

RELAÇÃO DO AÇO

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA50	1	5.0	186	79	14694
	2	5.0	34	151	5134
	3	5.0	119	1071	12741
	4	5.0	76	105	7980
	5	5.0	34	111	3774
	6	5.0	36	99	3564
	7	5.0	52	85	4420
	8	5.0	44	75	3300
	9	5.0	20	101	2020
	10	5.0	18	91	1638
	11	5.0	16	95	1520
	12	6.3	8	618	4944
	13	6.3	9	619	5571
	14	6.3	3	99	297
	15	6.3	10	230	2300
	16	6.3	1	83	83
	17	6.3	4	378	1512
	18	6.3	1	80	80
	19	6.3	2	89	178
	20	6.3	4	101	404
	21	6.3	4	378	1512
	22	6.3	1	71	71
	23	6.3	23	75	1725
	24	8.0	8	372	2976
	25	8.0	41	235	9635
	26	8.0	16	211	3376
	27	8.0	2	248	496
	28	8.0	2	328	656
	29	8.0	2	378	756
	30	8.0	2	295	590
	31	8.0	2	504	1008
	32	8.0	2	217	434
	33	8.0	2	256	512
	34	8.0	2	271	542
	35	8.0	2	518	1036
	36	8.0	2	308	616
	37	8.0	2	329	658
	38	8.0	2	428	856
	39	8.0	2	510	1020
	40	8.0	2	211	422
	41	8.0	2	218	436
	42	10.0	2	247	494
	43	10.0	2	244	488
	44	10.0	2	216	432
	45	10.0	2	252	504
	46	10.0	2	439	878
	47	10.0	2	170	340
	48	10.0	2	449	898
	49	10.0	4	517	2068
	50	10.0	1	151	151
	51	10.0	2	339	678
	52	10.0	2	141	282
	53	10.0	2	377	754
	54	10.0	1	176	176
	55	10.0	2	294	588
	56	10.0	6	570	3420
	57	10.0	2	577	1154
	58	10.0	2	492	984
	59	10.0	1	187	187
	60	10.0	2	416	832
	61	10.0	2	210	420
	62	10.0	2	1140	2280
	63	10.0	2	576	1152
	64	10.0	2	496	992
	65	10.0	1	127	127
	66	10.0	2	250	500
	67	10.0	1	87	87
	68	12.5	4	627	2508
	69	12.5	1	164	164
	70	12.5	1	265	265
	71	12.5	1	269	269
	72	12.5	1	188	188
	73	12.5	3	679	2037
	74	12.5	1	231	231
	75	12.5	2	238	476
	76	12.5	2	216	432
	77	12.5	2	292	584
	78	12.5	2	275	550
	79	12.5	1	188	188
	80	12.5	2	392	784
	81	12.5	2	446	892
	82	12.5	2	331	662
	83	12.5	2	210	420
	84	12.5	2	330	660
	85	12.5	2	571	1142
	86	12.5	2	261	522
	87	12.5	2	516	1032
	88	12.5	2	382	764
	89	12.5	2	249	498

RESUMO DO AÇO

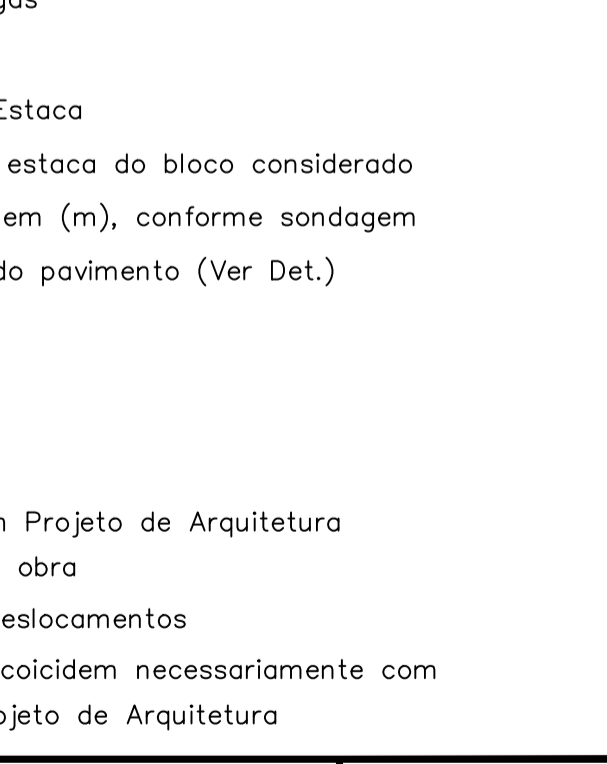
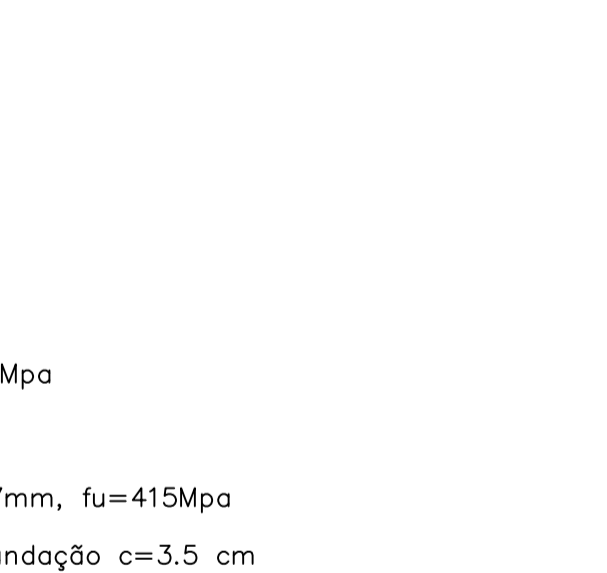
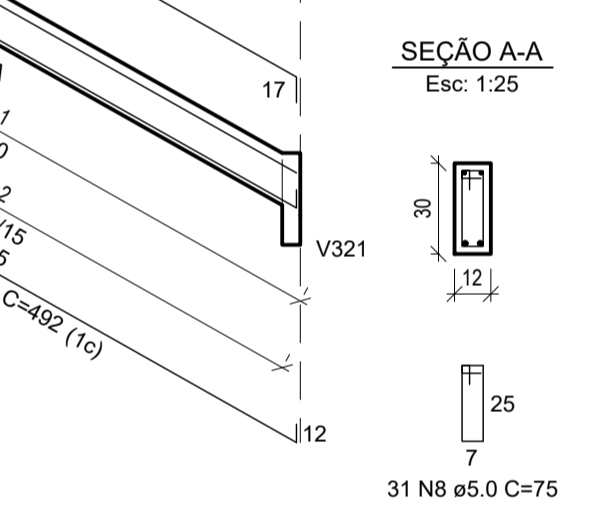
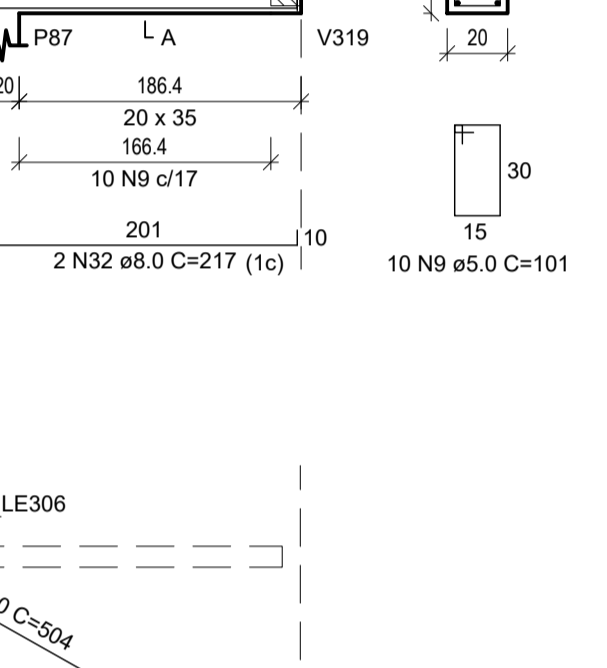
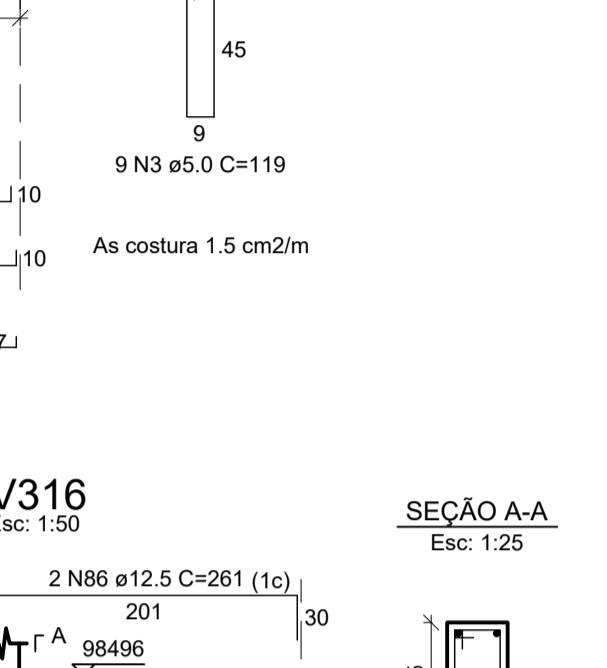
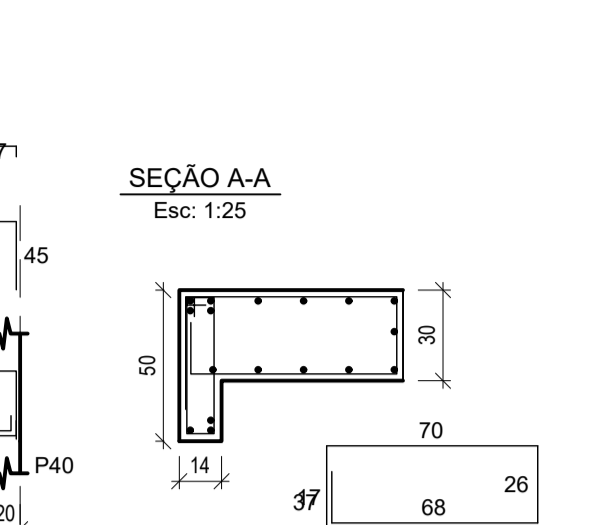
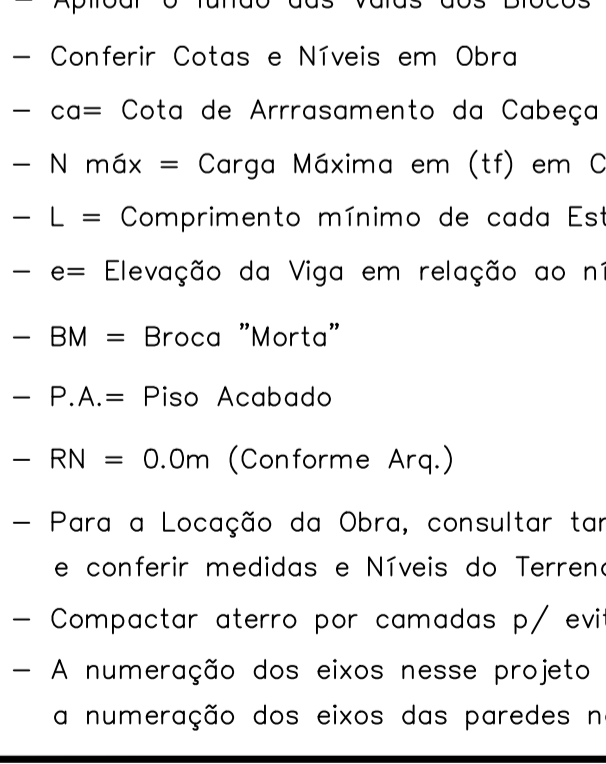
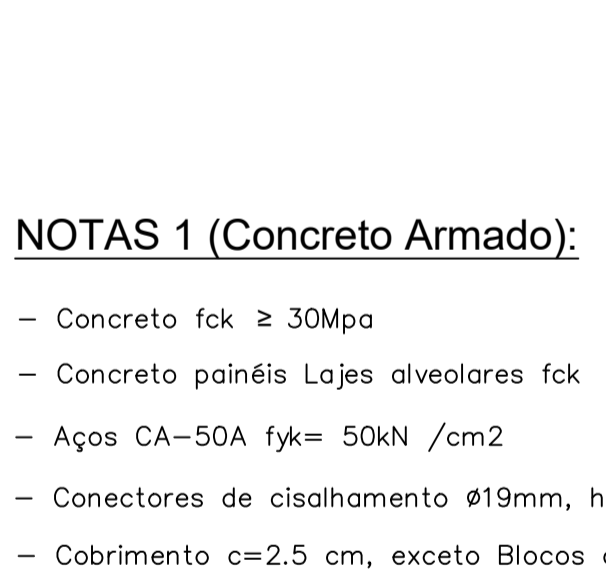
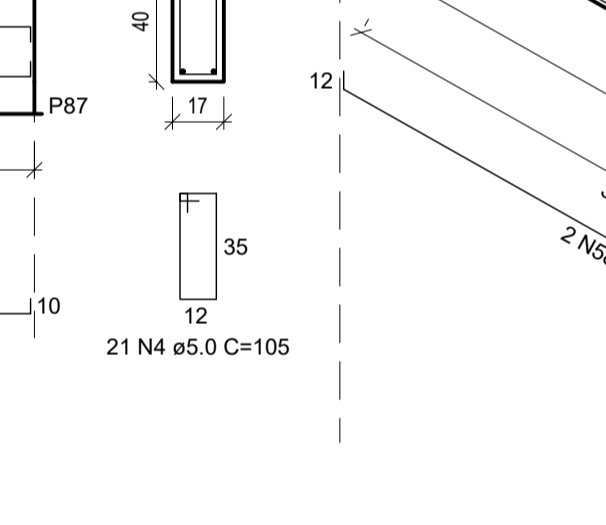
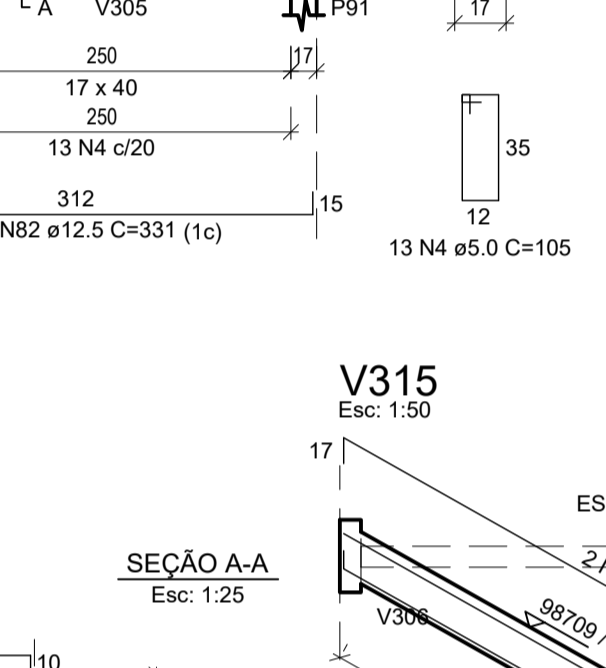
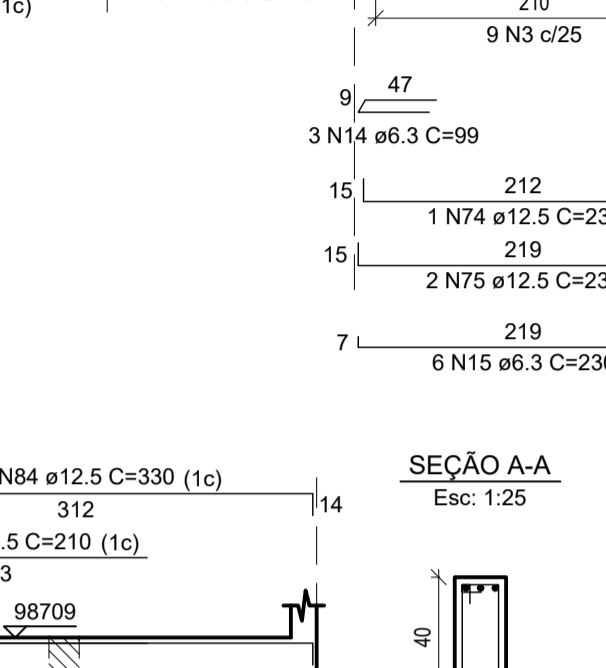
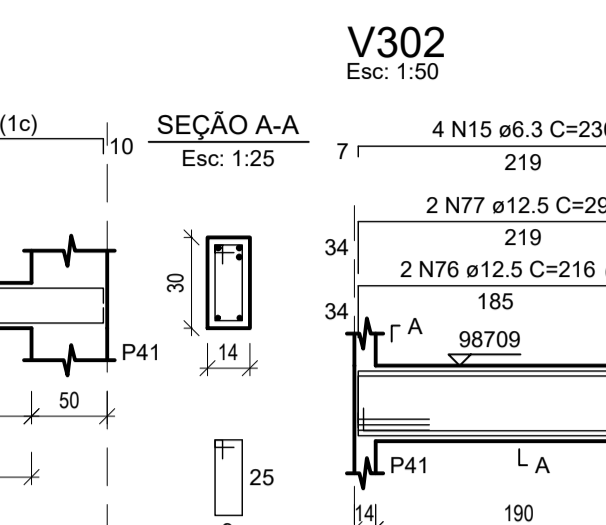
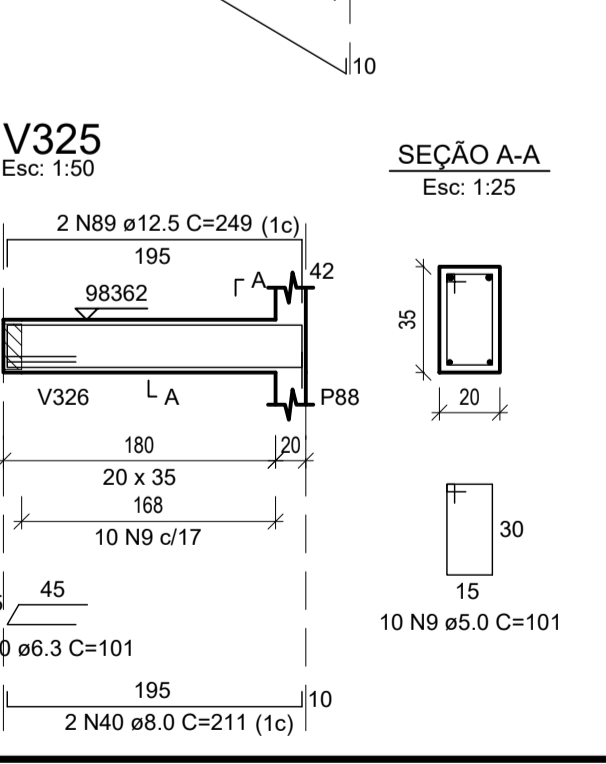
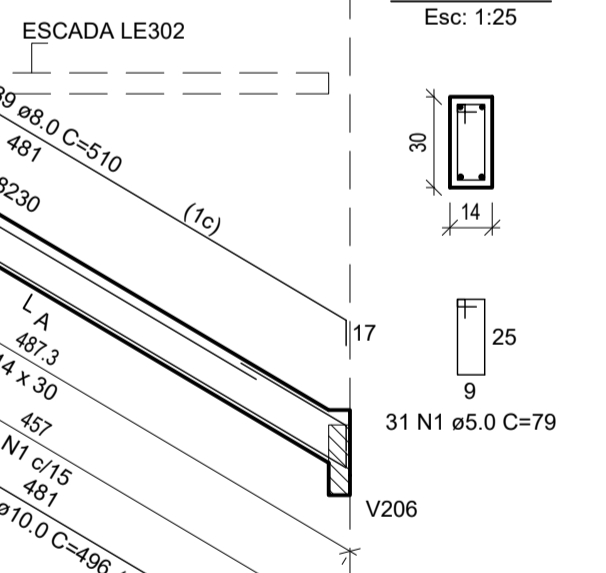
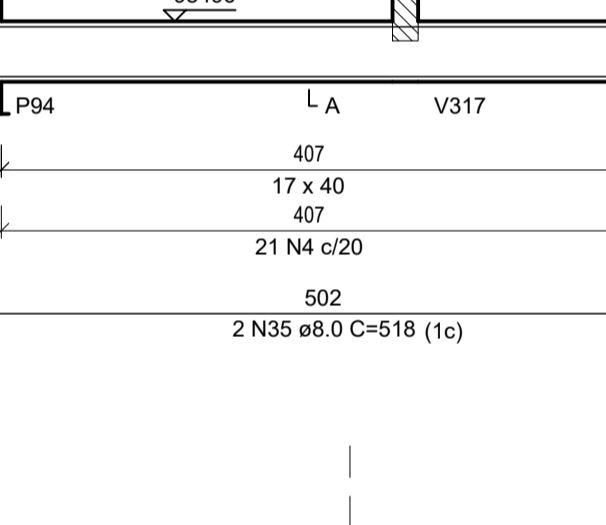
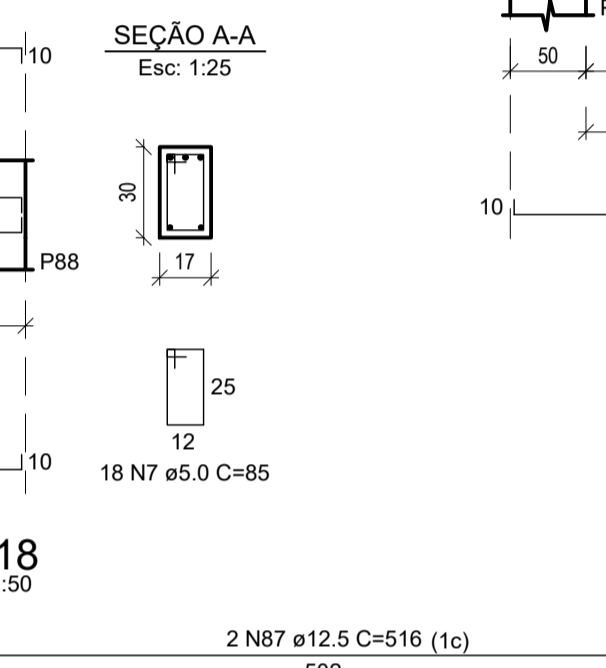
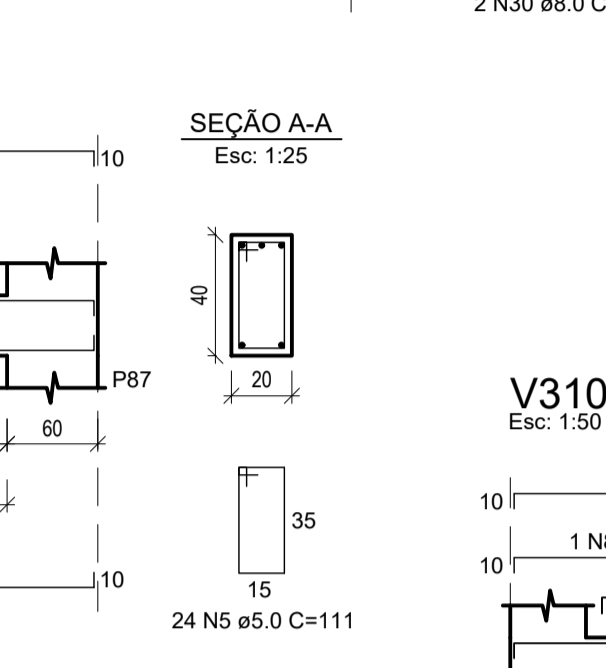
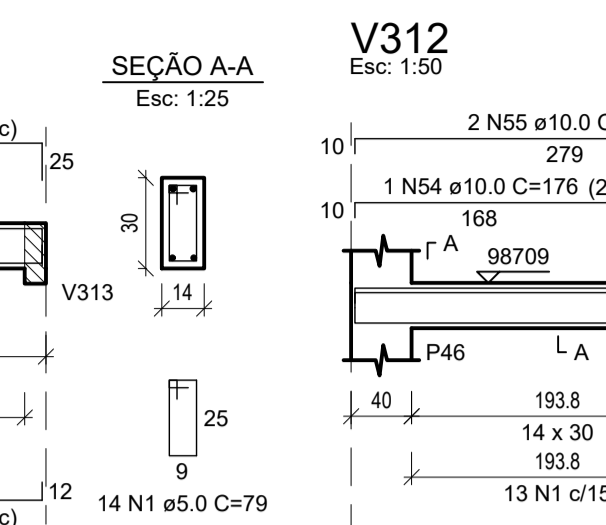
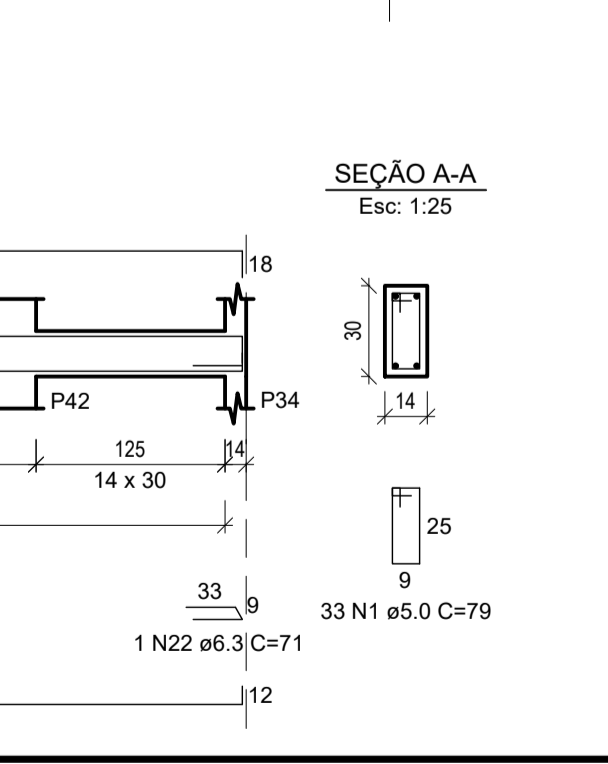
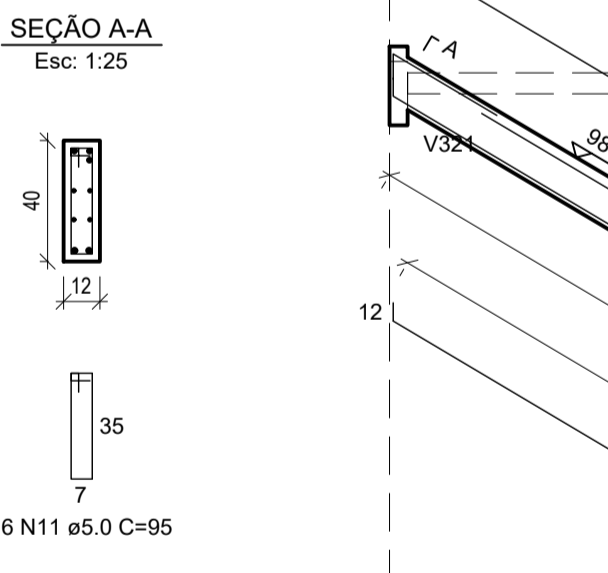
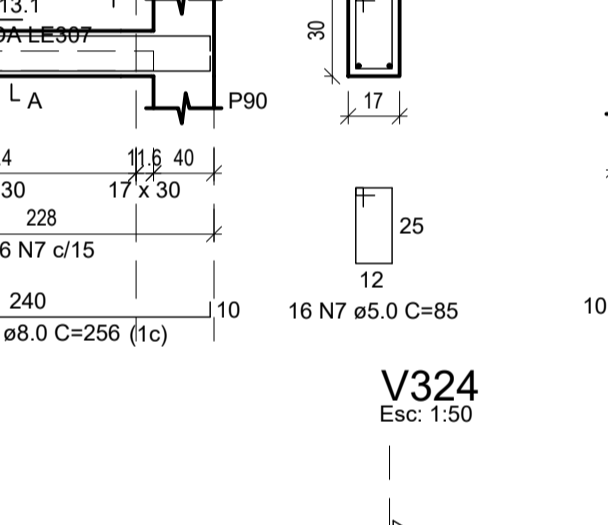
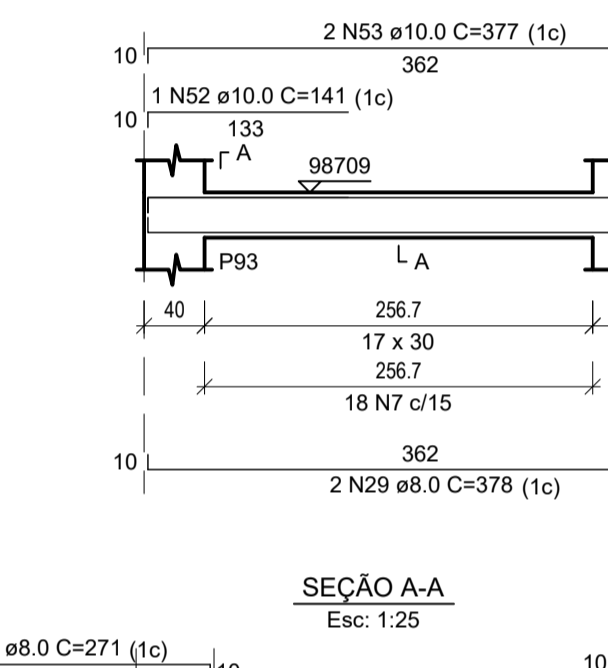
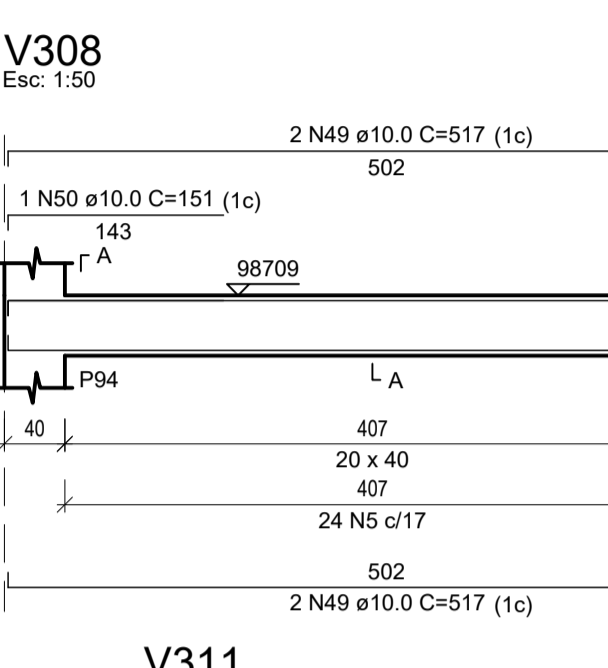
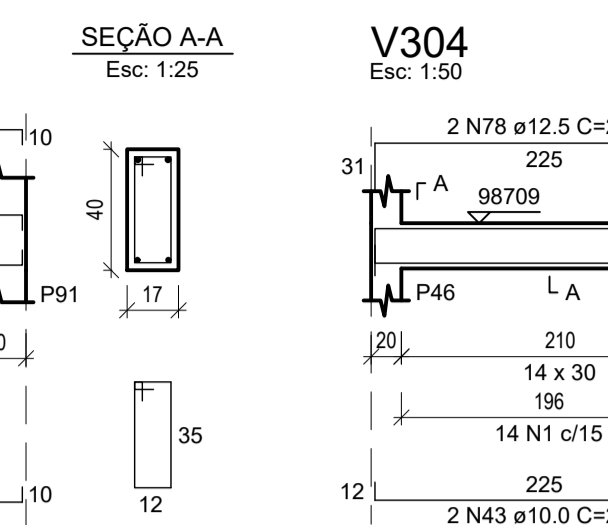
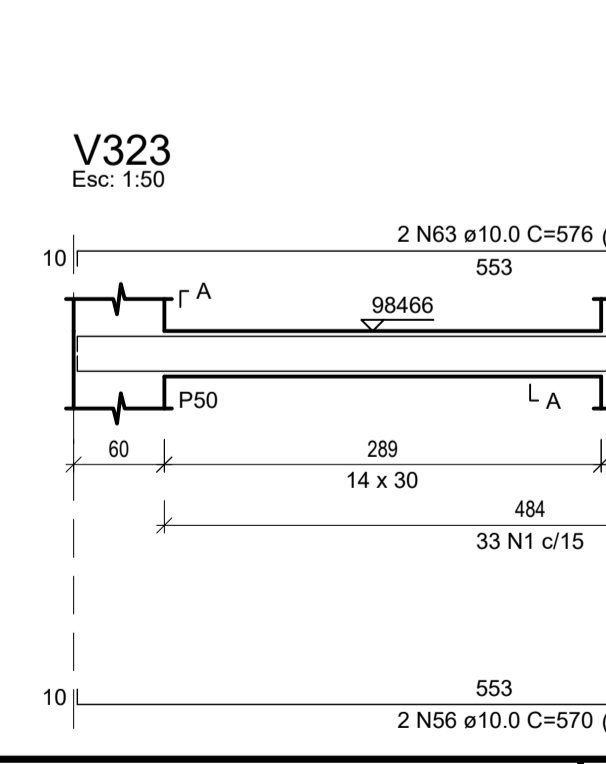
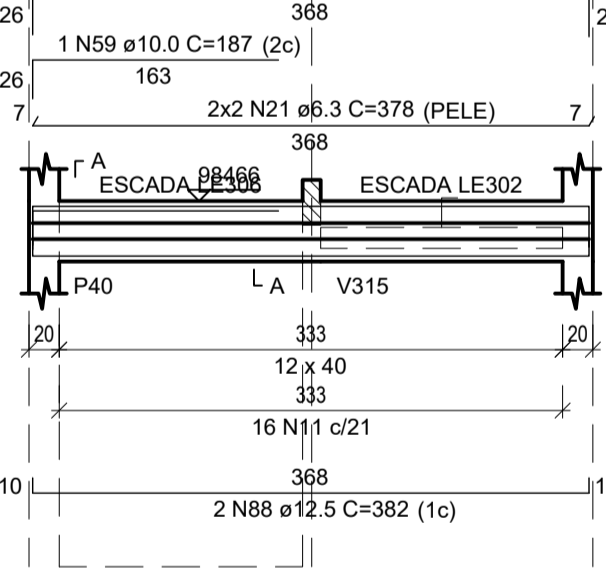
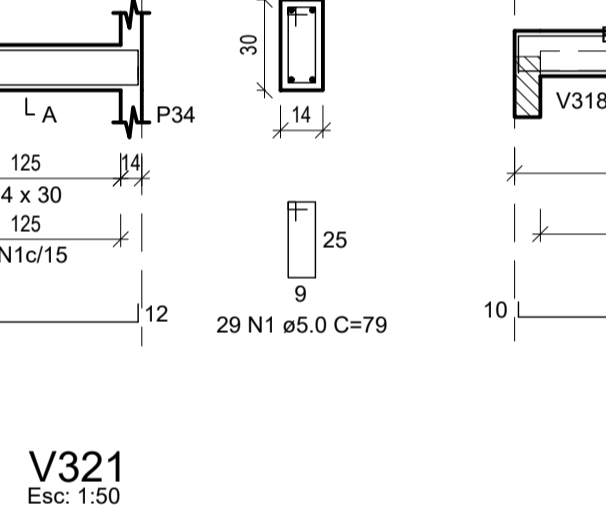
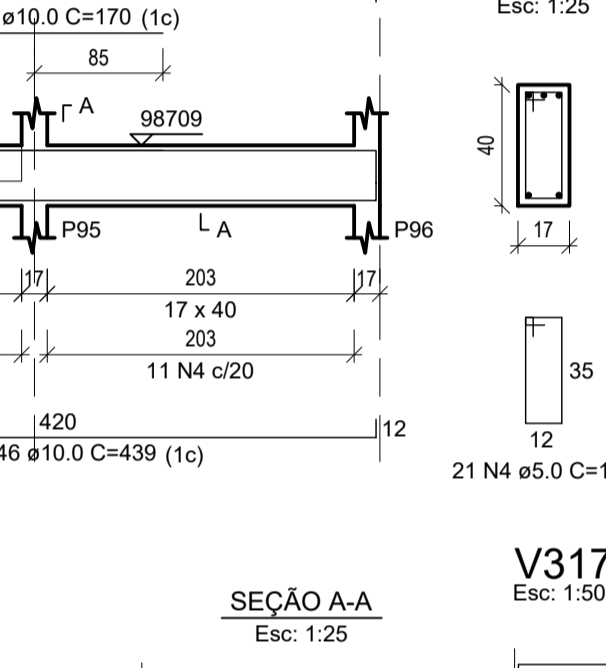
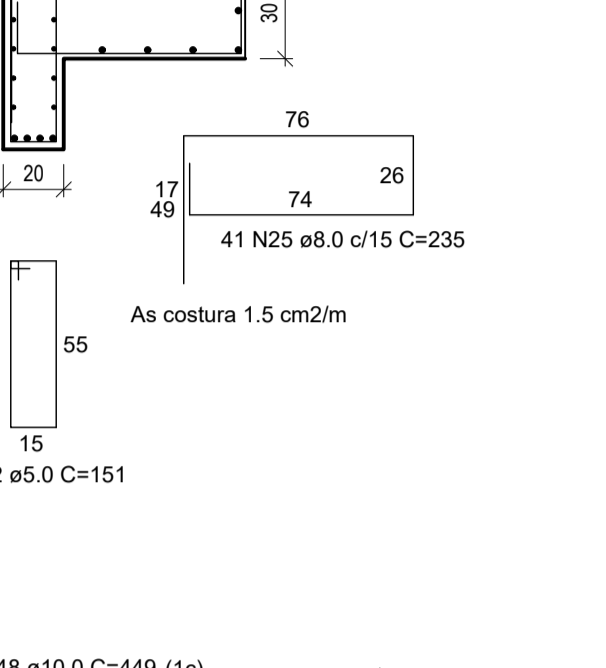
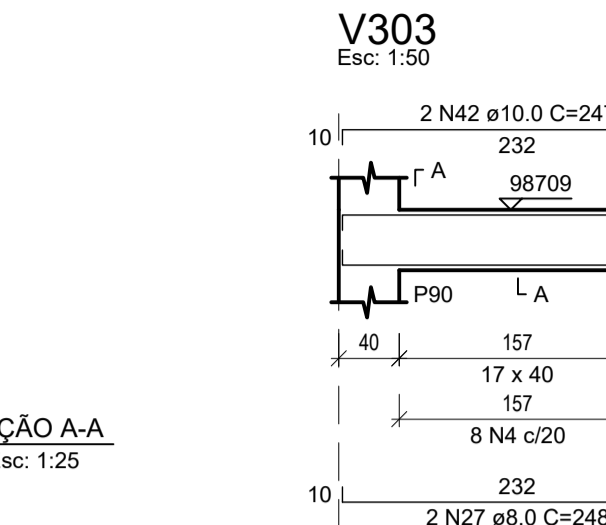
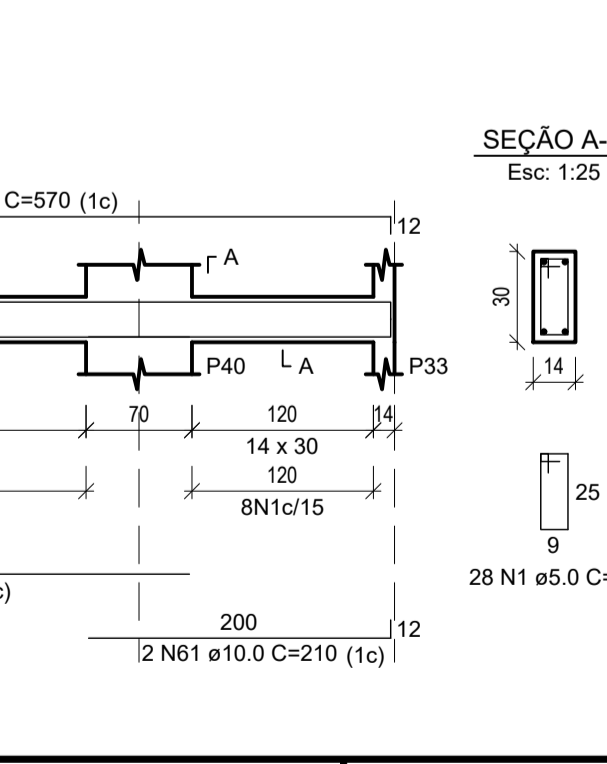
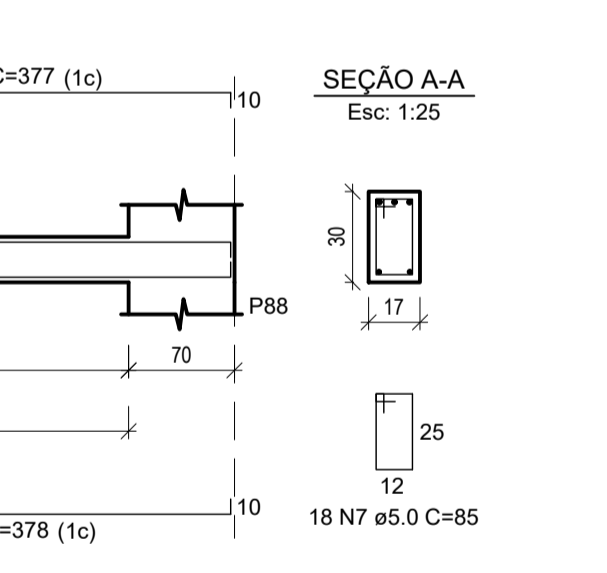
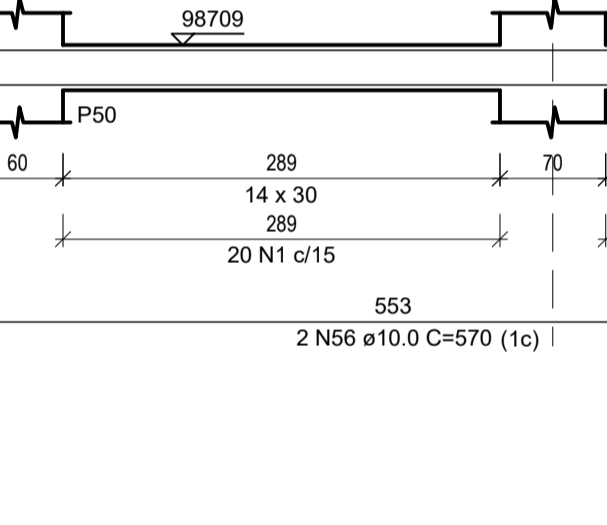
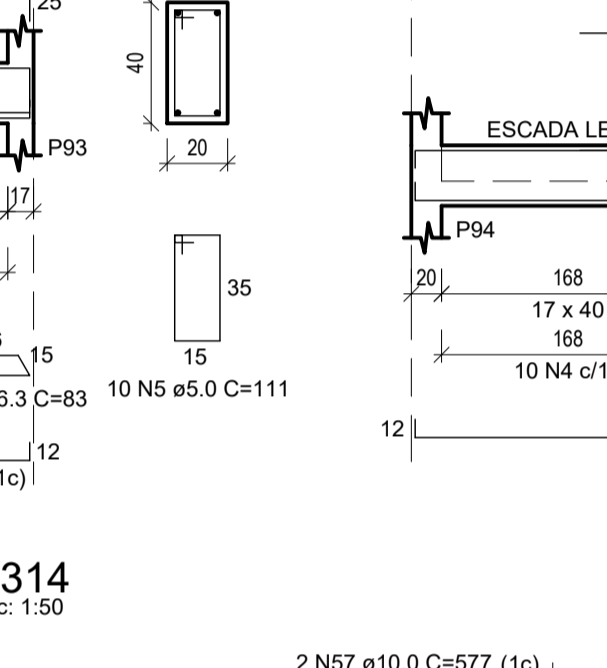
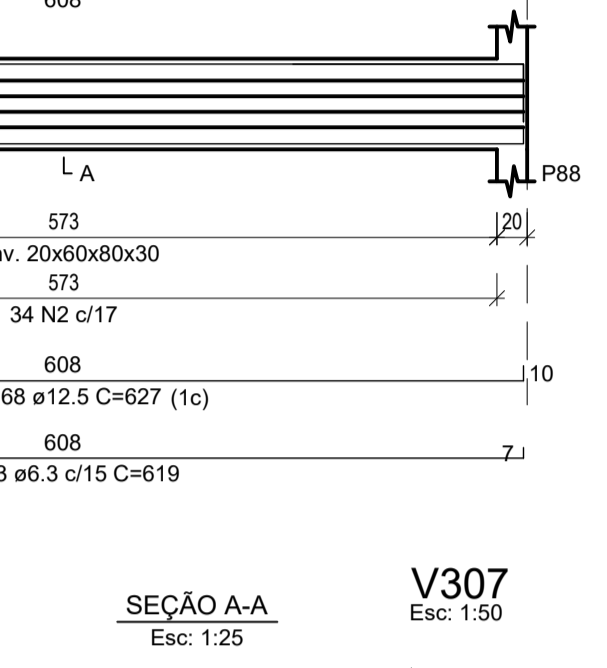
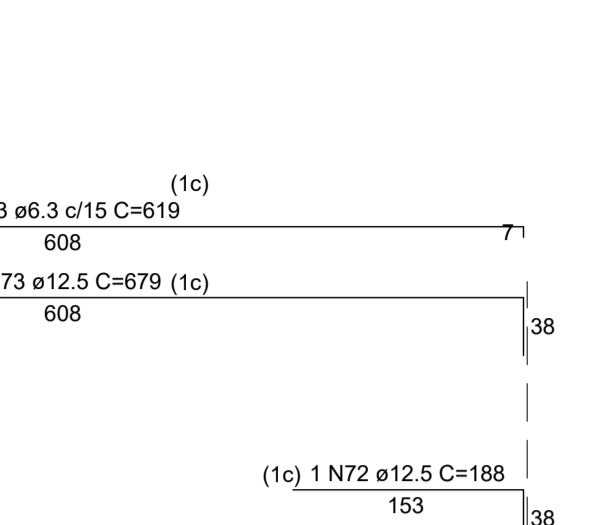
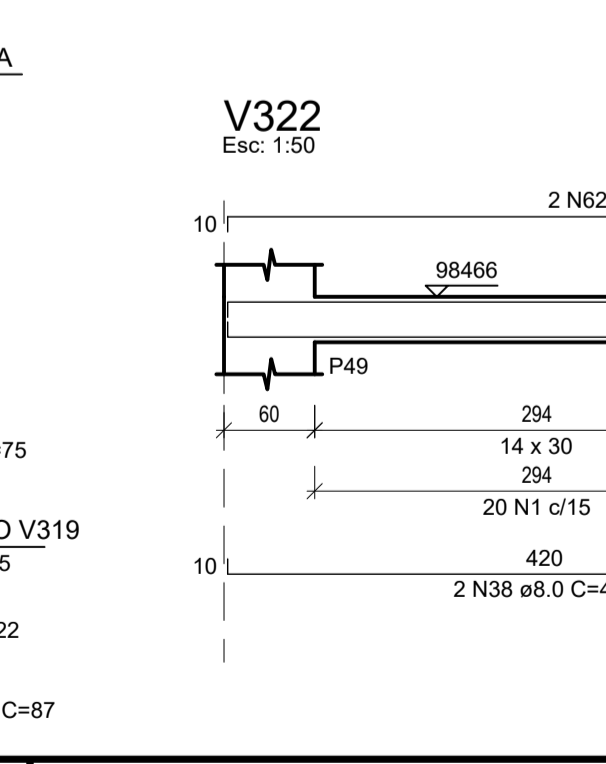
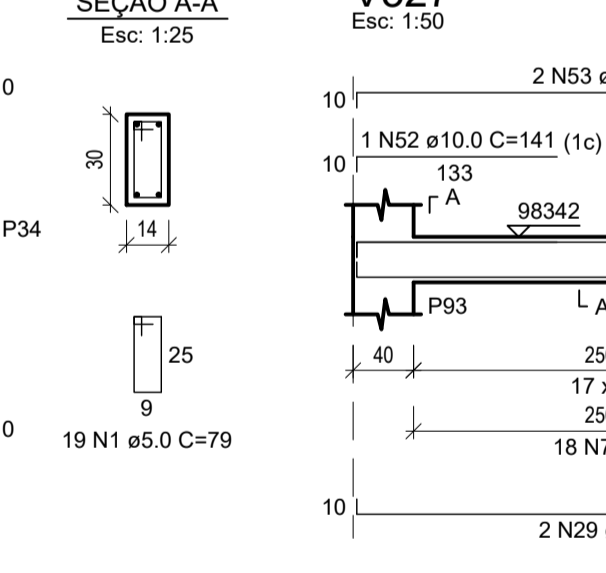
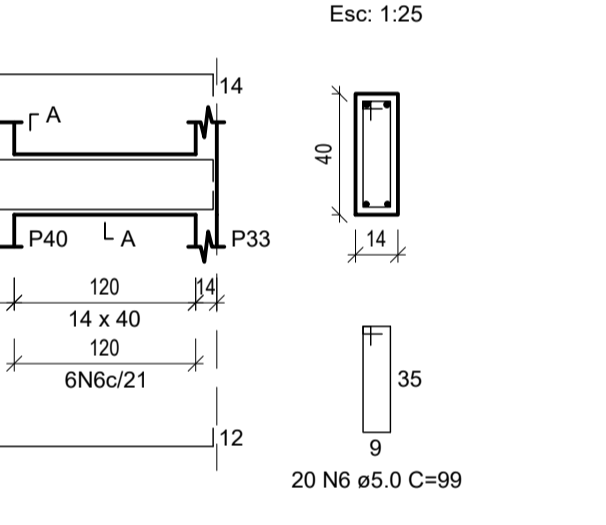
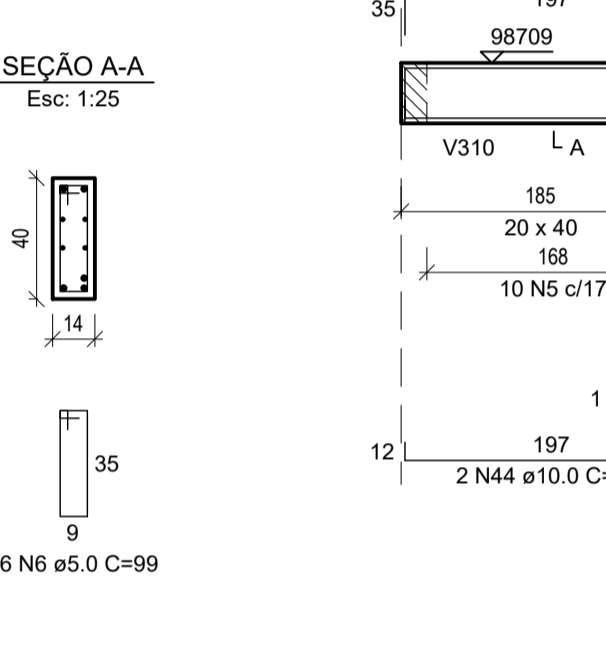
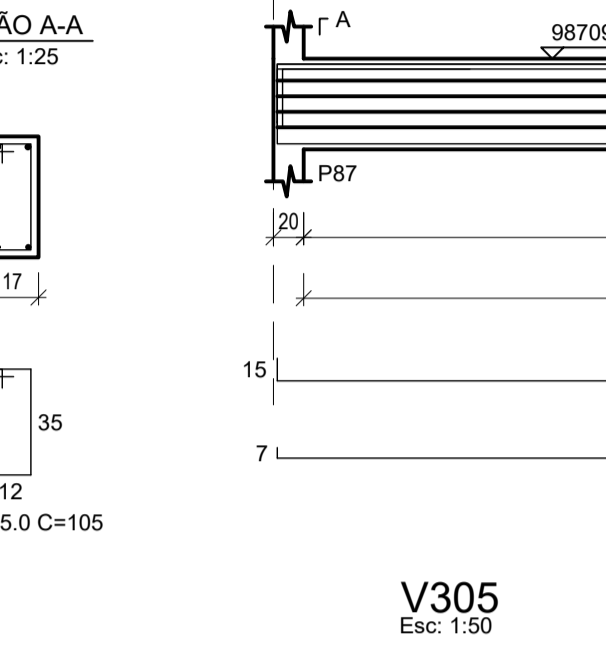
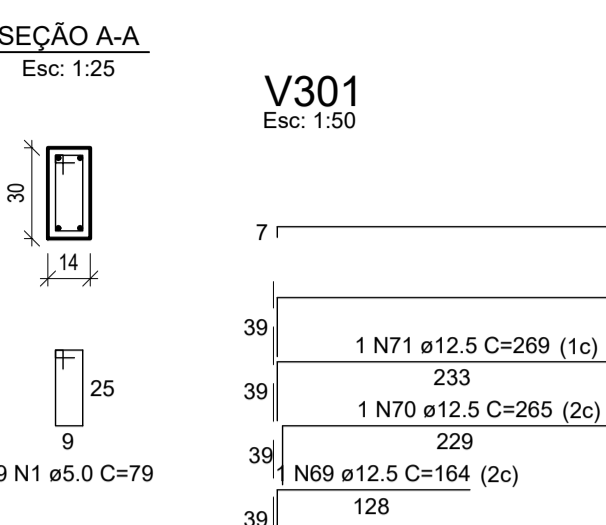
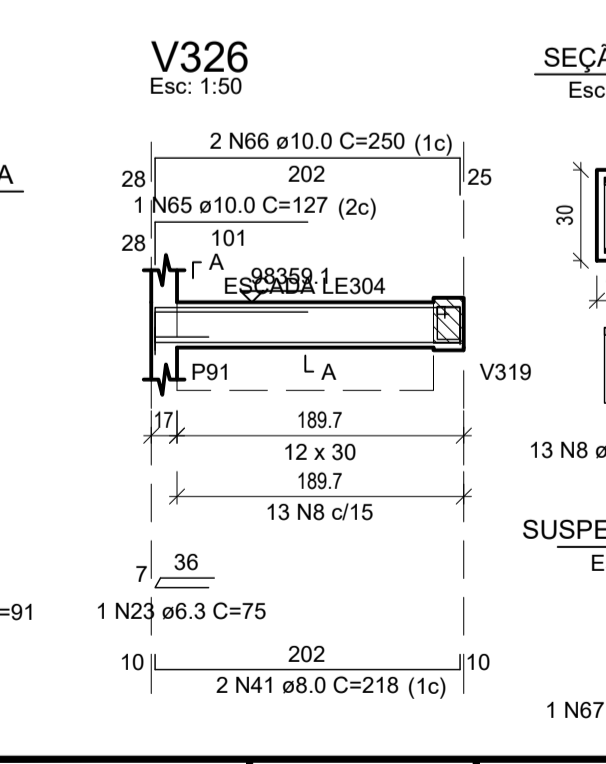
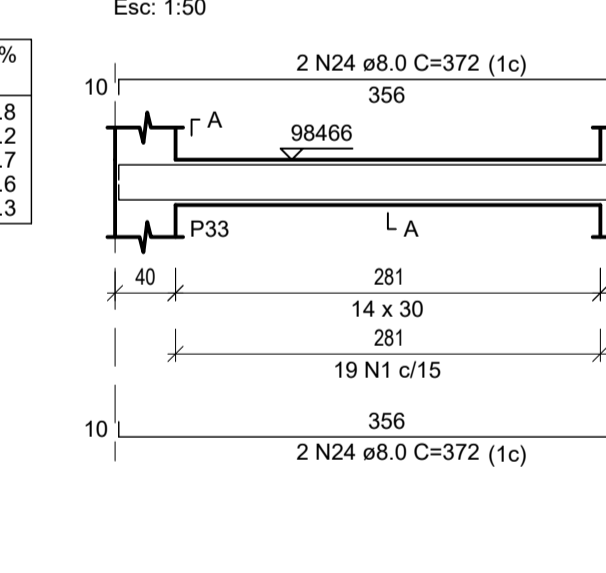
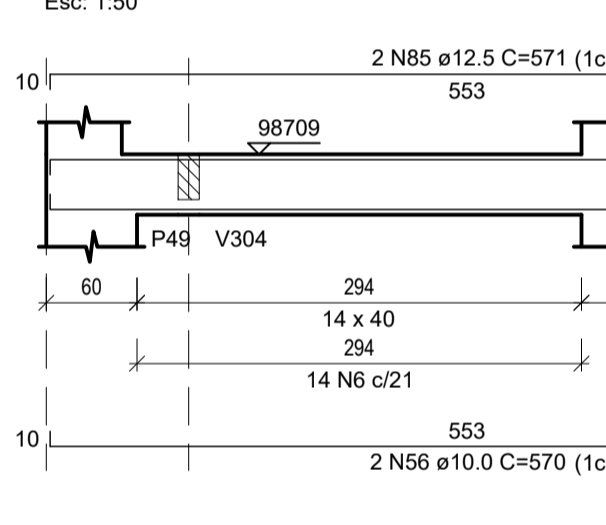
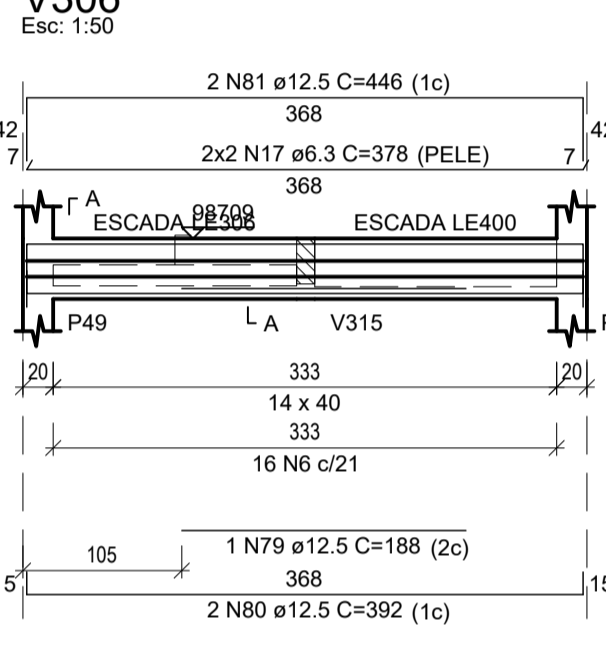
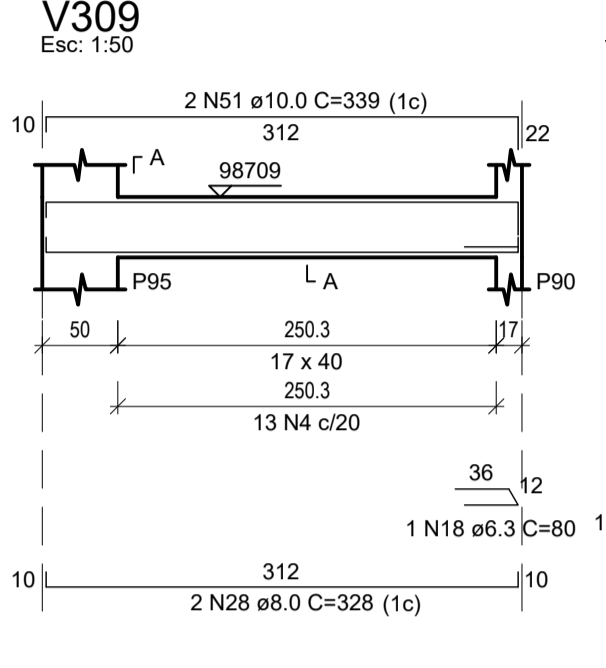
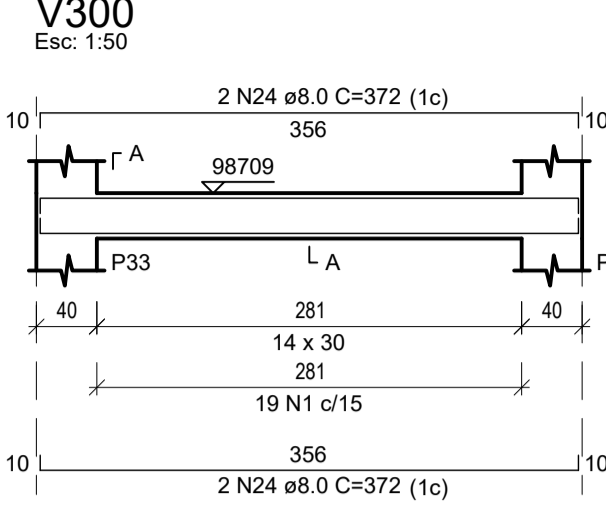
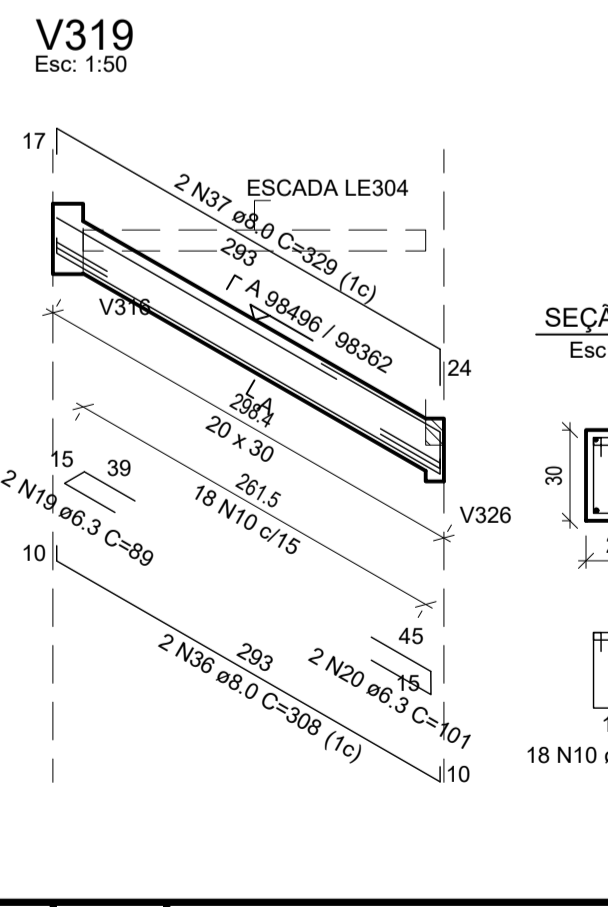
AÇO	DIAM (mm)	C. TOTAL (m)	QUANT + 10% (Barras)	PESO + 10% (kg)
CA50	6.3	170.3	16	45.8
	8.0	267.8	25	116.2
	10.0	203.1	19	137.7
	12.5	150.6	14	159.6
	5.0	491.2	-	83.3
PESO TOTAL (kg)				
CA50			459.4	
CA60			83.3	

Volume de concreto (C-30) = 5.95 m³
Área de forma = 87.79 m²

RELAÇÃO DO AÇO

AÇO	DIAM (mm)	C. TOTAL (m)	QUANT + 10% (Barras)	PESO + 10% (kg)
CA50	6.3	170.3	16	45.8
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Volume de concreto (C-30) = 5.95 m³
Área de forma = 87.79 m²



NOTAS 1 (Concreto Armado):

- Concreto fck ≥ 30Mpa
- Concreto painéis Lajes alveolares fck ≥ 45Mpa
- Aços CA-50A fyk= 50KN /cm2
- Conectores de cisalhamento Ø19mm, h=127mm, fu=415Mpa
- Cobrimento c=2.5 cm, exceto Blocos de fundação c=3.5 cm
- Apliar o fundo das Valas dos Blocos e Vigas
- Conferir Cotas e Níveis em Obra
- ca= Cota de Arrastamento da Cabeça da Estaca
- N máx = Carga Máxima em (tf) em CADA estaca do bloco considerado
- L = Comprimento mínimo de cada Estaca em (m), conforme sondagem
- e= Elevação da Viga em relação ao nível do pavimento (Ver Det.)
- BM = Broca "Morta"
- P.A.= Piso Acabado
- RN = 0.0m (Conforme Arq.)
- Para a Locação da Obra, consultar também Projeto de Arquitetura e conferir medidas e Níveis do Terreno em obra
- Compactar aterro por camadas p/ evitar deslocamentos
- A numeração dos eixos nesse projeto não coincidem necessariamente com a numeração dos eixos das paredes no projeto de Arquitetura

Nº	DATA	REVISÃO	EXECUTADO POR	APROVADO POR	NOTAS

1- CONFERIR MEDIDAS NO LOCAL;
2- OS AMBIENTES QUE APRESENTAM INSUFICIÊNCIA DE ILUMINAÇÃO E VENTILAÇÃO NATURAL SERÃO SUPRIDOS POR ILUMINAÇÃO ARTIFICIAL (LÂMPADAS DE LED OU FLUORESCENTES) E VENTILAÇÃO MECÂNICA CONFORME DETERMINA O ART. 48 DO DECRETO ESTADUAL 12.342/1978

RESPONSÁVEL TÉCNICO
FABIANO TOFOLLI MOREIRA
ARQUITETO - CAU/SP 24366-3



Tofolli & Moreira
Projetos e Construções Ltda.
CNPJ: 09.372.436/0001-86

PROPRIETÁRIO: CENTRO UNIVERSITÁRIO MUNICIPAL DE FRANCA - Uni-FACEF	FL. 40/51
PROJETO: ANTEPROJETO DE ARQUITETURA PARA EDIFICAÇÃO DO AMBULATÓRIO ESCOLA, CLÍNICA DE PSICOLOGIA, SVO E OUTROS COM INTERLIGAÇÃO, ANEXO ÀS UNIDADES II E III.	REV.
ASSUNTO: ARMAÇÃO DAS VIGAS DO 3o. PAVIMENTO	ESCALA
LOCAL: FRANCA - SP	1:50