

Resumo do aço			
AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	6.3	16.2	4
	8.0	173.4	68.4
CA60	5.0	182.5	28.1
PESO TOTAL (kg)			
CA50	72.4		
CA60	28.1		

**P1=P2=P3=P4=P5=P6=P7=P8=  
=P9=P12=P13=P14=P15=P16=  
=P17=P20=P21=P22=P23=P24**

TOPO - L2

108

SEÇÃO  
ESC 1:20

12

25

7

20

9 N1 Ø5.0 C=65

105

4 N2 Ø10.0 C=65

0

BASE - L1

108

9 N1 c/12

ESC. 1:20

ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
20xP1	CA60	1	5.0	180	65	11700
	CA50	2	10.0	80	105	8400
2xP10	CA60	1	5.0	18	59	1062
	CA50	2	10.0	8	105	840
3xP11	CA60	1	5.0	27	75	2025
	CA50	2	10.0	12	105	1260

Technical drawing of a rectangular plate. The drawing includes the following details:

- Top Edge:** Labeled "TOPO - L2". A dimension line indicates a distance of 108 from the top edge to the center of the hole.
- Section:** Labeled "SEÇÃO ESC 1:20".
- Left Edge:** Labeled "BASE - L1". A dimension line indicates a distance of 20 from the bottom edge to the center of the hole.
- Hole:** A rectangular hole with a width of 14 and a height of 15. The center of the hole is marked with a crosshair.
- Dimensions:**
  - Overall width: 105
  - Overall height: 108
  - Distance from top edge to center of hole: 108
  - Distance from bottom edge to center of hole: 20
  - Distance from left edge to center of hole: 14
  - Distance from right edge to center of hole: 15
- Annotations:**
  - 9 N1 ø5.0 C=59
  - 4 N2 ø10.0 C=105

TOPO - L2

SEÇÃO  
ESC 1:20

108

12

30

25

7

9 N1 ø5.0 C=75

105

4 N2 ø10.0 C=105

108

9 N1 c/12

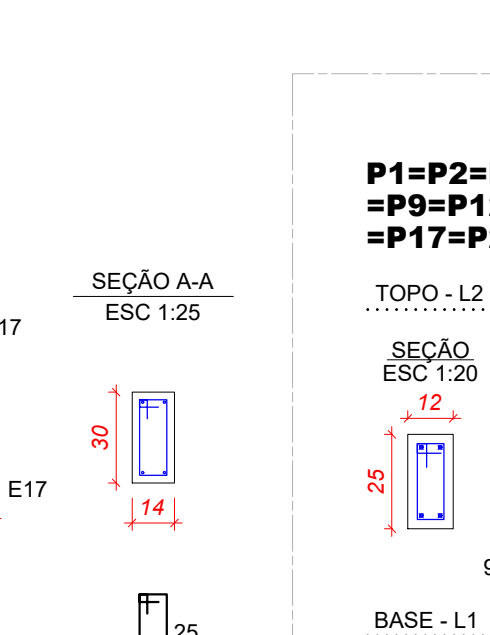
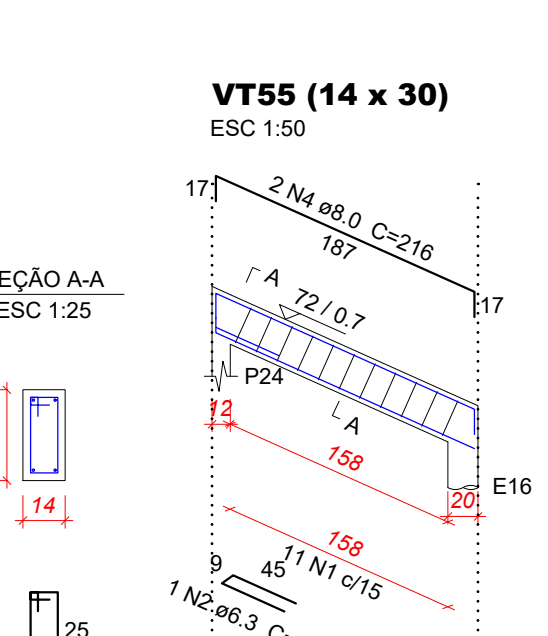
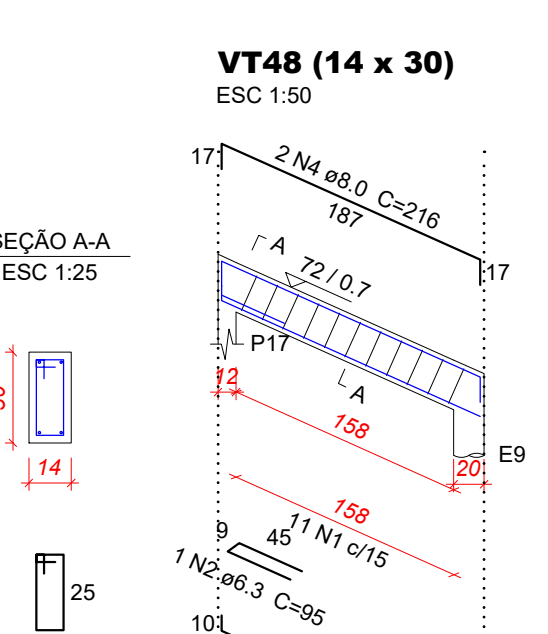
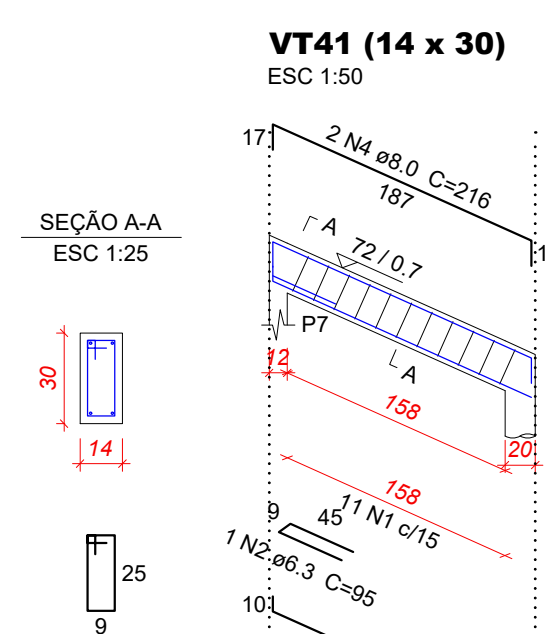
ESC. 1:25

0

BASE - L1

AÇO	DIAM (mm)	C.TOTAL (m)	PESO (kg)
CA50	10.0	105	64.7
CA60	5.0	147.9	22.8
PESO TOTAL (kg)			
CA50	64.7	Volume de concreto = Área de forma =	
CA60	22.8		

Volume de concreto (C-25) = 0.83 m<sup>3</sup>  
Área de forma = 20.17 m<sup>2</sup>



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20xP1	CA60	1	5.0	180	65	11700
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Volume de concreto (C-25) = 0.83 m<sup>3</sup>  
Área de forma = 20.17 m<sup>2</sup>

APROVAÇÃO PREFEITURA



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OBRA

GINÁSIO DE ESPORTES A REFORMAR

PROPRIETARIO  
MUNICIPIO DE PEROBAL  
C.N.P.J.: 01.612.444/0001-40  
LOCAL  
RUA ALECRIM - QUADRA 46 - PEROBAL - F  
PROJETO:

CONTEUDO

- ARMADURA DAS VIGAS DE TOPO (02/02)
- ARMADURA DOS PILARES

06/08

ESCALA

INDICADA

DATA

FEVEREIRO / 2026

ADEMAR AMÉRICO CAMOSSATO  
ENGº CIVIL CREA 24.080-D/PR

MUNICÍPIO DE PEROBAL  
C.N.P.J.: 01.612.444/0001-4