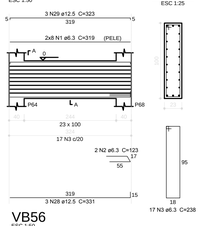
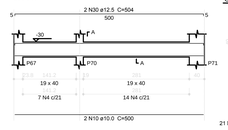
VB51
ESC 1:50



SEÇÃO A-A
ESC 1:25

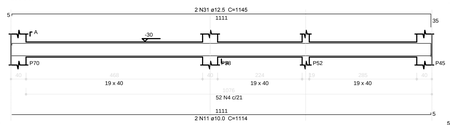
VB52
ESC 1:50



SEÇÃO A-A
ESC 1:25



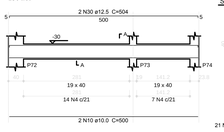
VB53
ESC 1:50



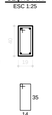
SEÇÃO A-A
ESC 1:25



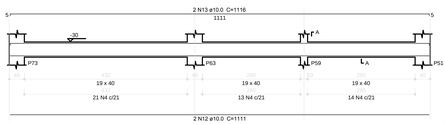
VB54
ESC 1:50



SEÇÃO A-A
ESC 1:25



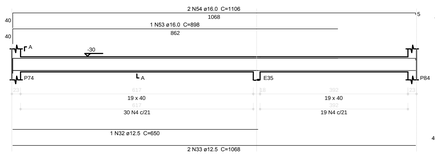
VB55
ESC 1:50



SEÇÃO A-A
ESC 1:25



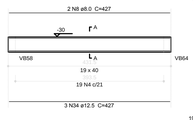
VB56
ESC 1:50



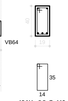
SEÇÃO A-A
ESC 1:25



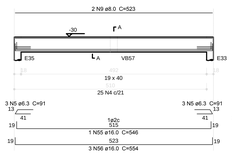
VB57
ESC 1:50



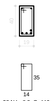
SEÇÃO A-A
ESC 1:25



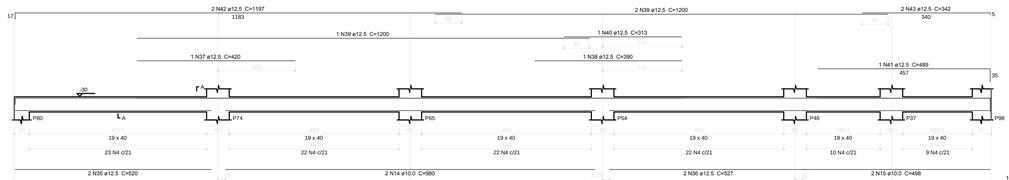
VB58
ESC 1:50



SEÇÃO A-A
ESC 1:25



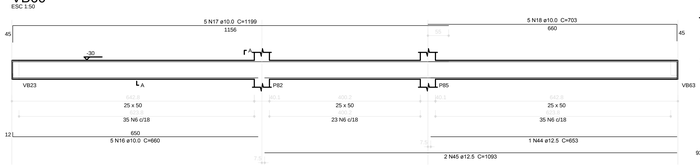
VB59
ESC 1:50



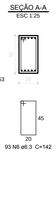
SEÇÃO A-A
ESC 1:25



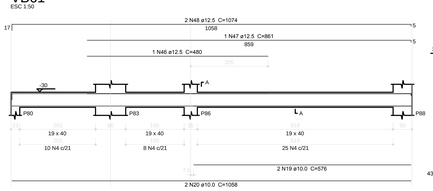
VB60
ESC 1:50



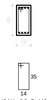
SEÇÃO A-A
ESC 1:25



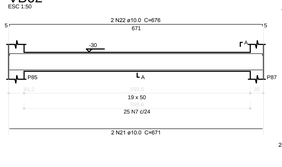
VB61
ESC 1:50



SEÇÃO A-A
ESC 1:25



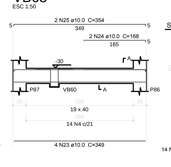
VB62
ESC 1:50



SEÇÃO A-A
ESC 1:25



VB63
ESC 1:50



SEÇÃO A-A
ESC 1:25



SUSPENSÃO VB60
ESC 1:25



VB64
ESC 1:50



SEÇÃO A-A
ESC 1:25

Relação do aço

VB51	VB52	VB53	
VB54	VB55	VB56	
VB57	VB58	VB59	
VB60	VB61	VB62	
VB63	VB64		

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	16	319	5104
	2	6.3	2	123	246
	3	6.3	17	238	4046
	4	6.3	511	110	56210
	5	6.3	6	91	546
	6	6.3	93	142	13206
	7	6.3	25	130	3250
	8	8.0	2	427	854
	9	8.0	2	523	1046
	10	10.0	4	500	2000
	11	10.0	2	1114	2228
	12	10.0	2	1111	2222
	13	10.0	2	1116	2232
	14	10.0	2	980	1960
	15	10.0	2	498	996
	16	10.0	5	660	3300
	17	10.0	5	1199	5995
	18	10.0	5	703	3515
	19	10.0	2	576	1152
	20	10.0	2	1058	2116
	21	10.0	2	671	1342
	22	10.0	2	676	1352
	23	10.0	4	349	1396
	24	10.0	2	168	336
	25	10.0	2	354	708
	26	10.0	1	179	179
	27	10.0	2	524	1048
	28	12.5	3	331	993
	29	12.5	3	323	969
	30	12.5	4	504	2016
	31	12.5	2	1145	2290
	32	12.5	1	650	650
	33	12.5	2	1068	2136
	34	12.5	3	427	1281
	35	12.5	2	520	1040
	36	12.5	2	527	1054
	37	12.5	1	420	420
	38	12.5	1	390	390
	39	12.5	3	1200	3600
	40	12.5	1	313	313
	41	12.5	1	489	489
	42	12.5	2	1197	2394
	43	12.5	2	342	684
	44	12.5	1	653	653
	45	12.5	2	1093	2186
	46	12.5	1	480	480
	47	12.5	1	861	861
	48	12.5	2	1074	2148
	49	12.5	1	475	475
	50	12.5	2	1032	2064
	51	12.5	2	500	1000
	52	12.5	2	1010	2020
	53	16.0	1	898	898
	54	16.0	2	1106	2212
	55	16.0	1	546	546
	56	16.0	3	554	1662
	57	16.0	1	885	885
	58	16.0	1	475	475
	59	16.0	3	1200	3600
	60	16.0	1	862	862
	61	16.0	2	1196	2392
	62	16.0	2	363	726

Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	6.3	826.1	222.4
	8.0	19	8.2
	10.0	340.8	231.1
	12.5	326.1	345.5
	16.0	142.6	247.5
PESO TOTAL (kg)			
CA50	1054.8		

Volume de concreto (C-40) = 12.62 m³
Área de forma = 154.88 m²

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DE LAVRAS

PROJETO

TÍTULO:
PROJETO EXECUTIVO - ENGENHARIAS

CONTEÚDO:
PROJETO DE ESTRUTURA
VIGAS: VB51 À VB64

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: INDICADA	ÁREA: (m²) 4772,00 m²	FOLHA: 09/40