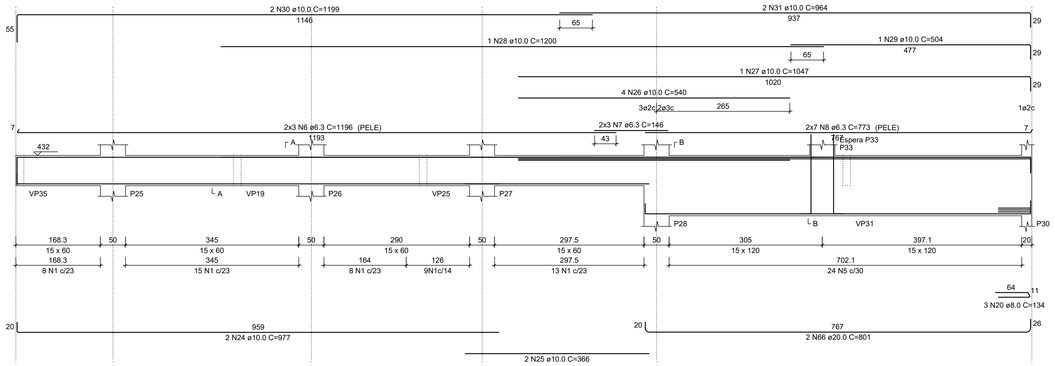
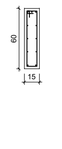
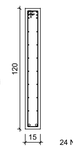
VP11
ESC 1:50



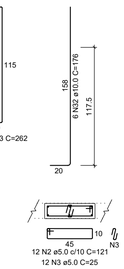
SEÇÃO A-A
ESC 1:25



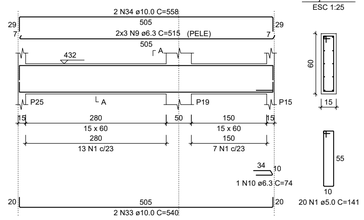
SEÇÃO B-B
ESC 1:25



ESPERA P33
ESC 1:25



VP12
ESC 1:50



SEÇÃO A-A
ESC 1:25

RELAÇÃO DO AÇO

VP11	VP12	VP13
VP14	VP15	VP16
VP17	VP18	VP19
VP20	VP21	VP22
VP23	VP24	VP25
VP26	VP27	VP28
VP29	VP30	VP31
VP32		

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	246	141	34686
	2	5.0	12	121	1452
	3	5.0	12	25	300
	4	5.0	67	181	12127
CA50	5	6.3	24	262	6288
	6	6.3	6	1196	7176
	7	6.3	6	146	876
	8	6.3	14	773	10822
	9	6.3	12	515	6180
	10	6.3	1	74	74
	11	6.3	60	110	6600
	12	6.3	6	343	2058
	13	6.3	12	350	4200
	14	6.3	6	376	2256
	15	6.3	1	94	94
	16	6.3	6	135	810
	17	6.3	6	corr	1230
	18	6.3	6	457	2742
	19	6.3	6	435	2610
	20	8.0	3	134	402
	21	8.0	36	182	6552
	22	8.0	8	882	7056
	23	8.0	6	84	504
	24	10.0	2	977	1954
	25	10.0	2	366	732
	26	10.0	4	540	2160
	27	10.0	1	1047	1047
	28	10.0	1	1200	1200
	29	10.0	1	504	504
	30	10.0	2	1199	2398
	31	10.0	2	964	1928
	32	10.0	6	176	1056
	33	10.0	2	540	1080
	34	10.0	4	558	2232
	35	10.0	20	135	2700
	36	10.0	10	179	1790
	37	10.0	10	153	1530
	38	10.0	9	375	3375
	39	10.0	4	419	1676
	40	10.0	2	393	786
	41	10.0	3	106	318
	42	10.0	2	405	810
	43	10.0	3	332	996
	44	10.0	3	335	1005
	45	10.0	1	339	339
	46	10.0	2	418	836
	47	10.0	2	204	408
	48	10.0	2	240	480
	49	10.0	2	275	550
	50	10.0	2	500	1000
	51	10.0	3	464	1392
	52	10.0	1	227	227
	53	10.0	1	231	231
	54	10.0	2	473	946
	55	12.5	1	152	152
	56	12.5	3	159	477
	57	12.5	2	532	1064
	58	12.5	3	539	1617
	59	12.5	2	474	948
	60	12.5	3	481	1443
	61	16.0	1	689	689
	62	16.0	4	902	3608
	63	16.0	4	503	2012
	64	16.0	1	507	507
	65	16.0	4	972	3888
	66	20.0	2	801	1602

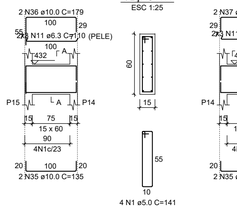
RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	540.2	145.4
	8.0	145.1	63
	10.0	376.9	255.6
	12.5	57	60.4
	16.0	107	185.8
	20.0	16	43.5
CA60	5.0	485.7	82.3

PESO TOTAL (kg)	
CA50	753.7
CA60	82.3

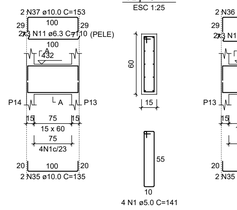
Volume de concreto (C-30) = 7.29 m³
Área de forma = 91.41 m²

VP13
ESC 1:50



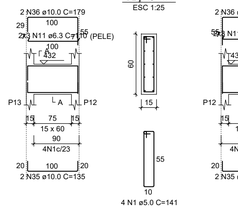
SEÇÃO A-A
ESC 1:25

VP14
ESC 1:50



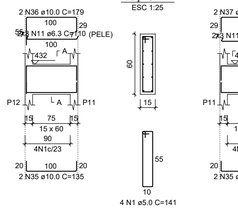
SEÇÃO A-A
ESC 1:25

VP15
ESC 1:50



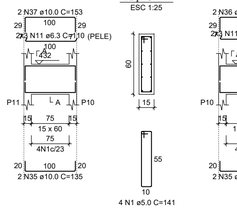
SEÇÃO A-A
ESC 1:25

VP16
ESC 1:50



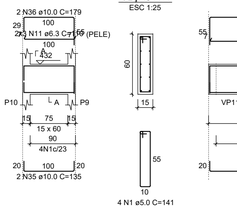
SEÇÃO A-A
ESC 1:25

VP17
ESC 1:50



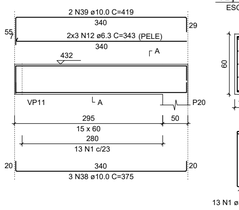
SEÇÃO A-A
ESC 1:25

VP18
ESC 1:50



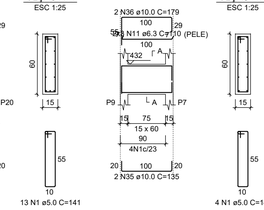
SEÇÃO A-A
ESC 1:25

VP19
ESC 1:50



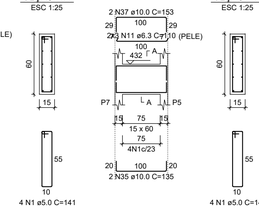
SEÇÃO A-A
ESC 1:25

VP20
ESC 1:50

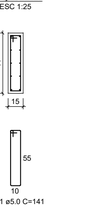


SEÇÃO A-A
ESC 1:25

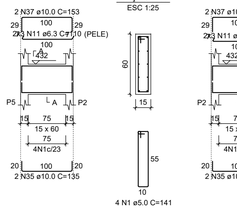
VP21
ESC 1:50



SEÇÃO A-A
ESC 1:25

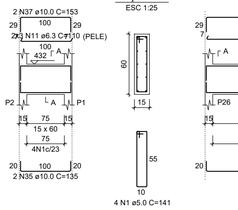


VP22
ESC 1:50



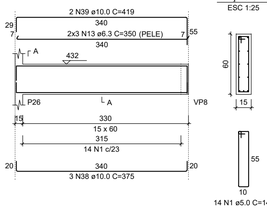
SEÇÃO A-A
ESC 1:25

VP23
ESC 1:50



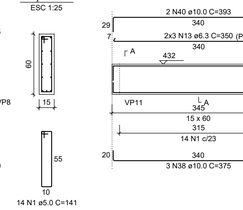
SEÇÃO A-A
ESC 1:25

VP24
ESC 1:50

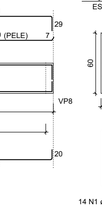


SEÇÃO A-A
ESC 1:25

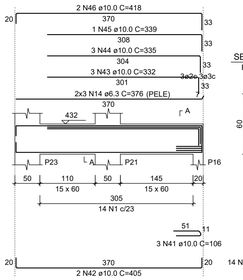
VP25
ESC 1:50



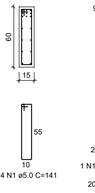
SEÇÃO A-A
ESC 1:25



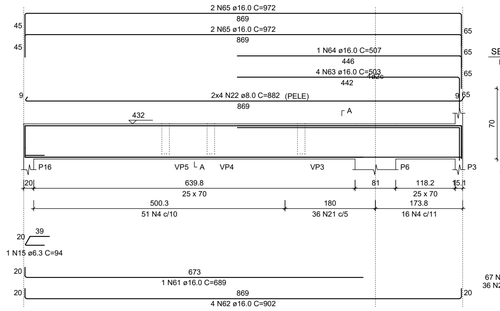
VP26
ESC 1:50



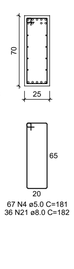
SEÇÃO A-A
ESC 1:25



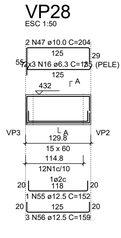
VP27
ESC 1:50



SEÇÃO A-A
ESC 1:25

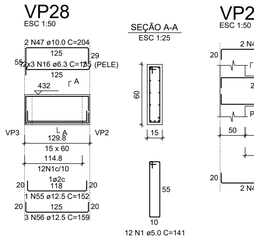


VP28
ESC 1:50

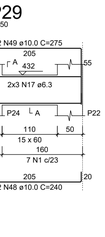


SEÇÃO A-A
ESC 1:25

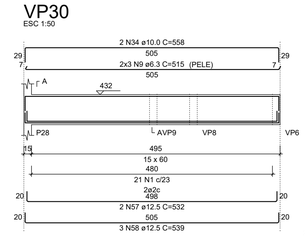
VP29
ESC 1:50



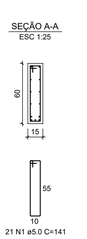
SEÇÃO A-A
ESC 1:25



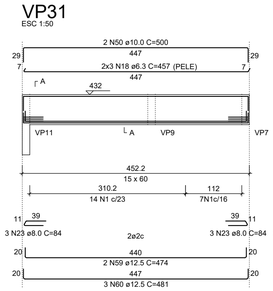
VP30
ESC 1:50



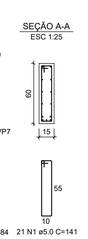
SEÇÃO A-A
ESC 1:25



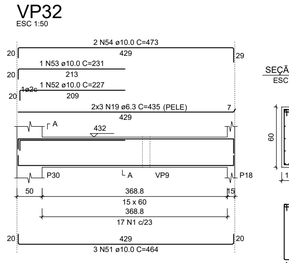
VP31
ESC 1:50



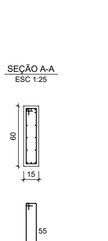
SEÇÃO A-A
ESC 1:25



VP32
ESC 1:50



SEÇÃO A-A
ESC 1:25



RELAÇÃO DO AÇO

VP33 VP34 VP35

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	75	141	10575
CA50	2	6.3	6	corr	3084
	3	6.3	6	872	5232
	4	6.3	6	545	3270
	5	10.0	1	542	542
	6	10.0	5	549	2745
	7	10.0	1	257	257
	8	10.0	1	261	261
	9	10.0	2	455	910
	10	10.0	1	842	842
	11	10.0	1	845	845
	12	10.0	2	914	1828
	13	10.0	2	570	1140
	14	10.0	2	588	1176
	15	12.5	1	622	622
	16	12.5	1	893	893
	17	12.5	3	900	2700

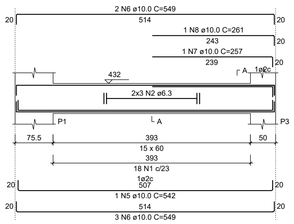
RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	6.3	115.9	31.2
	10.0	105.5	71.5
	12.5	42.1	44.7
CA60	5.0	105.8	17.9

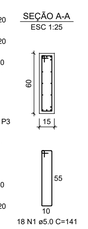
PESO TOTAL (kg)	
CA50	147.4
CA60	17.9

Volume de concreto (C-30) = 1.49 m³
Área de forma = 20.67 m²

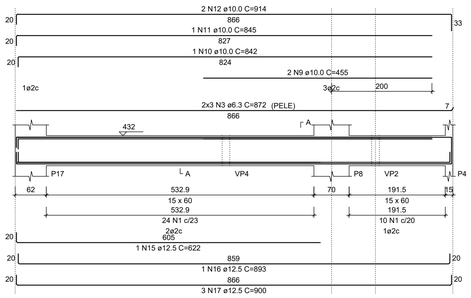
VP33
ESC 1:50



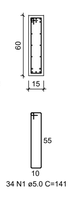
SEÇÃO A-A
ESC 1:25



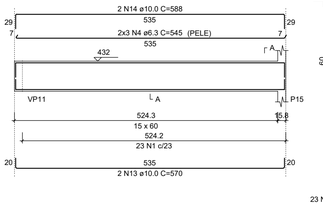
VP34
ESC 1:50



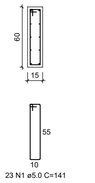
SEÇÃO A-A
ESC 1:25



VP35
ESC 1:50



SEÇÃO A-A
ESC 1:25



PROJETO ESTRUTURAL

VIGAS PLENÁRIO

Proprietário: Câmara Municipal de Araponga	CPF / CNPJ: 05.967.206/0001-09
Responsável Técnico: Gladston Ramaldes Moreira — GLADSTON RAMALDES MOREIRA:10595835659 — Assinado de forma digital por GLADSTON RAMALDES MOREIRA:10595835659 Dados: 2025.11.07 13:42:11 -03'00'	CREA: 208617/D
Finalidade: Construção de um imovél institucional	Data: Setembro / 2025
Endereço: Rua José Ernesto Kummel, SN, Centro, Araponga, Minas Gerais	CEP: 36.594-000
Desenho:	Folha: 02 / 02