

The drawing includes the following elements:

- Top View:** Shows the layout of the staircase with beams labeled Viga 1, Viga 2, Viga 3, Viga 4, Viga 5, and Viga 6. A central area is labeled "plataforma elevatória". Dimensions are given as  $h = 17,88\text{cm}$  and  $b = 28,8\text{cm}$ .
- Side View (Left):** Shows the profile of the staircase with beams Viga 1 and Viga 2.
- Side View (Right):** Shows the profile of the staircase with beams Viga 3 and Viga 4.
- Detail 1 (Top Right):** Shows a connection between a beam and a pillar. Labels include "Pilar", "Tubo  $\varnothing 2"$   $e=2\text{mm}$ ", "Chapa 6.3mm\*", "Furos 12mm", "Parabolt 10mm", and dimensions  $.150$  and  $.07$ .
- Detail 2 (Bottom Right):** Shows a connection between a beam and a wall. Labels include "Degraus", "Chapa corrugada  $e=4,76\text{mm}$ ", and dimensions  $.30$  and  $.05$ .

The image displays six technical drawings of corrugated metal roof profiles, labeled Viga 1 through Viga 6. Each drawing includes a side elevation view showing the profile's geometry and a cross-section view showing the corrugated metal's dimensions.

- Viga 1:** Side elevation shows a profile with a horizontal span of 1.20, a vertical rise of 1.15, and a sloped length of 1.69. The cross-section shows a corrugated metal with a height of 0.07 and a width of 0.30. The corrugation depth is 0.96.
- Viga 2:** Side elevation shows a profile with a horizontal span of 1.20, a vertical rise of 1.15, and a sloped length of 1.69. The cross-section shows a corrugated metal with a height of 0.07 and a width of 0.30. The corrugation depth is 0.96.
- Viga 3:** Side elevation shows a profile with a horizontal span of 1.18, a vertical rise of 1.14, and a sloped length of 2.03. The cross-section shows a corrugated metal with a height of 0.07 and a width of 0.30. The corrugation depth is 0.96.
- Viga 4:** Side elevation shows a profile with a horizontal span of 1.20, a vertical rise of 1.15, and a sloped length of 1.69. The cross-section shows a corrugated metal with a height of 0.07 and a width of 0.30. The corrugation depth is 0.96.
- Viga 5:** Side elevation shows a profile with a horizontal span of 1.20, a vertical rise of 1.15, and a sloped length of 1.69. The cross-section shows a corrugated metal with a height of 0.07 and a width of 0.30. The corrugation depth is 0.96.
- Viga 6:** Side elevation shows a profile with a horizontal span of 1.20, a vertical rise of 1.15, and a sloped length of 1.69. The cross-section shows a corrugated metal with a height of 0.07 and a width of 0.30. The corrugation depth is 0.96.

Each drawing is accompanied by a cross-section view of the corrugated metal, labeled "Chapa corrugada e=4,76mm". The cross-section shows a corrugated metal with a height of 0.07 and a width of 0.30. The corrugation depth is 0.96.

Technical drawing of a wall assembly cross-section, showing a grid of panels (P1-P16) and vertical studs (V1-V11). The drawing includes dimensions in inches and millimeters, and a detail of a 'Chapas Masterboard' fastener.

**Panel Details:**

- P1, P2, P3, P4, P5, P6, P7, P8, P9, P10, P11, P12, P13, P14, P15, P16:** (W 200 x 225)
- P10:** (W 200 x 225)
- P11:** (W 200 x 225)
- P14:** (W 200 x 225)
- P15:** (W 200 x 225)
- P16:** (W 200 x 225)

**Vertical Studs (V):**

- V1, V2, V3, V4, V5, V6, V7, V8, V9, V10, V11:** (W 200 x 225)
- V11:** (W 200 x 225)

**Dimensions:**

- Overall width: 200 inches (5080 mm)
- Overall height: 225 inches (5715 mm)
- Panel width: 200 inches (5080 mm)
- Panel height: 225 inches (5715 mm)
- Stud width: 200 inches (5080 mm)
- Stud height: 225 inches (5715 mm)
- Panel thickness: 1.1/2" x 1/8" (38 mm x 3 mm)
- Panel thickness: 2 T 1.1/2" x 1/8" (solida continua) (50 mm x 3 mm)

**Fastener Detail:**

- Chapas Masterboard:** (W 200 x 225)
- Fastener:** (W 200 x 225)

Viga 1

Viga 2

Viga 3

Viga 4

Viga 5

Viga 6

Tubo  $\varnothing 1.1/2"$  e=2.0mm

Tubo  $\varnothing 1.1/2"$  e=2.0mm

Tubo  $\varnothing 1"$  e=1.5mm

Barra  $\varnothing 10$ mm

Tubo retangular 100x50x2.65mm

Chapa\* 30x30x6.35

\*Utilizar soldas de barra chata de base dos pilares

VISTA EXTERNA

CORTE

Resumo Aço Corrimão / Guarda-corpo ASTM A36	Quant. total ( m/m2)	Peso ( kg)
Tubo $\varnothing 1"$ e=1.5mm	32.70	28.43
Tubo $\varnothing 1.1/2"$ e=2.0mm	54.15	74.78
Barra redonda 10mm	4.32	2.67
Tubo retangular 100x50x2.65mm	5.45	29.70
Chapa 6.35mm ( utilizar sobras de barra chata dos pilares)	0.02	1.00
Parafuso 3.9x45mm ( un)	7	
TOTAL		136.58

**P1=P2**

Technical drawing of a structural column and its cross-section. The column is labeled "PILARES DE AÇO" and "PILARES DE AÇO". It shows a vertical column with a cross-section of a square tube. The column is supported by a base plate. The drawing includes dimensions for the column height (48.125 m), base plate dimensions (120.719 cm x 120.719 cm), and cross-section dimensions (15 cm x 15 cm). A table on the right lists the material properties and dimensions for the steel columns.

Resumo Aço	Comp. total (m)	Peso (kg)
Pilares-paredes		
CA-50-A	Ø 10	132.8
CA-60-B	Ø 5	276.0
Total		125

**Portico**  
 Desenho de vigas  
 Concreto: C20, em geral  
 Aço: CA-55-A e CA-60-B  
 Escala vigas: 1:50  
 Escala seções: 1:25

Resumo Aço	Comp. total (m)	Peso (kg)
CA-50-A Ø10	20.7	13
CA-60-B Ø8	21.6	3
<b>Total</b>		<b>16</b>

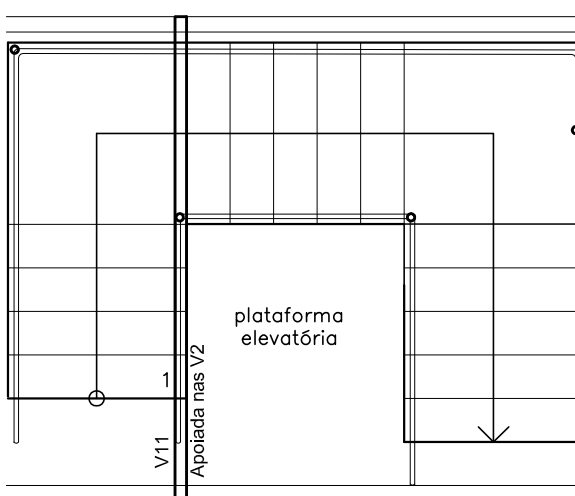
Portico  
Fôrmas  
Escala: 1:50

Portico  
Armaduras da laje  
Concreto: C20, em geral  
CA-50-A e CA-60-B  
Escala: 1:50

Portico				
Elemento	Fôrmas (m2)	Superfície (m2)	Volumen (m3)	Barra (kg)
Lajes maciças	-	2.63	0.280	11
Vigas	4.03	0.60	0.370	16
Pilares	22.60	-	1.500	125
Total	-	3.23	2.130	152
Índices (por m2)	-	-	0.598	42.70
Superfície total: 3.56 m2				

Resumo Aço Portico	Comp. total (m)	Peso (kg)
Armaduras da laje		
CA-50-A Ø6,3	33,9	8
CA-60-B Ø5	18,9	3
CA-50-A		11

Technical drawing of a beam cross-section and longitudinal view. The cross-section shows a rectangular beam with a height of 50 cm, reinforced with 2 L 3" x 3/16" (exterior) and 2 L 1" x 1/4" (interior) bars. The longitudinal view shows a beam with a total length of 3.20 m, divided into segments of .525, .525, .538, .538, .538, and .538 m.



Resumo Aço Estrutura da escada e viga ASTM A36	Quant. total ( m/m2)	Peso ( kg)
L 3" x 3/16"	7.40	40.85
T 1.1/2" x 1/8" ( assoalho)	138.24	251.60
L 1" x 1/4"	6.85	15.21
Tubo Ø2" e=2mm	5.06	11.98
Chapa lisa 6.3mm ( utilizar 2 segmentos de barra chapa)	0.09	4.49
Chapa corrugada 4.76mm	14.87	555.63
Parabolt 10mm ( un)	8	
<b>TOTAL</b>		<b>879.76</b>