

ACO	POS	BIT (mm)	QUANT	COMPRIMENTO	
				UNIT (cm)	TOTAL (cm)
PE1	S0A	1	20	14	9002
	S0A	2	25	18	210
	S0A	3	8	168	10416
PE2	S0A	1	25	16	676
	S0A	2	25	16	190
	S0A	4	8	90	5850
PE3	S0A	1	20	12	459
	S0A	2	20	12	170
	S0A	4	6.3	33	6336
PE4	S0A	1	20	12	440
	S0A	2	20	12	170
	S0A	4	6.3	28	192
PP1	S0A	1	25	18	799
	S0A	2	25	18	210
	S0A	3	8	52	14248
PP2	S0A	1	25	18	796
	S0A	2	25	18	210
	S0A	4	8	150	12750
PP3	S0A	1	25	16	598
	S0A	2	25	16	380
	S0A	3	8	84	85
PR1	S0A	1	25	14	7642
	S0A	2	25	14	190
	S0A	3	8	38	194
PR2	S0A	1	25	14	608
	S0A	2	25	14	260
	S0A	3	8	38	194
PR3	S0A	1	25	14	752
	S0A	2	25	14	190
	S0A	3	8	41	194
PR5	S0A	1	25	16	728
	S0A	2	25	16	190
	S0A	4	8	94	65
PR6	S0A	1	25	18	804
	S0A	2	25	18	260
	S0A	4	8	153	65
PR7	S0A	1	25	12	481
	S0A	2	25	12	280
	S0A	3	8	35	194
PR8	S0A	1	25	12	555
	S0A	2	25	12	190
	S0A	3	8	38	194
PR9	S0A	1	25	12	629
	S0A	2	25	12	190
	S0A	3	8	38	194
VE1/VE4/VE9 (X3)	S0A	1	12.5	6	274
	S0A	2	12.5	12	238
	S0A	4	8	42	174
VE2/VE5/VE6/VE10 = VE3/VE7/VE8/VE11 (X8)	S0A	1	25	12	481
	S0A	2	25	12	280
	S0A	3	8	35	194
VR1/VR26 (X2)	S0A	1	12.5	4	314
	S0A	2	12.5	12	234
	S0A	3	8	16	191
VR2/3/10/11/16/17/24/25/27/28/35/36 (X19)	S0A	1	25	114	424
	S0A	2	25	16	320
	S0A	3	16	152	331
VR4/18/29 = VR5/19/30 (X6)	S0A	1	25	30	431
	S0A	2	25	30	270
	S0A	4	12.5	228	192
VR8=VR14=VR22=VR33 (X4)	S0A	1	25	16	430
	S0A	2	25	16	260
	S0A	4	8	84	189
VR9=VR15=VR23=VR34 (X4)	S0A	1	25	16	420
	S0A	2	25	16	260
	S0A	4	8	84	197
VR12	S0A	1	12.5	5	274
	S0A	2	12.5	6	234
	S0A	4	8	14	234
RESUMO AÇO CA 50-60	ACO	BIT (mm)	COMPR (cm)	PESO (kg)	
	S0A	6.3	396	98	
	S0A	8	790	1493	
Peso Total S0A =	S0A	12.5	444	428	
	S0A	16	1061	1625	
	S0A	20	209	519	
	S0A	25	2261	9261	
	Peso Total S0A =				13494 kg

DOBRAMENTO PADRÃO DE BARRAS E GANCHOS

RAIOS DE DOBRAMENTO	RAIOS DE DOBRAMENTO		
	CA-25	CA-50	CA-60
< 20	2.0	2.5	3.0
> 20	2.5	4.0	4.0

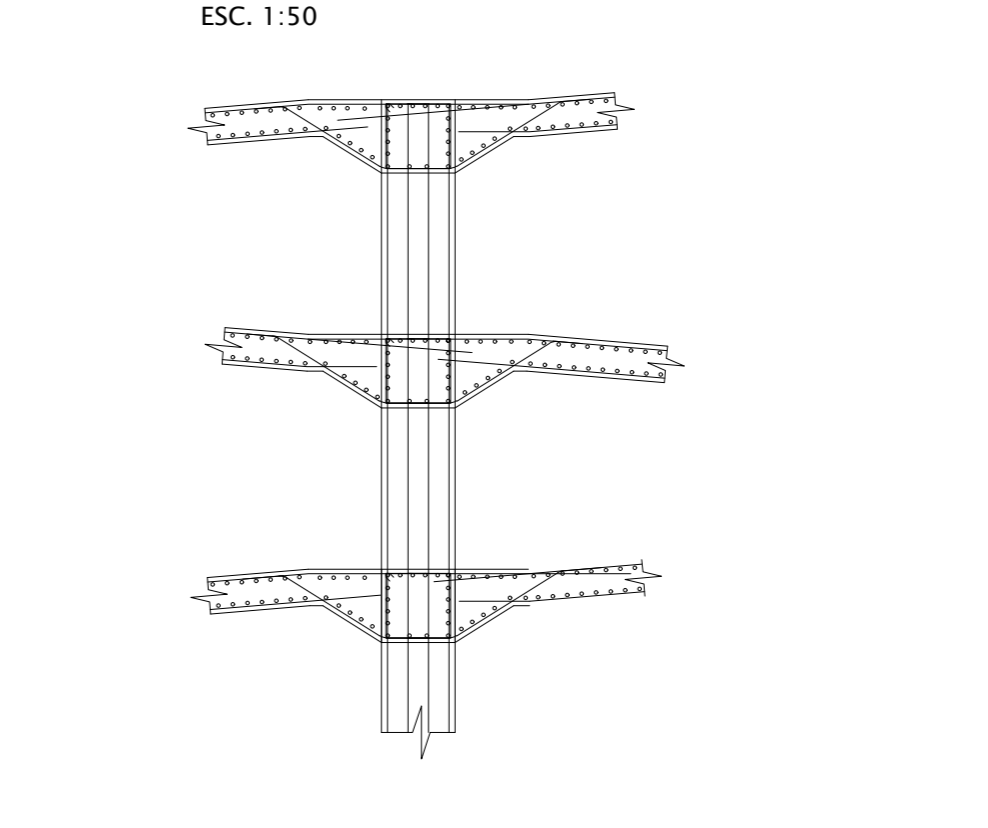
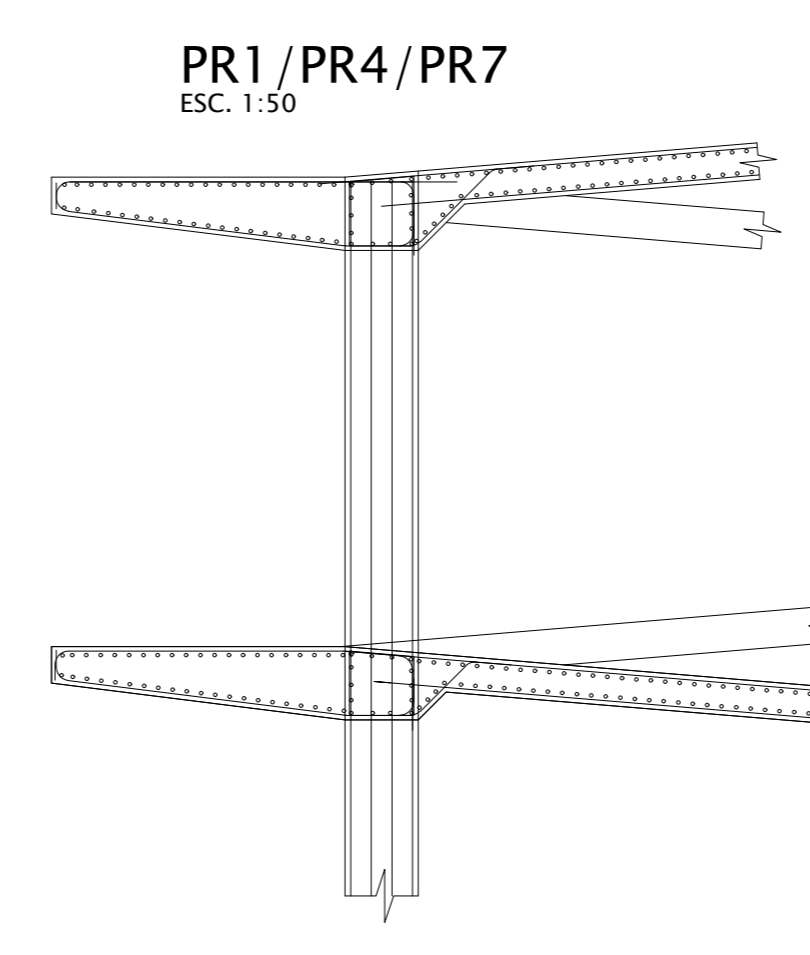
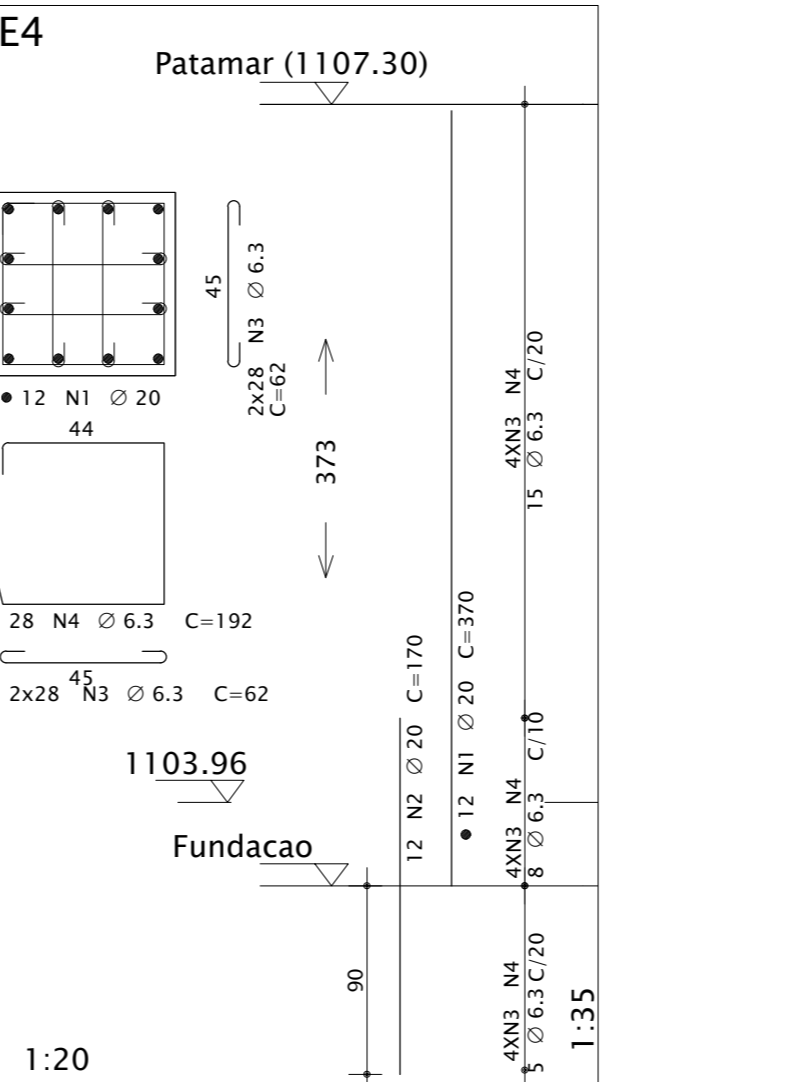
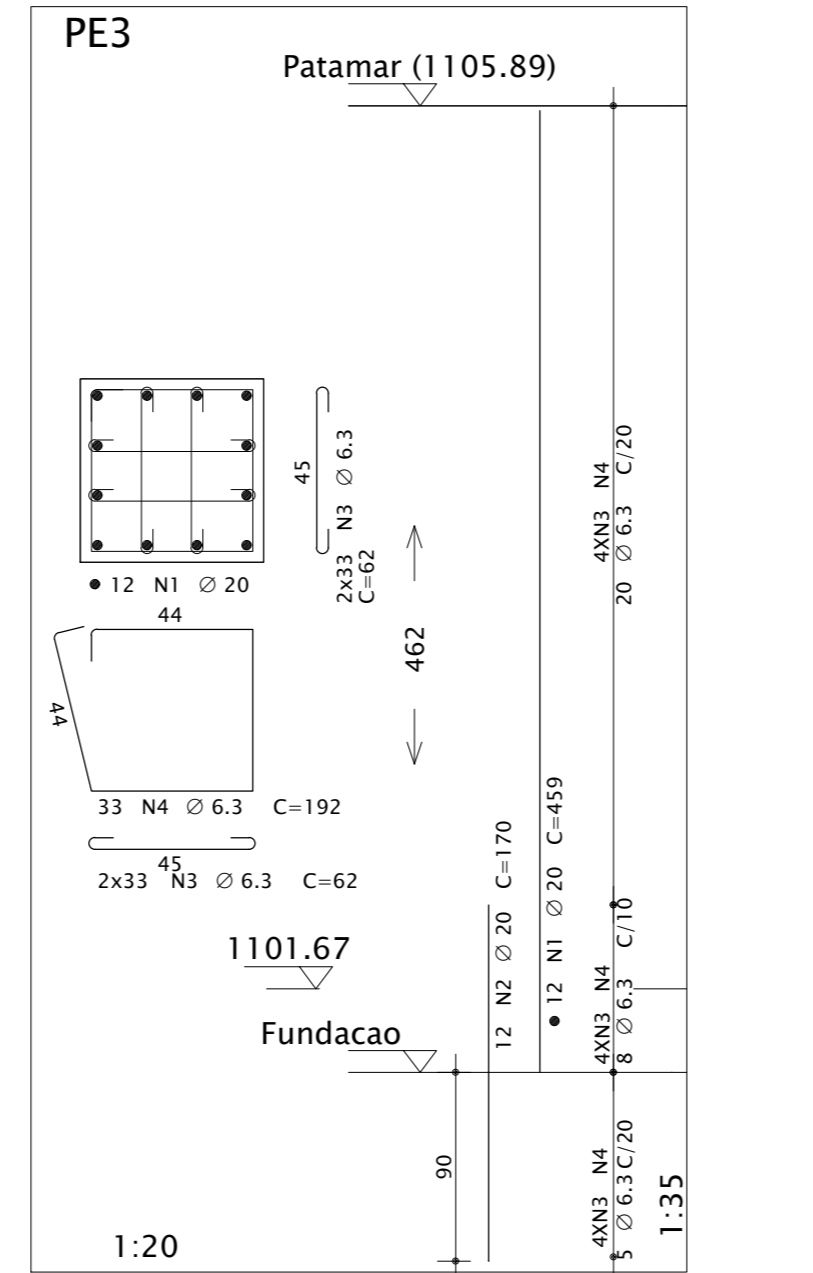
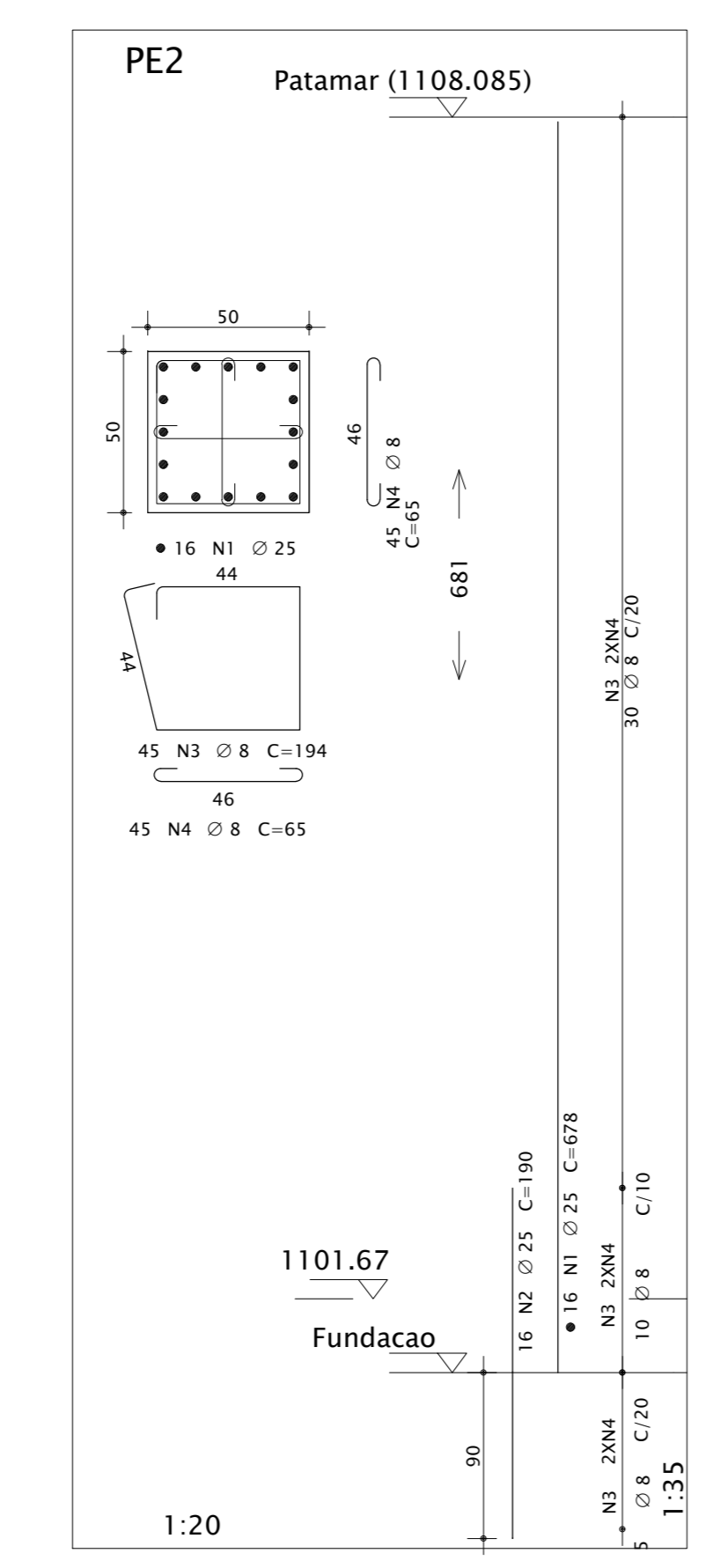
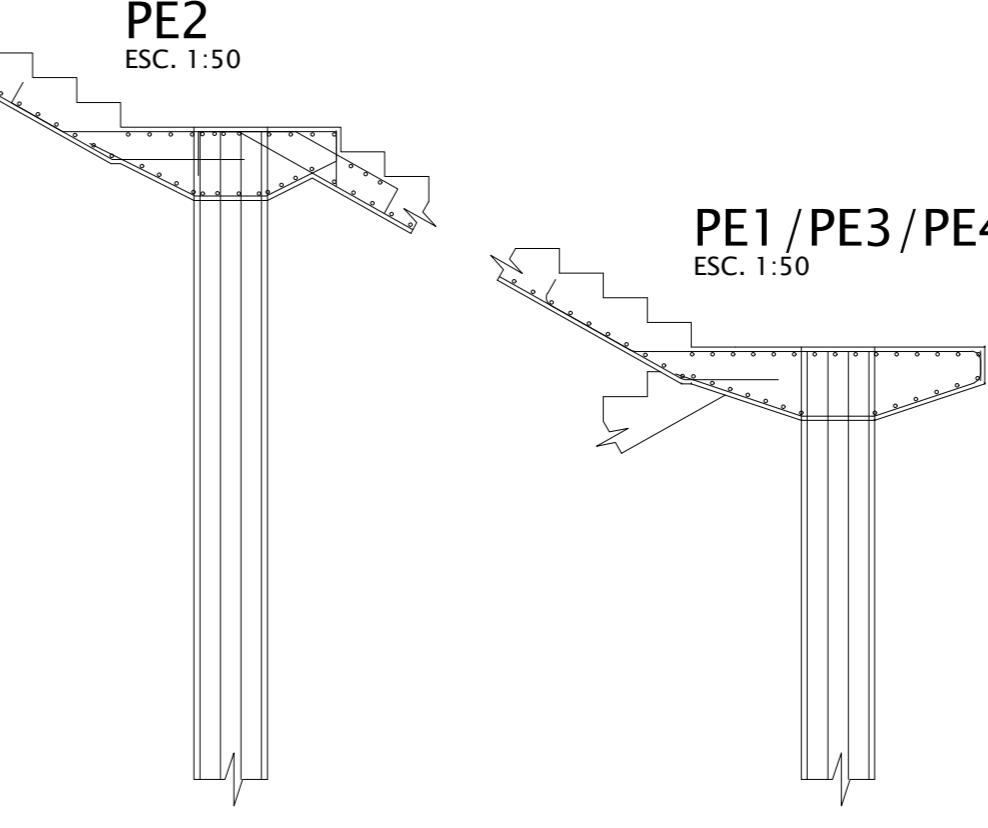
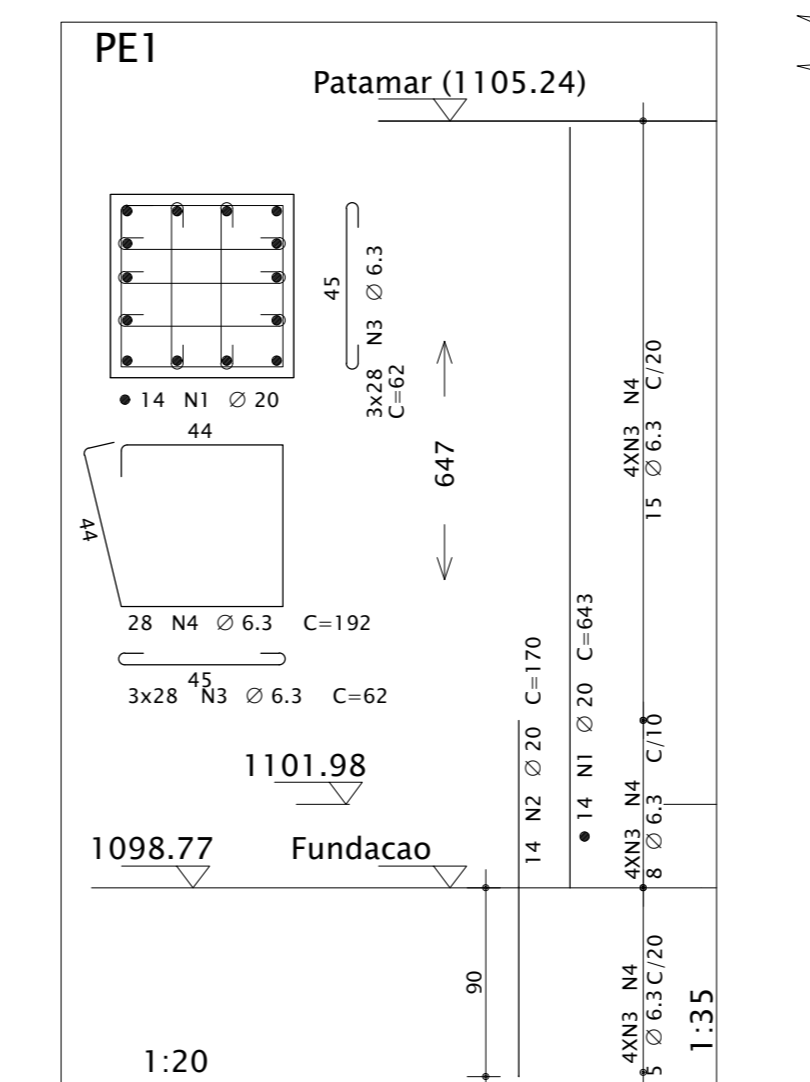
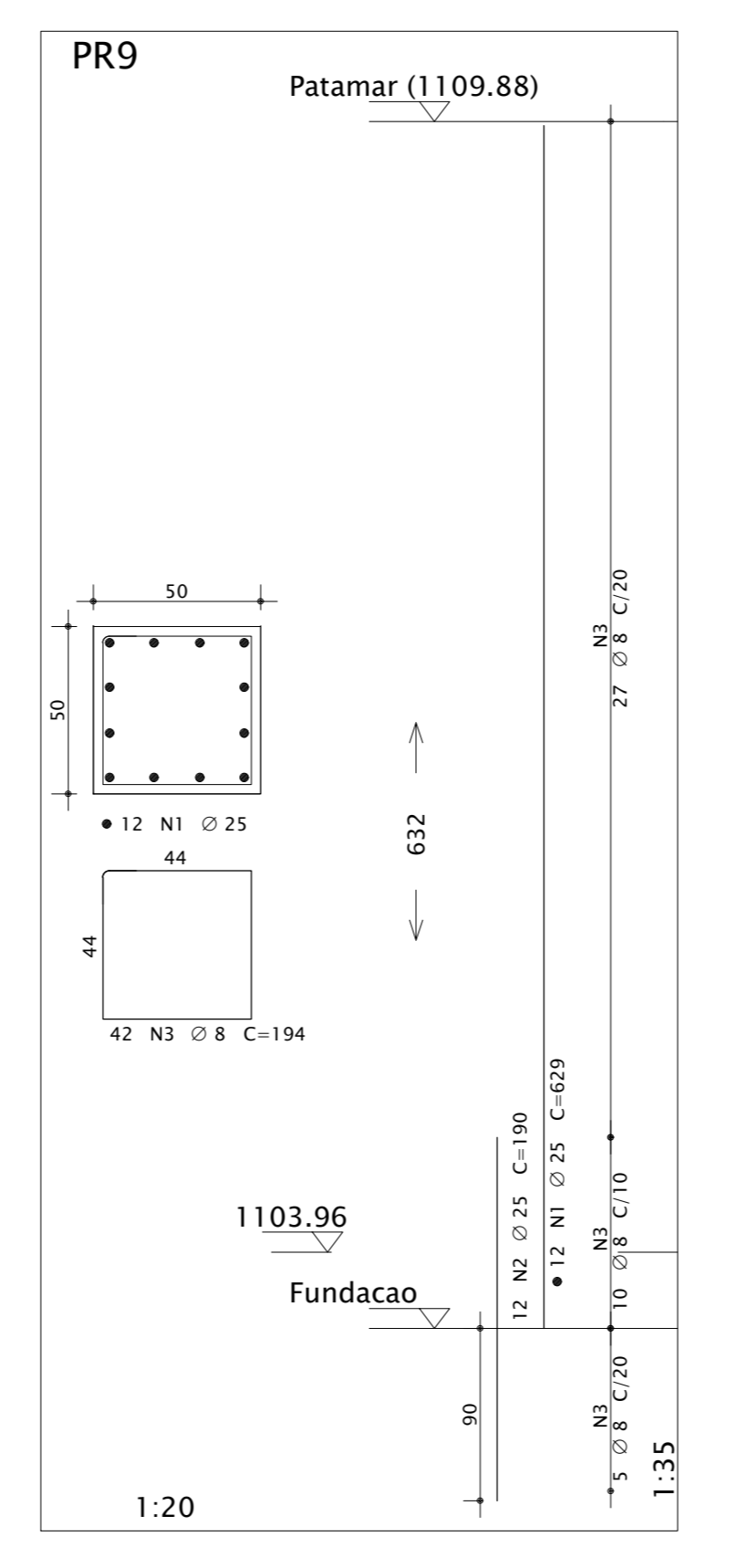
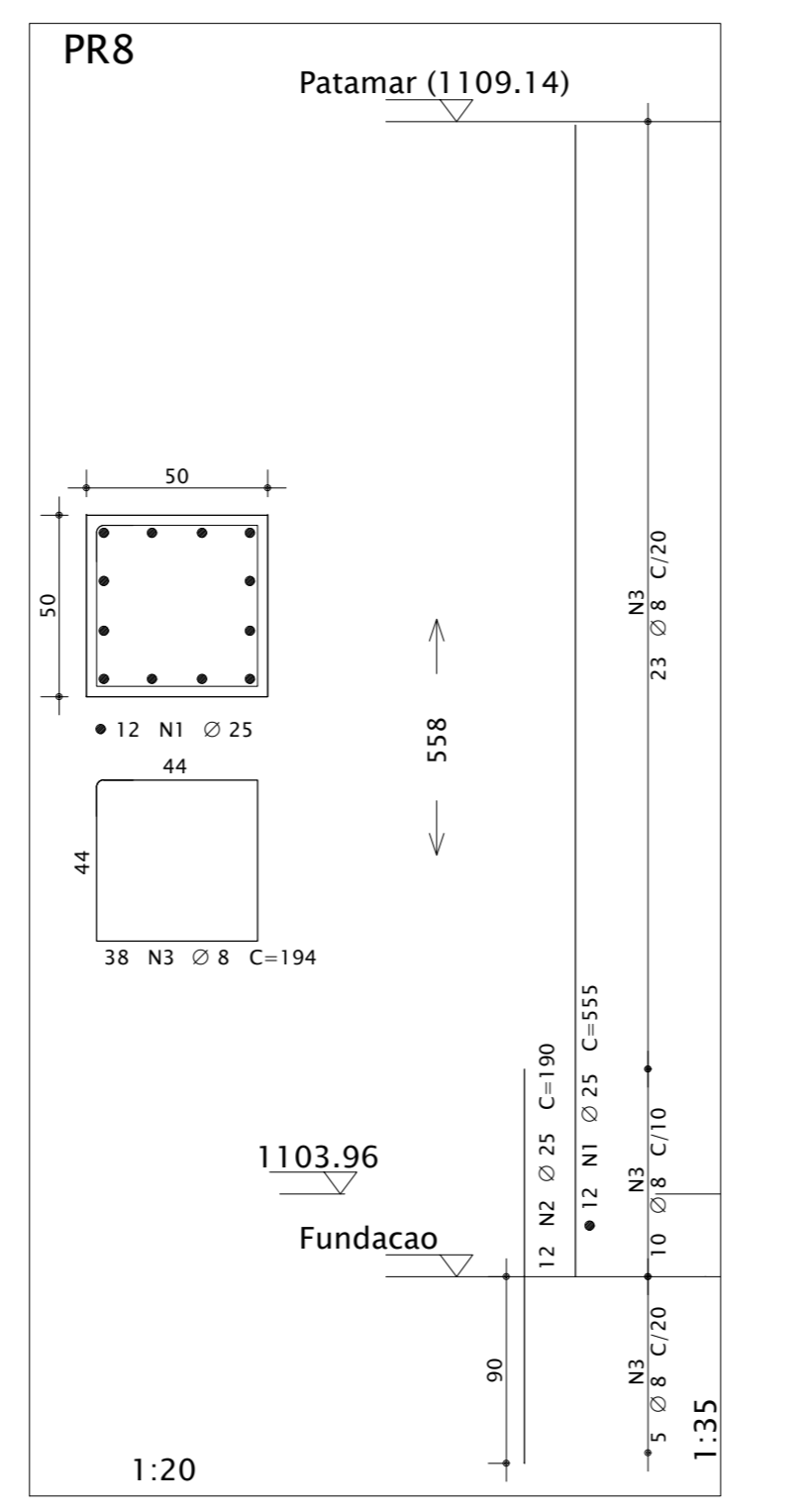
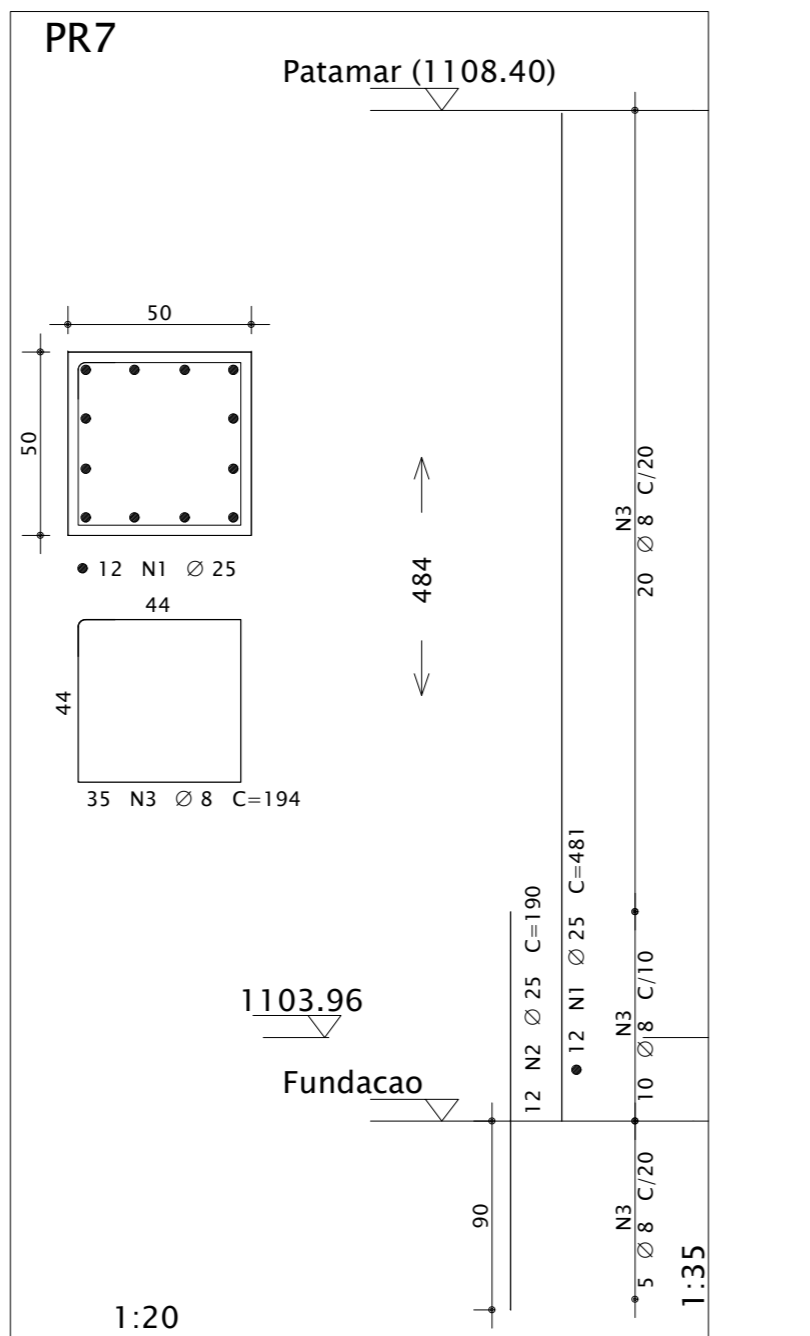
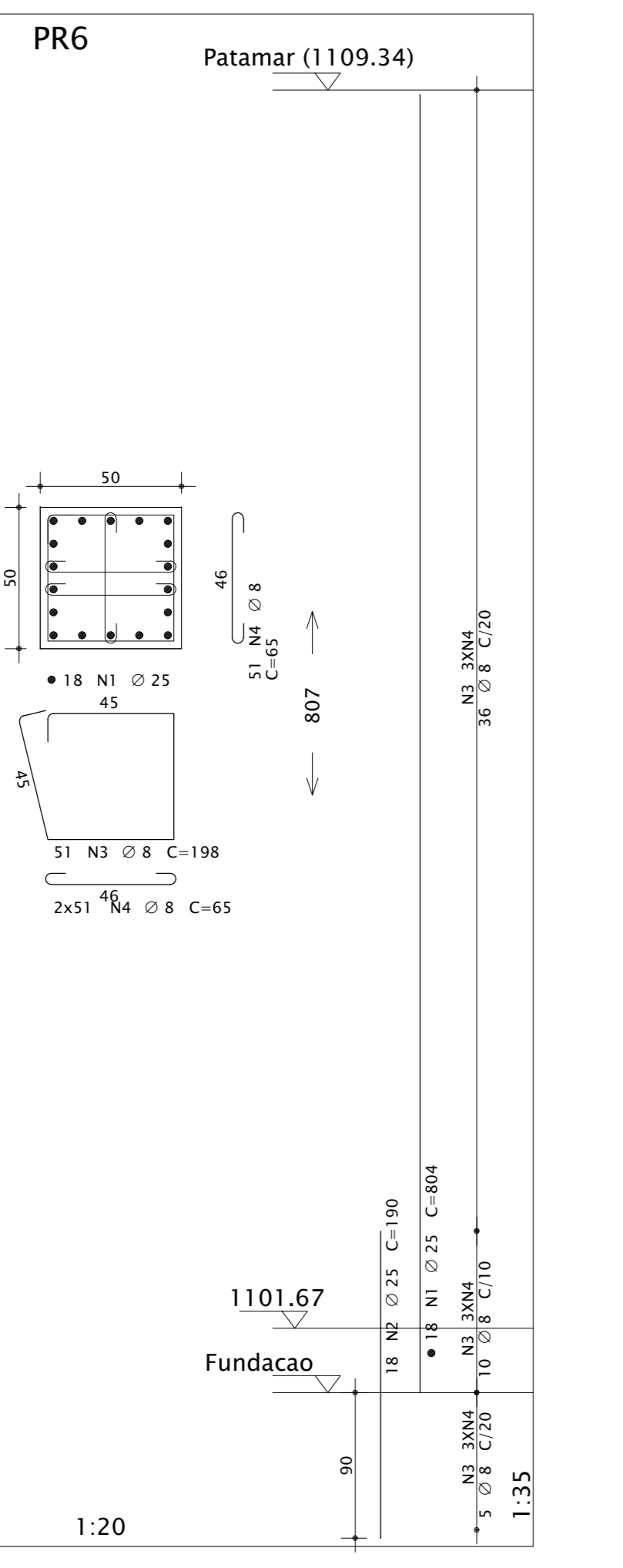
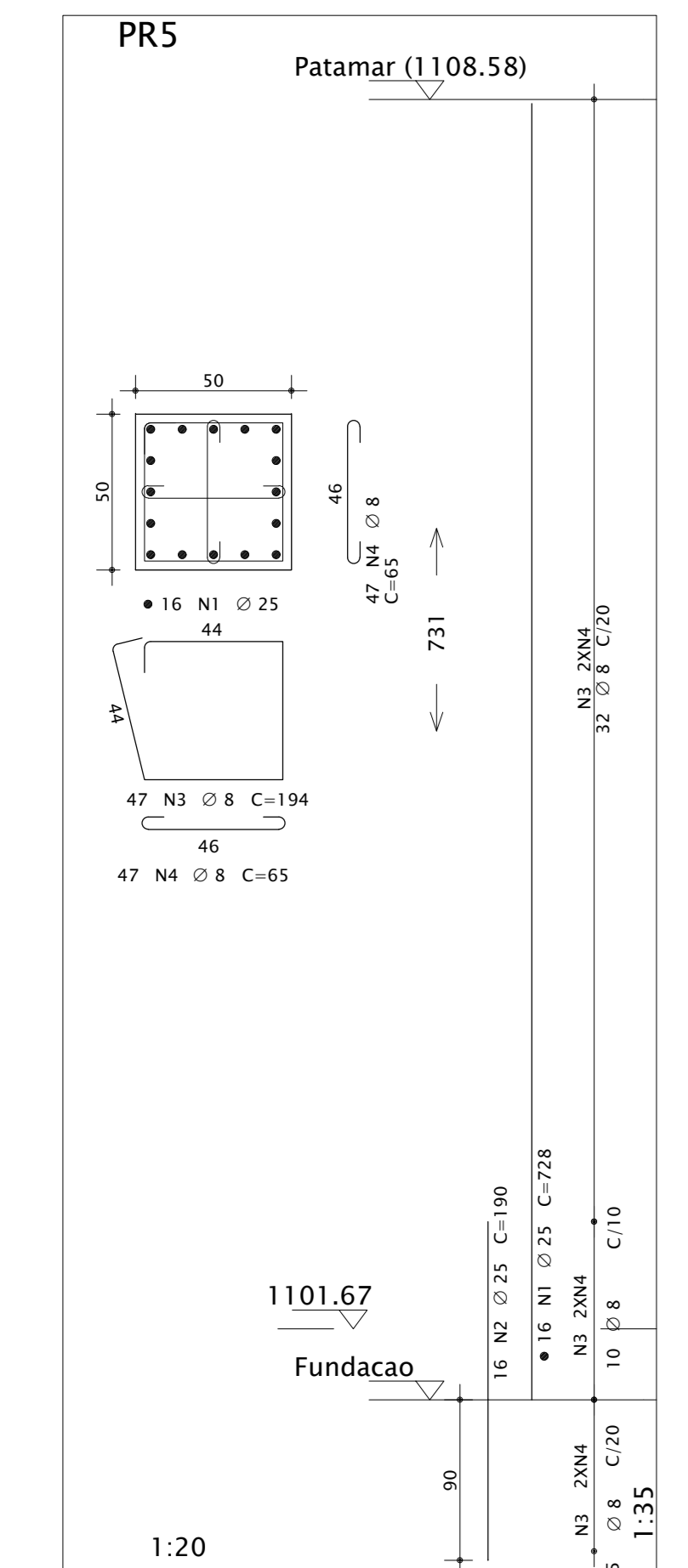
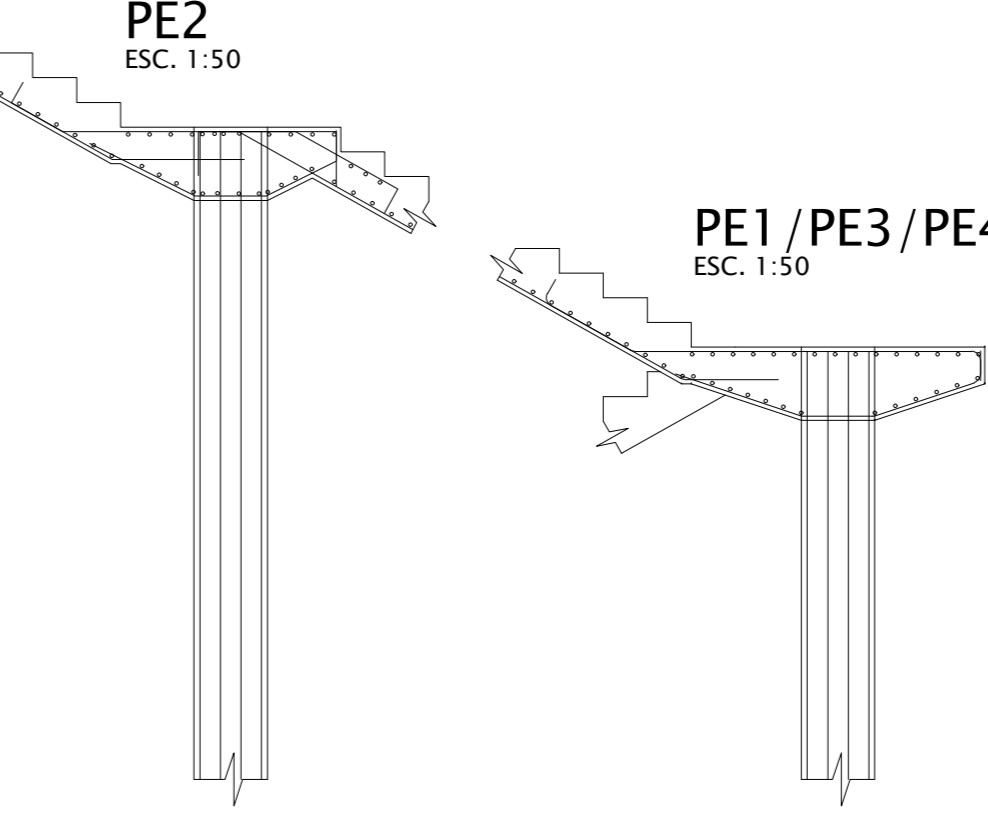
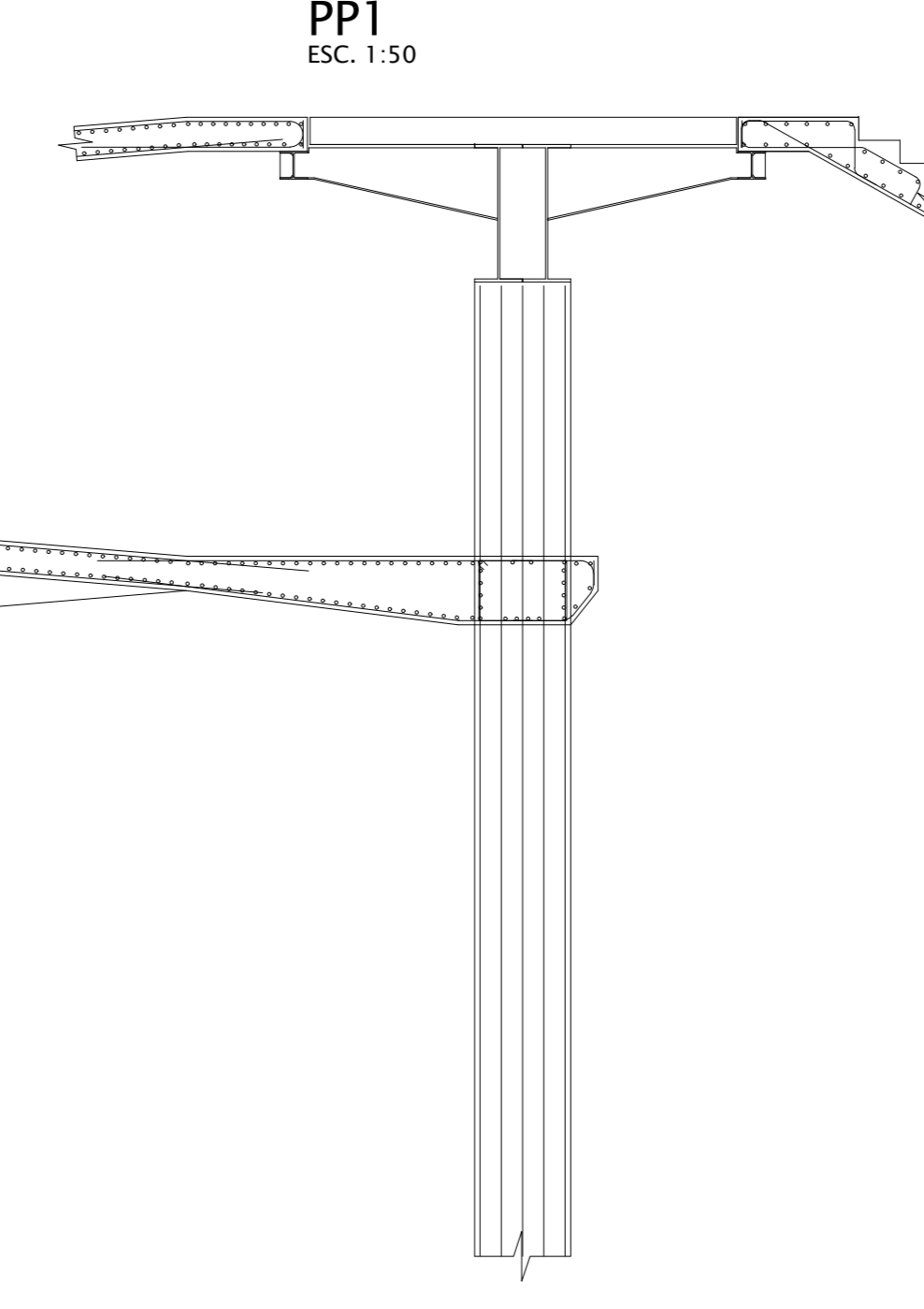
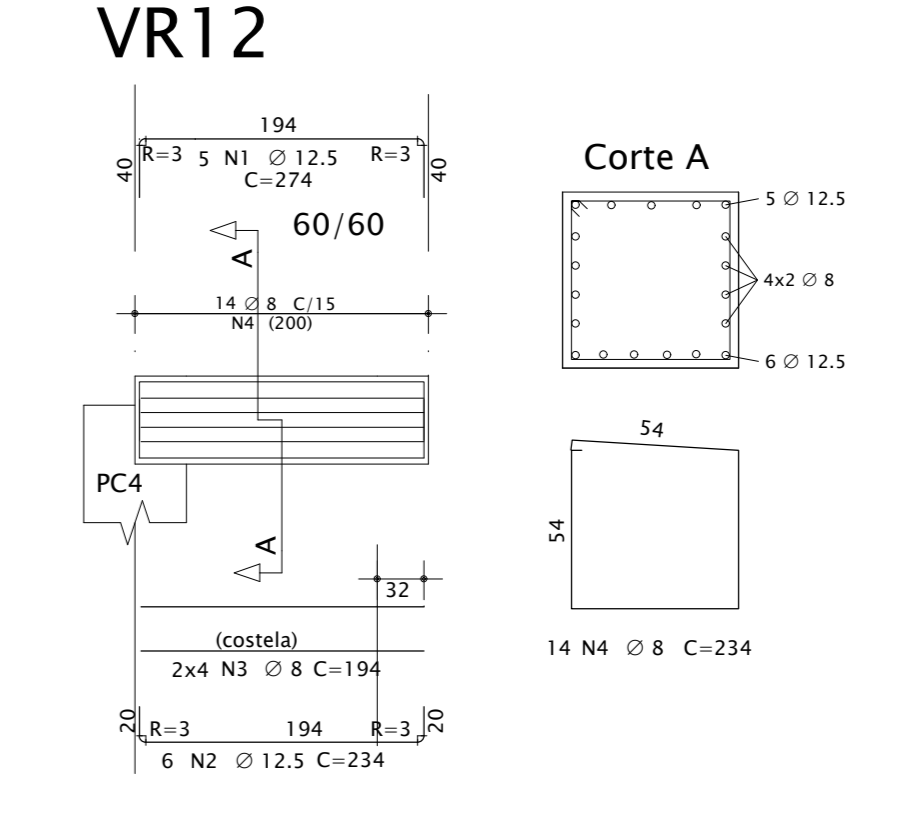
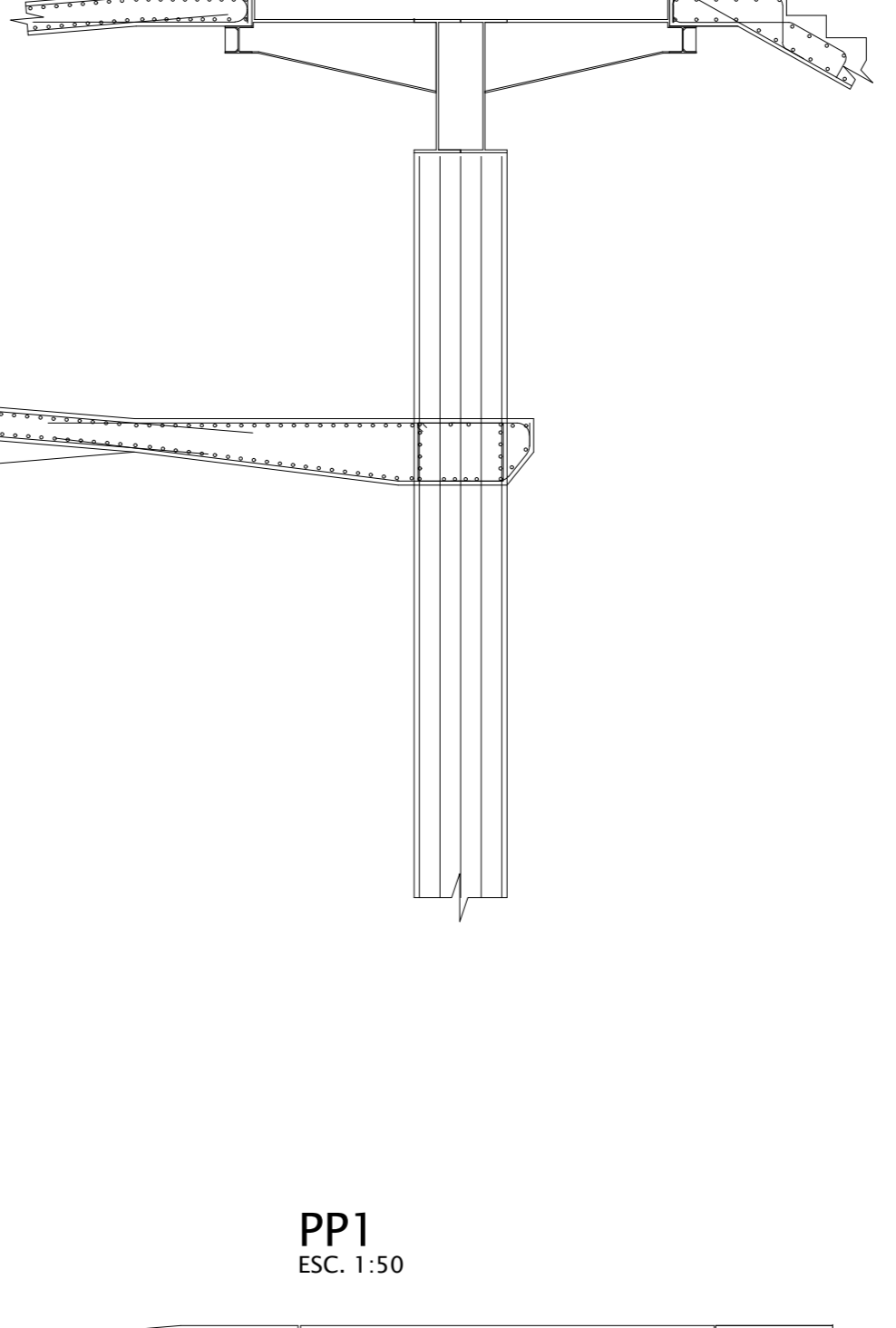
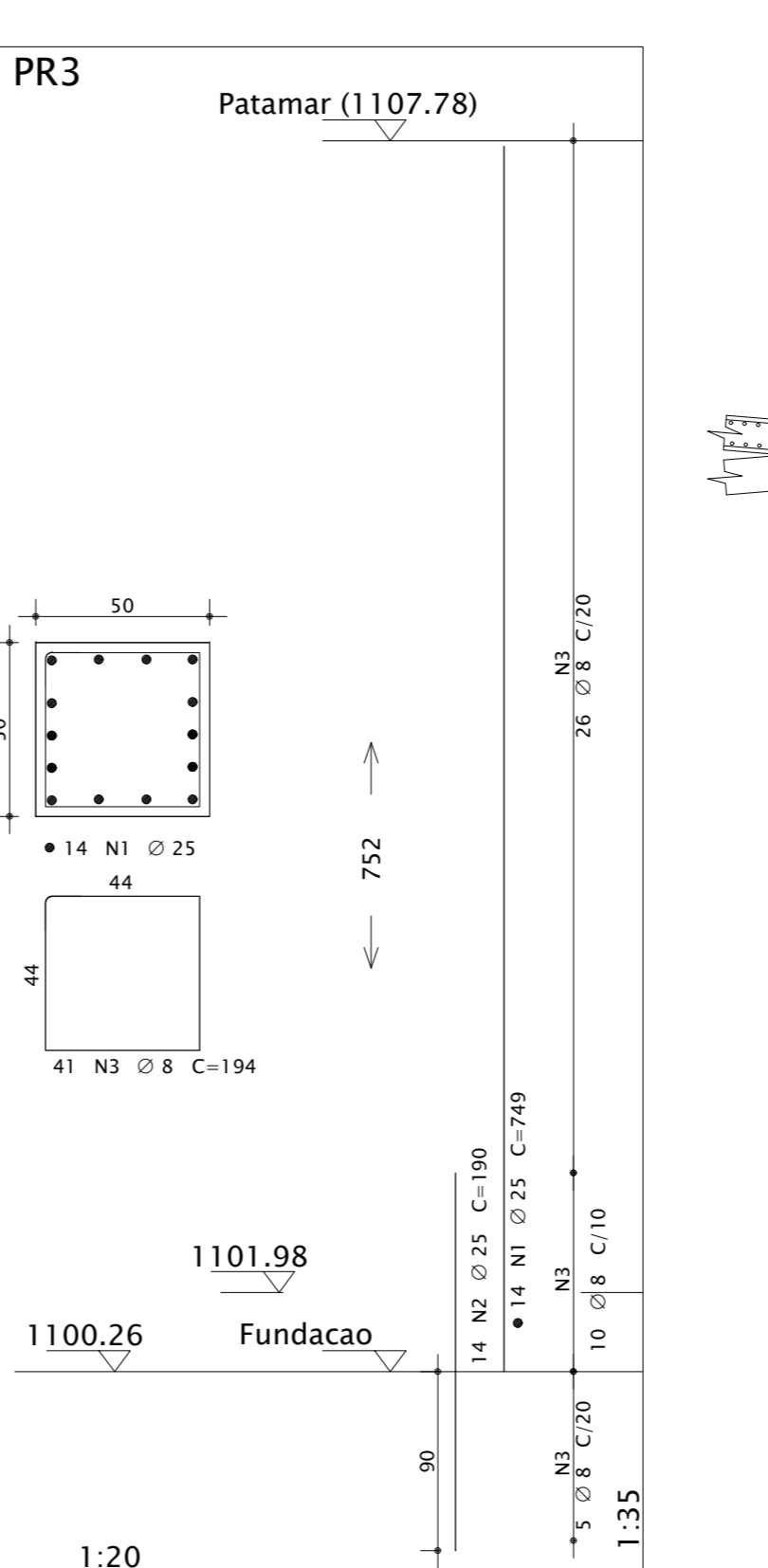
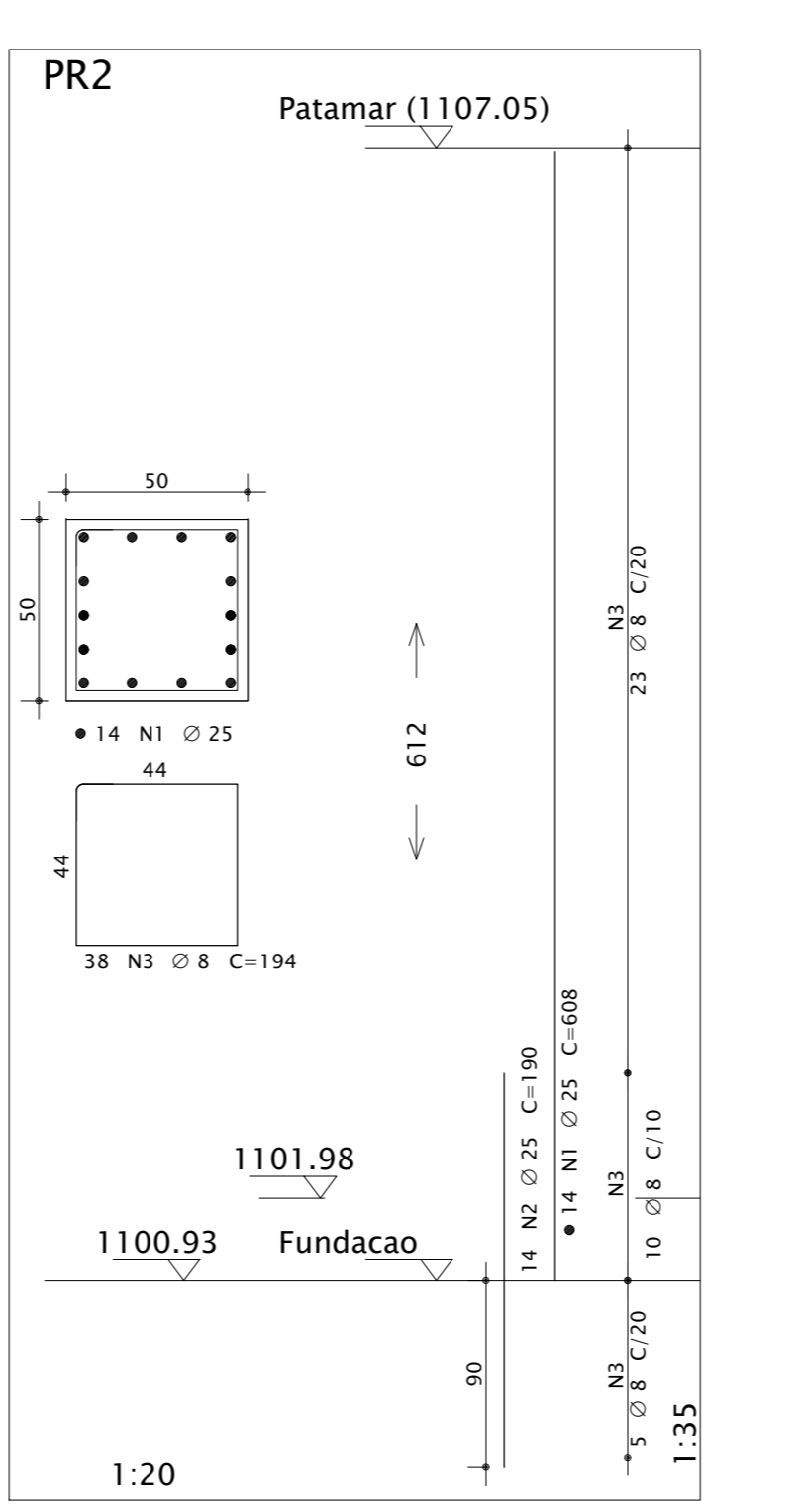
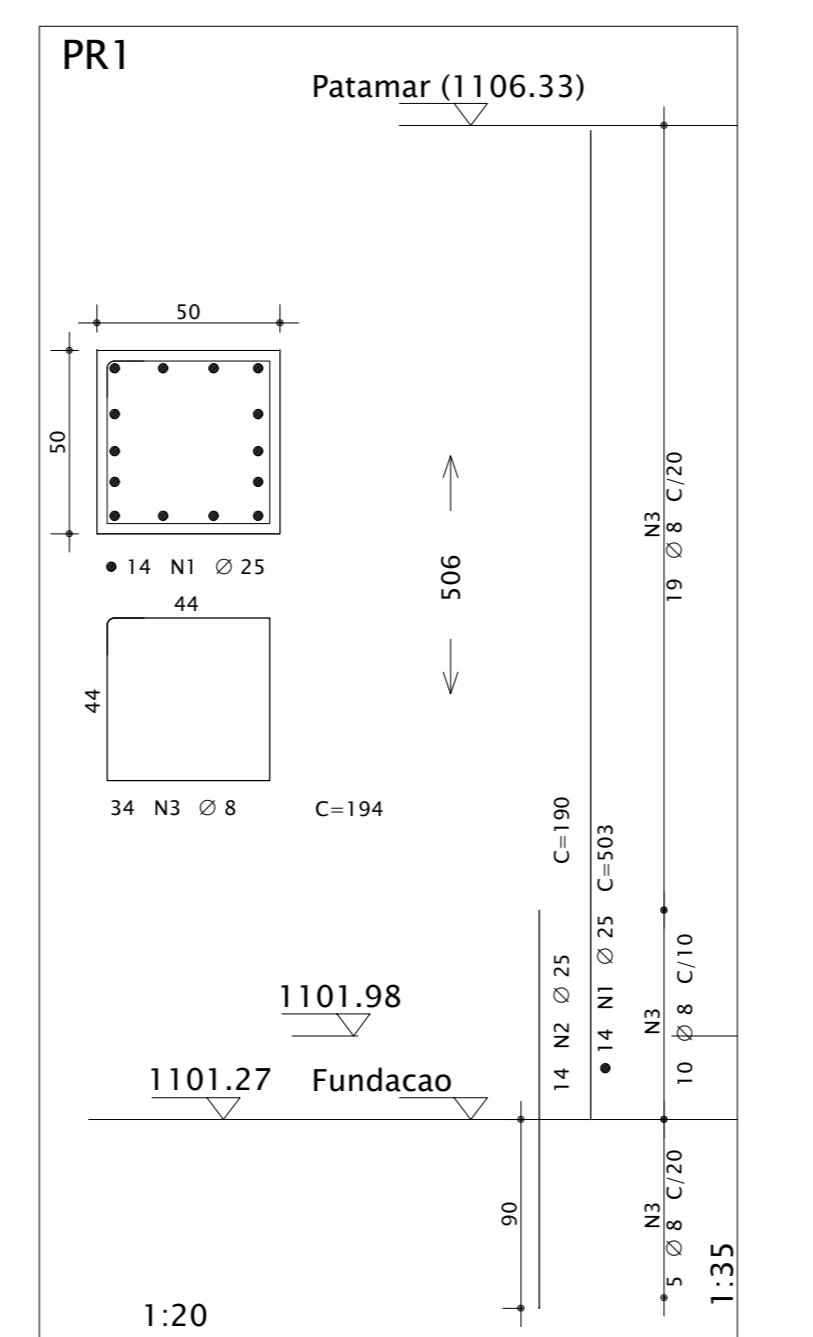
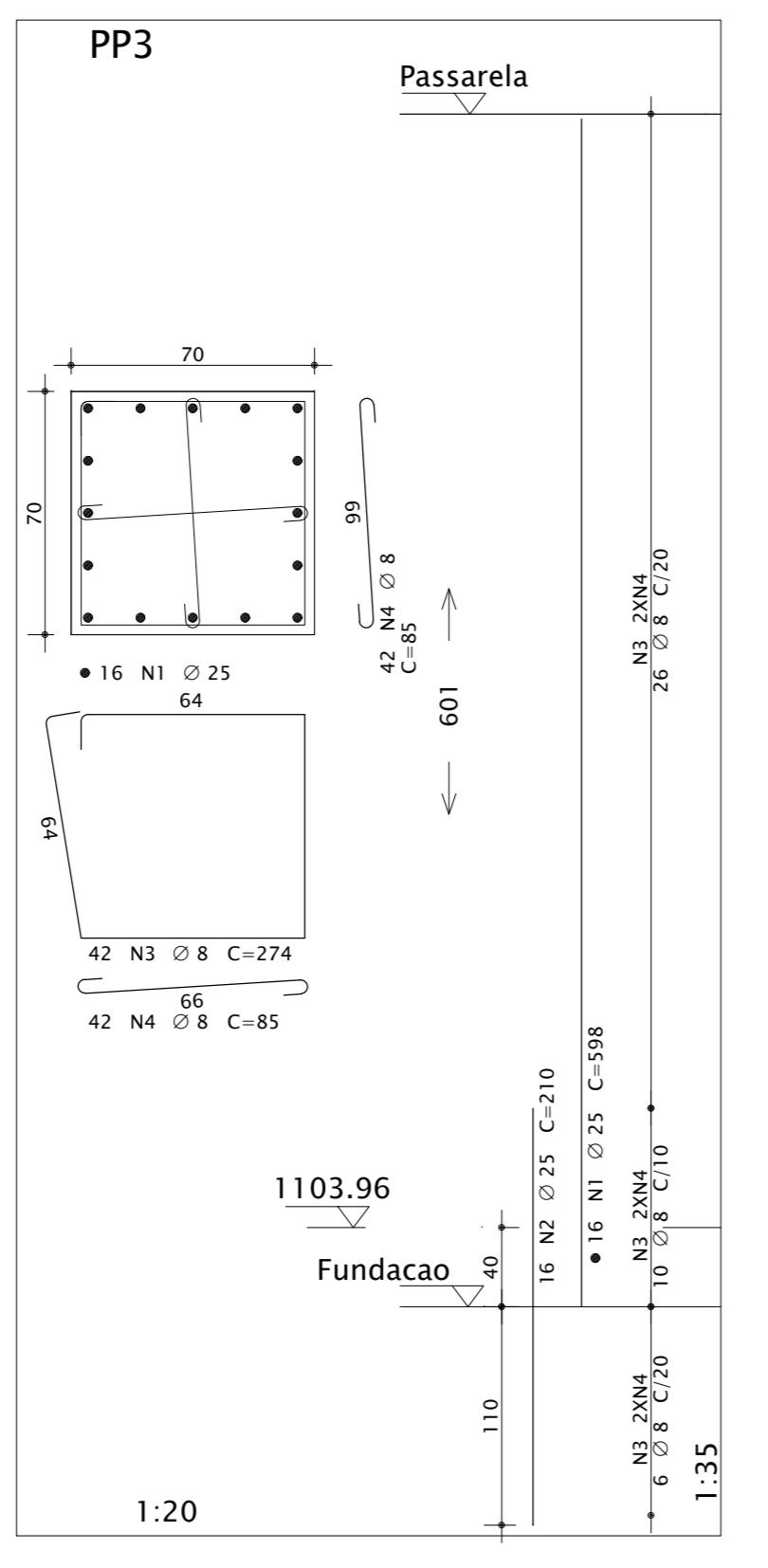
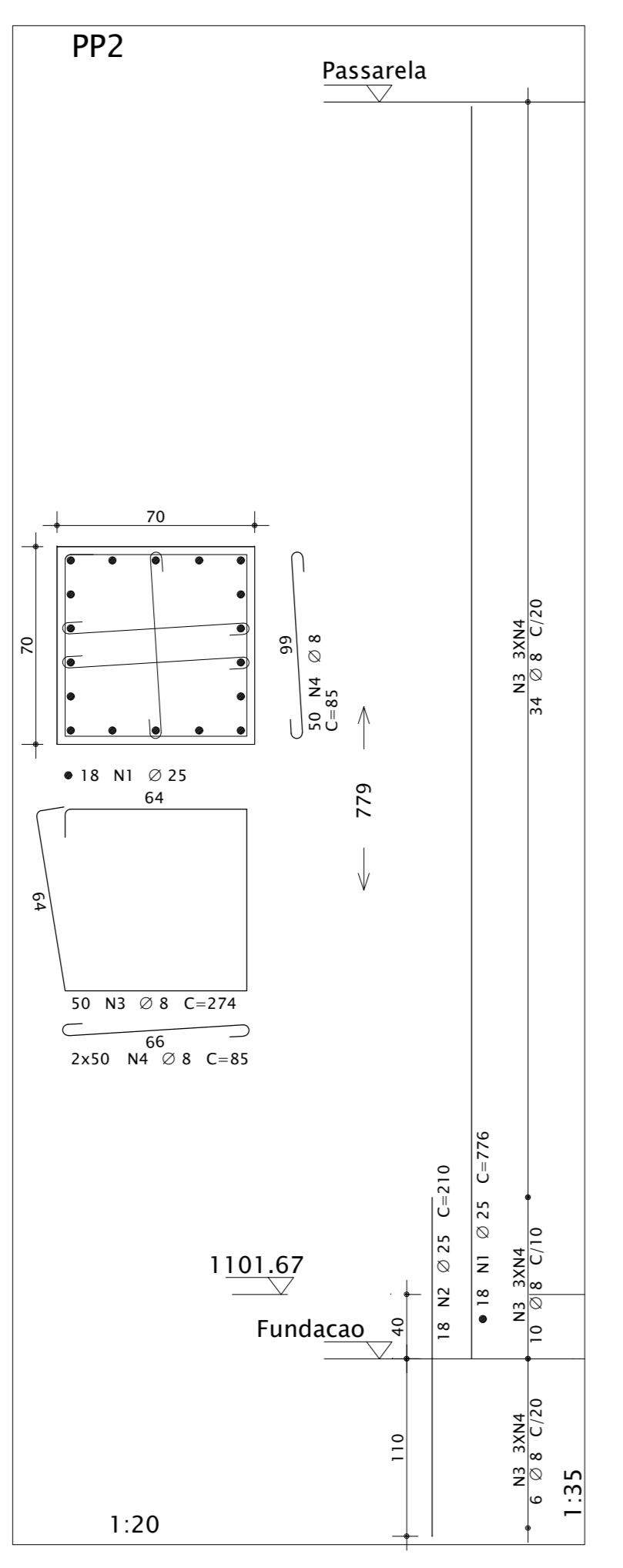
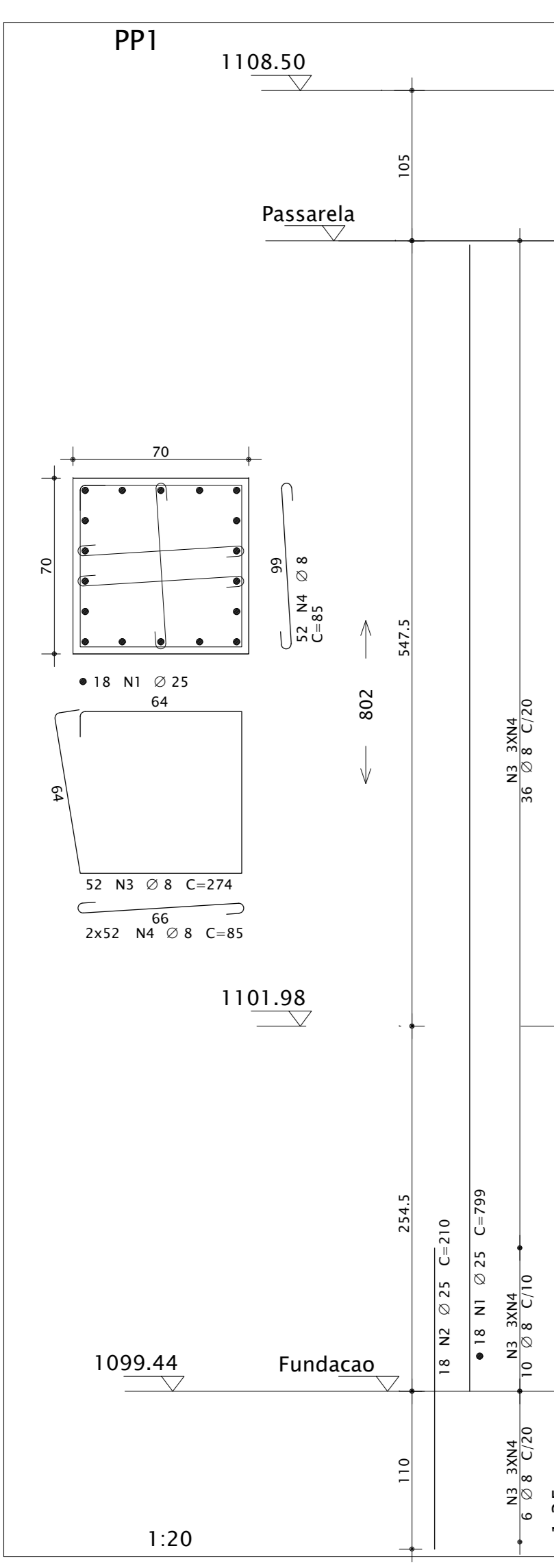
(*) SE DIFERENTES DO PADRÃO, ESTÃO INDICADOS NOS DIAGRAMAS
(**) VALORES PARA GANCHOS DE ESTRIÇOS (Se >= 5cm; 100 >= 7cm)
(***) PARA ESTRIÇOS COM Ø <= 10, R=1.50

TABELA DE DOBRAMENTOS MÍNIMOS

(mm)	R	A	C	DOBRAMENTO
12.5	3	4.5	7	
16	4	5.5	9	
20	8	10	16	
25	10	12.5	20	
32	12.8	16	25	

- NOTAS GERAIS:**
- Materiais:
 - Concreto:
 - Fck >= 30 Mpa (C30)
 - Módulo de elasticidade: Ec > 34Gpa
 - Relação a/c <= 0.60 (a.c.) / 0.55 (c.p.) em massa
 - Consumo de cimento > 400 kg/m³
 - Cobrimentos da estrutura: (típicos, exceto anotado)
 - vigas e pilares = 3.0cm
 - lajes = 2.5cm
 - Medidas em centímetros, níveis em metros;

PE1 / PE2 / PE3 / PE4
PP1 / PP2 / PP3 / PR1
PR2 / PR3 / PR5 / PR6
PR7 / PR8 / PR9
VE1/VE4/VE9
VE2/VE5/VE6/VE10 = VE3/VE7/VE8/VE11
VR1/VR26
VR4/18/29 = VR5/19/30
VR6/7/13/20/21/31/32
VR8=VR14=VR22=VR33
VR9=VR15=VR23=VR34 / VR12



REVISÕES	
01	REVISÃO NA ALTURA DOS PILARES: PR1, PE1, PR1 A PR3
02	EMPENHO: NEUA
03	REVISÃO: VERIFICAÇÃO
04	APROVAÇÃO

DER DF Interlegado

PROJETO DE OBRAS DE ARTE ESPECIAIS

BRT-OF SISTEMA DE TRANSPORTE DO EIXO NORTE
BRASILIA-DF - SUBTRECHO 03
Nº 13 - ESTACAO NOVA PETROPOLIS

ARMACENAS DAS VIGAS DAS RAMPA
ARMACENAS DOS PILARES

ESCALA: NEUADA
DATA: JUNHO/2015
FOLHA: 08/08