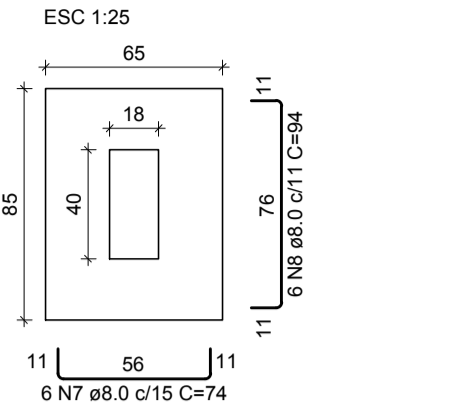


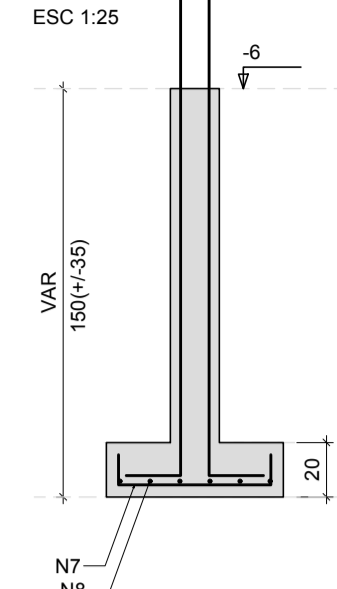
### SAPATAS E PILARES DO TÉRREO (COLARINHOS)

S1=S2=S3  
PLANTA  
ESC 1:25

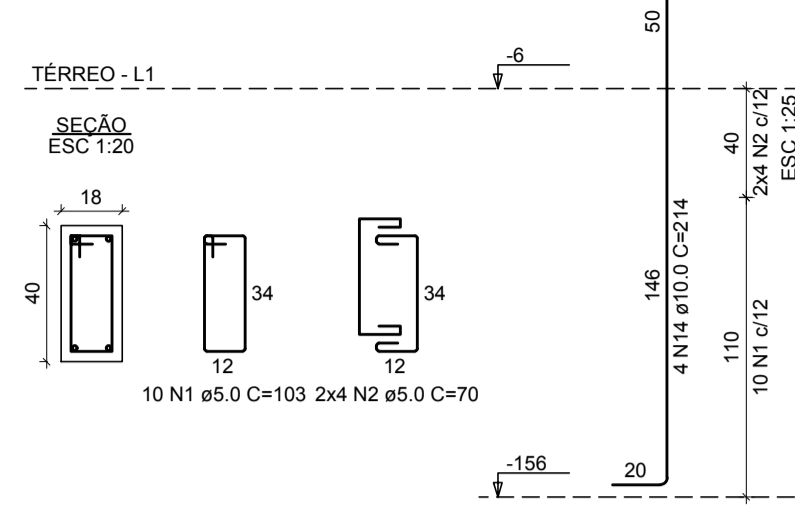


Solo com capacidade de suporte > 1.20 kgf/cm²  
Solo compactado sobre a sapata  
peso específico > 1600.00 kg/m³

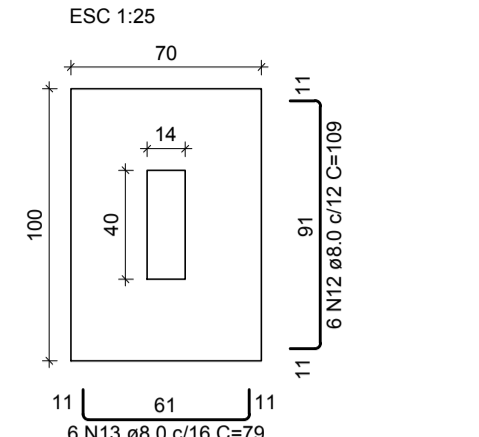
CORTE  
ESC 1:25



P1=P2=P3  
SEÇÃO  
ESC 1:20

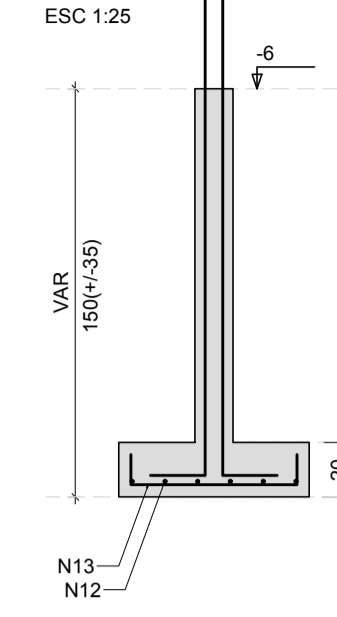


S8=S9  
PLANTA  
ESC 1:25

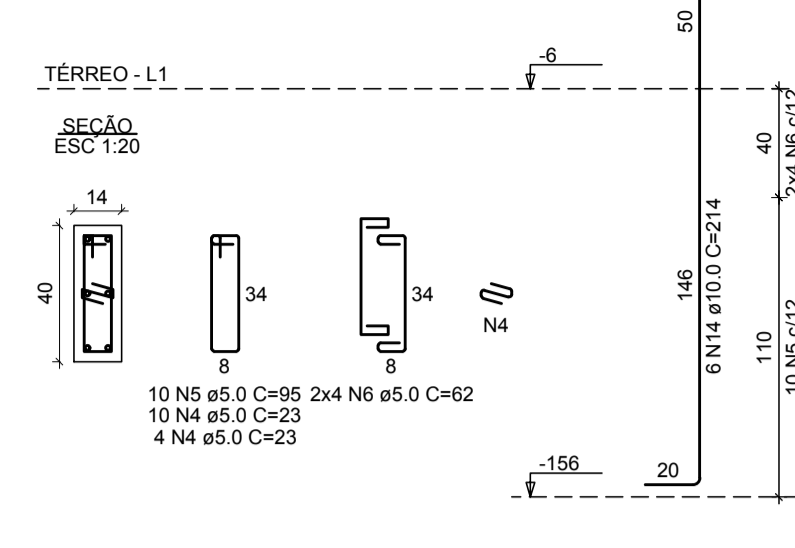


Solo com capacidade de suporte > 1.20 kgf/cm²  
Solo compactado sobre a sapata  
peso específico > 1600.00 kg/m³

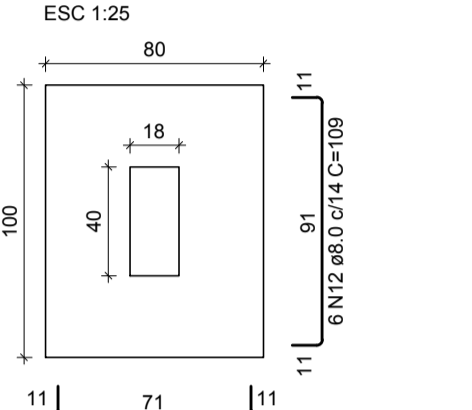
CORTE  
ESC 1:25



P8=P9  
SEÇÃO  
ESC 1:20

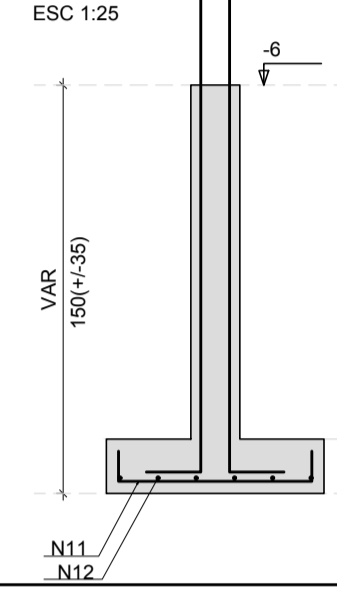


S5=S6=S7  
PLANTA  
ESC 1:25

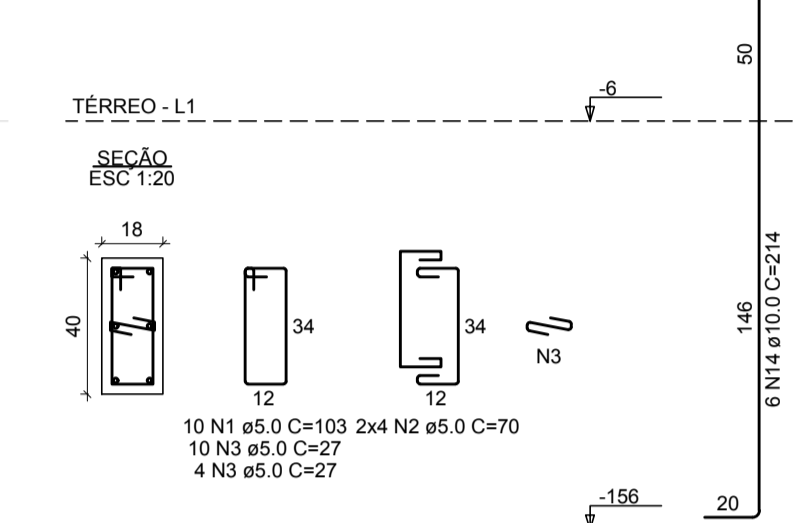


Solo com capacidade de suporte > 1.20 kgf/cm²  
Solo compactado sobre a sapata  
peso específico > 1600.00 kg/m³

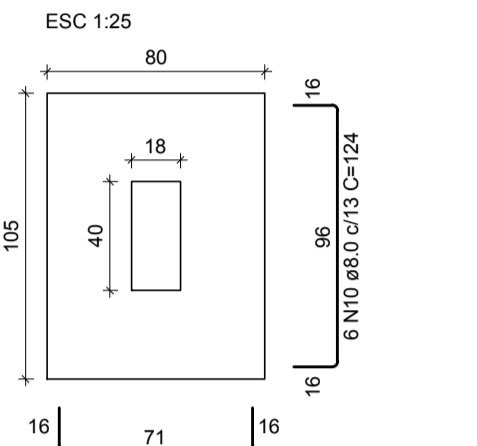
CORTE  
ESC 1:25



P5=P6=P7  
SEÇÃO  
ESC 1:20

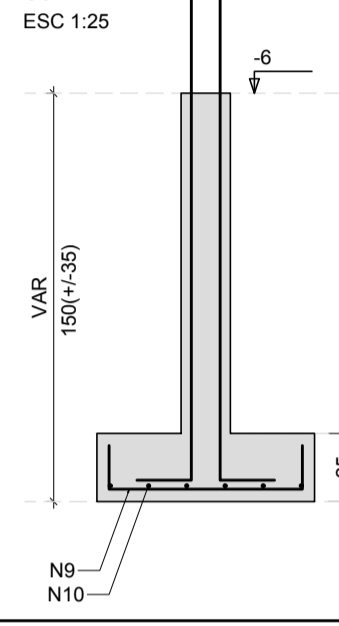


S4  
PLANTA  
ESC 1:25

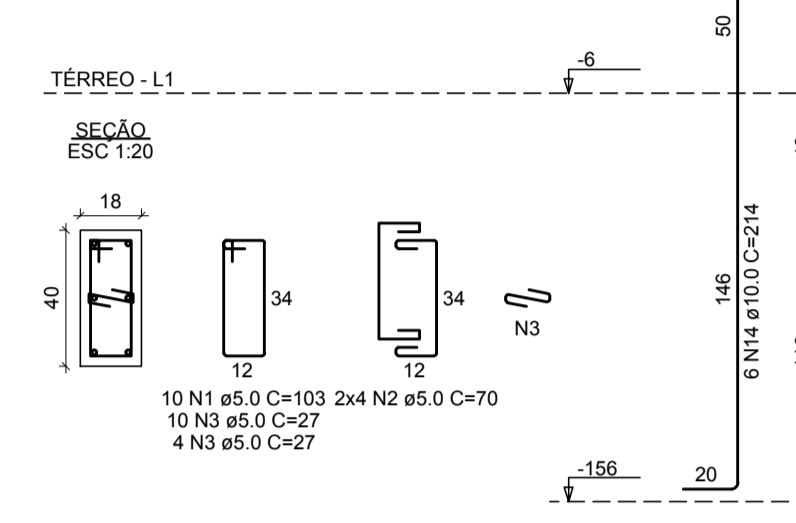


Solo com capacidade de suporte > 1.20 kgf/cm²  
Solo compactado sobre a sapata  
peso específico > 1600.00 kg/m³

CORTE  
ESC 1:25



P4  
SEÇÃO  
ESC 1:20



RELAÇÃO DO AÇO

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	70	103	7210
	2	5.0	56	70	3920
	3	5.0	27	1512	1512
	4	5.0	23	644	644
	5	5.0	28	23	644
	6	5.0	18	95	1900
	7	5.0	18	62	992
	8	5.0	18	74	1332
	9	5.0	18	94	1662
	10	5.0	18	96	1752
	11	5.0	18	124	2432
	12	5.0	18	162	3204
	13	5.0	12	79	948
	14	5.0	12	214	2142

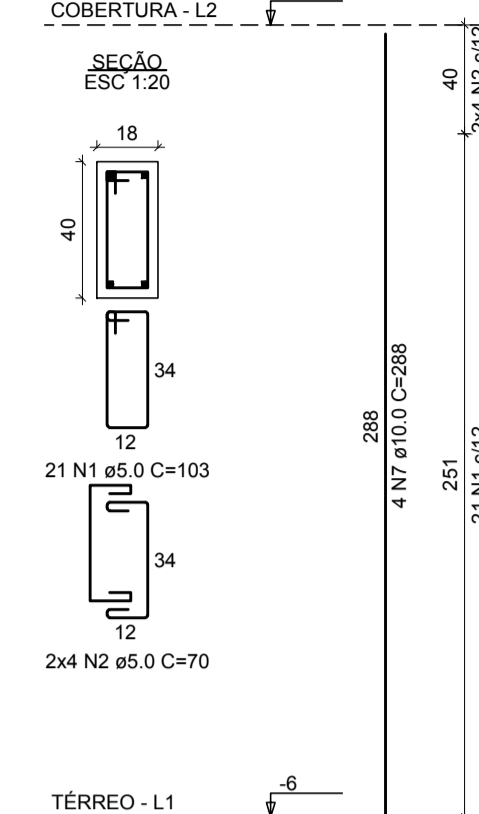
RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 0% (kg)
CA50	8.0	103.8	41
CA60	10.0	102.7	63.3
	5.0	181.6	24.9
<b>PESO TOTAL (kg)</b>			
CA50	104.3		
CA60	24.9		

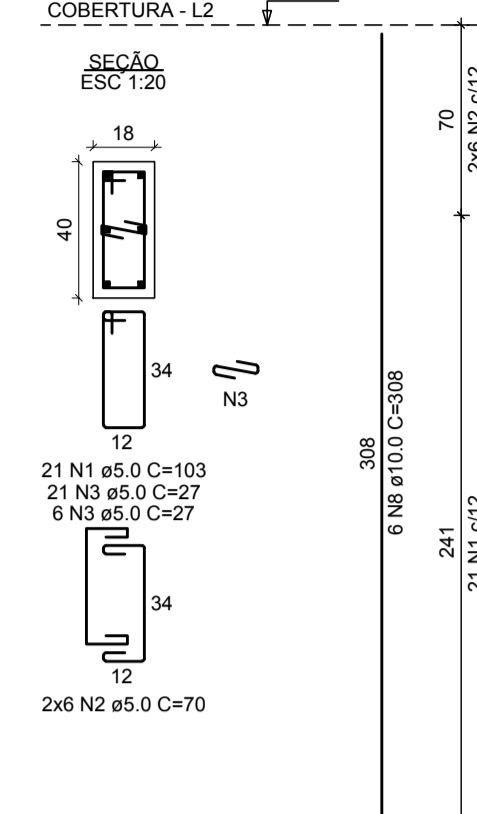
Volume de concreto (C-25) = 2.23 m³  
Área de forma = 21.67 m²

### PILARES DA COBERTURA

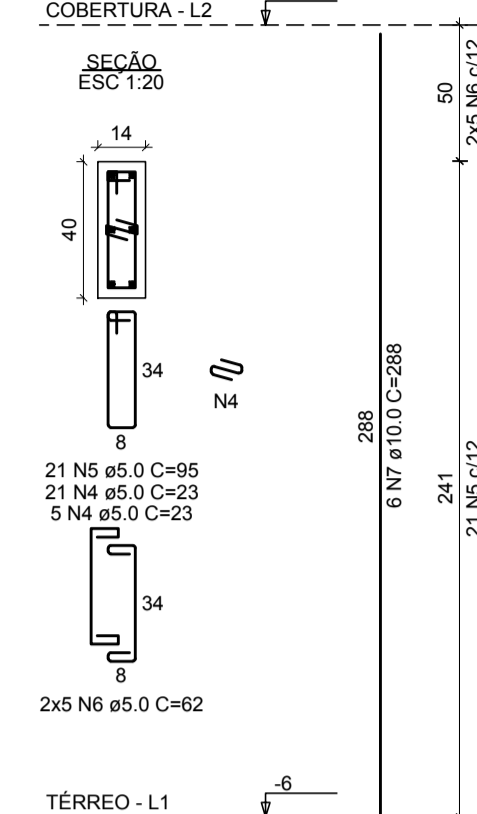
P1=P2=P3  
SEÇÃO  
ESC 1:20



P4=P5=P6=P7  
SEÇÃO  
ESC 1:20



P8=P9  
SEÇÃO  
ESC 1:20



RELAÇÃO DO AÇO

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	147	103	15141
	2	5.0	72	70	5040
	3	5.0	108	27	2916
	4	5.0	52	23	1196
	5	5.0	42	95	3990
	6	5.0	20	62	1240
	7	10.0	24	288	6912
	8	10.0	24	308	7392

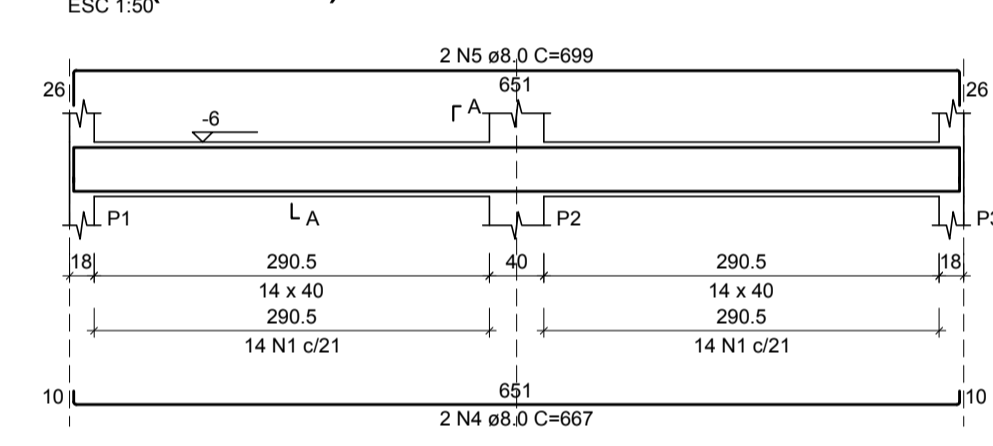
RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 0% (kg)
CA50	10.0	143	88.2
CA60	5.0	295.2	45.5
<b>PESO TOTAL (kg)</b>			
CA50	88.2		
CA60	45.5		

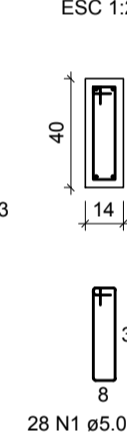
Volume de concreto (C-25) = 1.85 m³  
Área de forma = 30.84 m²

### VIGAS DO TÉRREO (BALDRAME)

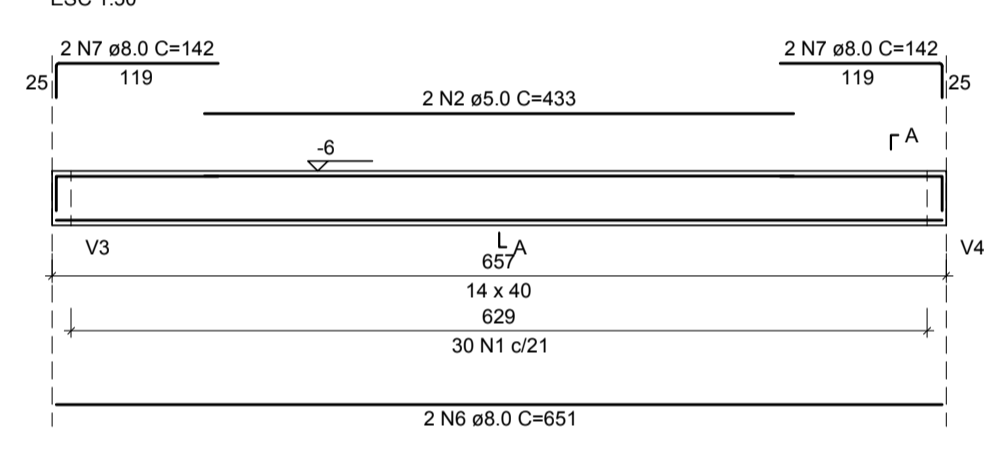
V1 (14 x 40)  
ESC 1:50



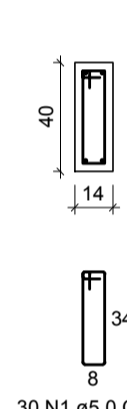
SEÇÃO A-A  
ESC 1:25



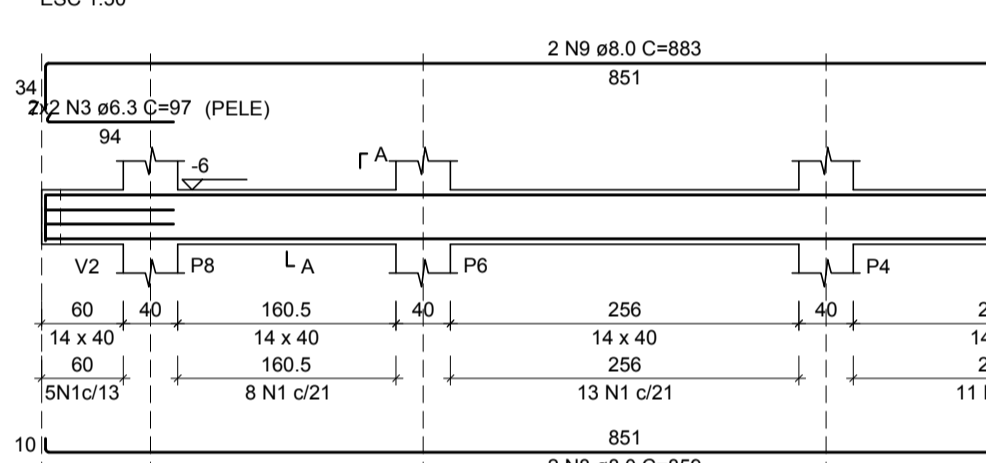
V2 (14 x 40)  
ESC 1:50



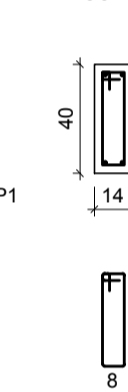
SEÇÃO A-A  
ESC 1:25



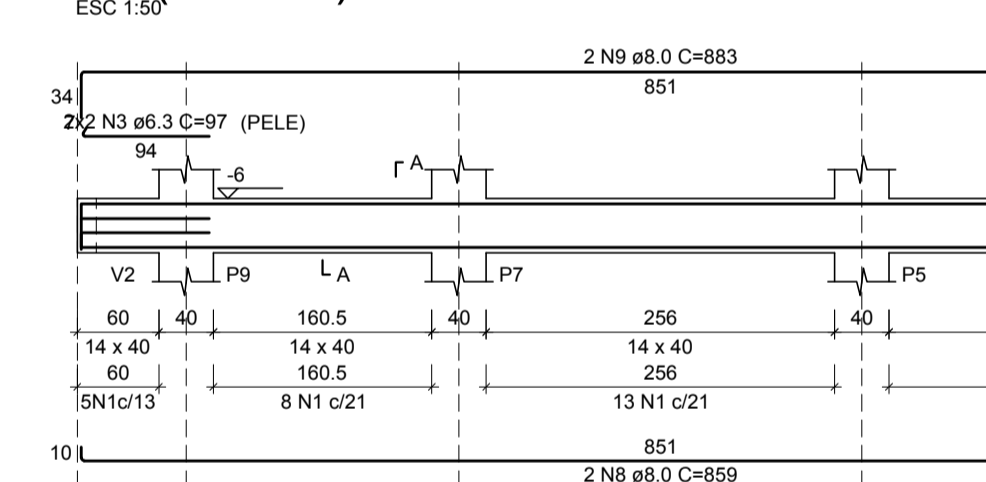
V3 (14 x 40)  
ESC 1:50



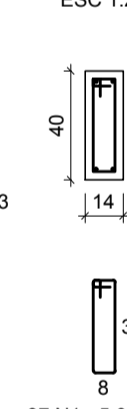
SEÇÃO A-A  
ESC 1:25



V4 (14 x 40)  
ESC 1:50



SEÇÃO A-A  
ESC 1:25



RELAÇÃO DO AÇO

AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	132	95	12540
	2	5.0	433	96	41448
	3	6.3	97	776	7760
	4	8.0	2	667	1334
	5	8.0	2	699	1398
	6	8.0	2	651	1302
	7	8.0	4	142	568
	8	8.0	4	859	3436
	9	8.0	4	883	3532

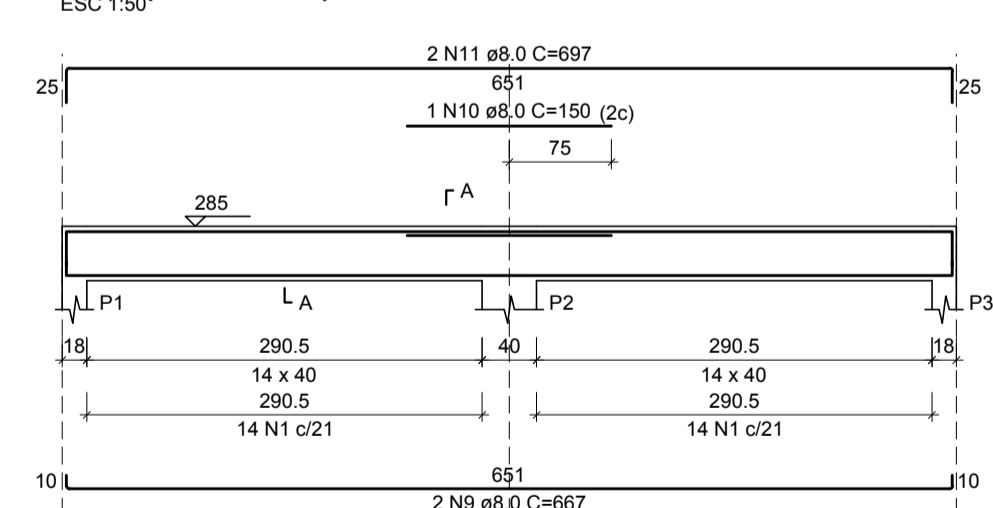
RESUMO DO AÇO

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 0% (kg)
CA50	6.3	7.8	1.9
CA60	8.0	115.7	45.7
	5.0	134.1	20.7
<b>PESO TOTAL (kg)</b>			
CA50	47.6		
CA60	20.7		

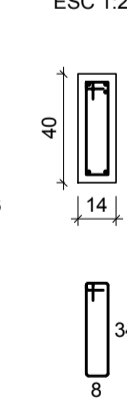
Volume de concreto (C-25) = 1.70 m³  
Área de forma = 28.46 m²

### VIGAS DA COBERTURA

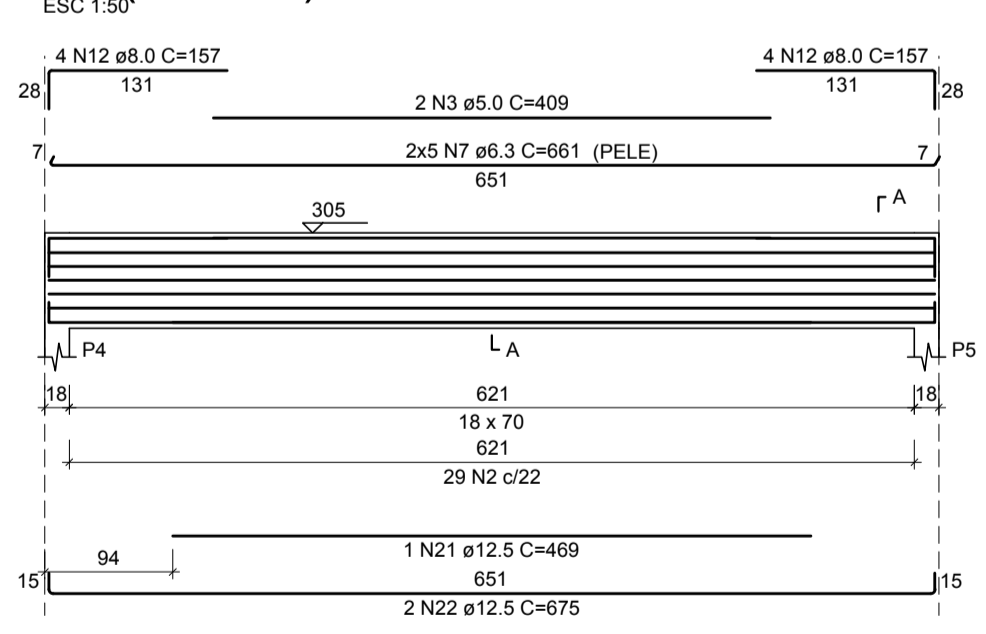
V1 (14 x 40)  
ESC 1:50



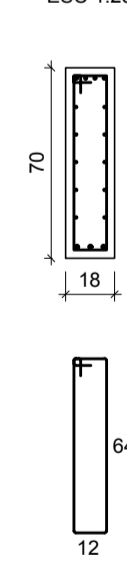
SEÇÃO A-A  
ESC 1:25



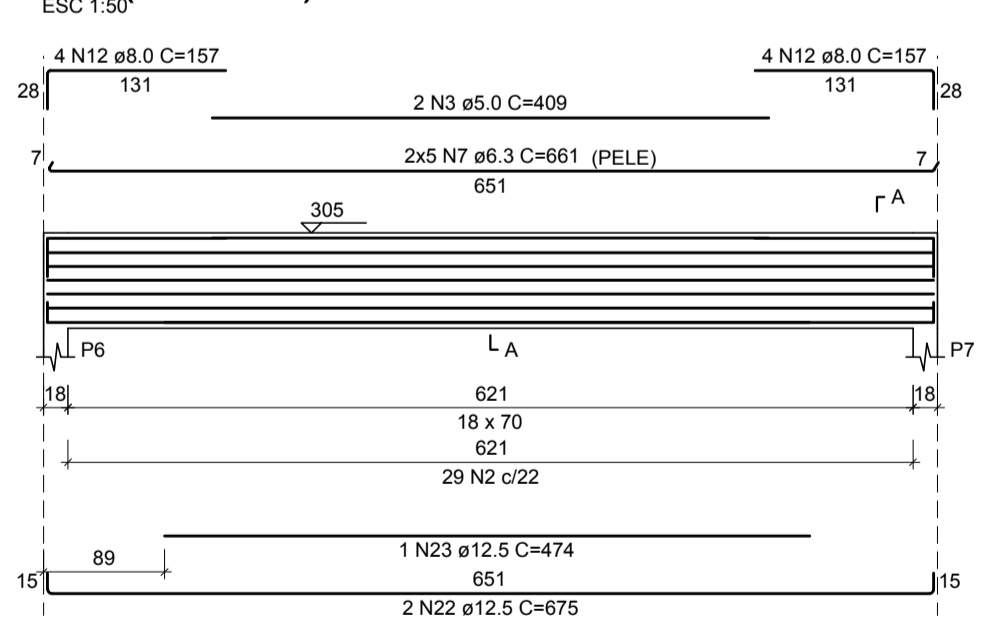
V2 (18 x 70)  
ESC 1:50



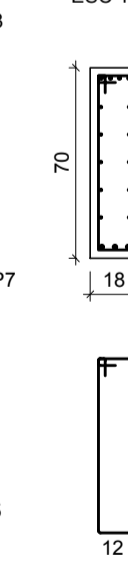
SEÇÃO A-A  
ESC 1:25



V3 (18 x 70)  
ESC 1:50



SEÇÃO A-A  
ESC 1:25



RELAÇÃO DO AÇO

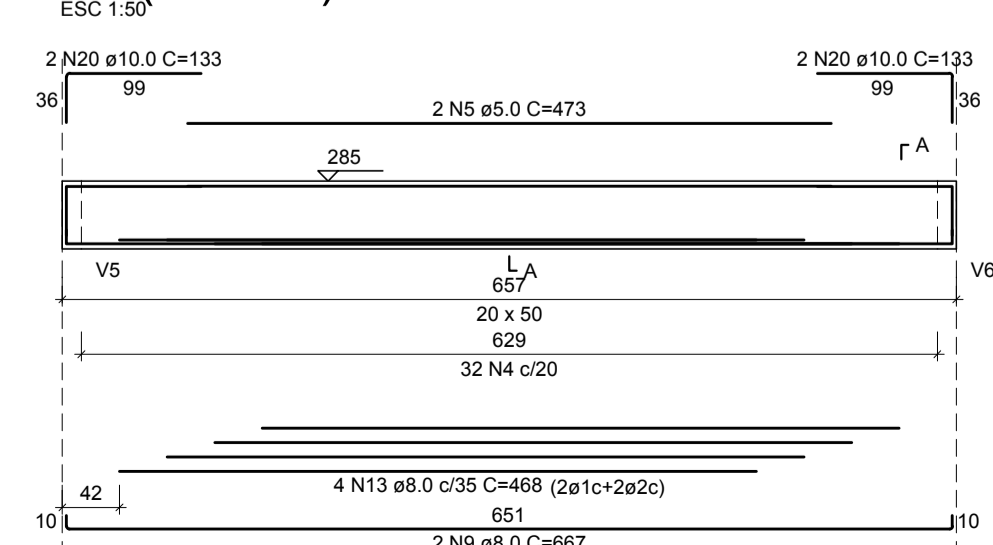
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5.0	94	96	8930
	2	5.0	58	163	9454
	3	5.0	4	409	1636
	4	5.0	32	127	4064
	5	5.0	2	473	946
	6	5.0	10	115	1150
	7	6.3	20	661	1320
	8	6.3	12	97	1164
	9	8.0	4	667	2668
	10	8.0	1	150	150
	11	8.0	2	697	1394
	12	8.0	16	157	2512
	13	8.0	4	468	1872
	14	8.0	4	110	440
	15	8.0	4	764	3056
	16	8.0	1	308	308
	17	8.0	4	204	816
	18	8.0	4	916	3664
	19	8.0	1	306	306
	20	10.0	4	133	532
	21	12.5	1	469	469
	22	12.5	4	675	2700
	23	12.5	1	474	474

RESUMO DO AÇO

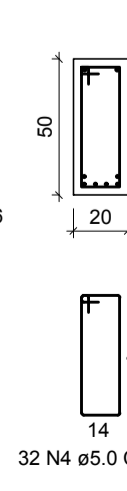
AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 0% (kg)
CA50	6.3	143.8	35.2
	8.0	171.7	67.8
	10.0	5.3	3.3
	12.5	36.4	35.1
	5.0	261.8	40.4
<b>PESO TOTAL (kg)</b>			
CA50	141.3		
CA60	40.4		

Volume de concreto (C-25) = 3.66 m³  
Área de forma = 51.25 m²

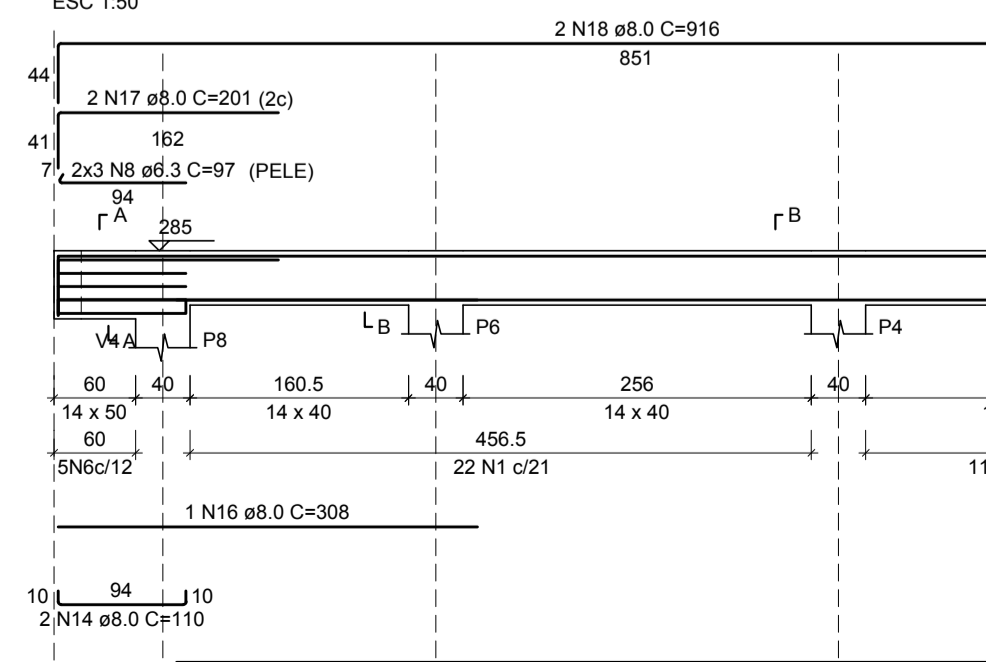
V4 (20 x 50)  
ESC 1:50



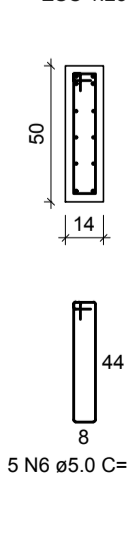
SEÇÃO A-A  
ESC 1:25



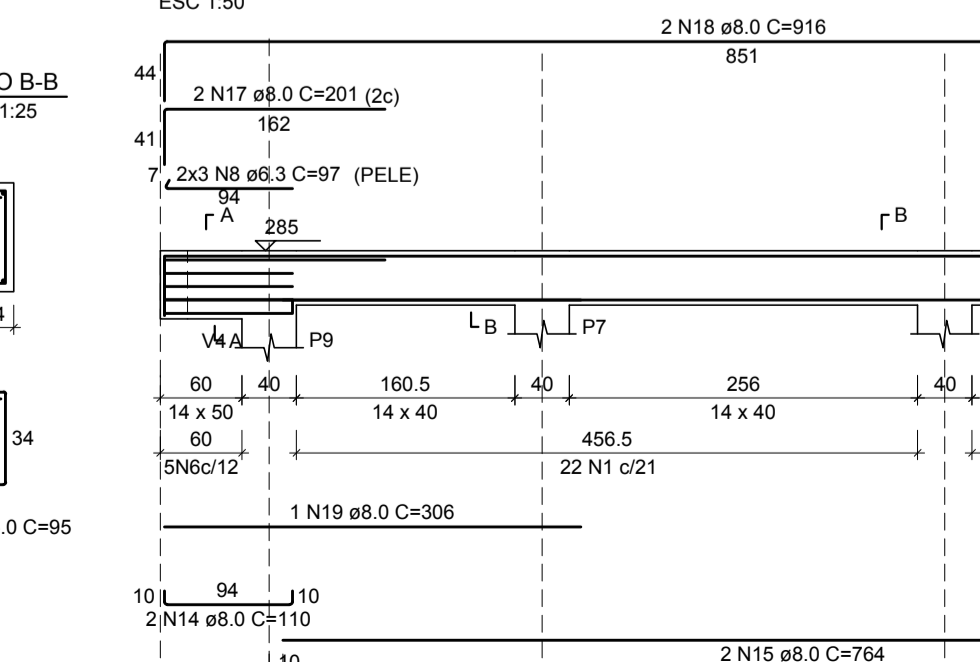
V5 (14X50) / (14X50)  
ESC 1:50



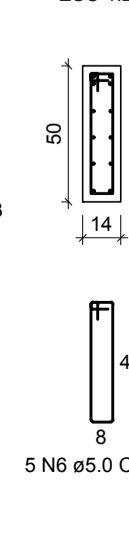
SEÇÃO A-A  
ESC 1:25



V6 (14X50) / (14X50)  
ESC 1:50



SEÇÃO A-A  
ESC 1:25



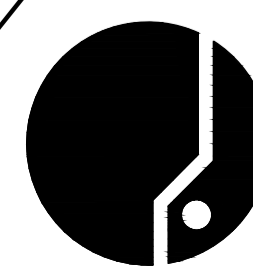
SEÇÃO B-B  
ESC 1:25



# ESTRUTURAL

MUNICÍPIO RANCHO QUEIMADO - SC

OBRA	CRAS (SEDE) REFORMA E AMPLIAÇÃO	CONTEÚDO	ARMADURAS DAS SAPATAS E PILARES ARMADURA DAS VIGAS DE BALDRAME E COBERTURA ARMADURA DOS PILARES DA COBERTURA
PROJETO	Eng. Civil Virginia Maria Wolff CREA-SC 37928-1	EXECUÇÃO	
DESENHO	Virginia Maria Wolff	ESCALA	Indicada
DATA	JUN/2020	ÁREA	56,76m²
PRANCHA			2



ASSOCIAÇÃO DOS MUNICÍPIOS  
DA REGIÃO DA GRANDE FLORIANÓPOLIS  
"GRANFPOLIS"  
ASSESSORIA DE ENGENHARIA E ARQUITETURA