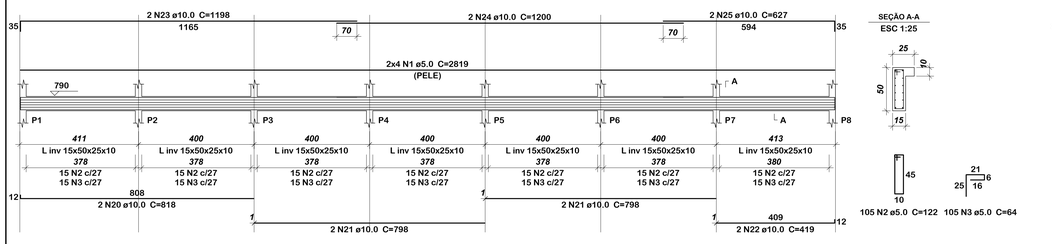
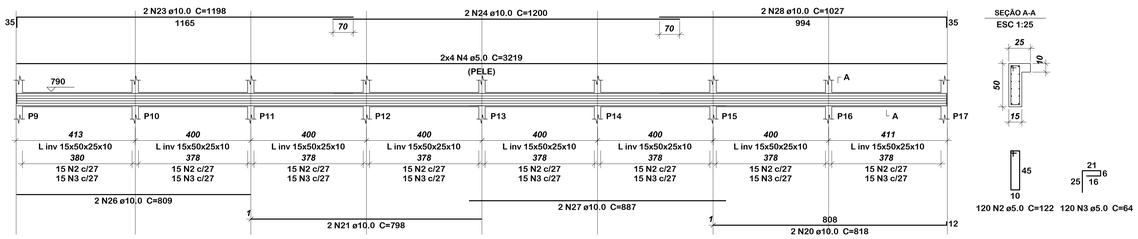
V301 (L inv 15x50x25x10)
ESC 1:75



V302 (L inv 15x50x25x10)
ESC 1:75



Relação do aço

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	16	2819	45104
	2	5.0	427	122	52094
	3	5.0	225	64	14400
	4	5.0	8	3219	25752
	5	5.0	195	202	39390
	6	5.0	24	507	12168
	7	5.0	9	82	738
	8	5.0	8	394	3152
	9	5.0	23	136	3128
	10	5.0	8	672	5376
	11	5.0	8	222	1776
CA50	12	6.3	40	1200	48000
	13	6.3	10	531	5310
	14	6.3	1	99	99
	15	6.3	10	931	9310
	16	6.3	8	507	4056
	17	6.3	1	123	123
	18	8.0	2	700	1400
	19	8.0	2	103	206
	20	10.0	4	818	3272
	21	10.0	15	798	11970
	22	10.0	2	419	838
	23	10.0	4	1198	4792
	24	10.0	10	1200	12000
	25	10.0	2	627	1254
	26	10.0	5	809	4045
	27	10.0	2	887	1774
	28	10.0	2	1027	2054
	29	10.0	8	808	6464
	30	10.0	3	409	1227
	31	10.0	1	1199	1199
	32	10.0	1	681	681
	33	10.0	2	1199	2398
	34	10.0	2	691	1382
	35	10.0	6	517	3102
	36	10.0	1	243	243
	37	10.0	2	550	1100
	38	10.0	2	112	224
	39	10.0	2	139	278
	40	10.0	3	843	2529
	41	10.0	3	1198	3594
	42	10.0	1	1082	1082
	43	10.0	2	1091	2182
	44	10.0	1	260	260
	45	10.0	2	592	1184
	46	10.0	2	645	1290
	47	10.0	2	1198	2396
	48	10.0	2	819	1638
	49	10.0	2	578	1156
	50	10.0	2	394	788
	51	10.0	2	451	902
	52	10.0	2	507	1014
	53	10.0	2	590	1180
	54	10.0	4	102	408
	55	10.0	2	113	226
	56	10.0	2	672	1344
	57	10.0	2	729	1458
	58	10.0	2	225	450
	59	10.0	2	304	608
	60	12.5	1	295	295
	61	12.5	2	1121	2242
	62	12.5	1	290	290
	63	12.5	2	1122	2244

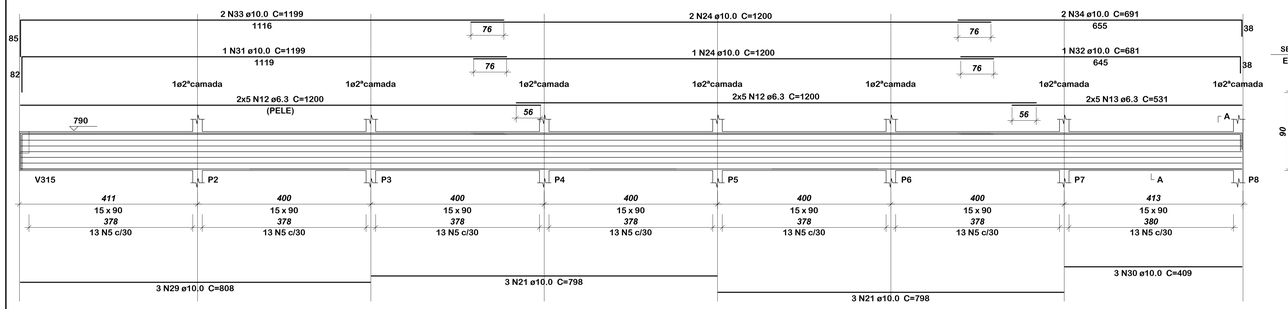
Resumo do aço

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	6.3	669	163.7
	8.0	16.1	6.3
	10.0	859.9	530.1
	12.5	50.8	48.9
CA60	5.0	2022.5	311.7

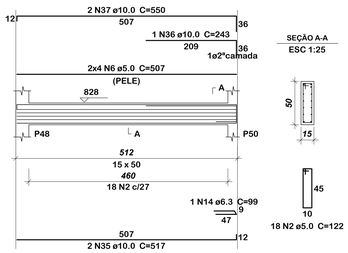
PESO TOTAL (kg)	
CA50	749
CA60	311.7

Volume de concreto (C-20) = 17.6 m³
Área de forma = 254.34 m²

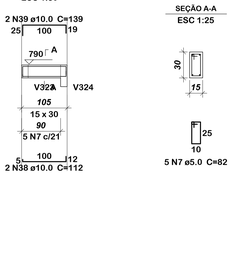
V303 (15 x 90)
ESC 1:50



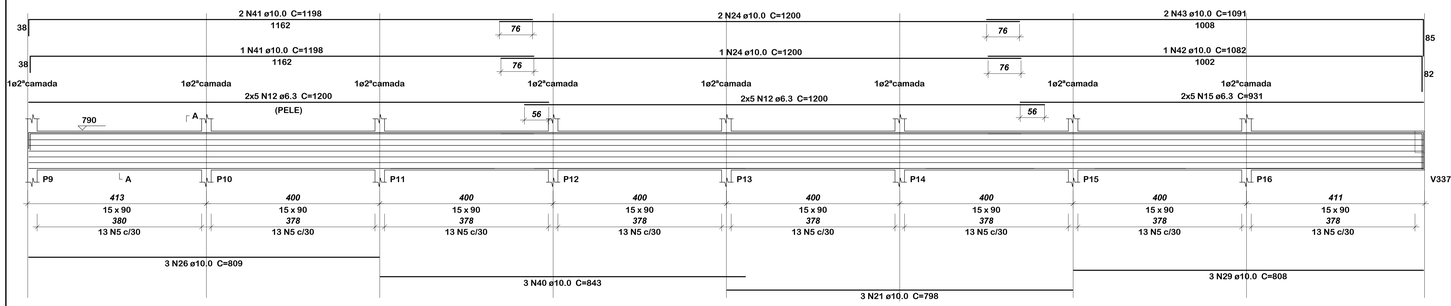
V308 (15 x 50)
ESC 1:50



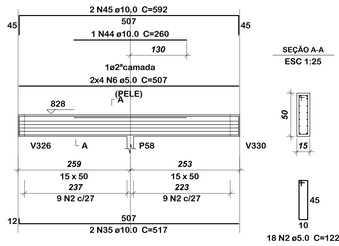
V310 (15 x 30)
ESC 1:50



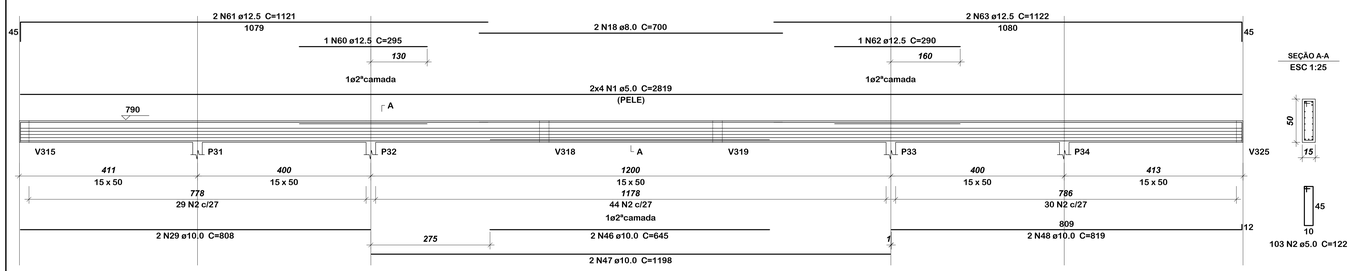
V304 (15 x 90)
ESC 1:50



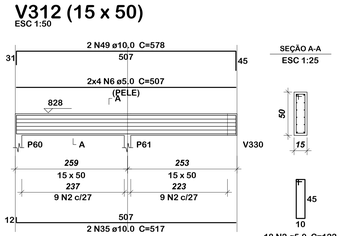
V311 (15 x 50)
ESC 1:50



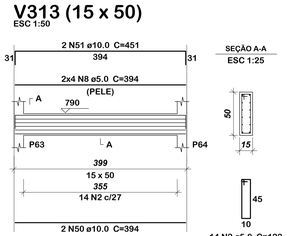
V305 (15 x 50)
ESC 1:50



V312 (15 x 50)
ESC 1:50

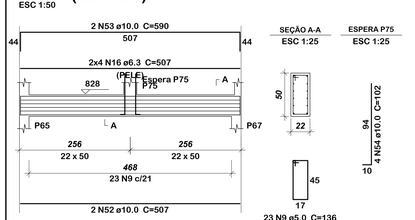


V313 (15 x 50)
ESC 1:50

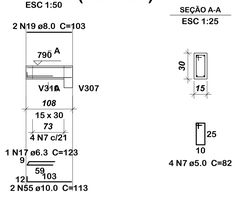


V301	V302	V303
V304	V305	V308
V310	V311	V312
V313	V314	V323
V326	V328	

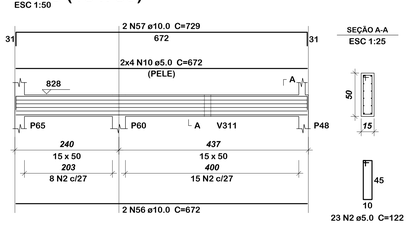
V314 (22 x 50)
ESC 1:50



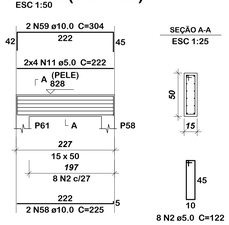
V323 (15 x 30)
ESC 1:50



V326 (15 x 50)
ESC 1:50



V328 (15 x 50)
ESC 1:50



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: FERRAGEM DAS VIGAS: COBERTURA (1/3)
AUTOR DO PROJETO: CARLOS HENRIQUE DE SOUZA GONÇALVES, ENGENHEIRO CIVIL - CREA-PR 79820
EXECUÇÃO DE OBRA:

DATA:	REVISÃO DATA:	PROJETO:
12/2014	-	EXECUTIVO
ESCALA:	ÁREA: (m²)	FOLHA:
INDICADA	1.859,96	EST 16 /20