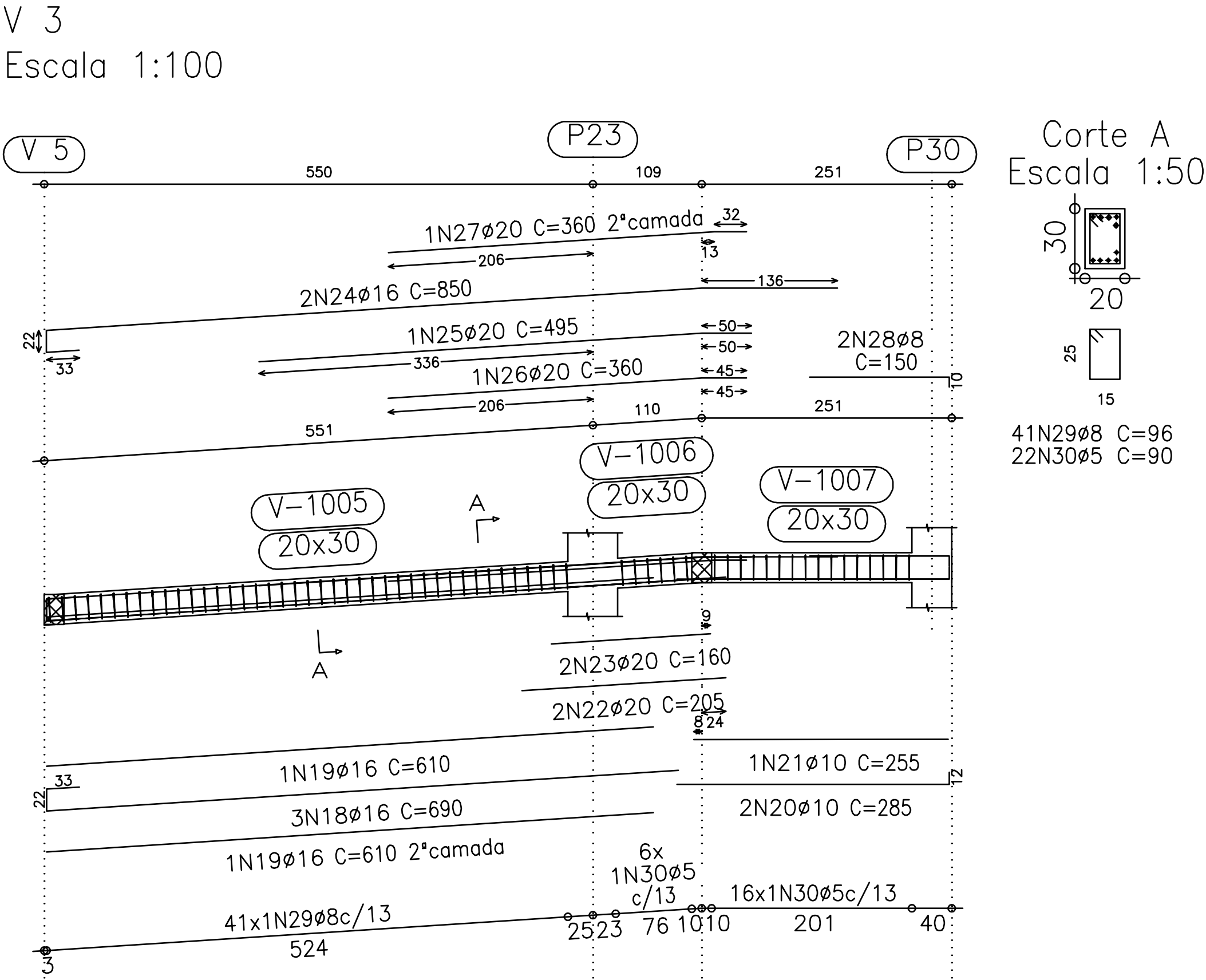
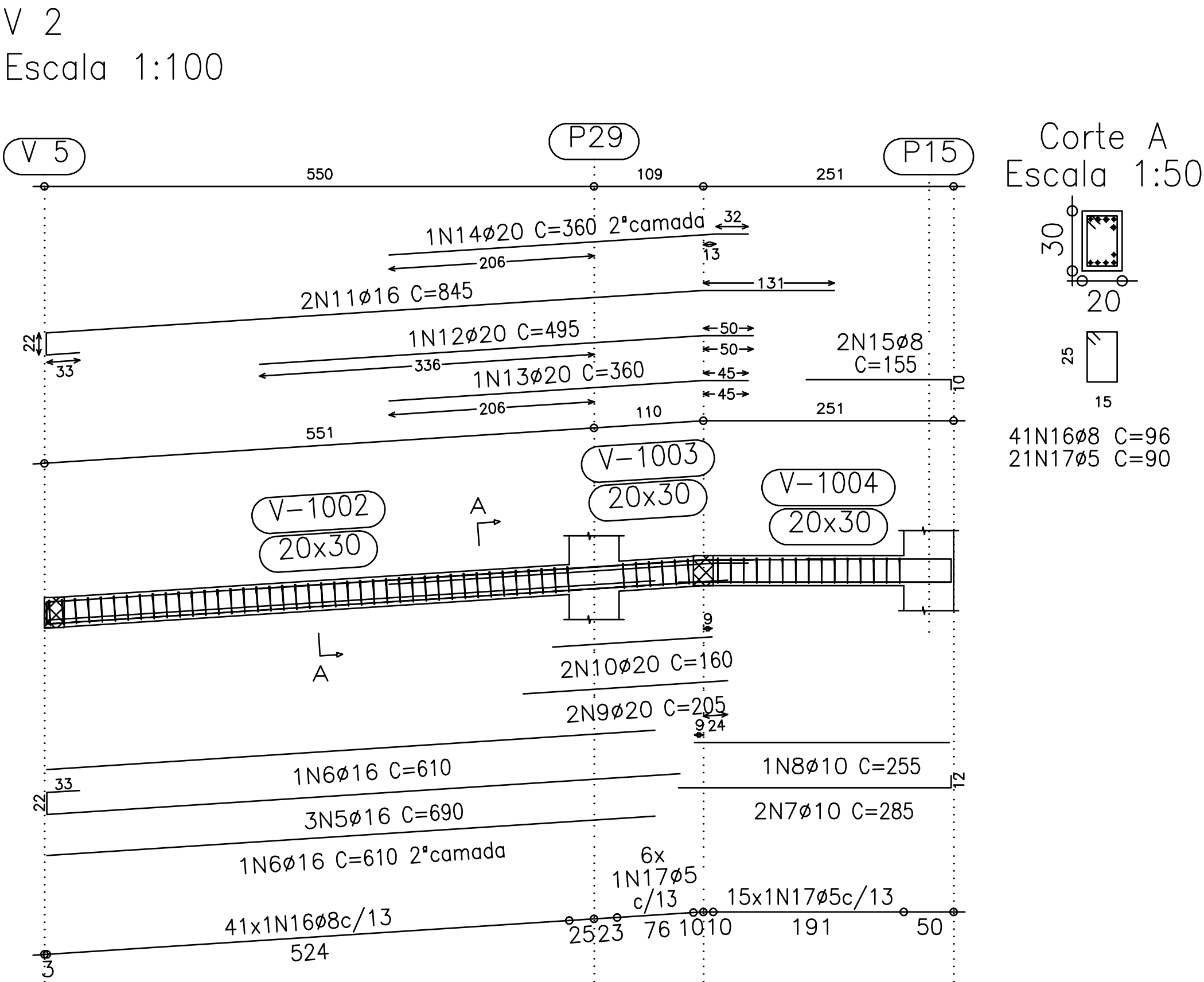
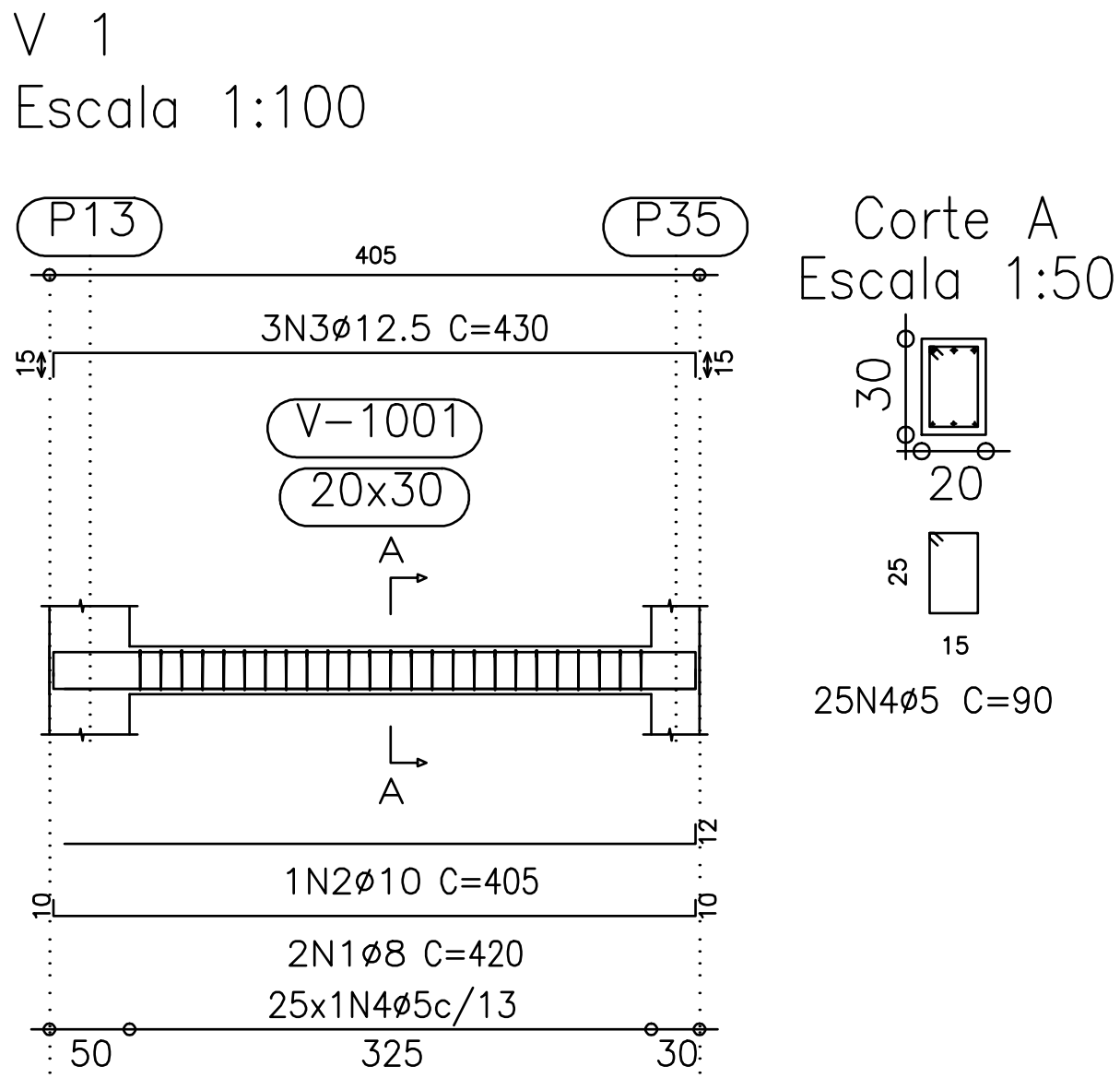




Resumo Aço	Comp. total (m)	Peso+10% (kg)	Total
Piso 9			
Vigas			
CA-50-A Ø8	123.2	53	442
Ø10	122.2	84	
Ø12.5	25.2	27	
Ø16	99.7	172	
Ø20	38.9	106	
CA-60-B Ø5	225.9	39	39
Total			481

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. (cm)	Total (cm)	CA-50-A (kg)	CA-60-B (kg)	
V 1	1	ø8	2	10	400	10	420	840	3.3	3.5	
	2	ø10	1		393	12	405	405	2.5		
	3	ø12.5	3	15	400	15	430	1290	12.7		
	4	ø5	25				90	2250			
	Total+10%:								20.4		3.9
V 2	5	ø16	3	55	635	12	690	2070	32.5	3.0	
	6	ø16	2		610		610	1220	19.2		
	7	ø10	2		273		285	570	3.6		
	8	ø10	1		255		255	255	1.6		
	9	ø20	2		205		205	410	10.1		
	10	ø20	2		160	160	320	7.9	55		
	11	ø16	2		790	845	1690	26.5			
	12	ø20	1		495	495	495	12.2			
	13	ø20	1		360	360	360	8.9			
	14	ø20	1		360	360	360	8.9			
	15	ø8	2		145	10	155	310			1.2
	16	ø8	41			96	3936	15.4			
	17	ø5	21			90	1890				
	Total+10%:										162.8
V 3	18	ø16	3	55	635	12	690	2070	32.5	3.1	
	19	ø16	2		610		610	1220	19.2		
	20	ø10	2		273		285	570	3.6		
	21	ø10	1		255		255	255	1.6		
	22	ø20	2		205		205	410	10.1		
	23	ø20	2		160	160	320	7.9	55		
	24	ø16	2		795	850	1700	26.7			
	25	ø20	1		495	495	495	12.2			
	26	ø20	1		360	360	360	8.9			
	27	ø20	1		360	360	360	8.9			
	28	ø8	2		140	10	150	300			1.2
	29	ø8	41			96	3936	15.4			
	30	ø5	22			90	1980				
	Total+10%:										163.0
ø5:								0.0	10.6		
ø8:								40.1	0.0		
ø10:								14.3	0.0		
ø12.5:								14.0	0.0		
ø16:								172.2	0.0		
ø20:								105.6	0.0		
Total:								346.2	10.6		

RAMPA DO RESTAURANTE			
CAMPUS TÓFILO OTONI			
AVENIDA DR. LUIS BOALI PORTO SALMAN, S/Nº - BAIRRO IPIRANGA - TEÓFILO OTONI/MG			
PROPRIETÁRIO:	UNIVERSIDADE FEDERAL DOS VALES DO JEQUITINHONHA E MUCURI	CNPJ	16.888.315/0001-57
OBSERVAÇÕES			
CONFERIR MEDIDAS NA OBRA			
TÍTULO			
PROJETO DA RAMPA DO RESTAURANTE			
AUTOR PROJETO:			
ROBSON NOGUEIRA GOMES - CREA 111839/D			
VERSÃO:	DATA:	AUTOCAD:	FOLHA:
VERSÃO 1	22.05.2013		48/66