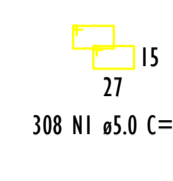
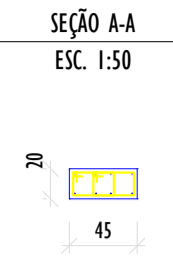
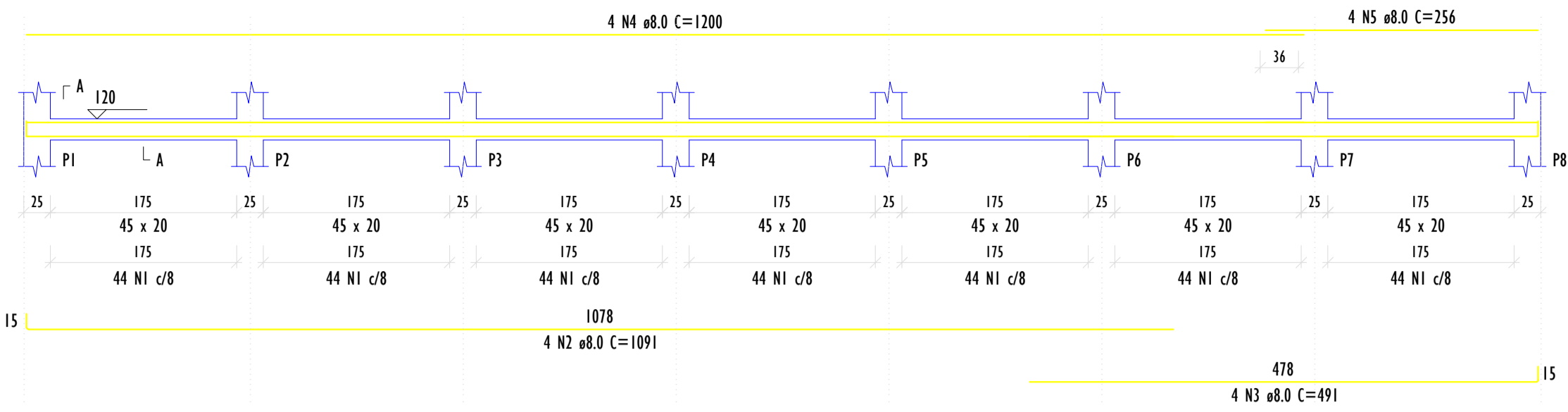
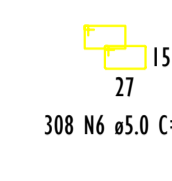
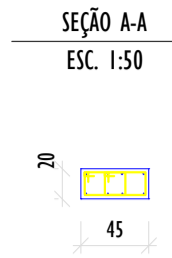
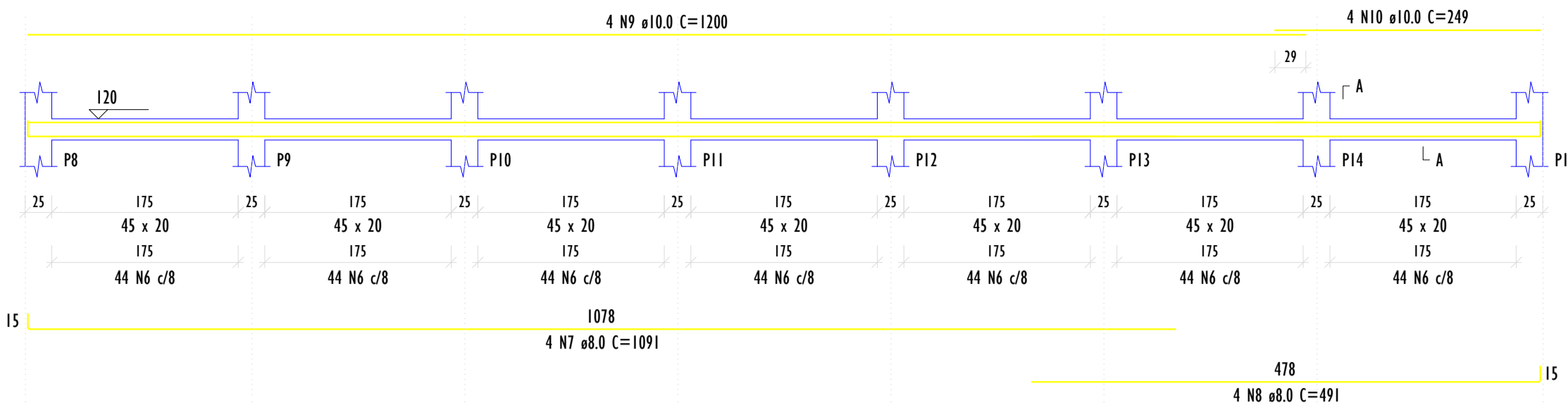


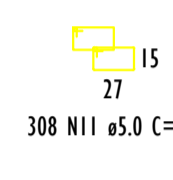
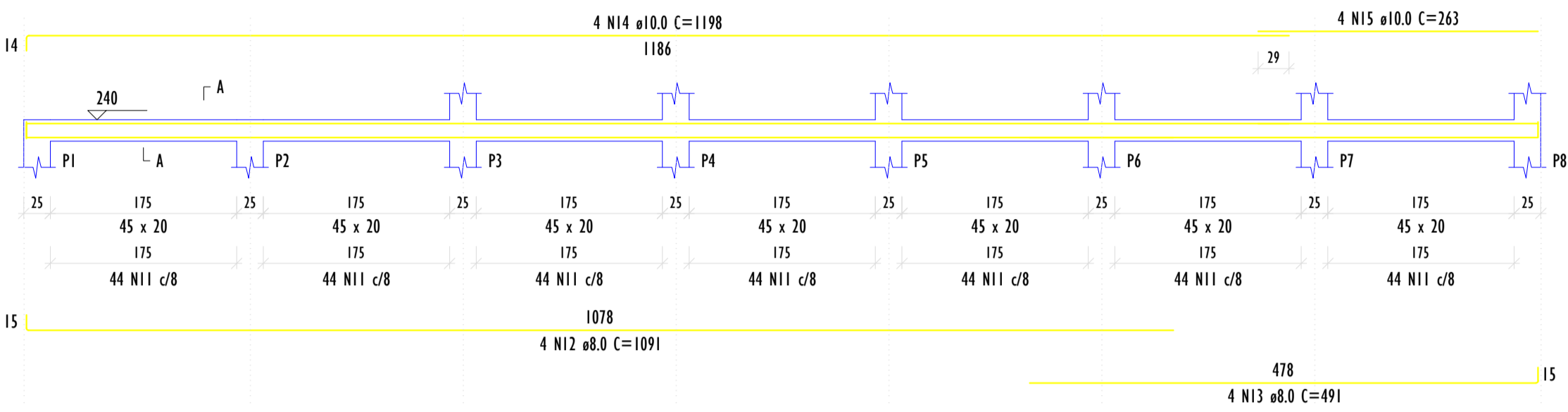
**VM1 (45 x 20)**  
ESC. 1:50



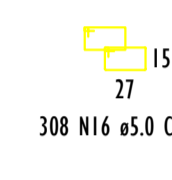
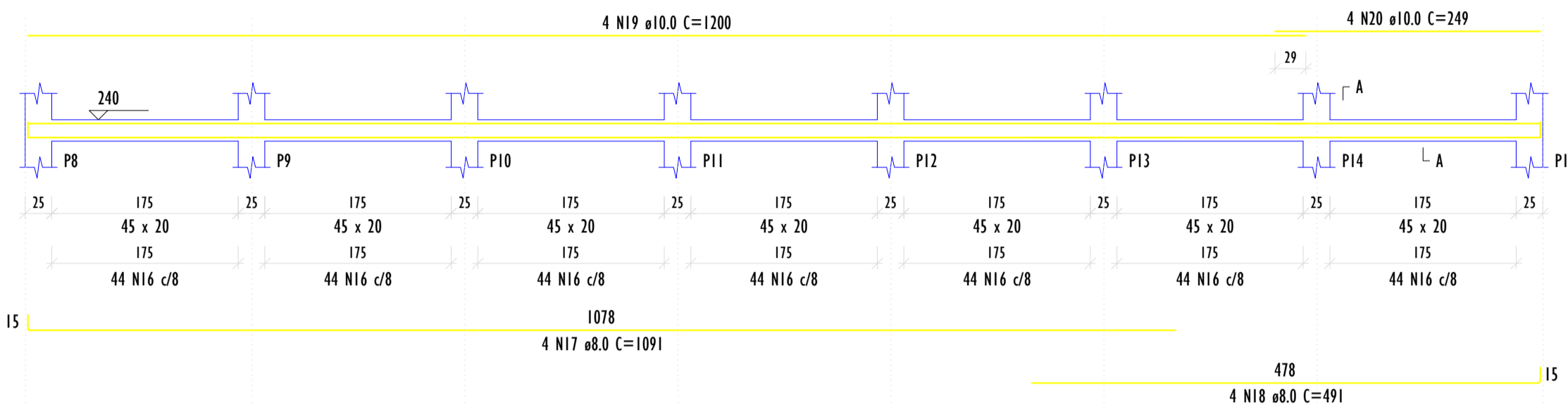
**VM2 (45 x 20)**  
ESC. 1:50



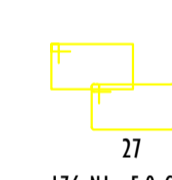
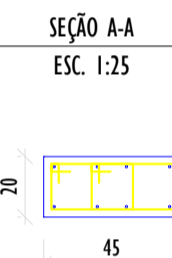
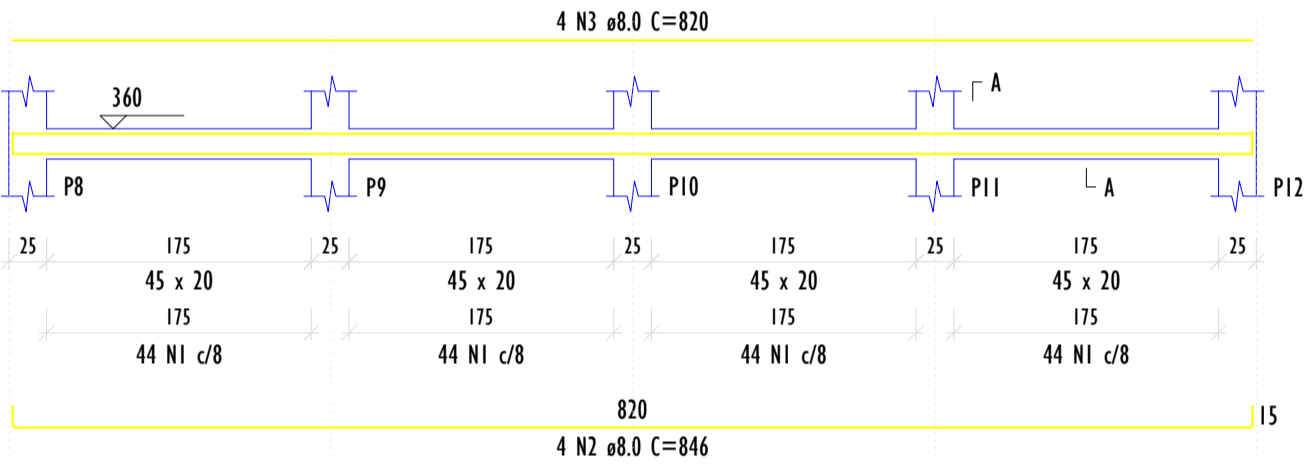
**VM3 (45 x 20)**  
ESC. 1:50



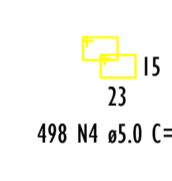
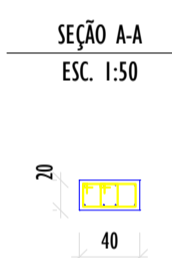
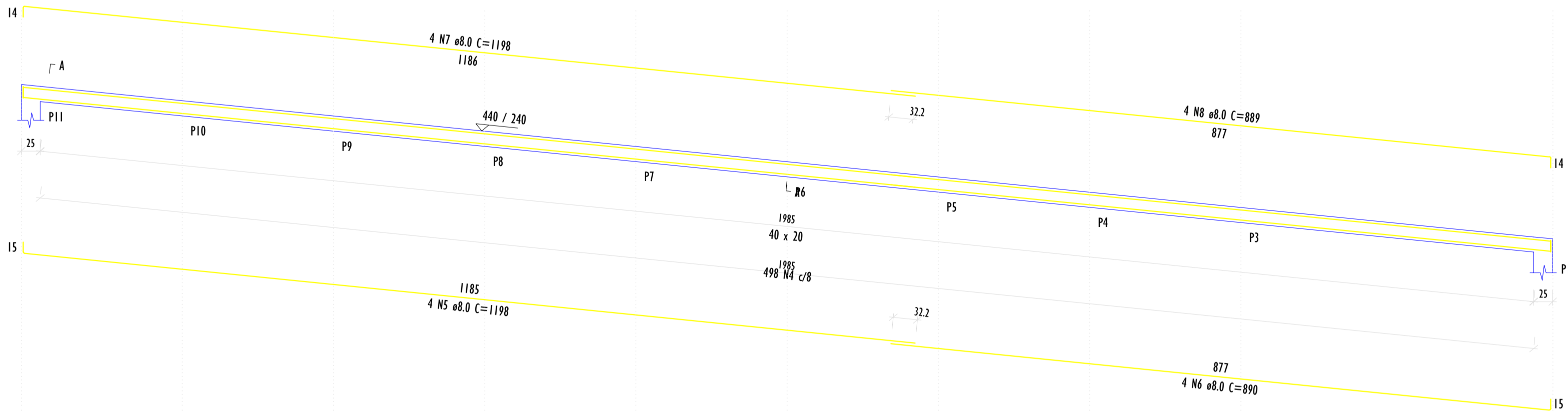
**VM4 (45 x 20)**  
ESC. 1:50



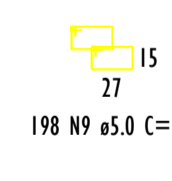
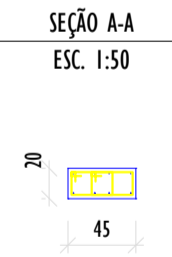
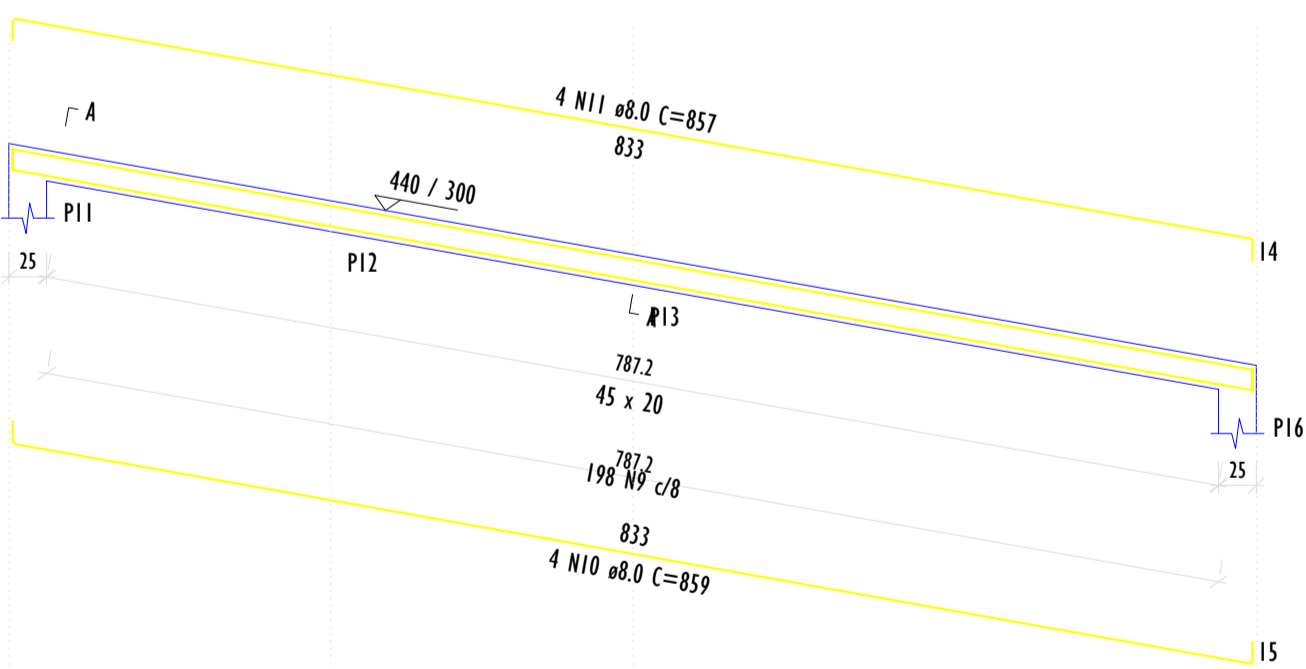
**VM5 (45 x 20)**  
ESC. 1:50



**VM6 (40 x 20)**  
ESC. 1:50



**VM7 (45 x 20)**  
ESC. 1:50



RELAÇÃO DO AÇO

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
VM1	CA60	1	5.0	308	95	29260
	CASO	2	8.0	4	1091	4364
	CASO	3	8.0	4	491	1964
VM2	CA60	4	8.0	4	1200	4800
	CASO	5	8.0	4	256	1024
	CA60	6	5.0	308	95	29260
VM3	CA60	7	8.0	4	1091	4364
	CASO	8	8.0	4	491	1964
	CASO	9	10.0	4	1200	4800
VM4	CA60	10	10.0	4	249	996
	CASO	11	5.0	308	95	29260
	CASO	12	8.0	4	1091	4364
VM5	CA60	13	8.0	4	491	1964
	CASO	14	10.0	4	1198	4792
	CASO	15	10.0	4	263	1052
VM6	CA60	16	5.0	308	95	29260
	CASO	17	8.0	4	1091	4364
	CASO	18	8.0	4	491	1964
VM7	CA60	19	10.0	4	1200	4800
	CASO	20	10.0	4	249	996

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 0% (Barras)	UNIT	PESO + 0% (kg)
CASO	8.0	311.4	26	12 m	122.8
CASO	10.0	174.4	15	12 m	107.5
CA60	5.0	1170.4	98	12 m	180.4
<b>PESO TOTAL (kg)</b>					
CASO		263.31			
CA60		786.17			

Volume de concreto (C-30) = 5.04 m³  
Área de forma = 47.60 m²

RELAÇÃO DO AÇO

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
VM5	CA60	1	5.0	176	95	16720
	CASO	2	8.0	4	846	3384
	CASO	3	8.0	4	820	3280
VM6	CA60	4	5.0	498	87	43324
	CASO	5	8.0	4	1198	4792
	CASO	6	8.0	4	890	3560
VM7	CA60	7	8.0	4	1198	4792
	CASO	8	8.0	4	889	3556
	CA60	9	5.0	198	95	18810
VM8	CASO	10	8.0	4	859	3436
	CASO	11	8.0	4	857	3428

RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 0% (Barras)	UNIT	PESO + 0% (kg)
CASO	8.0	202.3	26	12 m	119.3
CA60	5.0	788.6	66	12 m	121.5
<b>PESO TOTAL (kg)</b>					
CASO		136.34			
CA60		138.86			

Volume de concreto (C-30) = 3.35 m³  
Área de forma = 32.59 m²

**ProSen** Projetos & Serviços de Engenharia Ltda.

**Prefeitura Municipal Santa Cruz do Escalvado**  
ESTADO DE MINAS GERAIS  
Administração 2025-2028

**Execução de serviços diversos na Estrada de acesso e no Distrito de Zito Soares**

NO OPERAÇÃO

DATA: Abril / 2026

RESPONSÁVEL TÉCNICO PELO PROJETO: Eng. Civil WILSON DIAS DA FONSECA JR. VERA: 61.924 / D

PREFEITO MUNICIPAL: GILMAR DE PAULA LIMA. CPF: 697.293.526-15

CONTÉM: Detalhes Diversos. INDICADAS

LOCALIZAÇÃO: Zona rural de Santa Cruz Escalvado (MG). FOLHA: 04/05

PRECATORIO: RECURSOS PRÓPRIOS