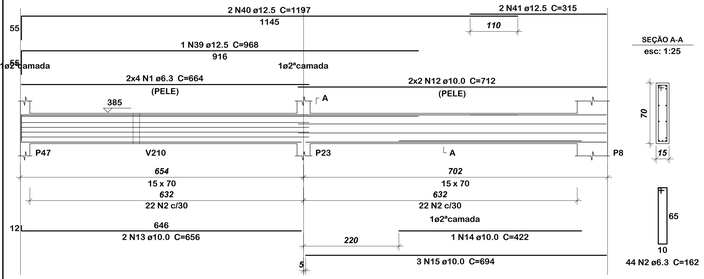
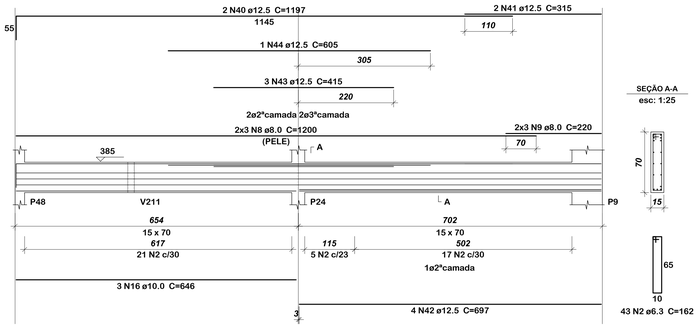
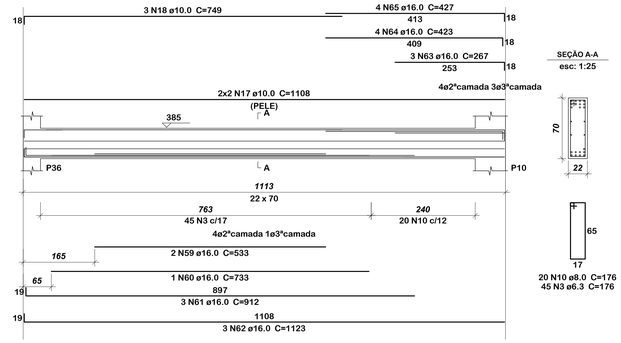
V228 (15 x 70)
esc: 1:50



V230 (15 x 70)
esc: 1:50



V232 (22 x 70)
esc: 1:50



Relação do aço

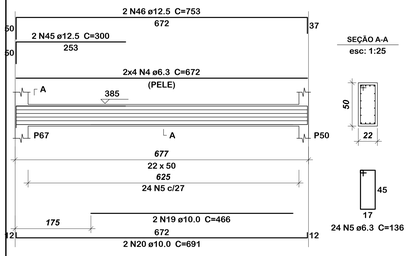
AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA50	1	6.3	8	664	5312
	2	6.3	87	162	14094
	3	6.3	379	176	66704
	4	6.3	8	672	5376
	5	6.3	52	136	7072
	6	6.3	11	102	1122
	7	6.3	8	805	6440
	8	8.0	6	1200	7200
	9	8.0	6	220	1320
	10	8.0	20	176	3520
	11	8.0	1	202	202
	12	10.0	4	712	2848
	13	10.0	2	656	1312
	14	10.0	1	422	422
	15	10.0	3	694	2082
	16	10.0	3	646	1938
	17	10.0	12	1108	13296
	18	10.0	3	749	2247
	19	10.0	2	466	932
	20	10.0	2	691	1382
	21	10.0	12	277	3324
	22	10.0	6	253	1518
	23	10.0	30	1200	36000
	24	10.0	24	238	5712
	25	10.0	2	260	520
	26	10.0	2	282	564
	27	10.0	3	655	1965
	28	10.0	5	685	3425
	29	10.0	2	485	970
	30	10.0	2	805	1610
	31	10.0	1	255	255
	32	10.0	2	435	870
	33	10.0	2	888	1776
	34	10.0	3	910	2730
	35	10.0	3	438	1314
	36	10.0	3	1199	3597
	37	10.0	3	250	750
	38	10.0	6	288	1728
	39	12.5	1	968	968
	40	12.5	6	1197	7182
	41	12.5	4	315	1260
	42	12.5	4	697	2788
	43	12.5	6	415	2490
	44	12.5	2	605	1210
	45	12.5	2	300	600
	46	12.5	2	753	1506
	47	12.5	8	658	5264
	48	12.5	9	688	6192
	49	12.5	1	269	269
	50	12.5	3	425	1275
	51	12.5	2	1197	2394
	52	12.5	2	269	538
	53	12.5	6	670	2010
	54	12.5	4	738	2952
	55	12.5	1	610	610
	56	12.5	1	1017	1017
	57	12.5	2	308	616
	58	12.5	2	365	730
	59	16.0	2	533	1066
	60	16.0	1	733	733
	61	16.0	3	912	2736
	62	16.0	3	1123	3369
	63	16.0	3	267	801
	64	16.0	4	423	1692
	65	16.0	4	427	1708
	66	16.0	2	603	1206
	67	16.0	6	1087	6522
	68	16.0	1	405	405
	69	16.0	1	397	397
	70	16.0	11	1196	13156
	71	16.0	2	359	718
	72	16.0	4	367	1468
	73	16.0	4	425	1700
	74	16.0	1	1033	1033
	75	16.0	2	1196	2392
	76	16.0	6	345	2070
	77	16.0	1	1030	1030
	78	16.0	2	1196	2392
	79	16.0	2	338	676
	80	16.0	2	613	1226
	81	16.0	1	420	420
	82	16.0	1	243	243
	83	16.0	1	403	403
	84	16.0	1	341	341

Resumo do aço

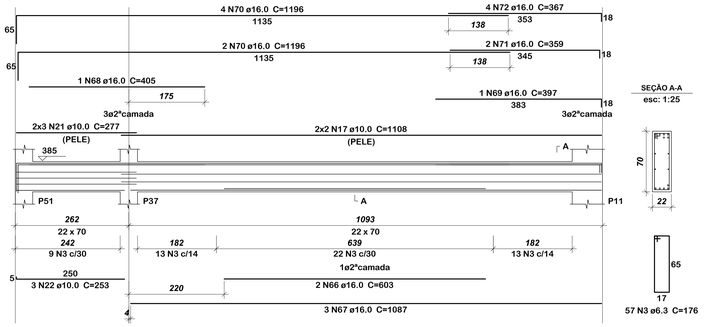
AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	6.3	1061.2	259.7
	8.0	122.5	48.3
	10.0	950.9	586.2
	12.5	418.8	403.4
	16.0	499.1	787.6
PESO TOTAL (kg)			
CA50	2085.2		

Volume de concreto (C-20) = 21.03 m³
Área de forma = 235.06 m²

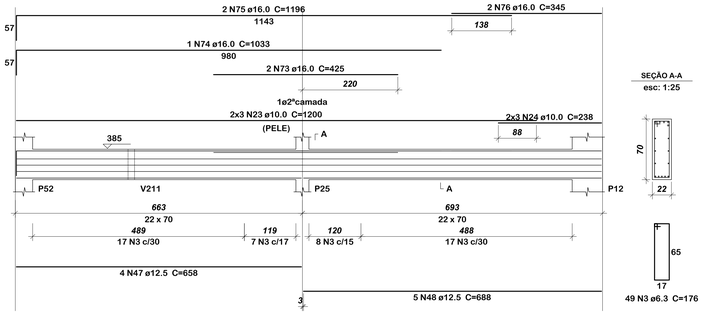
V233 (22 x 50)
esc: 1:50



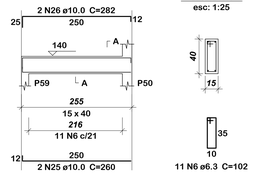
V234 (22 x 70)
esc: 1:50



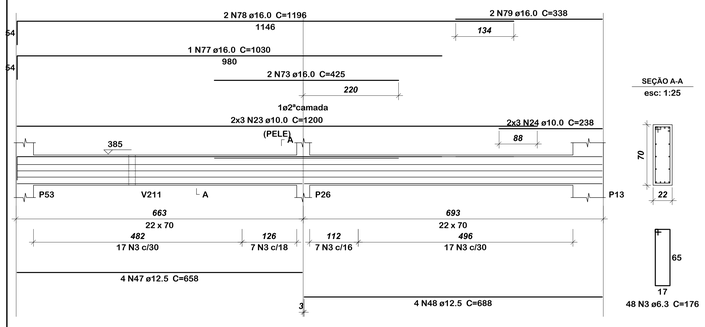
V235 (22 x 70)
esc: 1:50



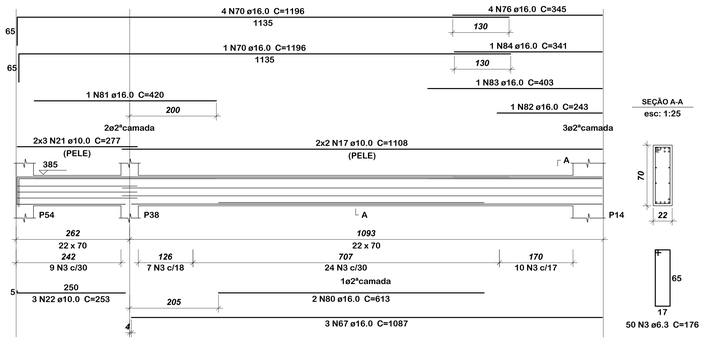
V248 (15 x 40)
esc: 1:50



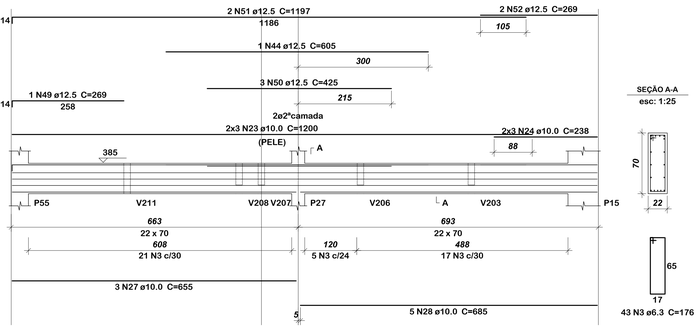
V236 (22 x 70)
esc: 1:50



V237 (22 x 70)
esc: 1:50



V238 (22 x 70)
esc: 1:50

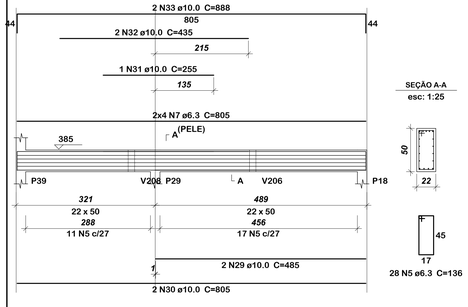


Resumo do aço

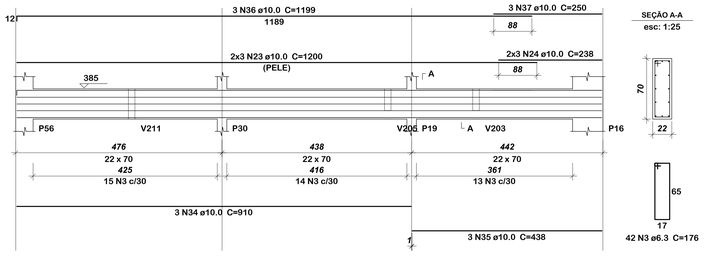
AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	6.3	1061.2	259.7
	8.0	122.5	48.3
	10.0	950.9	586.2
	12.5	418.8	403.4
	16.0	499.1	787.6
PESO TOTAL (kg)			
CA50	2085.2		

Volume de concreto (C-20) = 21.03 m³
Área de forma = 235.06 m²

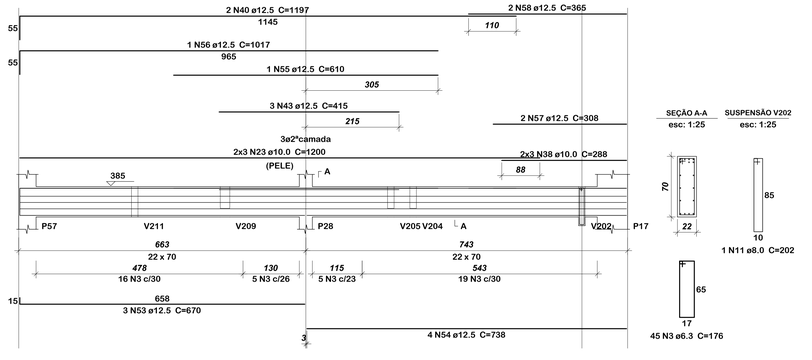
V239 (22 x 50)
esc: 1:50



V240 (22 x 70)
esc: 1:50



V242 (22 x 70)
esc: 1:50



V228 V230 V232
V233 V234 V235
V236 V237 V238
V239 V240 V242
V248

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DE LAVRAS

EMPRESA

EMPRESA:
AS BUILT ENGENHARIA DE PROJETOS LTDA

CNPJ: 09.480.531/0001-01

PROJETO

TÍTULO:
PROJETO ESTRUTURAL
DBI

CONTEÚDO:
FERRAGEMDAS VIGAS:
PAVIMENTO SUPERIOR (3/3)

AUTOR DO PROJETO:
CARLOS HENRIQUE DE SOUZA GONÇALVES
ENGENHEIRO CIVIL - CREA-PR 78820

EXECUÇÃO DE OBRA:

DATA:	REVISÃO DATA:	PROJETO:
12/2014	-	EXECUTIVO
ESCALA:	ÁREA: (m²)	FOLHA:
INDICADA	1.859,96	EST 12 /20