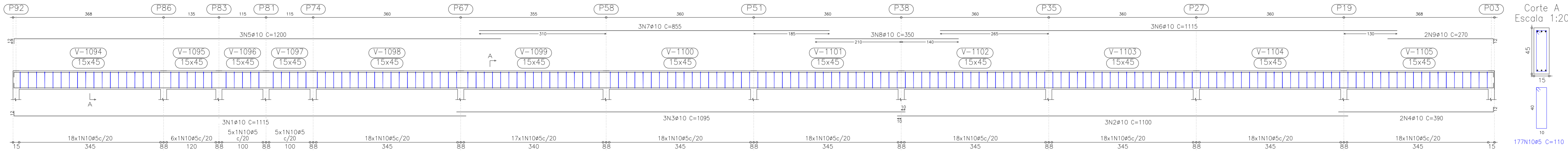
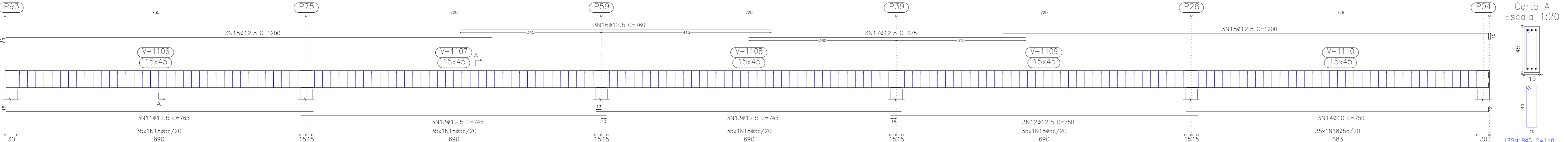


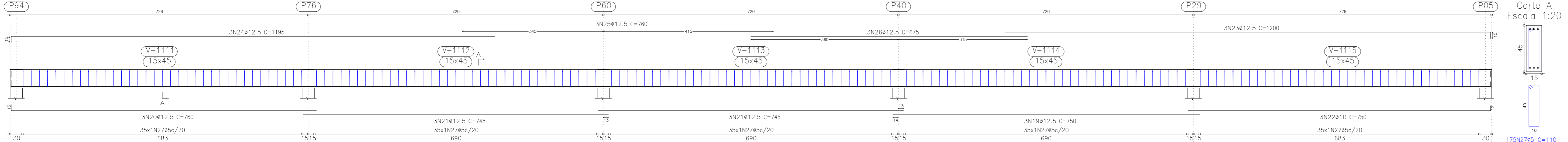
V 28  
Escala 1:50



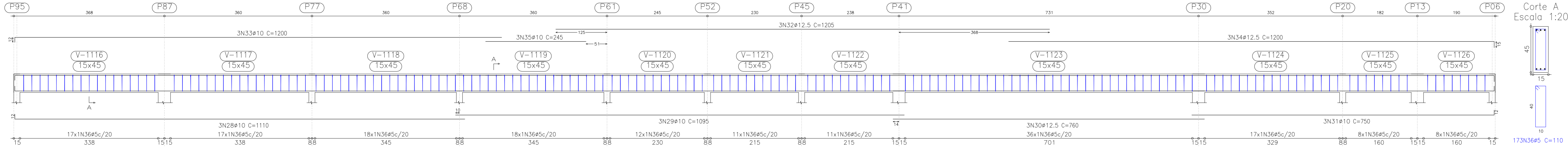
V 29  
Escala 1:50



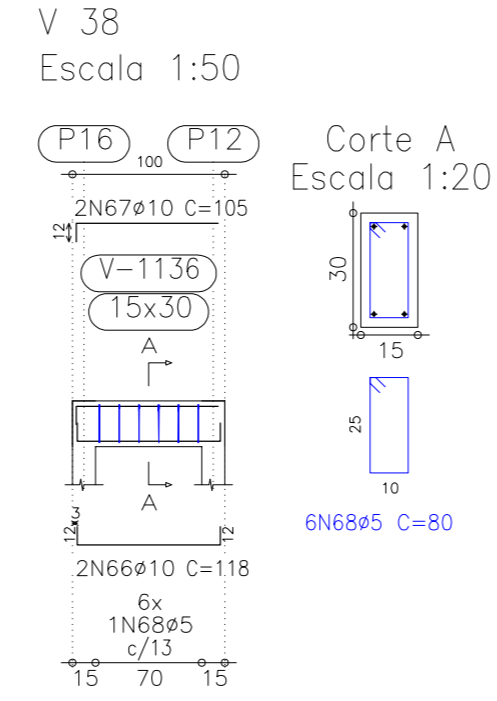
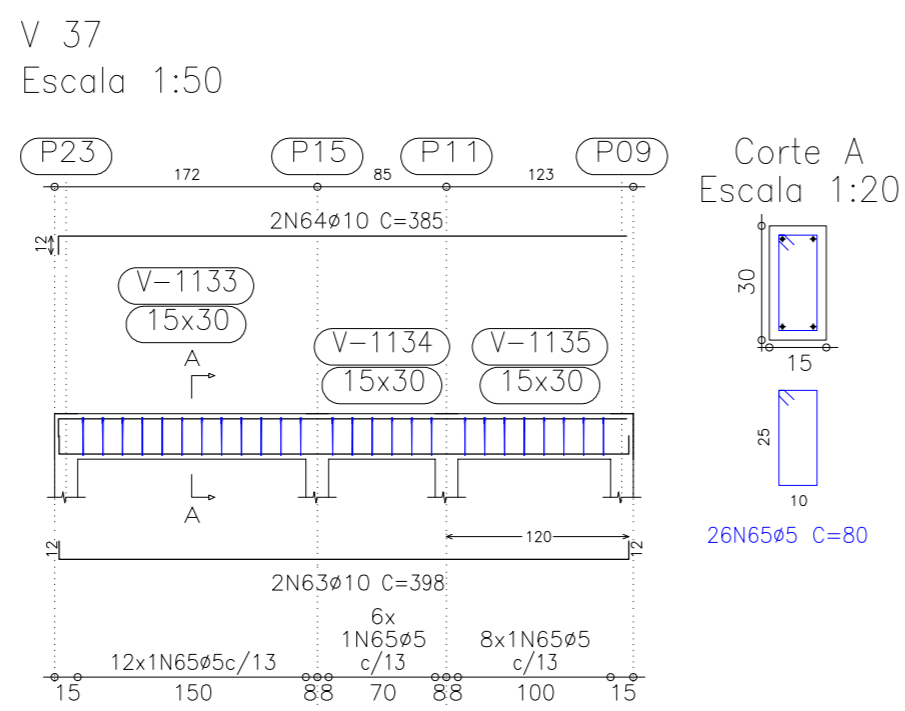
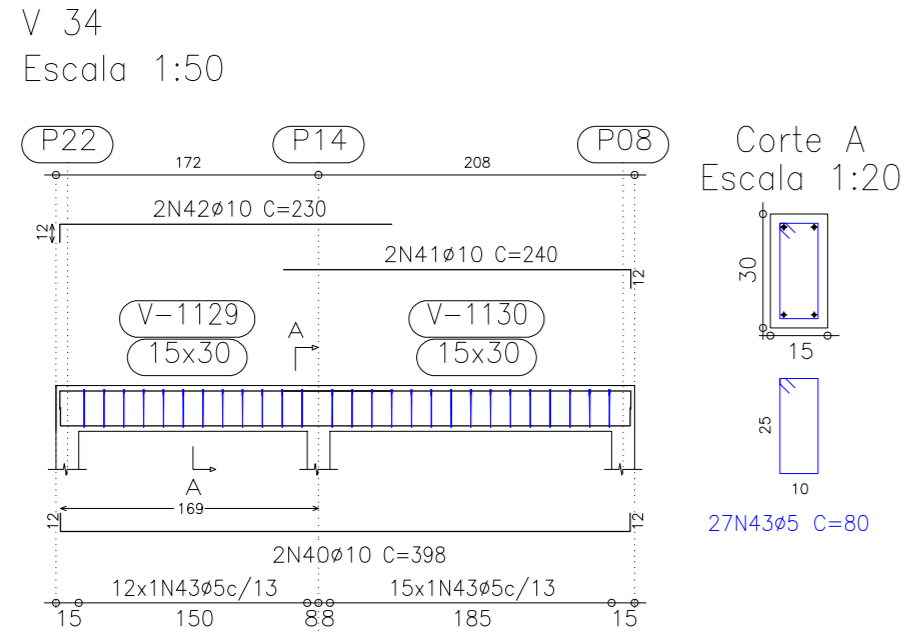
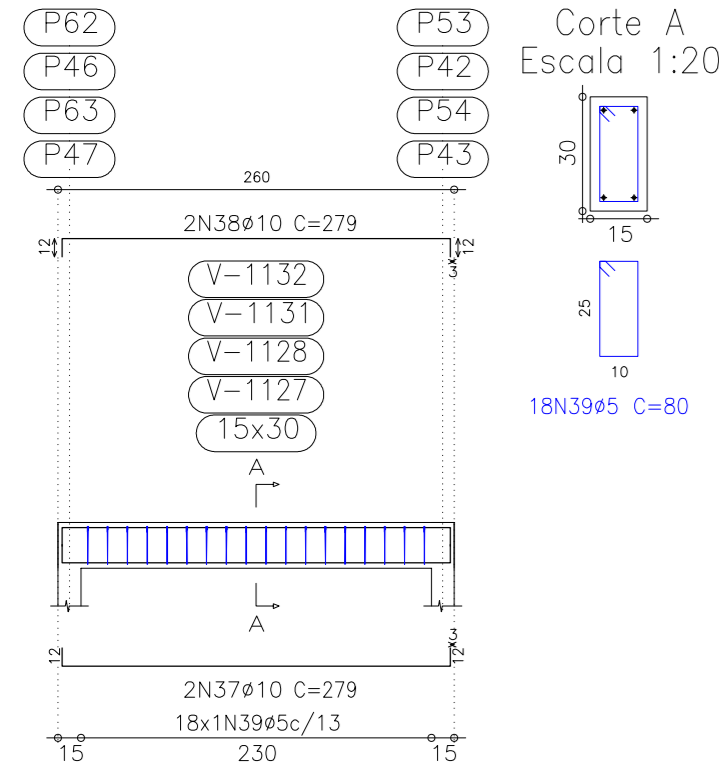
V 30  
Escala 1:50



V 31  
Escala 1:50

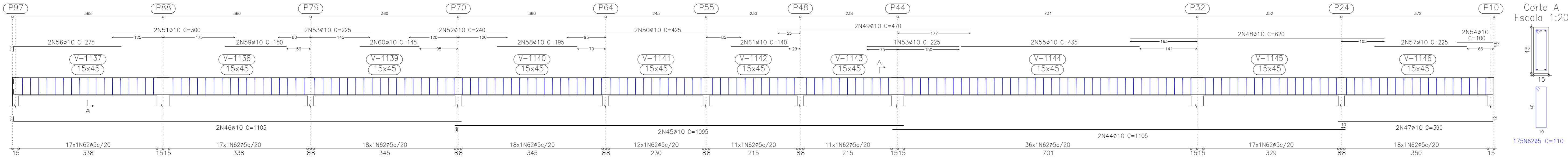


V 32  
V 33  
V 35  
V 36  
Escala 1:50



Placa 1  
Desenho de vigas  
Concreto: C20, em geral  
Aço: CA-50-A e CA-60-B  
Escala vigas: 1:50  
Escala pontos: 1:20

V 39  
Escala 1:50



Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Comp. (cm)	Tota (cm)	CA-50 (kg)	CA-60 (kg)	CA-60-B (kg)	
V 28	1	ø10	3	12	1103		1115	3345	21.0		
	2	ø10	3		1100		1100	3300	20.7		
	3	ø10	3		1095		1095	3285	20.6		
	4	ø10	2		378	12	390	780	4.9		
	5	ø10	2		1188		1200	3600	22.6		
	6	ø10	2		1115		1115	3345	21.0		
	7	ø10	3		855		855	2565	16.1		
	8	ø10	3		350		350	1050	6.6		
	9	ø10	2		270	12	270	810	3.4		
	10	ø5	177				110	19470		30.6	
Total+10%									150.6	33.7	
V 29	11	ø12.5	3	15	750		765	2295	22.5		
	12	ø12.5	3		750		750	2250	22.1		
	13	ø12.5	6		745		745	4470	43.9		
	14	ø10	3		738	12	750	2250	14.1		
	15	ø12.5	6		1185		1200	3600	20.7		
	16	ø12.5	3		760		760	2280	22.4		
	17	ø12.5	3		675		675	2025	19.9		
	18	ø5	175				110	19250		30.2	
	Total+10%									237.2	33.2
V 30	19	ø12.5	3	15	750		750	2250	22.1		
	20	ø12.5	3		745		760	2280	22.4		
	21	ø12.5	6		745		745	4470	43.9		
	22	ø10	3		738	12	750	2250	14.1		
	23	ø12.5	3		1185	15	1200	3600	35.3		
	24	ø12.5	3		1180		1195	3585	35.2		
	25	ø12.5	3		760		760	2280	22.4		
	26	ø12.5	3		675		675	2025	19.9		
	27	ø5	175				110	19250		30.2	
	Total+10%									236.8	33.2
V 31	28	ø10	3	12	1098		1110	3330	20.9		
	29	ø10	3		1095		1095	3285	20.6		
	30	ø12.5	3		738		760	2280	22.4		
	31	ø10	3		738	12	750	2250	14.1		
	32	ø12.5	3		1205		1205	3615	35.5		
	33	ø10	3		1188		1200	3600	22.6		
	34	ø12.5	3		1185	15	1200	3600	35.3		
	35	ø10	3		245		245	735	4.6		
	36	ø5	173				110	19030		29.9	
Total+10%									193.6	32.9	
V 32=V 33=V 35 V 36	37	ø10	2	12	255	12	279	558	3.5		
	38	ø10	2	12	255	12	279	558	3.5		
	39	ø5	18				80	1440		2.3	
V 34	40	ø10	2	12	374	12	398	796	5.0		
	41	ø10	2	12	228	12	240	480	3.0		
	42	ø10	2	12	218		230	460	2.9		
	43	ø5	27				80	2160		3.4	
V 39	44	ø10	2		1105		1105	2210	13.9		
	45	ø10	2		1095		1095	2190	13.8		
	46	ø10	2	12	1093		1105	2210	13.9		
	47	ø10	2		390		390	780	4.9		
	48	ø10	2		620		620	1240	7.8		
	49	ø10	2		470		470	940	5.9		
	50	ø10	2		425		425	850	5.3		
	51	ø10	2		300		300	600	3.8		
	52	ø10	2		240		240	480	3.0		
	53	ø10	2		225		225	450	4.2		
V 37	54	ø10	2		88	12	100	200	1.3		
	55	ø10	2		435		435	870	5.5		
	56	ø10	2	12	263		275	550	3.5		
	57	ø10	2		225		225	450	2.8		
	58	ø10	2		195		195	390	2.4		
	59	ø10	2		150		150	300	1.9		
	60	ø10	2		145		145	290	1.8		
	61	ø10	2		140		140	280	1.8		
	62	ø5	175				110	19250		30.2	
V 37	63	ø10	2	12	374	12	398	796	5.0	33.2	
	64	ø10	2	12	373		385	770	4.8		
	65	ø5	26				80	2080		3.3	
V 38	Total+10%									10.8	3.6
	66	ø10	2	12	94	12	118	236	1.5		
	67	ø10	2	12	93		105	210	1.3		
	68	ø5	6				80	480		0.8	
Total+10%									3.1	0.9	
ø5:									0.0	184.4	
ø10:									436.7	0.0	
ø12.5:									945.2	0.0	
Total:									582.2	184.4	



**ENGENHARIA E CONSTRUÇÃO LTDA**  
Endereço: Rua Nelsino /ravagnani, nº 1451A - Centro - Florestópolis/PR  
CEP: 861654-000 FONES: (43) 9602-8019 / 3662-1002 e-mail: camaraeliseu@gmail.com  
FLORESTÓPOLIS - PARANÁ

PROJETO ESTRUTURAL

**PROPRIETÁRIO:** PREFEITURA MUNICIPAL DE PRADO FERREIRA  
**ENDEREÇO DA OBRA:** RUA EURIDES GONÇALVES GERONIMO, Nº 07 LOTE 38-C DA QUADRA 20 RESIDENCIAL MITACUNHA - PRADO FERREIRA - PARANÁ

**SOLICITANTE:** MARIA EDNA DE ANDRADE  
MUNICIPIO DE PRADO FERREIRA, PR - CNPJ: 01.613.138/0001-30

**ESCALA:** INDICADA

**DATA:** 10/11/2023

**TERRENO:** 2.409,41m²

**PROJETO:** 787,14m²

**FOLHA:** 07/11

**ARQUIVO DIGITAL:** XXX.DWG

**UNIDADE:** cm / mm/

**REPONSÁVEL PELO PROJETO**  
**ELISEU CAMARA**  
ENGº CIVIL - CREA PR Nº 210280/D  
ART. Nº

**RESPONSÁVEL P/ EXECUÇÃO**

APROVAÇÃO

APROVADO

ALVARÁ  
Nº 548/2023

RONALD TIZIANI PIVOTTO  
CREA PR-172430/D  
Coordenador de Obras Públicas e Conservação  
Prefeitura Municipal de Prado Ferreira