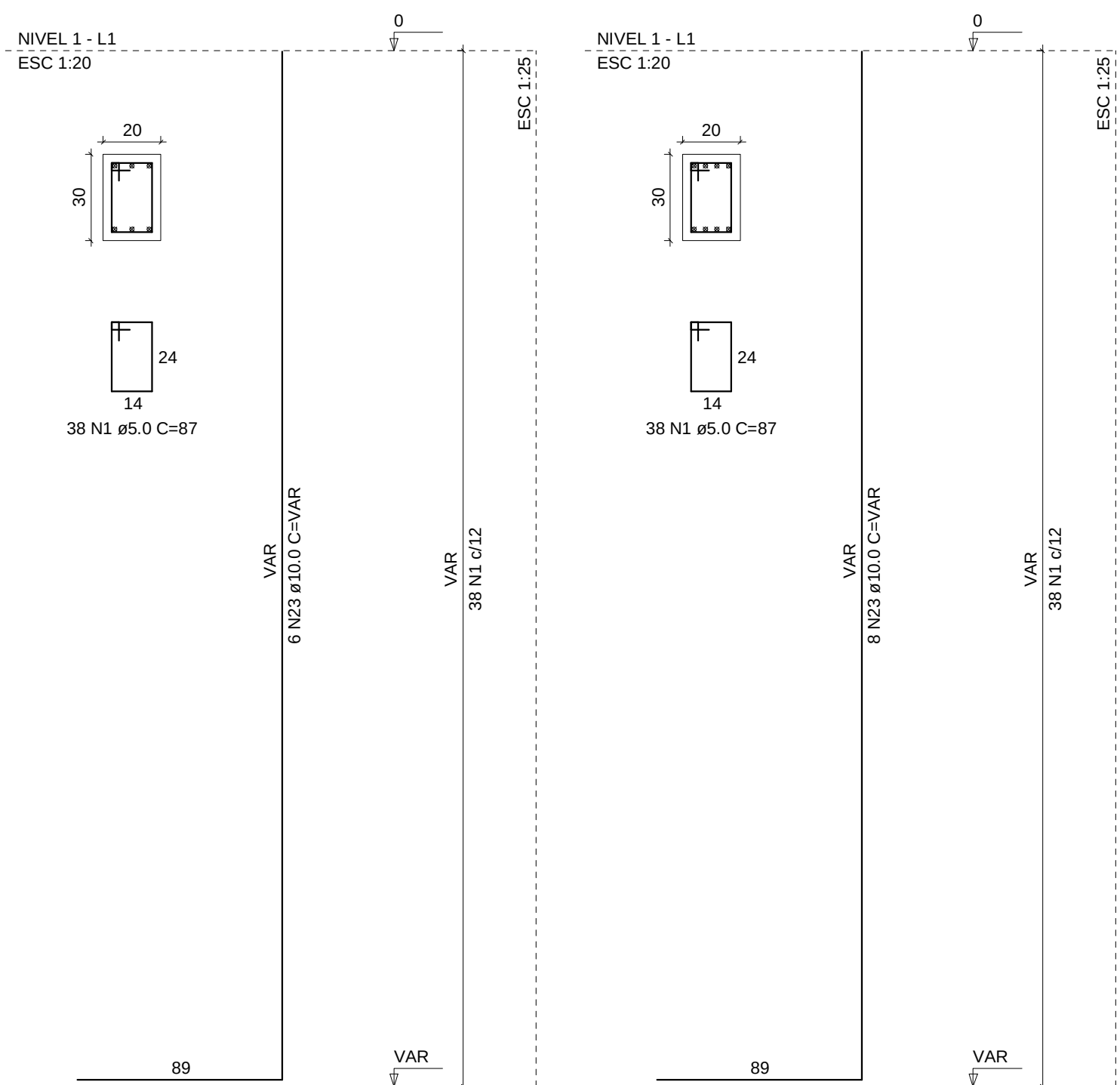
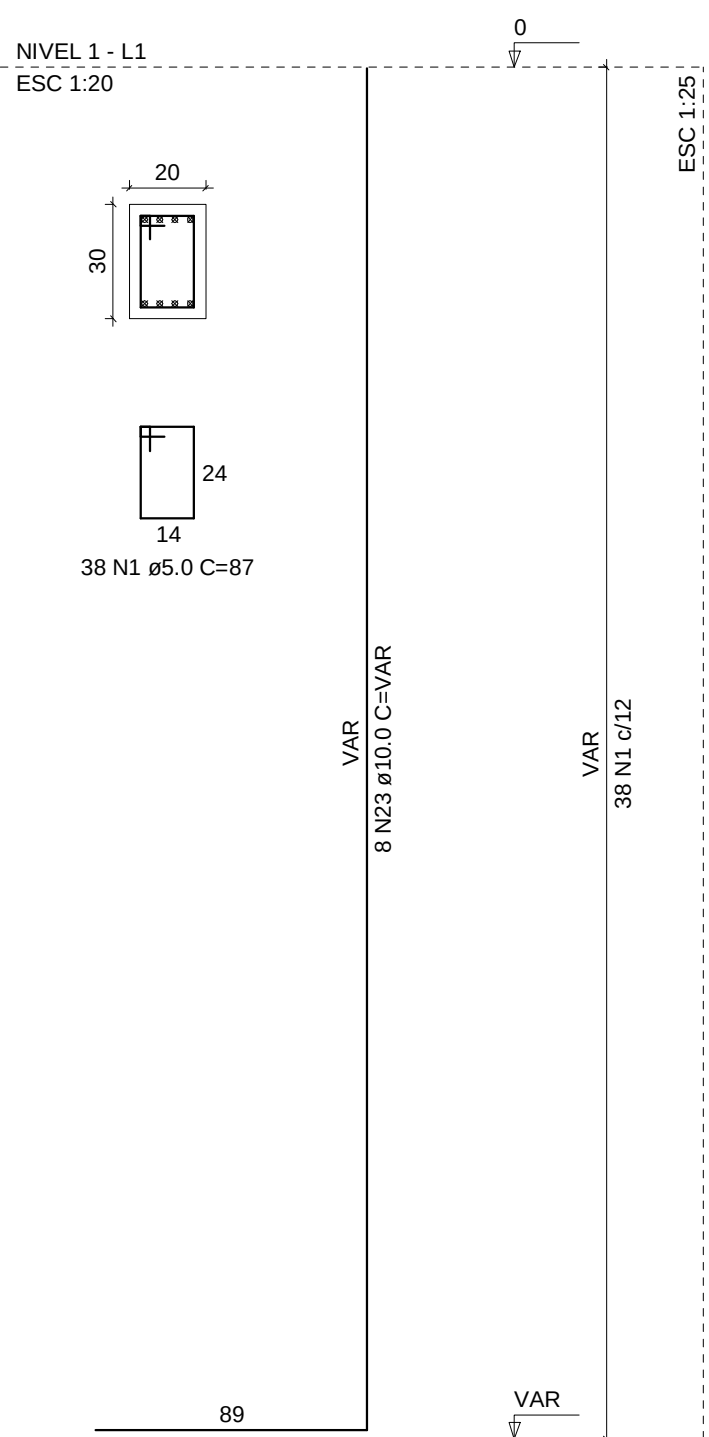


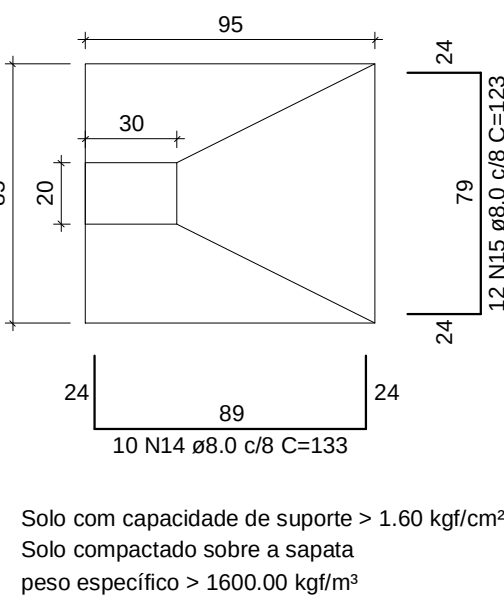
P12



P18

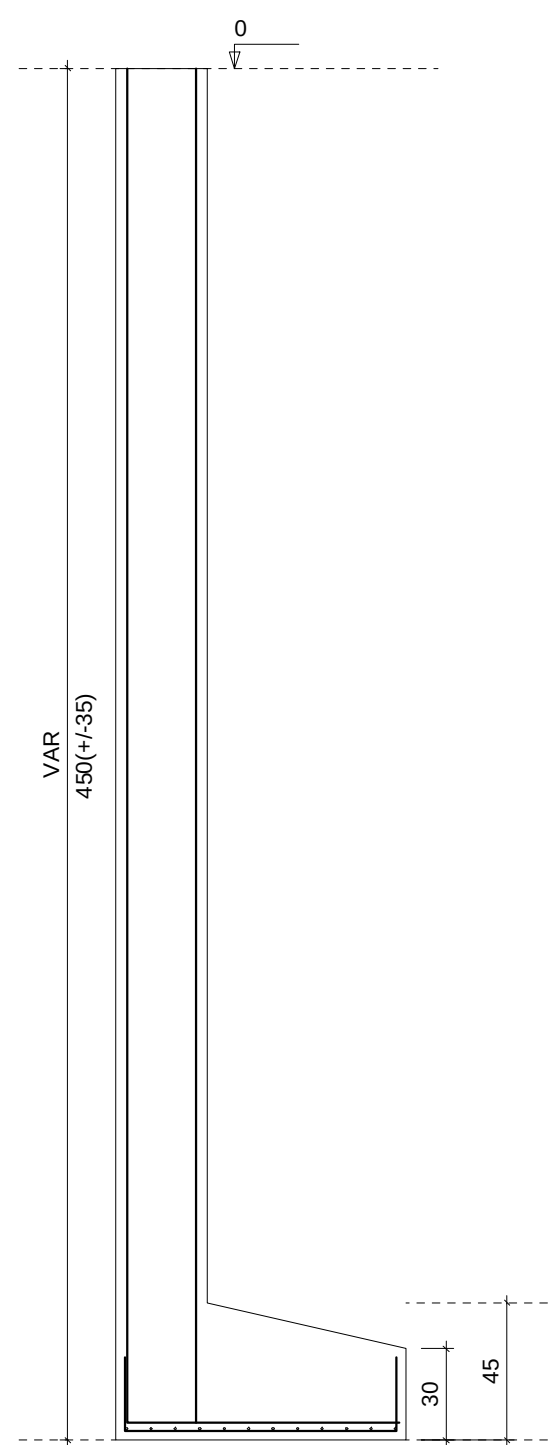


S12=S18
PLANTA
ESC 1:25

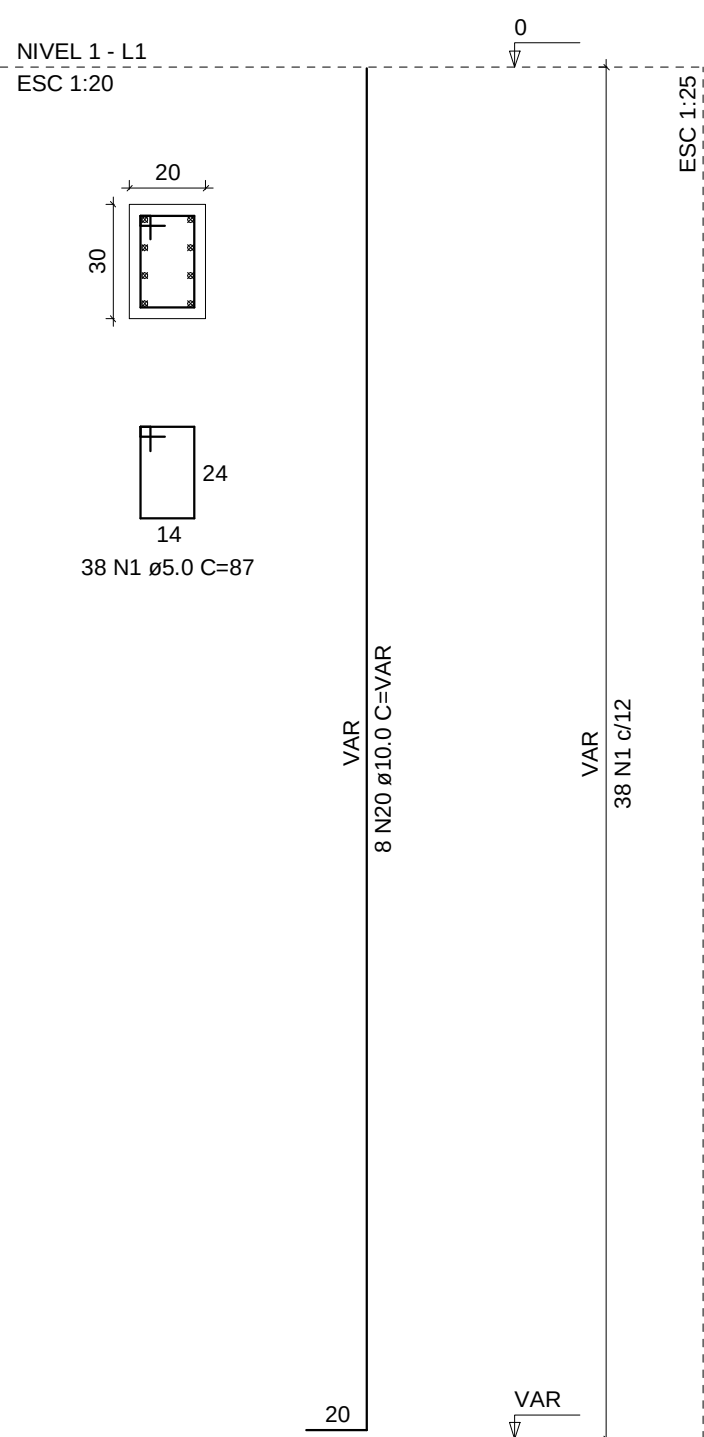


Solo com capacidade de suporte > 1.60 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kg/m³

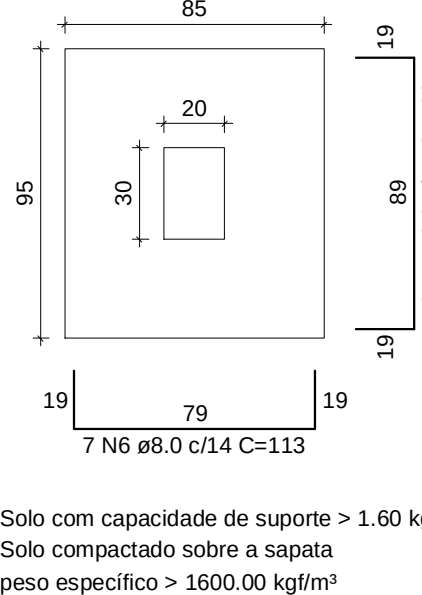
CORTE
ESC 1:25



P2

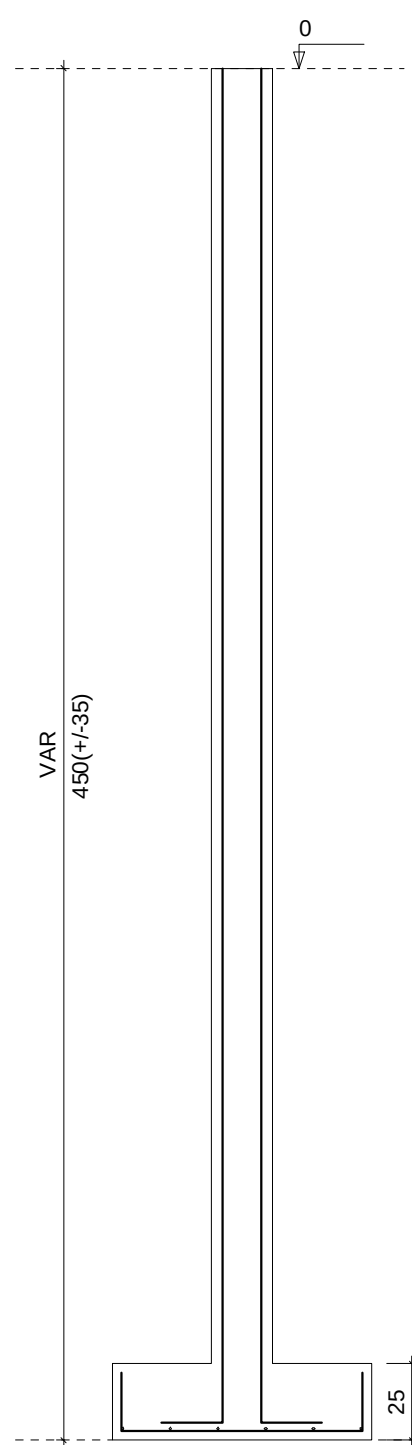


S2
PLANTA
ESC 1:25

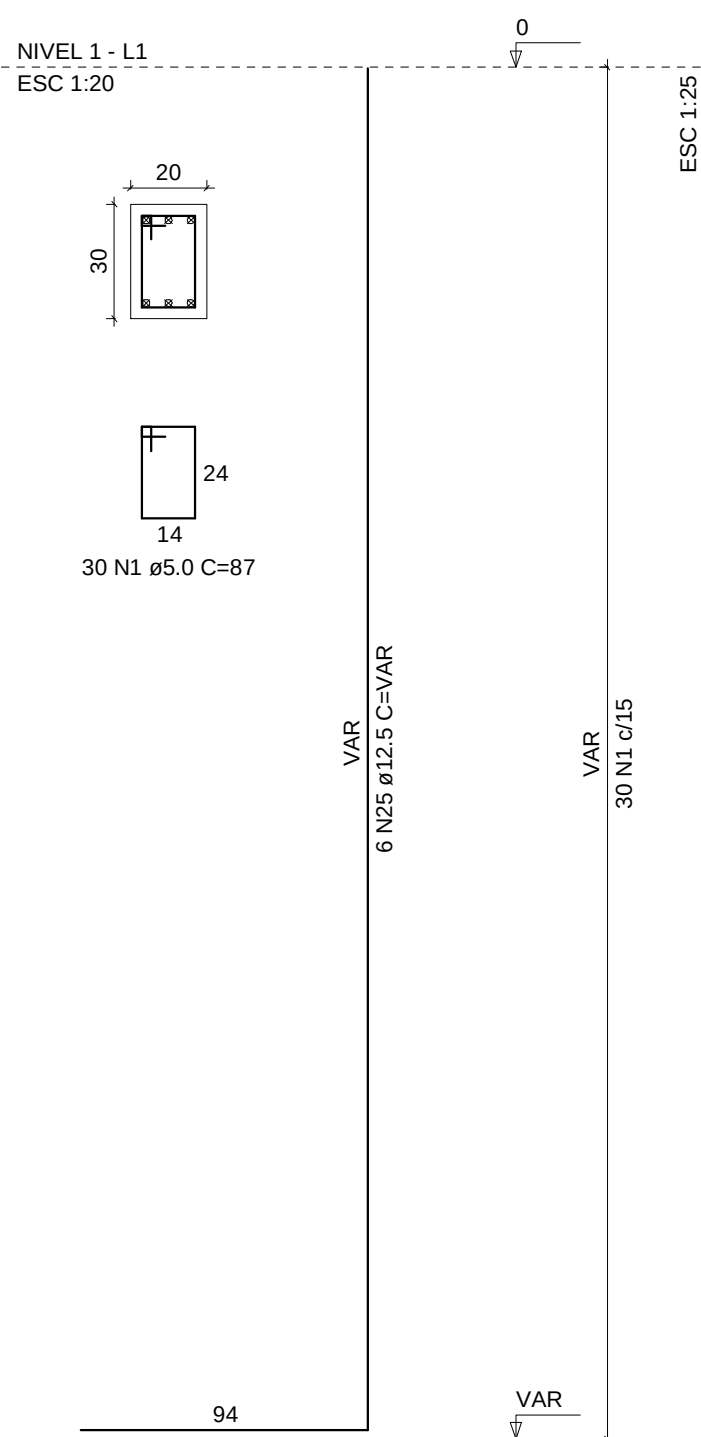


Solo com capacidade de suporte > 1.60 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kg/m³

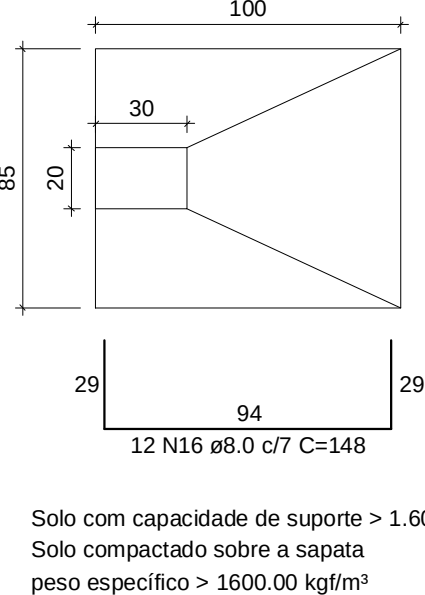
CORTE
ESC 1:25



P19

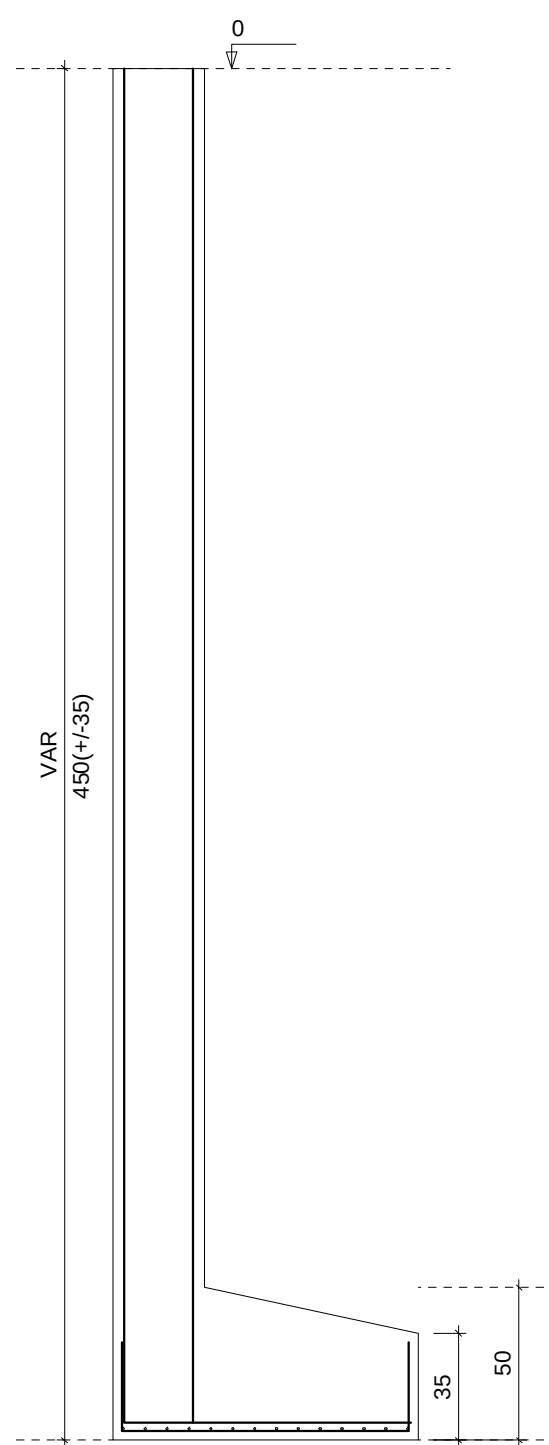


S19
PLANTA
ESC 1:25

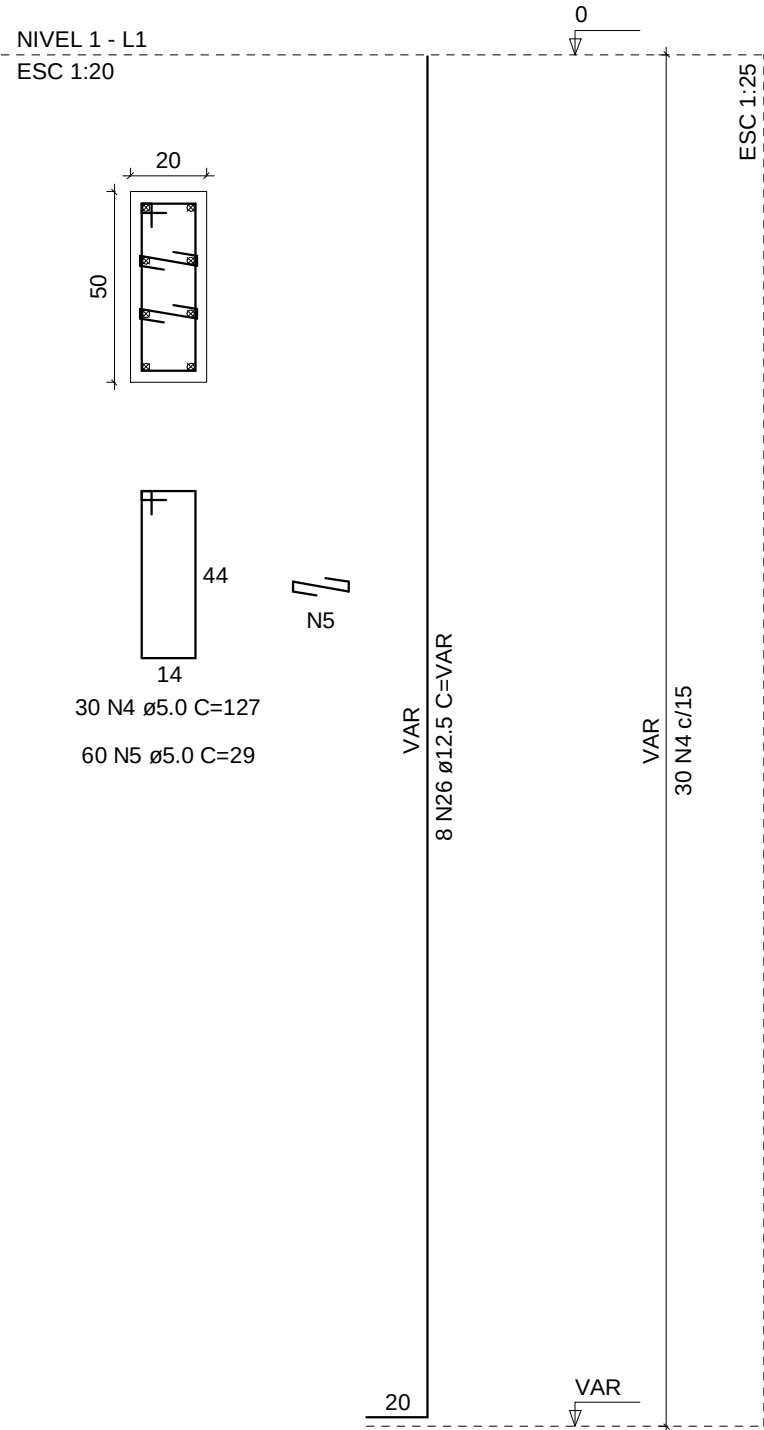


Solo com capacidade de suporte > 1.60 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kg/m³

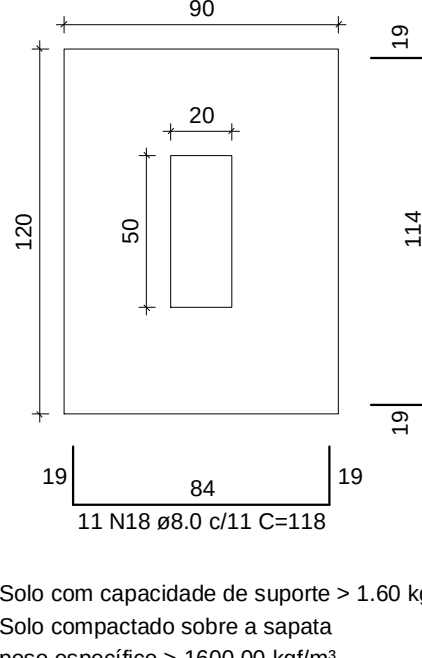
CORTE
ESC 1:25



P20

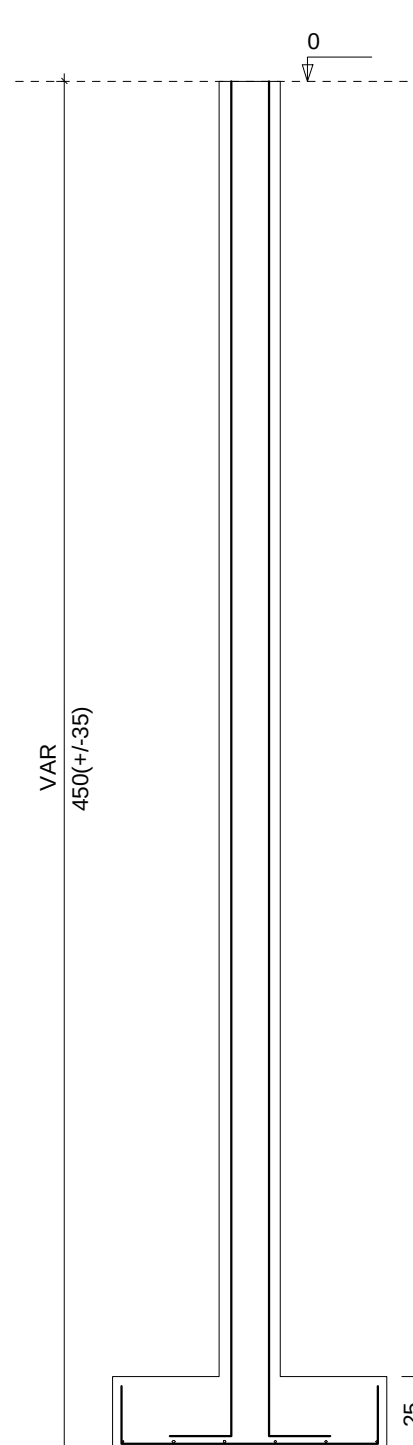


S20
PLANTA
ESC 1:25

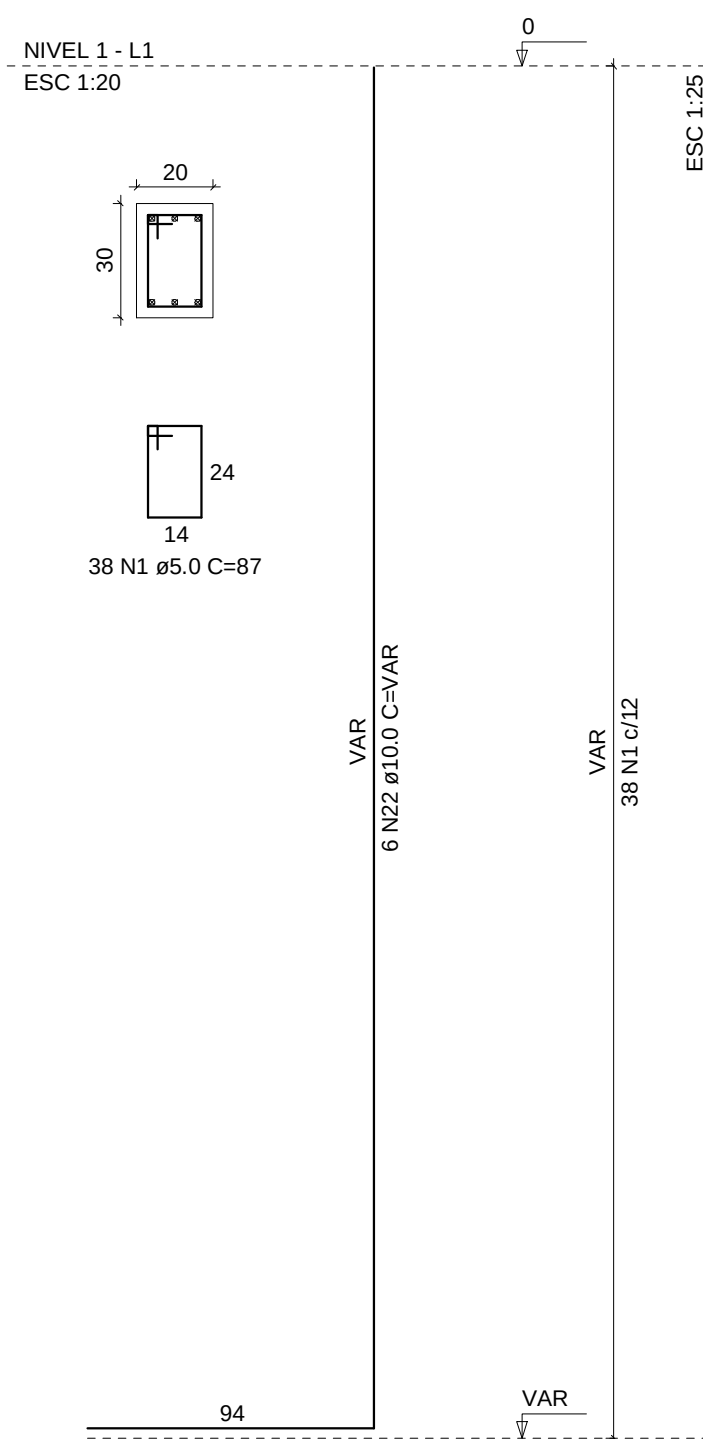


Solo com capacidade de suporte > 1.60 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kg/m³

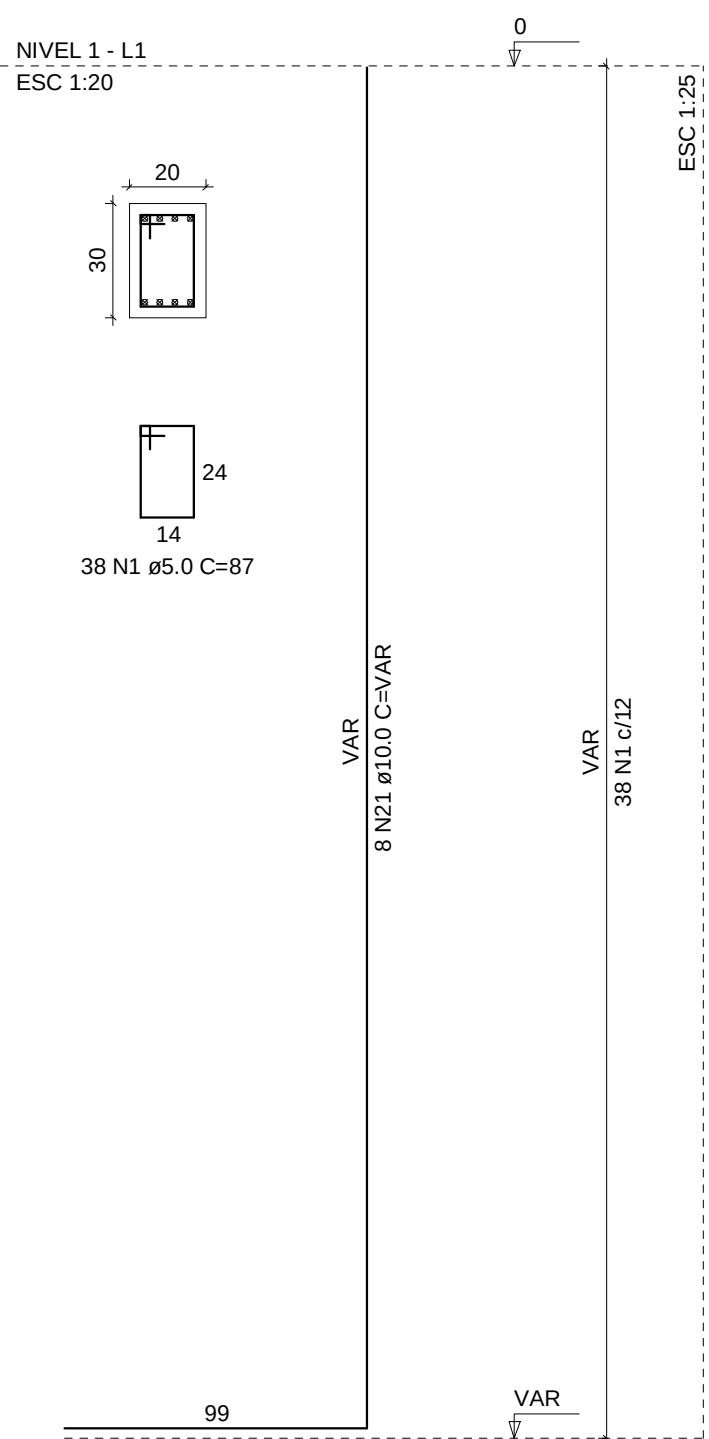
CORTE
ESC 1:25



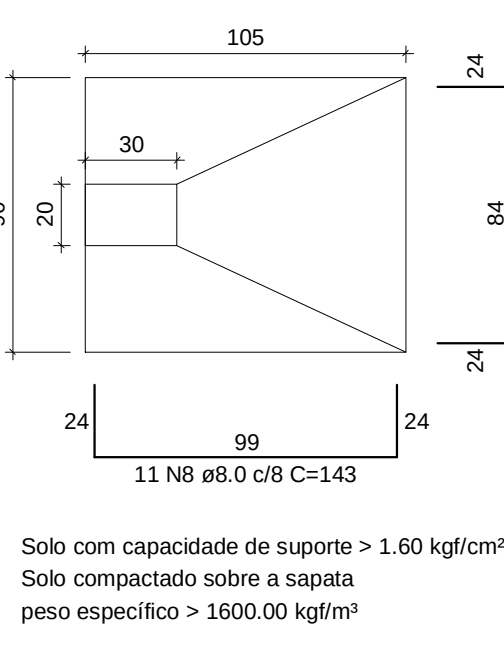
P5=P14



P3

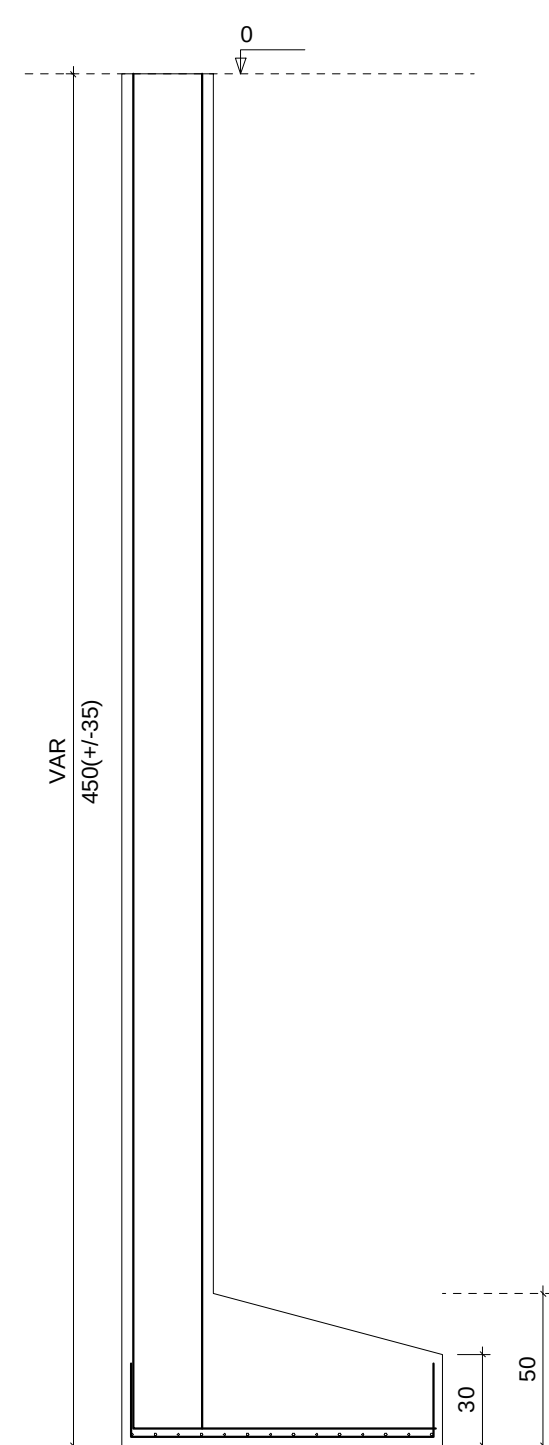


S3=S5=S14
PLANTA
ESC 1:25

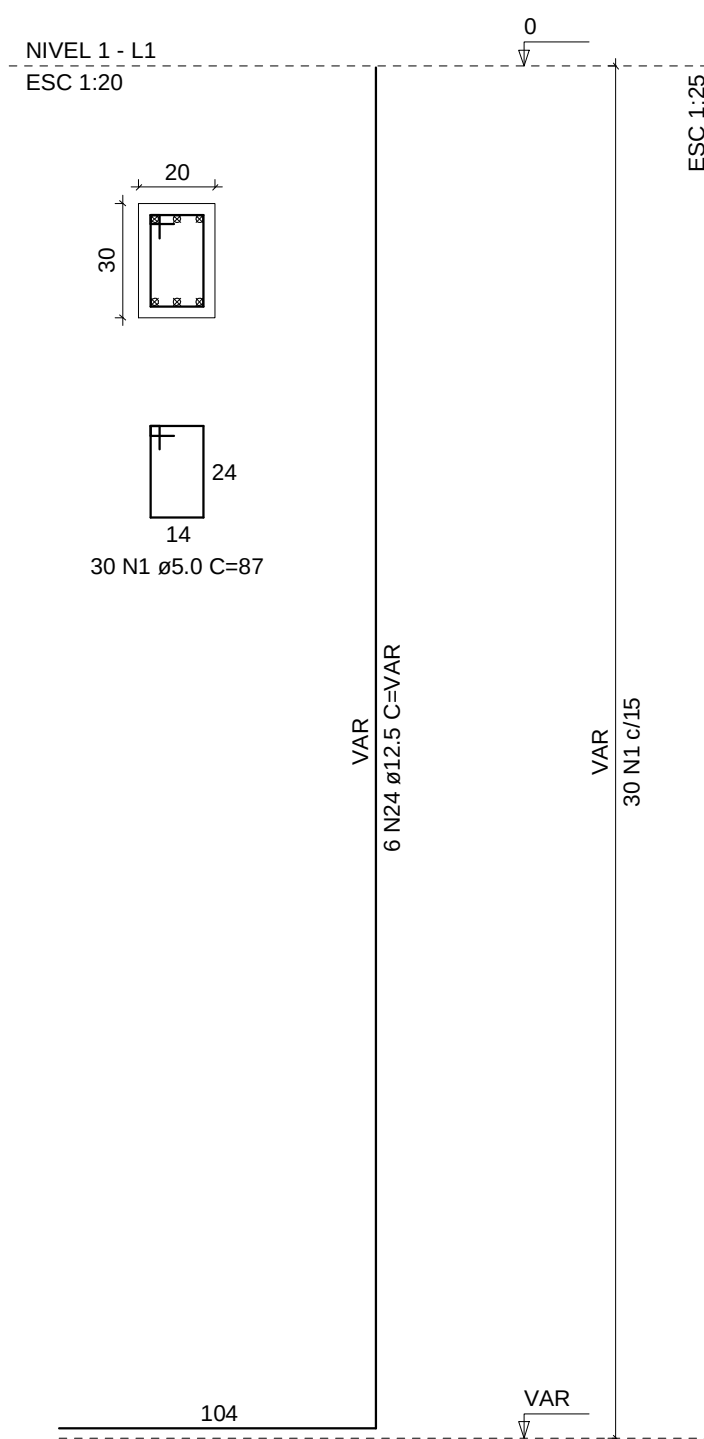


Solo com capacidade de suporte > 1.60 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kg/m³

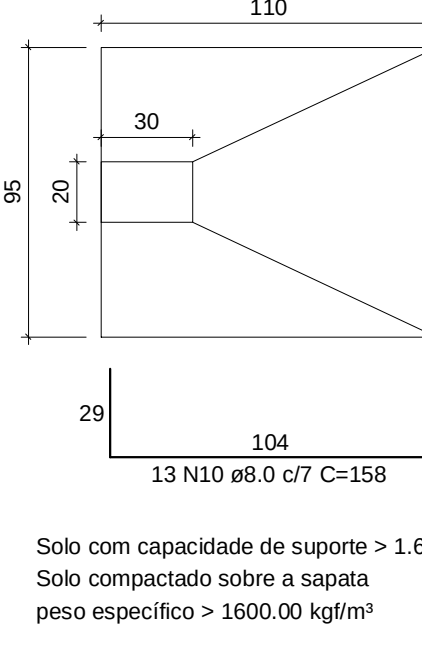
CORTE
ESC 1:25



P9

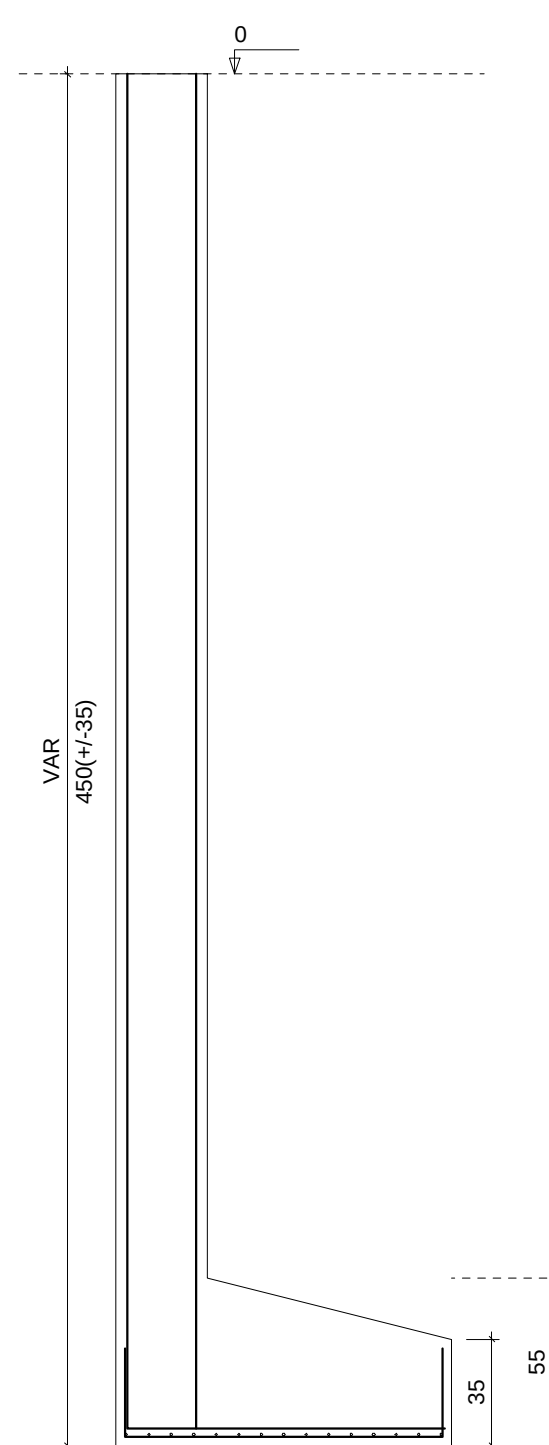


S9
PLANTA
ESC 1:25

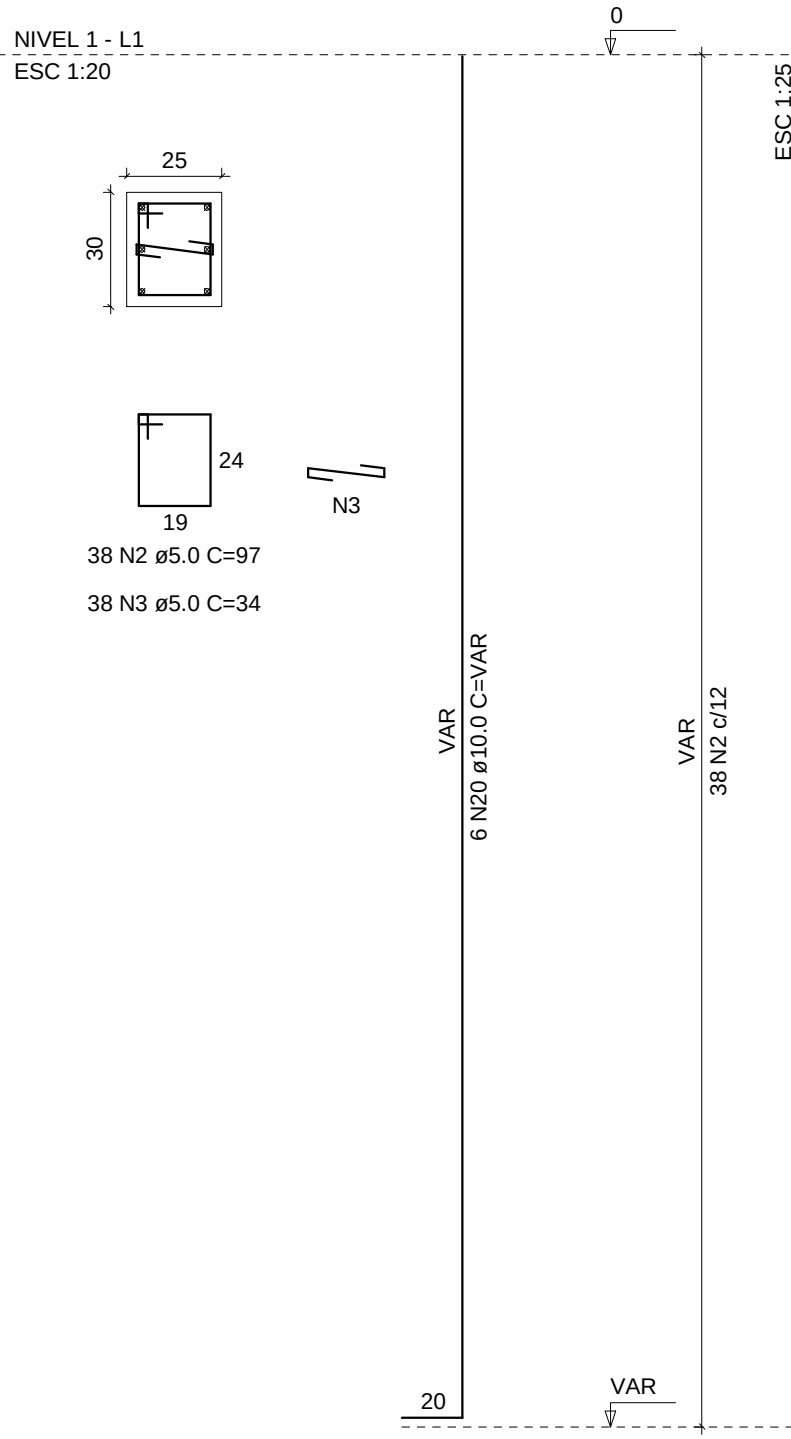


Solo com capacidade de suporte > 1.60 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kg/m³

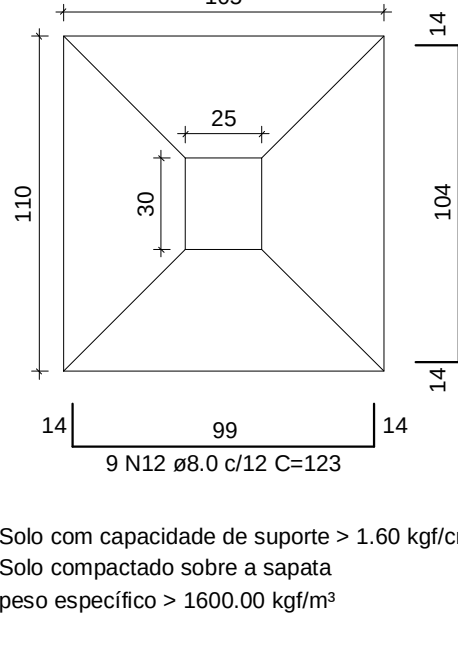
CORTE
ESC 1:25



P10=P11

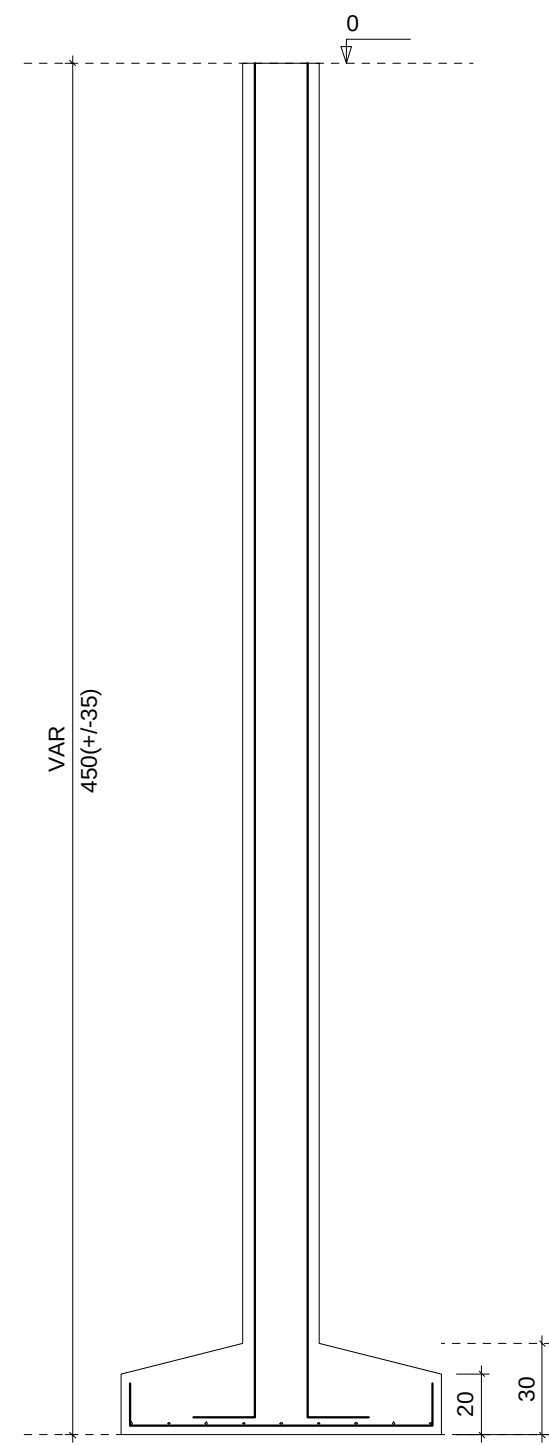


S10=S11
PLANTA
ESC 1:25



Solo com capacidade de suporte > 1.60 kgf/cm²
Solo compactado sobre a sapata
peso específico > 1600.00 kg/m³

CORTE
ESC 1:25



RELAÇÃO DO AÇO					
P2	P3	2xP10	2xP5		
P18	P19	P20	P12		
S2	S20	S19	S9		
ACO	N	DIAM	Q	UNIT	C.TOTAL
CA50	1	5.0	288	87	25056
	2	5.0	76	97	7372
	3	5.0	76	34	2584
	4	5.0	30	177	5310
	5	5.0	60	29	1740
	6	8.0	7	133	791
	7	8.0	6	123	738
	8	8.0	33	142	4719
	9	8.0	42	128	5376
	10	8.0	13	136	2054
	11	8.0	15	143	2145
	12	8.0	18	123	2214
	13	8.0	18	128	2304
	14	8.0	20	133	2660
	15	8.0	24	123	2952
	16	8.0	12	146	1776
VAR	17	8.0	14	133	1862
	18	8.0	11	136	1296
	19	8.0	6	146	888
	20	10.0	20	VAR	VAR
	21	10.0	8	VAR	VAR
	22	10.0	12	VAR	VAR
	23	10.0	14	VAR	VAR
	24	12.5	6	VAR	VAR
	25	12.5	6	VAR	VAR
	26	12.5	8	VAR	VAR

RESUMO DO AÇO			
ACO	DIAM	C.TOTAL	PESO+10%
CA50	8.0	317.8	137.9
CA50	10.0	276.0	107.2
CA50	12.5	102.3	40.8
CA50	15.0	405.6	168.9
PESO TOTAL			
CA50	433.5		
CA50	68.8		
Vol. concreto (C-25) = 6.82 m³			
Área de forma total = 65.38 m²			

Engenheiro Civil
Marco Aurélio Moreto
CREA/RS: 215430
Avenida Antônio Menegatti - 914 - Centro
Centenário/RS
Fone: (54) 9188-9683
(54) 3613-5174

Obras/Loc.: Ampliação do Ginásio Municipal Parte do Lote Rural (11A) da Seção Floresta Rio Branco, da Colônia Erechim, perímetro urbano de Centenário/RS			
Data: Junho/2016	Descrição:	Prancha:	
Desenho: Marco Aurélio	Projeto Estrutural Parte 2	A12	
Escala: Indicada			
Proprietário:	Responsável Técnico:		
Município de Centenário			