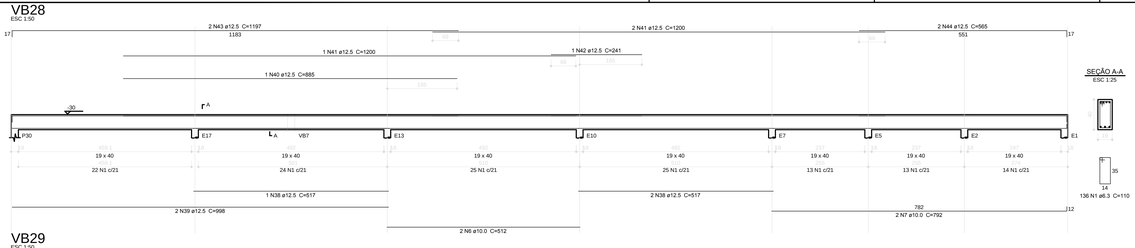
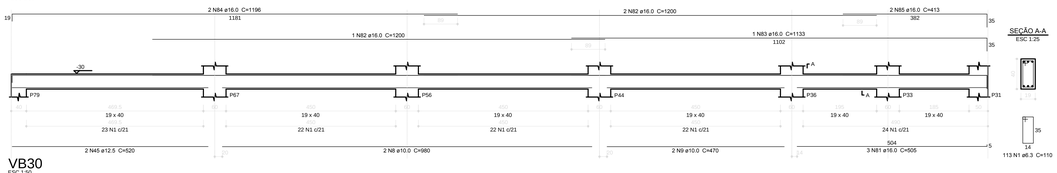
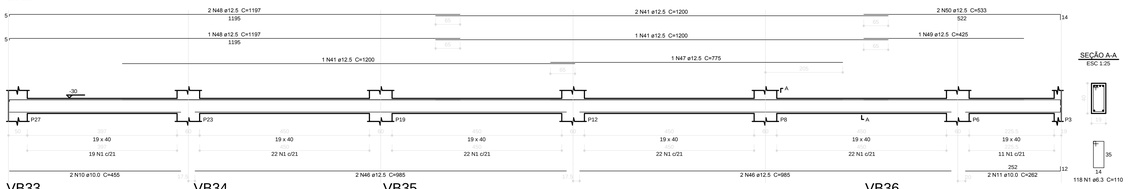
VB28
ESC 1:50



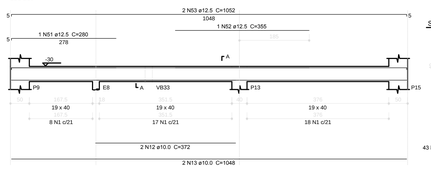
VB29
ESC 1:50



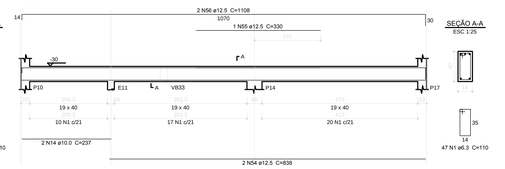
VB30
ESC 1:50



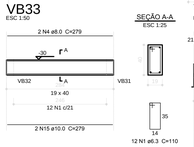
VB31
ESC 1:50



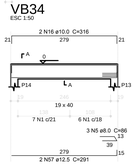
VB32
ESC 1:50



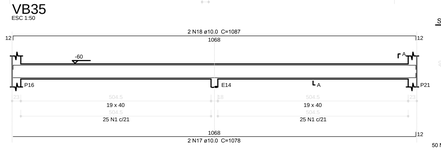
VB33
ESC 1:50



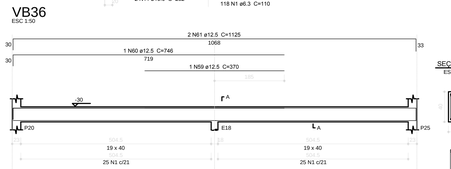
VB34
ESC 1:50



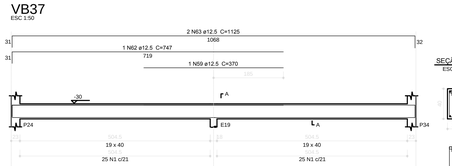
VB35
ESC 1:50



VB36
ESC 1:50



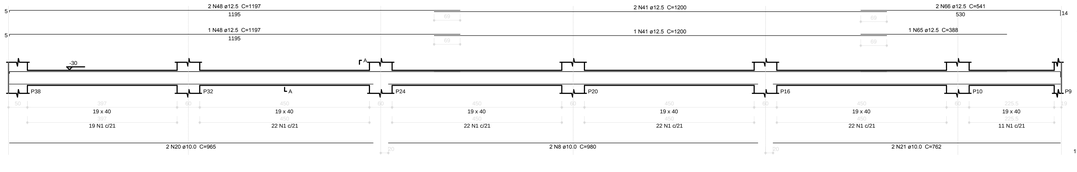
VB37
ESC 1:50



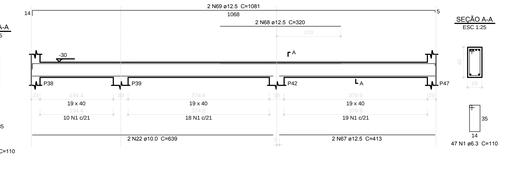
VB38
ESC 1:50



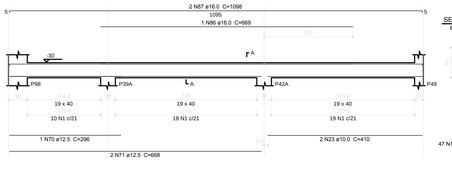
VB39
ESC 1:50



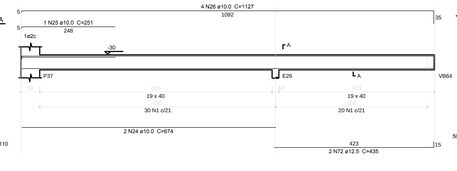
VB40
ESC 1:50



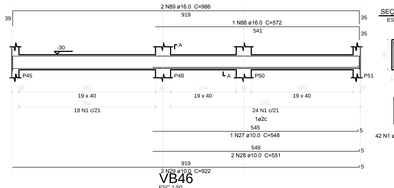
VB41
ESC 1:50



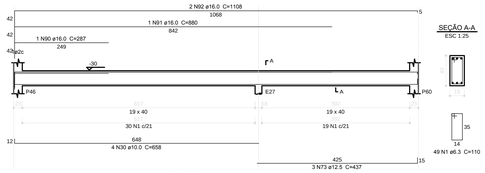
VB42
ESC 1:50



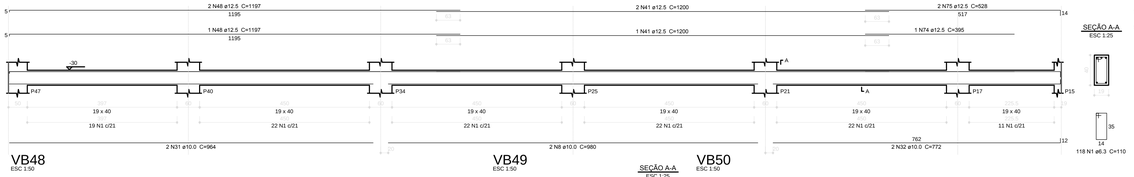
VB43
ESC 1:50



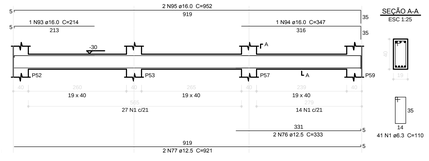
VB44
ESC 1:50



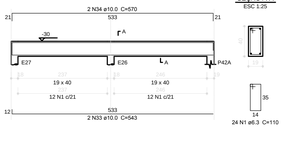
VB45
ESC 1:50



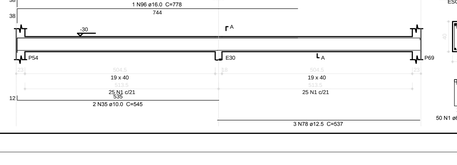
VB46
ESC 1:50



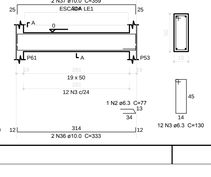
VB47
ESC 1:50



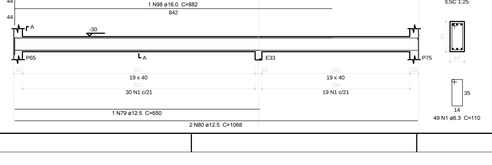
VB48
ESC 1:50



VB49
ESC 1:50



VB50
ESC 1:50



Relação do aço

VB28	VB29	VB30	
VB31	VB32	VB33	
VB34	VB35	VB36	
VB37	VB38	VB39	
VB40	VB41	VB42	
VB43	VB44	VB45	
VB46	VB47	VB48	
VB49	VB50		

AÇO	N	DIAM (mm)	QUANT (barras)	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	1317	110	144870
	2	6.3	1	77	77
	3	6.3	12	130	1560
	4	8.0	2	279	558
	5	8.0	3	86	258
	6	10.0	2	512	1024
	7	10.0	2	792	1584
	8	10.0	6	980	5880
	9	10.0	2	470	940
	10	10.0	2	455	910
	11	10.0	2	262	524
	12	10.0	2	372	744
	13	10.0	2	1048	2096
	14	10.0	2	237	474
	15	10.0	2	279	558
	16	10.0	2	316	632
	17	10.0	2	1078	2156
	18	10.0	2	1087	2174
	19	10.0	12	535	6420
	20	10.0	2	965	1930
	21	10.0	2	762	1524
	22	10.0	2	639	1278
	23	10.0	2	410	820
	24	10.0	2	674	1348
	25	10.0	1	251	251
	26	10.0	4	1127	4508
	27	10.0	1	548	548
	28	10.0	2	551	1102
	29	10.0	2	922	1844
	30	10.0	4	658	2632
	31	10.0	2	964	1928
	32	10.0	2	772	1544
	33	10.0	2	543	1086
	34	10.0	2	570	1140
	35	10.0	2	545	1090
	36	10.0	2	333	666
	37	10.0	2	359	718
	38	12.5	3	517	1551
	39	12.5	2	998	1996
	40	12.5	1	885	885
	41	12.5	13	1200	15600
	42	12.5	1	241	241
	43	12.5	2	1197	2394
	44	12.5	2	565	1130
	45	12.5	2	520	1040
	46	12.5	4	985	3940
	47	12.5	1	775	775
	48	12.5	9	1197	10773
	49	12.5	1	425	425
	50	12.5	2	533	1066
	51	12.5	1	280	280
	52	12.5	1	355	355
	53	12.5	2	1052	2104
	54	12.5	2	838	1676
	55	12.5	1	330	330
	56	12.5	2	1108	2216
	57	12.5	2	291	582
	58	12.5	6	538	3228
	59	12.5	3	370	1110
	60	12.5	1	746	746
	61	12.5	2	1125	2250
	62	12.5	1	747	747
	63	12.5	4	1125	4500
	64	12.5	1	748	748
	65	12.5	1	388	388
	66	12.5	2	541	1082
	67	12.5	2	413	826
	68	12.5	2	320	640
	69	12.5	2	1081	2162
	70	12.5	1	296	296
	71	12.5	2	668	1336
	72	12.5	2	435	870
	73	12.5	3	437	1311
	74	12.5	1	395	395
	75	12.5	2	528	1056
	76	12.5	2	333	666
	77	12.5	2	921	1842
	78	12.5	3	537	1611
	79	12.5	1	650	650
	80	12.5	2	1068	2136
	81	16.0	3	505	1515
	82	16.0	3	1200	3600
	83	16.0	1	1133	1133
	84	16.0	2	1196	2392
	85	16.0	2	413	826
	86	16.0	1	669	669
	87	16.0	2	1098	2196
	88	16.0	1	572	572
	89	16.0	2	986	1972
	90	16.0	1	287	287
	91	16.0	1	880	880
	92	16.0	2	1108	2216
	93	16.0	1	214	214
	94	16.0	1	347	347
	95	16.0	2	952	1904
	96	16.0	1	778	778
	97	16.0	2	1104	2208
	98	16.0	1	882	882
	99	16.0	2	1110	2220

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	1460.1	394.4
	8.0	8.2	3.5
	10.0	520.8	353.2
	12.5	799.6	847.3
	16.0	268.2	465.5
PESO TOTAL (kg)			
CA50	2063.8		

Volume de concreto (C-40) = 22.82 m³
Área de forma = 297.11 m²

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DE LAVRAS

PROJETO

TÍTULO:
PROJETO EXECUTIVO - ENGENHARIAS

CONTEÚDO:
PROJETO DE ESTRUTURA
VIGAS: VB28 À VB50

AUTOR DO PROJETO:
MARIUS OLIVEIRA COSTA CREA 90786/D

EXECUÇÃO DE OBRA:

APROVAÇÃO DO LAYOUT (PROF. RESPONSÁVEL):

DATA:	REVISÃO DATA:	PROJETO:
03/09/2018		ESTRUTURA
ESCALA:	ÁREA: (m²)	FOLHA:
INDICADA	4772,00 m²	08/40