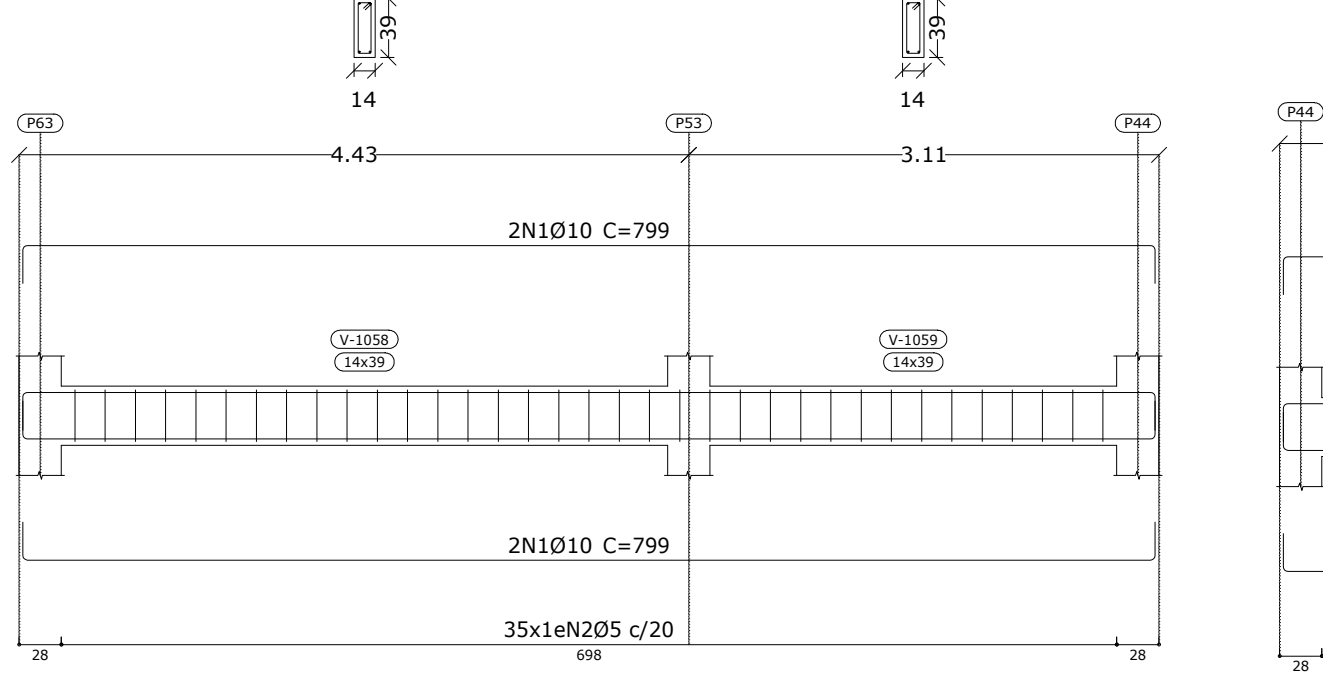
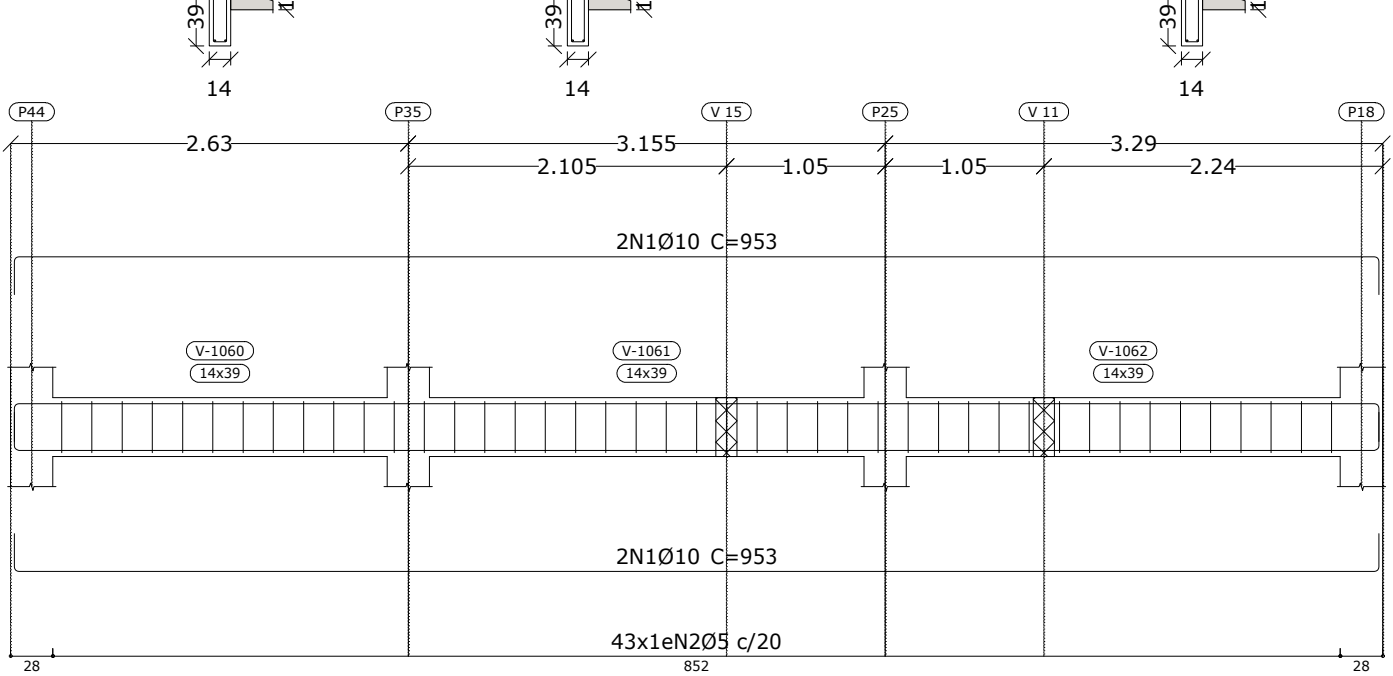


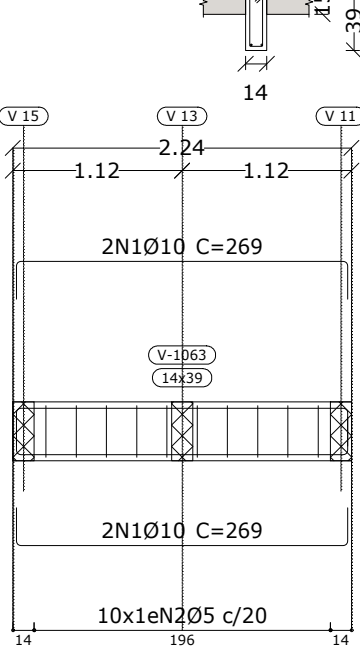
V 28



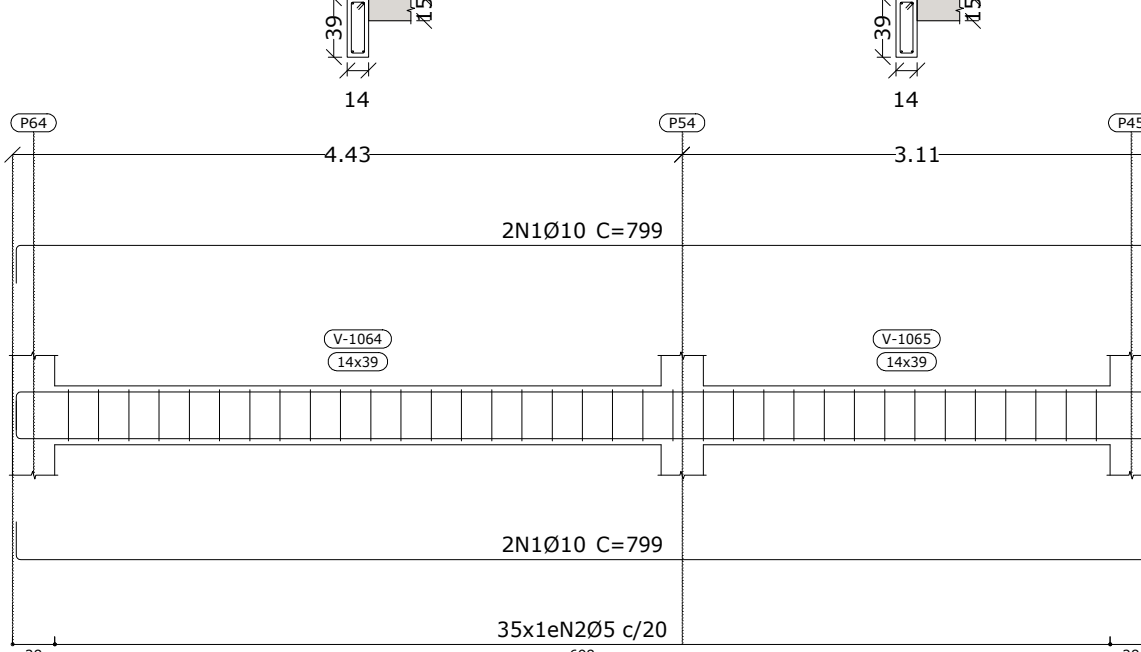
V 29



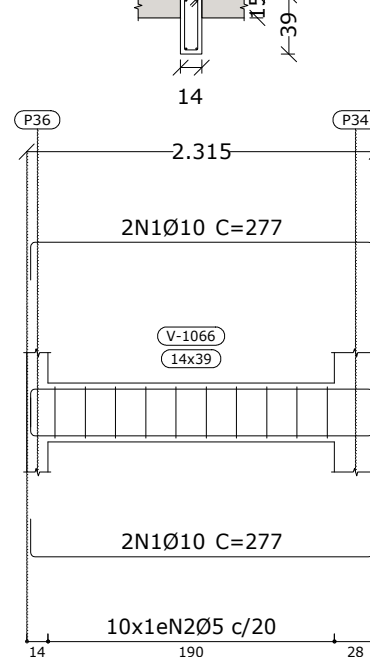
V 30



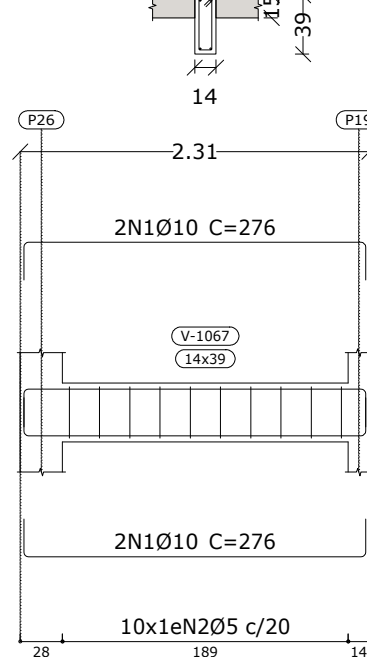
V 31



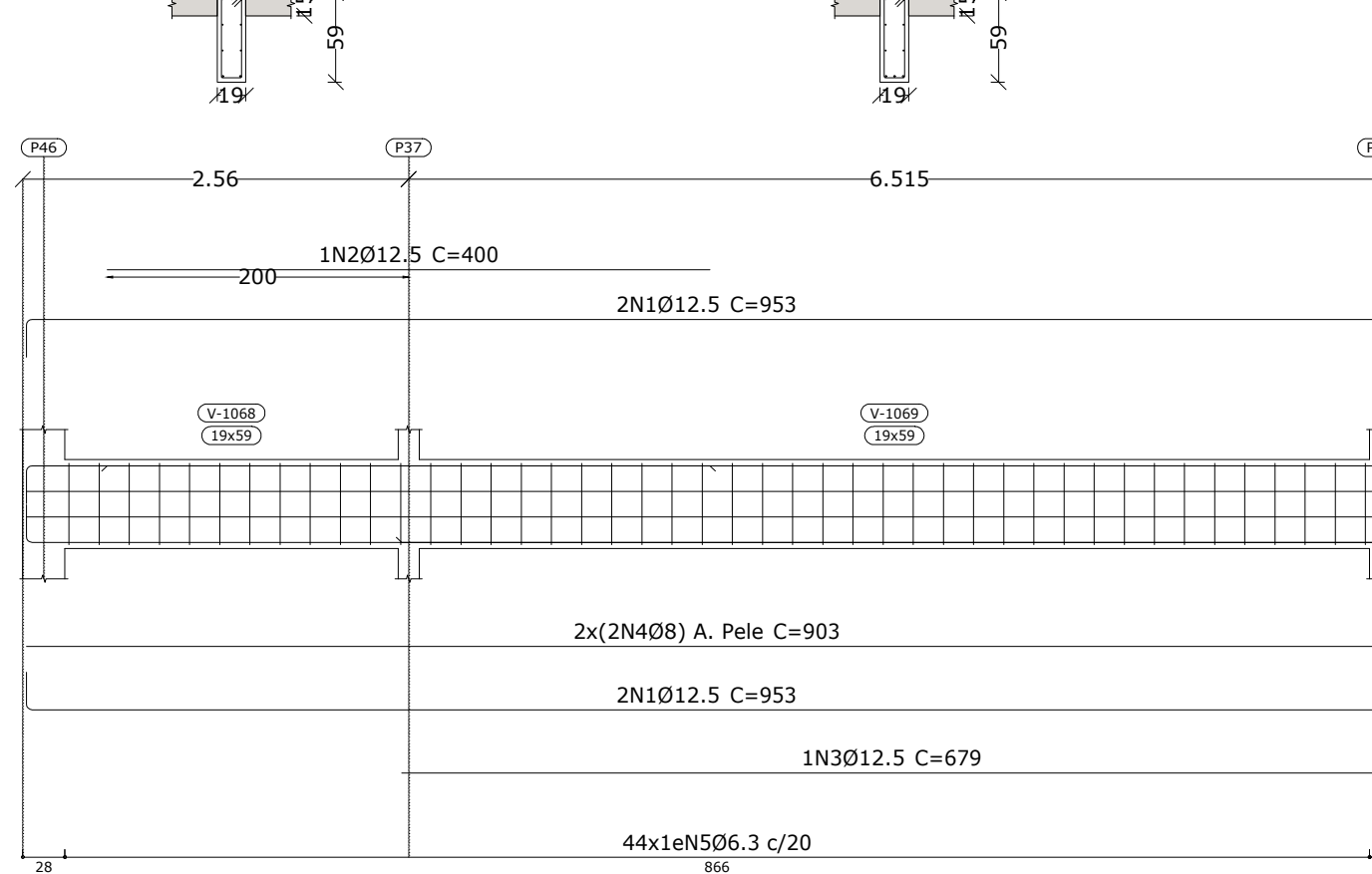
V 32



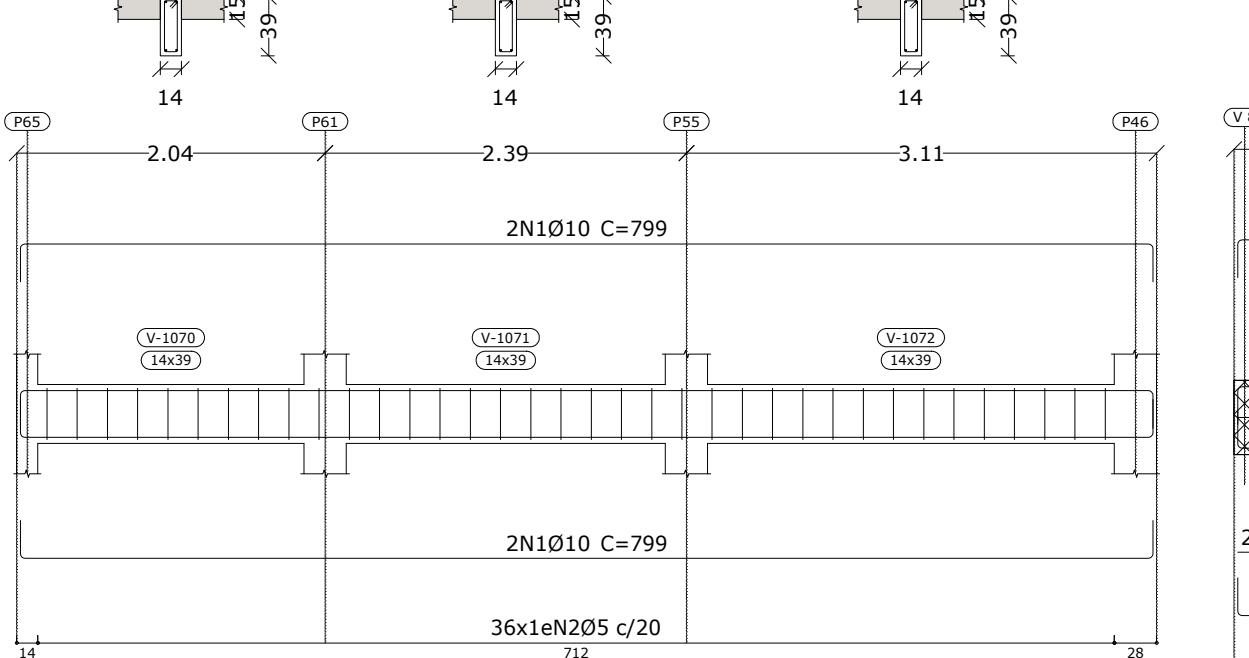
V 33



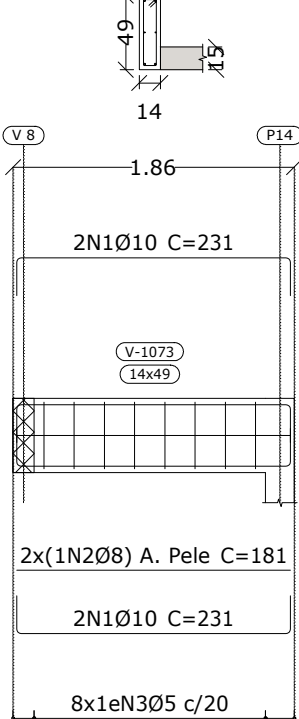
V 34



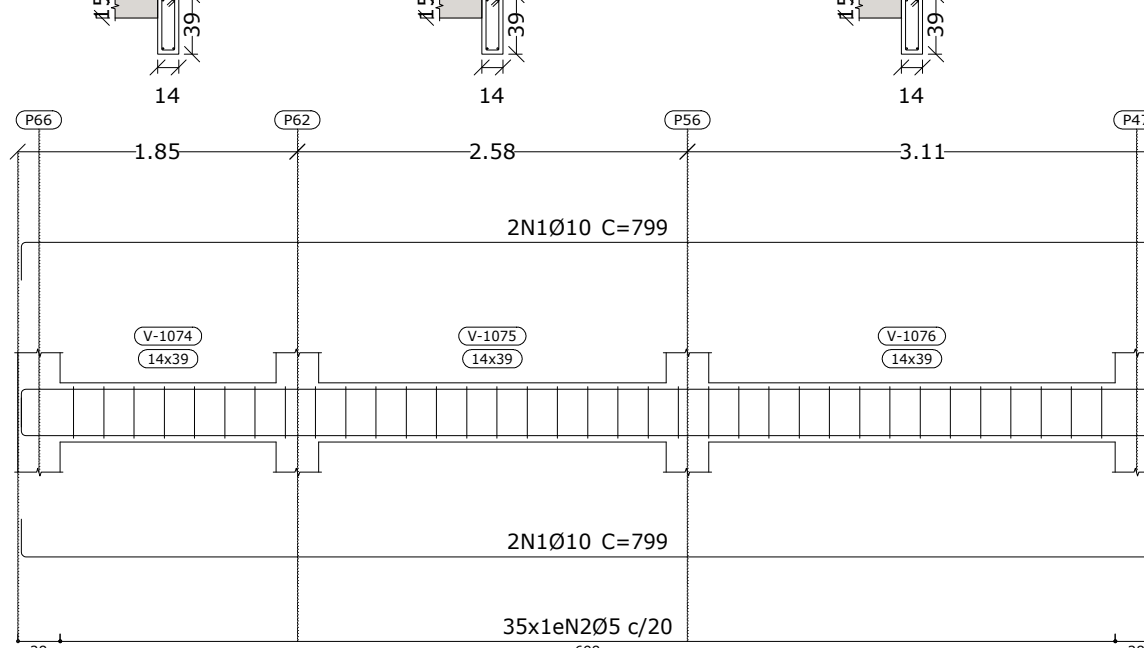
V 35



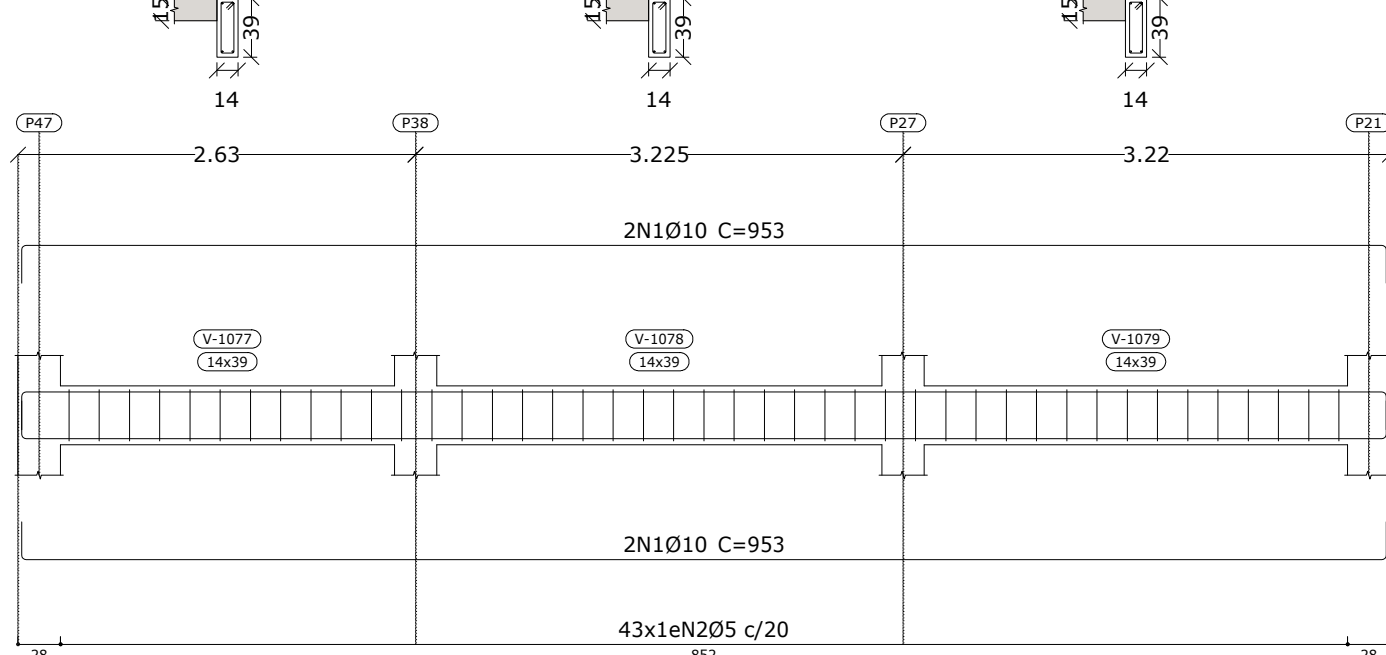
V 36



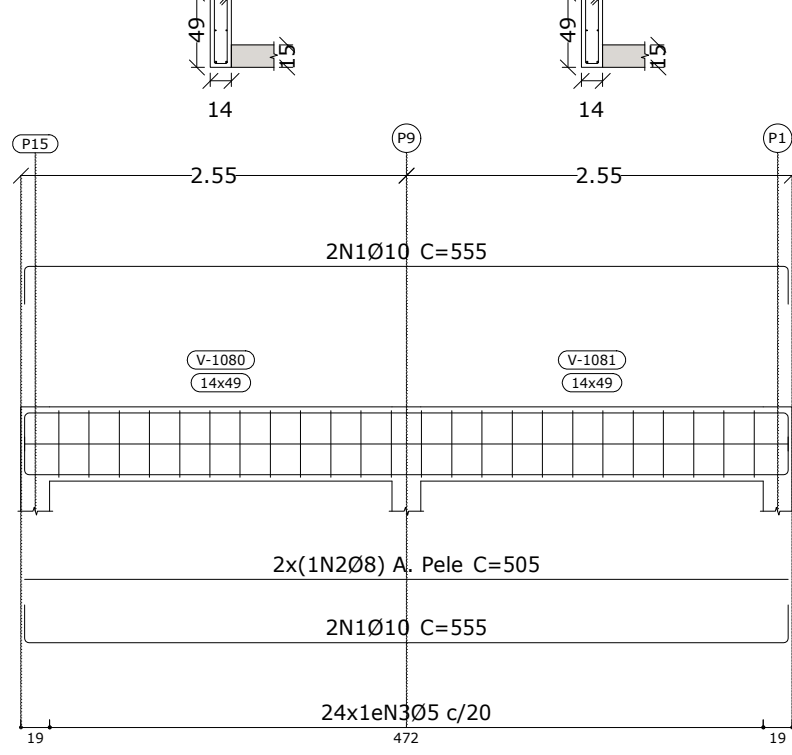
V 37



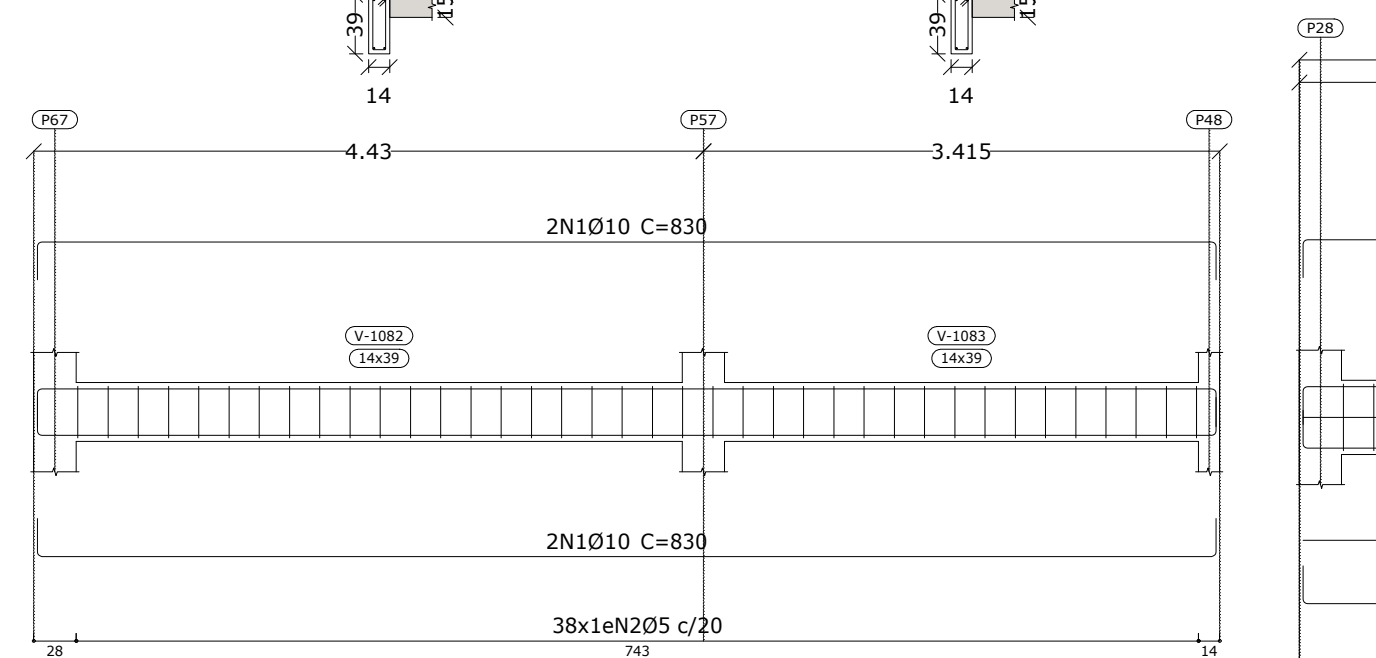
V 38



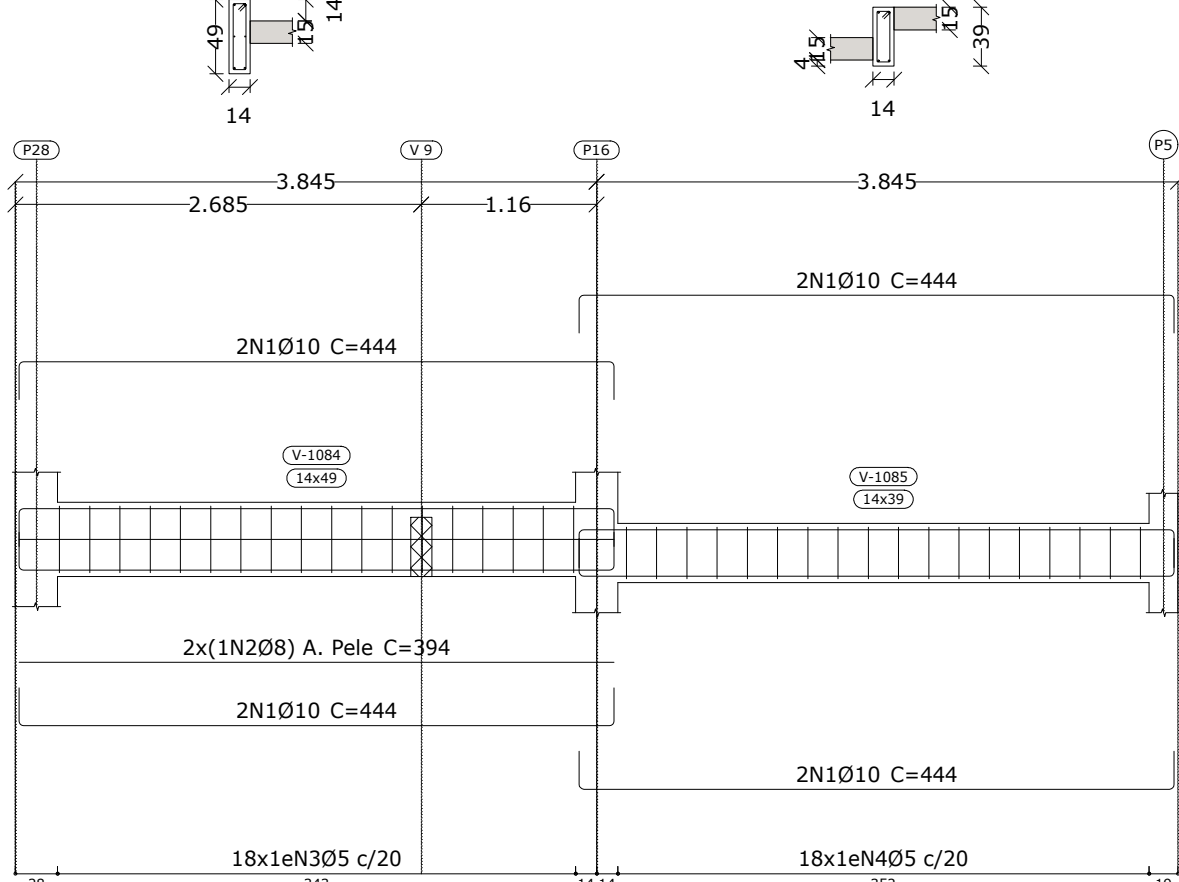
V 39



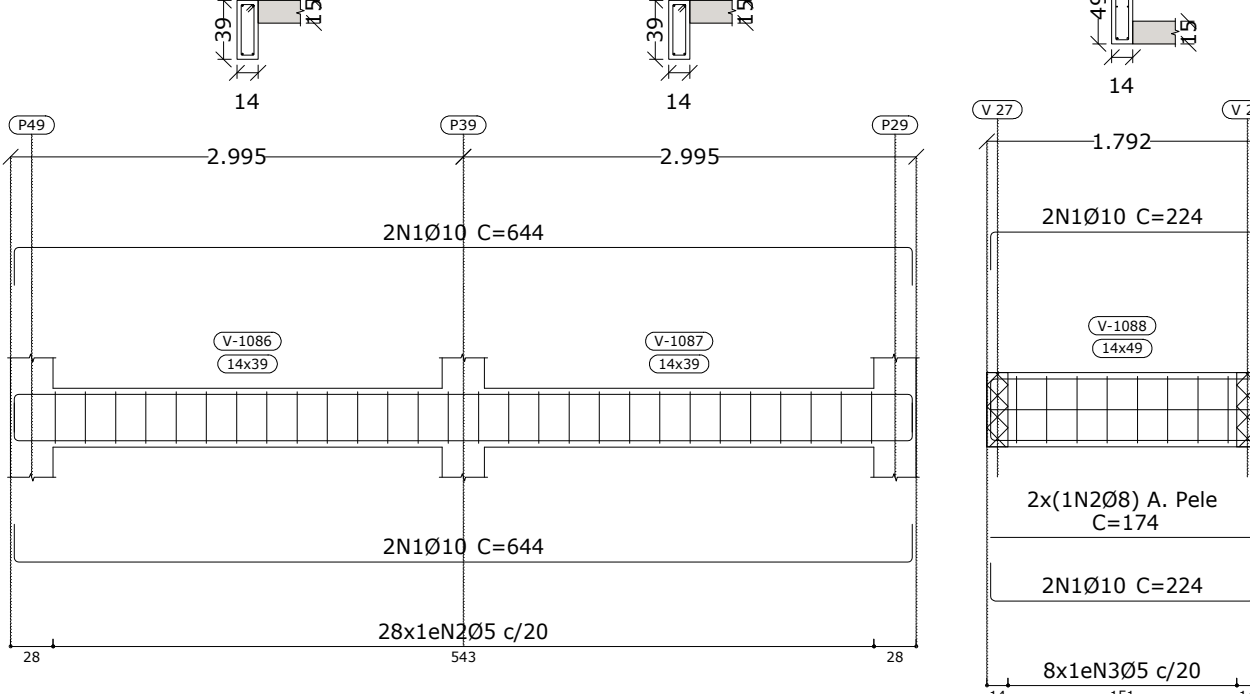
V 40



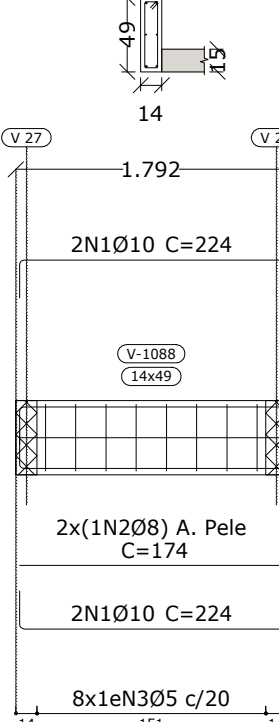
V 41



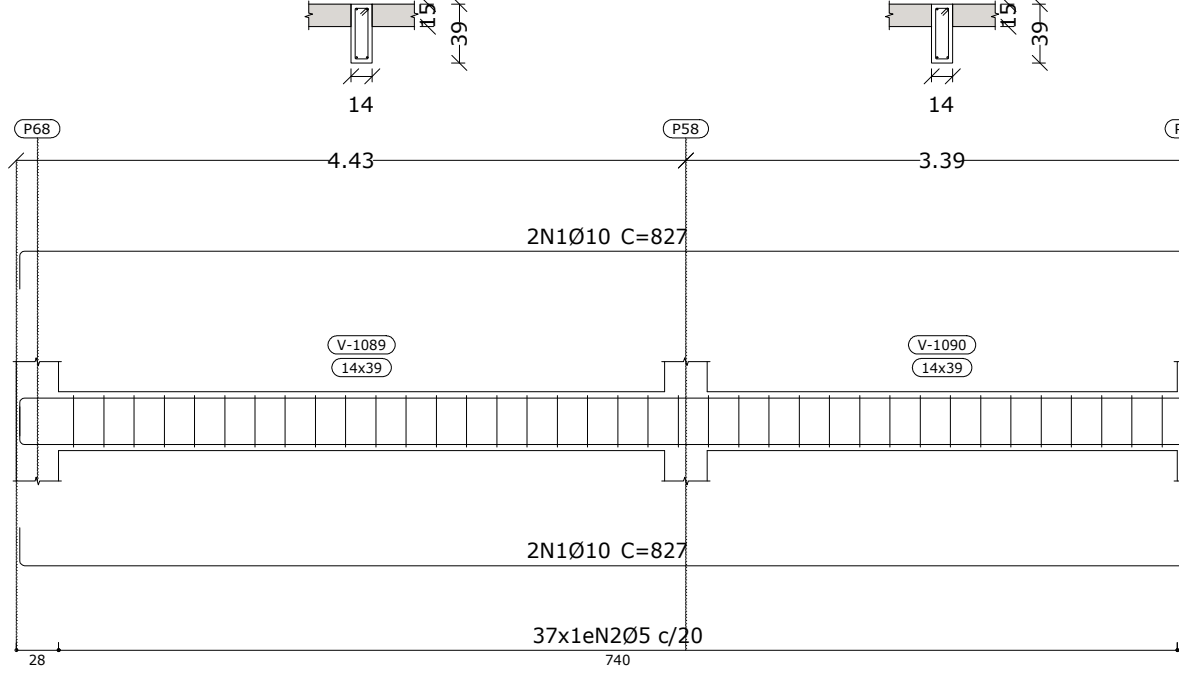
V 42



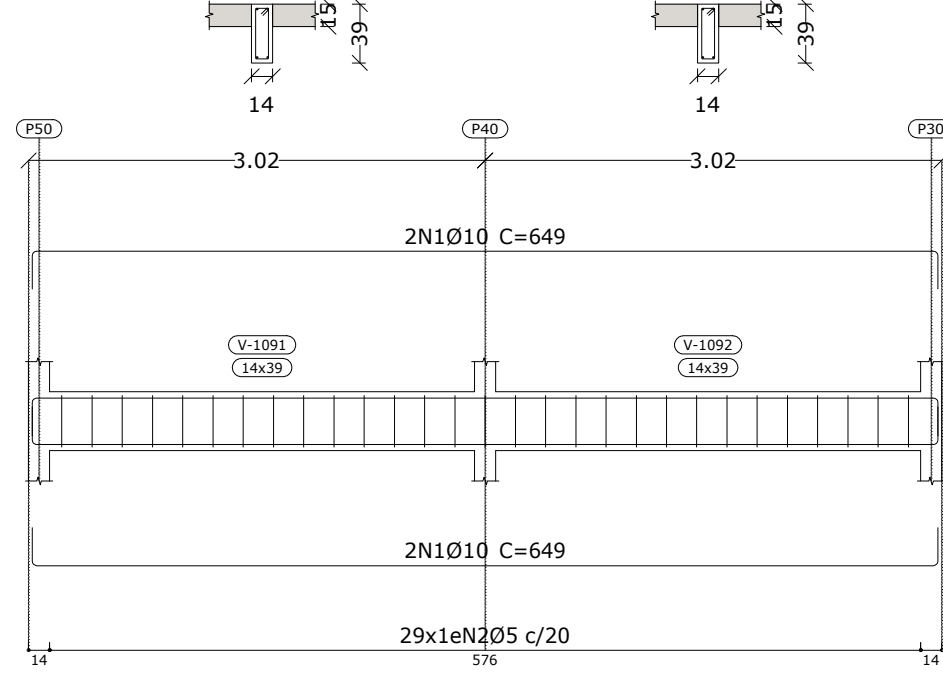
V 43



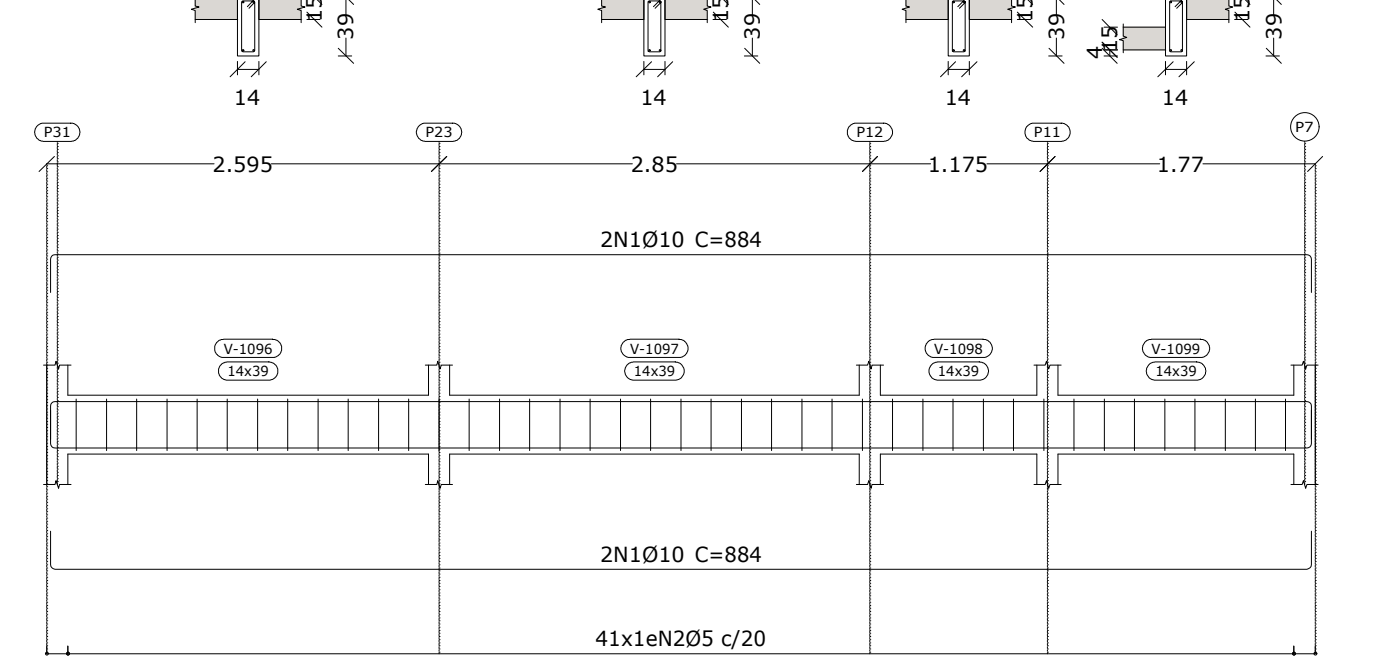
V 44



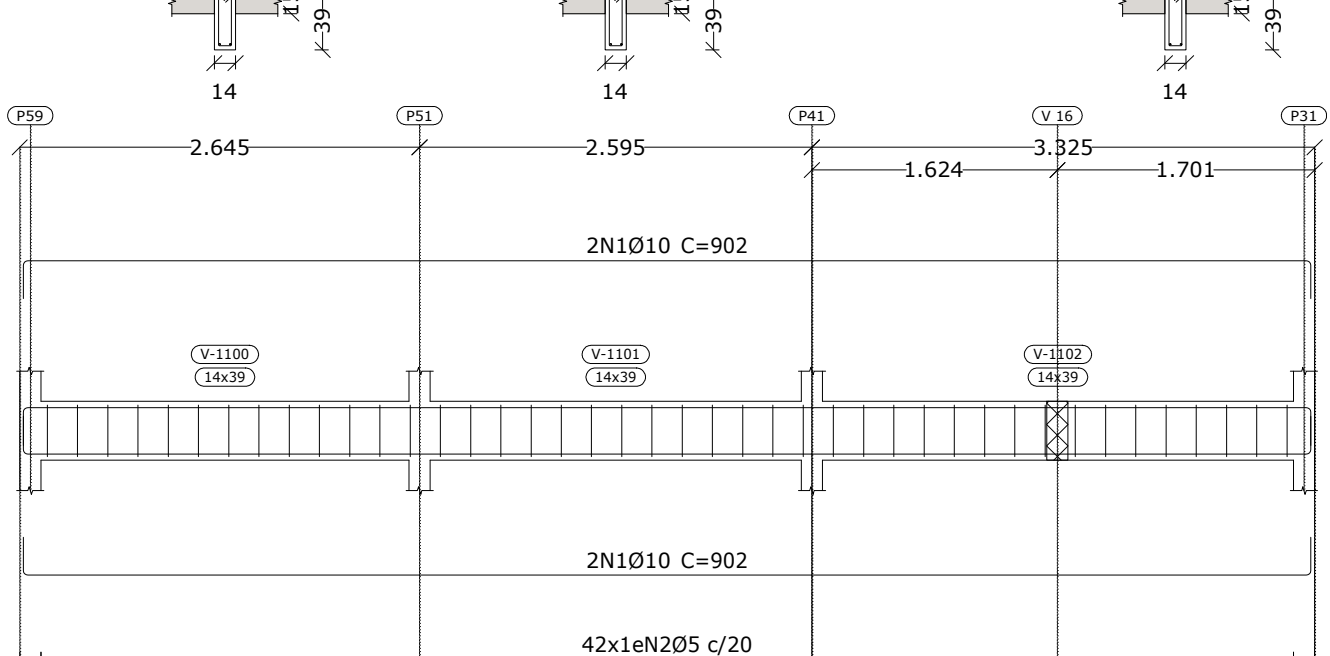
V 45



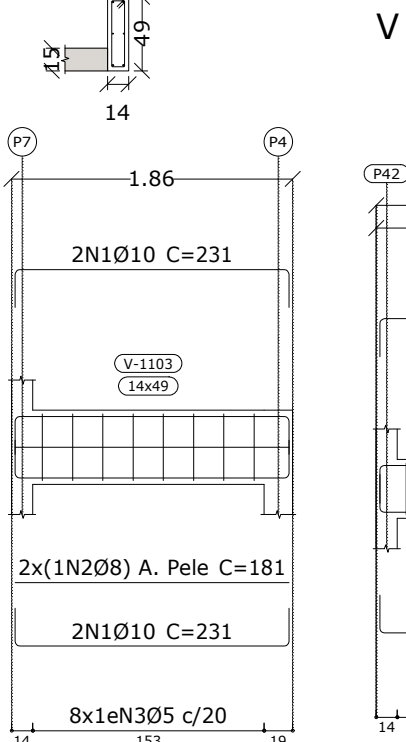
V 47



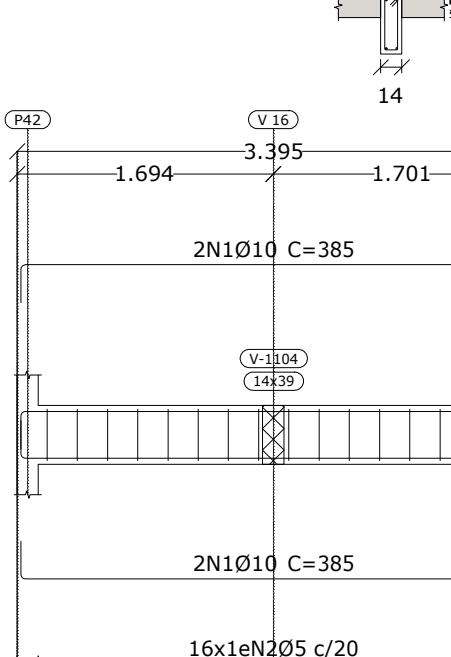
V 48



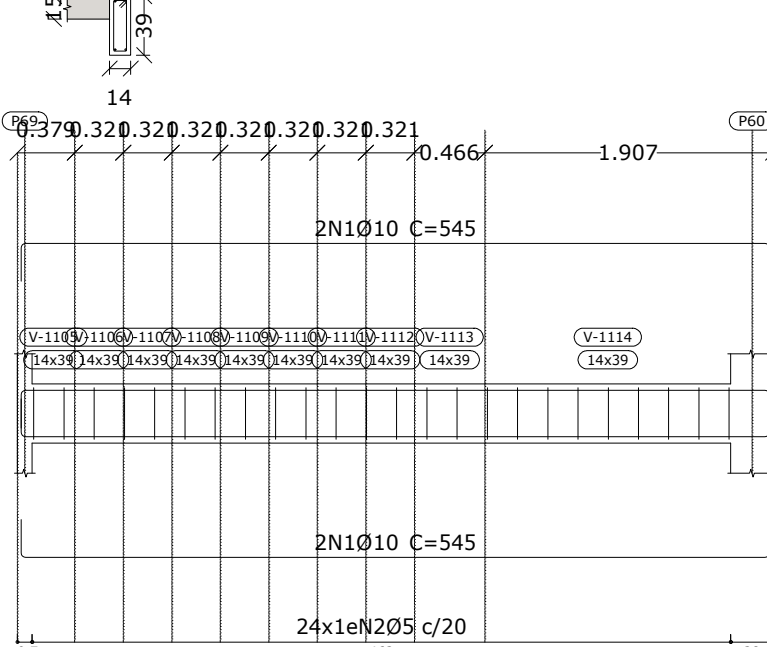
V 49



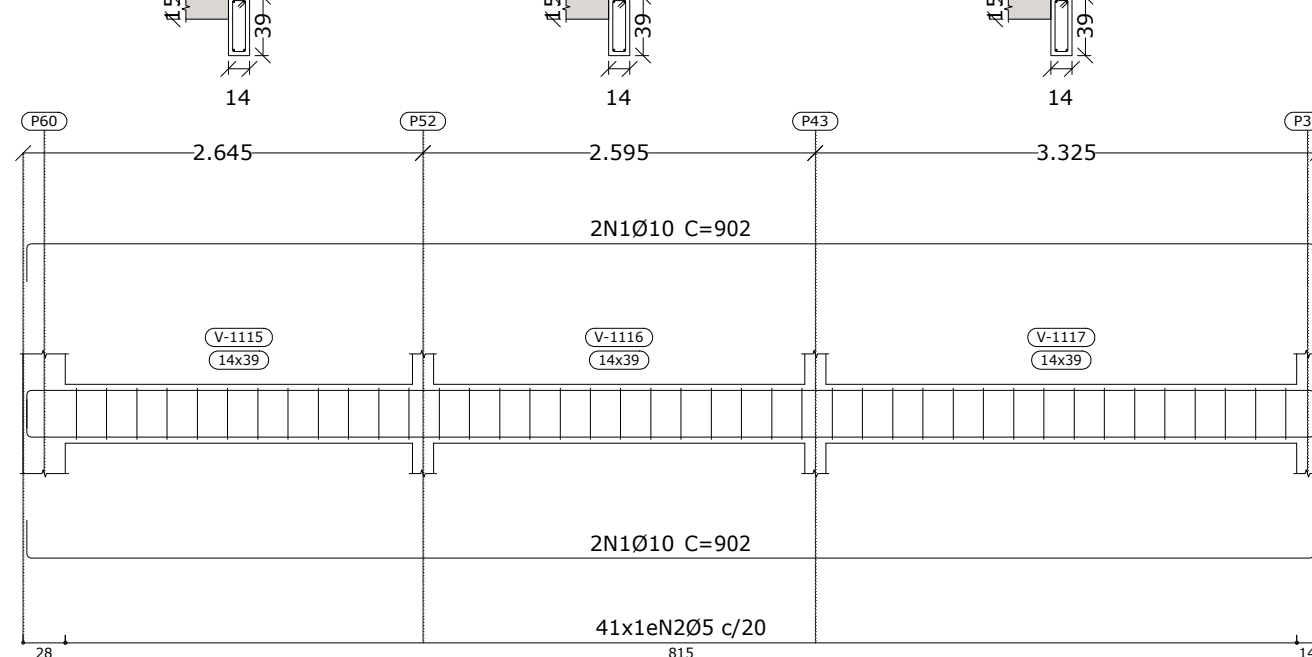
V 50



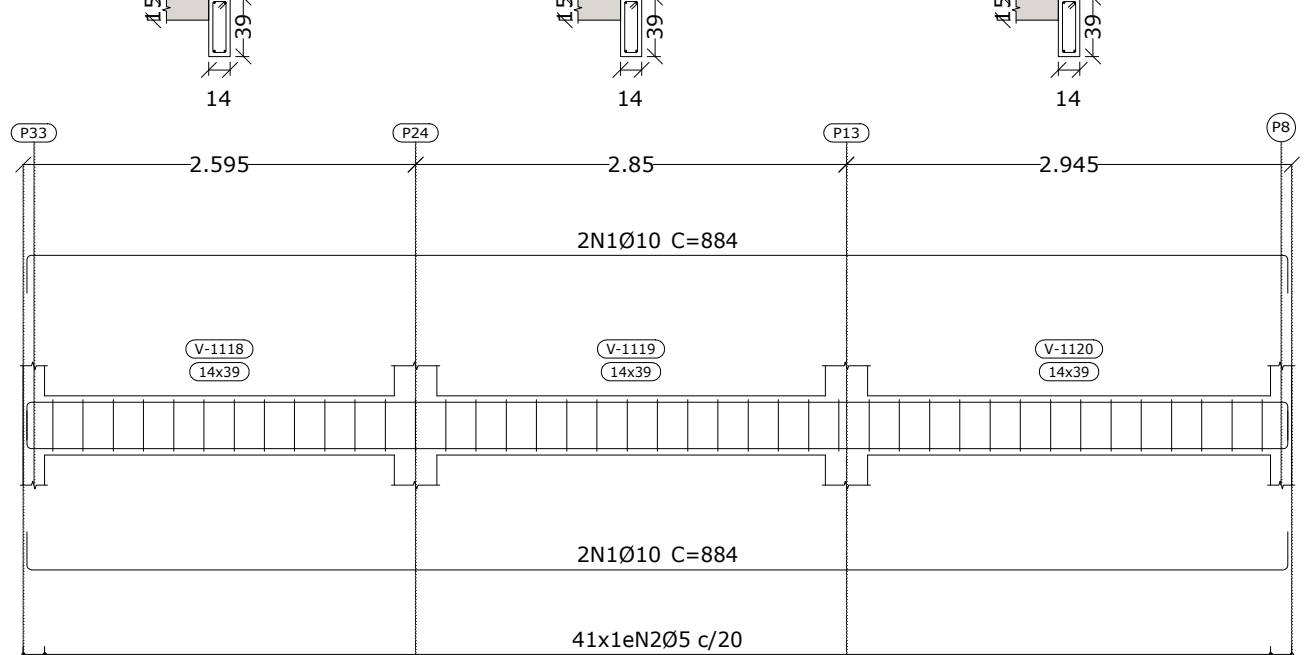
V 51



V 52



V 53



Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)	Elemento	Pos.	Diam.	Q.	Esquema (cm)	Comp. (cm)	Total (cm)	CA-50 (kg)	CA-60 (kg)	
V 50	1	Ø10	4		385	1540	9.5		V 43	1	Ø10	4		224	896	5.5		
	2	Ø5	16		94	1504		2.4		2	Ø8	2		174	348	1.4		
					Total+10%:	10.5	2.6	3		Ø5	8		114	912		1.4		
														Total+10%:	7.6	1.5		
V 28	1	Ø10	4		799	3196	19.7		V 44	1	Ø10	4		827	3308	20.4		
	2	Ø5	35		94	3290		5.2		2	Ø5	37		94	3478		5.5	
					Total+10%:	21.7	5.7					Total+10%:	22.4	6.1				
														Total+10%:	22.4	6.1		
V 33	1	Ø10	4		276	1104	6.8		V 45	1	Ø10	4		649	2596	16.0		
	2	Ø5	10		94	940		1.5		2	Ø5	29		94	2726		4.3	
					Total+10%:	7.5	1.7					Total+10%:	17.6	4.7				
														Total+10%:	17.6	4.7		
V 49	1	Ø10	4		231	924	5.7		V 46	1	Ø10	4		812	3248	20.0		
	2	Ø8	2		181	362	1.4			2	Ø5	37		94	3478		5.5	
	3	Ø5	8		114	912		1.4						Total+10%:	22.0	6.1		
					Total+10%:	7.8	1.5					Total+10%:	22.0	6.1				
V 30	1	Ø10	4		269	1076	6.6		V 47	1	Ø10	4		884	3536	21.8		
	2	Ø5	10		94	940		1.5		2	Ø5	41		94	3854		6.1	
					Total+10%:	7.3	1.7					Total+10%:	24.0	6.7				
														Total+10%:	24.0	6.7		
V 39	1	Ø10	4		799	3196	19.7		V 48	1	Ø10	4		902	3608	22.2		
	2	Ø5	35		94	3290		5.2		2	Ø5	42		94	3948		6.2	
					Total+10%:	21.7	5.7					Total+10%:	24.4	6.8				
														Total+10%:	24.4	6.8		
V 31	1	Ø10	4		799	3196	19.7		V 31	1	Ø10	4		799	3196	19.7		
	2	Ø5	35		94	3290		5.2		2	Ø5	35		94	3290		5.2	
					Total+10%:	21.7	5.7					Total+10%:	21.7	5.7				
														Total+10%:	21.7	5.7		
V 29	1	Ø10	4		953	3812	23.5		V 29	1	Ø10	4		953	3812	23.5		
	2	Ø5	43		94	4042		6.3		2	Ø5	43		94	4042		6.3	
					Total+10%:	25.9	6.9					Total+10%:	25.9	6.9				
														Total+10%:	25.9	6.9		
V 32	1	Ø10	4		277	1108	6.8		V 32	1	Ø10	4		277	1108	6.8		
	2	Ø5	10		94	940		1.5		2	Ø5	10		94	940		1.5	
					Total+10%:	7.5	1.7					Total+10%:	7.5	1.7				
														Total+10%:	7.5	1.7		
V 51	1	Ø10	4		545	2180	13.4		V 51	1	Ø10	4		545	2180	13.4		
	2	Ø5	24		94	2256		3.5		2	Ø5	24		94	2256		3.5	
					Total+10%:	14.7	3.9					Total+10%:	14.7	3.9				
														Total+10%:	14.7	3.9		
V 52	1	Ø10	4		902	3608	22.2		V 52	1	Ø10	4		902	3608	22.2		
	2	Ø5	41		94	3854		6.1		2	Ø5	41		94	3854		6.1	
					Total+10%:	24.4	6.7					Total+10%:	24.4	6.7				
														Total+10%:	24.4	6.7		
V 53	1	Ø10	4		884	3536	21.8		V 53	1	Ø10	4		884	3536	21.8		
	2	Ø5	41		94	3854		6.1		2	Ø5	41		94	3854		6.1	
					Total+10%:	24.0	6.7					Total+10%:	24.0	6.7				
														Total+10%:	24.0	6.7		

V 39

2N10Ø10 C=555

2x(1N2Ø8) A. Pele C=505

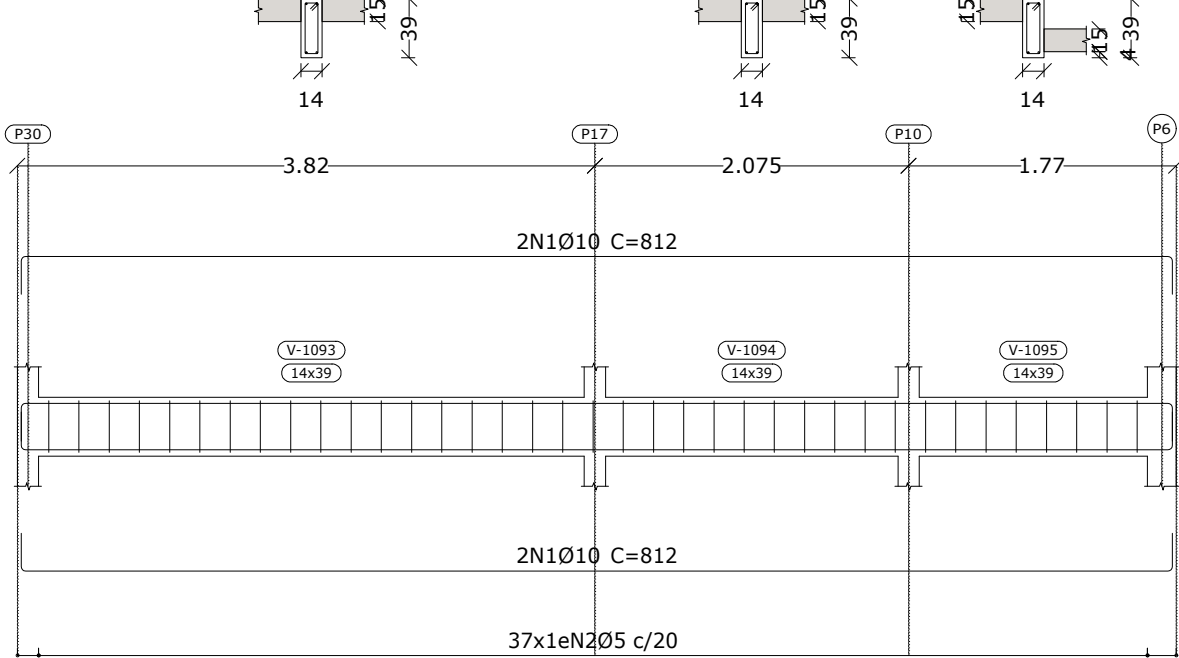
2N10Ø10 C=555

24x1eN3Ø5 c/20

02 COBERTURA
Desenho de vigas
Concreto: C20, em geral
Aço das barras: CA-50 e CA-60
Aço dos estribos: CA-50 e CA-60
Escala vigas 1:50
Escala seções 1:50
Escala aberturas 1:50

Resumo Aço	Comp. total (m)	Peso+10% (kg)	Total
CA-50	06.3	181.4	49
Ø8	010	255.9	111
Ø12.5	177.6	188	783
CA-60	05	1269.6	219
Total			1350

V 46



ELEMENTO	fck	TRAÇO	COBRIMENTO
FUNDAÇÕES	30MPa	1:2:3	4,0cm
PILARES	30MPa	1:2:3	2,5cm
VIGAS	30MPa	1:2:3	2,5cm
LAJES	30MPa	1:2:3	CAPA DE 4,0cm

CARACTERÍSTICAS AMBIENTAIS	
CLASSE DE AGR. AMBIENTAL	II MODERADA
CLASSIFICAÇÃO	URBANO

Assinantes



William Mateus Muller

Assinou em 26/08/2026 às 16:24:31 com o certificado avançado da Betha Sistemas e possui a identidade verificada com o CPF ***.589.330-**.

Eu, William Mateus Muller, estou ciente das normas descritas na Lei nº 14.063/2020, no que se refere aos tipos de assinaturas consideradas como válidas para a prática de atos e interações pelos Entes Públicos.

Veracidade do documento



Documento assinado digitalmente.

Verifique a veracidade utilizando o QR Code ao lado ou acesse o site **verificador.betha.cloud** e insira o código abaixo:

NG5-V92-806-9Z6