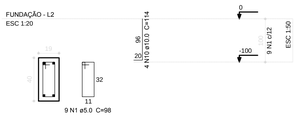
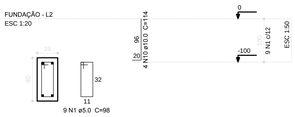
P13

FUNDAÇÃO - L2
ESC 1:20



P14

FUNDAÇÃO - L2
ESC 1:20



Relação do aço

P13 P14 P15
P16 P17 P18
P19 P20 P21
P22 P23 P24

AÇO	N	DIAM (mm)	QUANT (Barras)	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	18	98	1764
	2	5.0	6	138	828
	3	5.0	6	26	156
	4	5.0	114	150	17100
	5	5.0	114	29	3306
	6	5.0	59	146	8614
	7	5.0	80	30	2400
	8	5.0	966	158	152628
	9	5.0	1300	33	42900
CA50	10	10.0	8	114	912
	11	10.0	8	116	928
	12	10.0	8	501	4008
	13	10.0	8	471	3768
	14	10.0	8	440	3520
	15	12.5	24	141	3384
	16	12.5	12	537	6444
	17	12.5	64	477	30528
	18	12.5	64	440	28160
	19	12.5	40	146	5840
	20	12.5	52	507	26364

Resumo do aço

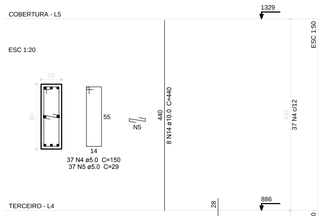
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10 % (kg)
CA50	10.0	131.4	89.1
	12.5	1007.2	1067.3
CA60	5.0	2297	389.4

PESO TOTAL (kg)
CA50 1156.4
CA60 389.4

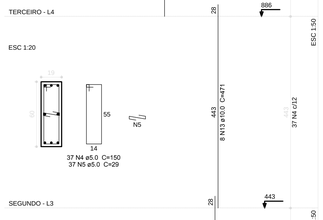
Volume de concreto (C-40) = 19.89 m³
Área de forma = 242.83 m²

P15

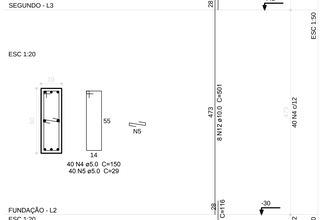
COBERTURA - L5
ESC 1:20



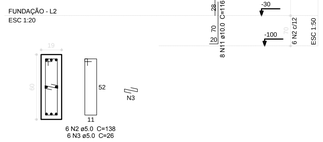
TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

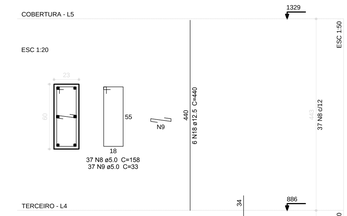


FUNDAÇÃO - L2
ESC 1:20

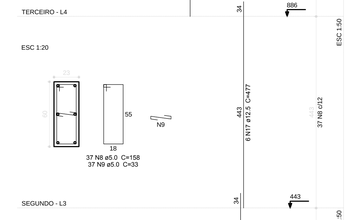


P16

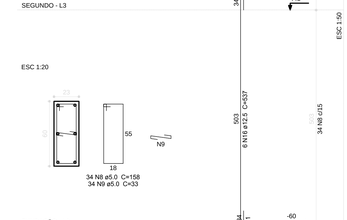
COBERTURA - L5
ESC 1:20



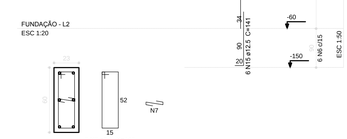
TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

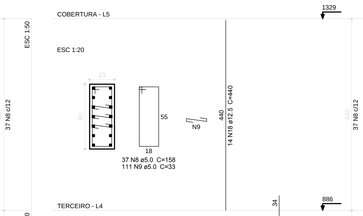


FUNDAÇÃO - L2
ESC 1:20

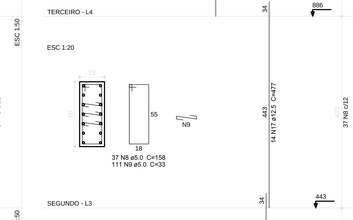


P17

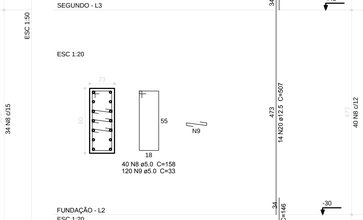
COBERTURA - L5
ESC 1:20



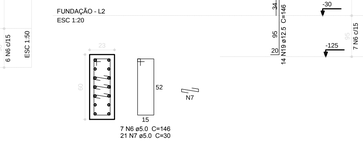
TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

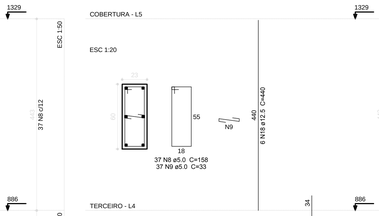


FUNDAÇÃO - L2
ESC 1:20

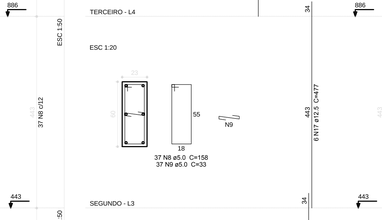


P18

COBERTURA - L5
ESC 1:20



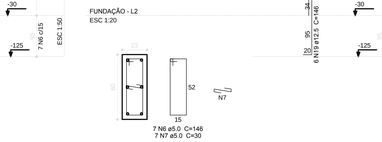
TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

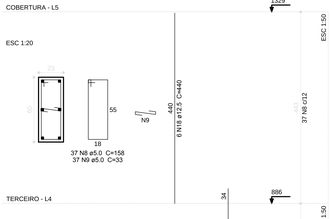


FUNDAÇÃO - L2
ESC 1:20

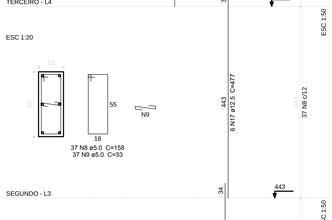


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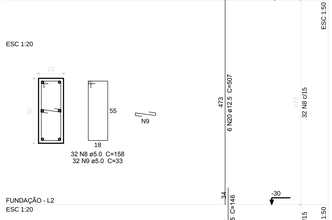
COBERTURA - L5
ESC 1:20



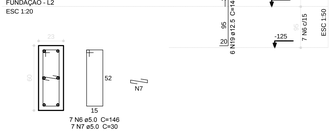
TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

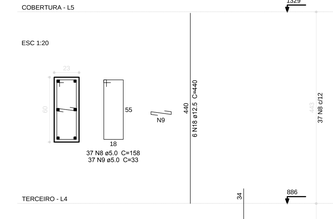


FUNDAÇÃO - L2
ESC 1:20

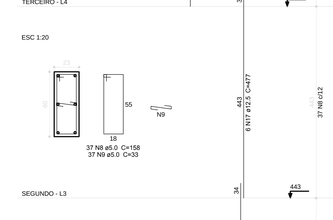


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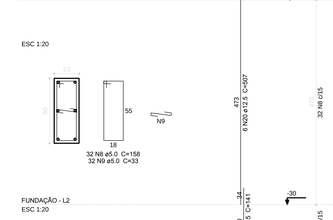
COBERTURA - L5
ESC 1:20



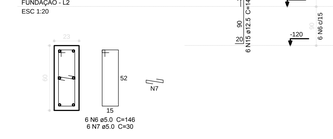
TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

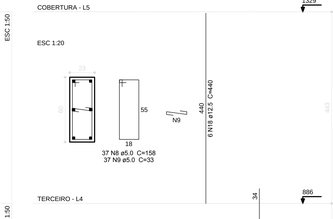


FUNDAÇÃO - L2
ESC 1:20

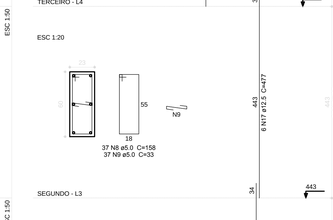


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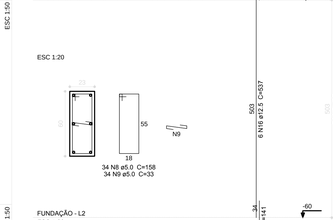
COBERTURA - L5
ESC 1:20



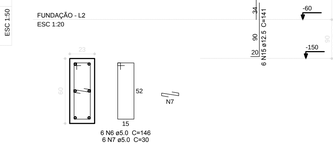
TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

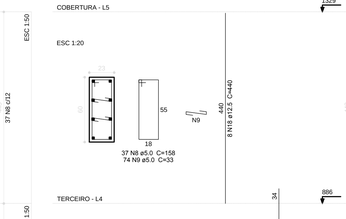


FUNDAÇÃO - L2
ESC 1:20

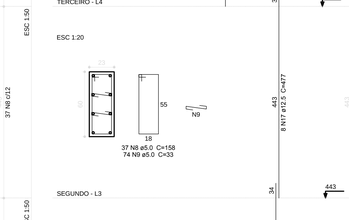


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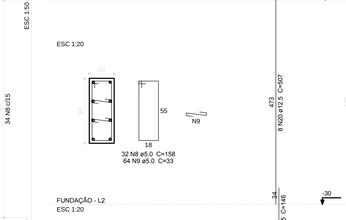
COBERTURA - L5
ESC 1:20



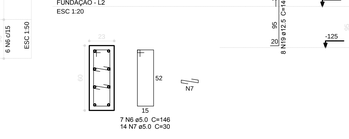
TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

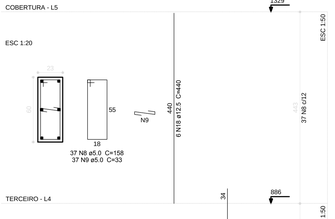


FUNDAÇÃO - L2
ESC 1:20

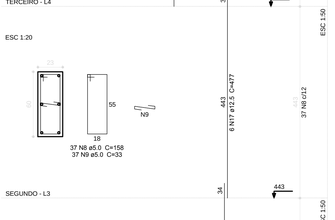


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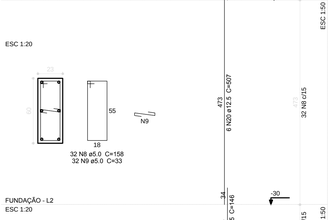
COBERTURA - L5
ESC 1:20



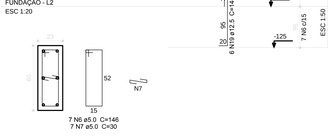
TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

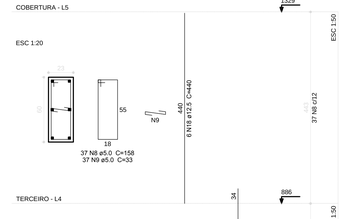


FUNDAÇÃO - L2
ESC 1:20

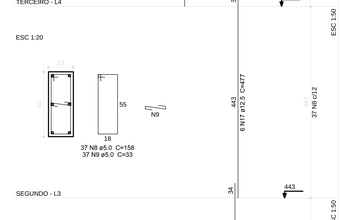


P24

COBERTURA - L5
ESC 1:20



TERCEIRO - L4
ESC 1:20



SEGUNDO - L3
ESC 1:20

FUNDAÇÃO - L2
ESC 1:20

REVISÃO	OBSERVAÇÃO	DATA

MINISTÉRIO DA EDUCAÇÃO
UNIVERSIDADE FEDERAL DE LAVRAS

PROJETO

TÍTULO:
PROJETO EXECUTIVO - ENGENHARIAS

CONTEÚDO:
PROJETO DE ESTRUTURA
PILARES: P13 À P24

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: 34/40