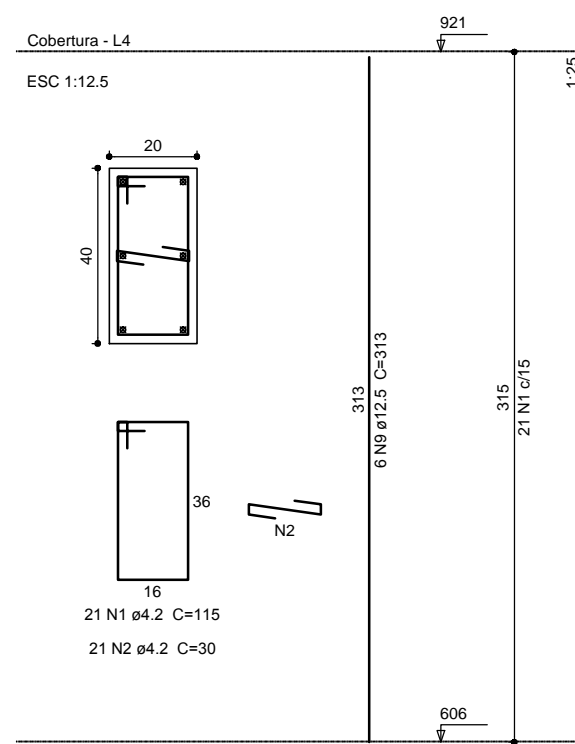
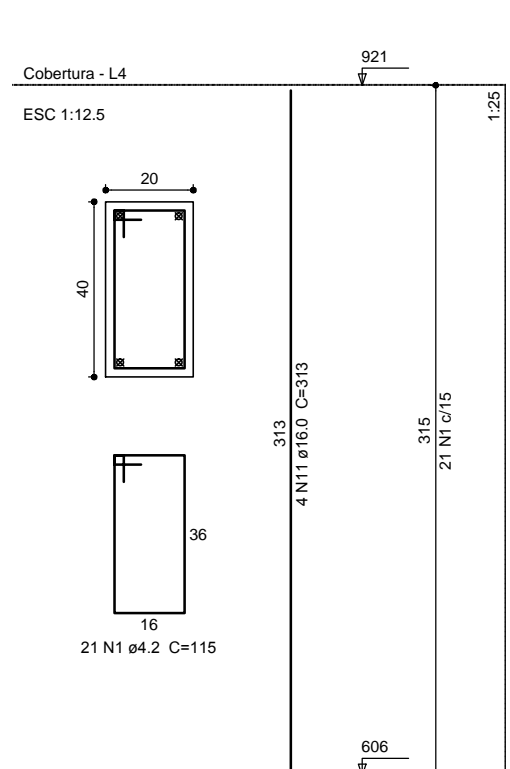


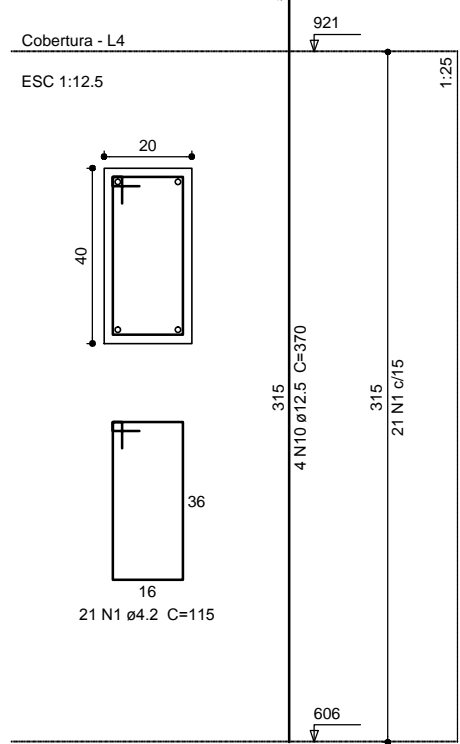
P1=P2=P4=P6=P10=P11=P13=P15



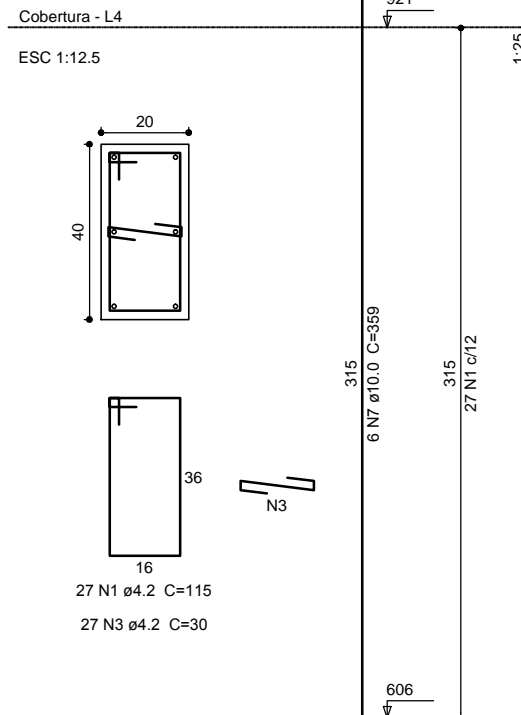
P12=P14



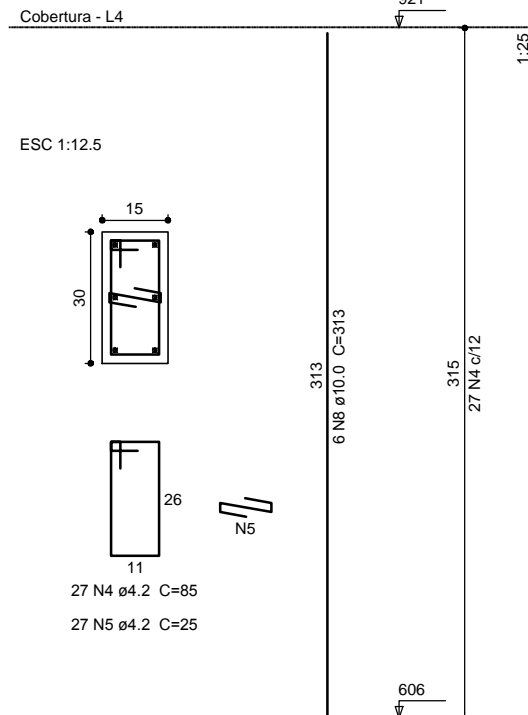
P16



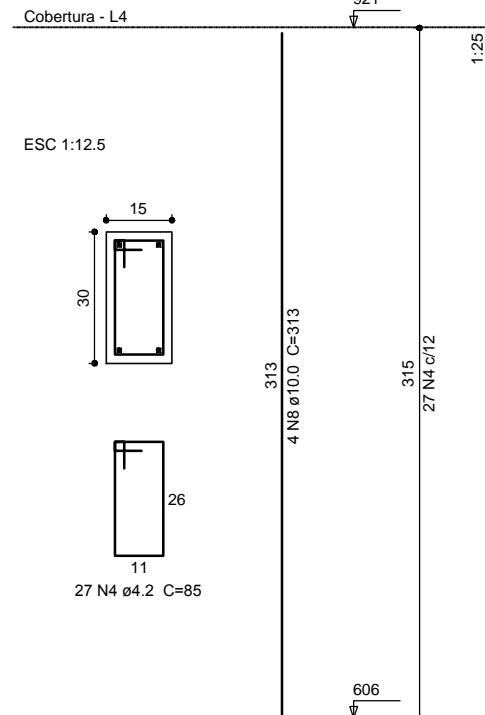
P17



P18



P19=P20=P21=P22=P23



Relação do aço

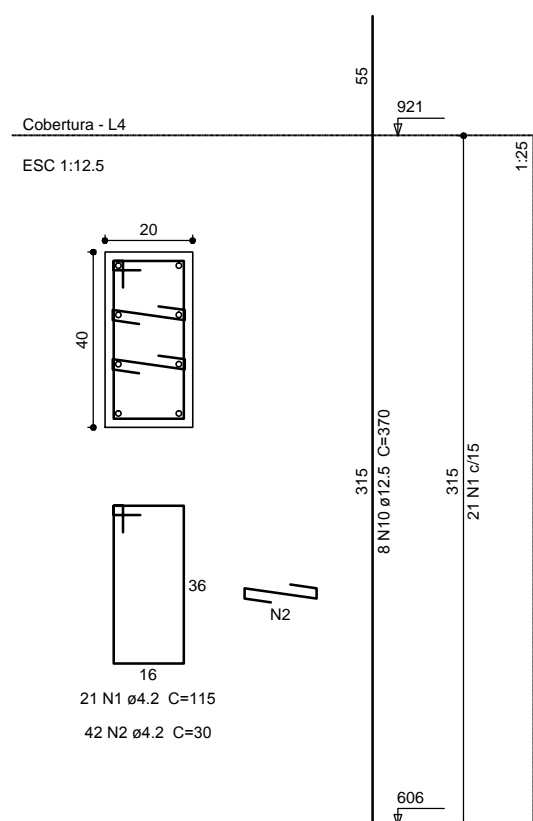
AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	4.2	405	115	46575
	2	4.2	315	30	9450
	3	4.2	27	30	810
	4	4.2	162	85	13770
	5	4.2	27	25	675
	6	4.2	21	31	651
	7	10.0	6	359	2154
CA50	8	10.0	26	313	8138
	9	12.5	76	313	23788
	10	12.5	18	370	6660
	11	16.0	8	313	2504
	12	16.0	6	385	2310

Resumo do aço

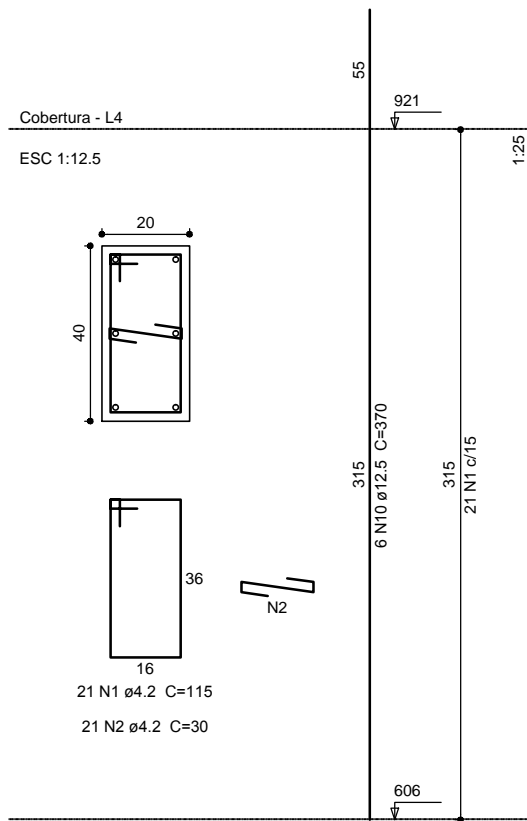
AÇO	DIAM	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	103	69.8
	12.5	304.5	322.6
	16.0	48.2	83.6
CA60	4.2	719.4	86.1
PESO TOTAL			
CA50		476	
CA60		86.1	

Vol. de concreto total (C-20) = 5.64 m³
Área de forma total = 88.83 m²

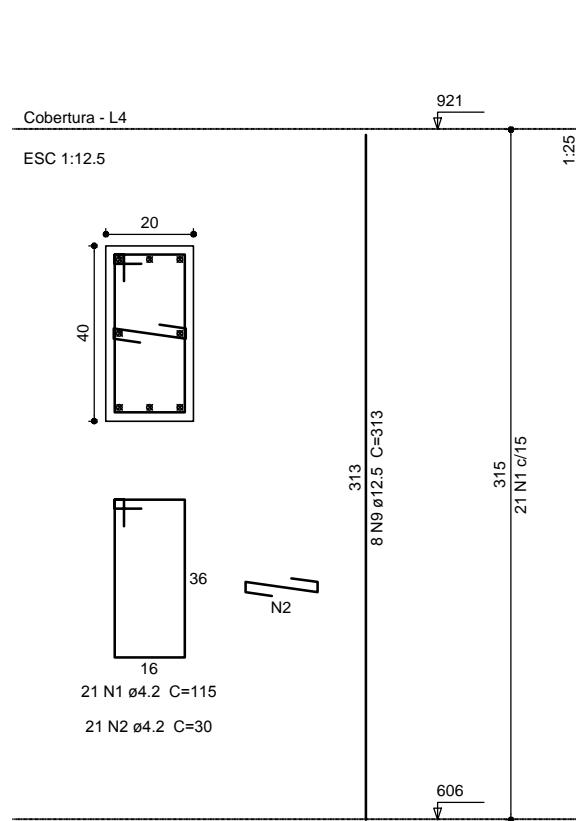
P24



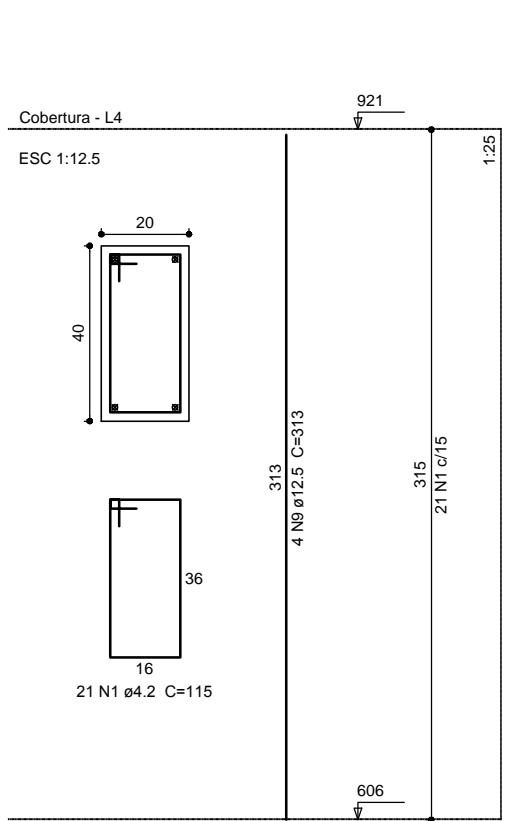
P25



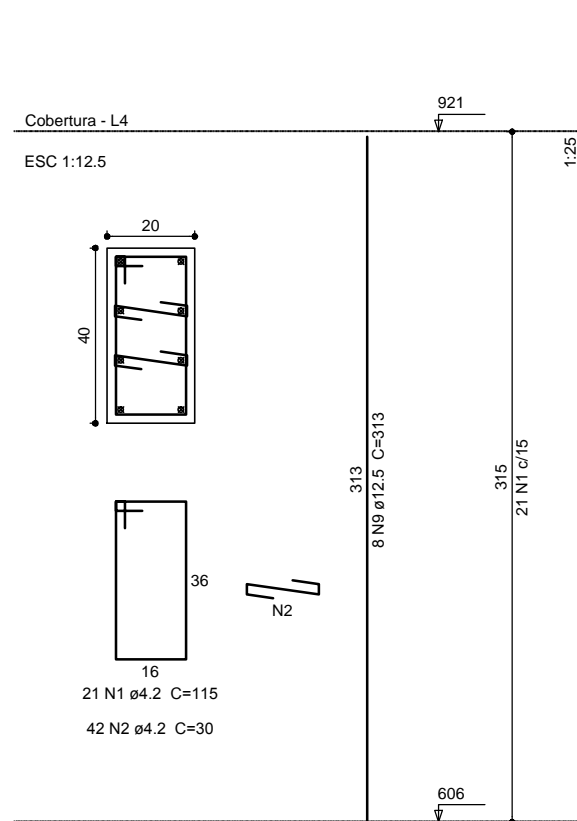
P3=P5



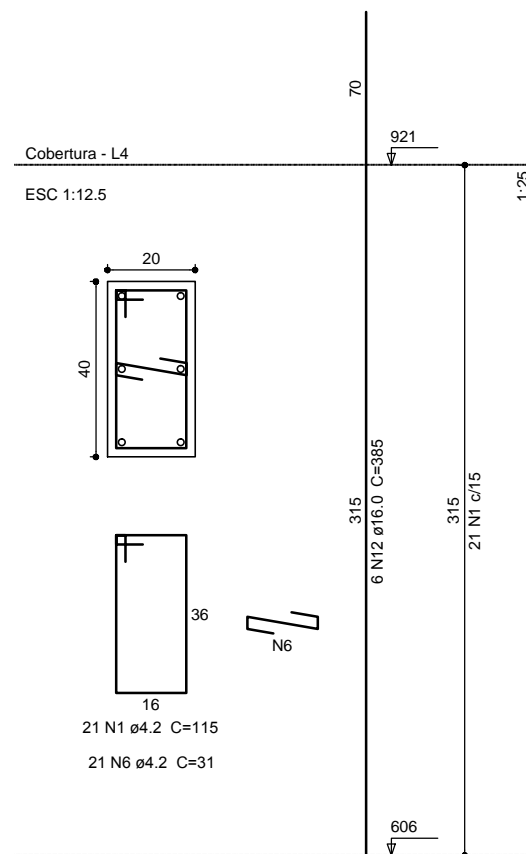
P8



P7



P9



APROVAÇÃO/PREFEITURA

Responsável Técnico



AMPLIAÇÃO DA ESCOLA SÃO ROQUE

RODOVIA RALF KNAESEL
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Cep: 89120-000

Fone / Fax: (47) 3382 6464
e-mail: clicprojeto@gmail.com

Data: Novembro/2014

Área: x-x

Especificação

PILARES - NIVEL 4,09 A COBERTURA

Escala: Indicada

Prancha

14/17