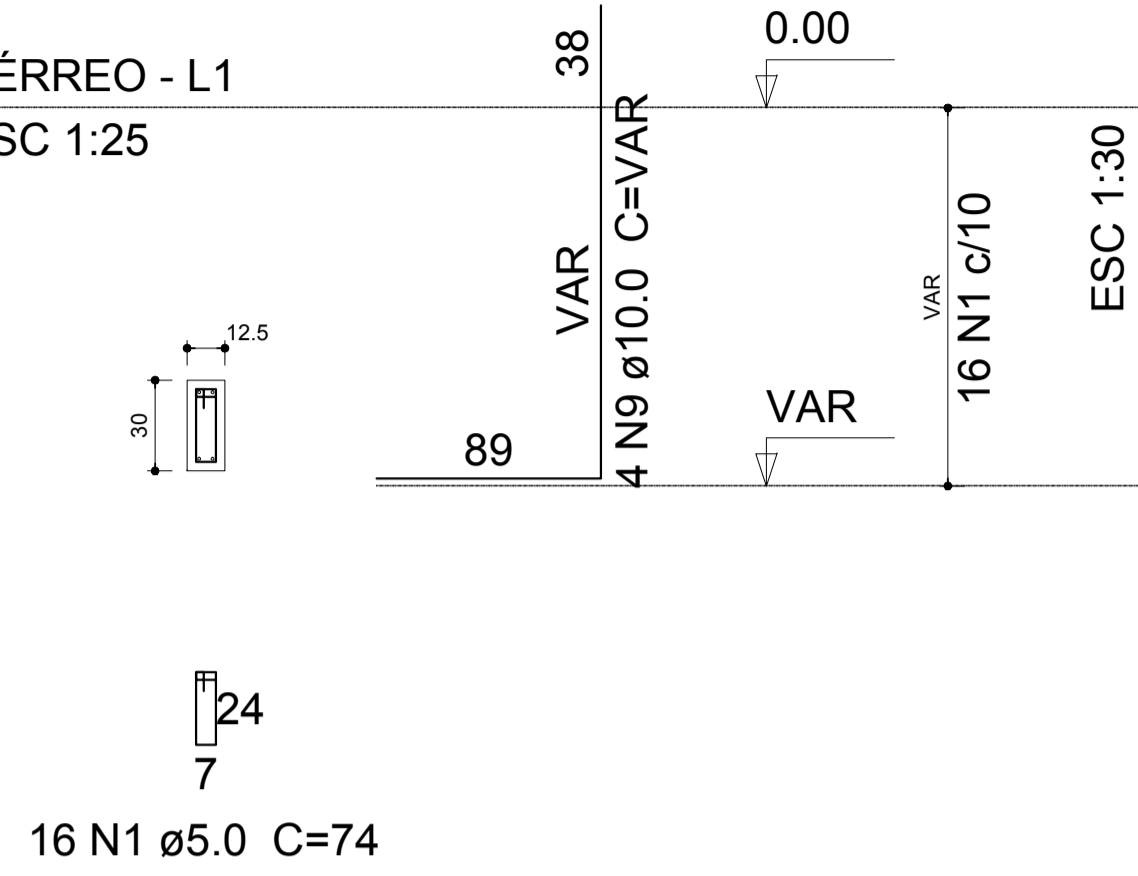


P1

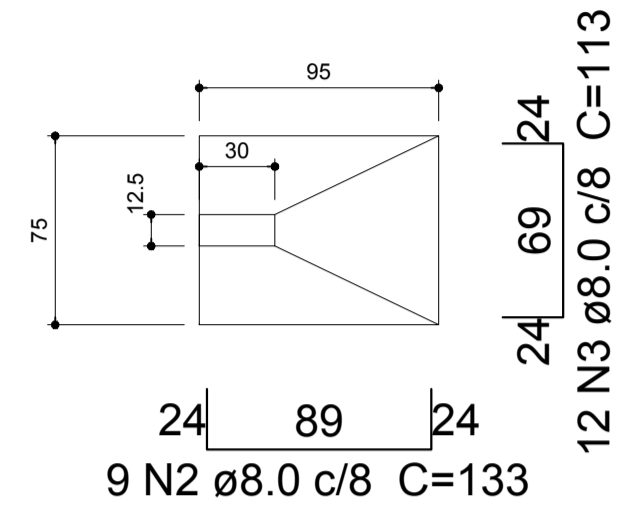
TÉRREO - L1

ESC 1:25

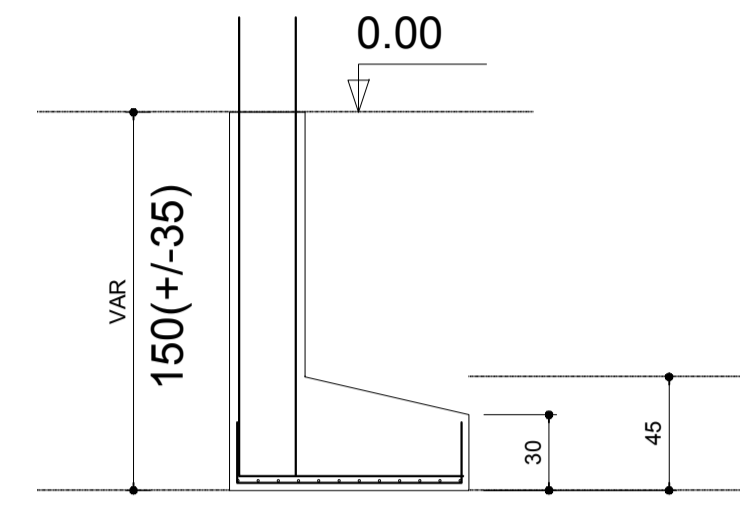


S1

PLANTA
ESC 1:30

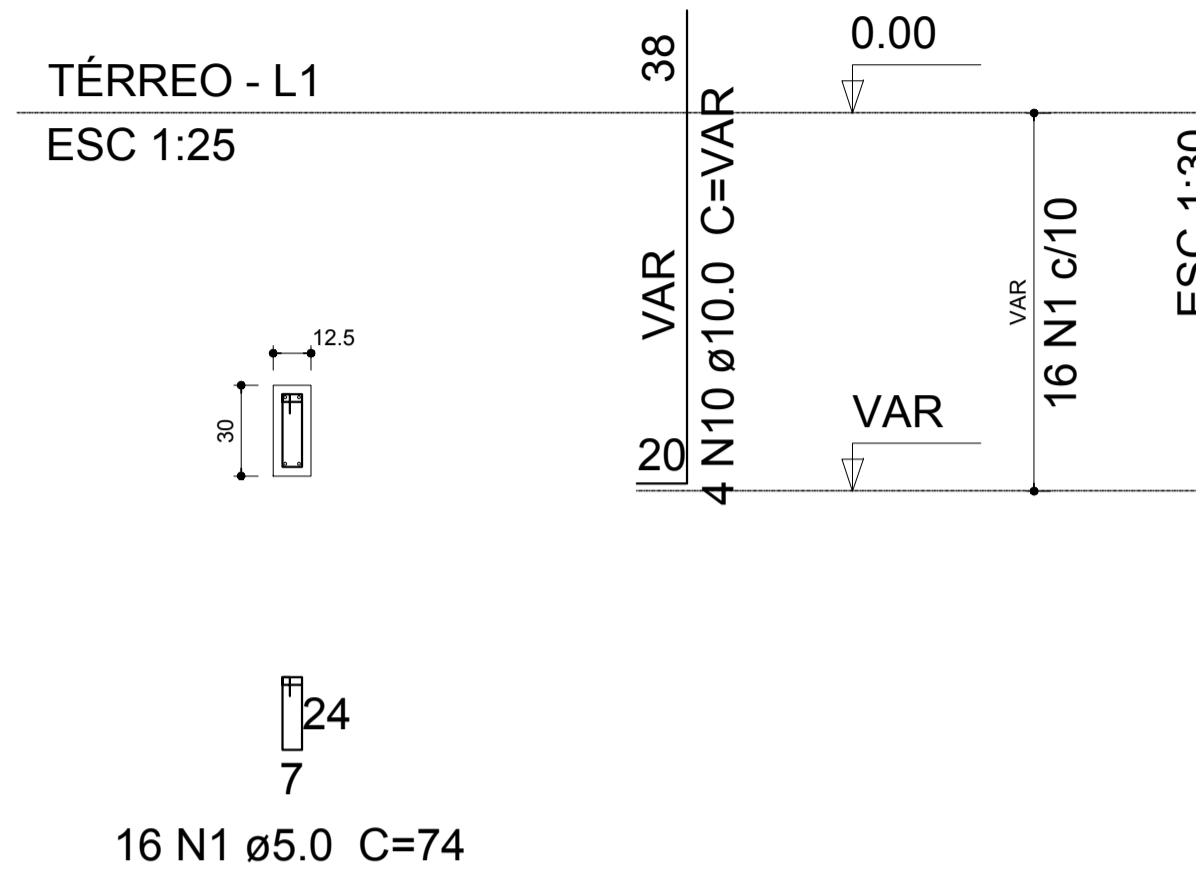


CORTE
ESC 1:30



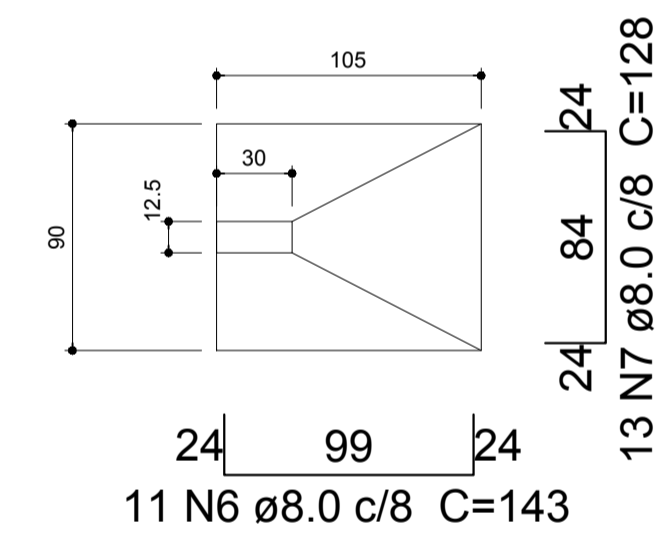
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=P34=P35

TÉRREO - L1
ESC 1:25

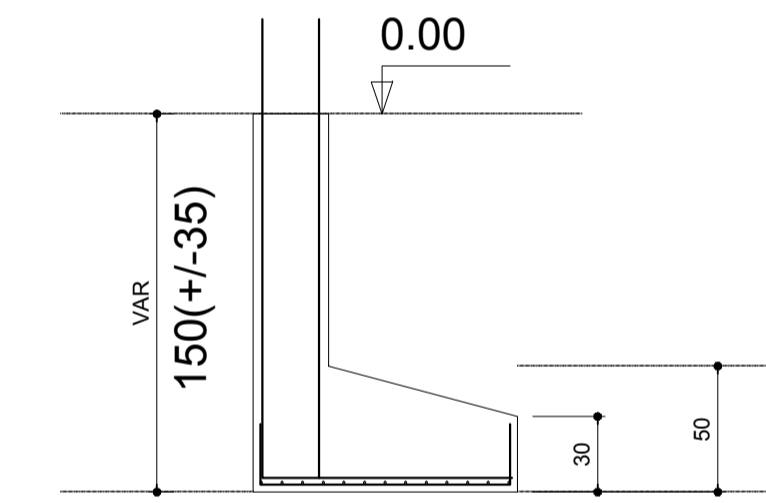


S3

PLANTA
ESC 1:30



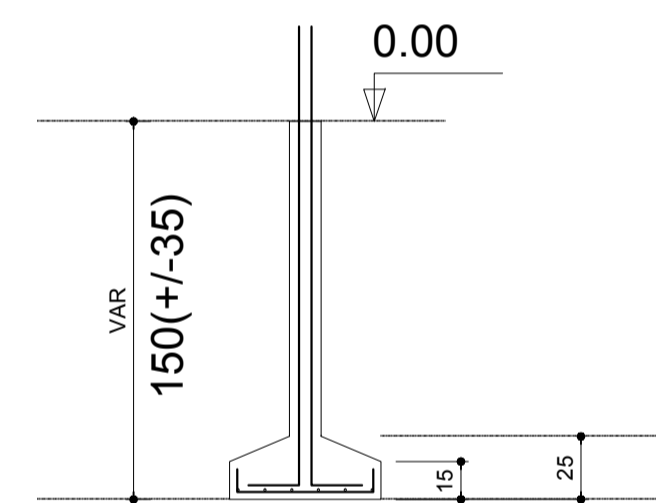
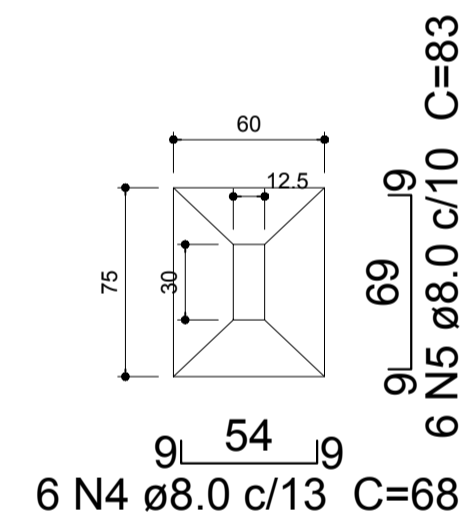
CORTE
ESC 1:30



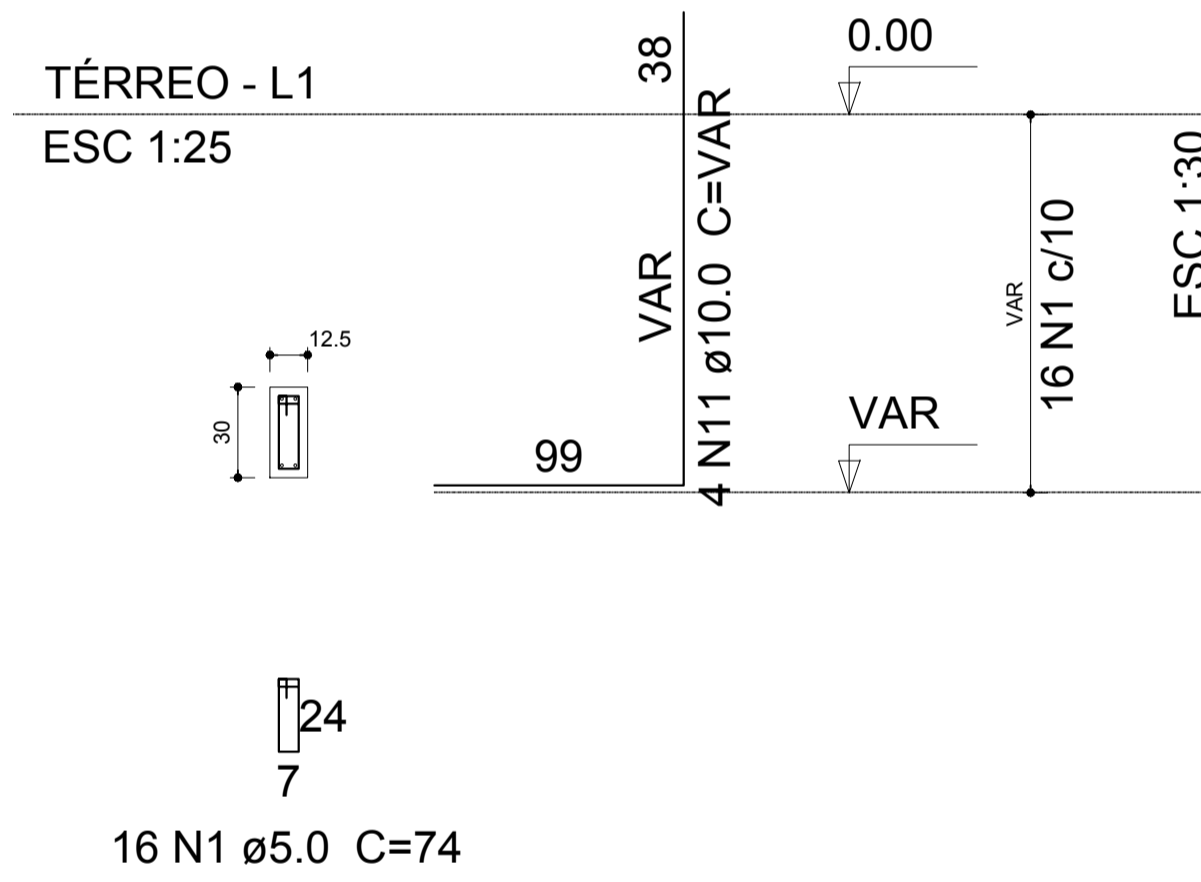
S2=S6=S8=S9=S19=S20=S23=S28=S29=S30=S32
=S34=S35

PLANTA
ESC 1:30

CORTE
ESC 1:30

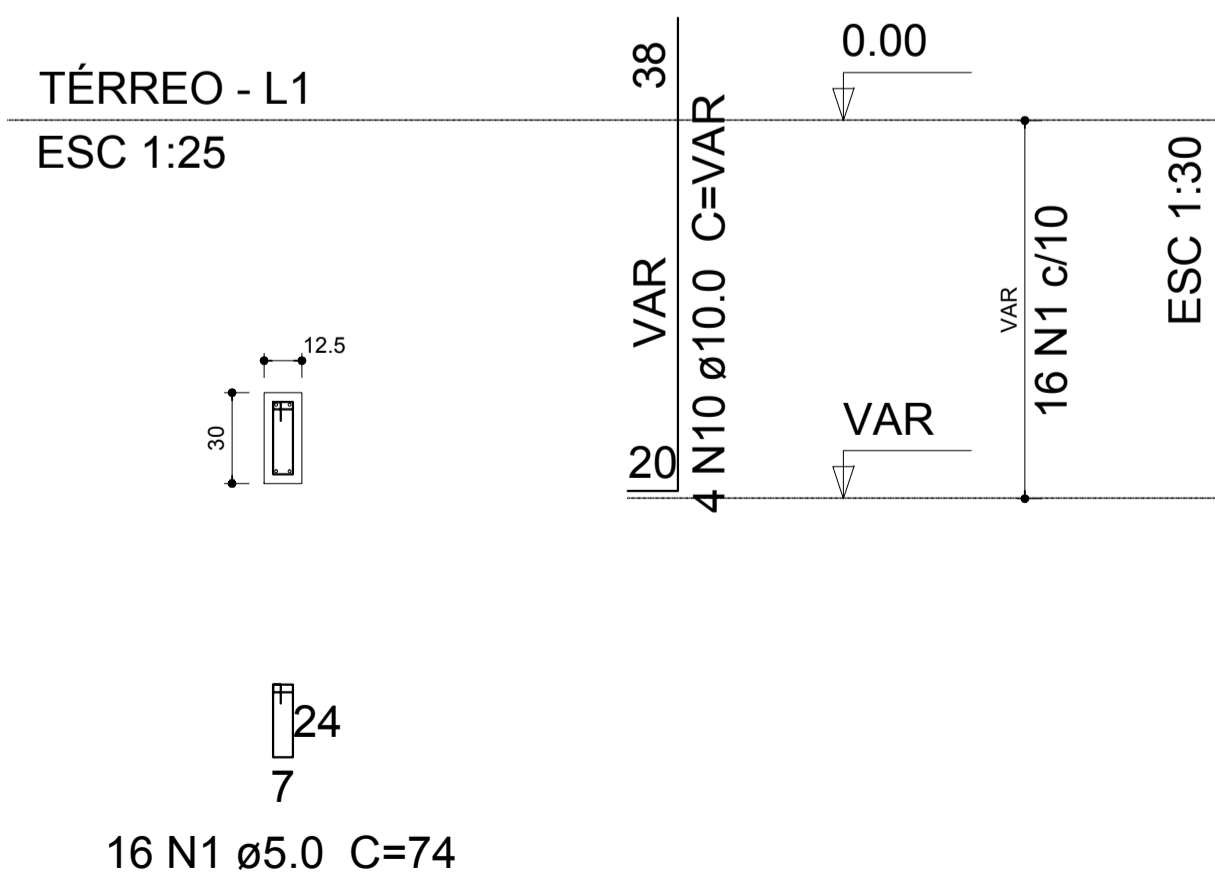


TÉRREO - L1
ESC 1:25



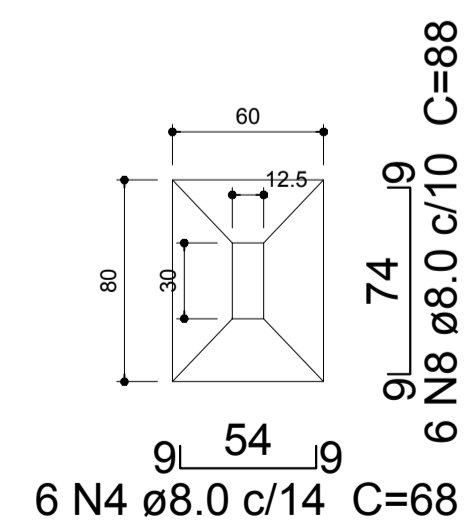
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TÉRREO - L1
ESC 1:25

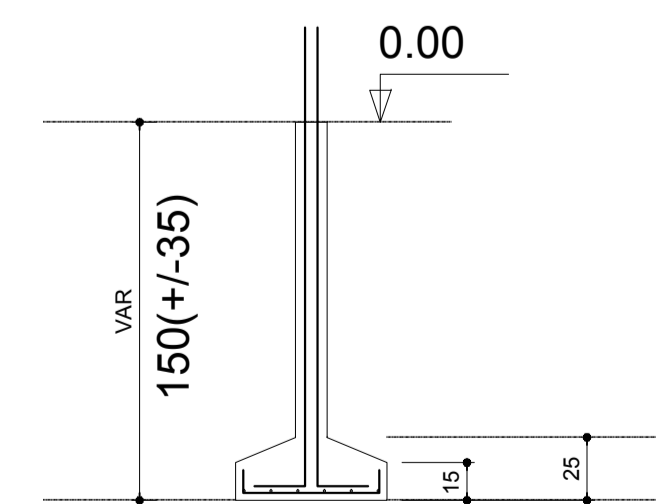


S4=S33

PLANTA
ESC 1:30

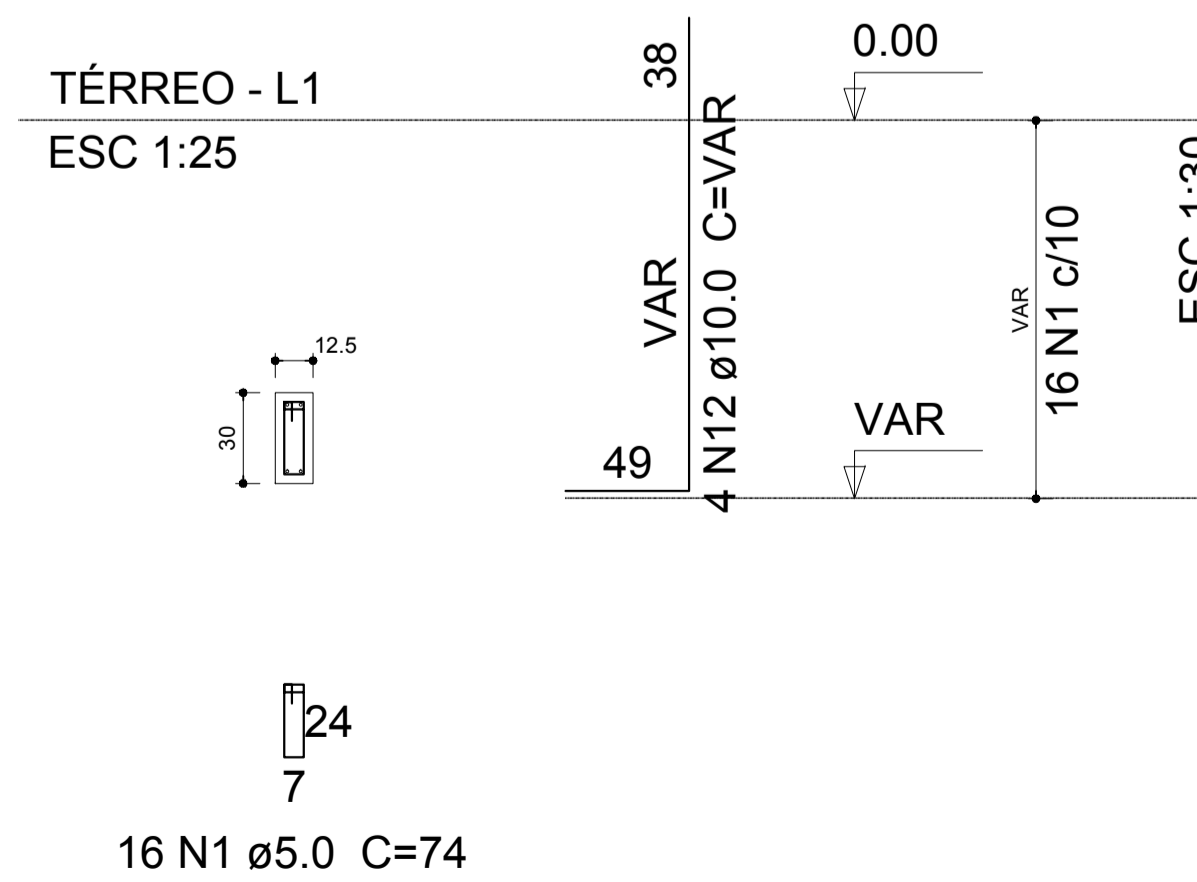


CORTE
ESC 1:30



P5

TÉRREO - L1
ESC 1:25



Relação do aço

P1	13xP2	P3
2xP4	P5	S1
S3	13xS30	2xS33

AÇO	N	DIAM	Q	UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	288	74	21312
CA50	2	8.0	9	133	1197
	3	8.0	12	113	1356
	4	8.0	90	68	6120
	5	8.0	78	83	6474
	6	8.0	11	143	1573
	7	8.0	13	128	1664
	8	8.0	12	88	1056
	9	10.0	4	VAR	VAR
	10	10.0	60	VAR	VAR
	11	10.0	4	VAR	VAR
	12	10.0	4	VAR	VAR

Resumo do aço

AÇO	DIAM	C.TOTAL (m)	PESO + 10 % (kg)
CA50	8.0	194.4	84.4
	10.0	155.4	105.4
CA60	5.0	213.2	36.1

PESO TOTAL	
CA50	189.8
CA60	36.1

Vol. de concreto total (C-25) = 2.96 m³
Área de forma total = 31.54 m²

PREFEITURA MUNICIPAL DE PARANAGUÁ
ADMINISTRAÇÃO DR. EDISON DE OLIVEIRA KERSTEN
SECRETARIA MUNICIPAL DE OBRAS PÚBLICAS

TÍTULO	PROJETO DE ESTRUTURA DE CONCRETO ARMADO				
OBRA	REFORMA E AMPLIAÇÃO CMEI - ZULEIDE PINTO ROSA				
CONTEÚDO	- FUNDAÇÃO -				
PROPRIETÁRIO	PREFEITURA MUNICIPAL DE PARANAGUÁ C.N.P.J. 76.017.438/0001-13		AUTOR DO PROJETO DEBORA TEMPORÃO DE AGUIAR RAMOS CREA: PR-25647/D		
DATA	Julho/2016	ESCALA	indicada	DISENHO	Debora
		ÁREA AMPL.	163.95m²	PRANCHA	02/15
		ÁREA TOTAL	399.63m²		