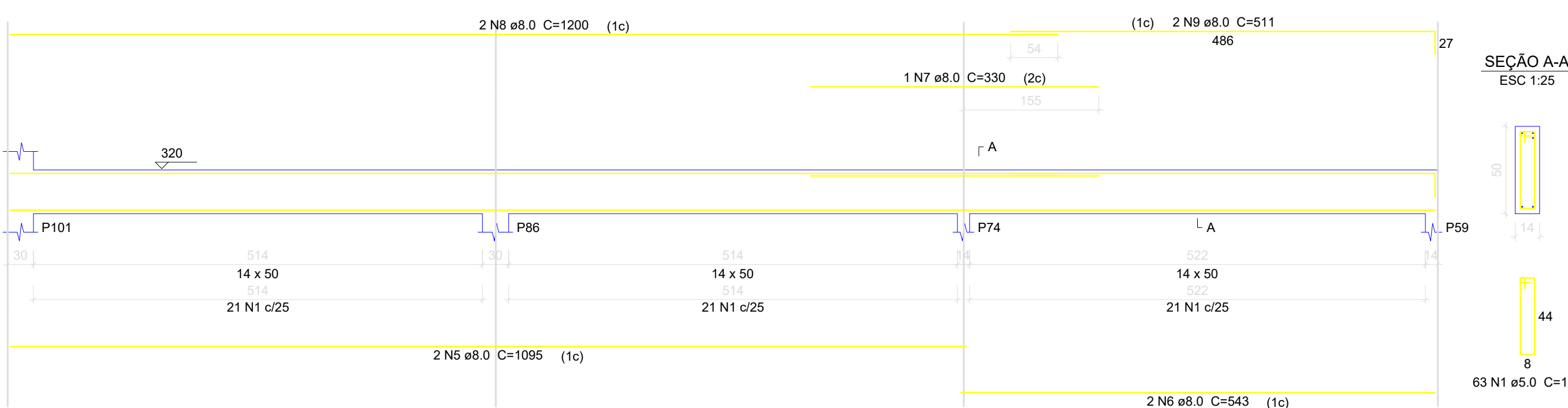
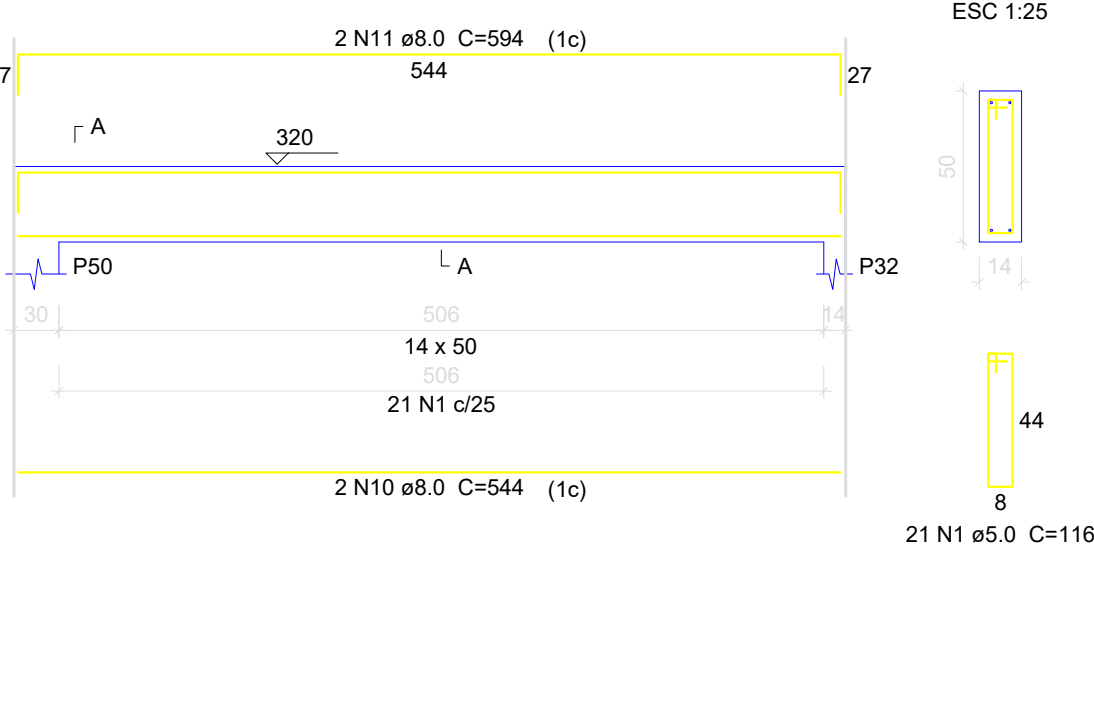


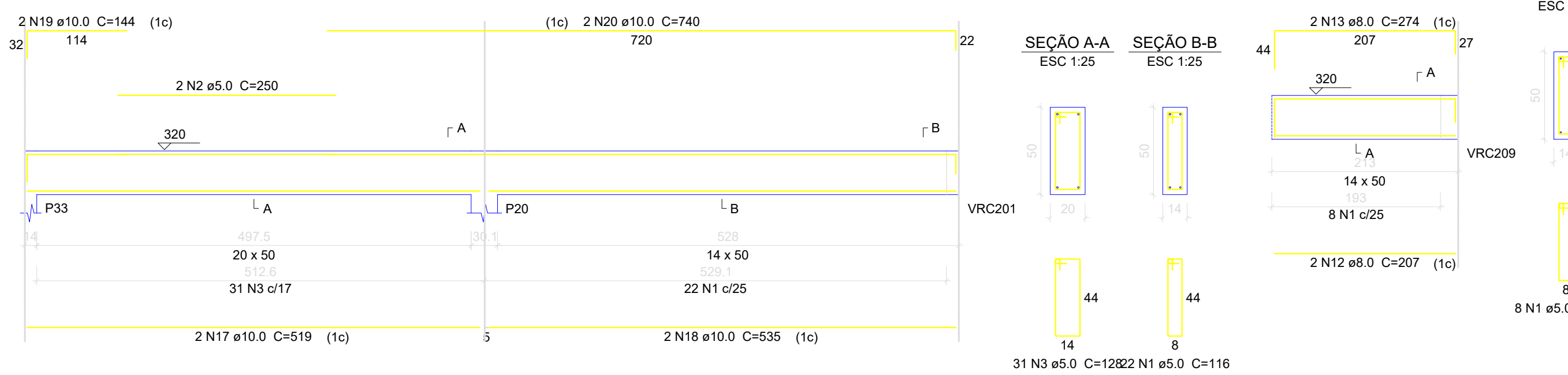
VRC274



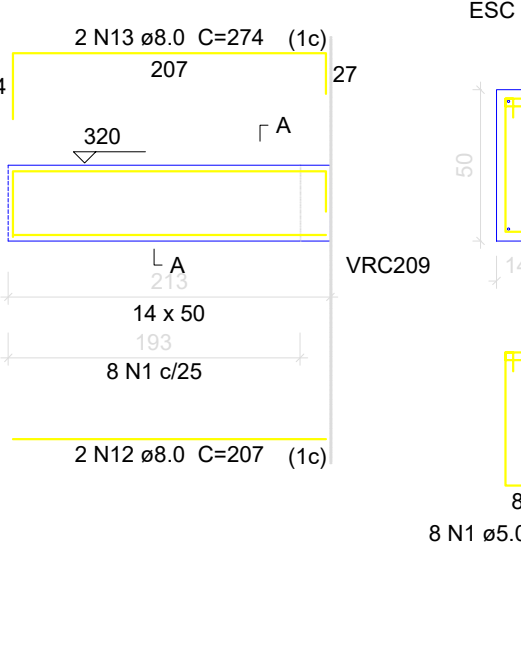
VRC275



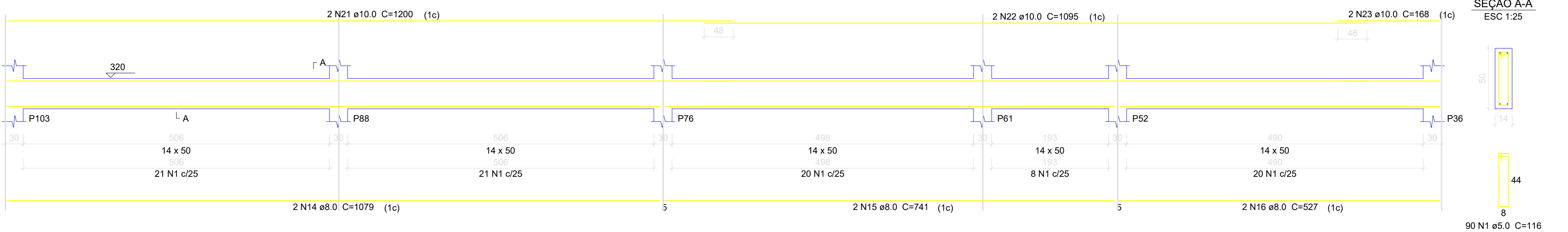
VRC276



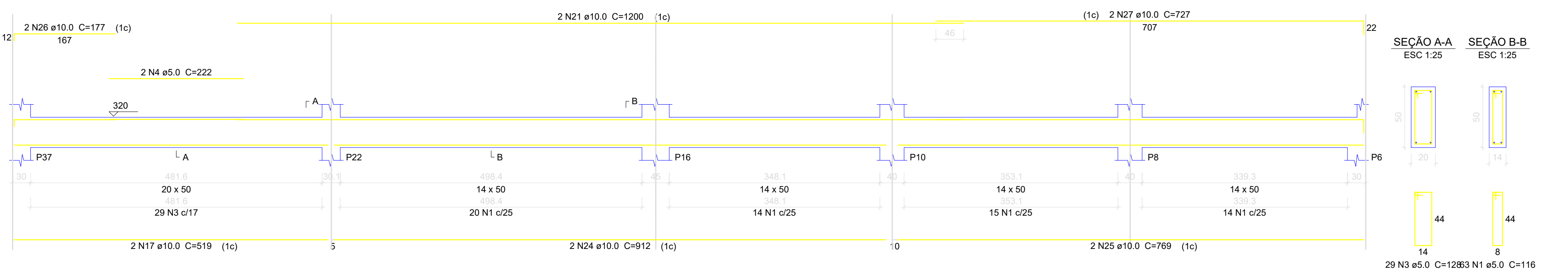
VRC277



VRC278



VRC279



Relação do aço

AÇO	N	DIAM	Q	UNIT	C.TOTAL
VRC274				(cm)	(cm)
VRC277					
VRC275					
VRC276					
VRC279					
CA60	1	5.0	267	116	30972
	2	5.0	2	250	500
	3	5.0	60	128	7680
	4	5.0	2	222	444
CA50	5	8.0	2	1095	2190
	6	8.0	2	543	1086
	7	8.0	1	330	330
	8	8.0	2	1200	2400
	9	8.0	2	511	1022
	10	8.0	2	544	1088
	11	8.0	2	594	1188
	12	8.0	2	207	414
	13	8.0	2	274	548
	14	8.0	2	1079	2158
	15	8.0	2	741	1482
	16	8.0	2	527	1054
	17	10.0	4	519	2076
	18	10.0	2	535	1070
	19	10.0	2	144	288
	20	10.0	2	740	1480
	21	10.0	4	1200	4800
	22	10.0	2	1095	2190
	23	10.0	2	168	336
	24	10.0	2	912	1824
	25	10.0	2	769	1538
	26	10.0	2	177	354
	27	10.0	2	727	1454

Resumo do aço

AÇO	DIAM	C.TOTAL	PESO + 10 %
		(m)	(kg)
CA50	8.0	149.6	64.9
	10.0	174.1	118.1
CA60	5.0	396	67.1
PESO TOTAL			
CA50		183	
CA60		67.1	

Vol. de concreto total (C-30) = 5.97 m³  
Área de forma total = 92.74 m²

**ARQUITETURA E ENGENHARIA**  
> PROJETOS INDUSTRIAIS / COMERCIAIS / RESIDENCIAIS E PÚBLICAS  
> ASSESSORIA / CONSULTORIA  
> GESTÃO DE OBRAS  
> PERÍCIAS  
> EXECUÇÃO DE OBRAS

AV. BRASIL, 1225 - SALA 03  
UNIVERSITÁRIO  
CSP 04609-017 - LACERDOTE  
TEL: (49) 39923 2944  
CNPJ 20.270.410/0001-49

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James André Clauberg  
Eng. Civil - CREA 45.160-6

RESP. TÉCN.:  
  
Indiamara de Oliveira Ribeiro  
Eng. Civil - CREA 13.4548-3

CLIENTE:  
  
Prefeitura Municipal de Rio Rufino

OBRA:  
  
**PROJETO ESTRUTURAL  
ESCOLA MUNICIPAL DE RIO RUFINO**  
  
PLANTA DAS VIGAS DE RESPALDO  
DO RESERVATÓRIO

DESENHO:  
  
ESCALA:  
  
DATA:  
  
OUT/2022

TAMANHO DE FOLHA A1