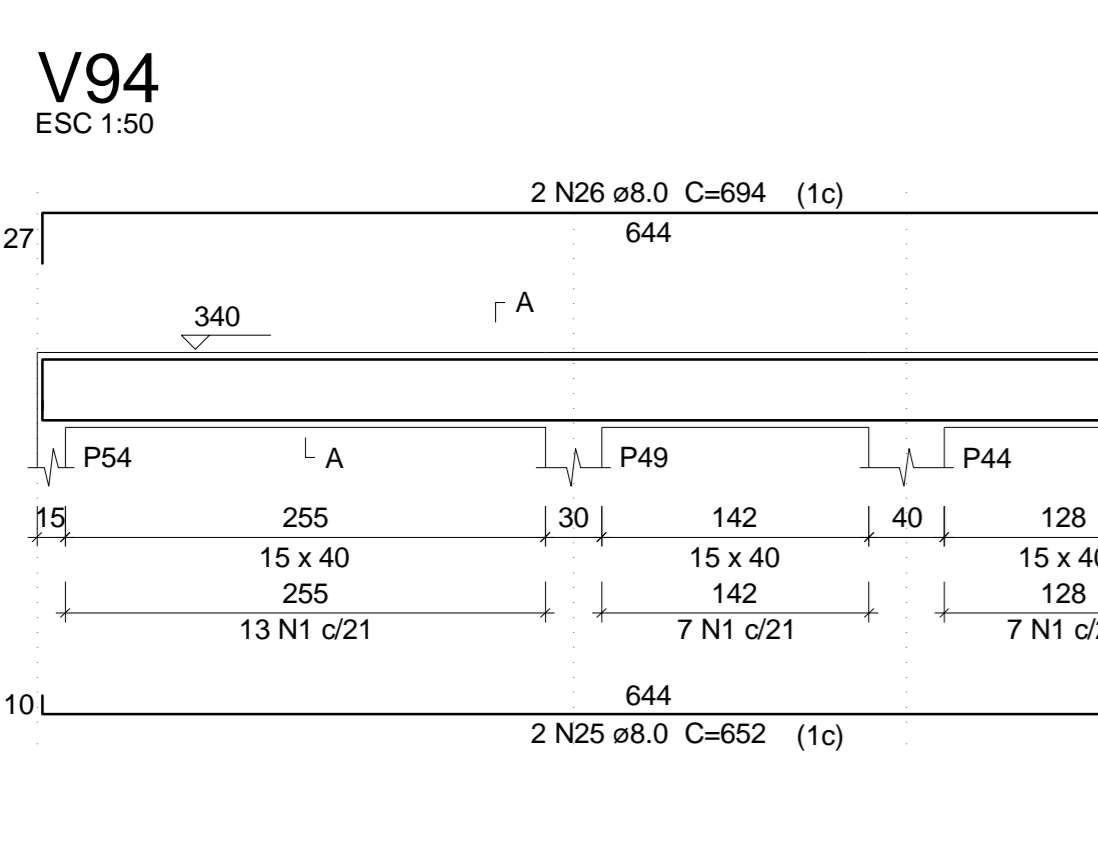
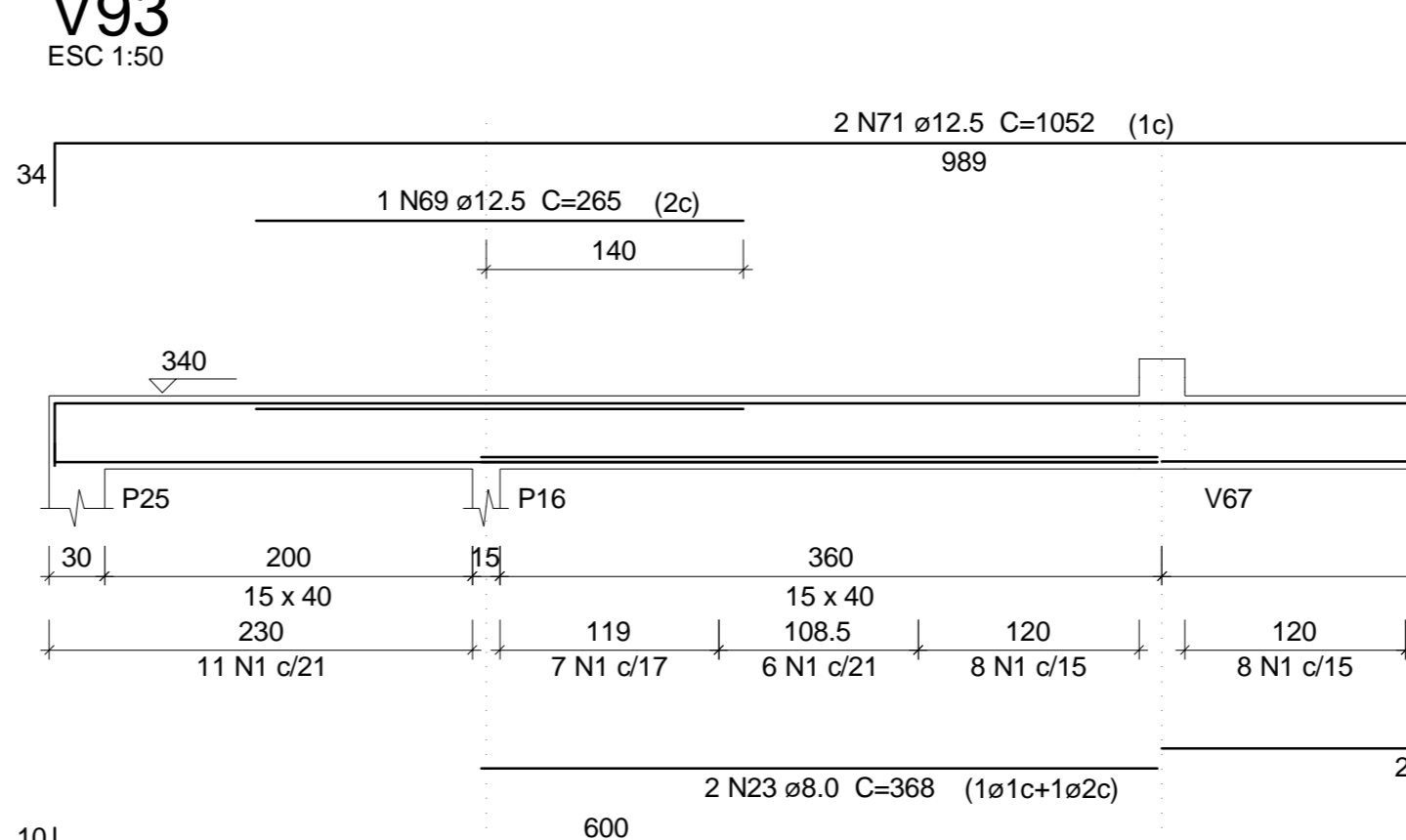
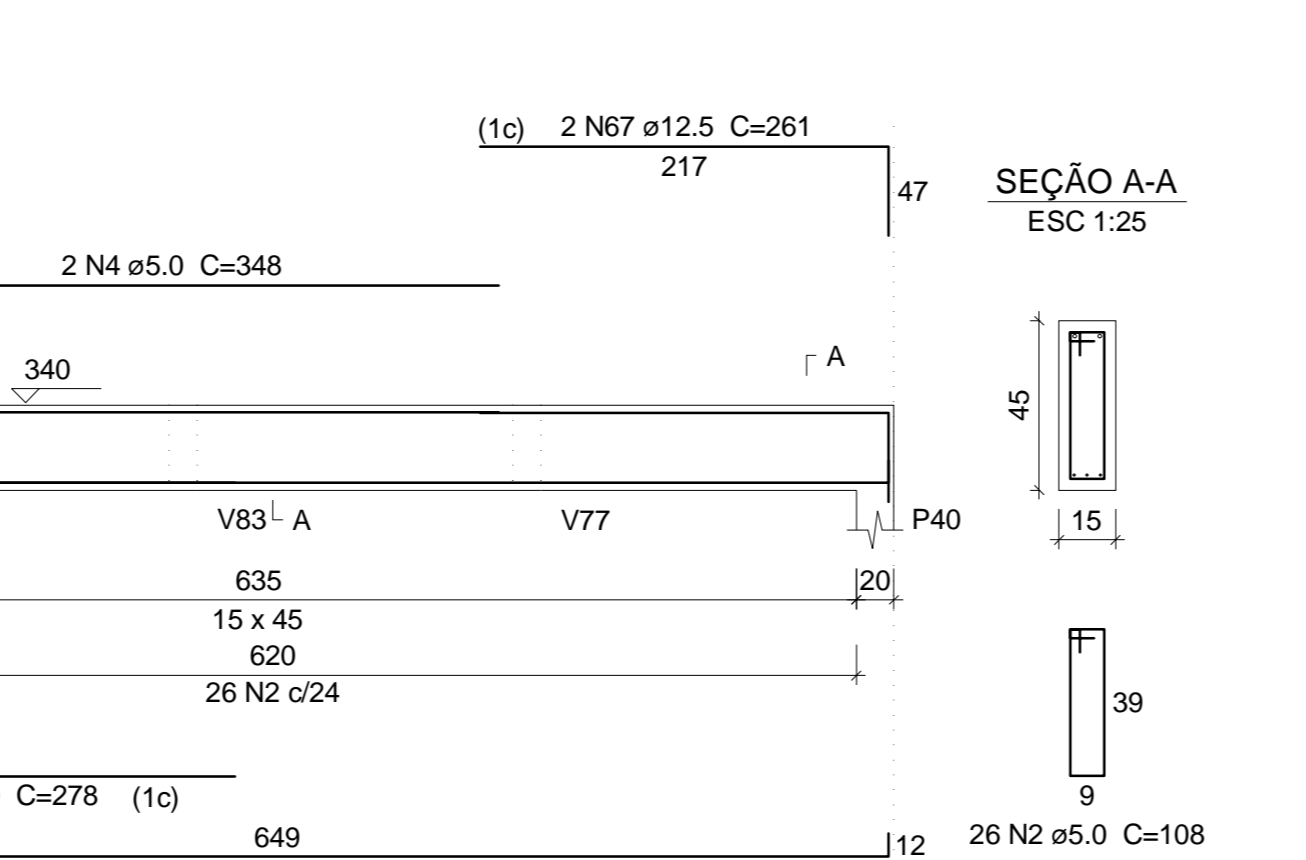
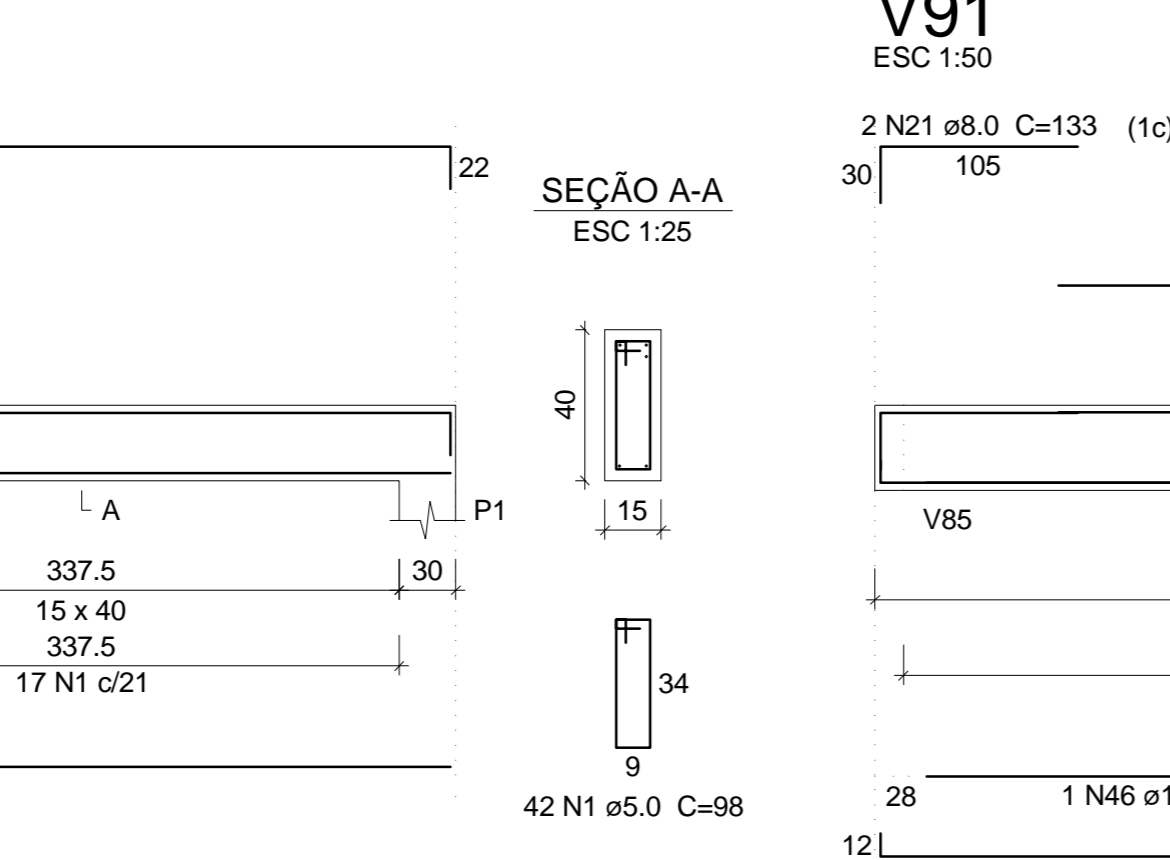
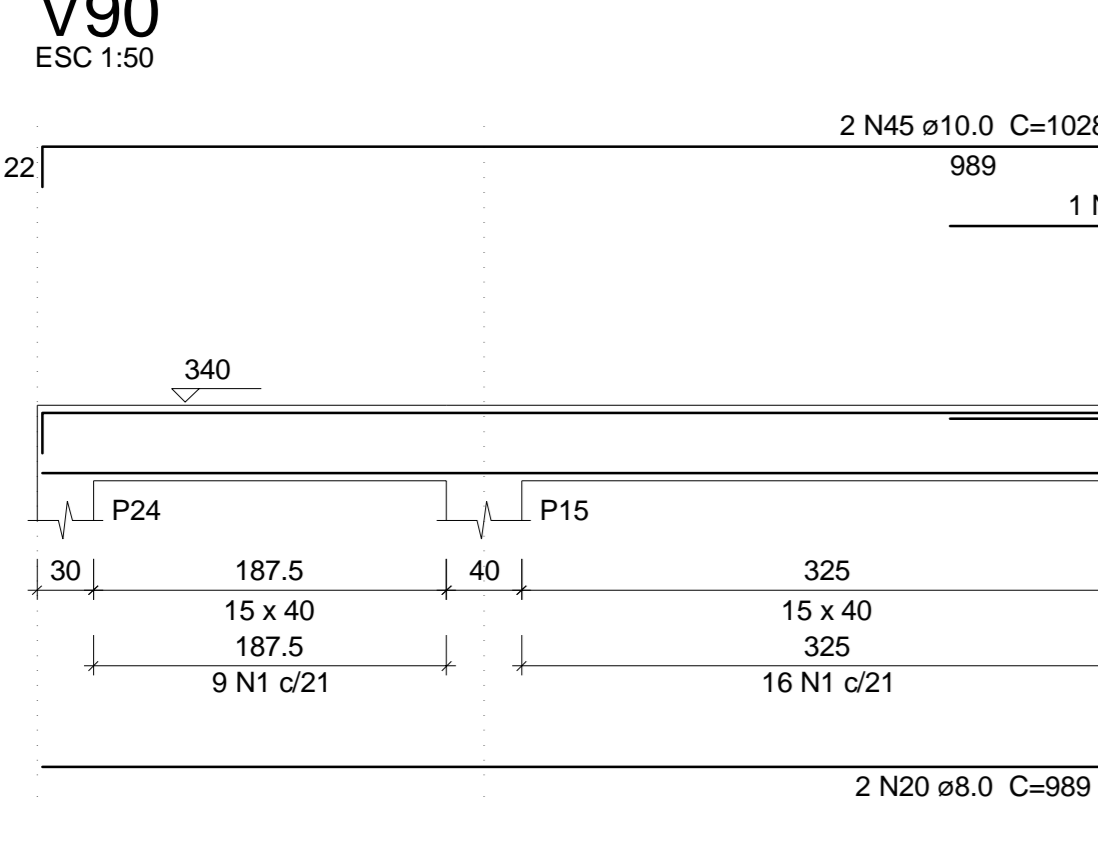
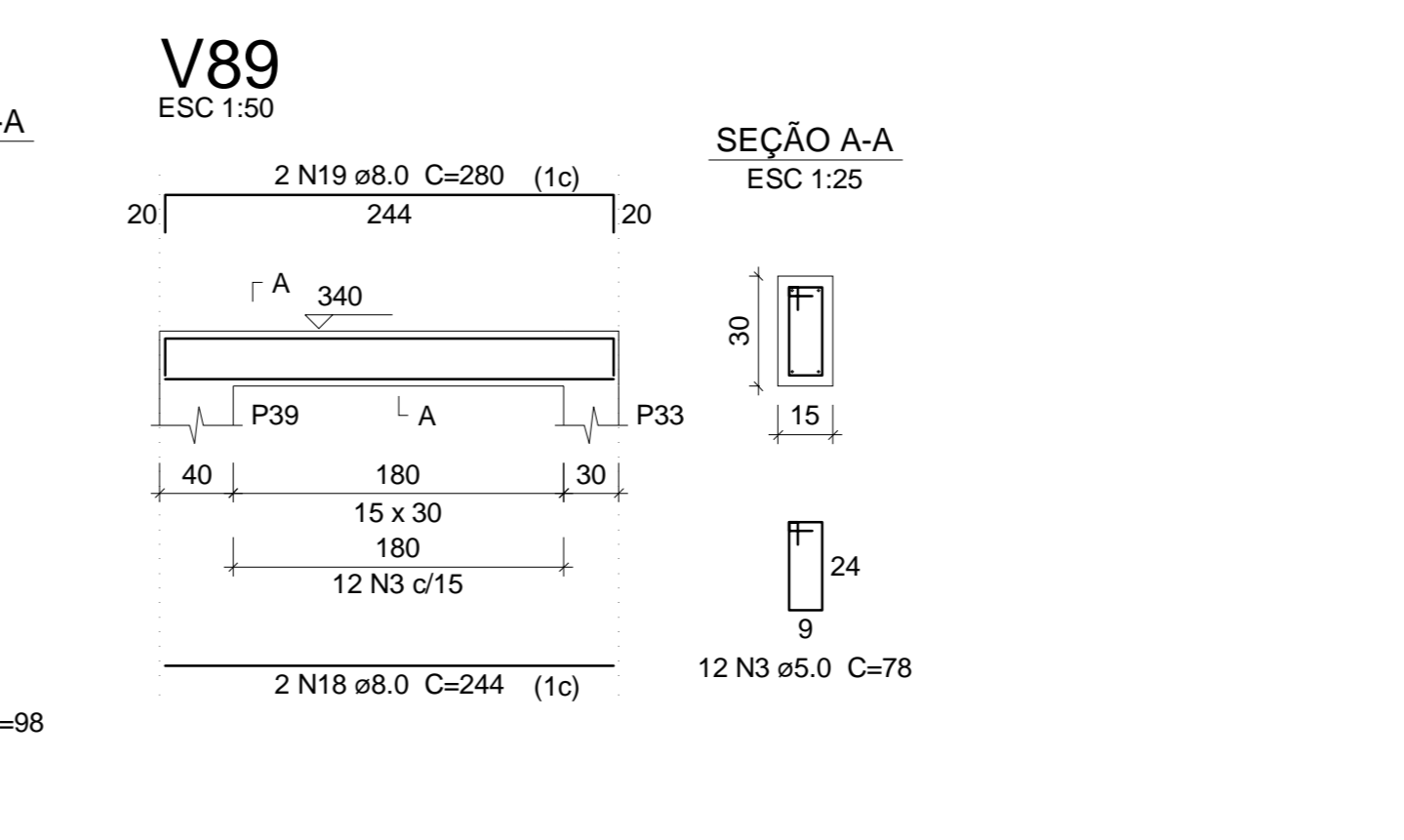
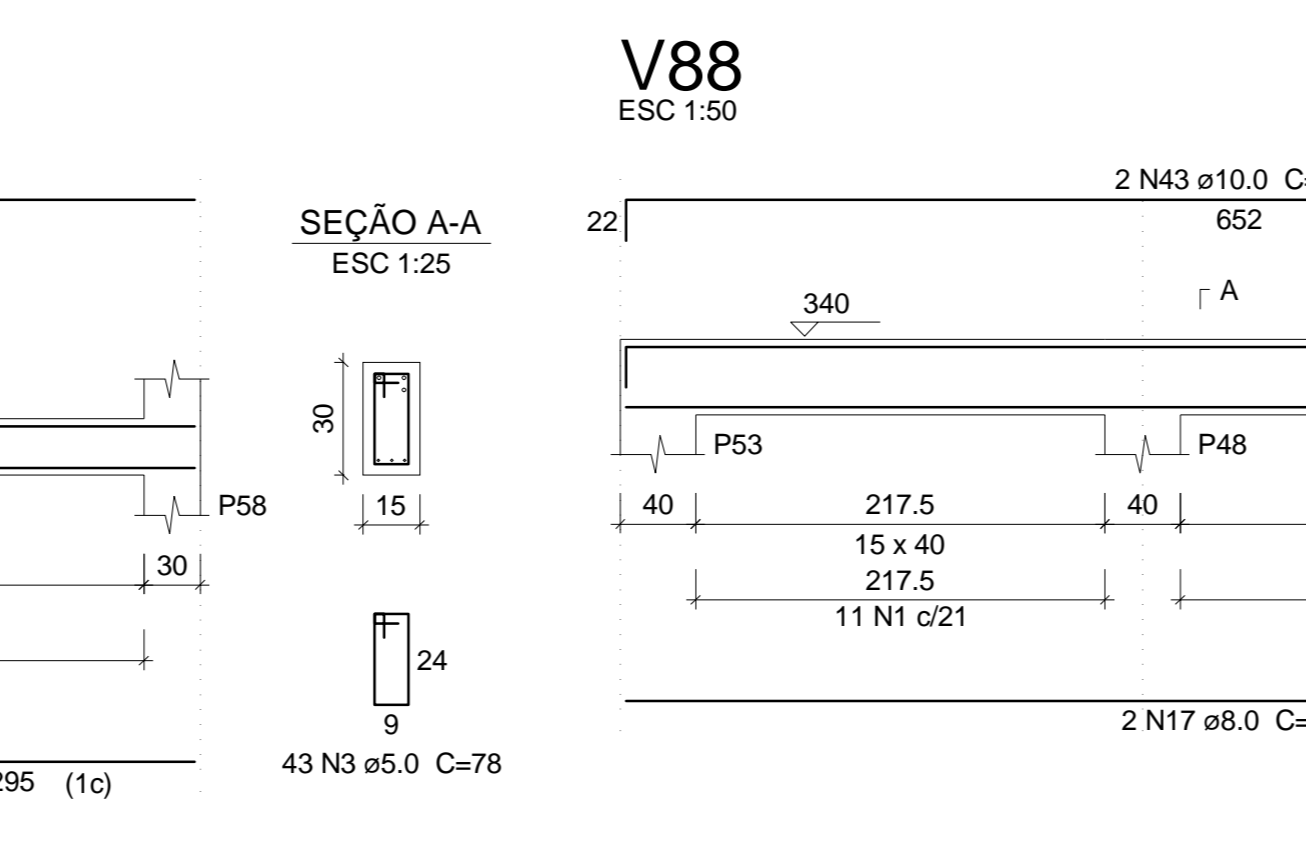
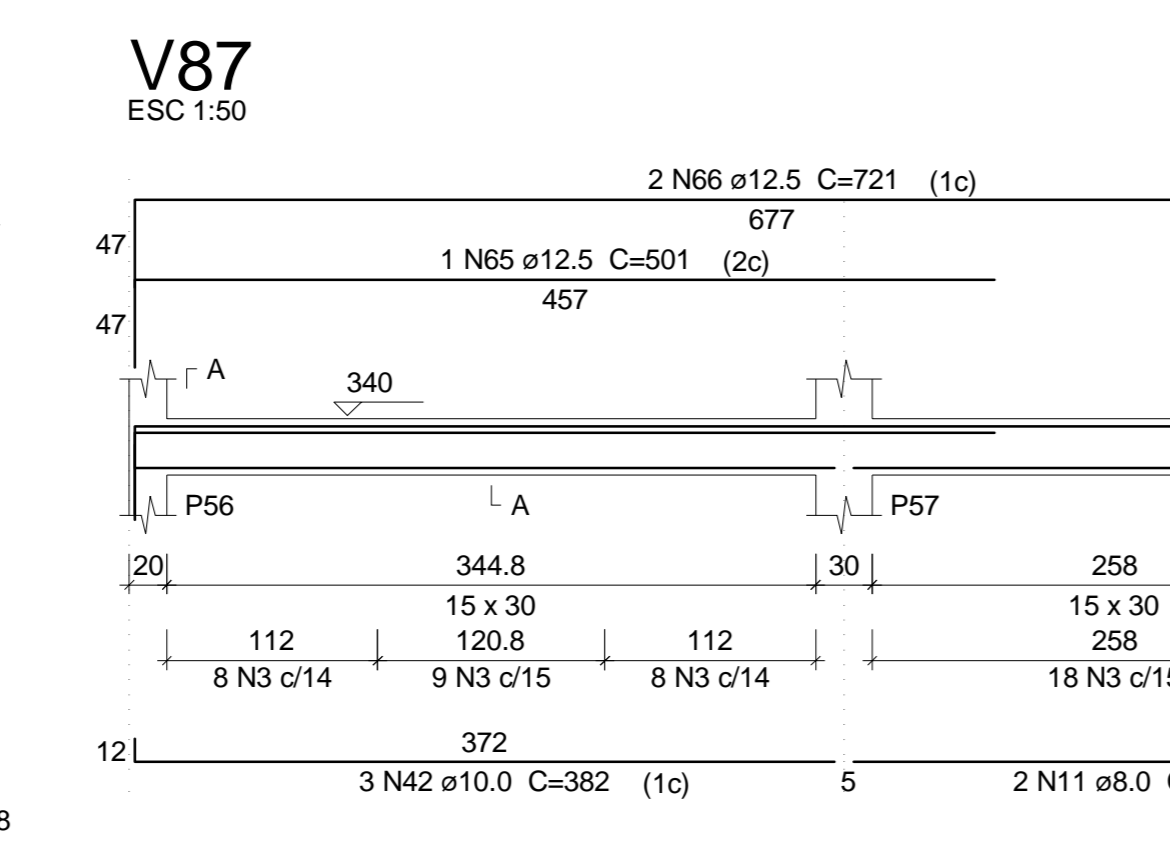
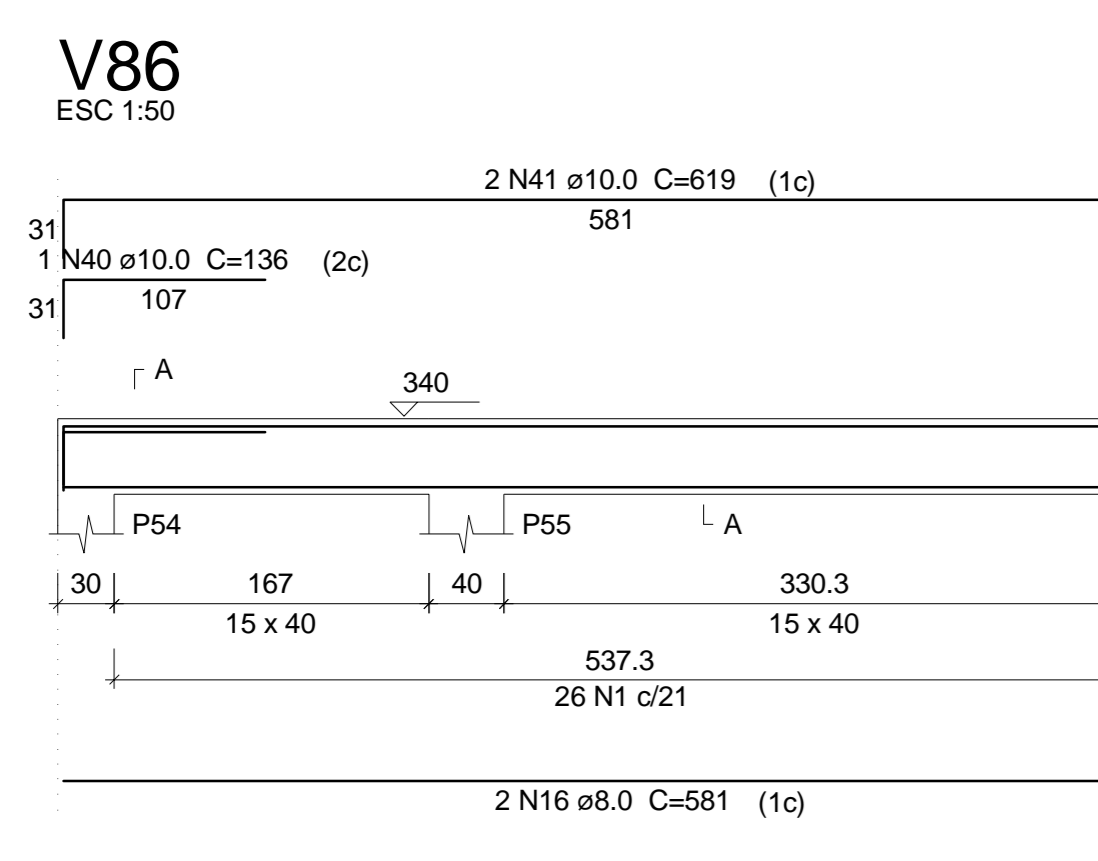
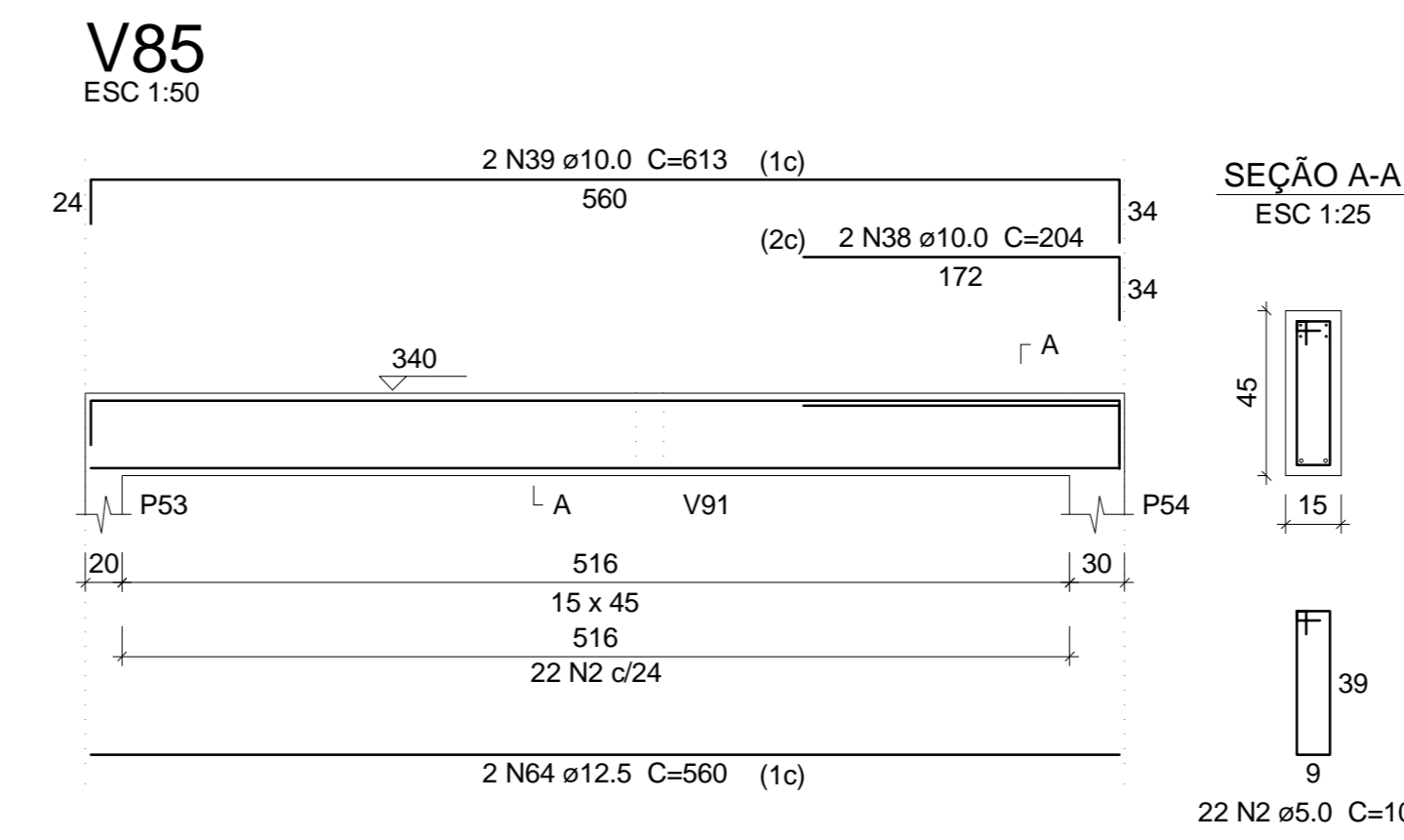
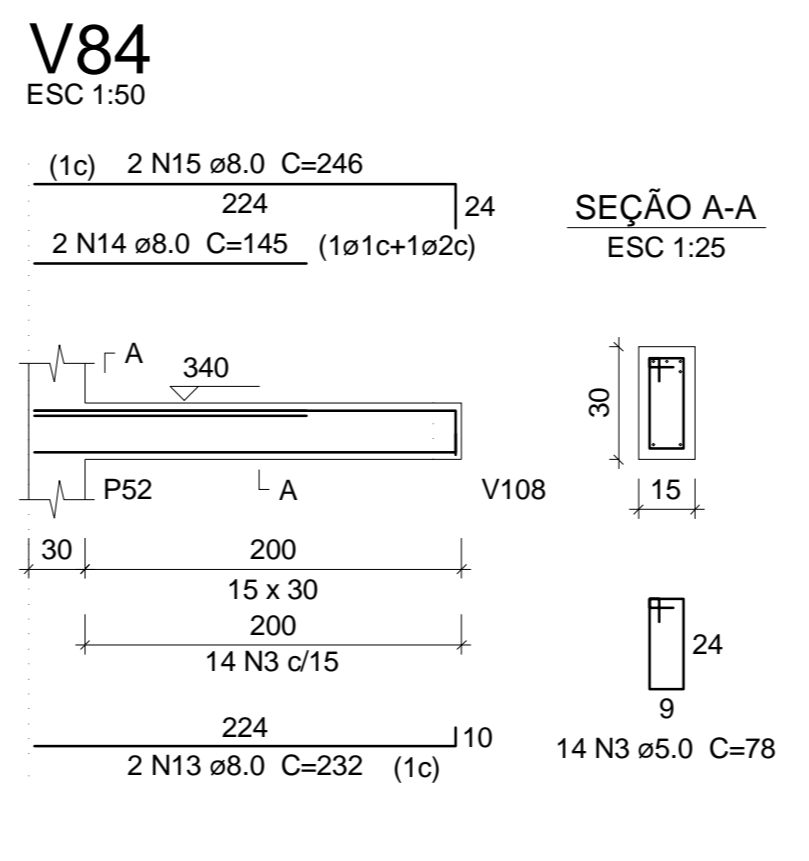
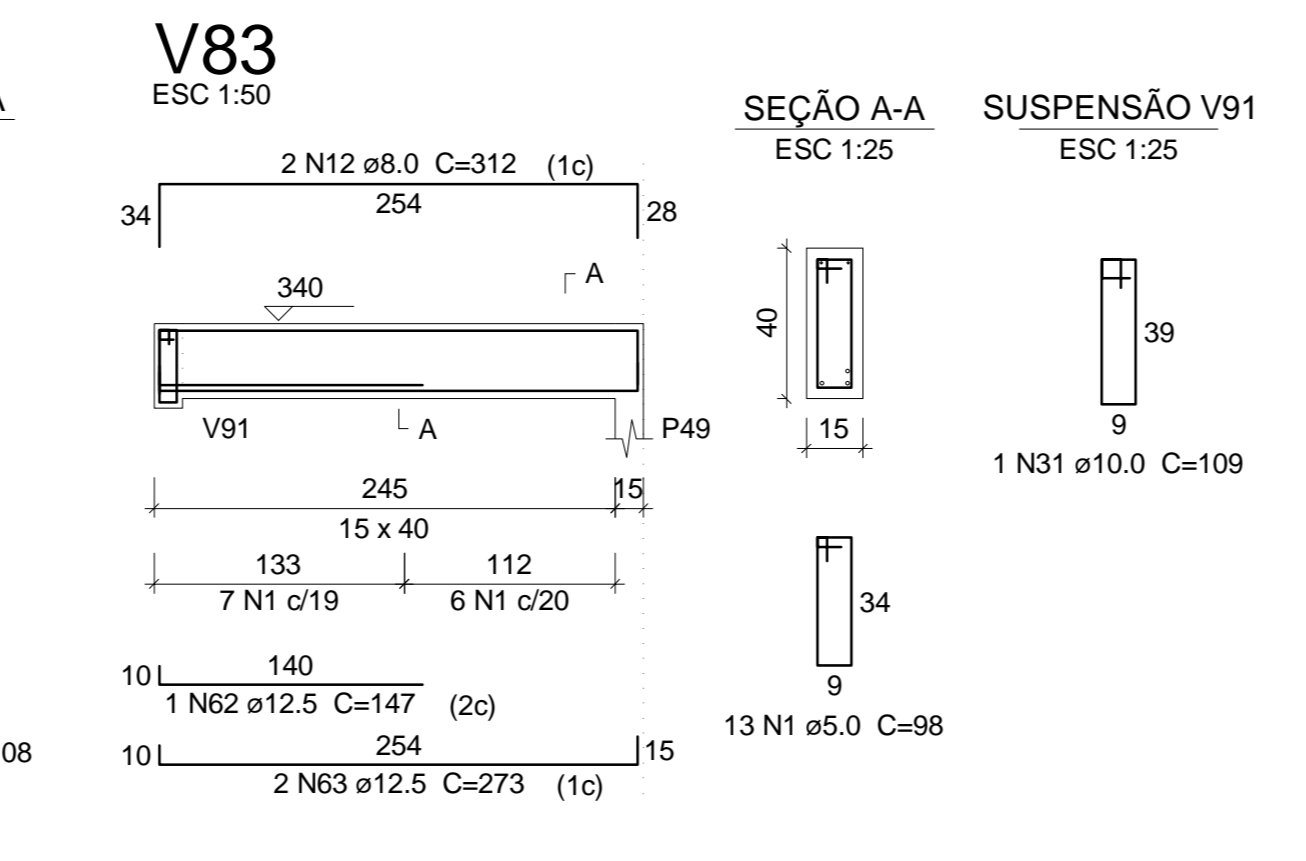
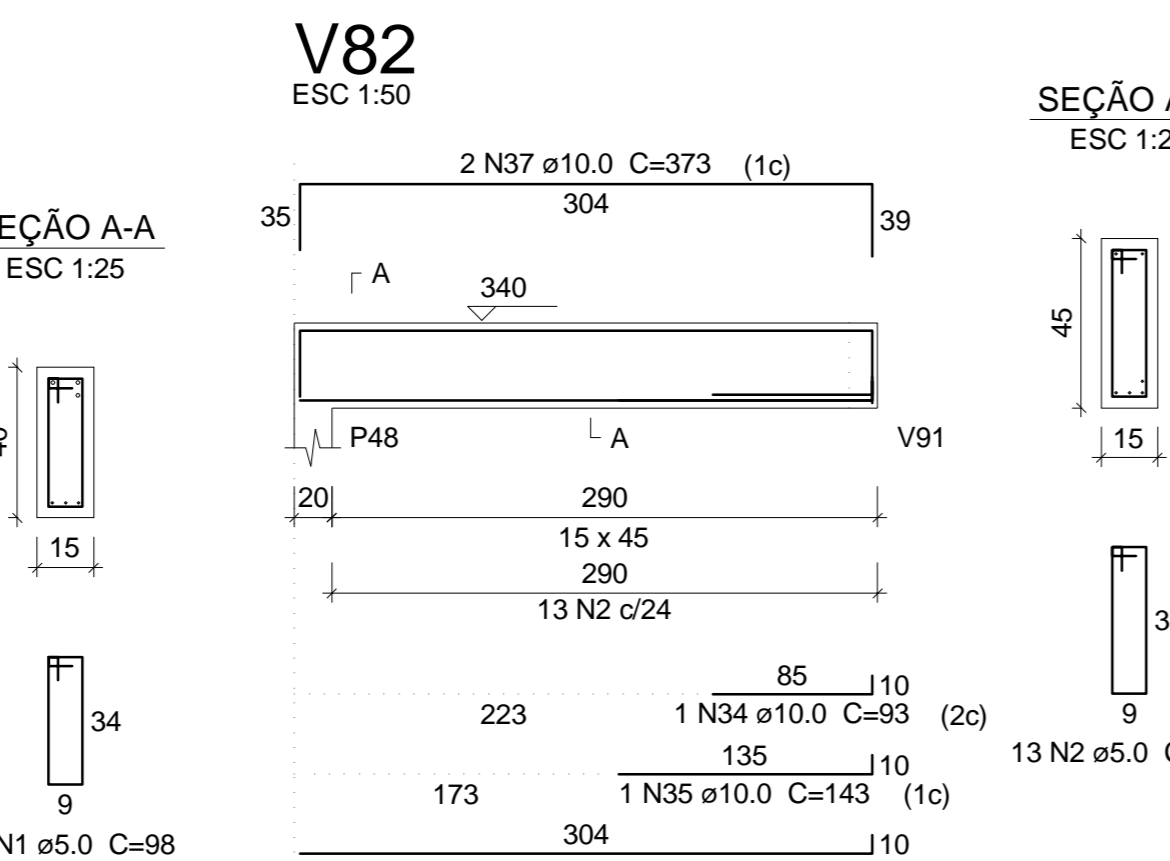
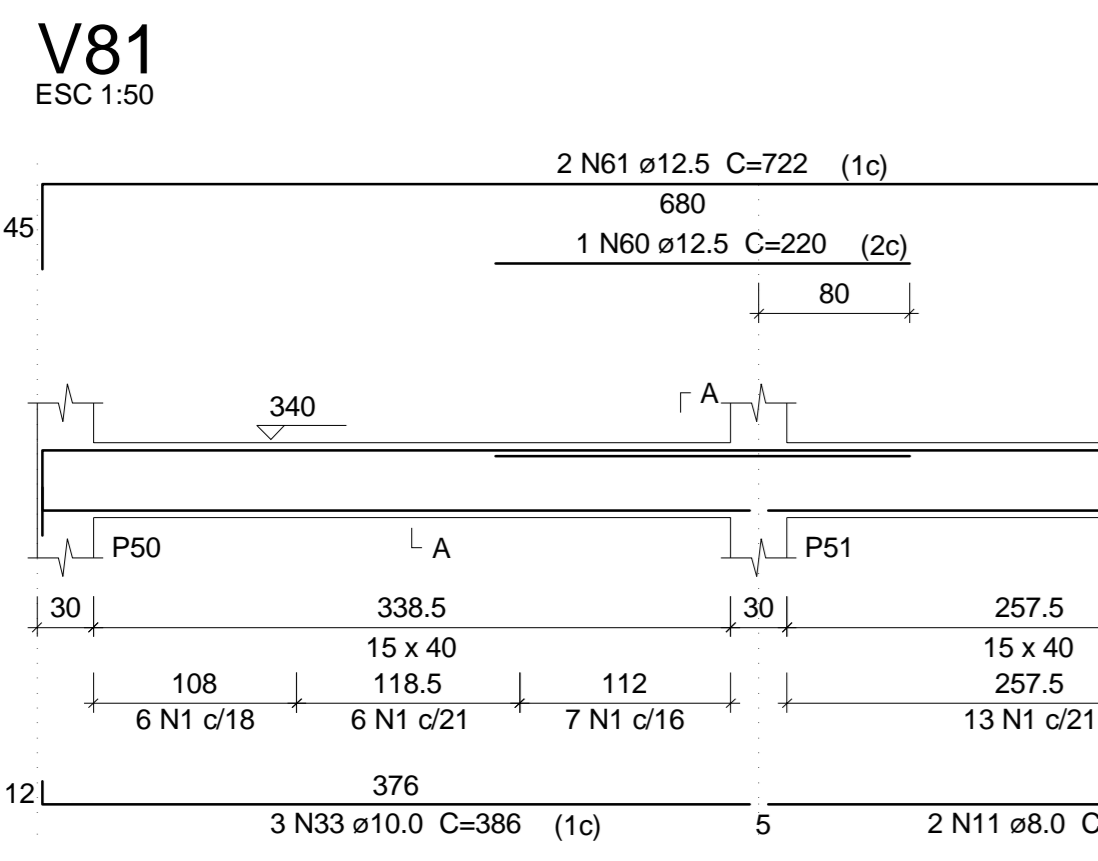
FORMA PRIMEIRO PAVIMENTO

Forma do pavimento Primeiro pavimento
escala 1:50



Relação do aço

AÇO	N	DIAM	Q	UNIT (mm)	C.TOTAL (cm)
CA60	1	5.0	353	98	34594
	2	5.0	61	108	6588
	3	5.0	69	78	5382
	4	5.0	2	348	696
	5	5.0	41	118	4838
CA50	6	6.3	3	76	228
	7	8.0	2	549	1098
	8	8.0	2	599	1198
	9	8.0	2	270	540
	10	8.0	2	384	768
	11	8.0	4	295	1180
	12	8.0	2	312	624
	13	8.0	2	232	464
	14	8.0	2	145	290
	15	8.0	2	246	492
	16	8.0	2	581	1162
	17	8.0	2	652	1304
	18	8.0	2	244	488
	19	8.0	2	280	560
	20	8.0	2	989	1978
	21	8.0	2	133	266
	22	8.0	2	212	424
	23	8.0	2	368	736
	24	8.0	2	608	1216
	25	8.0	2	133	266
	26	8.0	2	694	1388
	27	8.0	2	237	474
	28	8.0	2	296	592
	29	8.0	1	228	228
	30	8.0	3	406	1218
	31	10.0	2	109	218
	32	10.0	2	191	382
	33	10.0	3	386	1158
	34	10.0	1	93	93
	35	10.0	1	143	143
	36	10.0	2	312	624
	37	10.0	2	373	746
	38	10.0	2	204	408
	39	10.0	2	613	1226
	40	10.0	1	136	136
	41	10.0	2	619	1238
	42	10.0	3	382	1146
	43	10.0	2	691	1382
	44	10.0	2	260	520
	45	10.0	2	1028	2056
	46	10.0	1	278	278
	47	10.0	2	668	1336
	48	10.0	1	136	136
	49	10.0	2	266	532
	50	10.0	1	223	223
	51	10.0	2	925	1850
	52	12.5	2	216	432
	53	12.5	2	276	552
	54	12.5	2	326	652
	55	12.5	1	188	188
	56	12.5	1	263	263
	57	12.5	1	333	333
	58	12.5	2	596	1192
	59	12.5	2	448	896
	60	12.5	1	220	220
	61	12.5	2	722	1444
	62	12.5	1	147	147
	63	12.5	2	273	546
	64	12.5	2	560	1120
	65	12.5	1	501	501
	66	12.5	2	721	1442
	67	12.5	2	261	522
	68	12.5	2	392	784
	69	12.5	1	265	265
	70	12.5	1	159	159
	71	12.5	2	1052	2104
	72	12.5	3	476	1428
	73	16.0	1	205	205
	74	16.0	1	270	270
	75	16.0	2	658	1316



Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	2.3	0.6
	8.0	199.8	86.7
	10.0	155.8	105.6
	12.5	152.1	161.1
	16.0	18	31.1
CA60	5.0	521	88.3
CA50		385.1	
CA60		88.3	

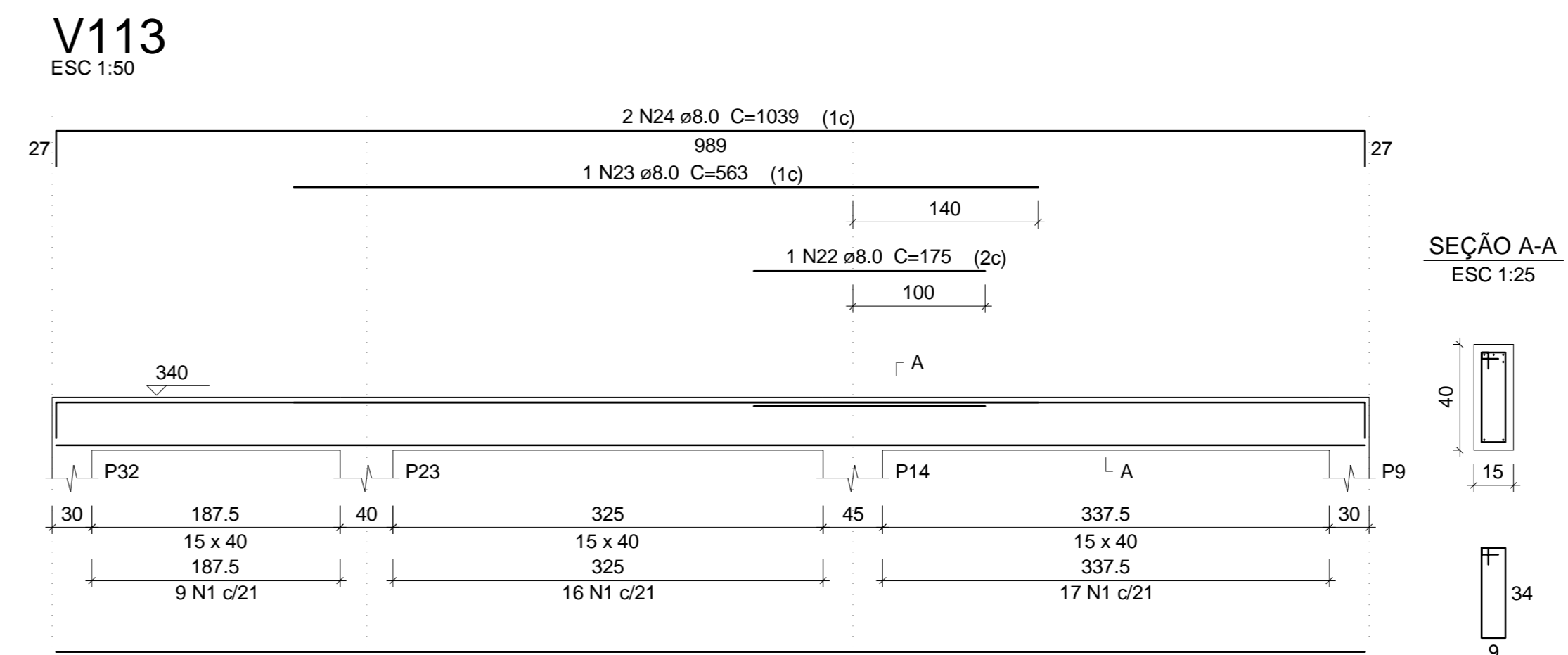
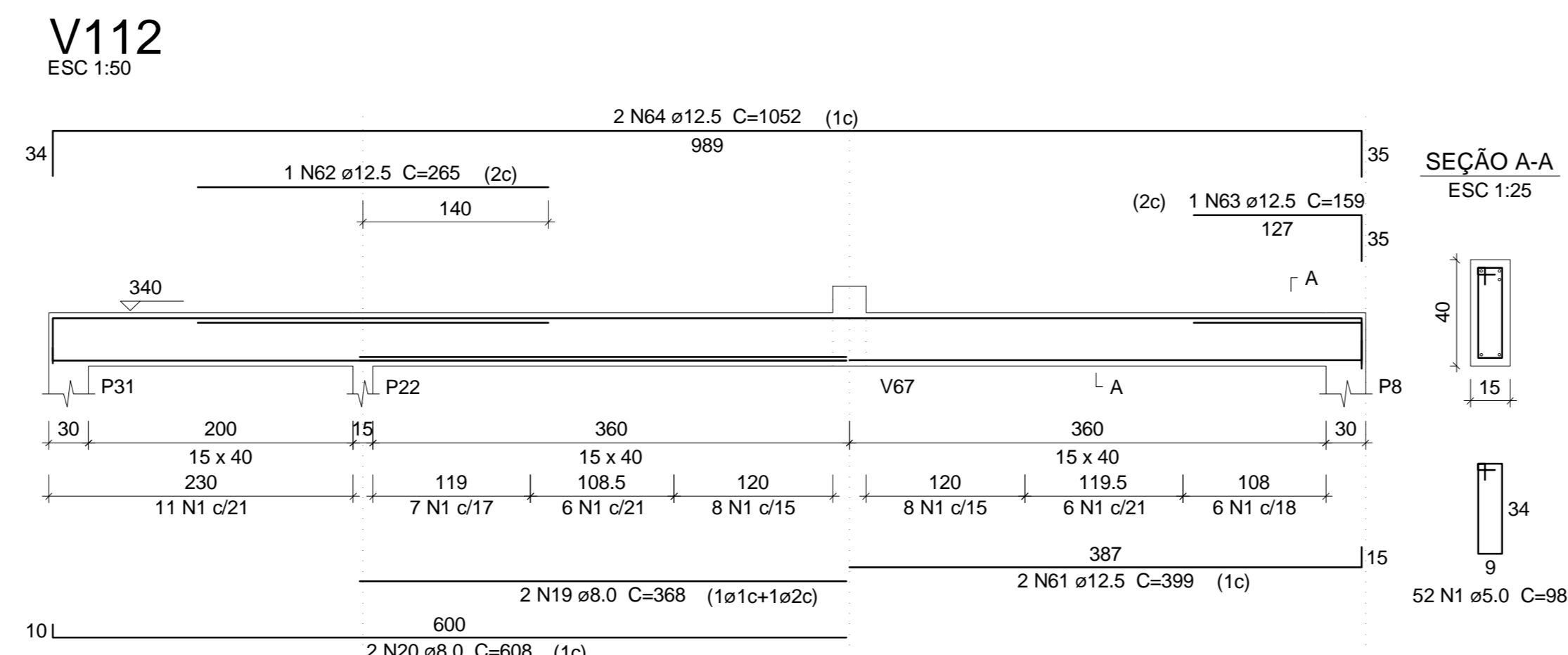
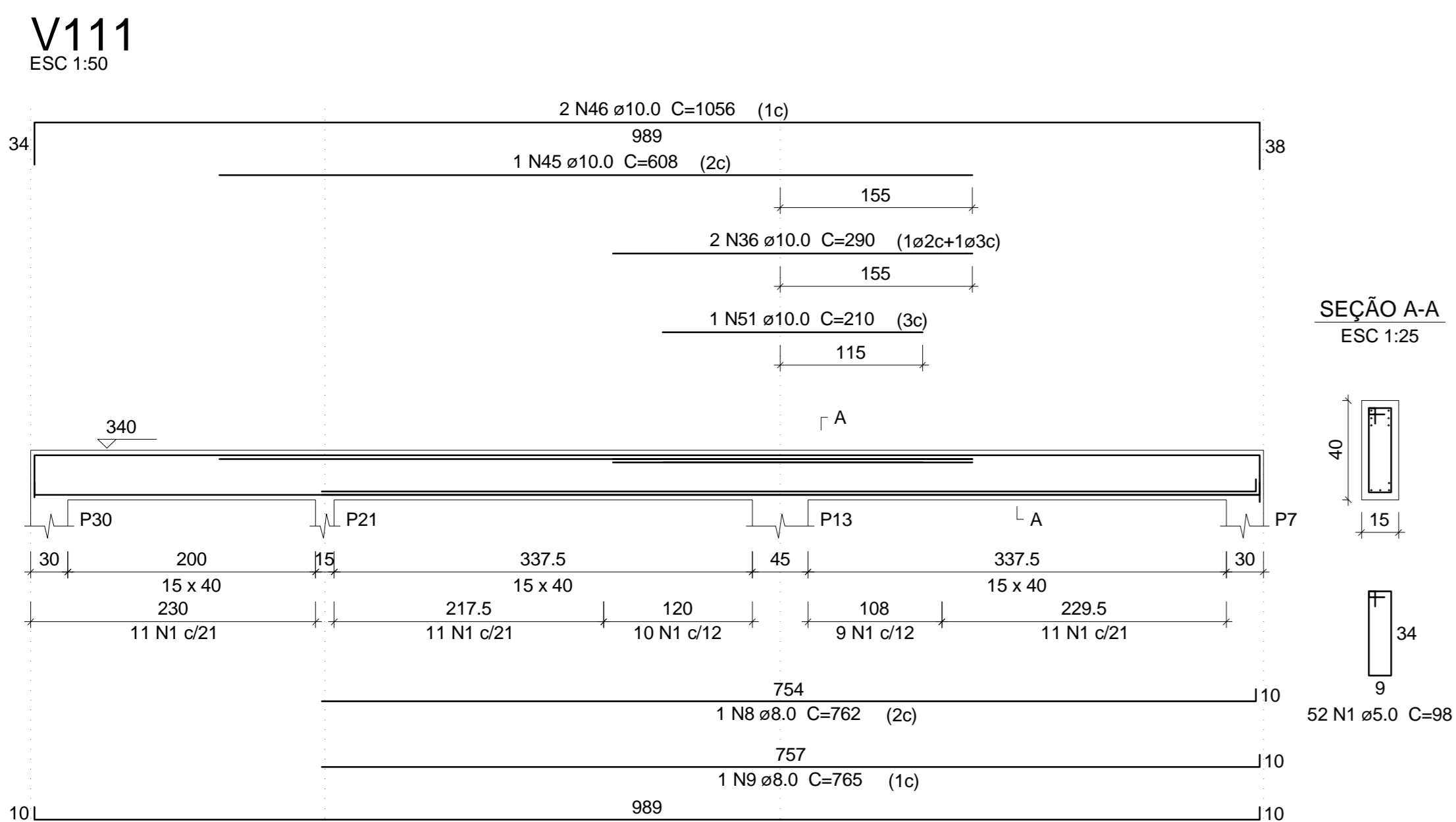
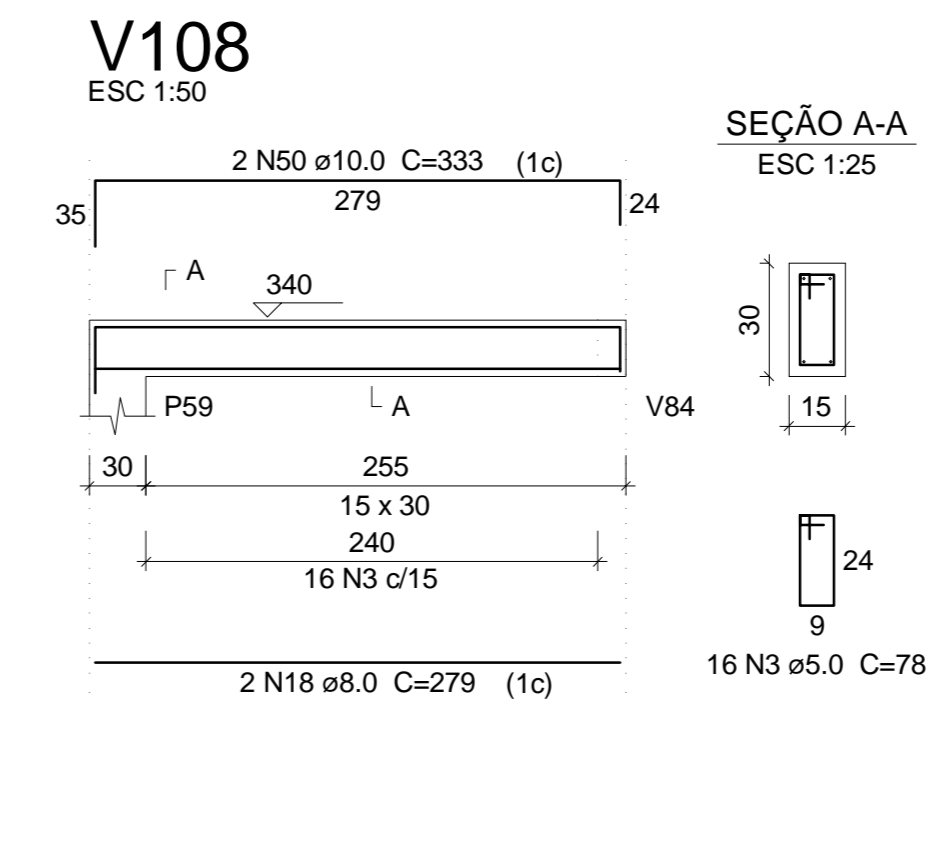
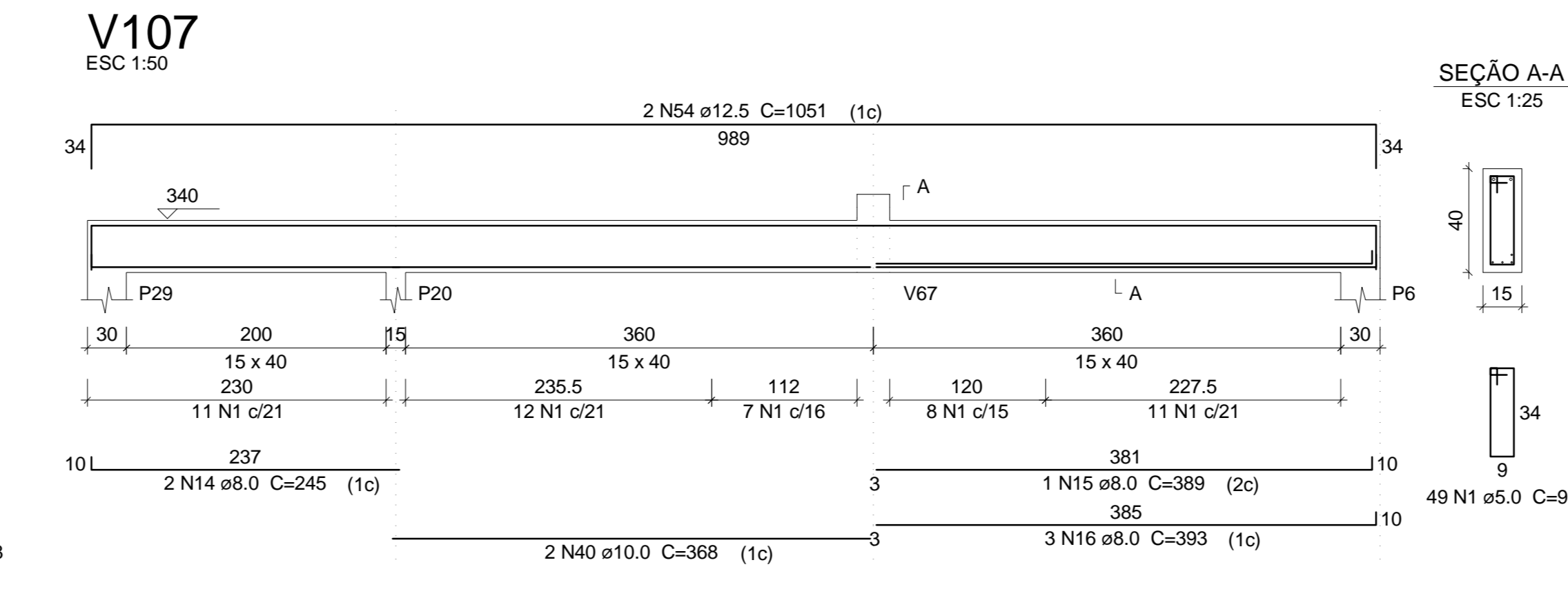
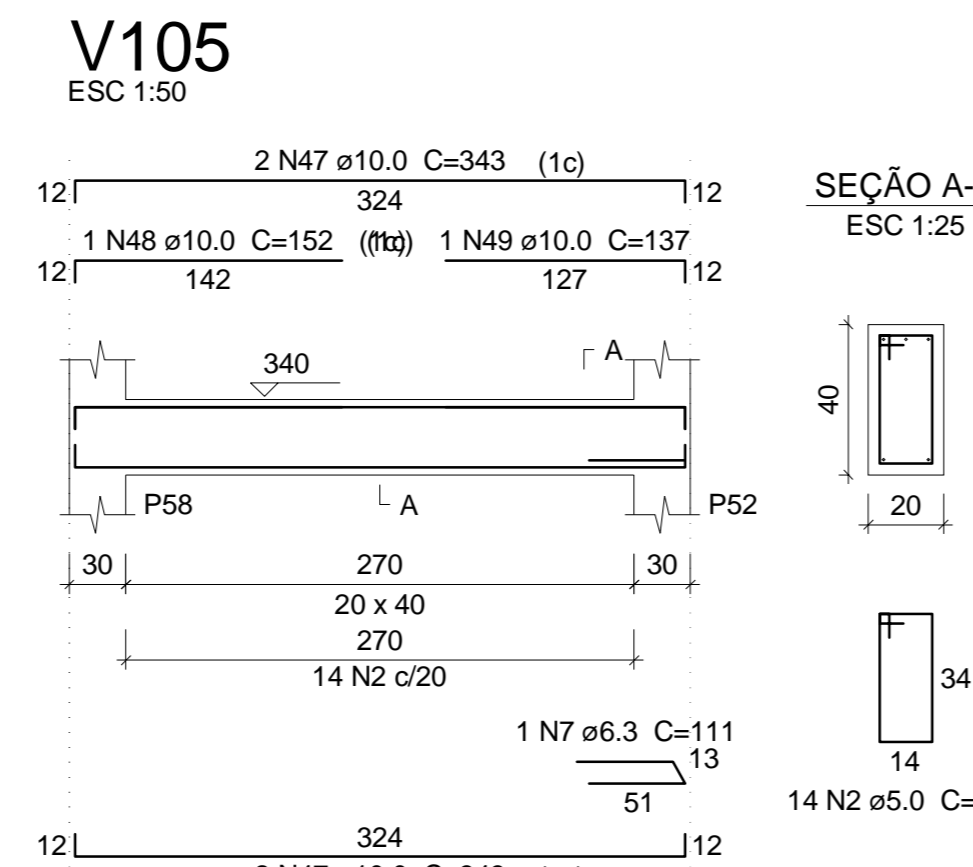
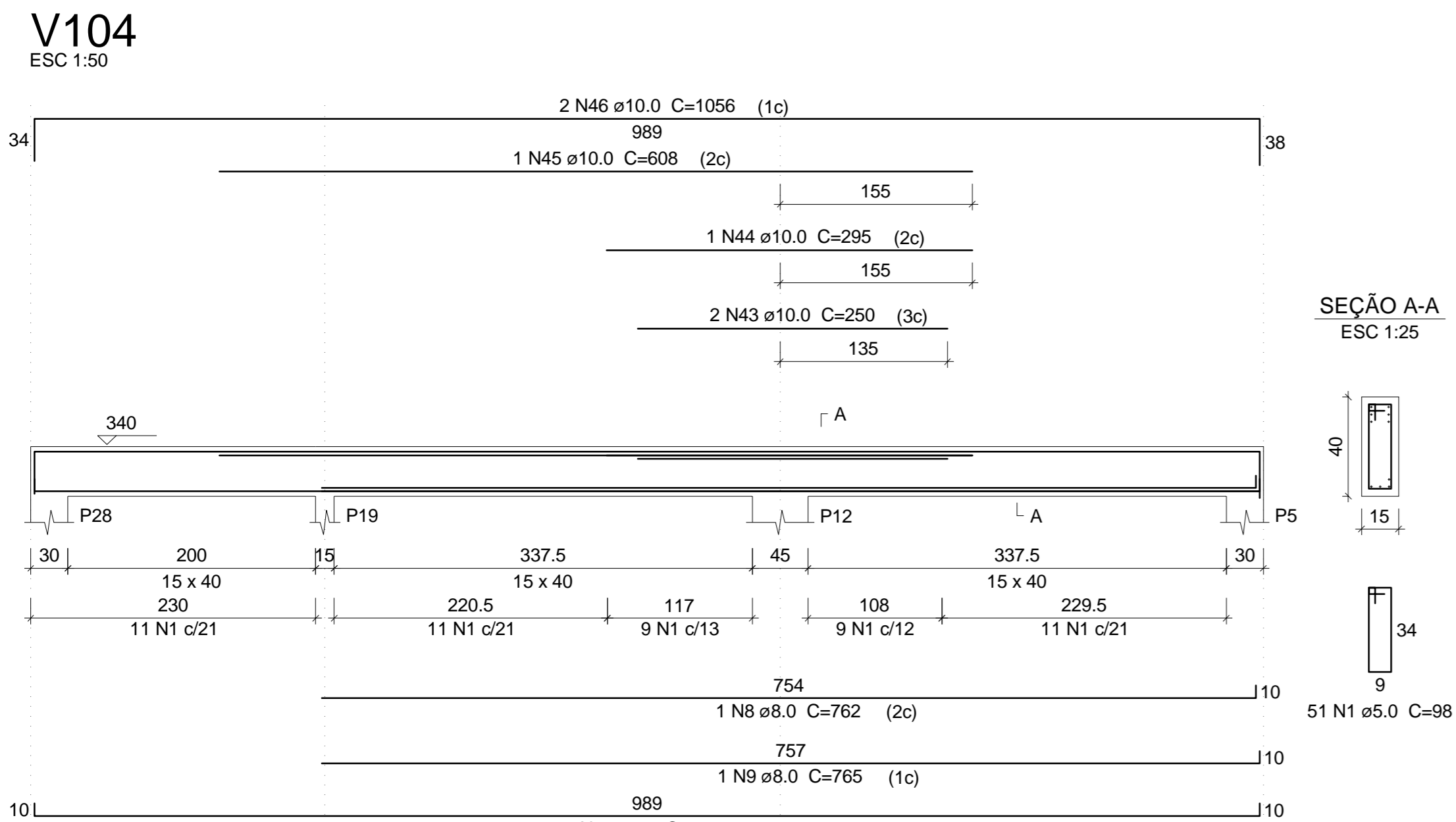
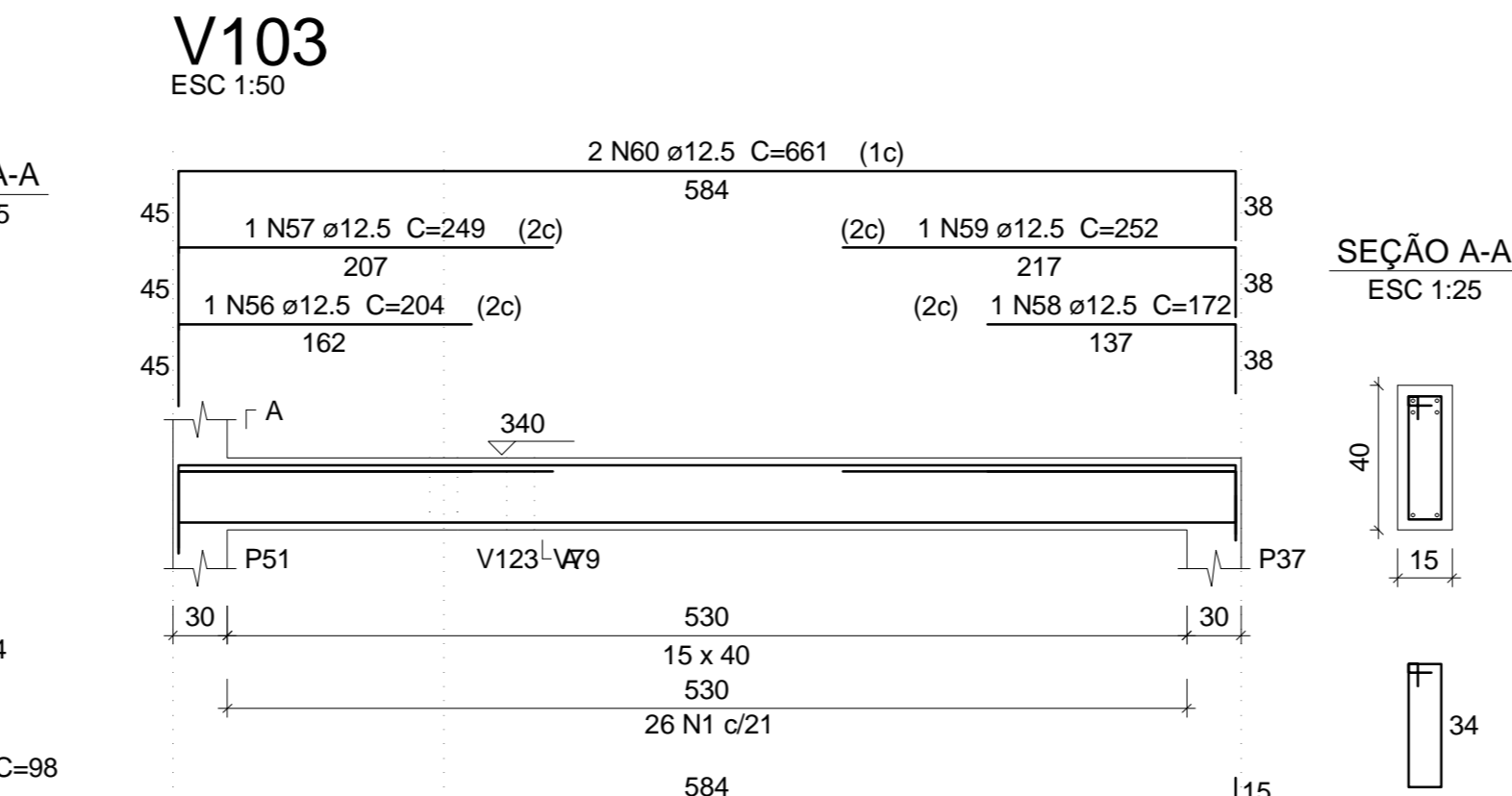
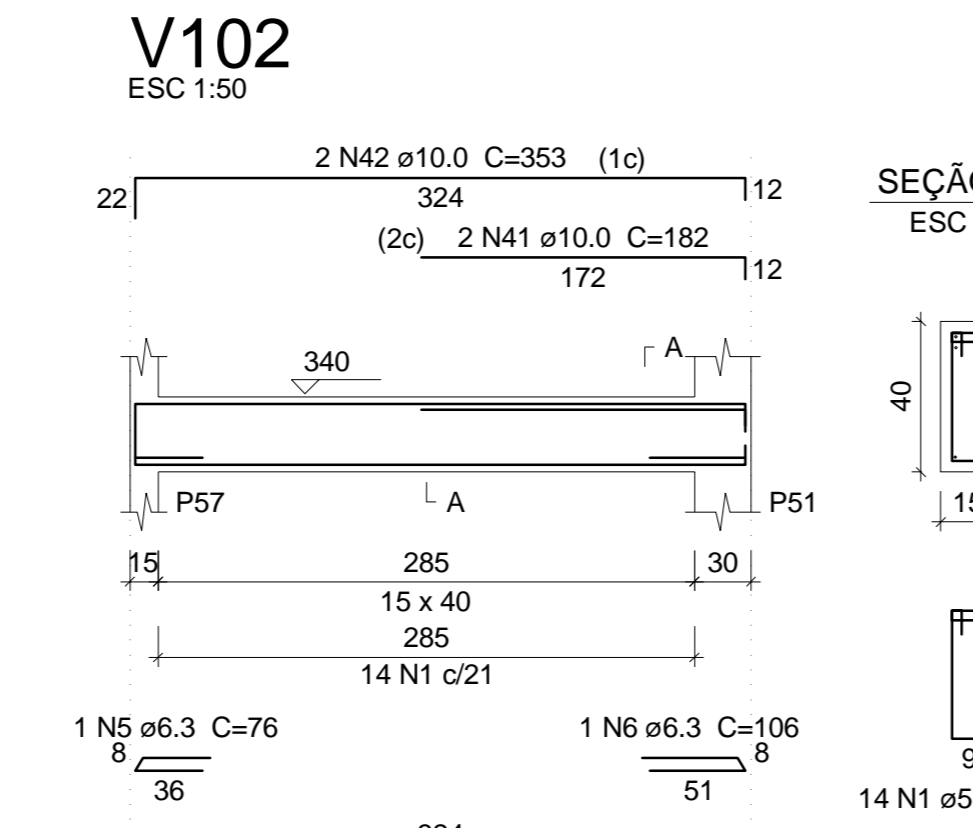
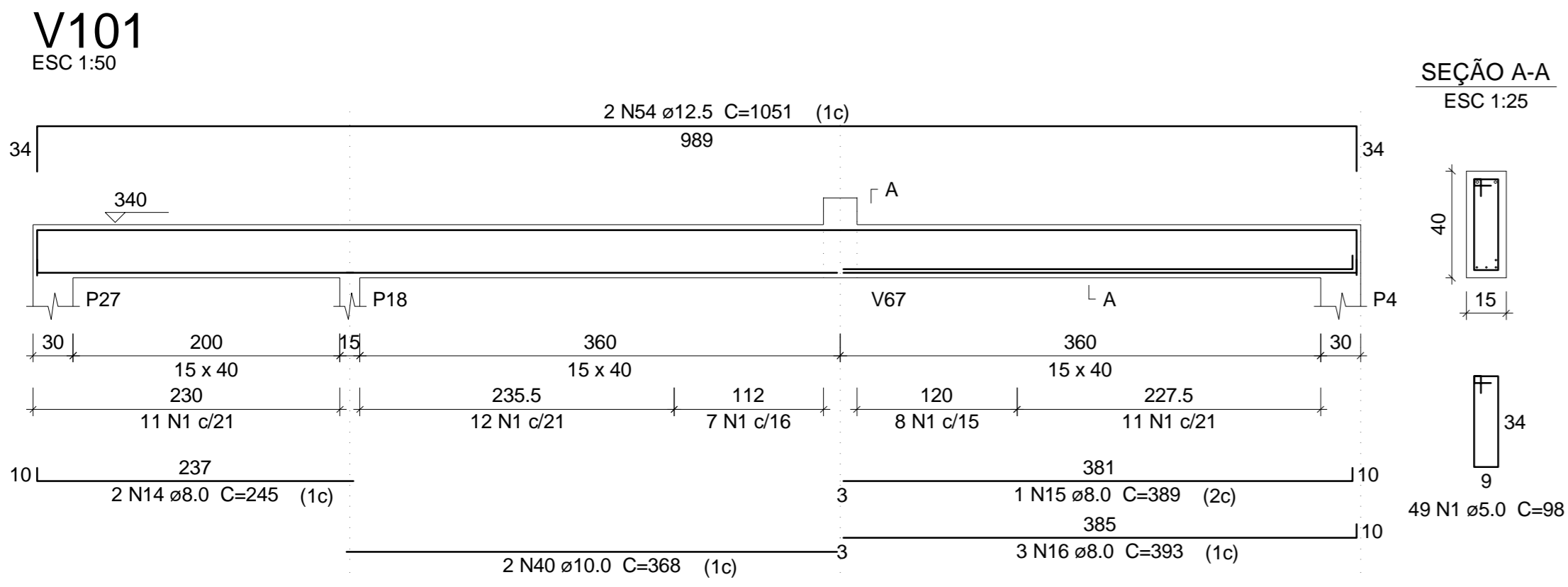
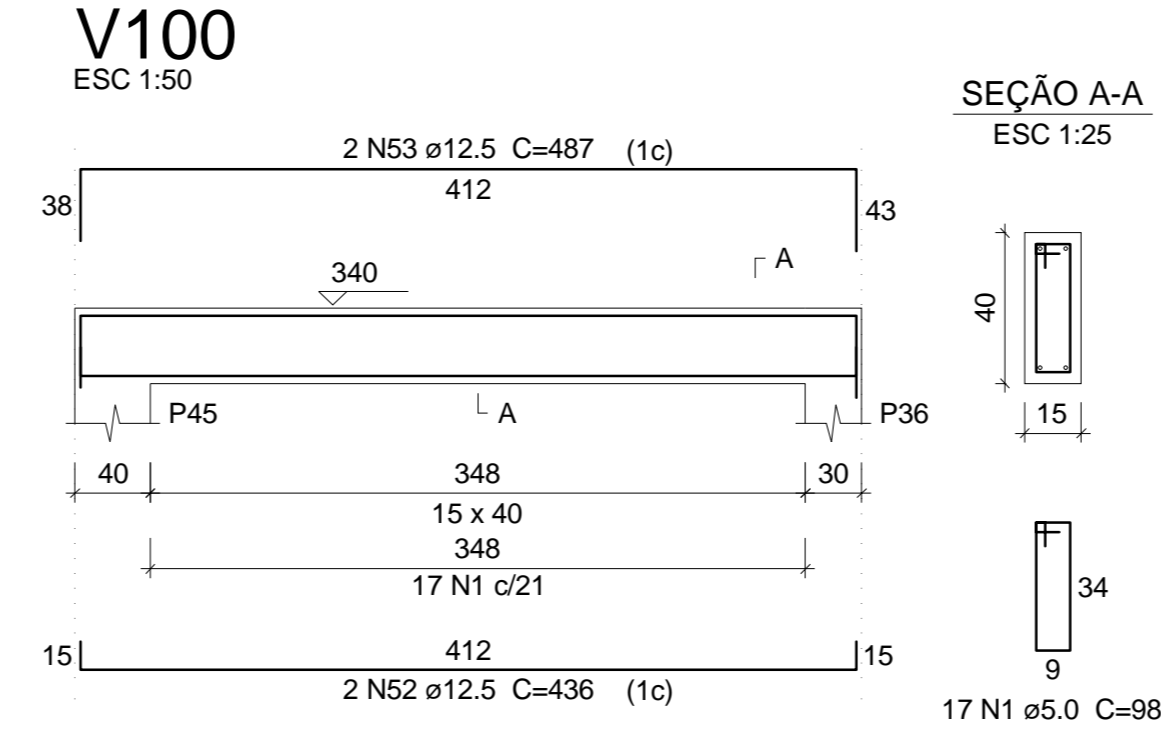
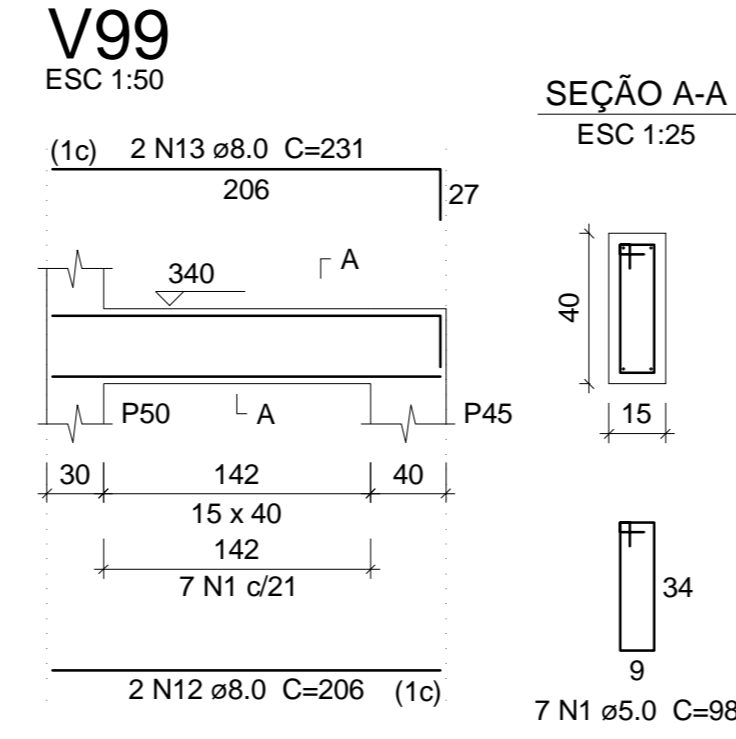
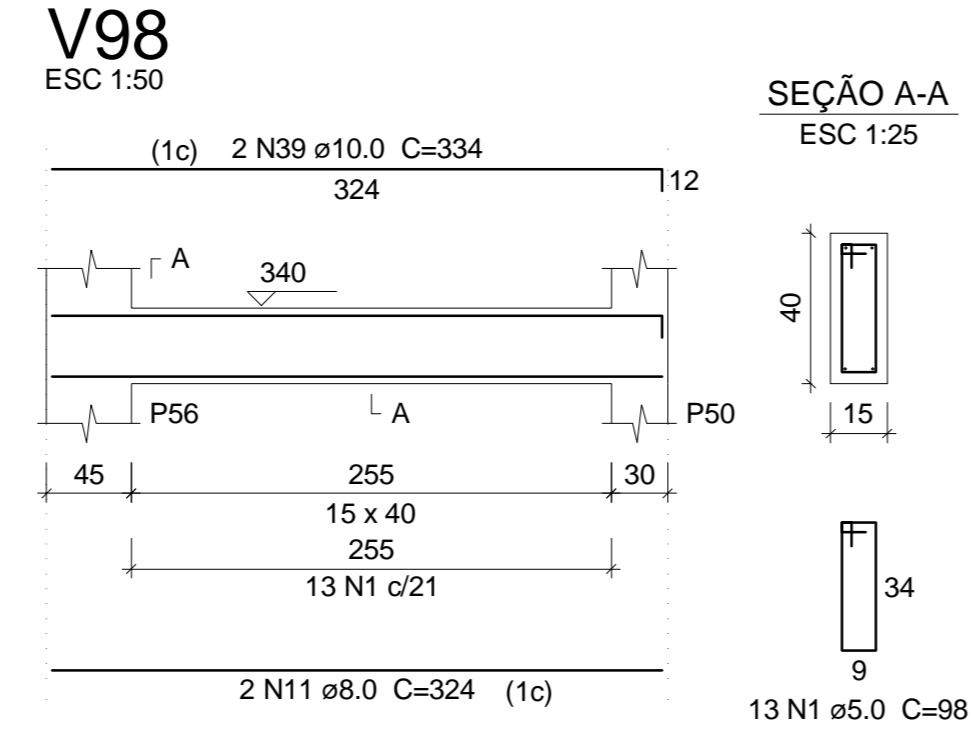
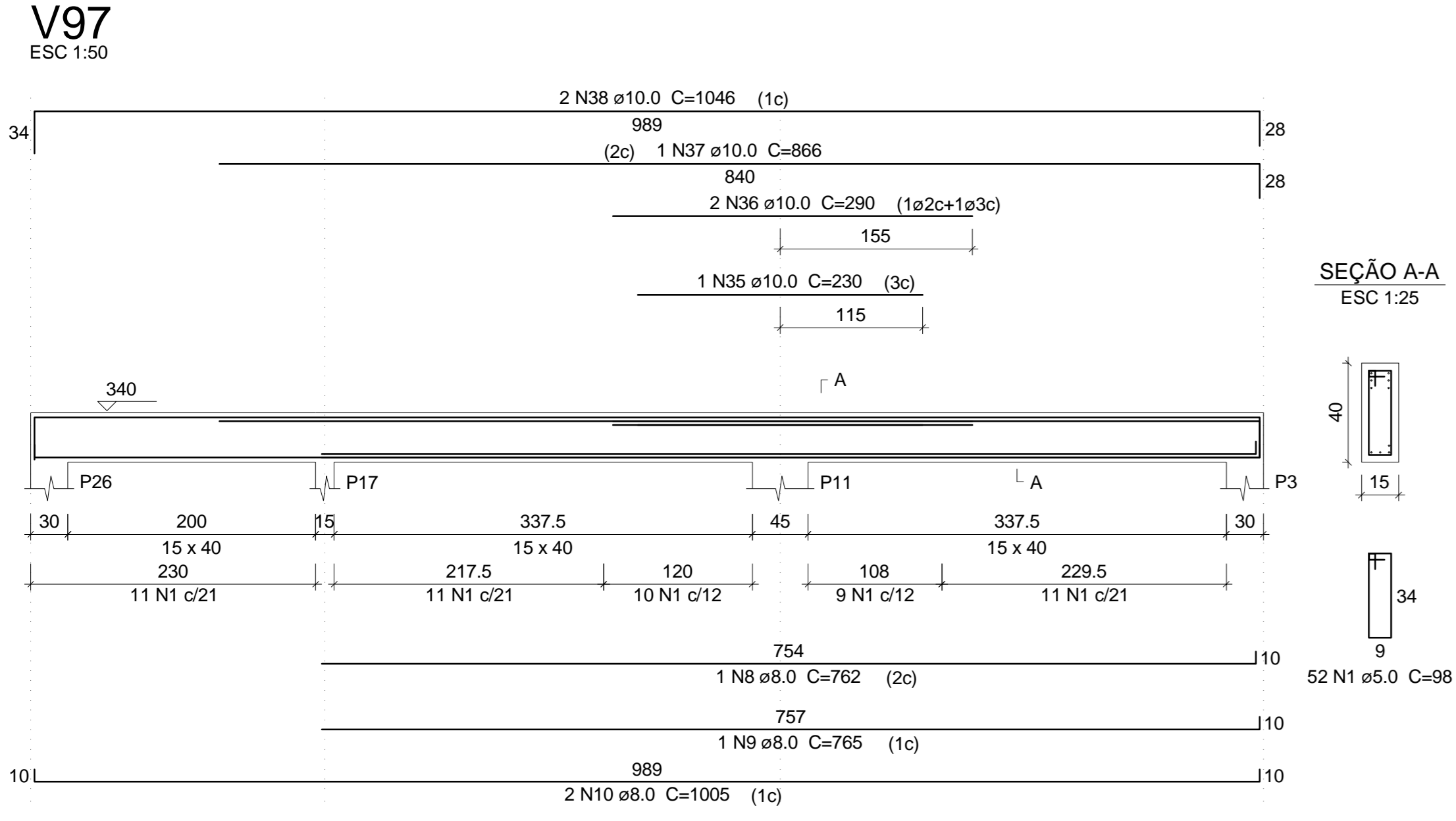
Vol. de concreto total (C-25) = 6.56 m³
Área de forma total = 101.24 m²

TL TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 16199935/70

CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ
OBRA: ESCOLA 4 SALAS
ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB

FOLHA: 11/17
REV: 0
ESC: Indicada
DATA: 25/09/2021

PROJETO ESTRUTURAL
VIGAS PRIMEIRO PAVIMENTO 2



Relação do aço

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	424	38	41552
	2	5.0	14	108	1512
	3	5.0	77	78	6006
	4	5.0	57	58	3306
	5	6.3	1	76	76
	6	6.3	1	106	106
	7	6.3	1	111	111
	8	8.0	3	762	2286
	9	8.0	3	755	2265
	10	8.0	6	1005	6030
	11	8.0	2	324	648
	12	8.0	2	236	472
	13	8.0	2	231	462
	14	8.0	4	245	980
	15	8.0	2	389	778
	16	8.0	6	383	2298
	17	8.0	2	340	680
	18	8.0	6	279	1674
	19	8.0	2	368	736
	20	8.0	2	608	1216
	21	8.0	2	989	1978
	22	8.0	1	175	175
	23	8.0	1	563	563
	24	8.0	2	1039	2078
	25	8.0	2	203	406
	26	8.0	4	384	1536
	27	8.0	2	82	164
	28	8.0	4	382	1568
	29	8.0	2	50	100
	30	8.0	2	65	130
	31	8.0	2	162	324
	32	8.0	2	173	346
	33	8.0	2	142	284
	34	8.0	2	158	316
	35	10.0	1	230	230
	36	10.0	4	230	1160
	37	10.0	1	866	866
	38	10.0	2	1046	2092
	39	10.0	2	334	668
	40	10.0	4	368	1472
	41	10.0	2	182	364
	42	10.0	2	353	706
	43	10.0	2	250	500
	44	10.0	1	295	295
	45	10.0	2	608	1216
	46	10.0	4	1056	4224
	47	10.0	4	343	1372
	48	10.0	1	152	152
	49	10.0	1	137	137
	50	10.0	2	333	666
	51	10.0	1	210	210
	52	12.5	2	436	872
	53	12.5	2	487	974
	54	12.5	4	1051	4204
	55	12.5	2	596	1192
	56	12.5	1	204	204
	57	12.5	1	249	249
	58	12.5	1	172	172
	59	12.5	1	252	252
	60	12.5	2	681	1362
	61	12.5	2	399	798
	62	12.5	1	265	265
	63	12.5	1	159	159
	64	12.5	2	1052	2104
	65	12.5	2	248	496

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	3	0.8
	8.0	305.3	132.5
	10.0	163.3	110.7
	12.5	132.7	140.5
	5.0	523.8	88.8
CA60			
PESO TOTAL			
CA50		384.6	
CA60		88.8	

Vol. de concreto total (C-25) = 6.35 m³
Área de forma total = 100.52 m²

TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 16199935/70

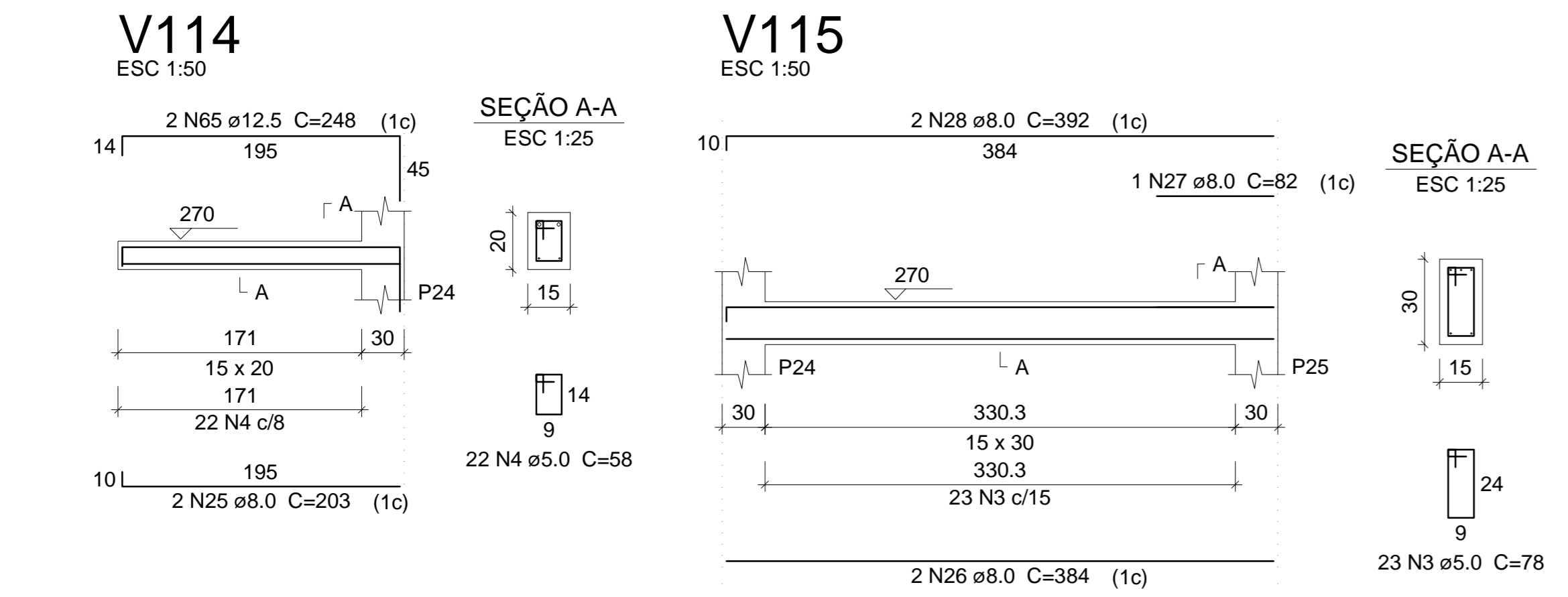
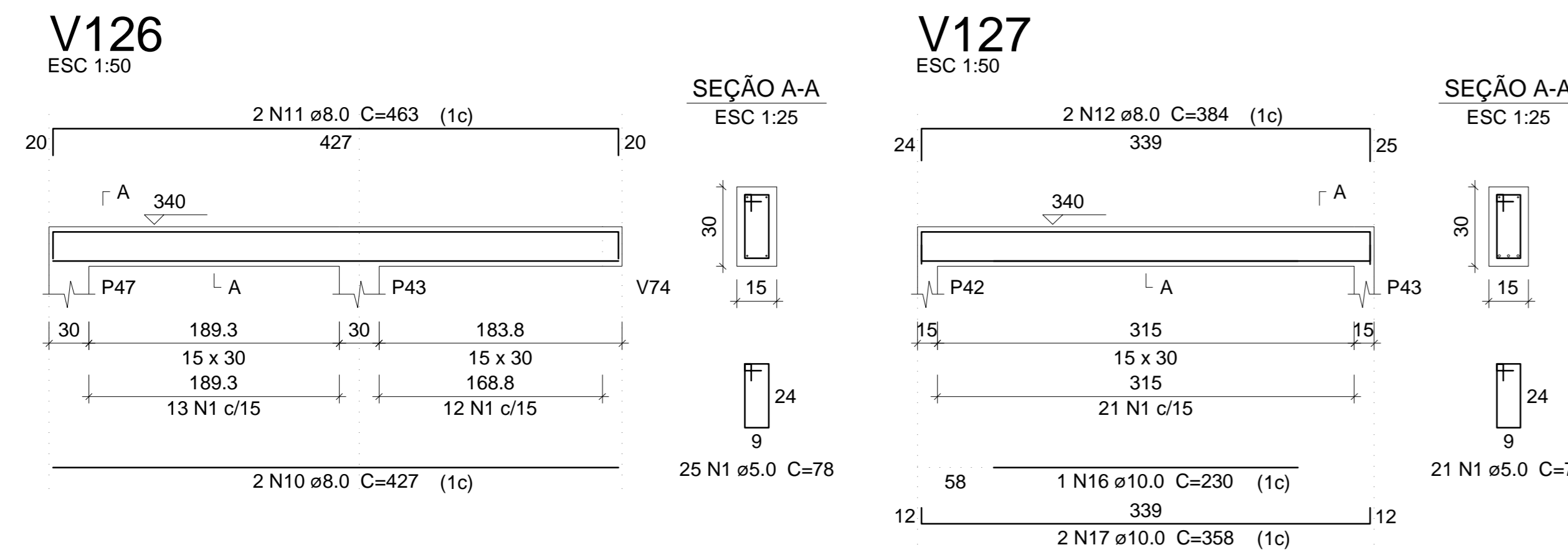
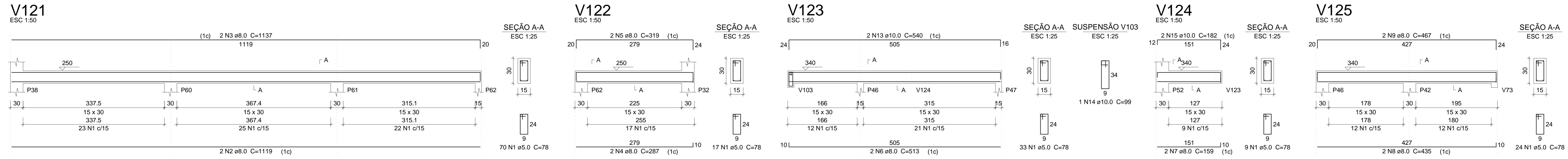
TL TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 16199935/70

CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB
OBRA: ESCOLA 4 SALAS
ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB

FOLHA: 12/17
REV: 0
ESC: Indicada
DATA: 25/09/2021

PROJETO ESTRUTURAL
VIGAS PRIMEIRO PAVIMENTO 3

DWG



Relação do aço

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	117	78	9126
CA50	2	8.0	2	680	1360
	3	8.0	2	716	1432
	4	8.0	2	677	1354
	5	8.0	2	713	1426
	6	8.0	4	324	1296
	7	8.0	4	360	1440

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	83.1	36.1
CA60	5.0	91.3	15.5
PESO TOTAL			
CA50		36.4	
CA60		15.5	

Vol. de concreto total (C-25) = 0.91 m³
Área de forma total = 15.22 m²

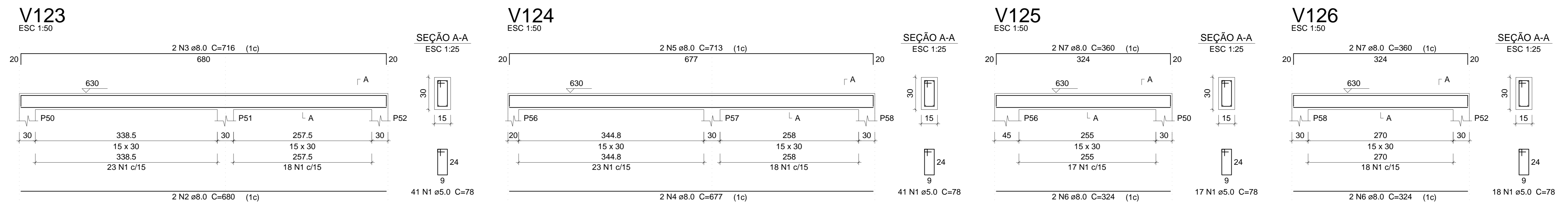
Relação do aço

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	199	78	15522
CA50	2	8.0	2	1119	2238
	3	8.0	2	1137	2274
	4	8.0	2	287	574
	5	8.0	2	319	638
	6	8.0	2	513	1026
	7	8.0	2	159	318
	8	8.0	2	435	870
	9	8.0	2	467	934
	10	8.0	2	427	854
	11	8.0	2	463	926
	12	8.0	2	384	768
	13	10.0	2	540	1080
	14	10.0	1	99	99
	15	10.0	2	182	364
	16	10.0	1	230	230
	17	10.0	2	358	716

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	114.2	49.6
	10.0	24.9	16.9
CA60	5.0	155.3	26.3
PESO TOTAL			
CA50		66.4	
CA60		26.3	

Vol. de concreto total (C-25) = 1.48 m³
Área de forma total = 24.67 m²



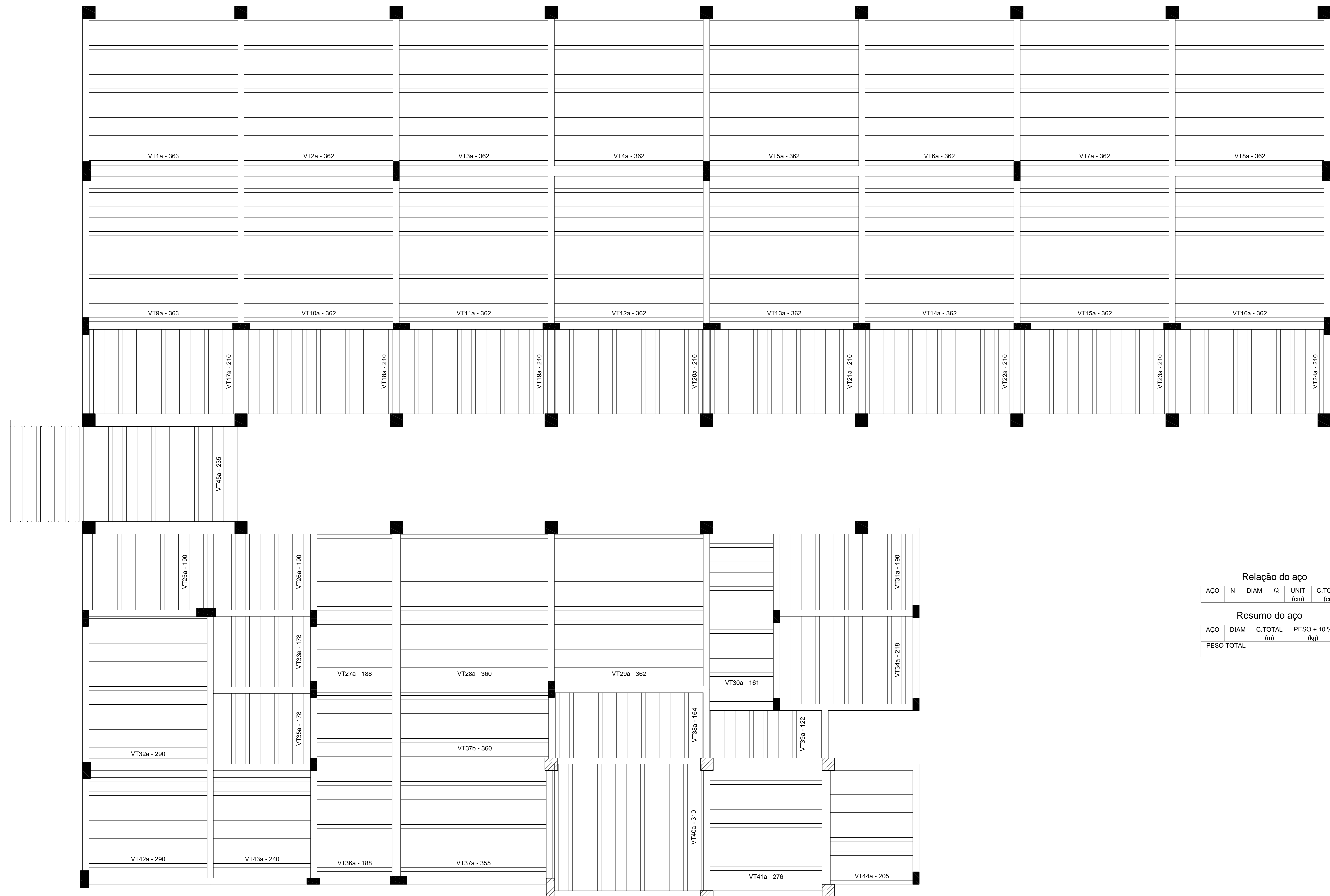
TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 1619993570

TL TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 1619993570

CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB
OBRA: CONSTRUÇÃO DE ESCOLA
ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB

FOLHA: **13/17**
REV.: **0**
ESQ: **Indicada**
DATA: **25/09/2021**

PROJETO ESTRUTURAL
VIGAS PRIMEIRO PAVIMENTO 4
VIGAS NÍVEL DO RESERVATÓRIO



Relação do aço

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)

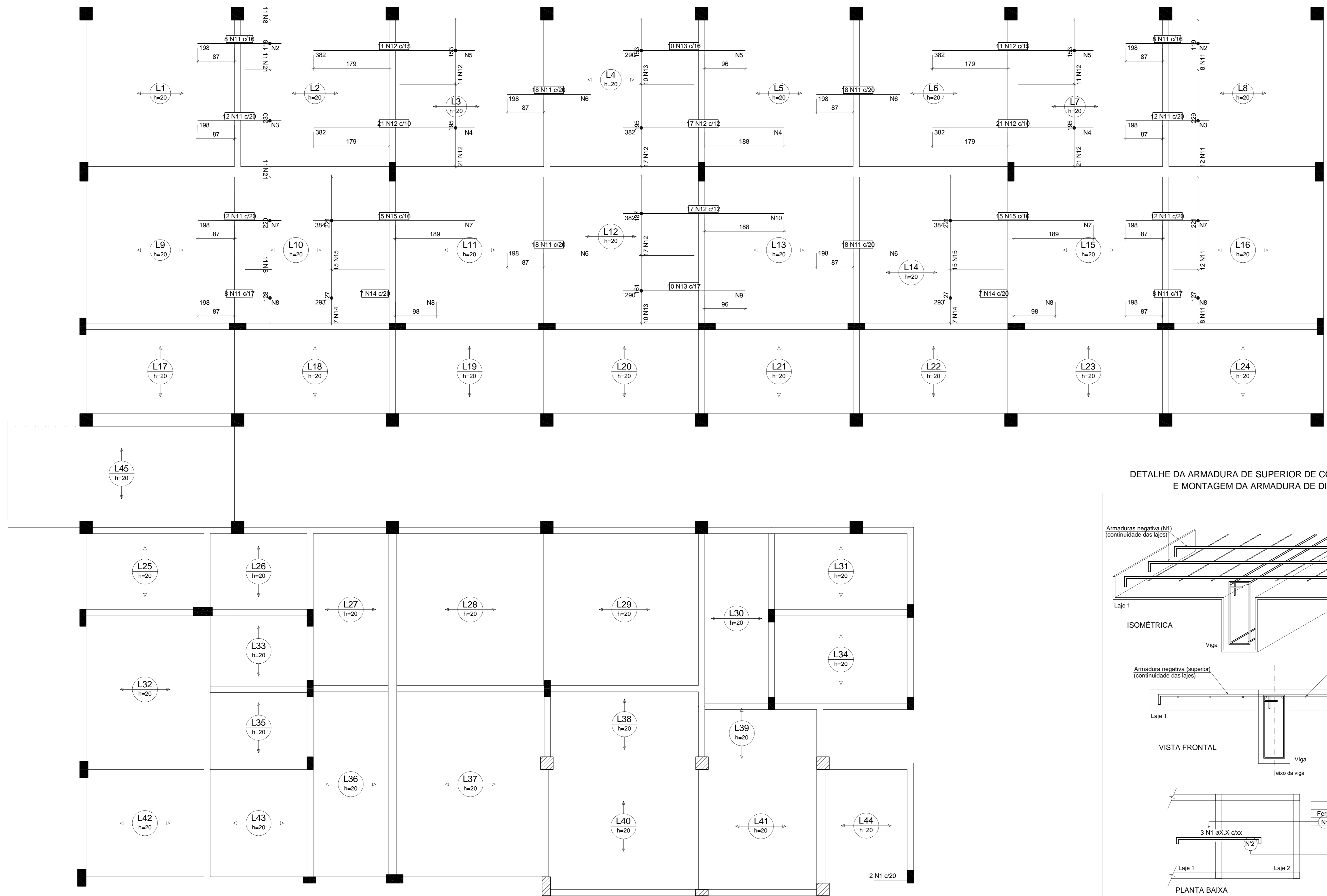
Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
PESO TOTAL			

Planta de vigotas pré-moldadas
escala 1:50

TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 1619993570
CPLA REC - 10/2020

TL	TIAGO LAMEQUE DE SOUSA E SILVA ENGENHEIRO CIVIL - CREA-PB 1619993570	
	CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB	FOLHA: 14/17
OBRA: ESCOLA 4 SALAS	ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB	REV.: 0
PROJETO ESTRUTURAL		ESQ: Indicada
PLANTA DE VIGOTAS		DATA: 25/09/2021



Ferro de distribuição			
Ferro	Armadura de distribuição		
N11	10 N2 ø5.0 c/20	C=126	
N11	10 N3 ø5.0 c/20	C=242	
N12	20 N4 ø5.0 c/20	C=208	
N12	20 N5 ø5.0 c/20	C=160	
N11	10 N6 ø5.0 c/20	C=368	
N12	20 N4 ø5.0 c/20	C=208	
N12	20 N5 ø5.0 c/20	C=160	
N11	10 N3 ø5.0 c/20	C=242	
N11	10 N2 ø5.0 c/20	C=126	
N11	10 N7 ø5.0 c/20	C=233	
N11	10 N8 ø5.0 c/20	C=135	
N14	15 N8 ø5.0 c/20	C=135	
N15	20 N7 ø5.0 c/20	C=233	
N11	10 N6 ø5.0 c/20	C=368	
N13	15 N9 ø5.0 c/20	C=169	
N12	20 N10 ø5.0 c/20	C=199	
N11	10 N6 ø5.0 c/20	C=368	
N14	15 N8 ø5.0 c/20	C=135	
N15	20 N7 ø5.0 c/20	C=233	
N11	10 N8 ø5.0 c/20	C=135	
N11	10 N7 ø5.0 c/20	C=233	

Relação do aço

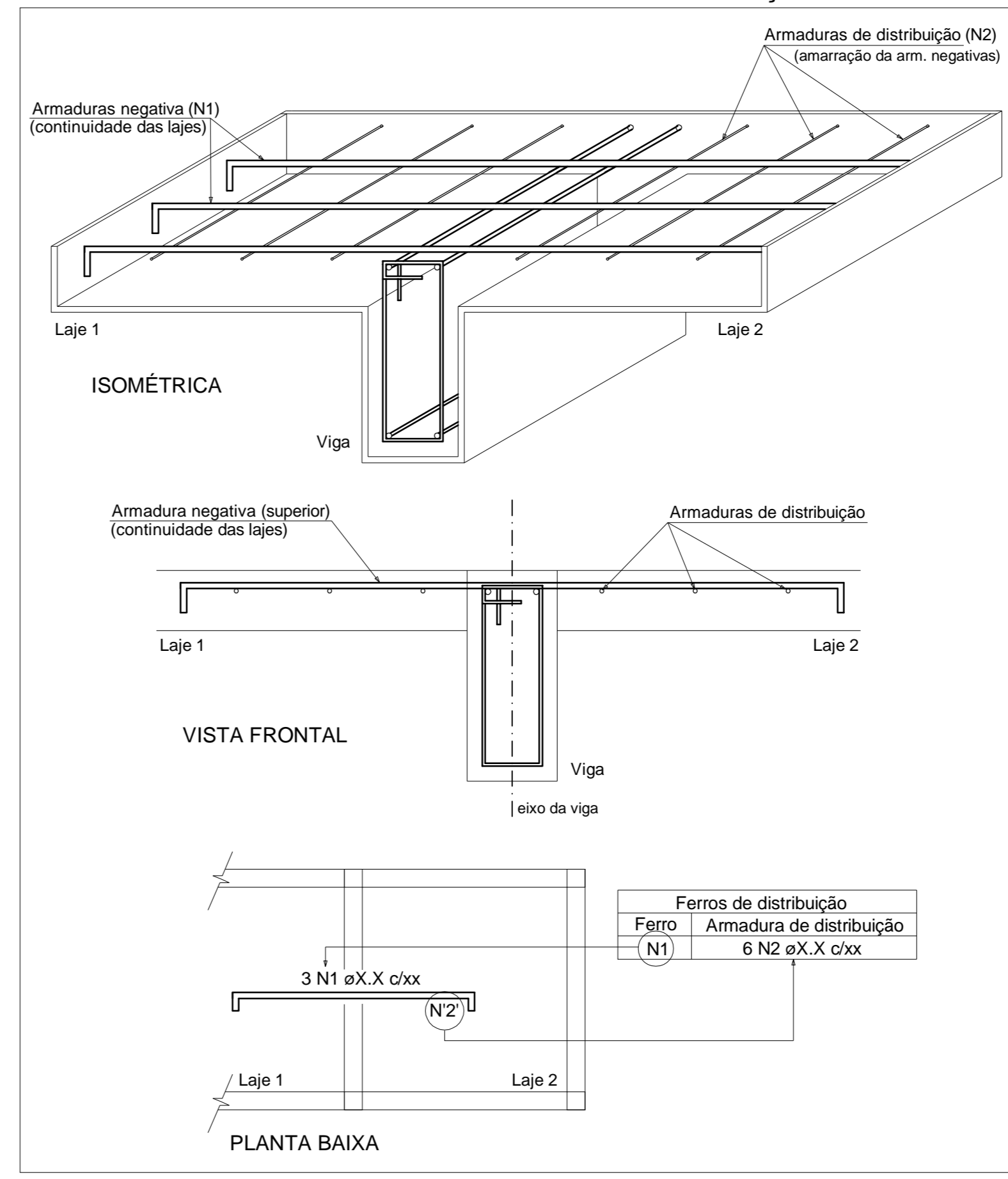
Negativos X

ACO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	2	92	184
CA60	2	5.0	20	126	2520
CA60	3	5.0	20	242	4840
CA60	4	5.0	60	208	12480
CA60	5	5.0	55	160	8800
CA60	6	5.0	40	368	14720
CA60	7	5.0	60	233	13980
CA60	8	5.0	50	135	6750
CA60	9	5.0	15	169	2535
CA60	10	5.0	20	199	3980
CA50	11	6.3	152	198	30096
CA50	12	6.3	98	382	37436
CA50	13	6.3	20	290	5800
CA50	14	8.0	14	293	4102
CA50	15	8.0	30	384	11520

Resumo do aço

ACO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	733.4	197.4
CA60	8.0	156.3	67.8
CA60	5.0	707.9	120
PESO TOTAL			
CA50		265.2	
CA60		120	

DETALHE DA ARMADURA DE SUPERIOR DE CONTINUIDADE DA LAJE E MONTAGEM DA ARMADURA DE DISTRIBUIÇÃO



Armação negativa das lajes do pavimento Primeiro pavimento (Eixo X) escala 1:50

TIAGO LAMEQUE DE SOUSA E SILVA
 ENGENHEIRO CIVIL - CREA-PB 161999/3570

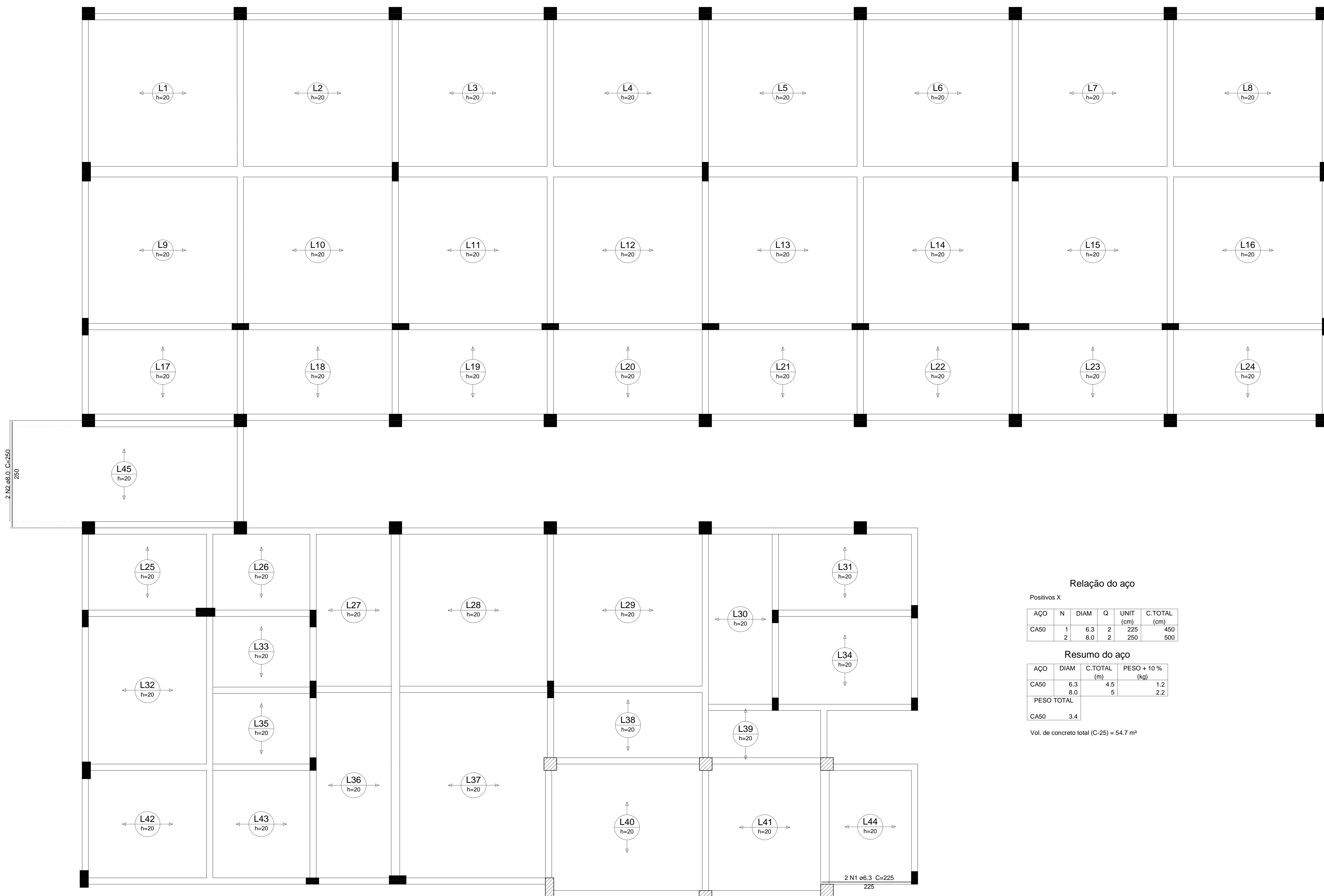
TL TIAGO LAMEQUE DE SOUSA E SILVA
 ENGENHEIRO CIVIL - CREA-PB 161999/3570

CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB
 OBRA: ESCOLA 4 SALAS
 ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB

PROJETO ESTRUTURAL
 ARMADURAS NEGATIVAS

FOLHA: 15/17
 REV: 0
 ESC: Indicada
 DATA: 25/09/2021

DWG



Relação do aço

Positivos X

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	2	225	450
	2	8.0	2	250	500

Resumo do aço

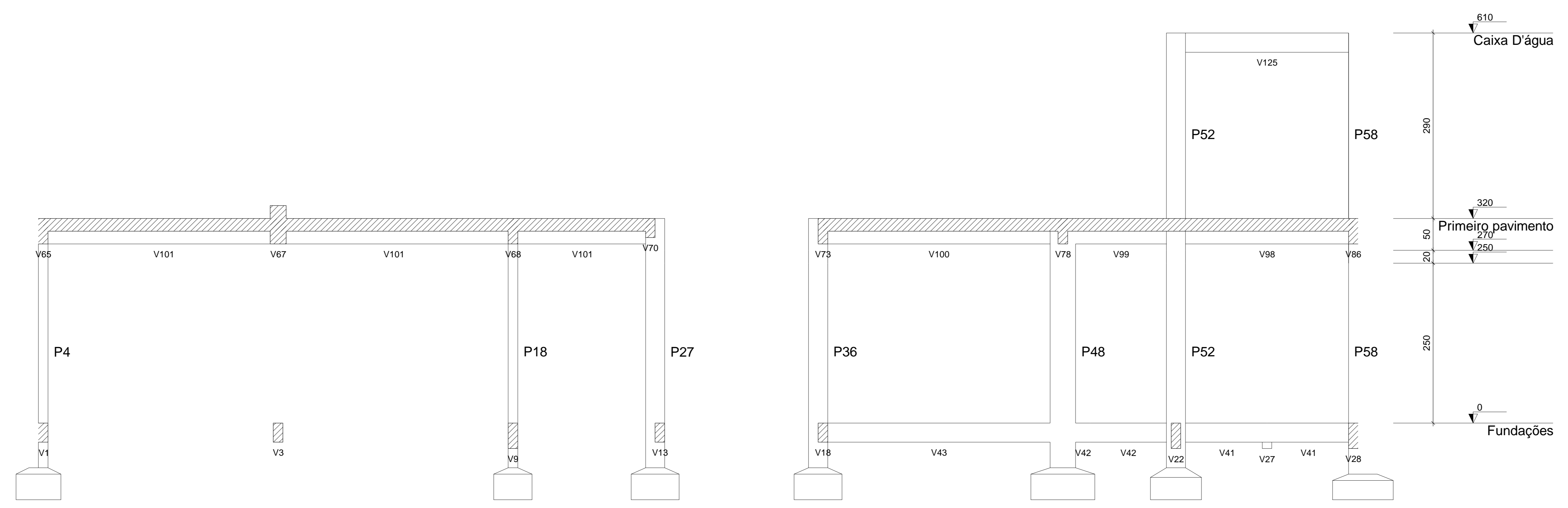
AÇO	DIAM	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	4.5	1.2
	8.0	5	2.2
PESO TOTAL			
CA50	3.4		

Vol. de concreto total (C-25) = 54.7 m³

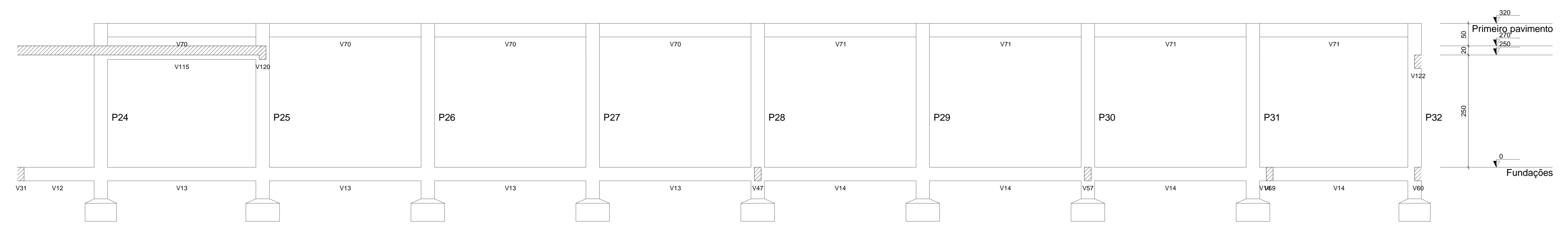
Armação positiva das lajes do pavimento Primeiro pavimento (Eixo X)
escala 1:50

TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - CREA-PB 1619993570
C.R.C. NAC. 148888-0

TL	TIAGO LAMEQUE DE SOUSA E SILVA ENGENHEIRO CIVIL - CREA-PB 1619993570	
	CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB	FOLHA: 16/17
OBRA: ESCOLA 4 SALAS	ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB	REV: 0
PROJETO ESTRUTURAL		ESQ: Indicada
ARMADURA POSITIVA NA LAJE		DATA: 25/09/2021



Corte A-A
escala 1:50



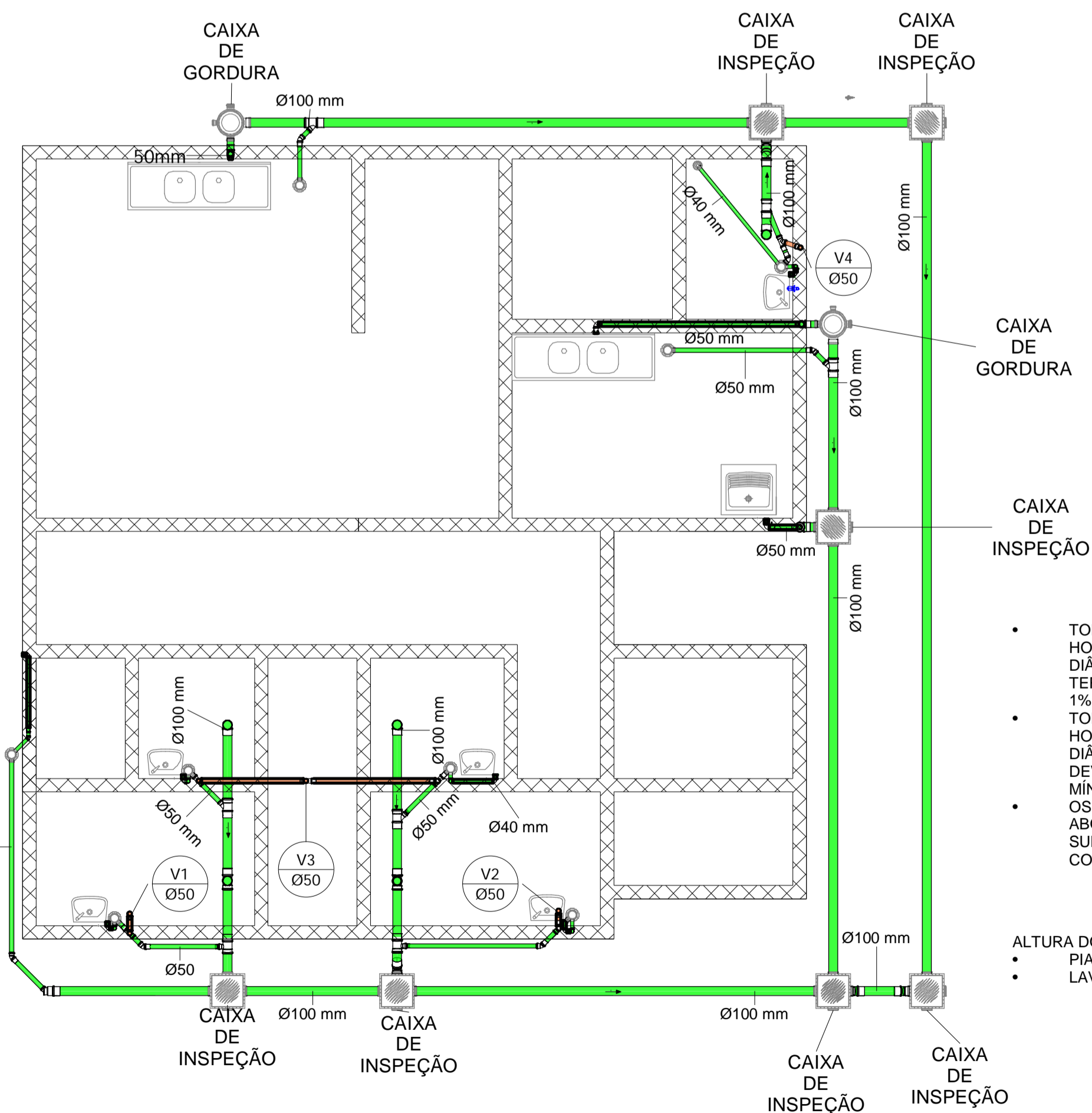
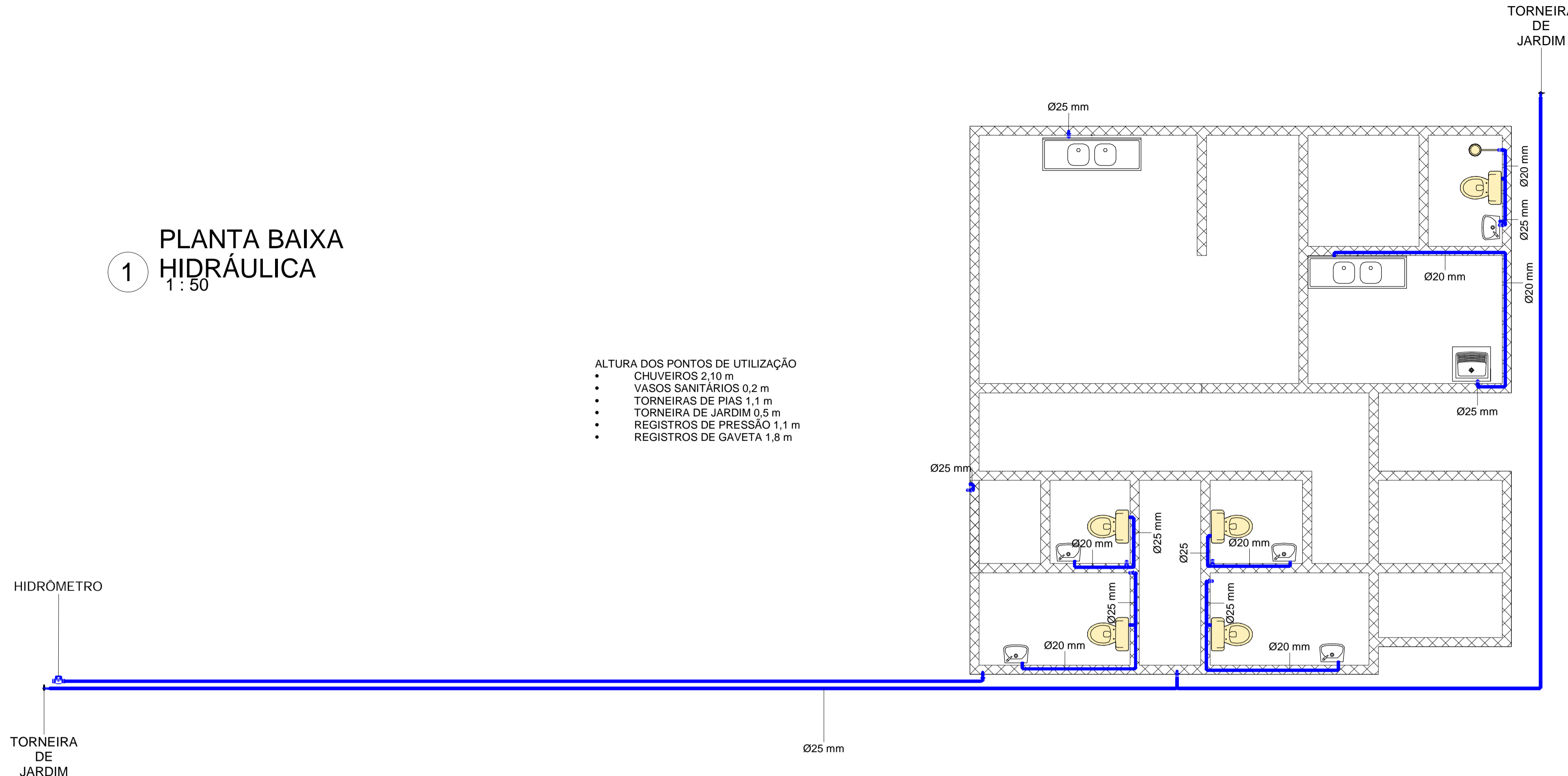
Corte B-B
escala 1:50

TIAGO LAMEQUE DE SOUSA E SILVA
ENGENHEIRO CIVIL - TIAGO LAMEQUE DE SOUSA E SILVA
CREA MEC - 141999/3570

TL	TIAGO LAMEQUE DE SOUSA E SILVA ENGENHEIRO CIVIL - CREA-PB 1619993570		
	CLIENTE: PREFEITURA MUNICIPAL DE JERICÓ-PB		
OBRA: ESCOLA 4 SALAS			FOLHA: 17/17
ENDEREÇO: RUA MANOEL JOSÉ FERREIRA, JERICÓ-PB			
PROJETO ESTRUTURAL			REV.: 0
CORTES			
			ESQ: Indicada
			DATA: 25/09/2021

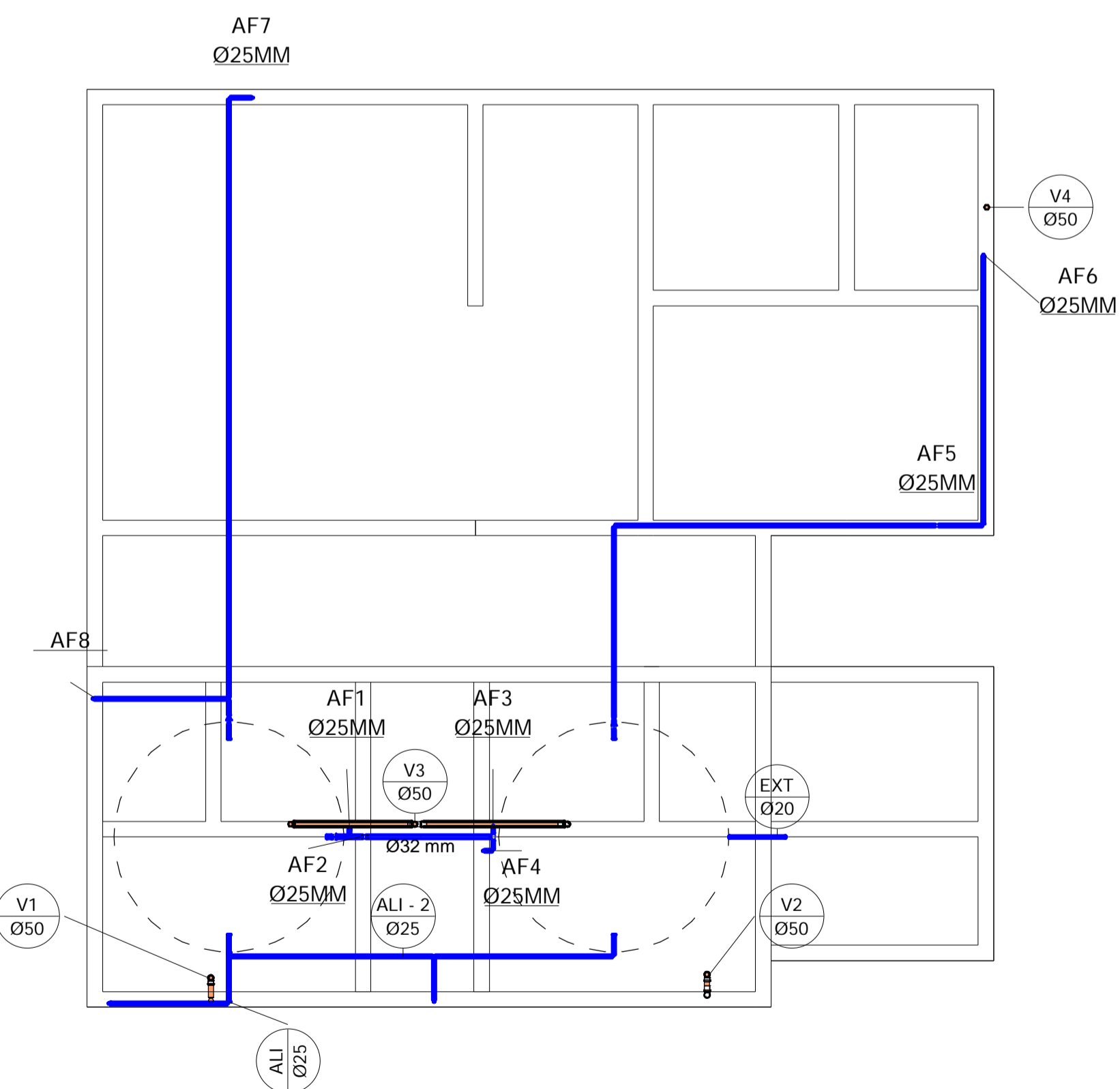
1 PLANTA BAIXA HIDRÁULICA 1 : 50

- ALTURA DOS PONTOS DE UTILIZAÇÃO
- CHUVEIROS 2,10 m
 - VASOS SANITÁRIOS 0,2 m
 - TORNEIRAS DE PIAS 1,1 m
 - TORNEIRA DE JARDIM 0,5 m
 - REGISTROS DE PRESSÃO 1,1 m
 - REGISTROS DE GAVETA 1,8 m



- TODAS AS TUBULAÇÕES HORIZONTAIS DE ESGOTO COM DIÂMETRO DE 100 MM DEVEM TER INCLINAÇÕES MÍNIMAS DE 1%;
 - TODAS AS TUBULAÇÕES HORIZONTAIS DE ESGOTO COM DIÂMETRO MENOR QUE 100 MM DEVEM TER INCLINAÇÕES MÍNIMAS DE 2%;
 - OS QUANTITATIVOS NÃO ABORDAM A FOSSA, OS SUMIDOUROS E SEUS TUBOS E CONEXÕES.
- ALTURA DOS PONTOS DE COLETA
- PIA DE COZINHA E DE LAVAR ROUPA 0,65 m
 - LAVATÓRIOS 0,8M

2 PLANTA BAIXA SANITÁRIA 1 : 50



3 VISTA SUPERIOR 1 : 50

Tiago Lameque de Sousa e Silva
ENGENHEIRO CIVIL - TRÁNSITO LAMEQUE DE SOUSA & SILVA
CURTUME - VIZINHOS



PROJETO HIDROSSANITÁRIO DE ESCOLA NO MUNICÍPIO DE JERICÓ - PB

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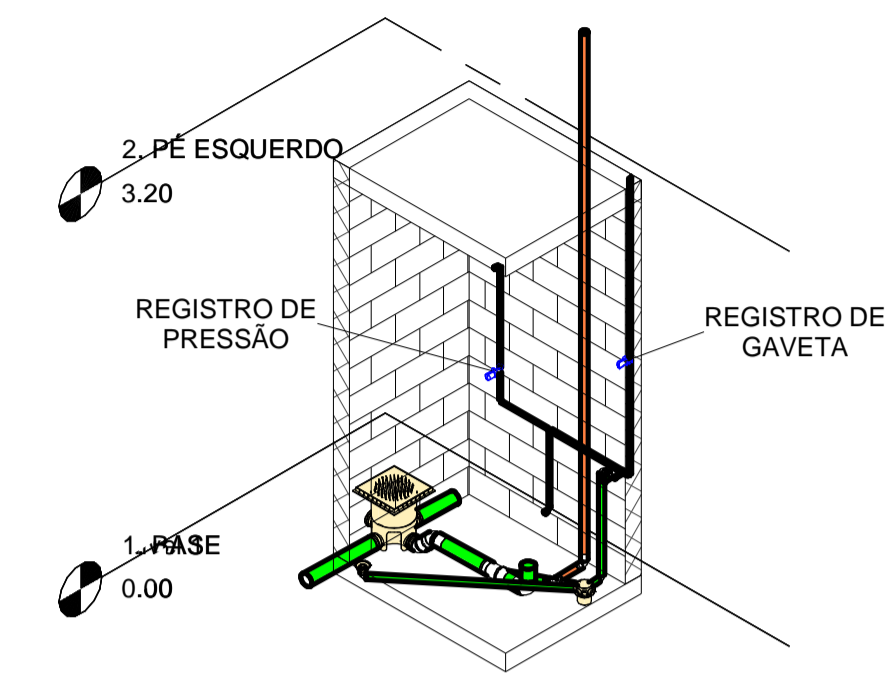
PRANCHA 1

Escala 1 : 50

SISTEMA	DESCRIÇÃO	QUANTIDADE
ÁGUA FRIA	HIDRÔMETRO	1
ÁGUA FRIA	REGISTRO DE CHUVEIRO 25mm	1
ÁGUA FRIA	REGISTRO DE GAVETA 25 mm	9
ÁGUA FRIA	REGISTRO DE ESFERA 25 mm	3
ÁGUA FRIA	REGISTRO DE ESFERA 32 mm	1

SISTEMA	DESCRIÇÃO	COMPRIMENTO (m)
ÁGUA FRIA	TUBO PVC 20 mm	40
ÁGUA FRIA	TUBO PVC 25 mm	84
ÁGUA FRIA	TUBO PVC 32 mm	1,7
VENTILAÇÃO	TUBO PVC 50 mm	24

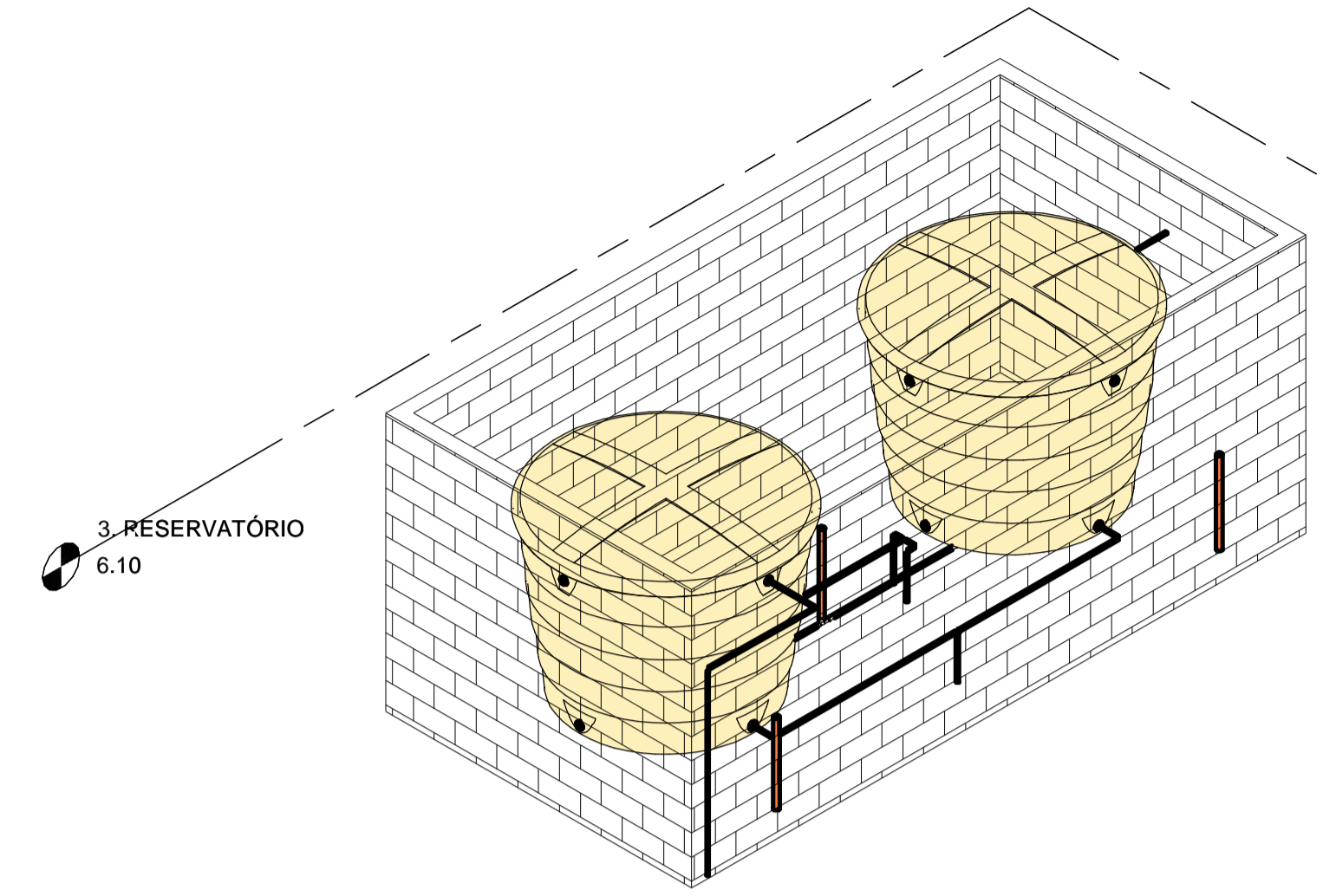
Lista das Conexões			
SISTEMA:	QUANT.:	DESCRIÇÃO:	DIMENSÃO:
Água Fria	2	Tê Soldável 32mm, PVC Marrom, Água Fria	Ø32-Ø32-Ø32
Água Fria	5	Tê Soldável 25mm, PVC Marrom, Água Fria	Ø25-Ø25-Ø25
Água Fria	1	Tê Soldável 20mm, PVC Marrom, Água Fria	Ø20-Ø20-Ø20
Água Fria	1	Tê de Redução Soldável 25x20mm, PVC Marrom, Água Fria	Ø25-Ø25-Ø20
Água Fria	35	Joelho 90º Soldável 25mm, PVC Marrom, Água Fria	Ø25-Ø25
Água Fria	25	Joelho 90º Soldável 20mm, PVC Marrom, Água Fria	Ø20-Ø20
Água Fria	1	Joelho 90º Roscável 3/4", PVC Branco, Água Fria	Ø25-Ø25
Água Fria	2	Bucha de Redução Soldável Curta 32x25mm, PVC Marrom, Água Fria	Ø32-Ø25
Água Fria	22	Bucha de Redução Soldável Curta 25x20mm, PVC Marrom, Água Fria	Ø25-Ø20



1 ISOMÉTRICA DO BANHEIRO DE SERVIÇO

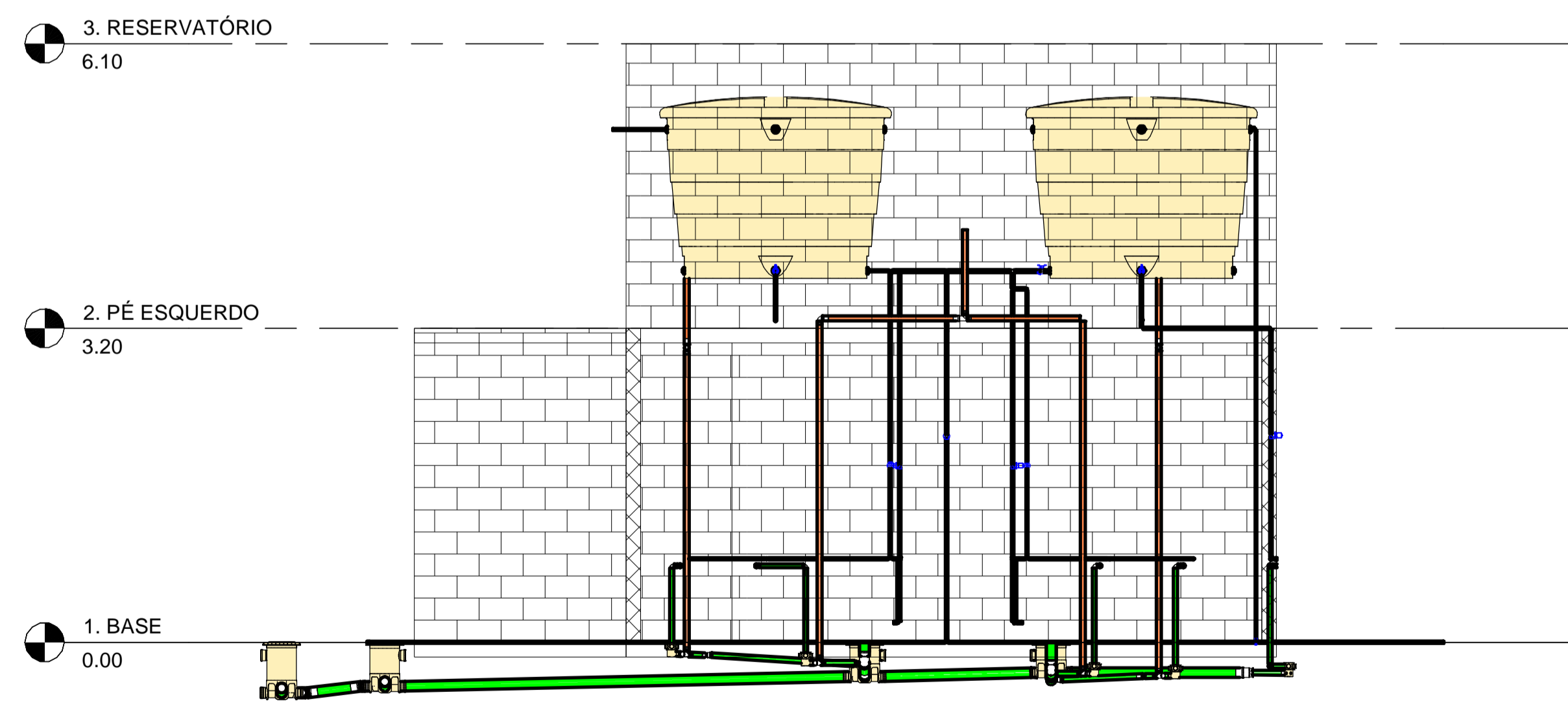
ESCALA 1:50

Louças e metais	
QUANT.:	DESCRIÇÃO:
5	Vaso sanitário com caixa acoplada
5	Lavatório
2	Pia SIMPLES
2	Caixa d'água de fibra de vidro, 5000L
1	Chuveiro
2	Torneira angular para jardim 1122 1/2" latão cromado, Multiuso
1	Tanque



2 ISOMÉTRICA DOS RESERVATÓRIOS

ESCALA 1:50



3 VISTA FRONTAL

Engenharia de Tiago e Helena
 ENGENHEIRO CIVIL - TÍTULO LAMEQUE DE BOMBA E BOMBA
 CREA Nº: 10886/01



PROJETO HIDROSSANITÁRIO DE ESCOLA NO MUNICÍPIO DE JERICÓ - PB

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PRANCHA 2

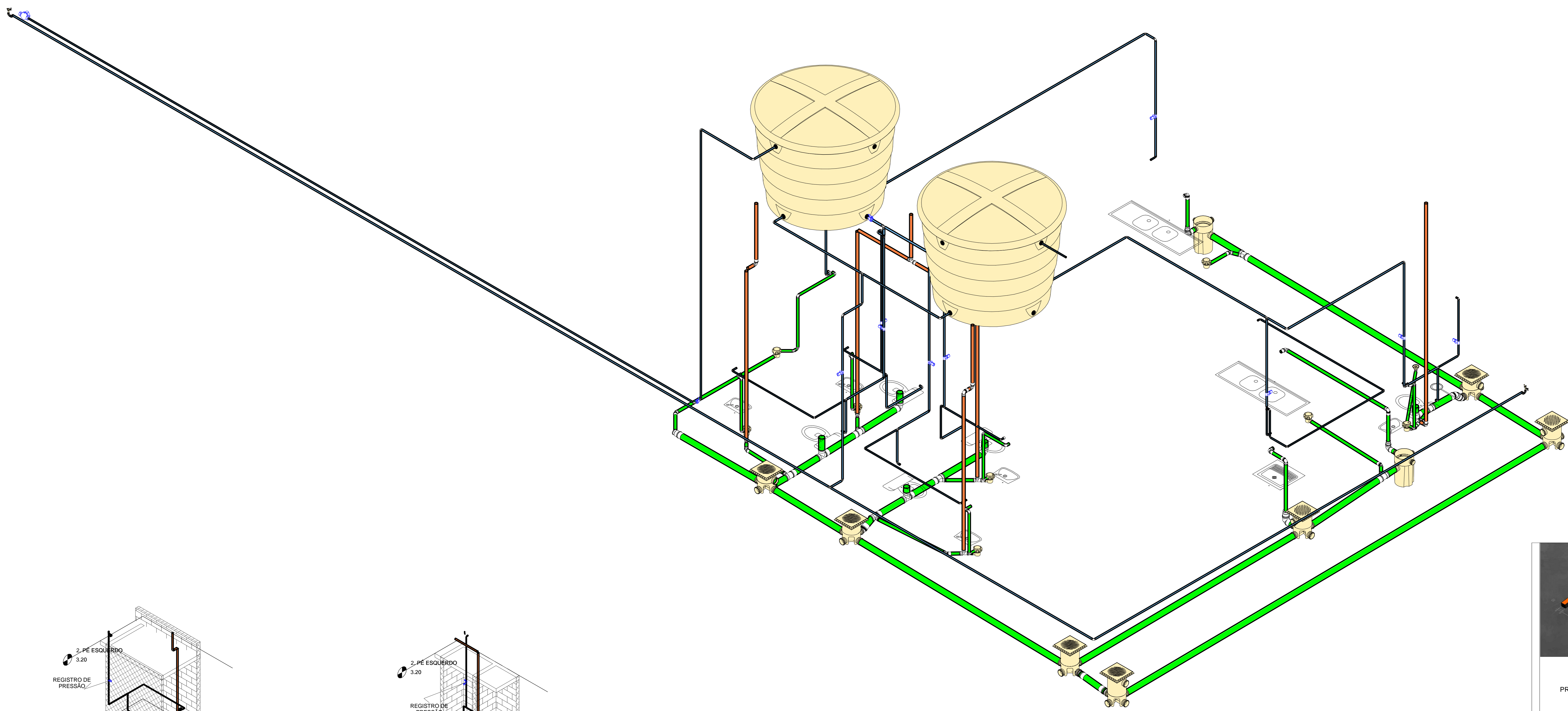
Escala

Equipamentos e Peças Sanitárias	
QUANT.:	DESCRIÇÃO:
15	Caixa de Inspeção/Interligação - DN 100, Esgoto
2	Corpo Caixa de Gordura - DN 100, Esgoto
8	Corpo Caixa Sifonada Girafácil (5 Entradas), 100 x 140 x 50mm, Esgoto
1	Corpo Ralo Cônico - Branco 100 x 40mm, Esgoto

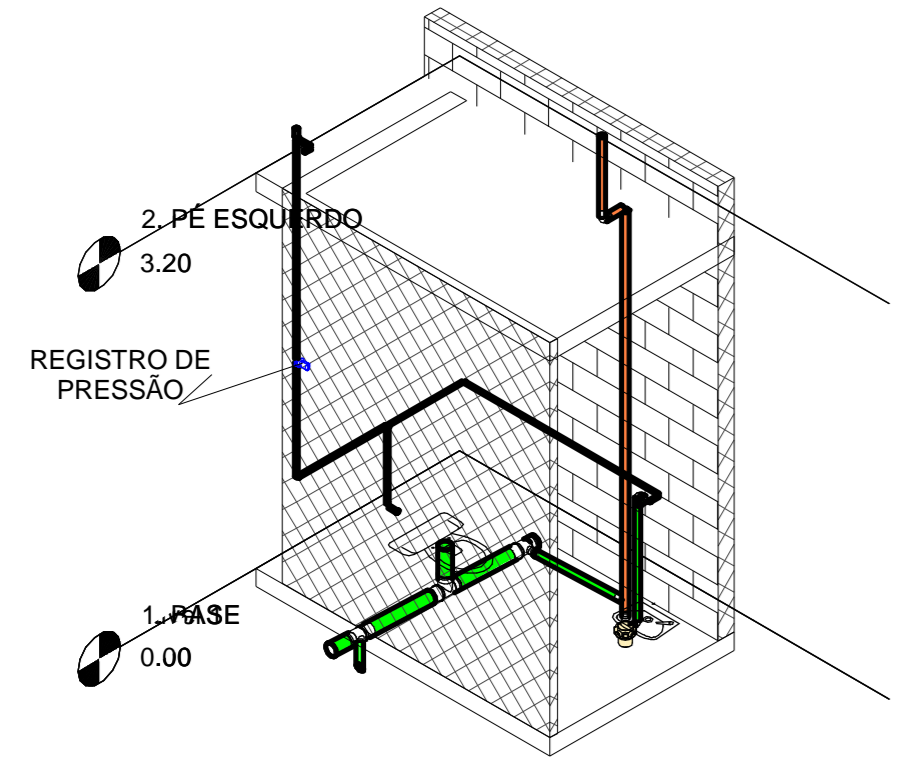
Lista das Conexões			
SISTEMA:	QUANT.:	DESCRIÇÃO:	DIMENSÃO:
Esgoto	2	Tê 100 x 100mm, Esgoto Série Normal	Ø100-Ø100-Ø100
Esgoto	2	Tê 100 x 50mm, Esgoto Série Normal	Ø100-Ø100-Ø50
Esgoto	5	Tê 50 x 50mm, Esgoto Série Normal	Ø50-Ø50-Ø50
Esgoto	15	Produto Inexistente	
Esgoto	20	Luva Simples 100mm, Esgoto Série Normal	Ø100-Ø100
Esgoto	4	Luva Simples 75mm, Esgoto Série Normal	Ø75-Ø75
Esgoto	23	Luva Simples 50mm, Esgoto Série Normal	Ø50-Ø50
Esgoto	4	Junção Simples 100 x 50mm, Esgoto Série Normal	Ø100-Ø100-Ø50
Esgoto	4	Joelho 90º 100mm, Esgoto Série Normal	Ø100-Ø100
Esgoto	2	Joelho 90º 75mm, Esgoto Série Normal	Ø75-Ø75
Esgoto	9	Joelho 90º 50mm, Esgoto Série Normal	Ø50-Ø50
Esgoto	19	Joelho 90º 40mm, Esgoto Série Normal	Ø40-Ø40
Esgoto	2	Joelho 45º 100mm, Esgoto Série Normal	Ø100-Ø100
Esgoto	6	Joelho 45º 50mm, Esgoto Série Normal	Ø50-Ø50
Esgoto	1	Joelho 45º 40mm, Esgoto Série Normal	Ø40-Ø40

SISTEMA	DESCRIÇÃO	COMPRIMENTO (m)
SANITÁRIO	TUBO PVC 40mm	9,5
SANITÁRIO	TUBO PVC 50 mm	14,5
SANITÁRIO	TUBO PVC 75 mm	0,5
SANITÁRIO	TUBO PVC 100 mm	38,5

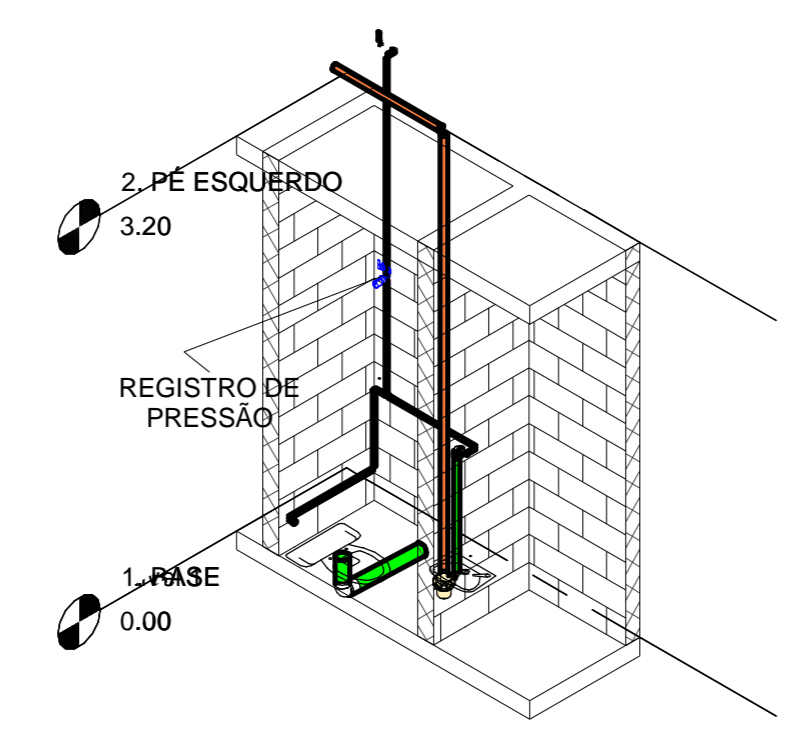
1 Hidráulica 3D
ESCALA 1:25



Engenharia Civil - Tiago Lameque de Sousa e Silva
CRA 046.107/01-0



2 ISOMÉTRICA BANHEIRO
PNE
ESCALA 1:50



3 ISOMÉTRICA DO
BANHEIRO
ESCALA 1:50



PROJETO HIDROSSANITÁRIO DE UMA ESCOLA EM JERICÓ-PB

Data 25/09/2021
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PRANCHA 3

Escala

