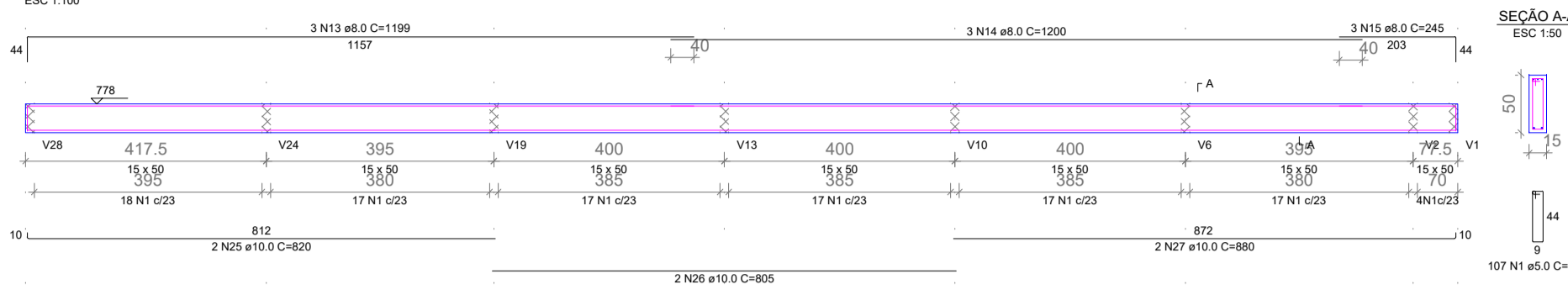
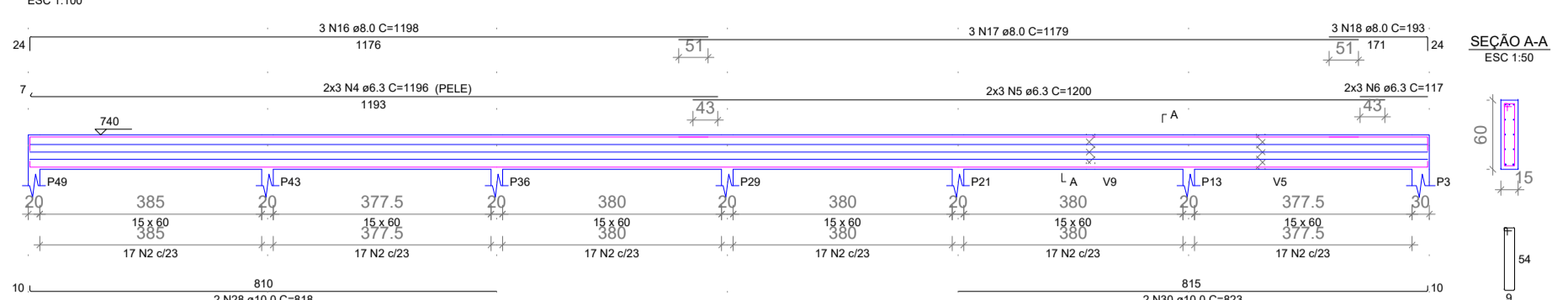


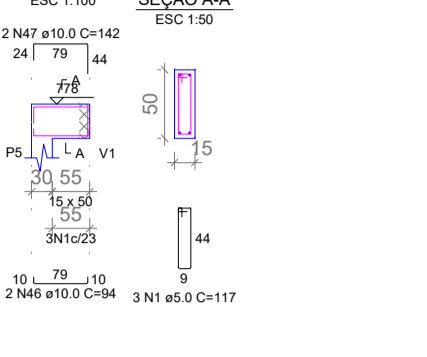
**V32**



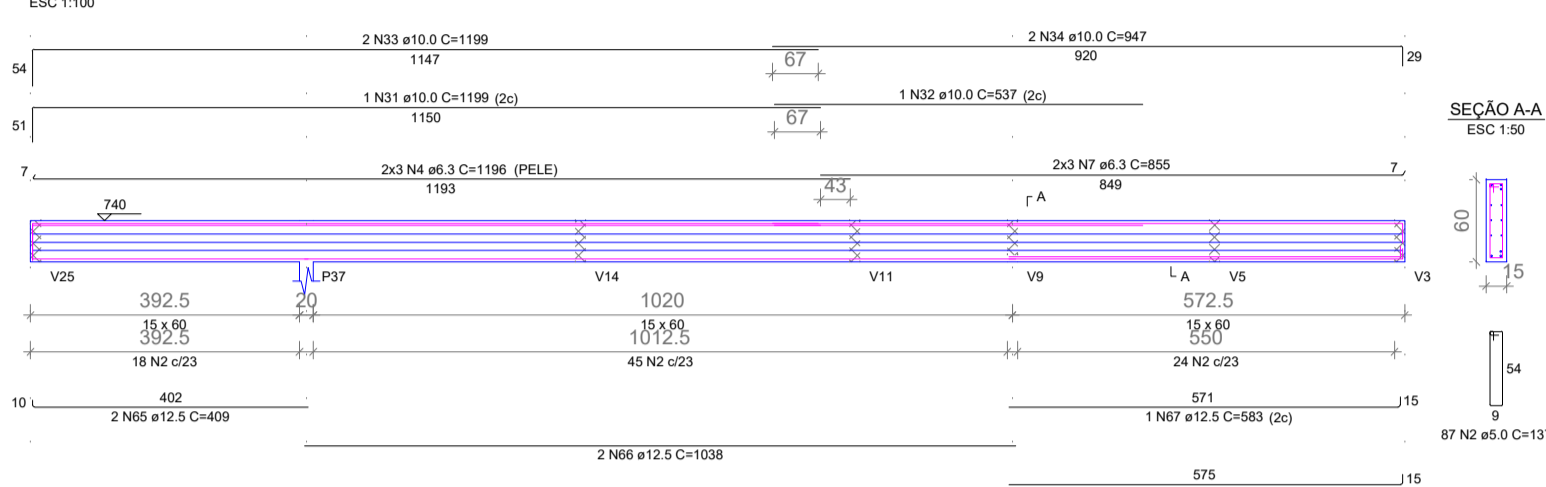
**V33**



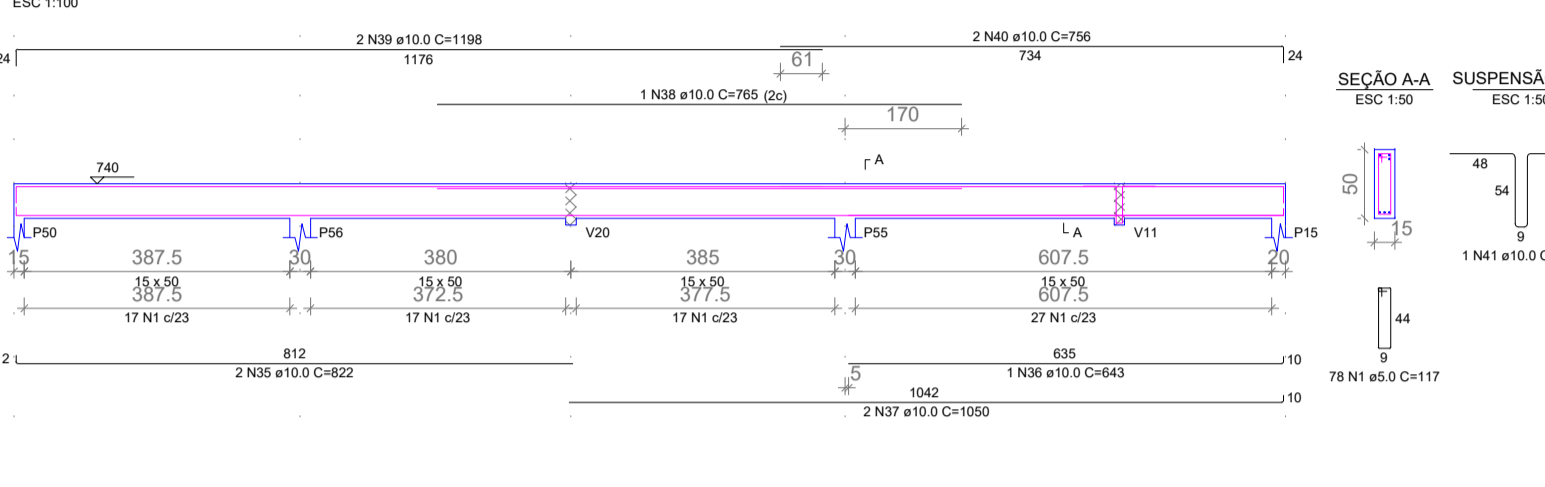
**V41**



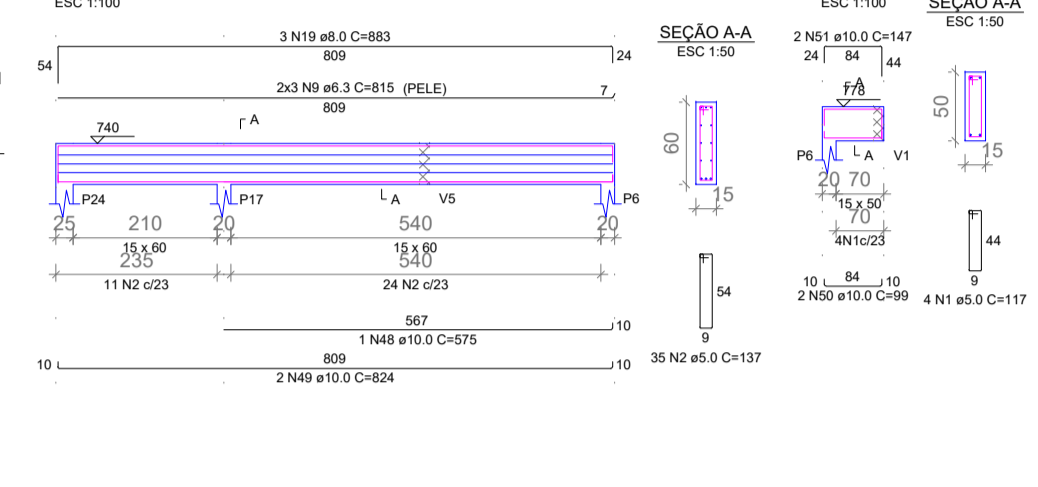
**V36**



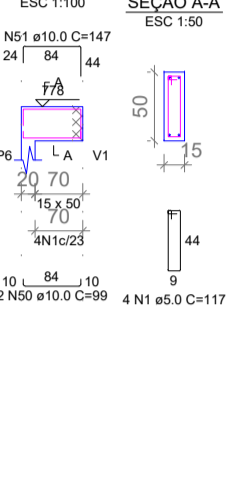
**V37**



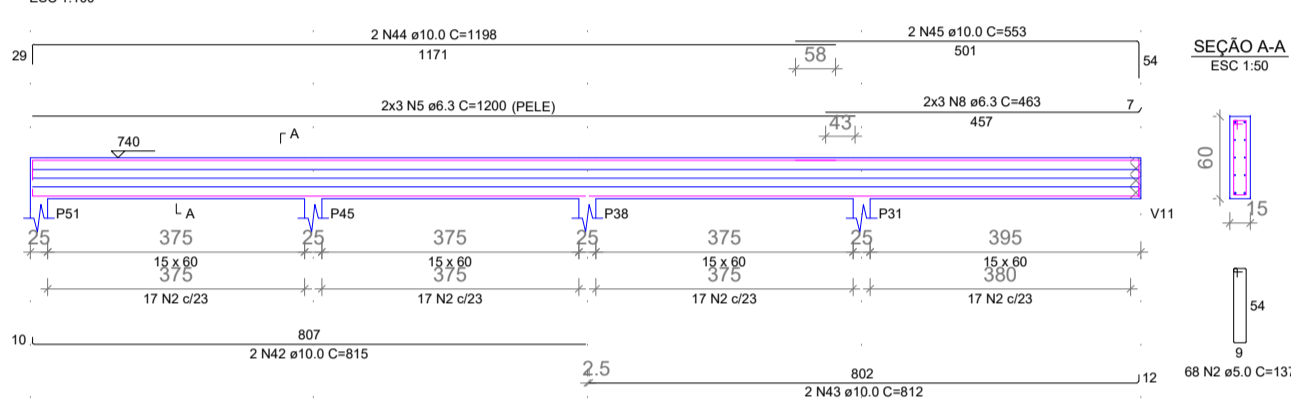
**V42**



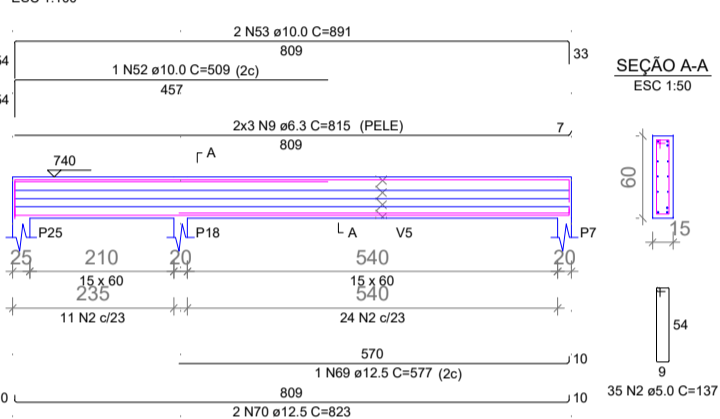
**V43**



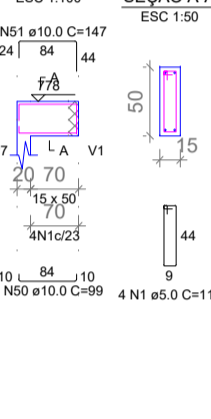
**V39**



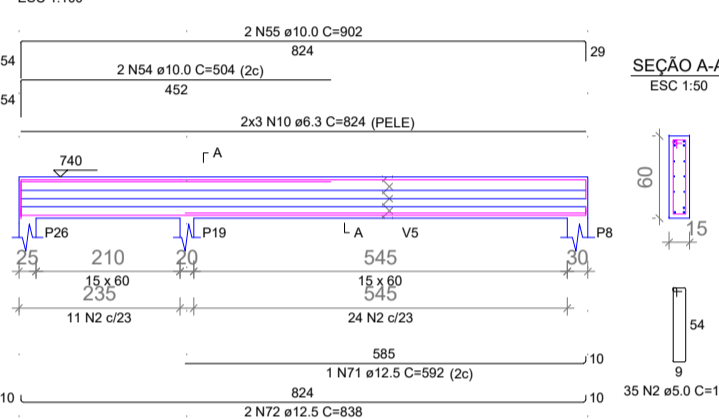
**V44**



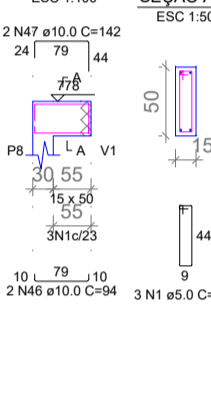
**V45**



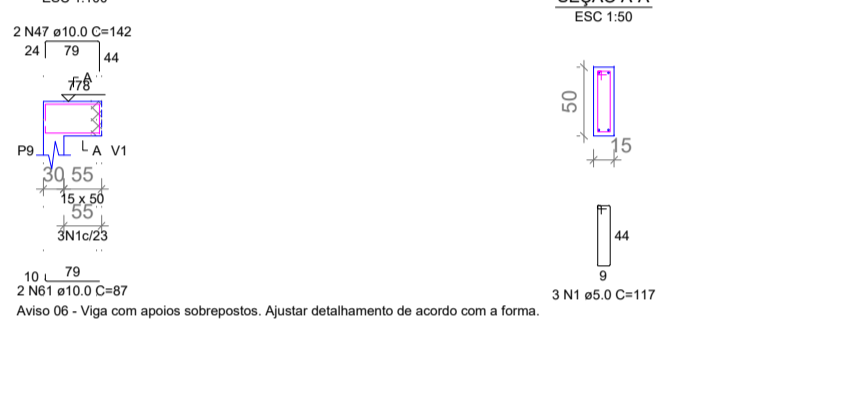
**V46**



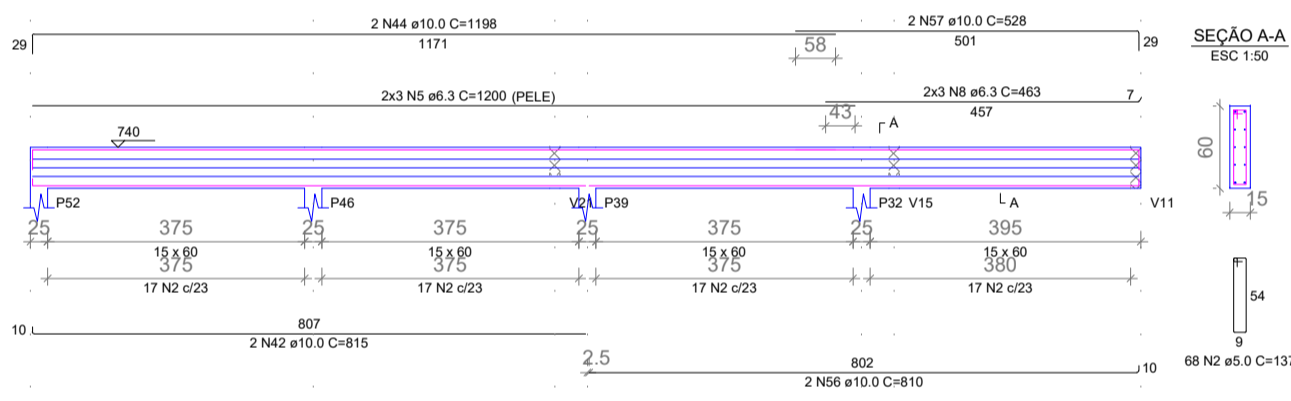
**V47**



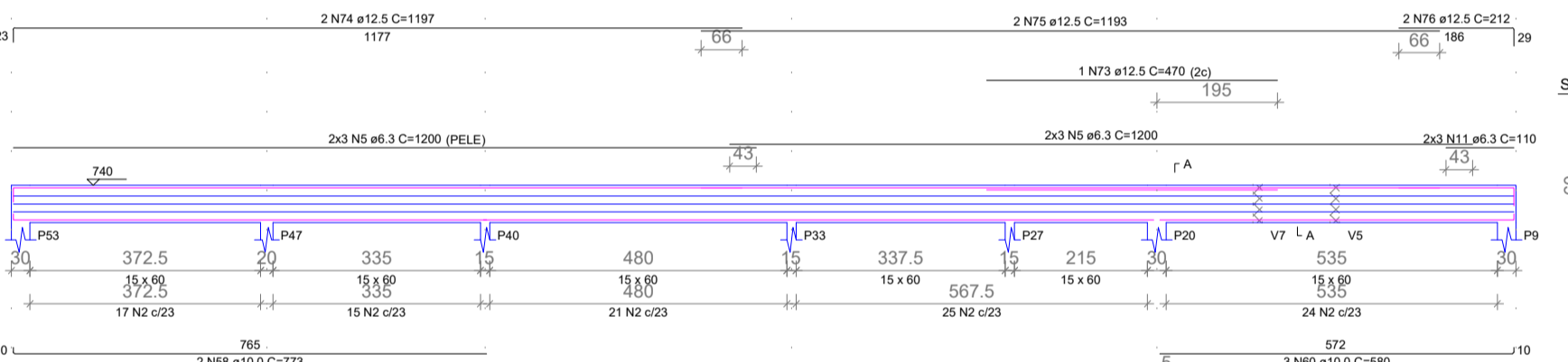
**V50**



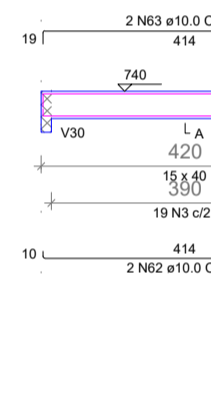
**V48**



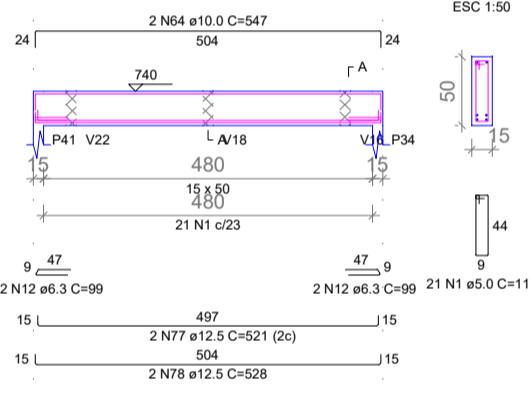
**V49**



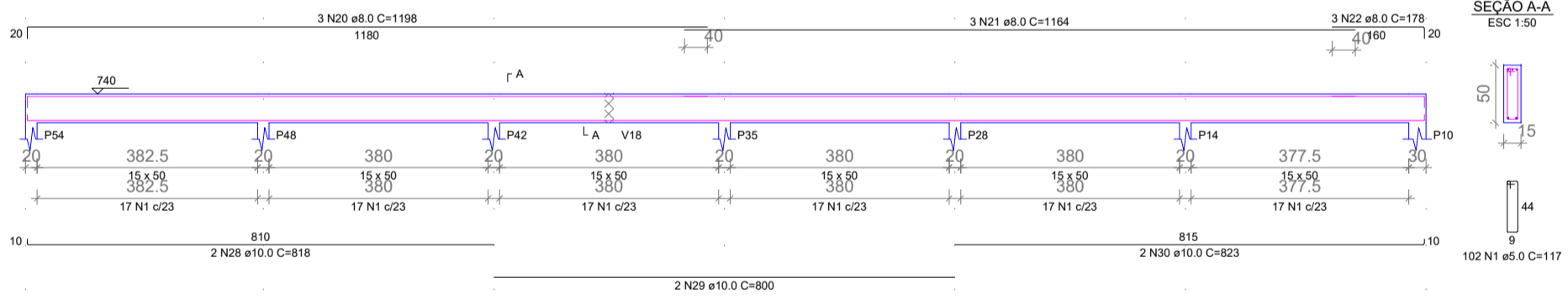
**V51**



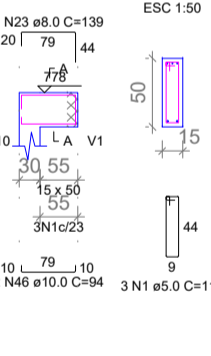
**V52**



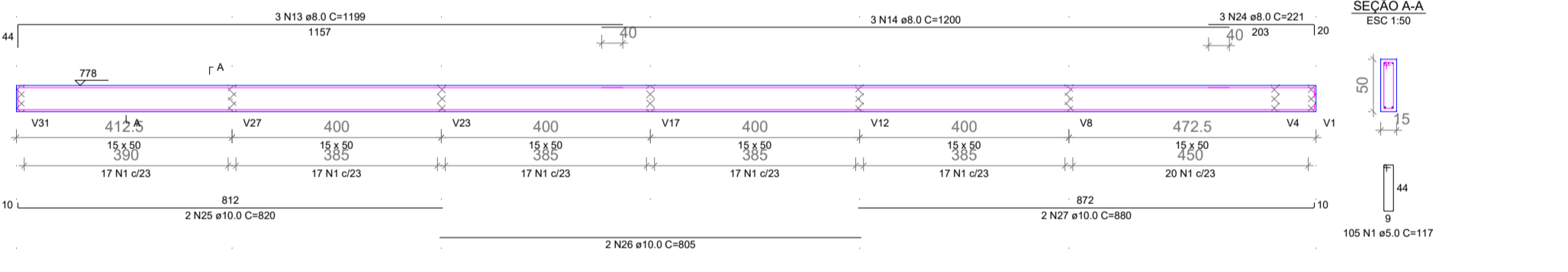
**V53**



**V54**



**V55**



RELAÇÃO DO AÇO

CAO	N	DIAM (mm)	QUANT	C UNIT (cm)	C TOTAL (cm)
CA60	1	5.0	433	117	50661
V37	2	5.0	532	137	72864
V42	3	5.0	19	97	1843
V45	4	6.3	12	1086	14532
V51	5	6.3	30	1200	36000
V52	6	6.3	6	117	702
V53	7	6.3	6	855	5130
	8	6.3	12	463	5556
	9	6.3	12	815	9780
	10	6.3	6	824	4944
	11	6.3	6	110	660
	12	6.3	4	99	396
	13	8.0	6	1090	7134
	14	8.0	6	1200	7200
	15	8.0	3	245	735
	16	8.0	3	1198	3594
	17	8.0	3	1179	3537
	18	8.0	3	193	579
	19	8.0	3	883	2649
	20	8.0	3	1198	3594
	21	8.0	3	1164	3492
	22	8.0	3	178	534
	23	8.0	3	139	417
	24	8.0	3	221	663
	25	10.0	4	820	3280
	26	10.0	4	895	3580
	27	10.0	4	880	3520
	28	10.0	4	818	3272
	29	10.0	4	820	3280
	30	10.0	4	823	3292
	31	10.0	3	1199	3597
	32	10.0	1	537	537
	33	10.0	2	1099	2198
	34	10.0	2	947	1894
	35	10.0	2	822	1644
	36	10.0	1	643	643
	37	10.0	2	1050	2100
	38	10.0	1	765	765
	39	10.0	2	1198	2396
	40	10.0	2	756	1512
	41	10.0	1	204	204
	42	10.0	4	815	3260
	43	10.0	2	812	1624
	44	10.0	4	1198	4792
	45	10.0	2	553	1106
	46	10.0	6	94	564
	47	10.0	6	142	852
	48	10.0	1	575	575
	49	10.0	2	824	1648
	50	10.0	4	99	396
	51	10.0	4	147	588
	52	10.0	1	509	509
	53	10.0	2	891	1782
	54	10.0	2	504	1008
	55	10.0	2	902	1804
	56	10.0	2	810	1620
	57	10.0	2	528	1056
	58	10.0	2	773	1546
	59	10.0	2	1083	2166
	60	10.0	3	580	1740
	61	10.0	2	87	174
	62	10.0	2	431	862
	63	10.0	2	452	904
	64	10.0	2	347	694
	65	12.5	2	409	818
	66	12.5	2	1038	2076
	67	12.5	1	583	583
	68	12.5	2	587	1174
	69	12.5	1	577	577
	70	12.5	2	823	1646
	71	12.5	1	592	592
	72	12.5	2	838	1676
	73	12.5	2	470	940
	74	12.5	2	1197	2394
	75	12.5	2	1193	2386
	76	12.5	2	212	424
	77	12.5	2	521	1042
	78	12.5	2	528	1056

RESUMO DO AÇO

CAO	DIAM (mm)	C TOTAL (m)	PESO + 10% (kg)
CA50	8.0	341.9	148.4
CA50	10.0	607.5	452.7
CA60	5.0	1253.9	212.6
<b>PESO TOTAL (kg)</b>			
CA50		989	212.6
CA60		1253.9	212.6

Volume de concreto (C-30) = 18.23 m³  
Área de forma = 231.96 m²

COR	ESPENNA
01	0.70
02	0.30
03	0.30
04	0.40
05	0.70
06	0.30
07	0.30
08	0.38
09	0.10
10	1.00
11	1.00
12	1.50



PROPRIETÁRIO \_\_\_\_\_

CALCULO \_\_\_\_\_

CONSTRUÇÃO \_\_\_\_\_

APROVO PM - \_\_\_\_\_

02	01	DATA	REVISÃO	DESENHO	APROVAÇÃO

PROJETO: PROJETO ESTRUTURAL ESCOLA JOSÉ PEDRO DA SILVA  
MUNICÍPIO: MUNICÍPIO DE MARCO

ENDEREÇO DA OBRA: RUA GERALDO BASTOS OSTERNO, SANTA ROSA, MARCO - CEARÁ  
CONTEÚDO: 1 Detalhamento das Vigas Nível 370



AV. PREFEITO GUIDO OSTERNO, S/N  
CENTRO - MARCO - CE - 62200-000  
BR 164-1210 | RR 164-1153  
www.marco.ce.gov.br  
CNPJ: 07.568.516/0001-47

ESCALA:	DESENHO:	PRANCHAS:
INDICADA	SEINFRA	
DATA:	NOVEMBRO/2022	<b>11/12</b>