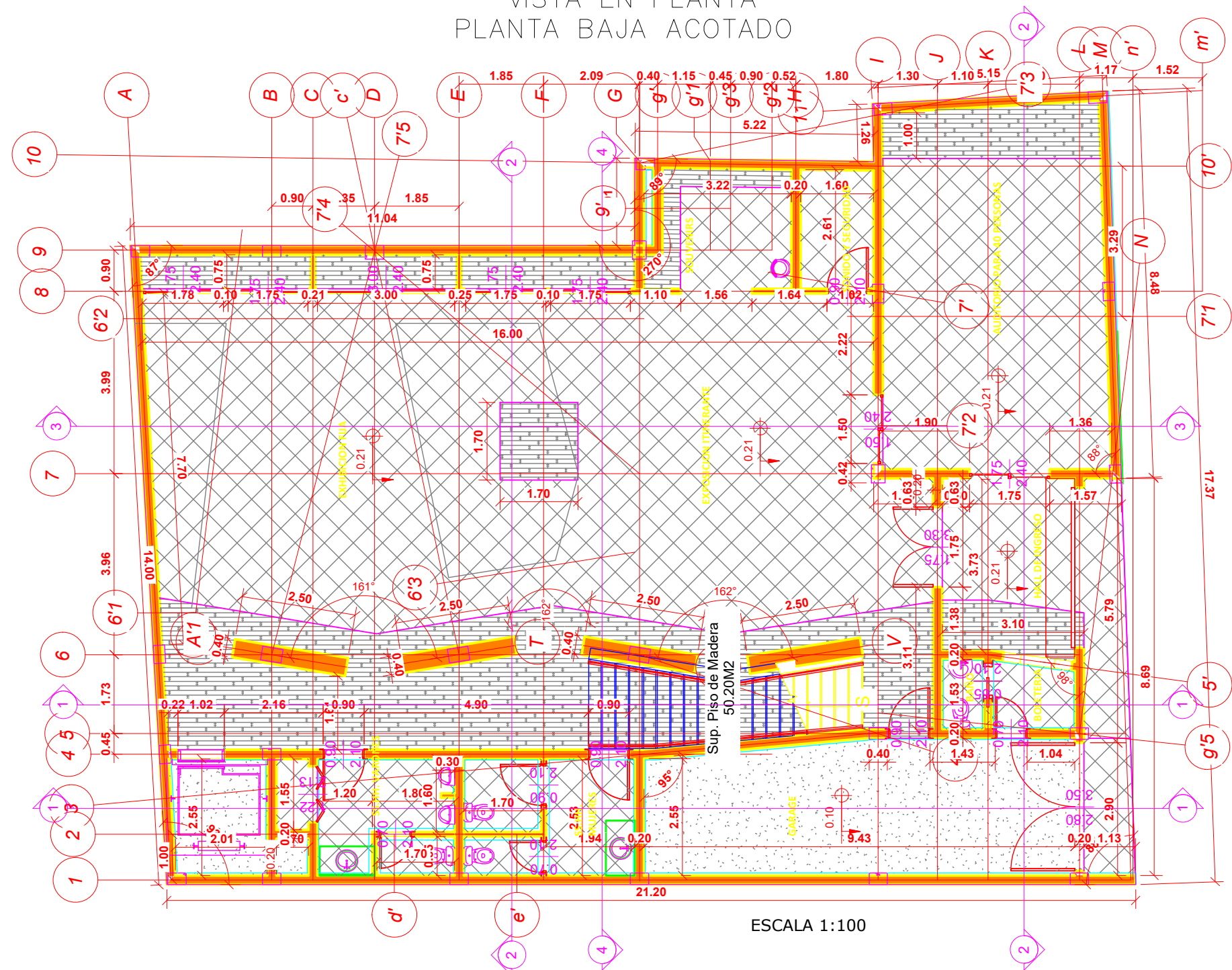
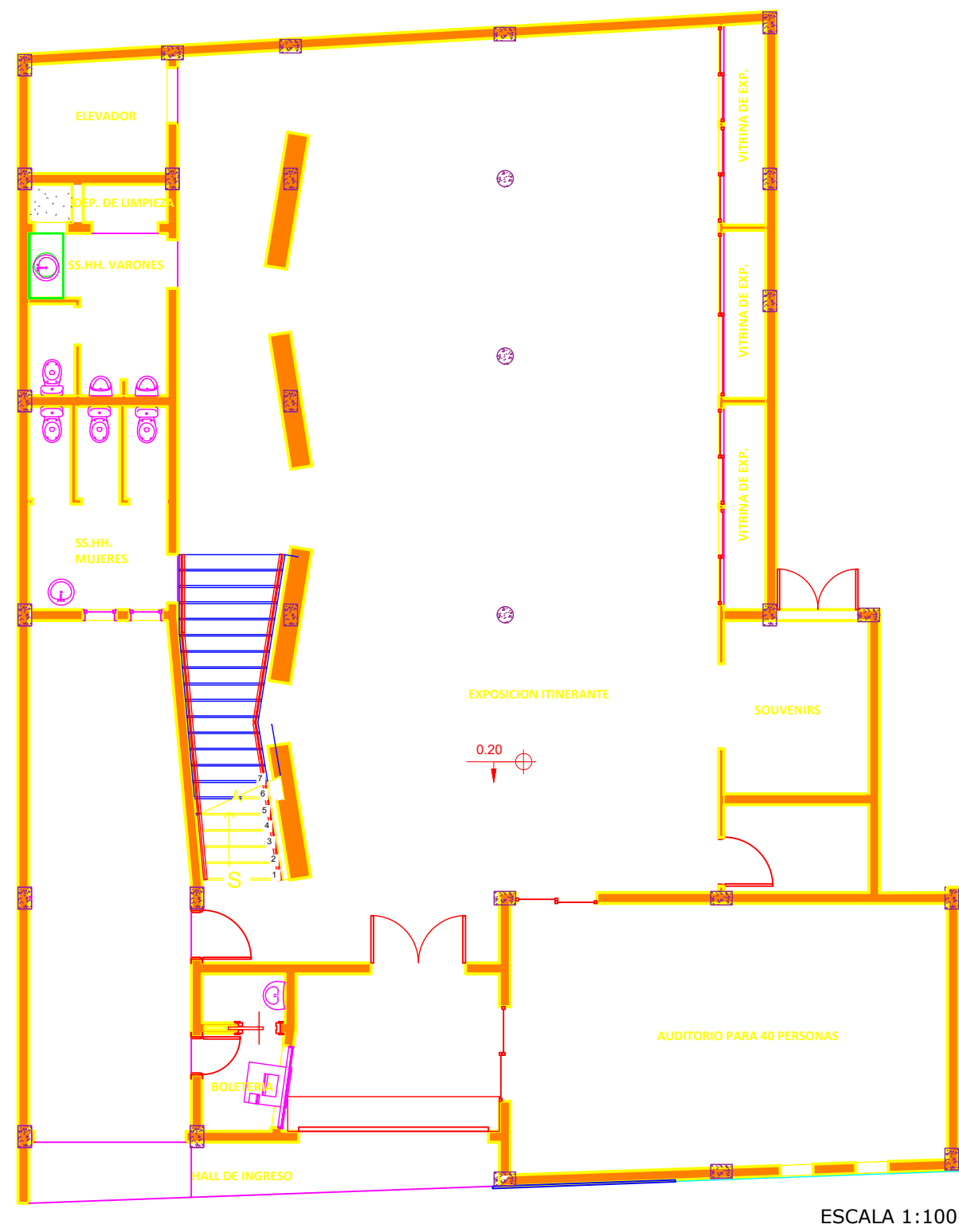


PLANO ARQUITECTONICO
VISTA EN PLANTA
PLANTA BAJA ACOTADO

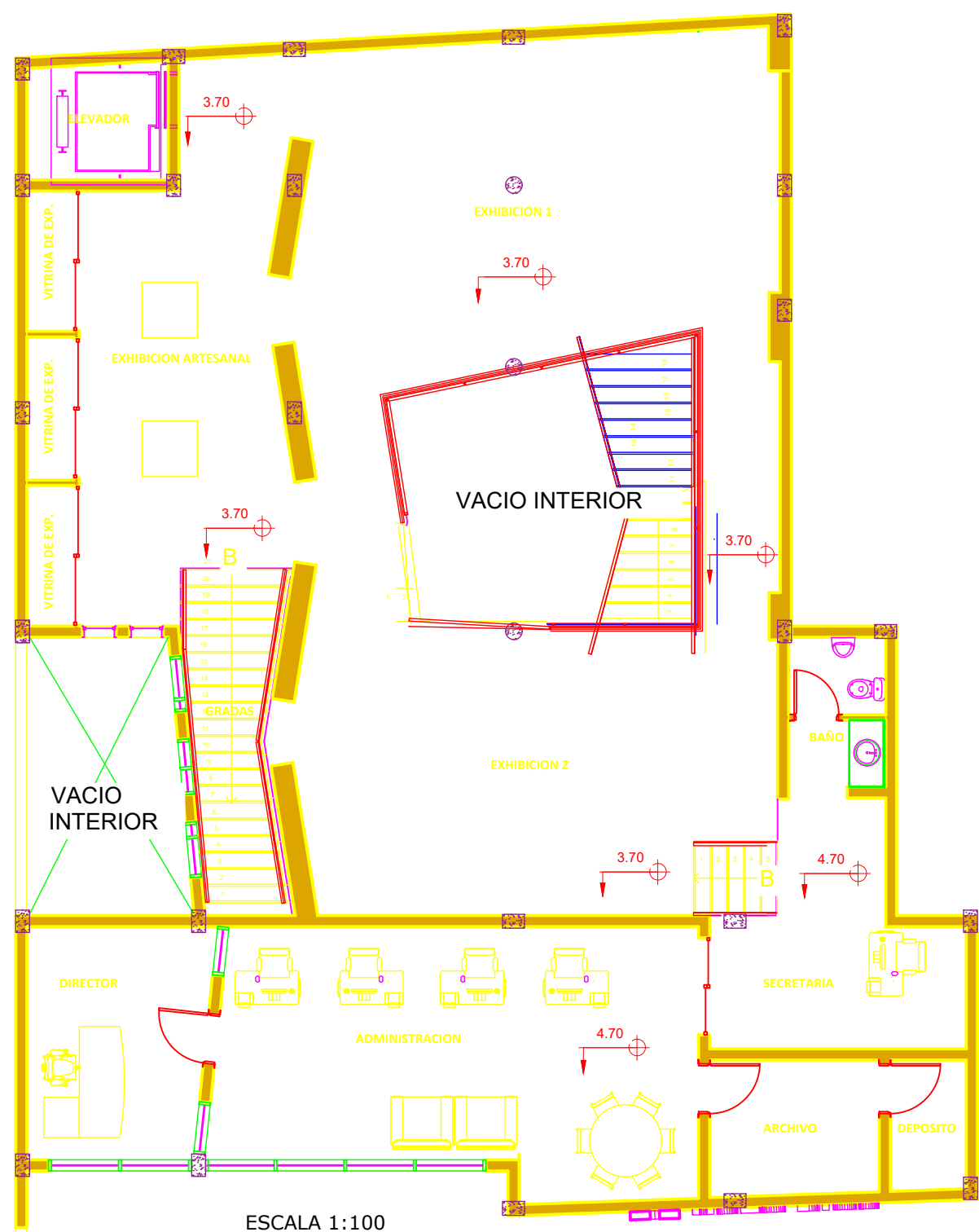


PLANO ARQUITECTONICO
VISTA EN PLANTA
PLANTA BAJA AMOBLADO



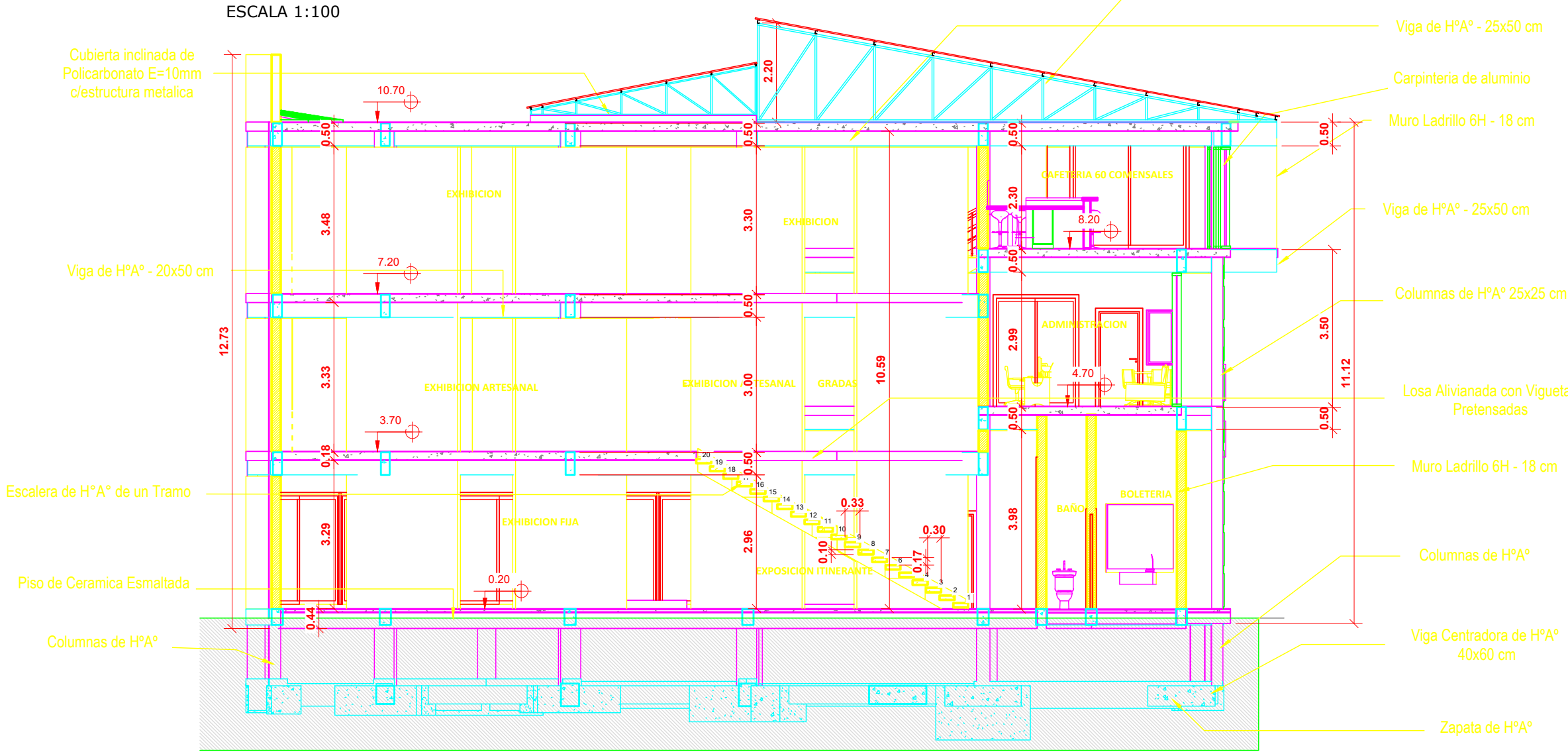
ESCALA 1:100

ARQUITECTONICO VISTA EN
PLANTA
PRIMERA PLANTA

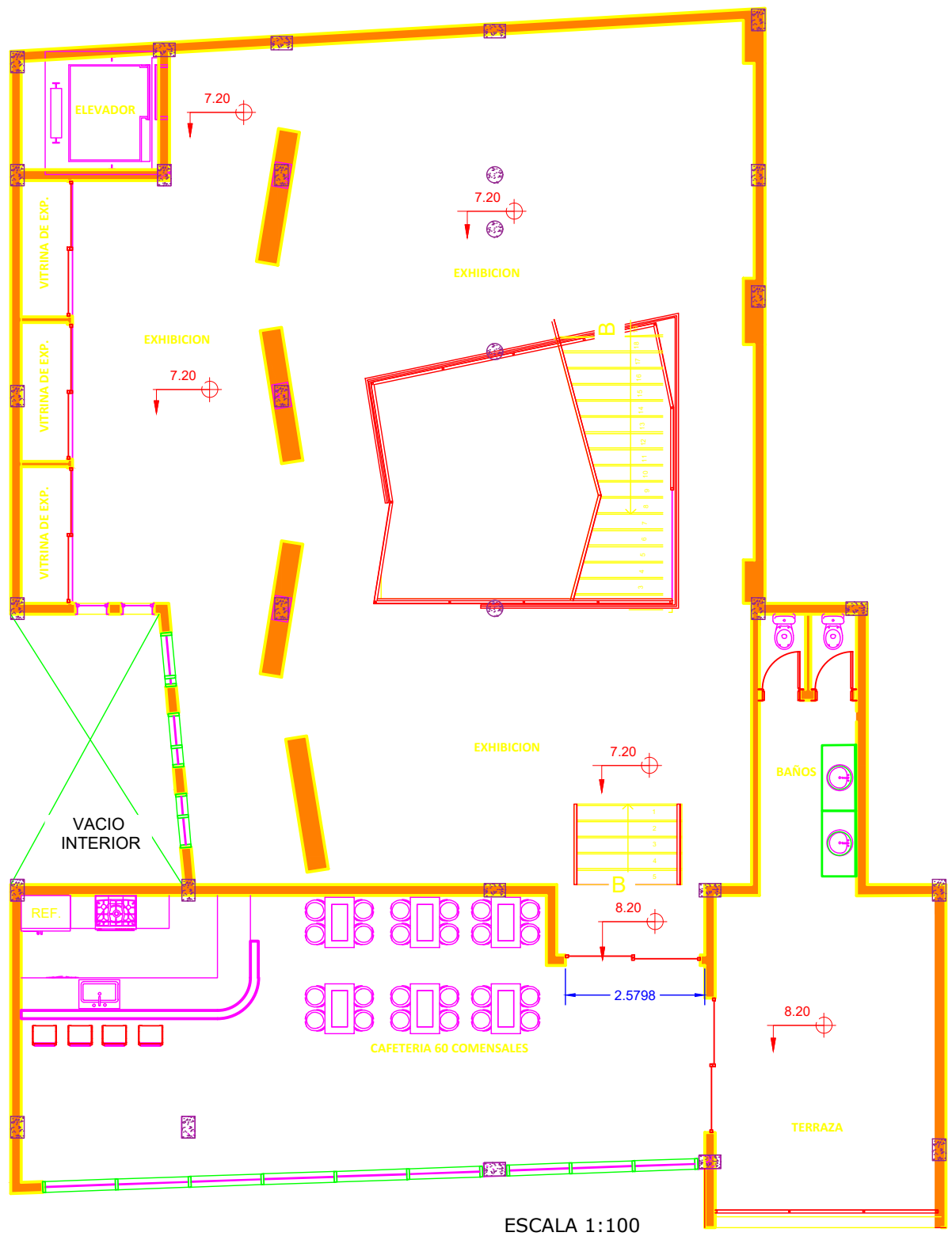


ESCALA 1:100

PLANO ARQUITECTONICO
CORTE LONGITUDINAL



PLANO ARQUITECTONICO VISTA
EN PLANTA
SEGUNDA PLANTA AMOBLADO



ESCALA 1:100



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ESCALA:
INDICADA

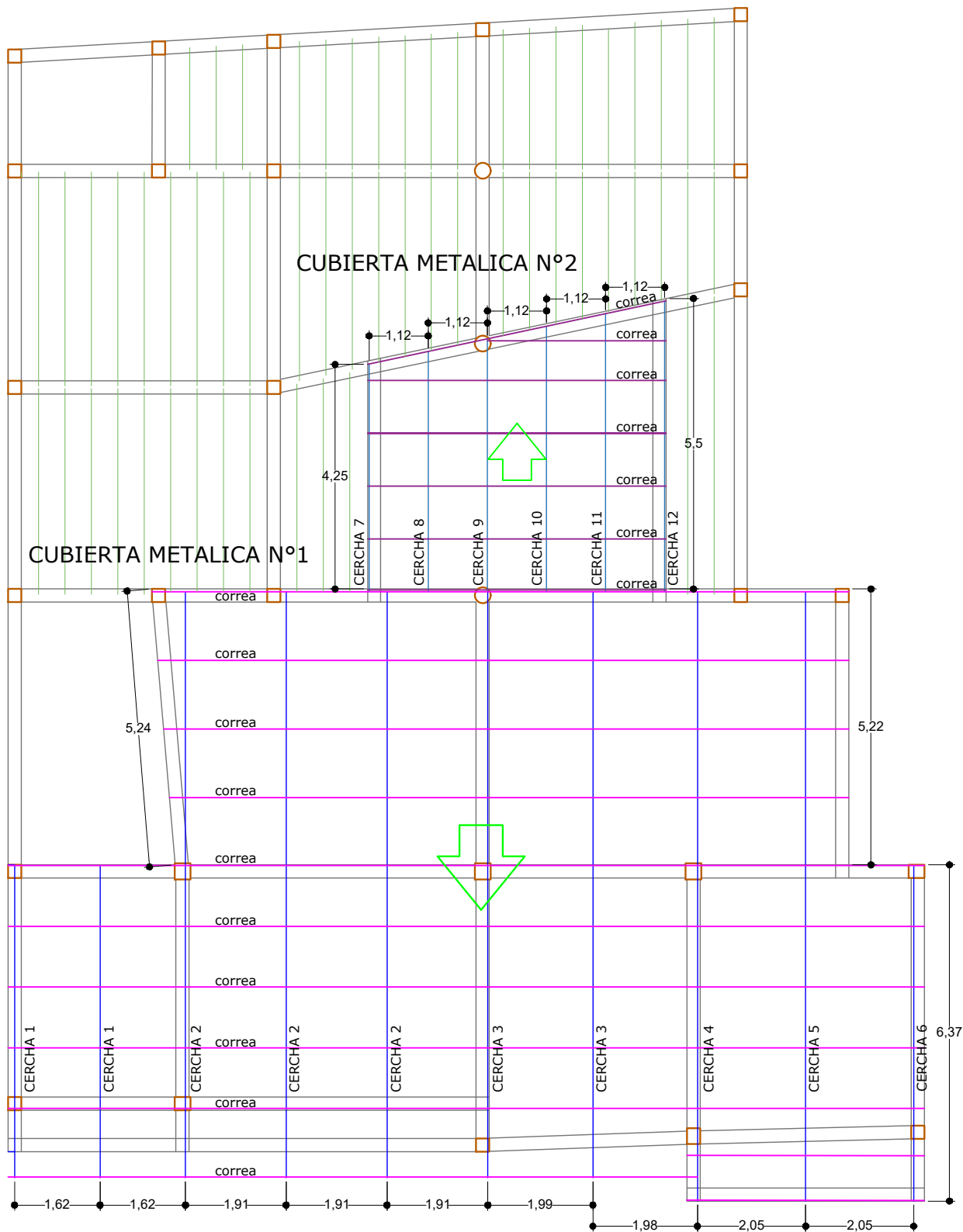
LÁMINA:

VoBo

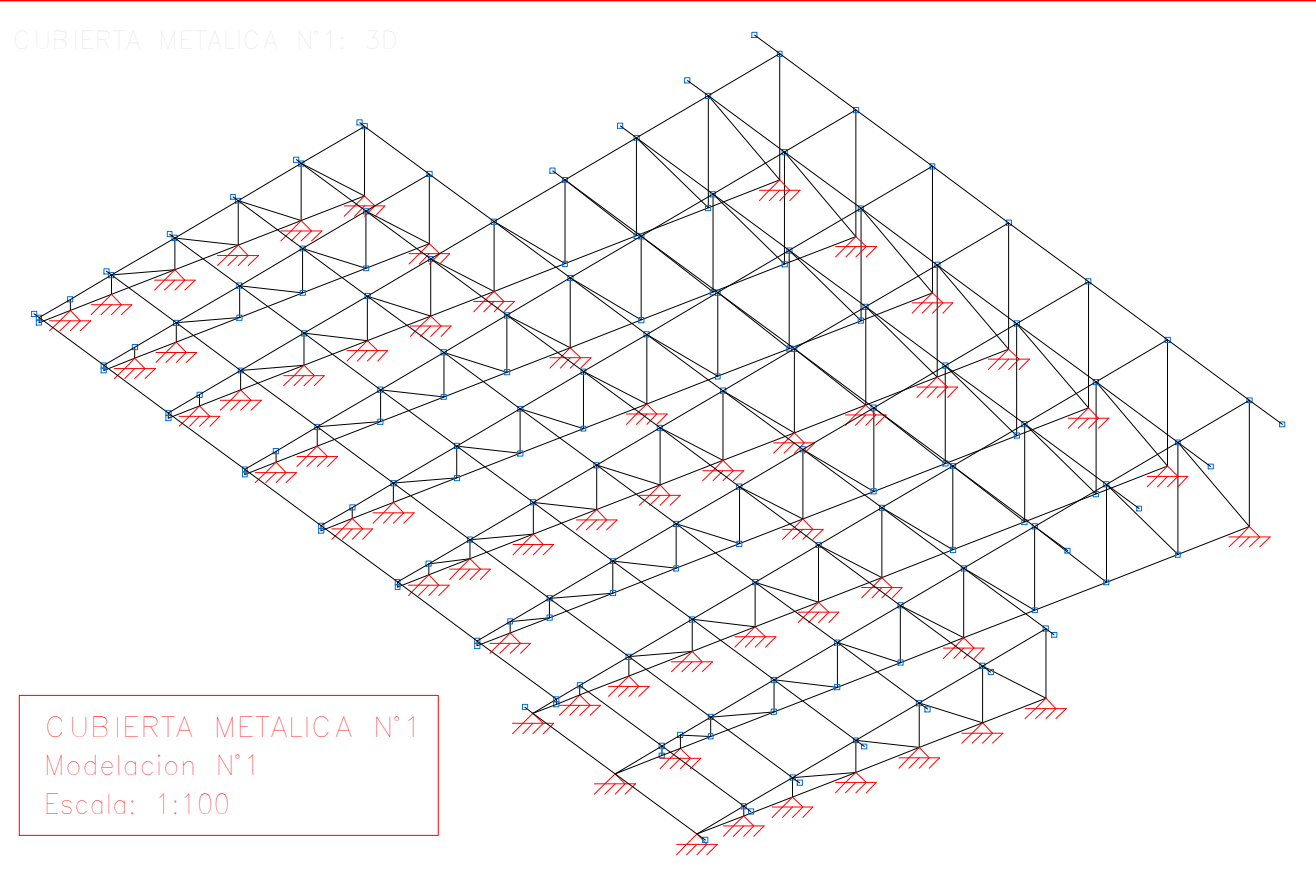
CONTENIDO:
PLANOS ARQUITECTONICOS - VISTA EN PLANTA Y CORTES

1/1

VISTA EN PLANTA
CUBIERTA METALICA N°1 y N°2
Norma de acero conformado: AISI S100-2007 (LRFD)
Acero conformado: ASTM A 36 36 ksi
Escala: 1:100

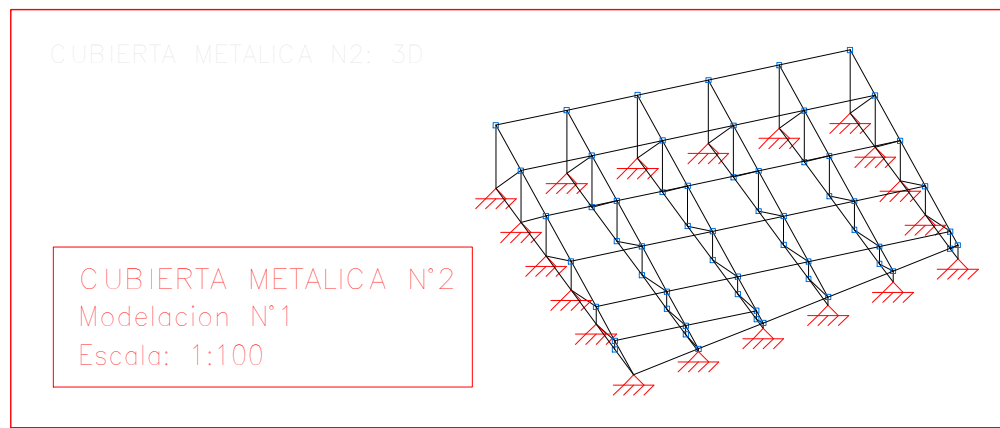


CUBIERTA METALICA N°1: 3D



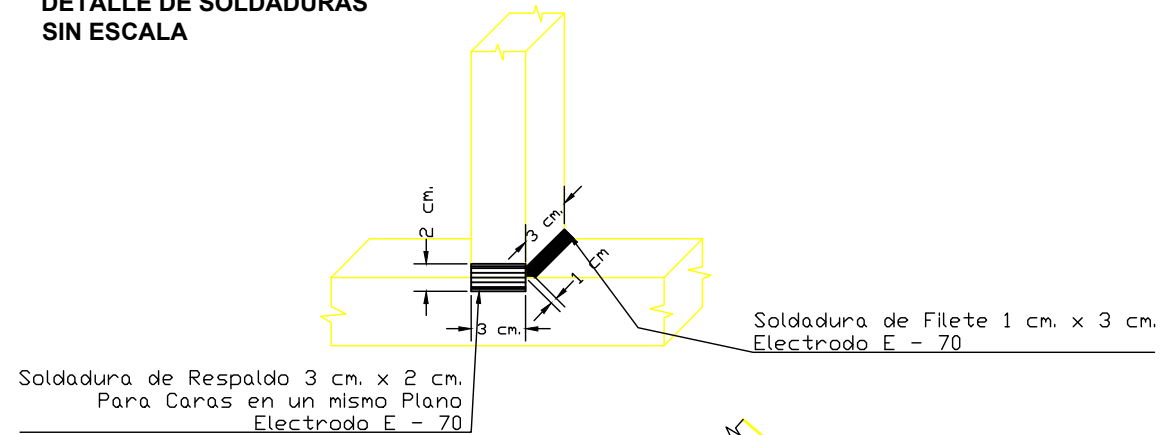
CUBIERTA METALICA N°1
Modelacion N°1
Escala: 1:100

CUBIERTA METALICA N°2: 3D



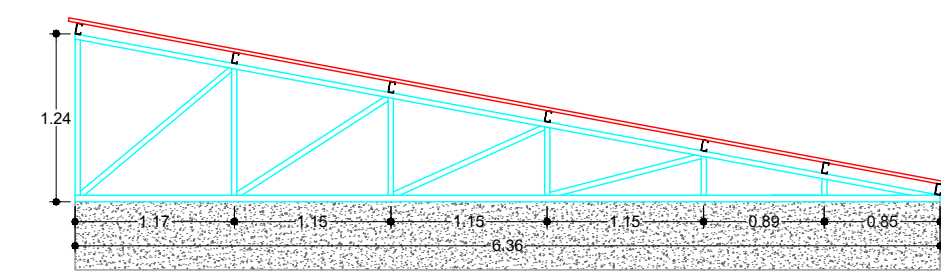
CUBIERTA METALICA N°2
Modelacion N°1
Escala: 1:100

DETALLE DE SOLDADURAS
SIN ESCALA



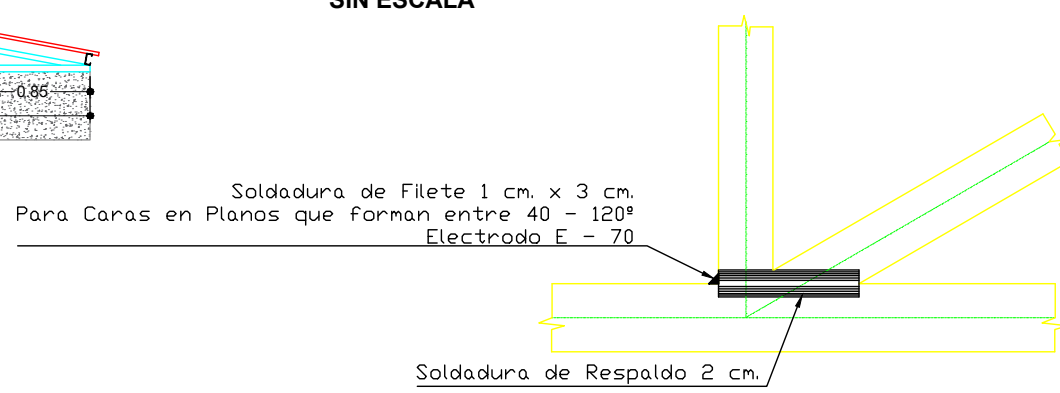
DETALLE ESTRUCTURA METALICA
CUBIERTA METALICA N°1
Norma de acero conformado: AISI S100-2007 (LRFD)
Acero conformado: ASTM A 36 36 ksi
Escala: 1:100

CERCHA 6
ESCALA 1:50

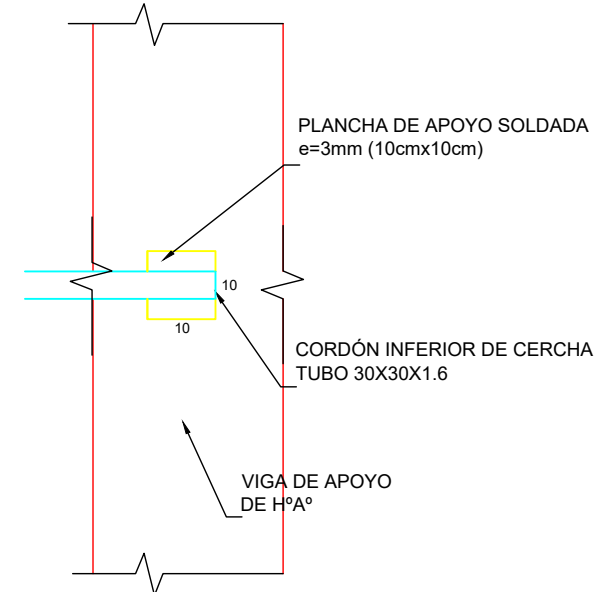


DETALLE DE SOLDADURA
CUBIERTA METALICA N°1 y N°2
Norma de acero conformado: AISI S100-2007 (LRFD)
Acero conformado: ASTM A 36 36 ksi
Electrodo E-70

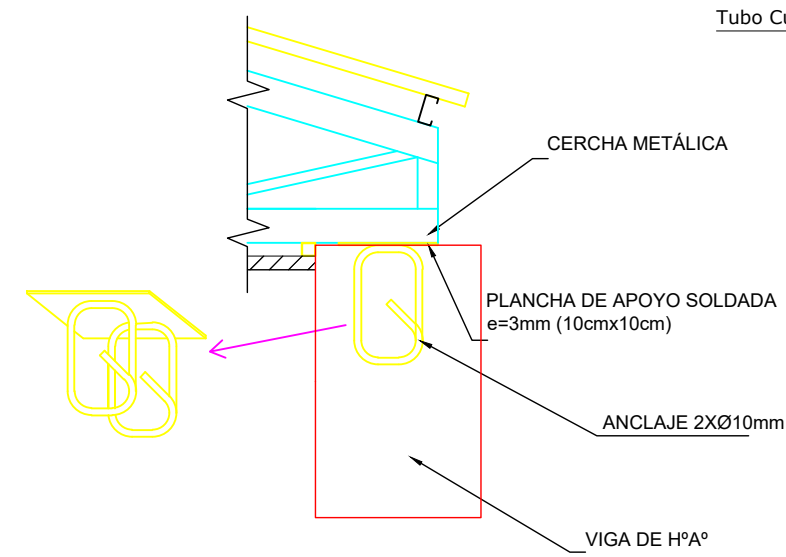
DETALLE DE SOLDADURAS
SIN ESCALA



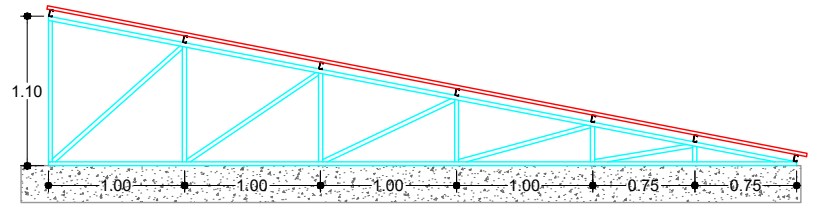
DETALLE DE SOLDADURAS EN PLANCHAS
SIN ESCALA



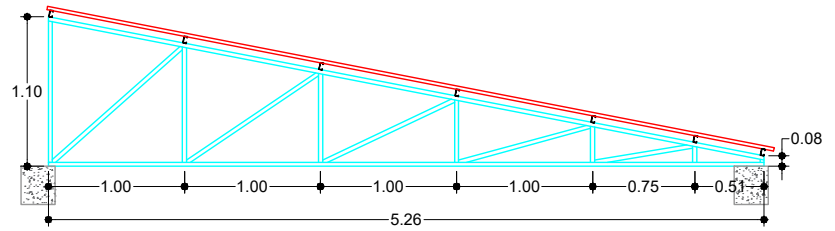
DETALLE DE ANCLAJES EN VIGAS
CERCHAS TODAS
SIN ESCALA



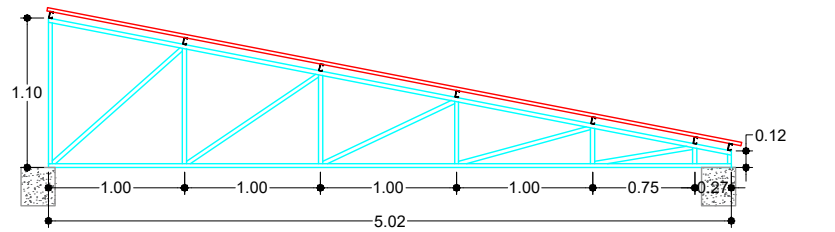
CERCHA 7
ESCALA 1:50



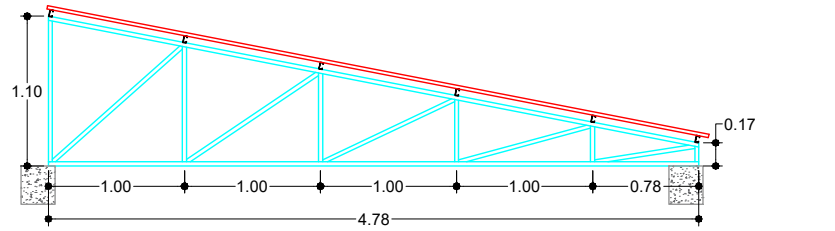
CERCHA 8
ESCALA 1:50



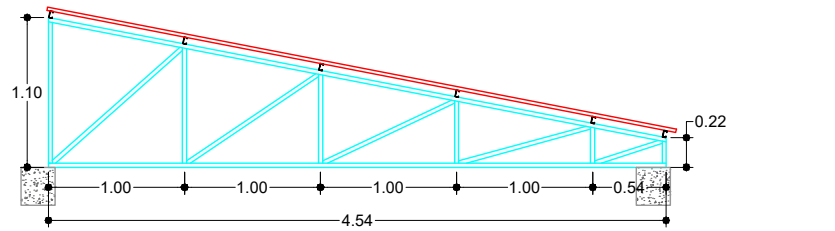
CERCHA 9
ESCALA 1:50



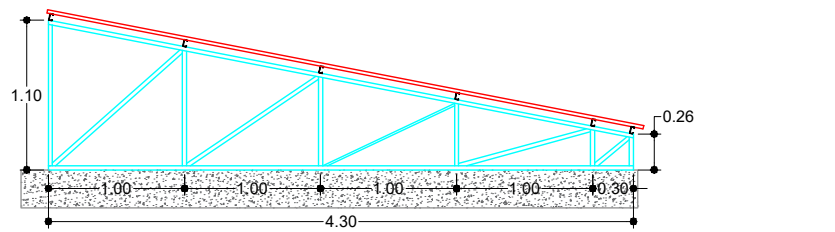
CERCHA 10
ESCALA 1:50



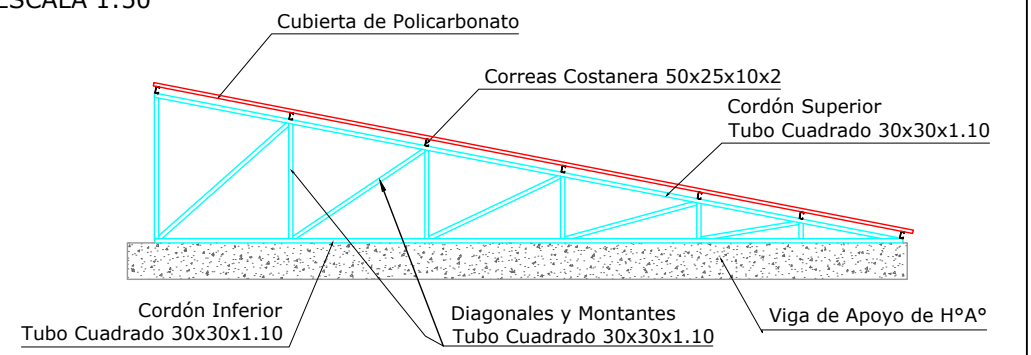
CERCHA 11
ESCALA 1:50



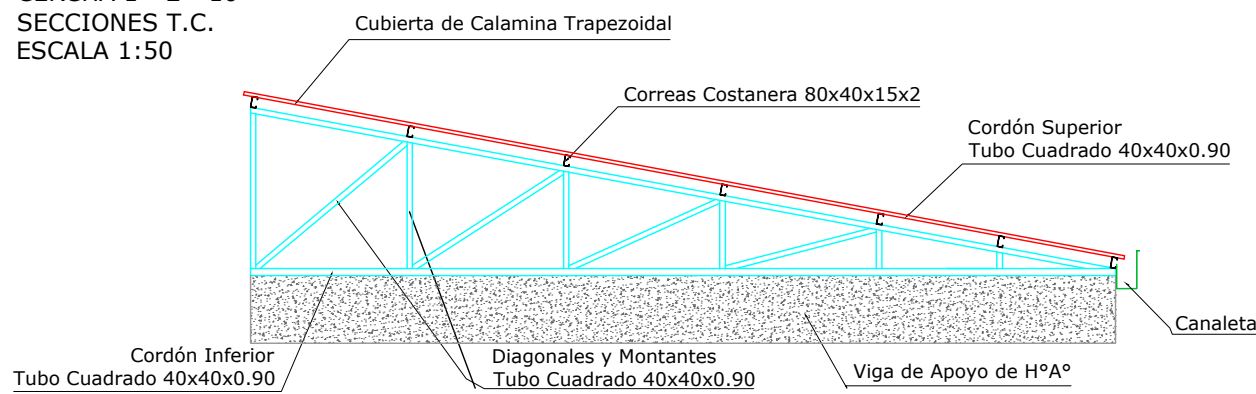
CERCHA 12
ESCALA 1:50



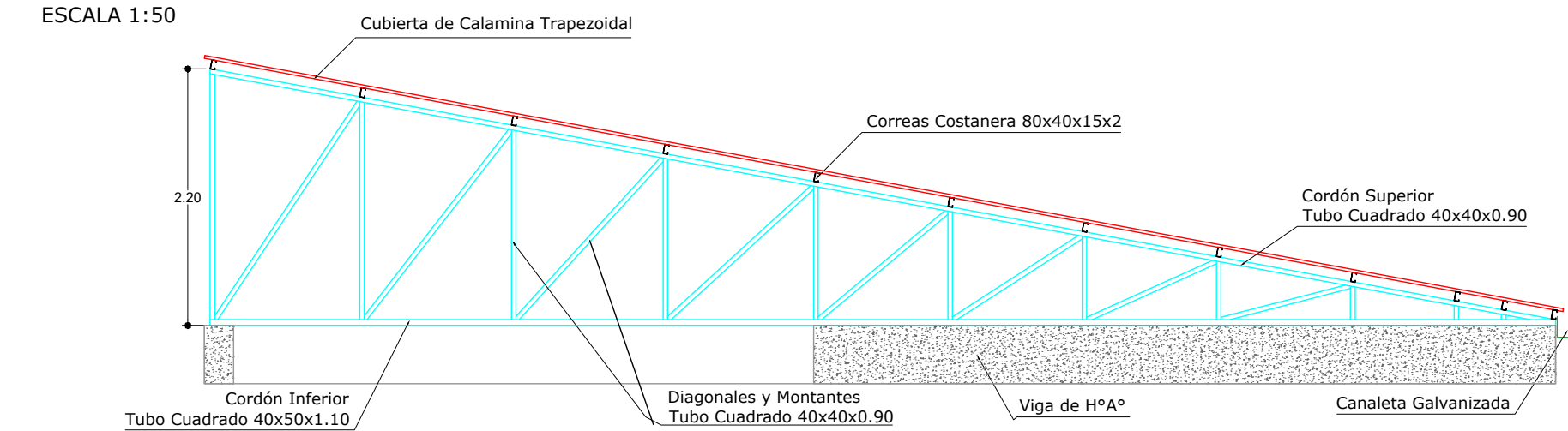
CUBIERTA METALICA N°2
SECCION UNICA
TC 30x30x1.20
ESCALA 1:50



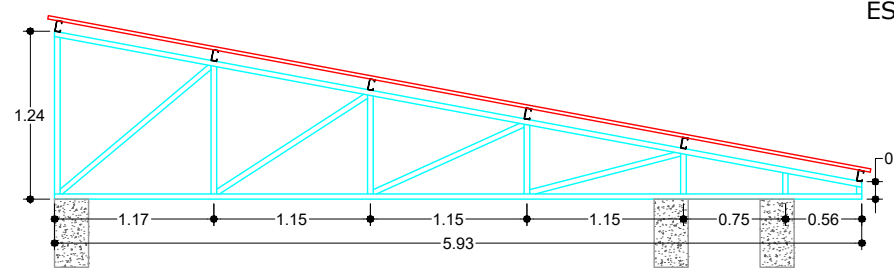
CUBIERTA METALICA N°1
CERCHA 1 - 2 - 10
SECCIONES T.C.
ESCALA 1:50



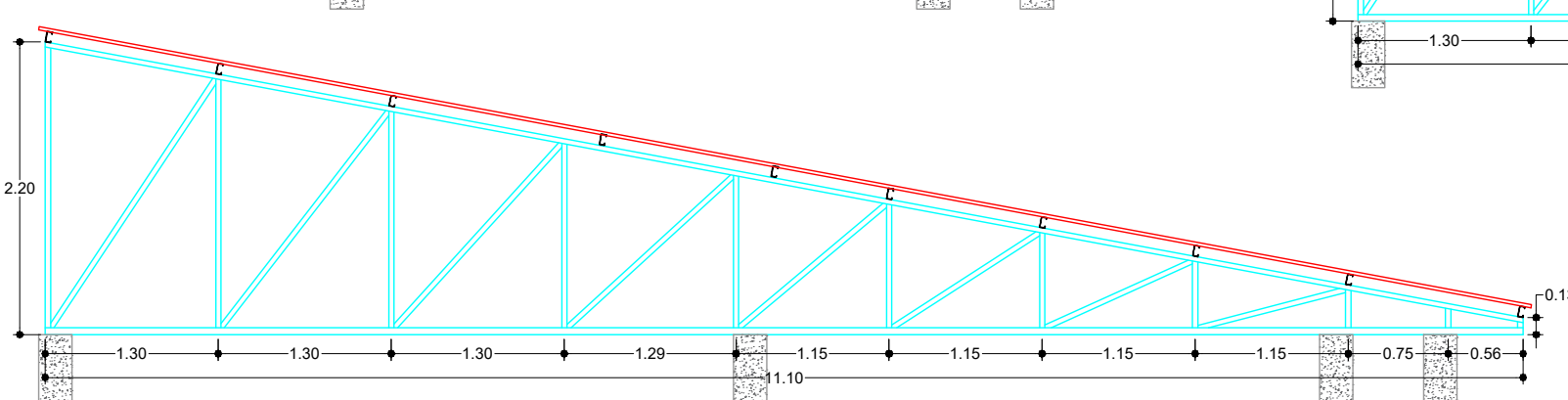
CUBIERTA METALICA N°1
CERCHA 3-4-5-6-7-8-9
SECCIONES VARIAS
ESCALA 1:50



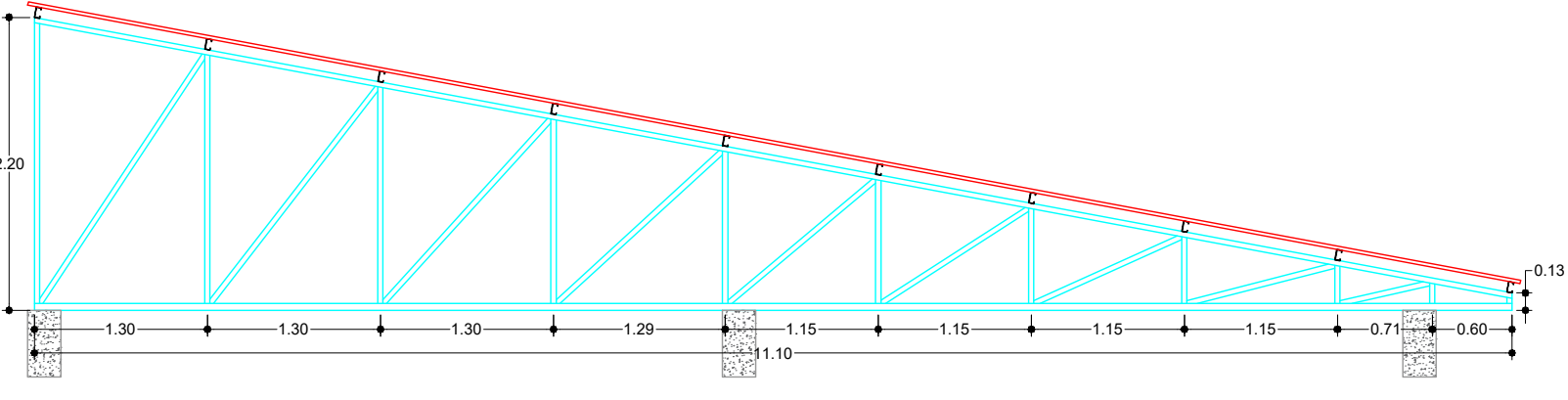
CERCHA 1
ESCALA 1:50



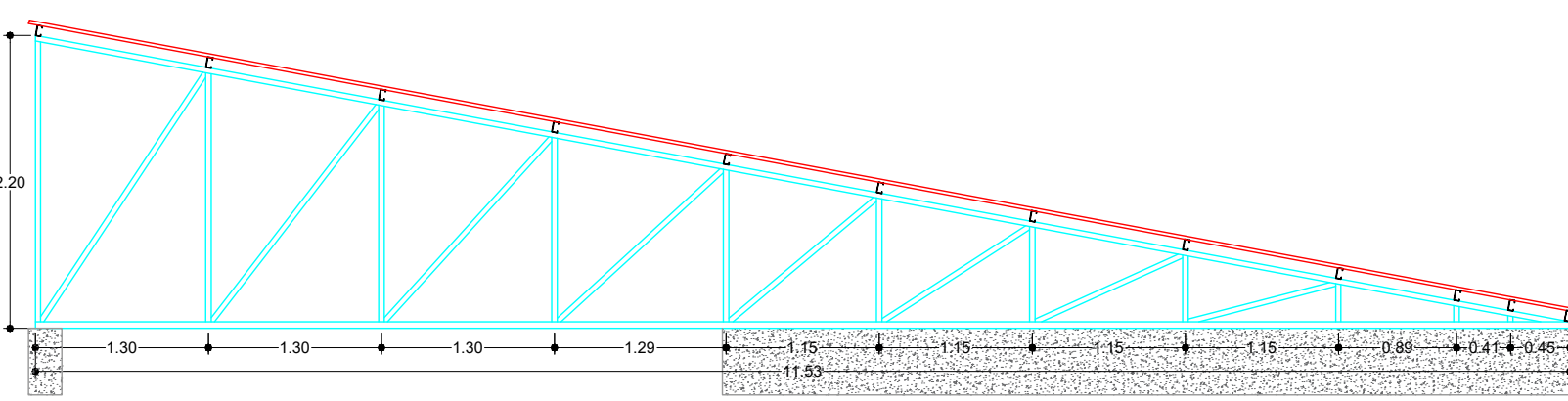
CERCHA 2
ESCALA 1:50



CERCHA 3
ESCALA 1:50



CERCHA 4
ESCALA 1:50



CUBIERTA METALICA N°1					
N° CERCHA	C. INFERIOR	C. SUPERIOR	MONTANTE	DIAGONAL	CORREAS
CERCHA 1	(40x40x0.90)	(40x40x0.90)	(40x40x0.90)	(40x40x1.5x2)	(80x40x1.5x2)
CERCHA 2	(40x50x1.10)	(40x40x0.90)	(40x40x0.90)	(40x40x0.90)	(80x40x1.5x2)
CERCHA 3	(40x50x1.10)	(40x40x0.90)	(40x40x0.90)	(40x40x0.90)	(80x40x1.5x2)
CERCHA 4	(40x50x1.10)	(40x40x0.90)	(40x40x0.90)	(40x40x0.90)	(80x40x1.5x2)
CERCHA 5	(40x50x1.10)	(40x40x0.90)	(40x40x0.90)	(40x40x0.90)	(80x40x1.5x2)
CERCHA 6	(40x40x0.90)	(40x40x0.90)	(40x40x0.90)	(40x40x0.90)	(80x40x1.5x2)
CUBIERTA METALICA N°2					
N° CERCHA	C. INFERIOR	C. SUPERIOR	MONTANTE	DIAGONAL	CORREAS
CERCHA 7	(30x30x1.10)	(30x30x0.90)	(30x30x0.90)	(30x30x0.90)	(50x25x10x2)
CERCHA 8	(30x30x1.10)	(30x30x0.90)	(30x30x0.90)	(30x30x0.90)	(50x25x10x2)
CERCHA 9	(30x30x1.10)	(30x30x0.90)	(30x30x0.90)	(30x30x0.90)	(50x25x10x2)
CERCHA 10	(30x30x1.10)	(30x30x0.90)	(30x30x0.90)	(30x30x0.90)	(50x25x10x2)
CERCHA 11	(30x30x1.10)	(30x30x0.90)	(30x30x0.90)	(30x30x0.90)	(50x25x10x2)
CERCHA 12	(30x30x1.10)	(30x30x0.90)	(30x30x0.90)	(30x30x0.90)	(50x25x10x2)



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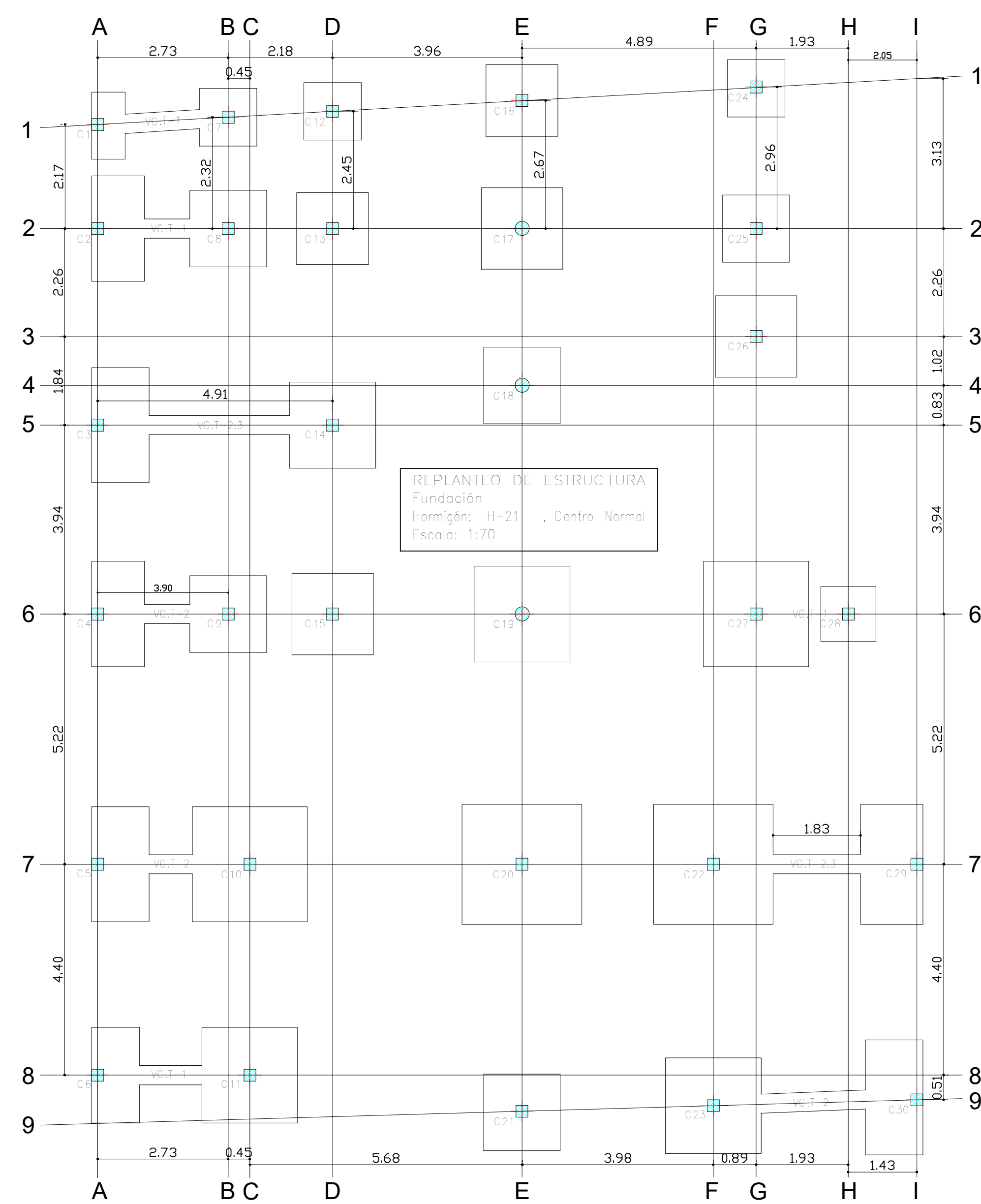
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INDICADA

LÁMINA:

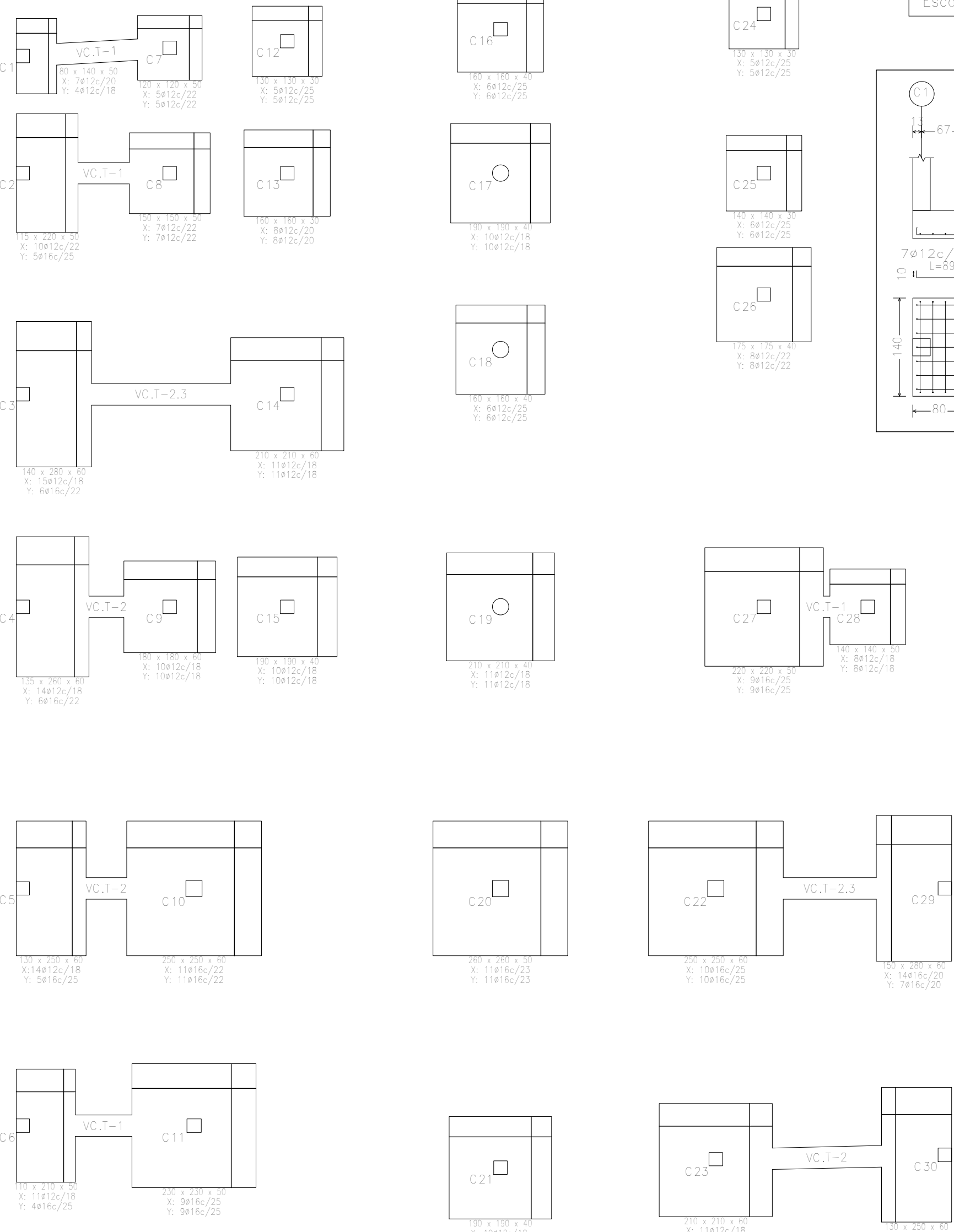
VoBo

CONTENIDO:
PLANO ESTRUCTURAL - DISEÑO DE ESTRUCTURA METALICA

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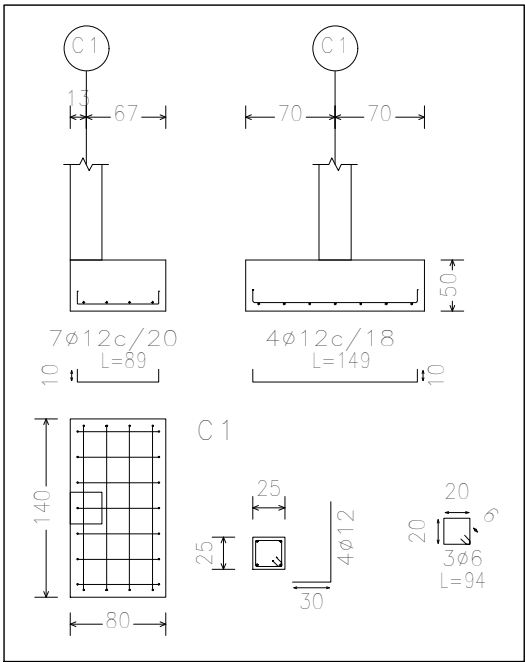
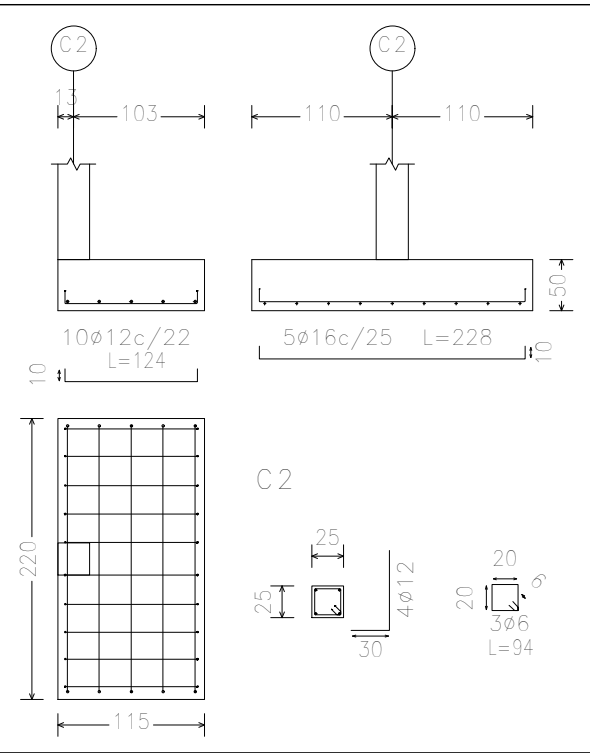
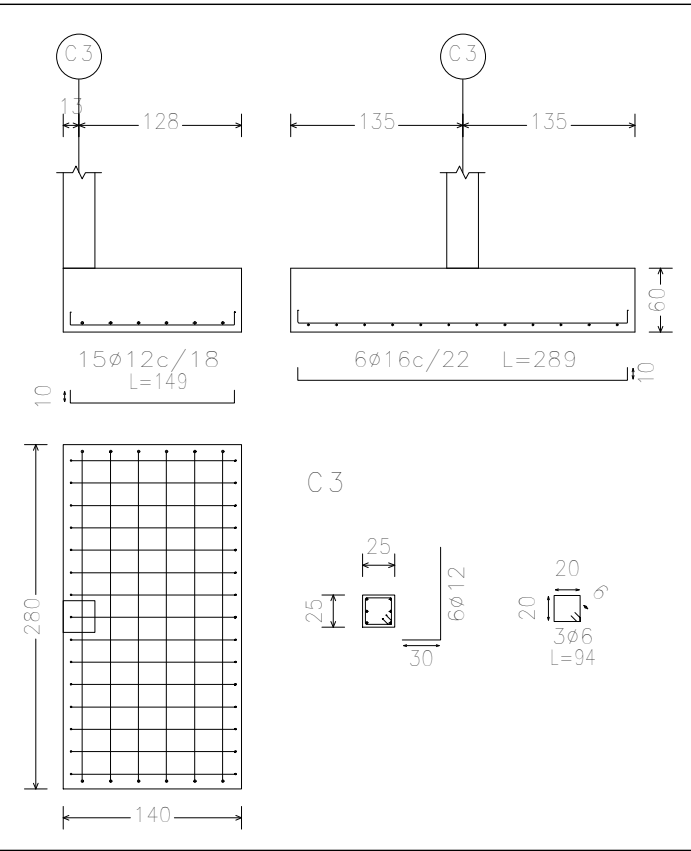
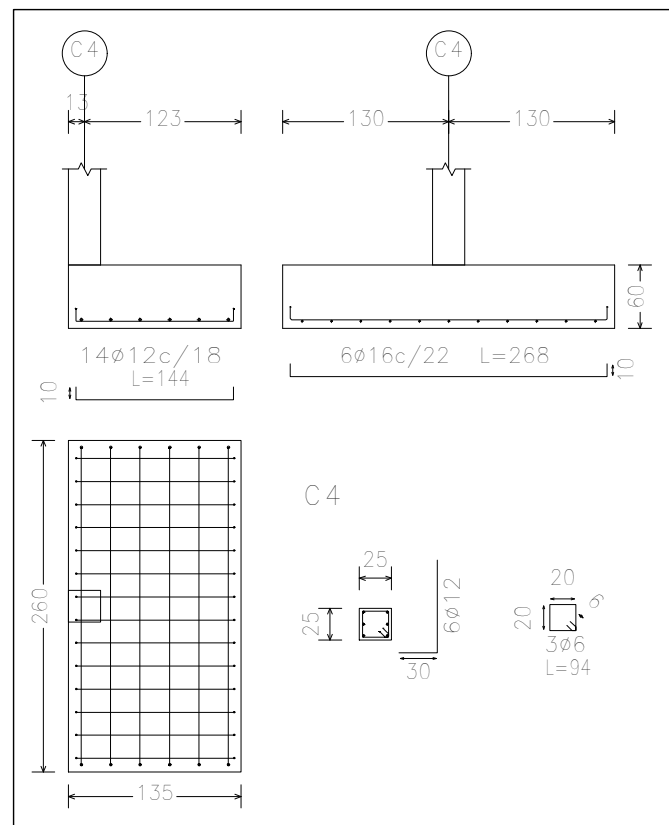
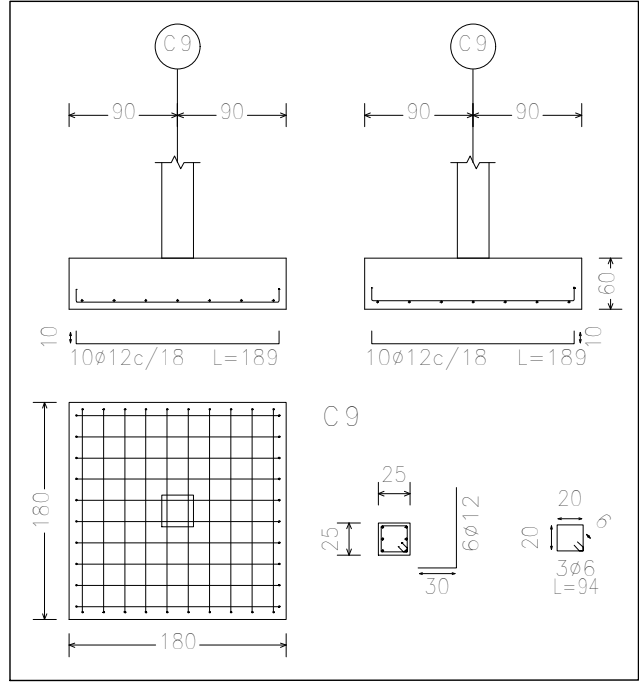
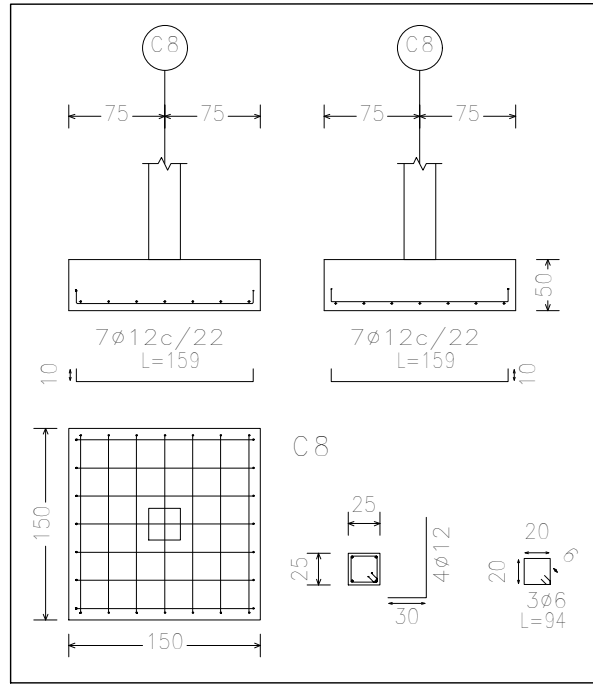
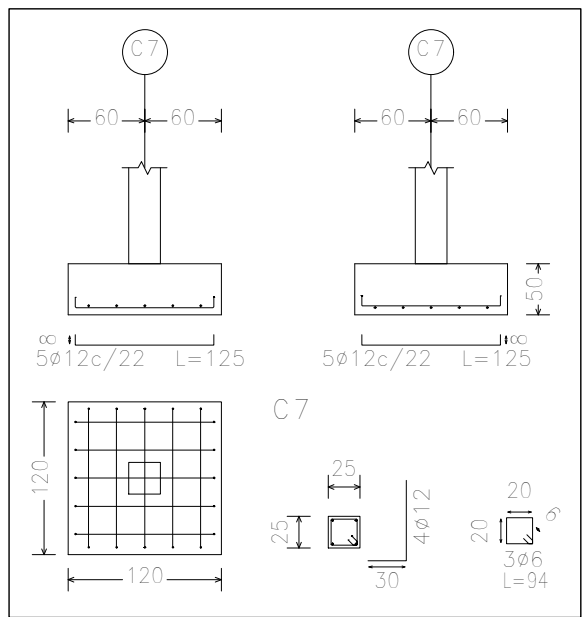
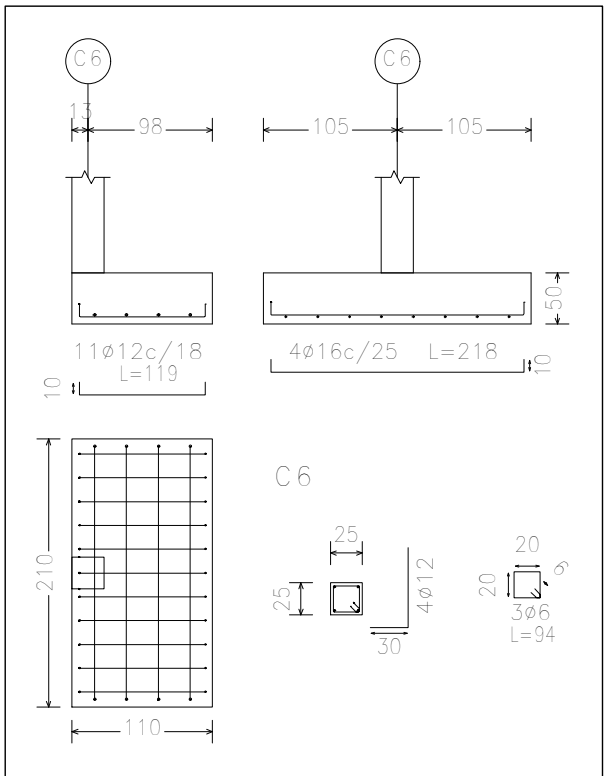
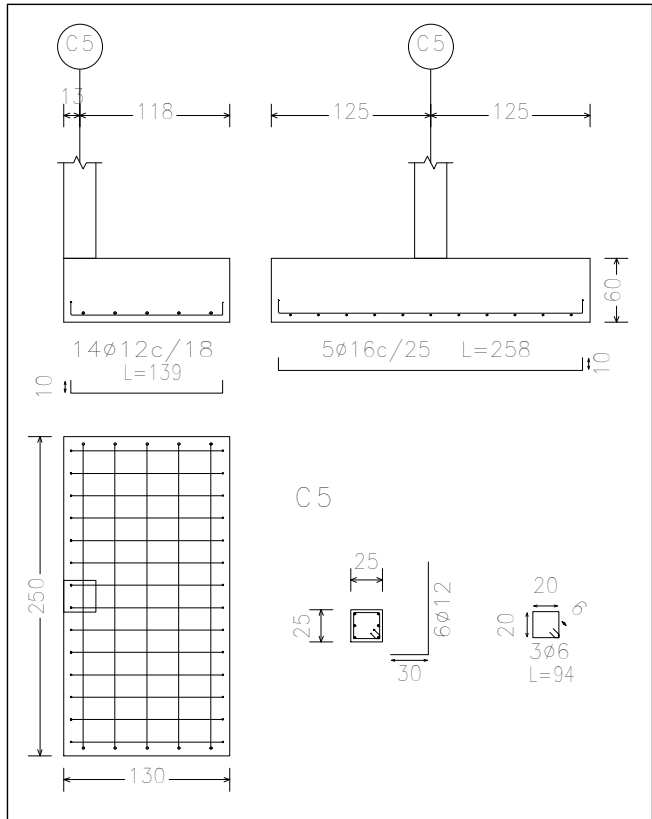


VISTA EN PLANTA ZAPATAS
Fundación
Hormigón: H-21, Control Normal
Escala: 1:70



ZAPATAS DE HORMIGON ARMADO
Fundación
Hormigón: H-21, Control Normal
Escala: 1:40

Resumen Acero Fundación	Long. total (m)	Peso+10% (kg)	Total
AH-500CN	ø6	87.1	21
	ø8	101.4	44
	ø12	834.1	815
	ø16	485.5	843
	ø20	121.4	329
			2052



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DICIEMBRE - 2019

ESCALA:

INDICADA

LÁMINA:

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VoBo

CONTENIDO:
PLANO ESTRUCTURAL - REPLANTEO - FUNDACIONES

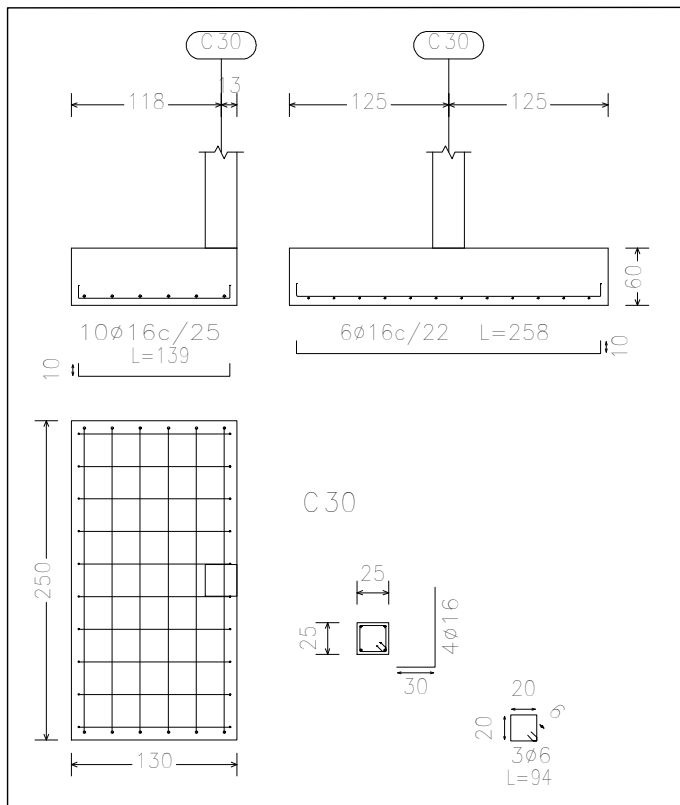
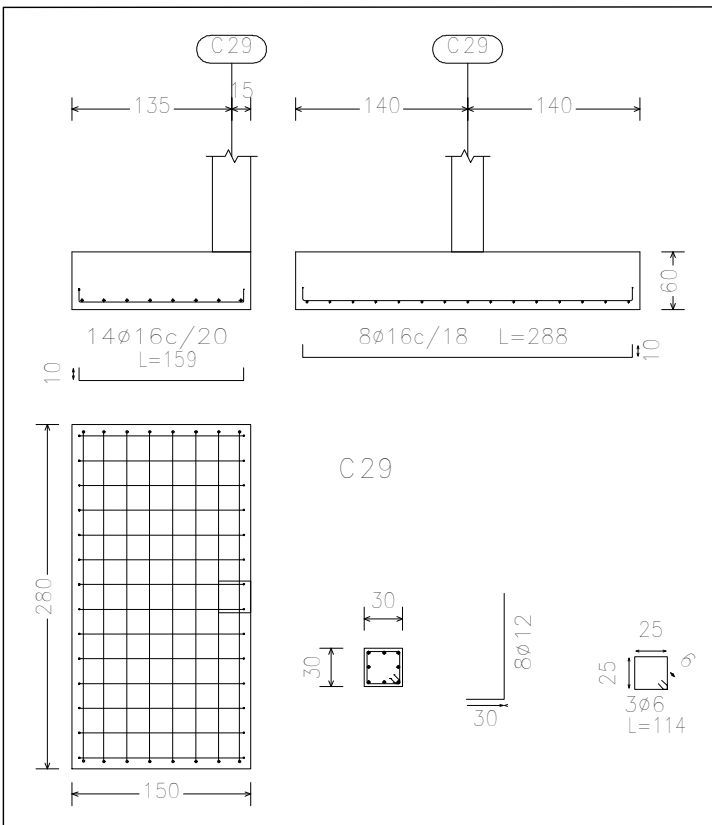
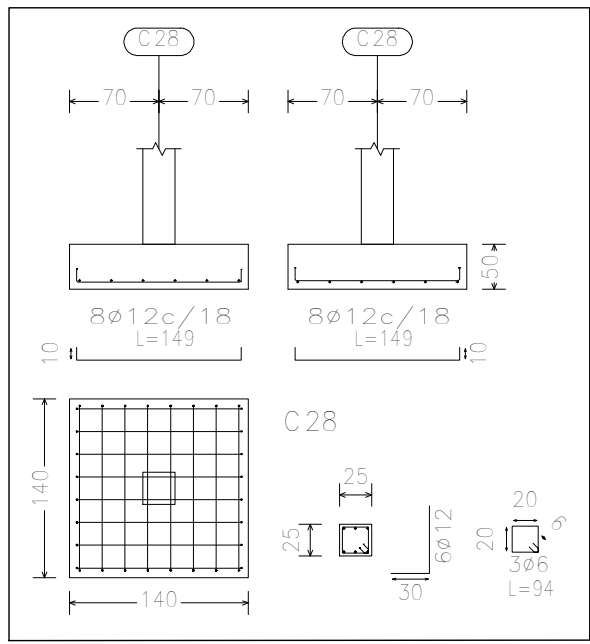
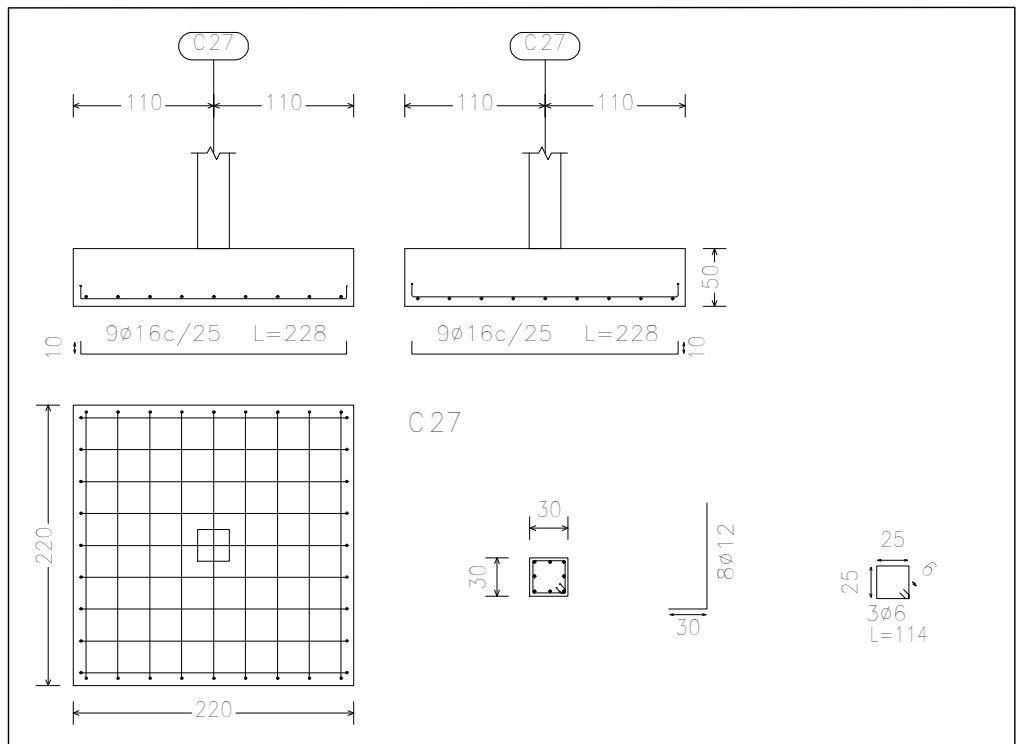
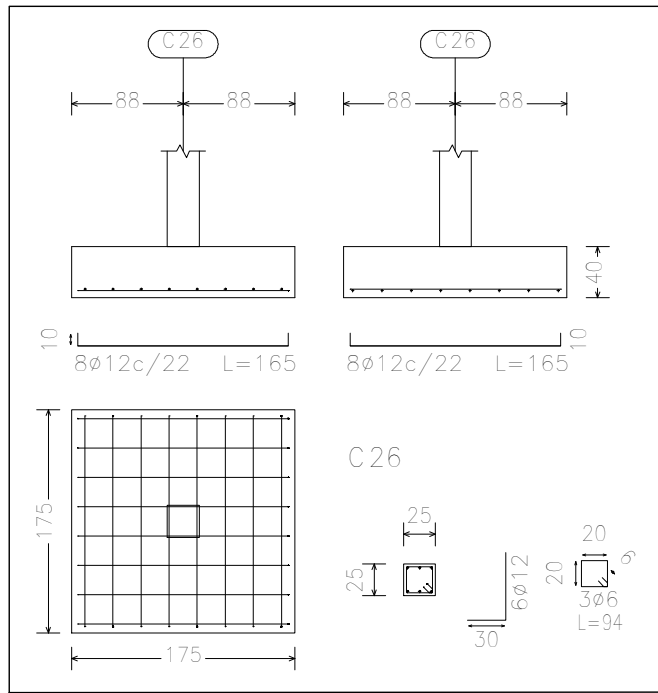
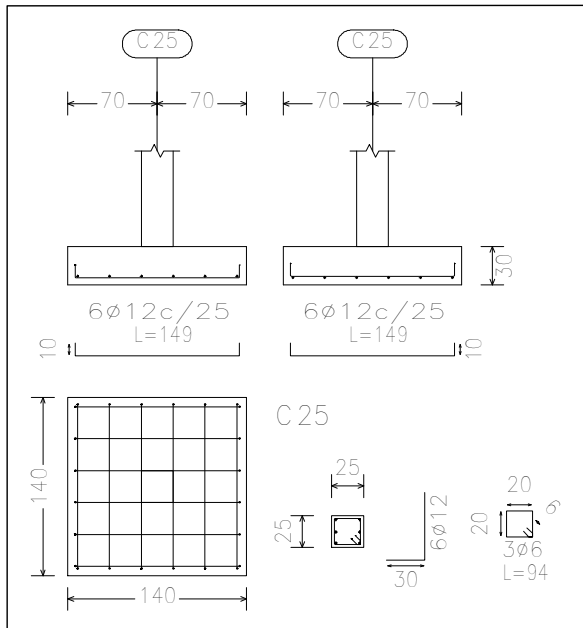
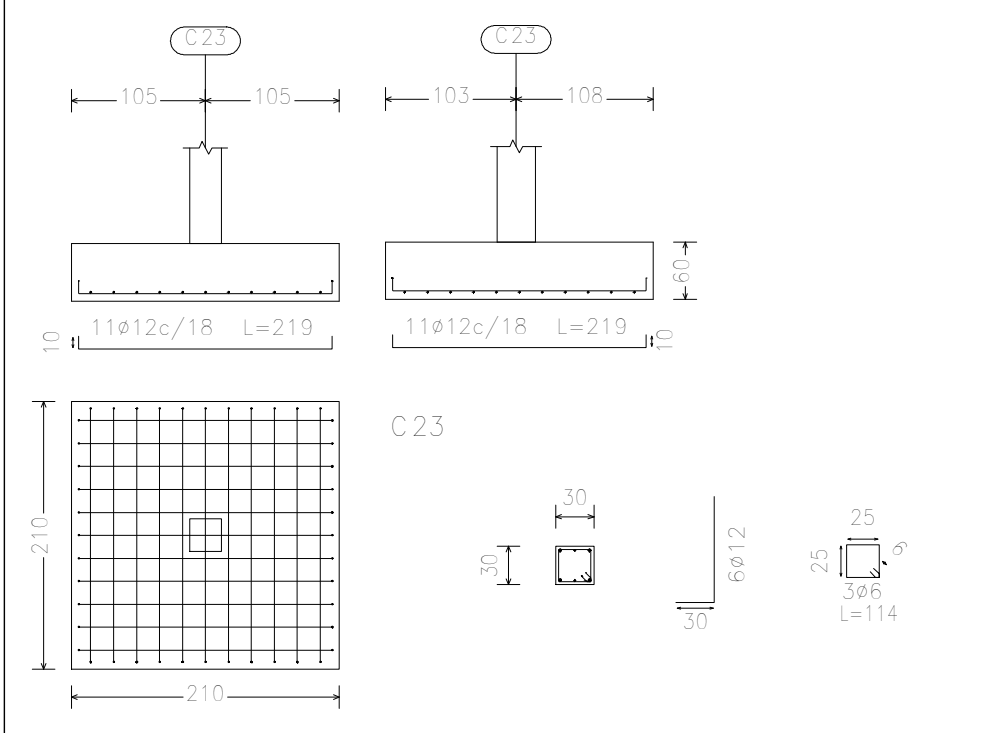
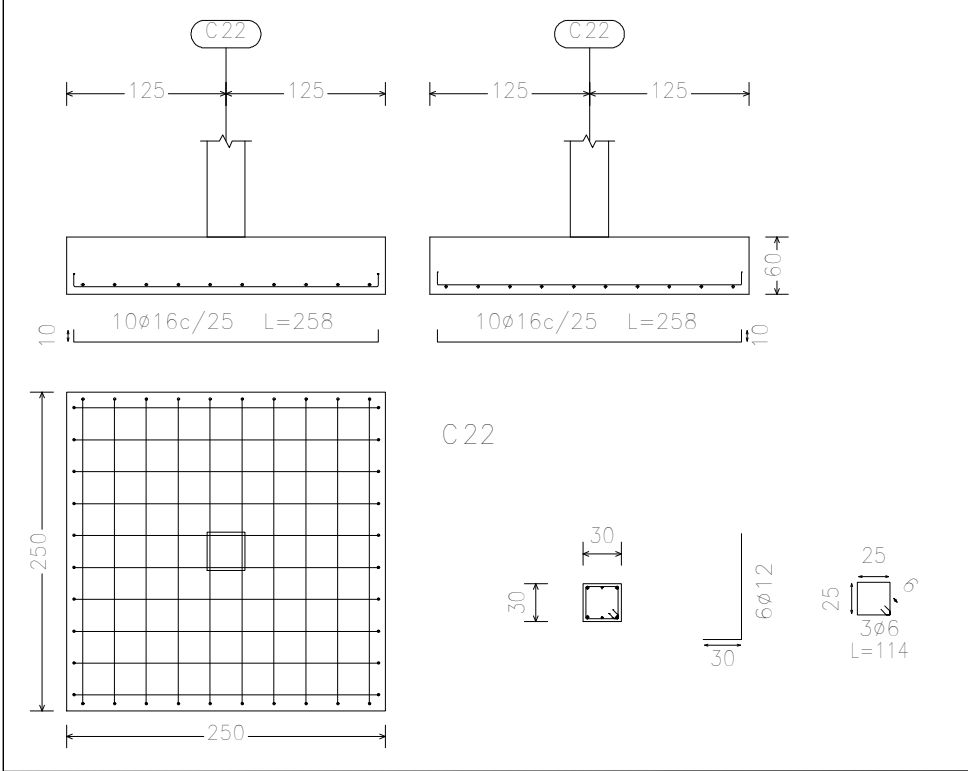
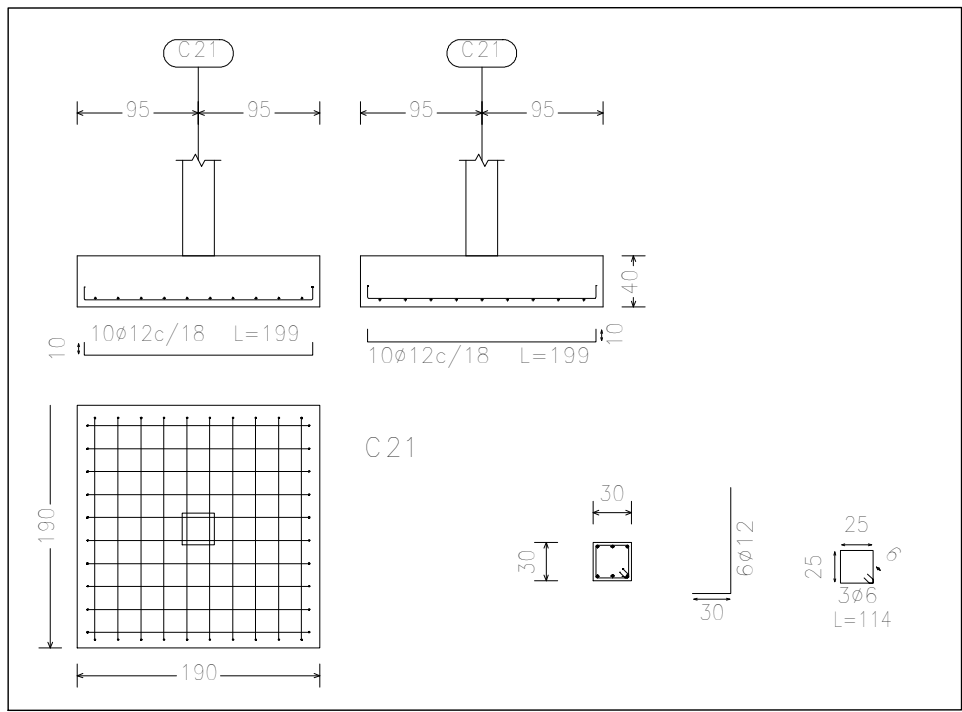
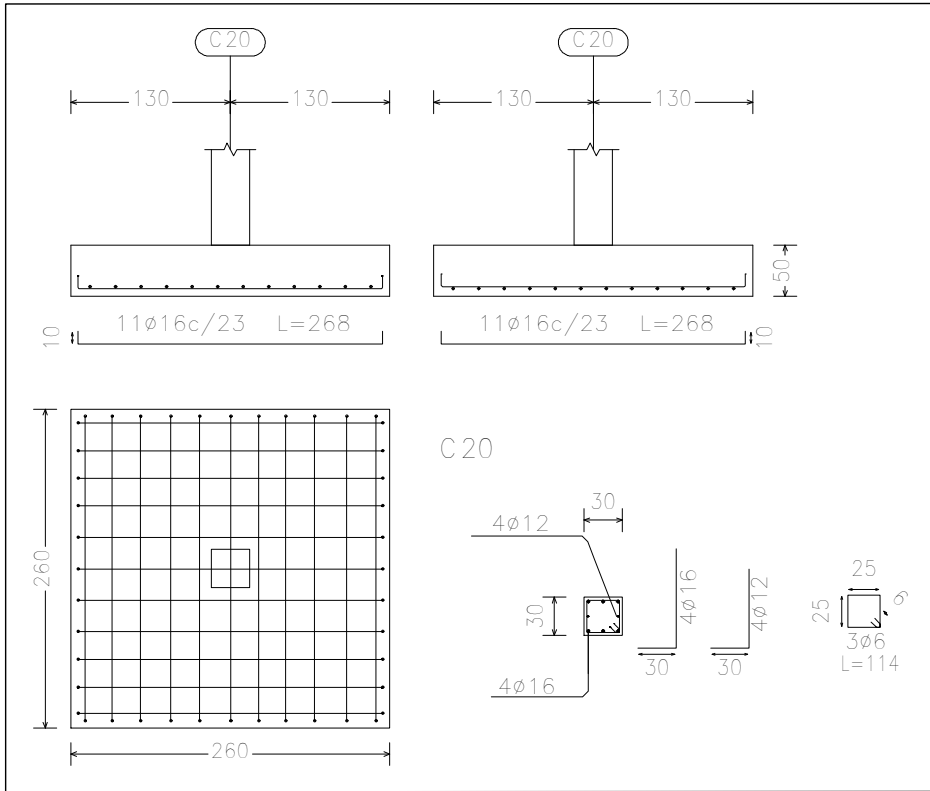
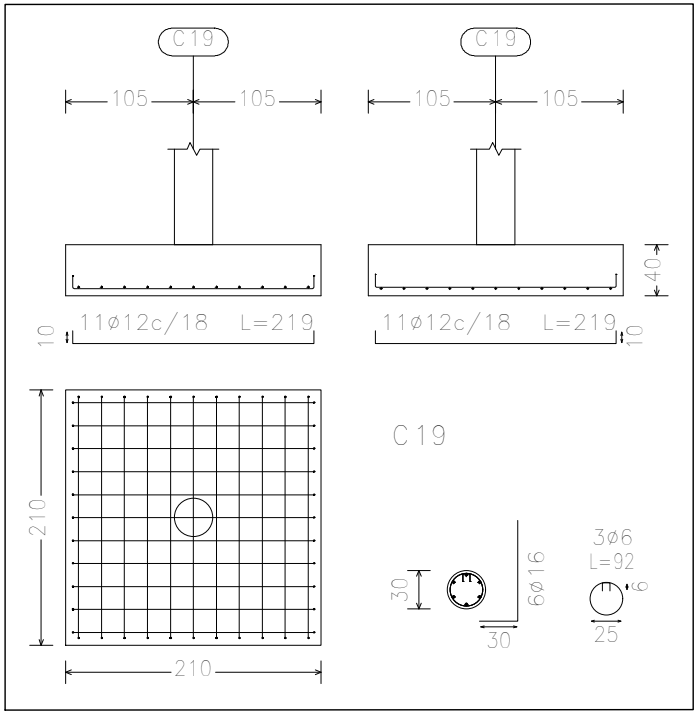
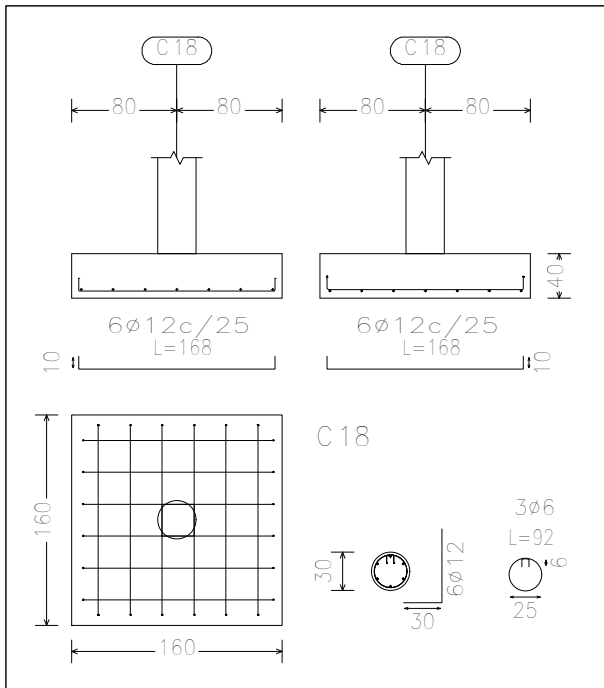
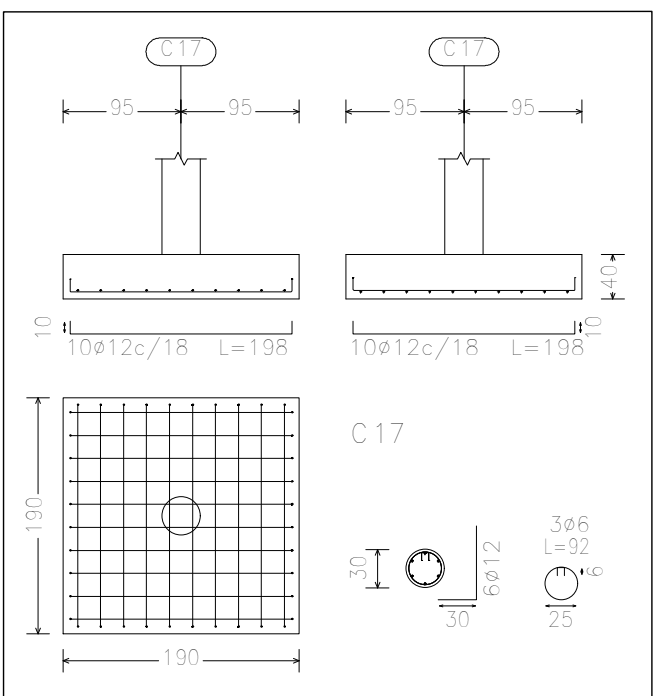
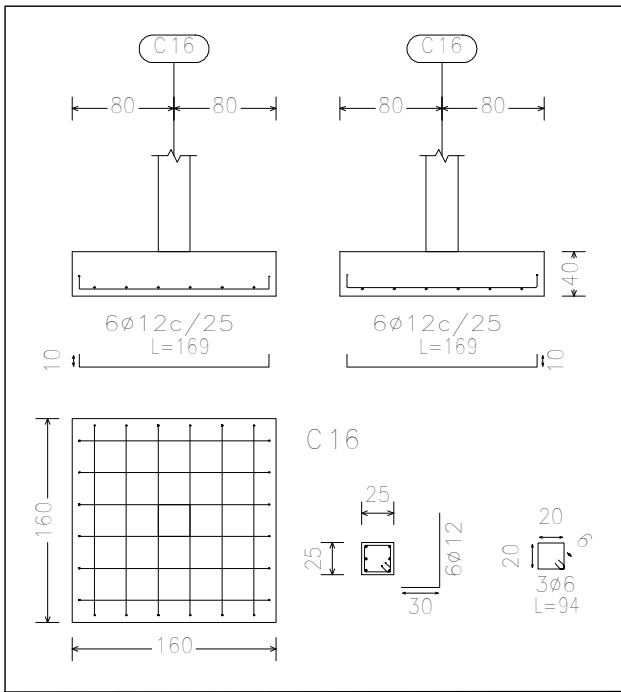
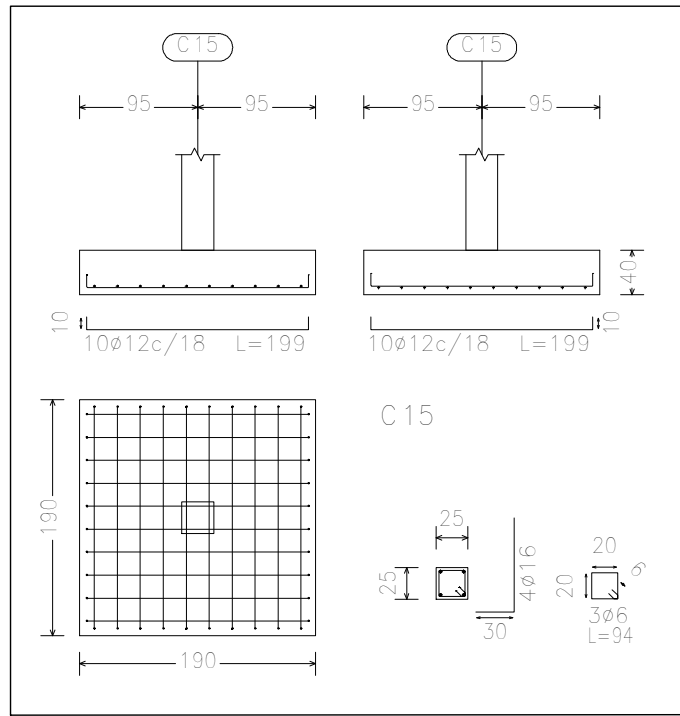
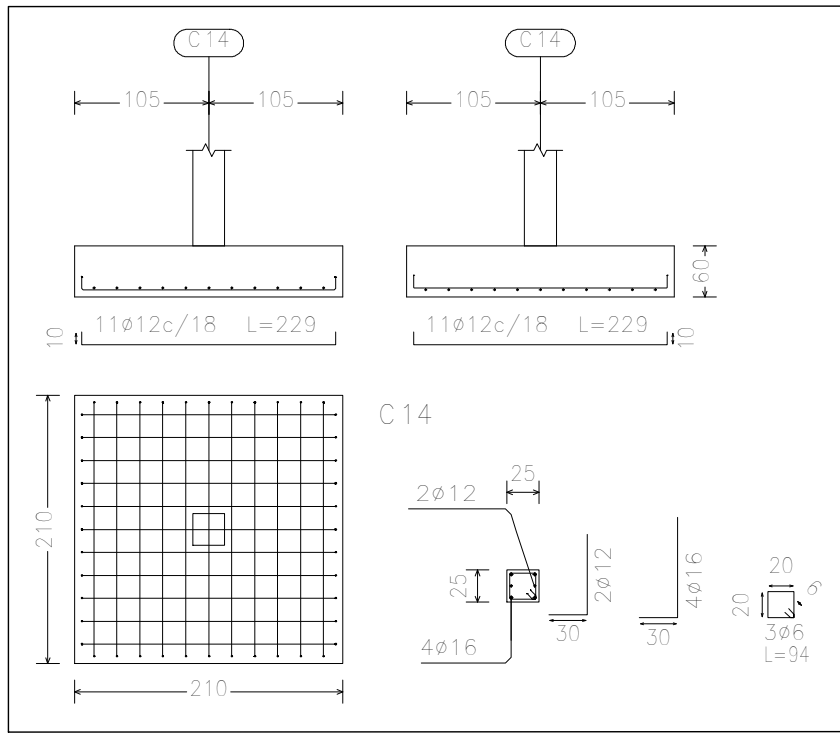
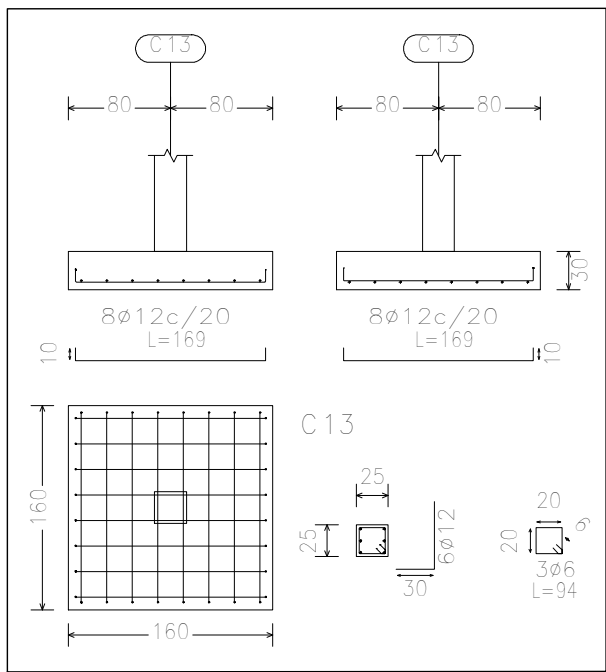
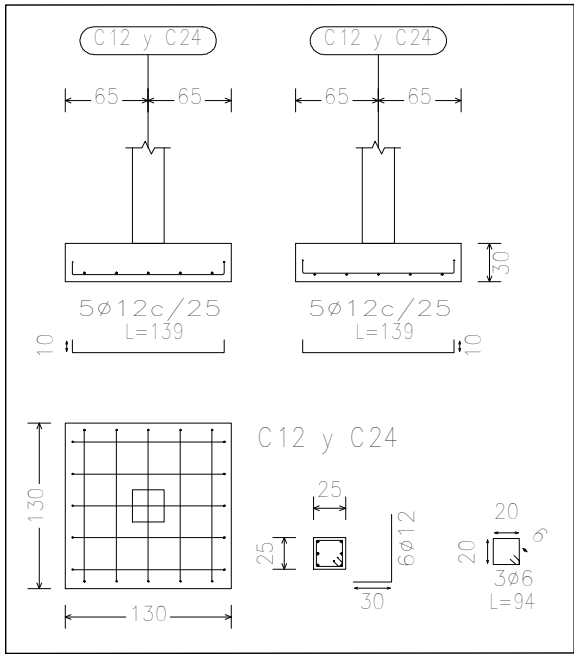
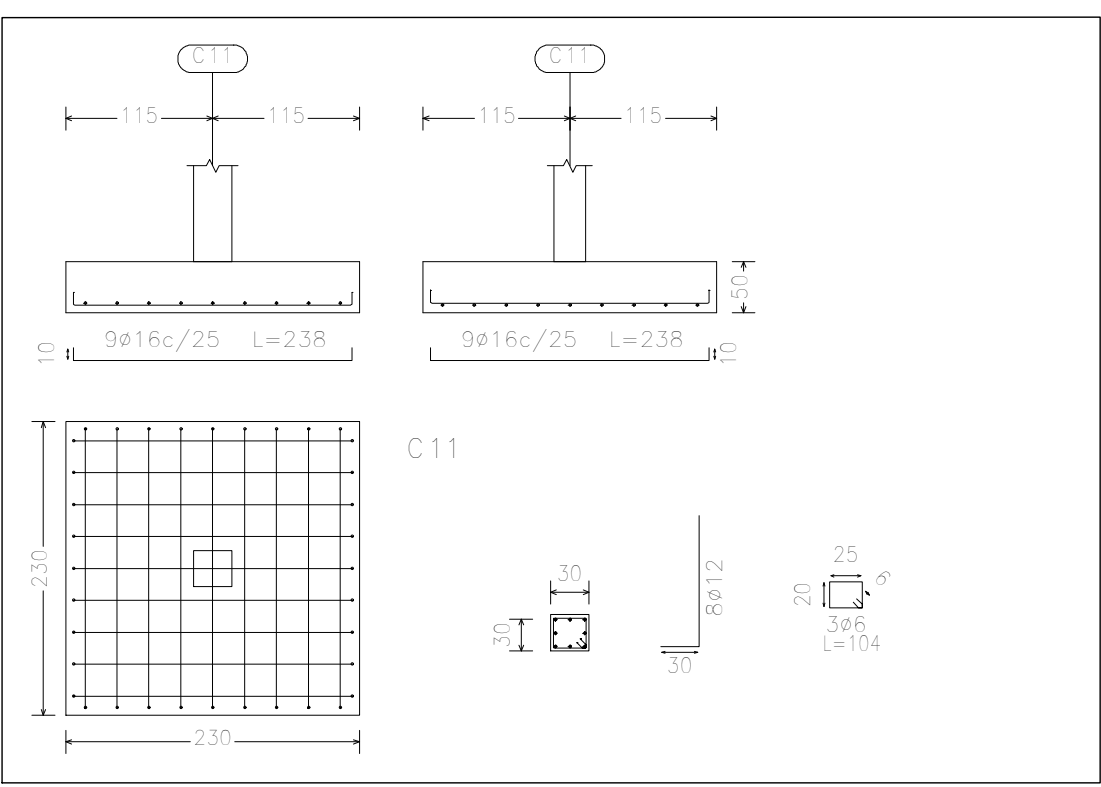
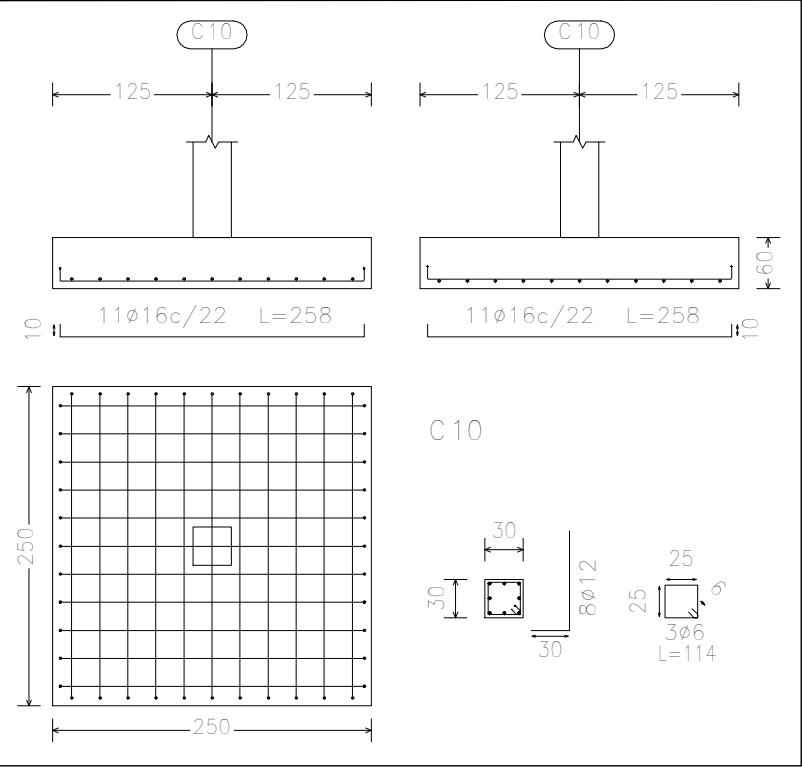
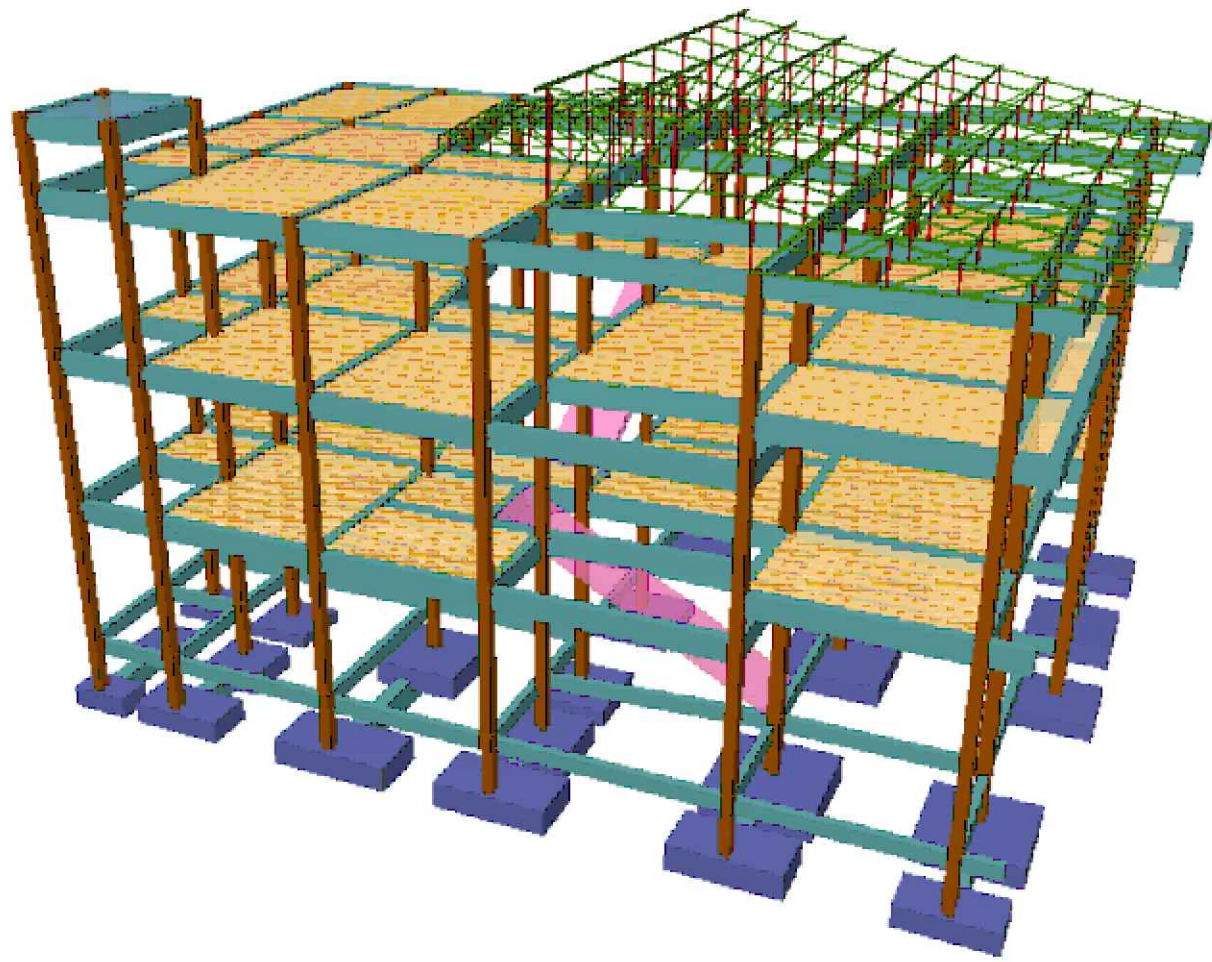


TABLA DE ZAPATAS

CUADRO DE ELEMENTOS DE FUNDACIÓN				
Referencias	Dimensiones (cm)	Altura (cm)	Armado inf. X	Armado inf. Y
C1	80x140	50	7ø12c/20	4ø12c/18
C2	115x220	50	10ø12c/22	5ø16c/25
C3	140x280	60	15ø12c/18	6ø16c/22
C4	135x260	60	14ø12c/18	6ø16c/22
C5	130x250	60	14ø12c/18	5ø16c/25
C6	110x210	50	11ø12c/18	4ø16c/25
C7	120x120	50	5ø12c/22	5ø12c/22
C8	150x150	50	7ø12c/22	7ø12c/22
C9	180x180	60	10ø12c/18	10ø12c/18
C10	250x250	60	11ø16c/22	11ø16c/22
C11	230x230	50	9ø16c/25	9ø16c/25
C12 y C24	130x130	30	5ø12c/25	5ø12c/25
C13	160x160	30	8ø12c/20	8ø12c/20
C14	210x210	60	11ø12c/18	11ø12c/18
C15 y C17	190x190	40	10ø12c/18	10ø12c/18
C16	160x160	40	6ø12c/25	6ø12c/25
C18	160x160	40	6ø12c/25	6ø12c/25
C19	210x210	40	11ø12c/18	11ø12c/18
C20	260x260	50	11ø16c/23	11ø16c/23
C21	190x190	40	10ø12c/18	10ø12c/18
C22	250x250	60	10ø16c/25	10ø16c/25
C23	210x210	60	11ø12c/18	11ø12c/18
C25	140x140	30	6ø12c/25	6ø12c/25
C26	175x175	40	8ø12c/22	8ø12c/22
C27	220x220	50	9ø16c/25	9ø16c/25
C28	140x140	50	8ø12c/18	8ø12c/18
C29	150x280	60	14ø16c/20	7ø16c/20
C30	130x250	60	10ø16c/25	6ø16c/22

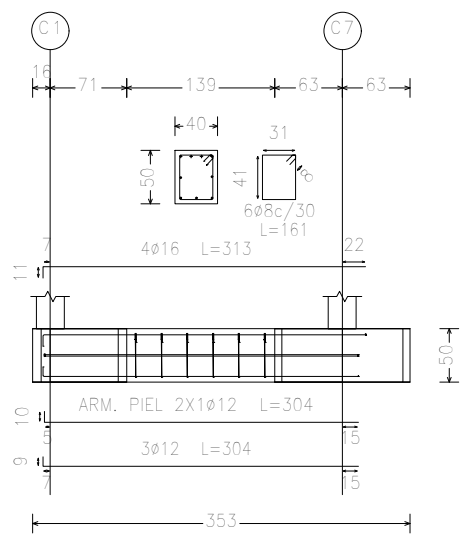
VIGAS CENTRADORAS		
Referencias	Geometría	Armado
C1 – C7 C2 – C8	Ancho: 40.0 cm Altura: 50.0 cm	Superior: 4 Ø 16 Inferior: 3 Ø 12 Piel: 1 x 2 Ø 12 Estribo: Ø 8 c/30 cm
C3 – C14	Ancho: 40.0 cm Altura: 60.0 cm	Superior: 4 Ø 20 Inferior: 3 Ø 16 Piel: 2 x 1 Ø 12 Estribo: Ø 8 c/20 cm
C4 – C9 C5 – C10	Ancho: 40.0 cm Altura: 60.0 cm	Superior: 4 Ø 20 Inferior: 3 Ø 12 Piel: 2 x 1 Ø 12 Estribo: Ø 8 c/30 cm
C6 – C11 C27 – C28	Ancho: 40.0 cm Altura: 50.0 cm	Superior: 4 Ø 16 Inferior: 3 Ø 12 Piel: 2 x 1 Ø 12 Estribo: Ø 8 c/30 cm
C22 – C29	Ancho: 40.0 cm Altura: 60.0 cm	Superior: 5 Ø 20 Inferior: 3 Ø 16 Piel: 2 x 1 Ø 12 Estribo: Ø 8 c/20 cm
C23 – C30	Ancho: 40.0 cm Altura: 60.0 cm	Superior: 4 Ø 20 Inferior: 3 Ø 12 Piel: 2 x 1 Ø 12 Estribo: Ø 8 c/30 cm

MODELADO DE ESTRUCTURA

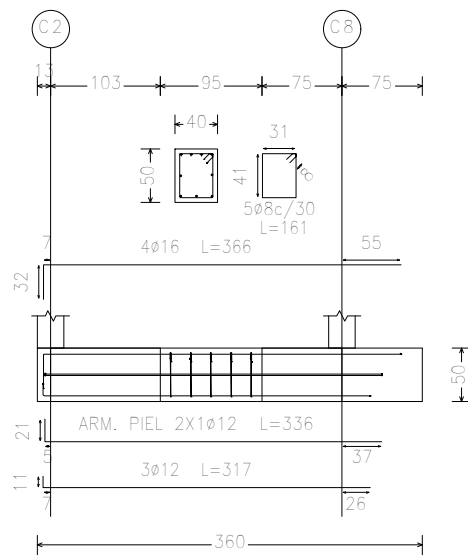


VIGAS DE ATADO
Fundación
Hormigón: H-21 , Control Normal
Escala: 1:10

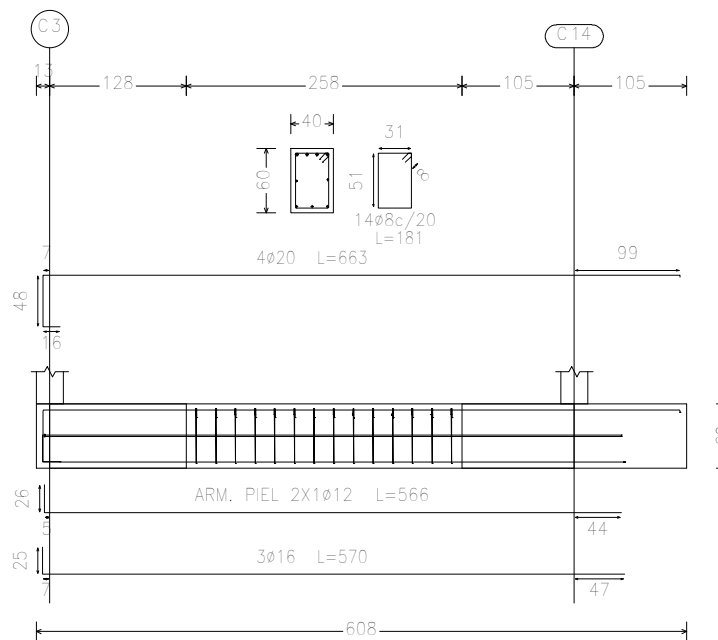
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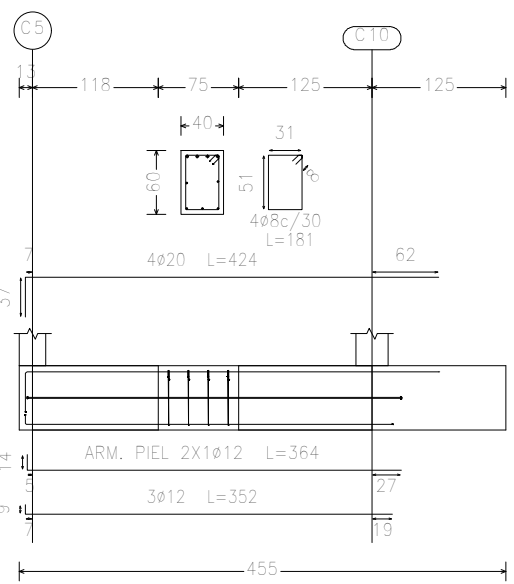
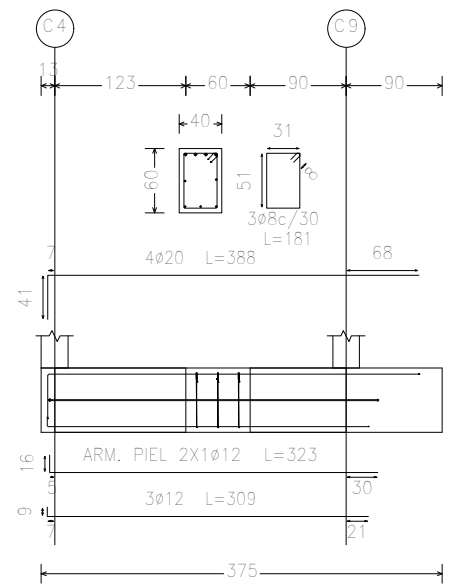
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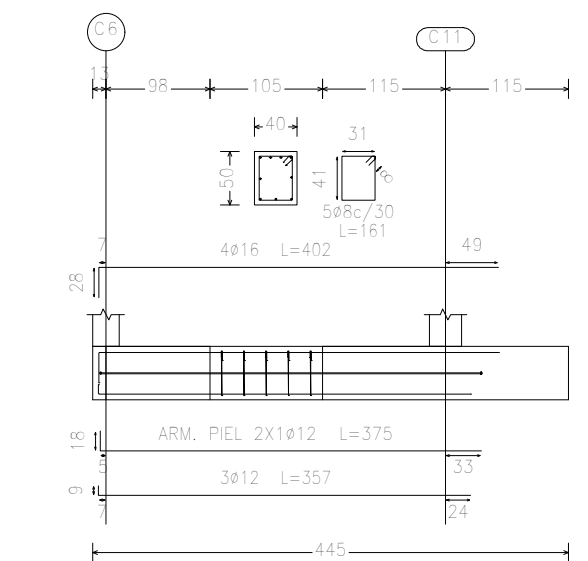
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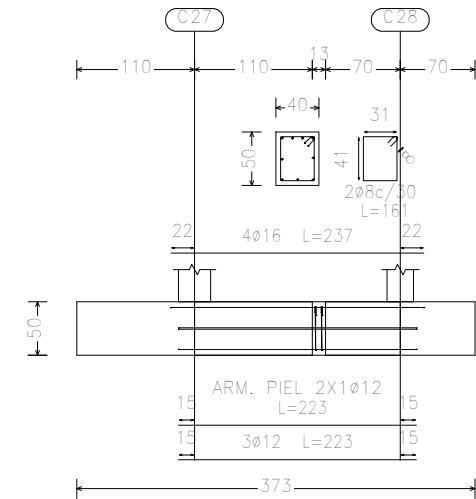
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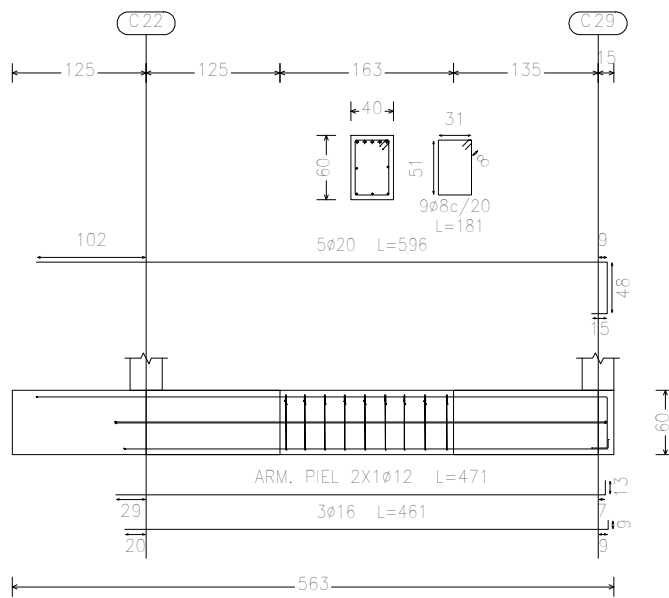
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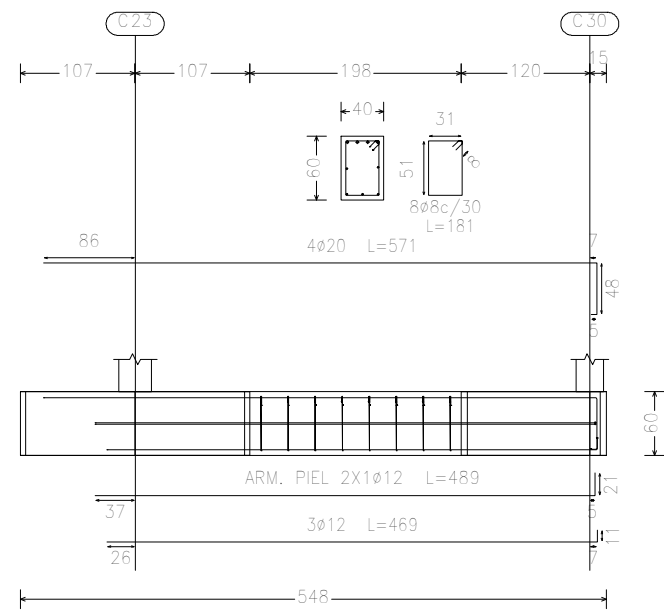
VC.T-1 [C27 – C28]



VC.T-3 [C22 – C29]



VC.T-2 [C23 – C30]



Resumen Acero	Long. total (m)	Peso+10% (kg)	Total
AH-500CN	87.1	21	
ø6	101.4	44	
ø12	834.1	815	
ø16	485.5	843	
ø20	121.4	329	2052

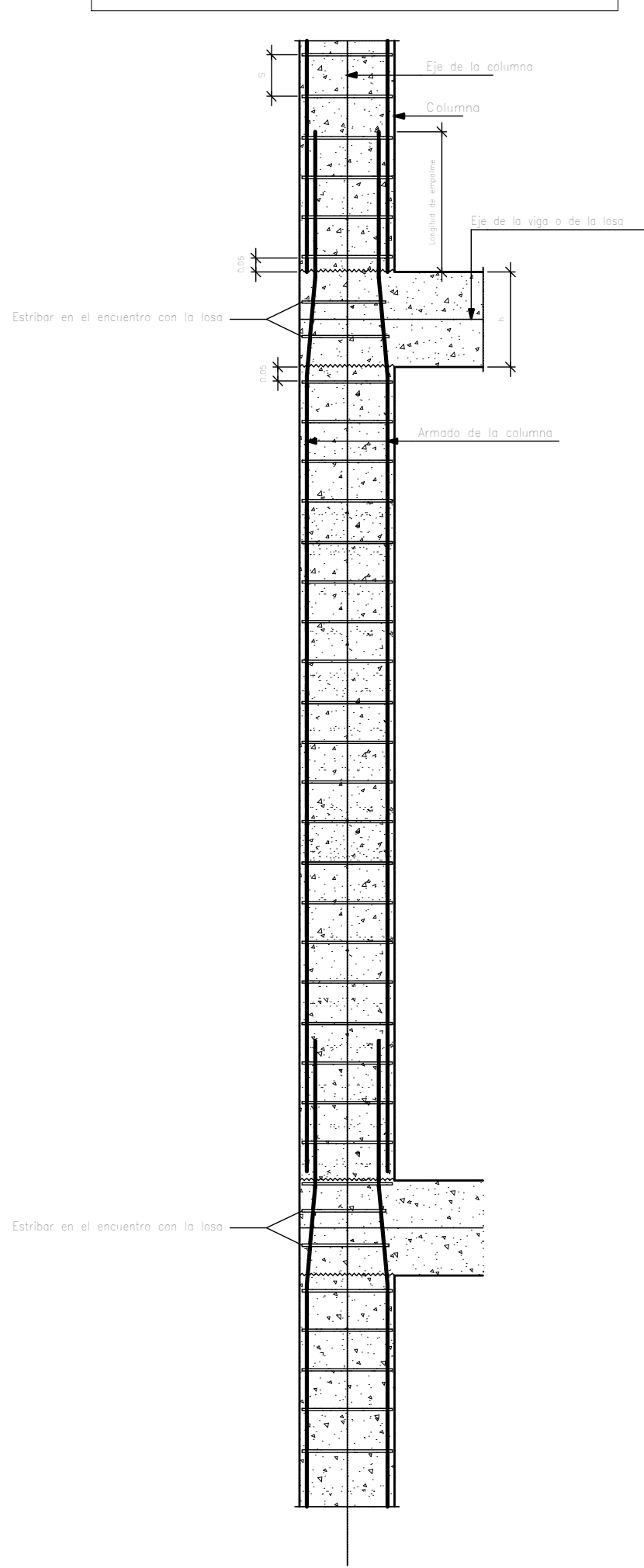
VIGAS DE ATADO

Fundación

Hormigón: H-21 , Control Normal

Escala: 1:10

Detalle de estribado de columnas



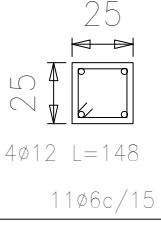
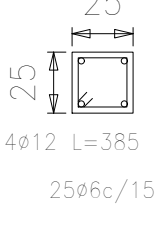
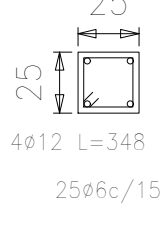
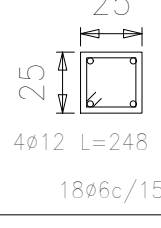
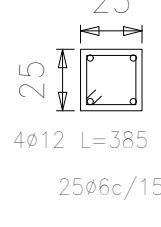
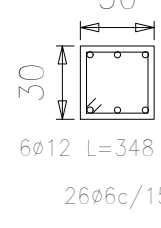
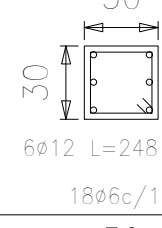
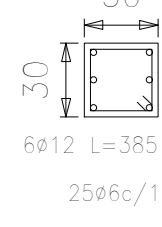
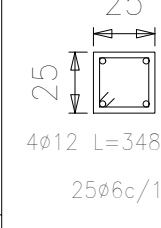
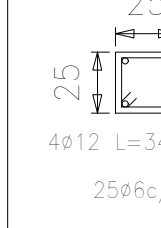
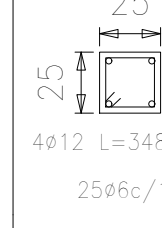
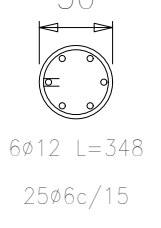
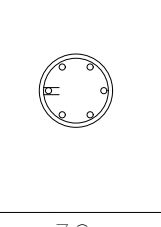
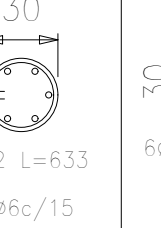
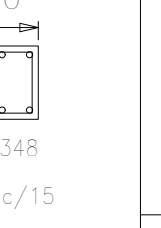
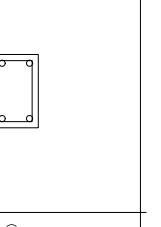
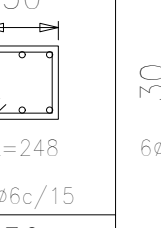
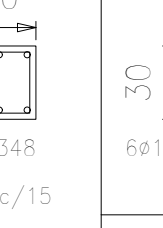
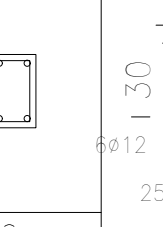
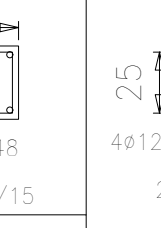
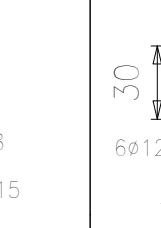
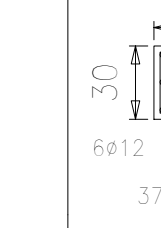
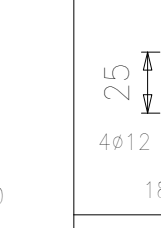
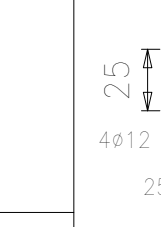
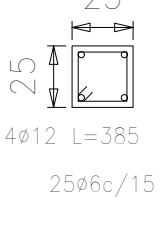
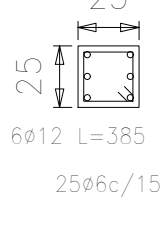
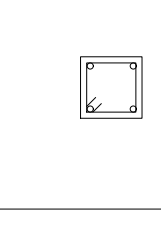
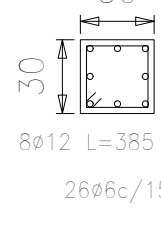
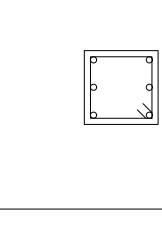
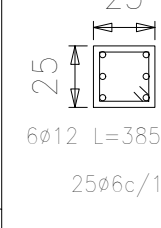
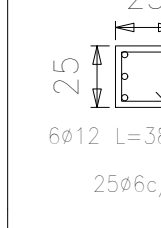
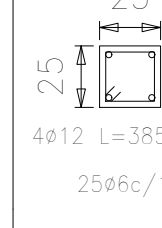
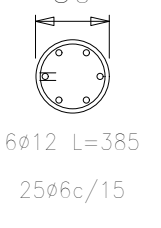
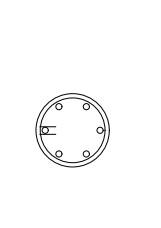
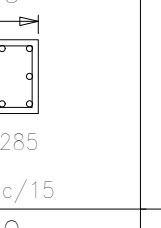
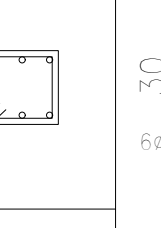
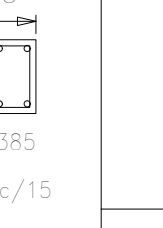
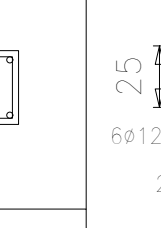
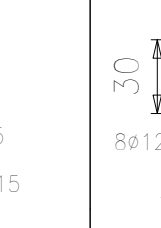
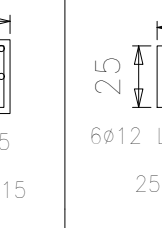
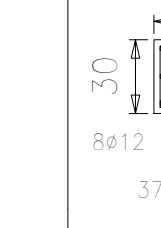
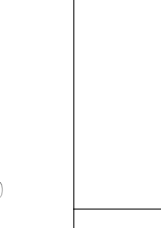
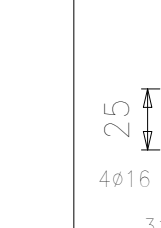
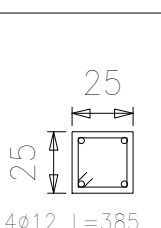
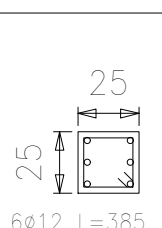
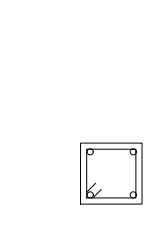
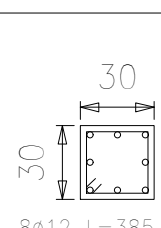
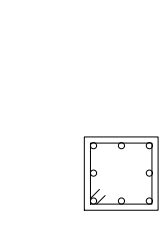
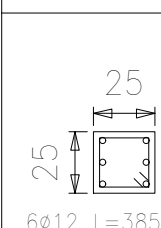
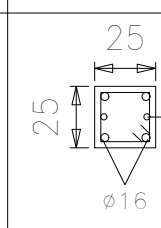
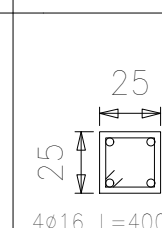
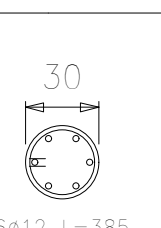
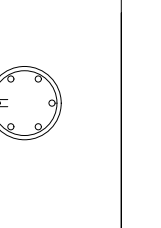
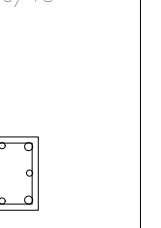
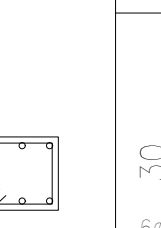
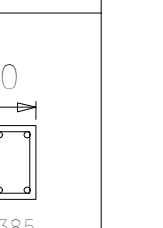
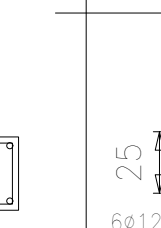
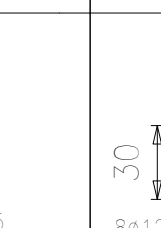
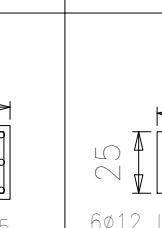
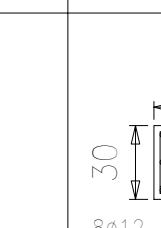
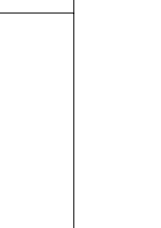
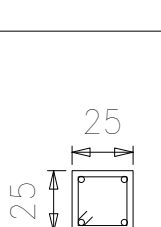
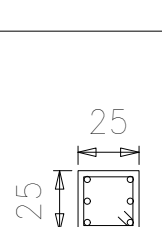
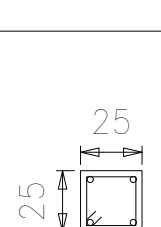
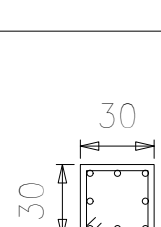
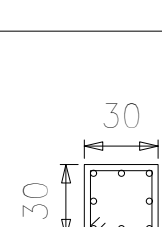
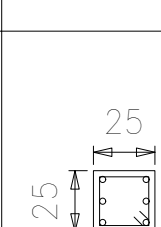
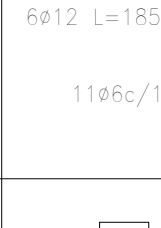
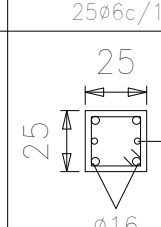
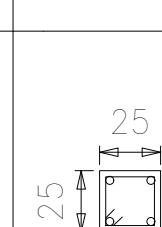
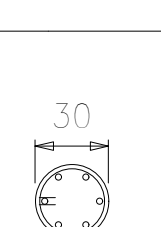
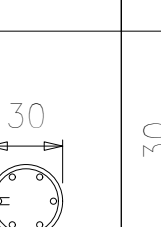
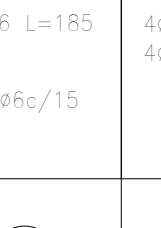
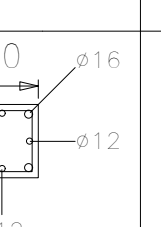
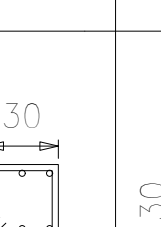
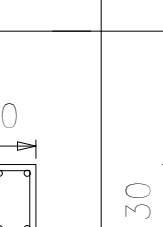
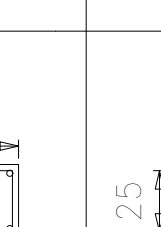
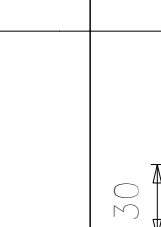
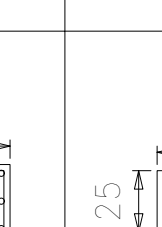
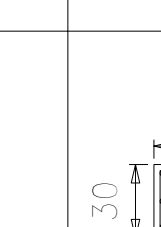
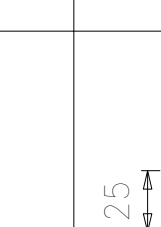
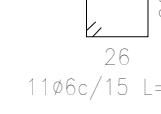
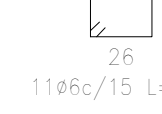
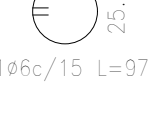
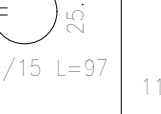
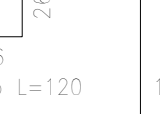
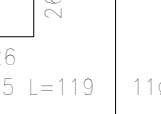
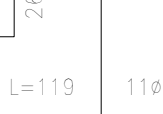
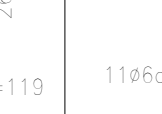
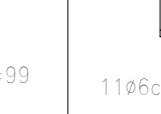
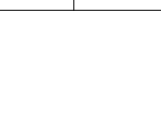
Cuadro de columnas
Hormigón: H-21 , Control Normal
Acero: AH-500 , Control Normal
Escala: 1:50

Arranques
nøxx(aa+bb+cc)
cc
bb

Tabla de vigas cantilever

40	40	40
VC.T-1	VC.T-2	VC.T-2.3
Arm. sup.: 4ø16	Arm. sup.: 4ø20	Arm. sup.: 4ø20
Arm. inf.: 3ø12	Arm. inf.: 3ø12	Arm. inf.: 3ø16
Arm. piel: 1x2ø12	Arm. piel: 1x2ø12	Arm. piel: 1x2ø12
Estribos: 1xø8c/30	Estribos: 1xø8c/30	Estribos: 1xø8c/20

TABLA DE COLUMNAS DE H°A°

C1=C2 C7=C8	C3=C4 C5=C9	C6	C10	C11	C12=C13 C16=C24 C25	C14	C15	C17 C18	C19	C20	C21	C22	C23	C26	C27	C28	C29	C30	ELEVADOR Cota +12,20 m.s.n.m.
																			CUBIERTA Cota +10,70 m.s.n.m.
		 		 				 			 		 					 	LOSA 4 Cota +8,20 m.s.n.m.
																			LOSA 3 Cota +7,20 m.s.n.m.
								 	 										LOSA 2 Cota +4,70 m.s.n.m.
					 														SOBRECIMENTOS Cota +0,20 m.s.n.m.
					 				 										FUNDACION Cota -1,80 m.s.n.m.
																			ESTRIBOS

Cuadro de columnas
Hormigón: H-21 , Control Normal
Acero: AH-500 , Control Normal
Escala: ESQUEMATICO



UNIVERSIDAD AUTÓNOMA "JUAN MISAEL SARACHO"
FACULTAD DE CIENCIAS Y TECNOLOGÍA
CARRERA DE INGENIERÍA CIVIL



MATERIA:
PROYECTO DE INGENIERIA CIVIL
MENSION ESTRUCTURAS

PROYECTO:
DISEÑO ESTRUCTURAL MUSEO DE LA BIODIVERSIDAD
MUNICIPIO DE PADCAYA

UNIVERSITARIO:
FLORES BEJARANO ERLING DAVID

FECHA:
DICIEMBRE - 2019

ESCALA:
INDICADA

LÁMINA:
5/13

VoBo

CONTENIDO:
PLANO ESTRUCTURAL - COLUMNAS DE HORMIGON ARMADO

Technical drawing of a reinforced concrete slab (Corte A-A) showing dimensions and reinforcement details. The drawing includes a cross-section view (Corte A-A) and a plan view. Key dimensions and labels include:

- Overall Dimensions:**
 - Top: 412, 438, 412
 - Bottom: 375, 400, 25
 - Right side: 35, 20, 31, 16, 156, 166
- Reinforcement Details:**
 - Top reinforcement: $\phi 10 L=125$, $\phi 10 L=185$, $\phi 10 L=135$
 - Bottom reinforcement: $2\phi 10 L=896$, $2\phi 12 L=896$
 - Internal reinforcement: $2\phi 12 L=896$
 - Stirrups: $15\phi 6 \times 26$, $16\phi 6 \times 26$
 - Section labels: 20×35
- Other Labels:**
 - C21, C23, C30
 - A, A
 - Corte A

Technical drawing of the Cortes A section of a bridge, showing the cross-section and longitudinal view. The cross-section shows a 20x35 cm beam with reinforcement bars (20x35, 20x35, 20x35, 20x35) and stirrups (20x35). The longitudinal view shows the beam with reinforcement bars (20x35, 20x35, 20x35, 20x35) and stirrups (20x35). The drawing includes dimensions for the beam, reinforcement, and stirrups.

Technical drawing of a reinforced concrete slab (L.15) showing dimensions, reinforcement details, and section A-A.

Reinforcement Details:

- Top reinforcement: $2\phi 10$ L=100, $2\phi 10$ L=130, $2\phi 10$ L=140, $2\phi 10$ L=205, $2\phi 10$ L=205, $2\phi 10$ L=205.
- Bottom reinforcement: $2\phi 12$ L=940, $2\phi 12$ L=735.
- Stirrups: $10 \times 10 \phi 6/26$, $8 \times 10 \phi 6/26$, $15 \times 10 \phi 6/26$, $18 \times 10 \phi 6/26$, $7 \times 10 \phi 6/26$.
- Section A-A: 20×35 .

Dimensions (mm):

- Overall width: 285, 218, 396, 489, 205, 205.
- Overall length: 100, 130, 140, 205, 205, 205.
- Stirrups: $10 \times 10 \phi 6/26$, $8 \times 10 \phi 6/26$, $15 \times 10 \phi 6/26$, $18 \times 10 \phi 6/26$, $7 \times 10 \phi 6/26$.

Section A-A:

Section A-A shows the slab thickness of 35 mm and the reinforcement details.

Legend:

- $10 \phi 6$ L=106
- $8 \phi 6$ L=106
- $15 \phi 6$ L=106
- $18 \phi 6$ L=106
- $7 \phi 6$ L=106

Technical drawing of the longitudinal section of the bridge, labeled "Corte A". The drawing shows the bridge structure with various dimensions and reinforcement details. Key dimensions include: total length 1866 L=10, deck width 20, and various reinforcement bar spacings and lengths. Reinforcement details include 18x10 L=145, 2x10 L=350, 2x10 L=355, 18x10 L=200, 2x10 L=550, 18x10 L=125, 18x10 L=26, 15x10 L=26, and 13x10 L=26. The drawing also shows the location of the bridge piers (C14, C18, C26) and the bridge deck (20x35). The drawing is labeled "Corte A" and "1/1".

Technical drawing of the structural frame for the 'Corte A' section of the 'Edificio de la Facultad de Ingeniería'. The drawing shows a cross-section of a building with four columns labeled C2, C8, C13, and C17, and a fifth column C25 at the far right. The frame consists of a continuous beam and columns. Dimensions are given in meters. The beam has a total length of 10.0m, with segments of 2.85m, 2.18m, 3.96m, 5.01m, and 1.45m. The columns have heights of 3.0m, 3.0m, 3.0m, 3.0m, and 3.0m. The beam is reinforced with 20x35mm bars. The columns are reinforced with 20x12mm bars. The drawing also shows a section of the beam with a width of 20cm and a height of 35cm. The section is labeled 'Corte A'.

Technical drawing of the longitudinal section of the bridge deck (Corte A-A). The drawing shows a cross-section with a total width of 20 meters and a height of 1.86 meters. The deck is supported by five piers labeled C-1, C-7, C-12, C-16, and C-24. The spans between piers are 266m, 218m, 306m, 502m, and 502m. The deck is composed of 20x35cm precast concrete slabs. The drawing includes dimensions for the slabs, the piers, and the overall structure. A detail view of the pier cross-section is shown on the right, indicating a width of 20m and a height of 1.86m.

Technical drawing of a reinforced concrete beam (Corte A-A) showing dimensions, reinforcement details, and material specifications.

Dimensions (mm):

- Span lengths: 90, 440, 522, 394, 410, 230.
- Section width: 200.
- Section height: 350.
- Effective depth: 315.

Reinforcement Details:

- Top Reinforcement:**
 - Span 90: 1ø10 L=215
 - Span 440: 1ø10 L=215
 - Span 522: 1ø10 L=205
 - Span 394: 1ø10 L=185
 - Span 410: 1ø10 L=185
 - Span 230: 1ø10 L=85
- Bottom Reinforcement:**
 - Span 90: 3ø1ø6 c/26
 - Span 440: 16ø1ø6c/26
 - Span 522: 20ø1ø6c/26
 - Span 394: 15ø1ø6c/26
 - Span 410: 15ø1ø6c/26
 - Span 230: 8ø1ø6c/26
- Stirrups:** 20x35
- Vertical Reinforcement:** 2ø12 L=1095

Material Specifications:

- Concrete: C25
- Reinforcement: S235

Section Details:

- Corte A-A:** Shows the cross-section of the beam with dimensions 200x350 and reinforcement details.
- Corte B-B:** Shows the cross-section of the beam with dimensions 200x350 and reinforcement details.

[illegible]

Technical drawing of the floor plan of the 'Corte A' section of the 'Casa de la Memoria' in Bogotá. The plan shows a rectangular structure with a central corridor (20x35) and two main rooms (20x35). Dimensions are given in meters (m) and centimeters (cm). The drawing includes a section line 'Corte A' and a detailed view of the section 'Corte A' showing a 16m wide section with a 20cm thick wall and a 31cm thick wall.

Technical drawing of a reinforced concrete beam (Corte A) showing its cross-section and longitudinal reinforcement details. The beam has a total length of 1220 cm, divided into four spans: 407 cm, 410 cm, 257 cm, and 106 cm. It is supported by four columns labeled C.15, C.14, C.13, and C.12. The cross-section is rectangular with a width of 35 cm and a height of 60 cm. The longitudinal reinforcement consists of 20 bars of diameter 12 mm (20x12) spaced at 120 mm. The top reinforcement is 15 bars of diameter 16 mm (15x16) spaced at 26 mm. The bottom reinforcement is 3 bars of diameter 16 mm (3x16) spaced at 26 mm. The beam is labeled 'Corte A' and '20x35'.

Technical drawing of a reinforced concrete beam (Corte A) showing longitudinal and cross-sectional views.

Longitudinal View:

- Span lengths: 531, 522, 477, 327, 280.
- Reinforcement bars: 2ø10, 2ø12, 1ø10, 1ø12.
- Stirrups: 20x35.
- Dimensions: 115, 160, 105, 80, 75, 60.

Corte A (Cross-section):

- Height: 300mm.
- Width: 200mm.
- Reinforcement: 3ø10 top, 3ø10 bottom, 1ø10 stirrups.

Reinforcement Areas (Table):

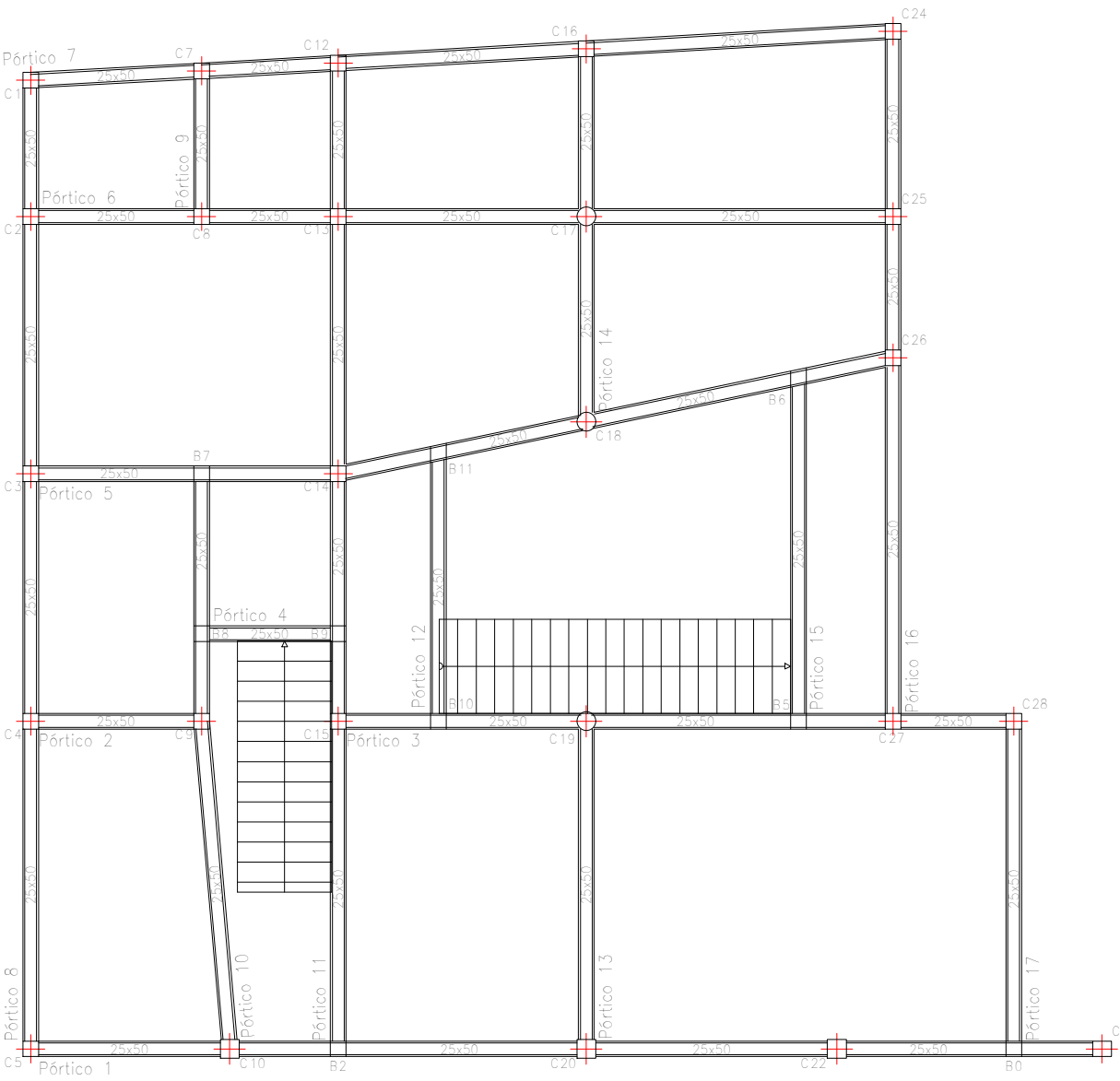
Span	As (cm²)	As' (cm²)	Asw (cm²)
38x1ø66/13	401	434	19x1ø66/26
18x1ø66/26	451	242	12x1ø66/26
10x1ø66/26	401	242	10x1ø66/26

Technical drawing of a rectangular frame with dimensions and annotations:

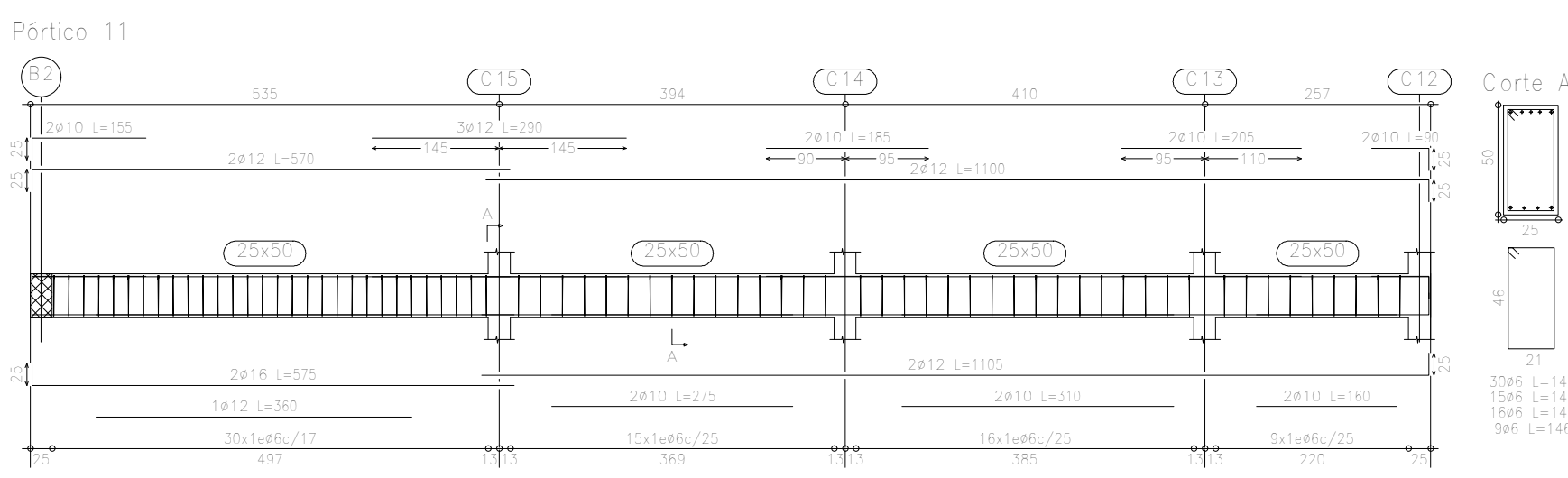
- Overall width: 531
- Overall height: 715
- Top horizontal member: $\phi 10 \ L=150$
- Bottom horizontal member: $\phi 10 \ L=150$
- Left vertical member: $\phi 10 \ L=577$
- Right vertical member: $\phi 10 \ L=577$
- Central horizontal member: 20×35
- Central vertical member: $20 \times 12 \ L=577$
- Bottom horizontal member: $19 \times 10 \phi 6 / 26$
- Bottom horizontal member: $19 \times 10 \ L=106$
- Annotations: "Corte A" (Section A), "A-A", "B-B", "15", "20", "16", "1965"

[illegible][illegible][illegible]

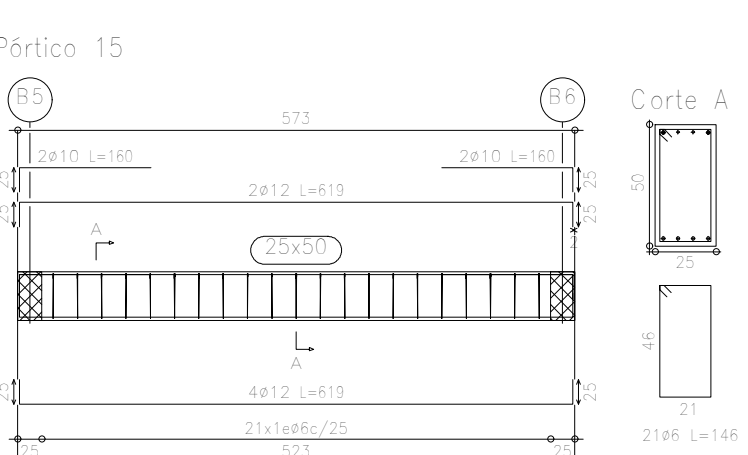
LOSA 1
Replanteo
Hormigón: H-21 , COTA +3.70
Escala: 1:100



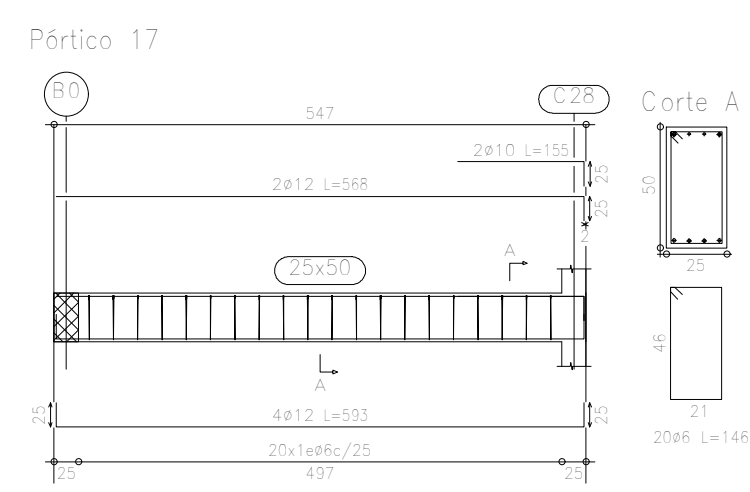
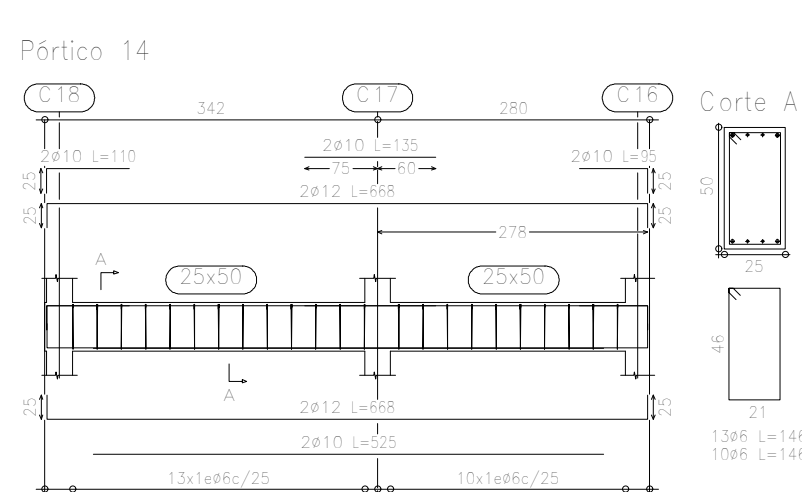
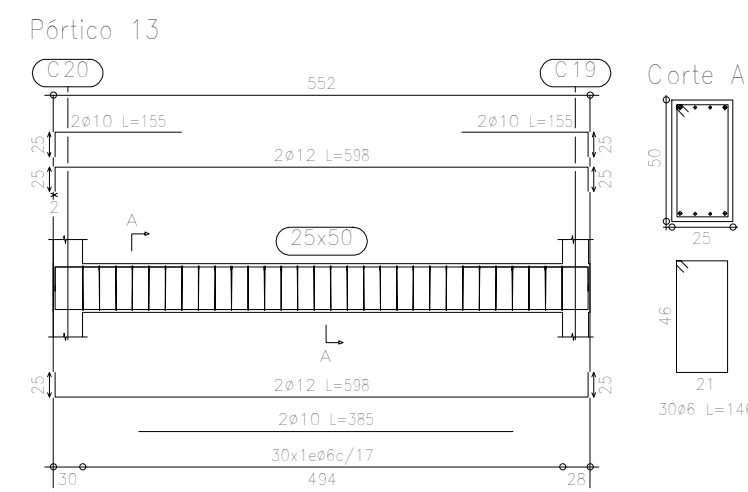
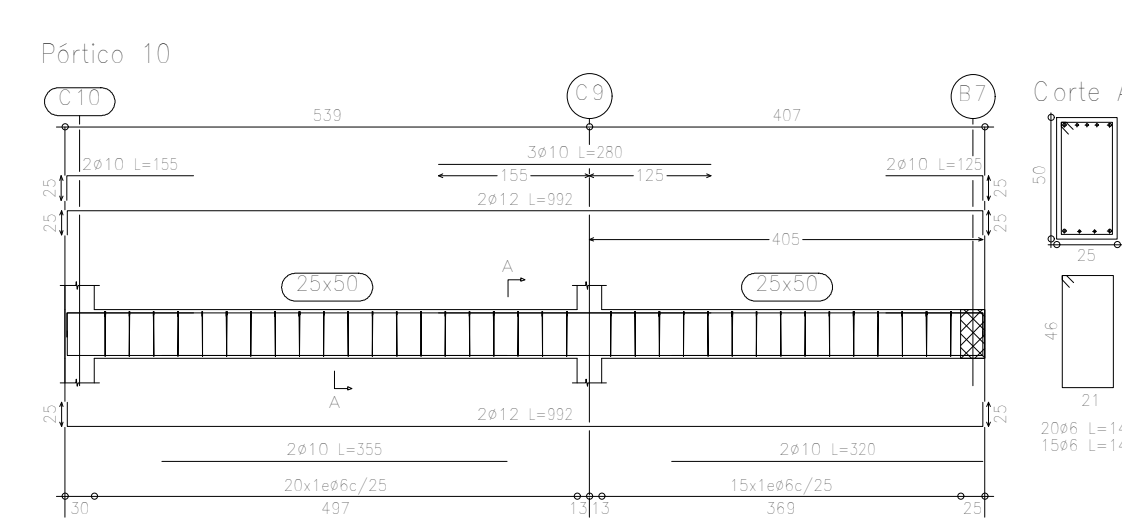
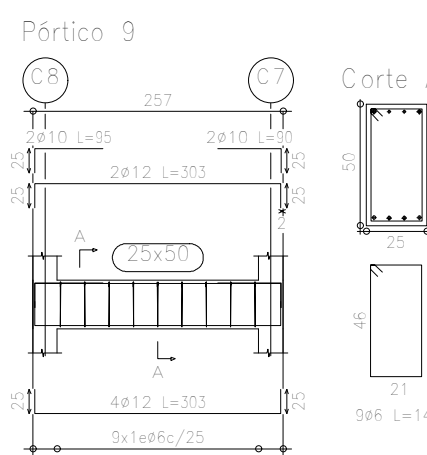
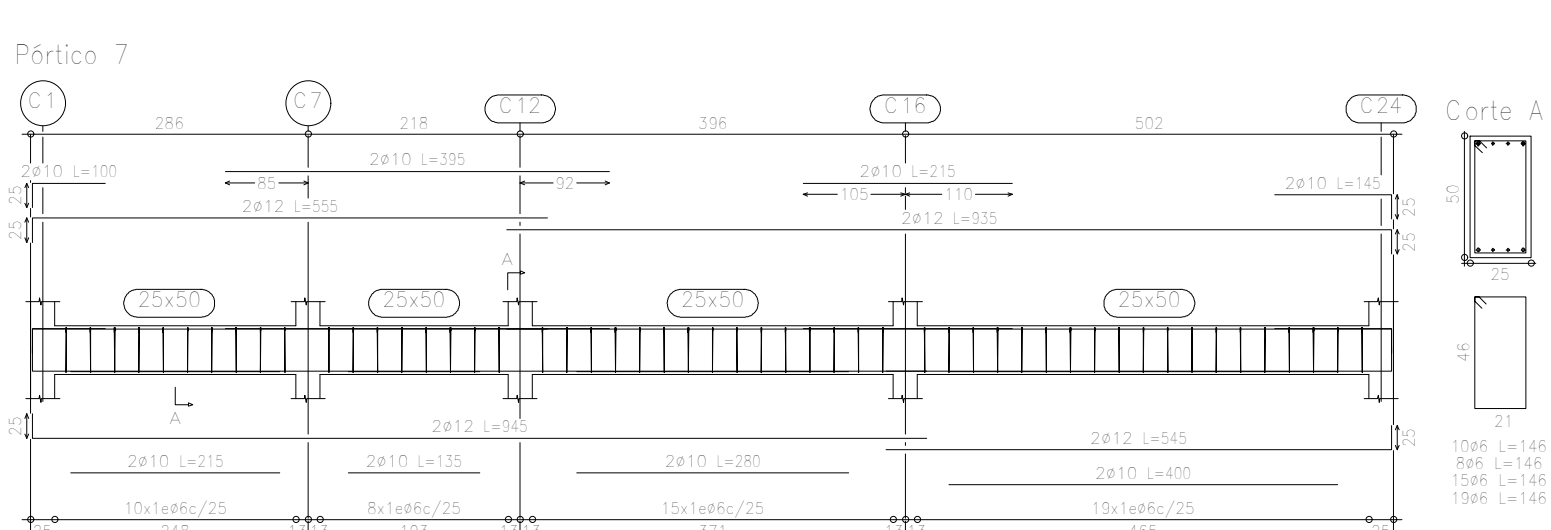
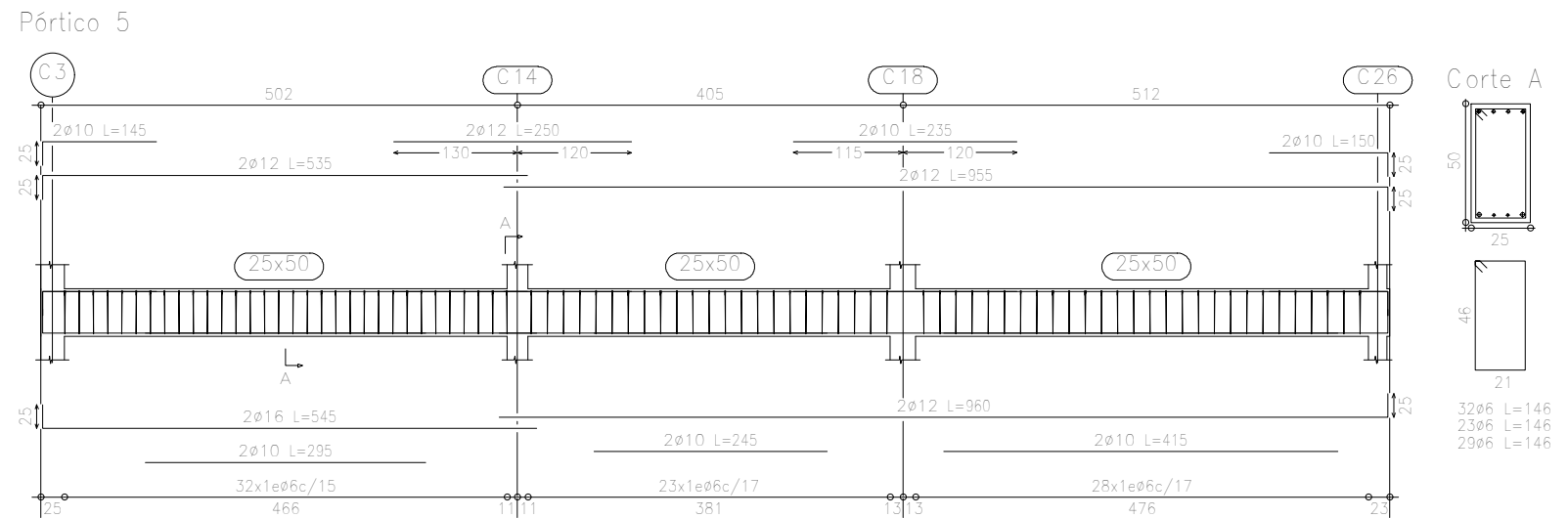
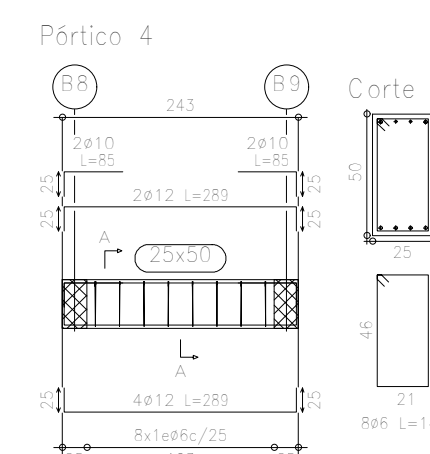
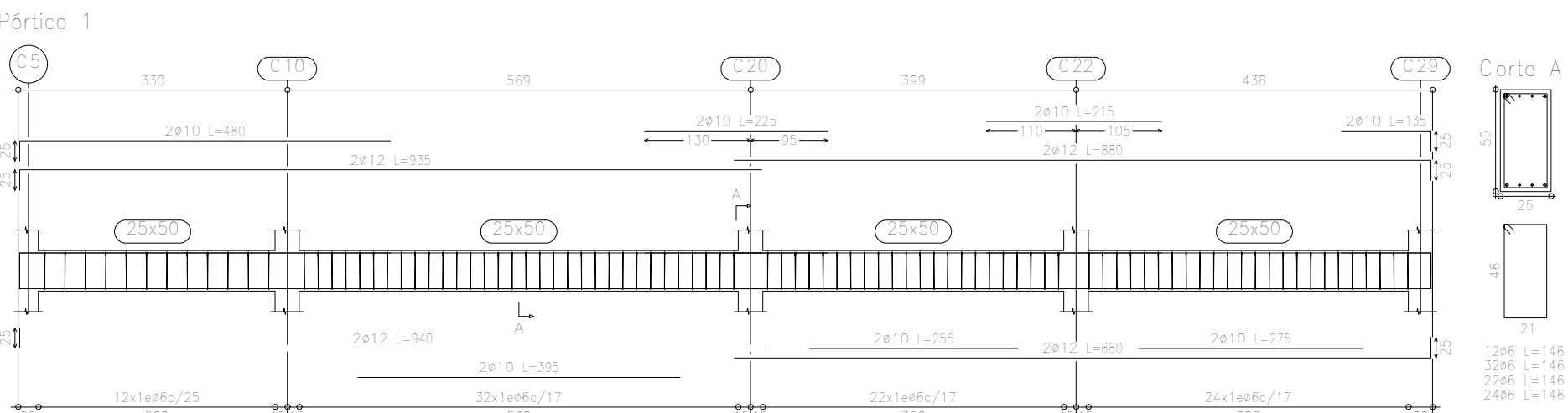
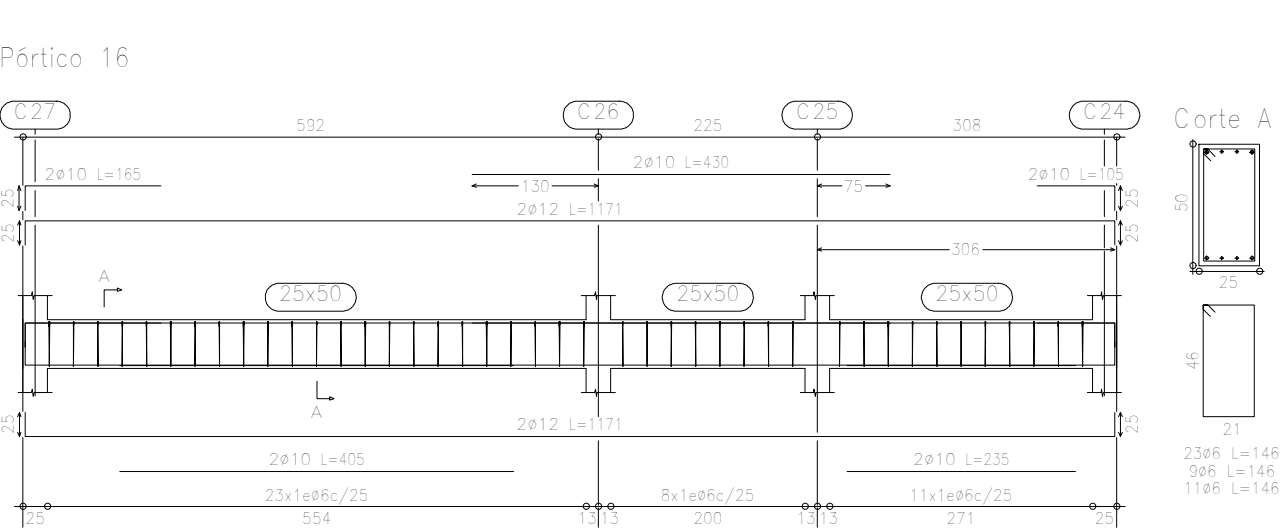
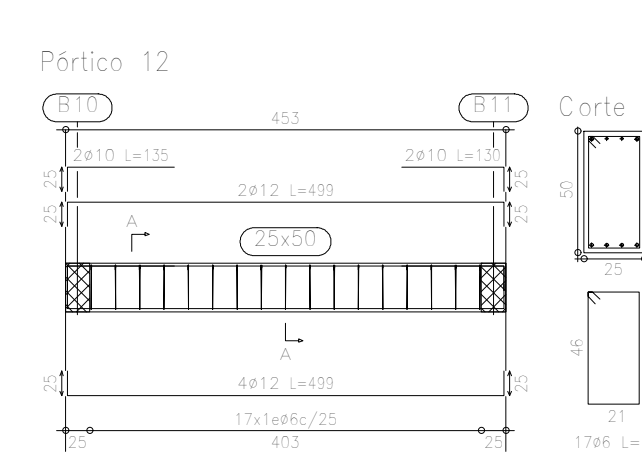
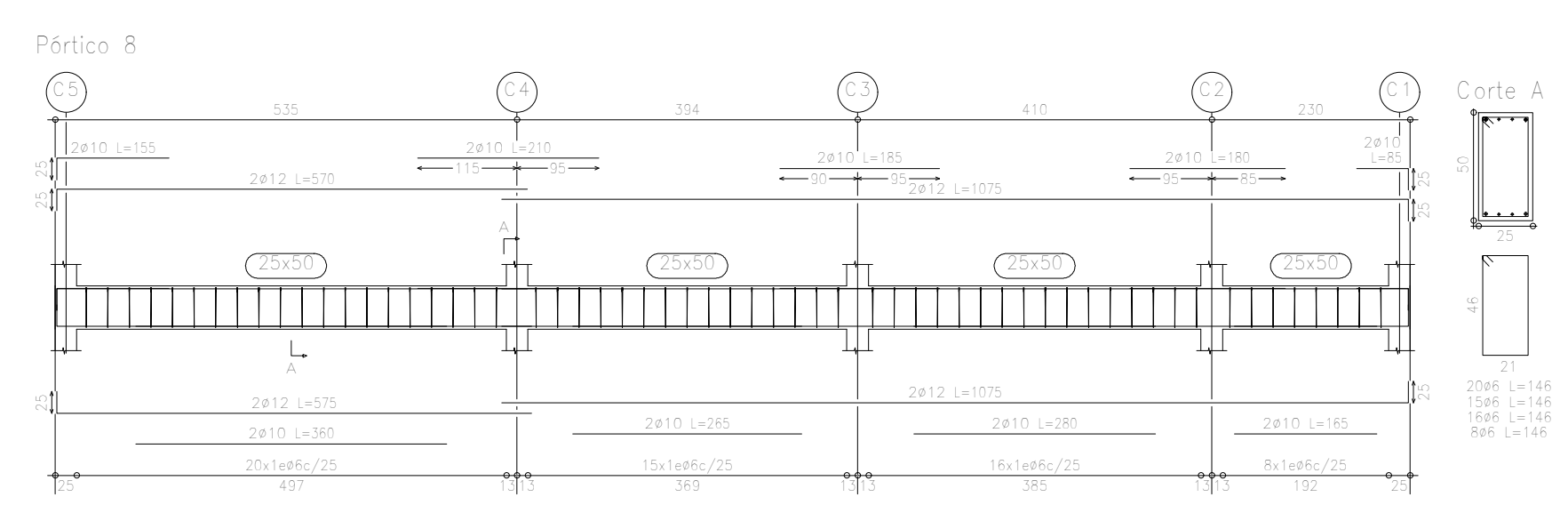
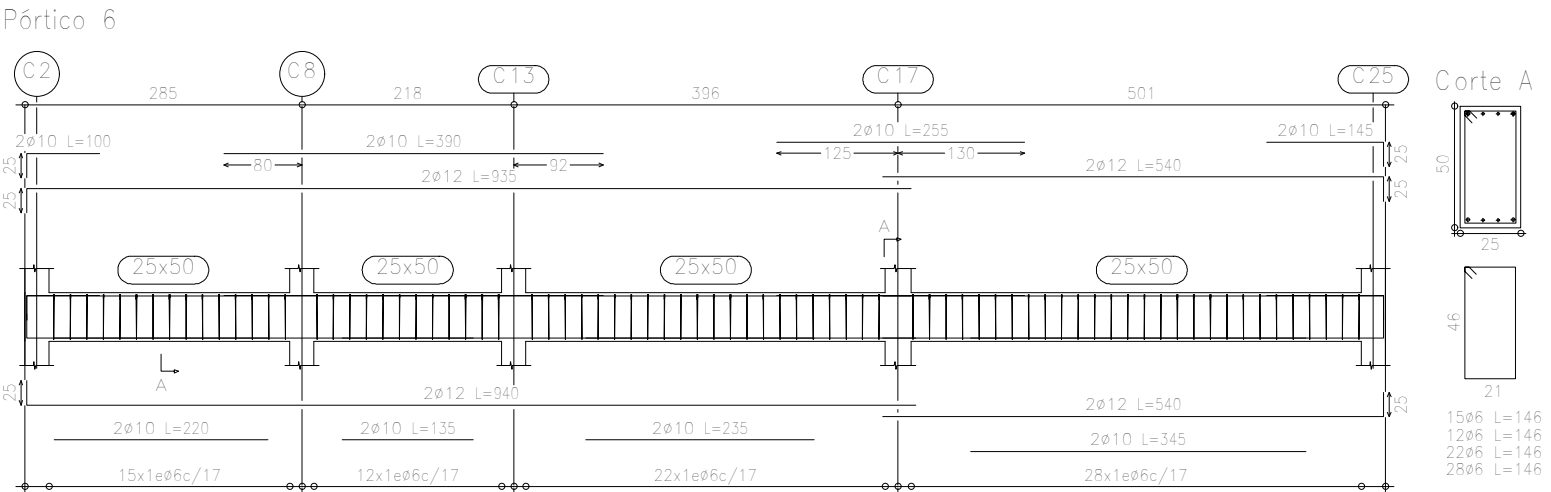
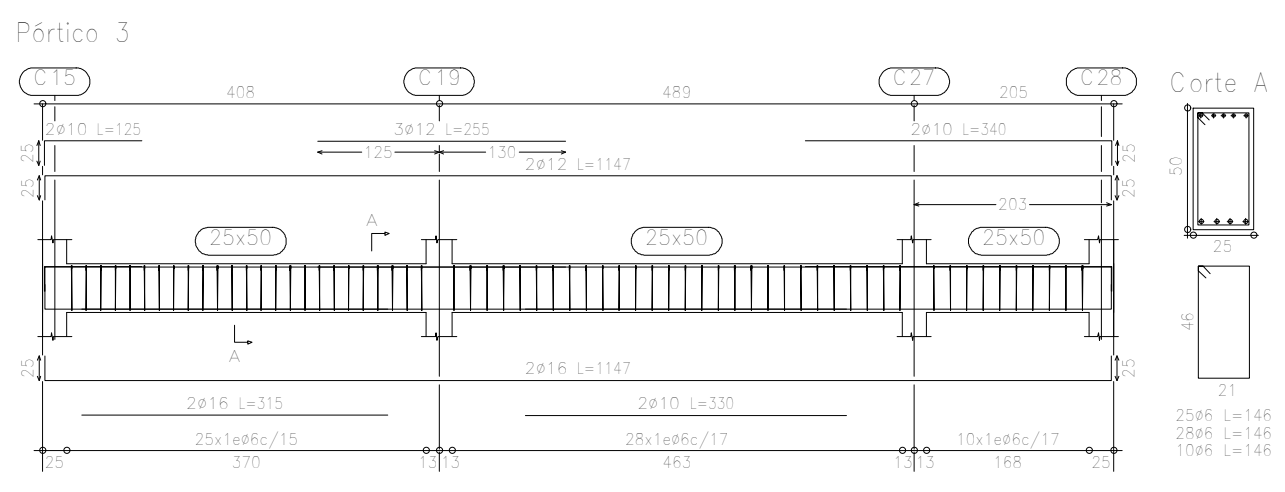
LOSA 1
Despiece de vigas
Hormigón: H-21 , Control Normal
Acero: AH-500 , Control Normal
Escala: 1:70



LOSA 1
Despiece de vigas
Hormigón: H-21 , Control Normal
Acero: AH-500 , Control Normal
Escala: 1:70



LOSA 1
Despiece de vigas
Hormigón: H-21 , Control Normal
Acero: AH-500 , Control Normal
Escala: 1:70



Portico 3

330 569 399 438

C5 C10 C20 C22 C29

2x10 L=110 3x12 L=225 2x12 L=335 2x10 L=185 2x12 L=880 2x10 L=145

25x50 25x50 25x50 25x50

2x12 L=940 2x12 L=350 2x12 L=880 2x10 L=690

2x10 L=205 2x12 L=350

Corte A

50 25 21

18x6 L=145
22x6 L=145
22x6 L=145
22x6 L=145

Pórtico 2

330 581

Ø10 L=110 3ø12 L=290 2ø16 L=357 Ø10 L=165

155 135

25x20 25x20

A A

2ø16 L=357 3ø12 L=400

Ø10 L=210 32x1ø8c/17 541

290 541

18x1ø8c/17 32x1ø8c/17

1806 L=146 3206 L=146

Corte A-A

Pórtico 6

Columns: C21, C20

Dimensions: 5.46m (width), 2.96m (height)

Reinforcement: 2Ø10 (L=150), 2Ø12 (L=591), 2Ø10 (L=150)

Section: 2.5x50

Section View: Corte A

Dimensions: 50, 25, 46, 21, 2.96 (L=14)

Pórtico 4

Corte A-A

453

2ø10 L=215

2ø10 L=135

2ø10 L=580

2ø10 L=320

4x1ø8 c/20

17x1ø8c/25

25x50

21

46

1796

453

2

76

13

25

415

496 L=146

1796 L=14

Pórtico 8

Technical drawing of the roof structure for "Pórtico 8". The drawing shows a plan view of the roof with dimensions and a cross-section labeled "Corte A".

Plan View Dimensions:

- Overall width: 518
- Overall length: 1366
- Central section width: 25x50
- Section width: 21
- Section height: 46
- Section length: 1366 L=146
- Offsets: 0.30, 0.25, 2.12, 0.25
- Span lengths: 2.012 L=565, 2.010 L=145, 4.012 L=565, 13x148 L=25

Corte A:

- Width: 25
- Height: 50

LOSA 4
 Despiece de vigas
 Hormigón: H-21 , Control Normal
 Acero: AH-500 , Control Normal
 Escala: 1:70

Pórtico 1

Top View Dimensions:
 - Overall Width: 450
 - Overall Depth: 176
 - Top Reinforcement: 2Ø10 L=496
 - Bottom Reinforcement: 4Ø12 L=496
 - Middle Reinforcement: 16x16Rc/25
 - Central Opening: 25x50
 - Section Line: A-A

Side View (Corte A-A) Dimensions:
 - Height: 50
 - Width: 25

Pórtico 2

Pórtico 9

12m 5.07m

2x1010 L=275 2x12 L=680 2x1010 L=145

25x50 25x50

28x1000 L=17 28x1000 L=17

2x1010 L=680 2x1010 L=410

7x1000 L=17 28x1000 L=17

Corte A

25m 5.07m

7x5 L=146 28x5 L=146

Pórtico 5

Reinforcement details and dimensions:

- Top reinforcement: $2\phi 10 \text{ L} = 215$, $2\phi 12 \text{ L} = 589$, $2\phi 10 \text{ L} = 135$
- Bottom reinforcement: $2\phi 12 \text{ L} = 589$, $2\phi 12 \text{ L} = 300$, $17\phi 6 \text{ c/c} = 25$
- Slab thickness: 25×50 cm
- Dimensions: $4 \times 1 \text{ m} \phi 6 \text{ c/20}$, 415 , $406 \text{ L} = 140$, $1786 \text{ L} = 14$

Pórtico 7

Technical drawing of the roof structure for "Pórtico 7". The drawing shows a plan view of a rectangular roof with a central longitudinal beam (25x50) and a series of transverse beams. Dimensions include a total width of 546, a total length of 431, and various offsets and beam spacings. A section line "A-A" is indicated. To the right, a "Corte A" (Section A) is shown, detailing the cross-section of the roof structure with a height of 5.55, a width of 25, and a depth of 4.6. The section shows a concrete slab on top of a steel beam, with insulation and other layers indicated by different hatching patterns.

Pórtico 4

Reinforcement details for Portal 4:

- Top reinforcement: 2010 L=110, 2012 L=220, 2012 L=935, 2010 L=230, 2010 L=185, 2010 L=140.
- Bottom reinforcement: 18x1e96/17, 2012 L=340, 2012 L=715, 2010 L=250, 2010 L=880, 2010 L=240.
- Vertical reinforcement: 25x50.
- Dimensions: 330, 569, 399, 438, 290, 539, 369, 393.
- Corte A dimensions: 25, 15, 21.

Reinforcement	Area
18x1e96/17	1896 L=146
22x1e96/25	2296 L=146
22x1e96/17	2296 L=146
24x1e96/17	2496 L=146

Portico 8

12m

516

2ø10 L=275

2ø10 L=145

2ø12 L=682

25x50

25x50

2ø10 L=345

19xø8c/25

7xø8c/17

50

21

796 L=146

1996 L=146

Corte A

Pórtico 6

Reinforcement details:

- Top reinforcement: $4\phi 12 \text{ L}=591$
- Bottom reinforcement: $17 \times 1\phi 6 \text{ c}/25$
- Stirrups: $4 \times 1\phi 8 \text{ R c}/25$

Section Cut A-A:

- Width: 25
- Height: 46
- Dimensions: $406 \text{ L}=146$, $1796 \text{ L}=146$

LOSA 4
 Despiece de vigas
 Hormigón: H-21 , Control Normal
 Acero: AH-500 , Control Normal
 Escala: 1:70

Pórtico 1

298

2912 L=100

2010 L=343

2012 L=100

2012 L=343

2010 L=240

15x10n66/17

248

298

2912 L=100

2010 L=343

2012 L=100

2012 L=343

2010 L=240

15x10n66/17

248

298

25x50

20x20

Corte A-A

50

25

46

21

156 L=141

Pórtico 3

Technical drawing of a door assembly showing a cross-section and a top view.

Corte A-A (Cross-section):

- Overall width: 242
- Distance between center lines (C2 and C1): 242
- Door width: 2610 L=268
- Door height: 25x30
- Door frame height: 25
- Door frame width: 25
- Door frame depth: 25
- Door frame material: 25x30
- Door frame finish: 25x30
- Door frame color: 25x30
- Door frame texture: 25x30
- Door frame pattern: 25x30
- Door frame shape: 25x30
- Door frame size: 25x30
- Door frame weight: 25x30
- Door frame volume: 25x30
- Door frame area: 25x30
- Door frame perimeter: 25x30
- Door frame surface: 25x30
- Door frame interior: 25x30
- Door frame exterior: 25x30
- Door frame top: 25x30
- Door frame bottom: 25x30
- Door frame left: 25x30
- Door frame right: 25x30
- Door frame front: 25x30
- Door frame back: 25x30
- Door frame side: 25x30
- Door frame end: 25x30
- Door frame corner: 25x30
- Door frame edge: 25x30
- Door frame joint: 25x30
- Door frame seam: 25x30
- Door frame gap: 25x30
- Door frame hole: 25x30
- Door frame slot: 25x30
- Door frame notch: 25x30
- Door frame cutout: 25x30
- Door frame opening: 25x30
- Door frame hole: 25x30
- Door frame slot: 25x30
- Door frame notch: 25x30
- Door frame cutout: 25x30
- Door frame opening: 25x30

Top View:

- Overall width: 242
- Distance between center lines (C2 and C1): 242
- Door width: 2610 L=268
- Door height: 25x30
- Door frame height: 25
- Door frame width: 25
- Door frame depth: 25
- Door frame material: 25x30
- Door frame finish: 25x30
- Door frame color: 25x30
- Door frame texture: 25x30
- Door frame pattern: 25x30
- Door frame shape: 25x30
- Door frame size: 25x30
- Door frame weight: 25x30
- Door frame volume: 25x30
- Door frame area: 25x30
- Door frame perimeter: 25x30
- Door frame surface: 25x30
- Door frame interior: 25x30
- Door frame exterior: 25x30
- Door frame top: 25x30
- Door frame bottom: 25x30
- Door frame left: 25x30
- Door frame right: 25x30
- Door frame front: 25x30
- Door frame back: 25x30
- Door frame side: 25x30
- Door frame end: 25x30
- Door frame corner: 25x30
- Door frame edge: 25x30
- Door frame joint: 25x30
- Door frame seam: 25x30
- Door frame gap: 25x30
- Door frame hole: 25x30
- Door frame slot: 25x30
- Door frame notch: 25x30
- Door frame cutout: 25x30
- Door frame opening: 25x30

[illegible]

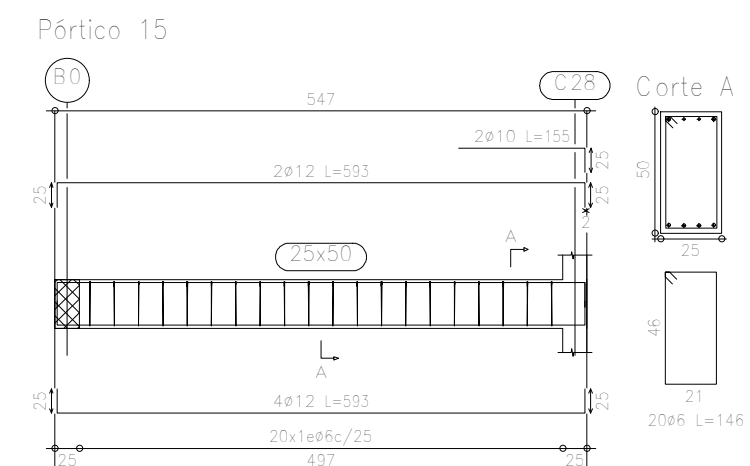
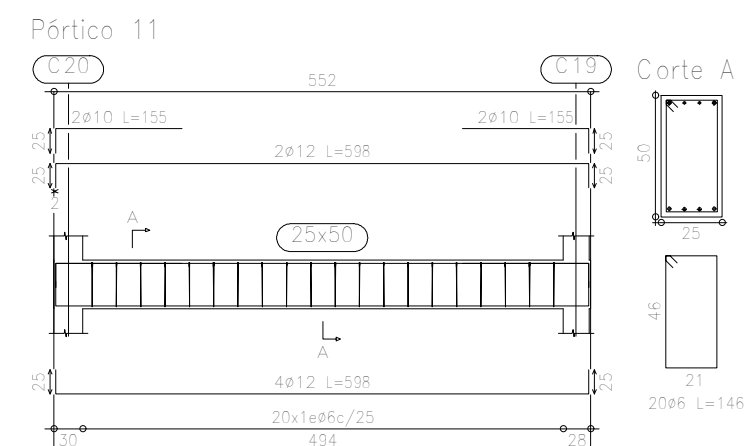
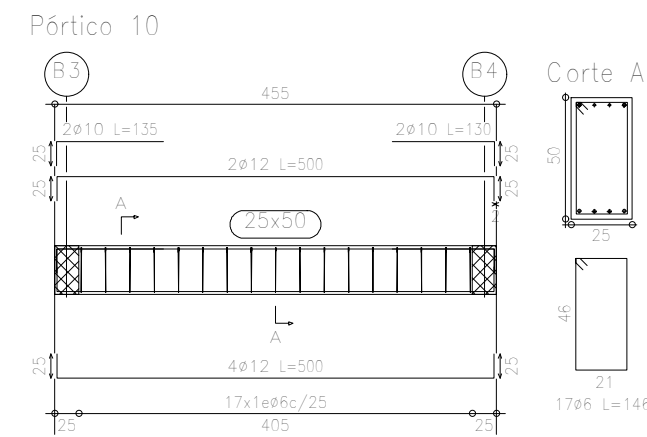
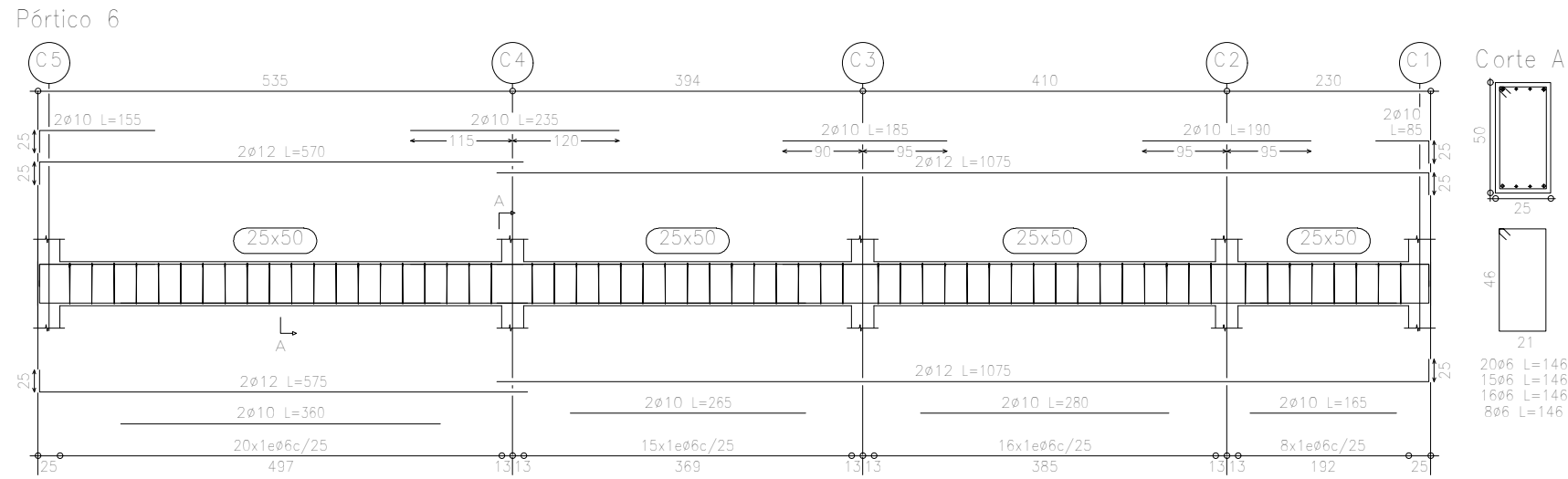
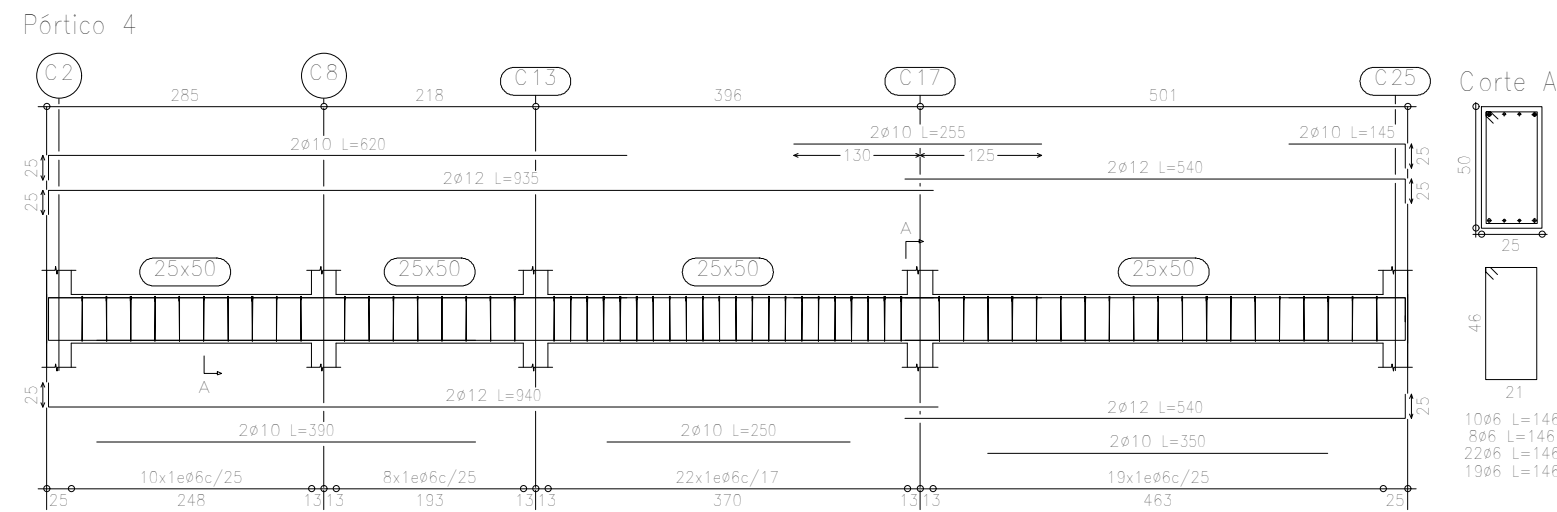
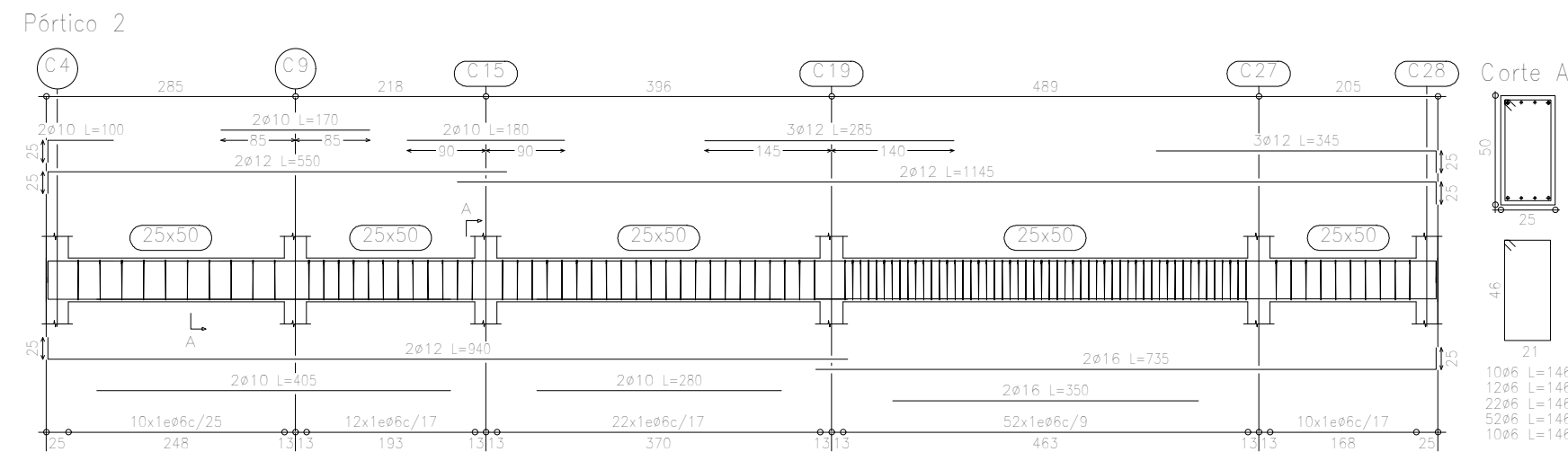
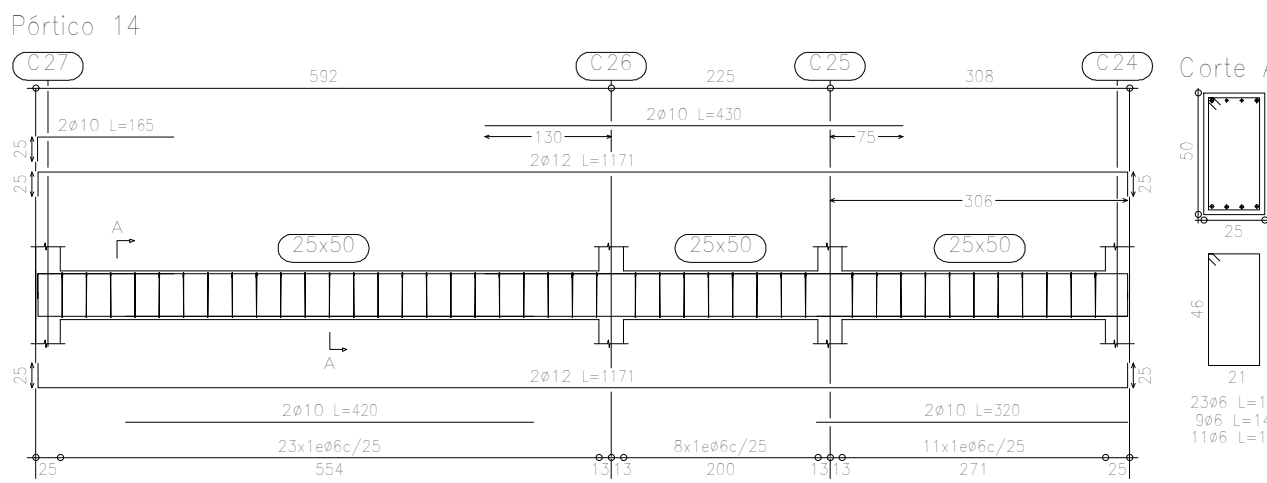
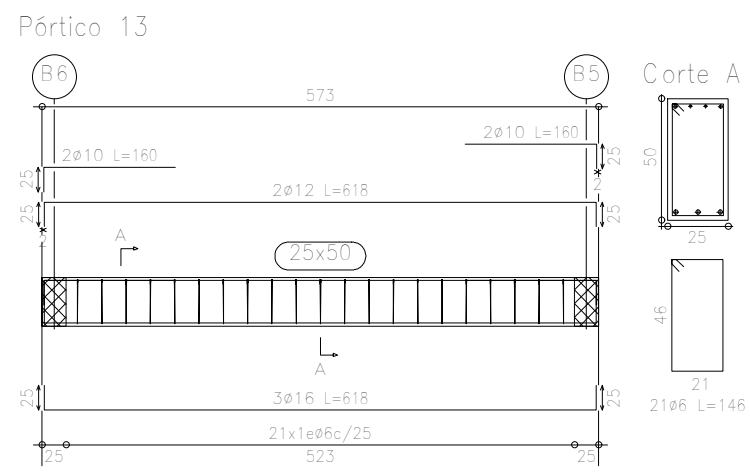
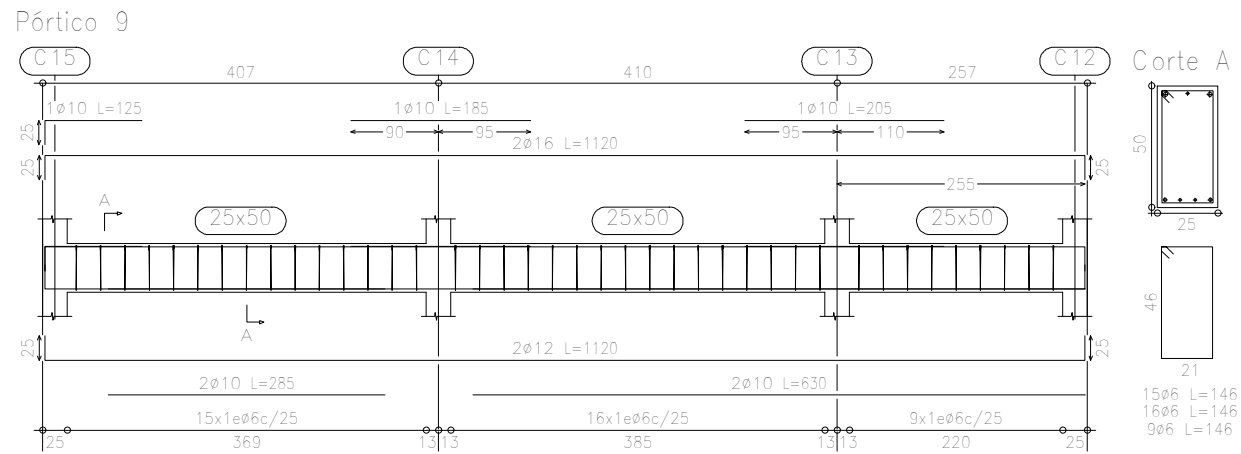
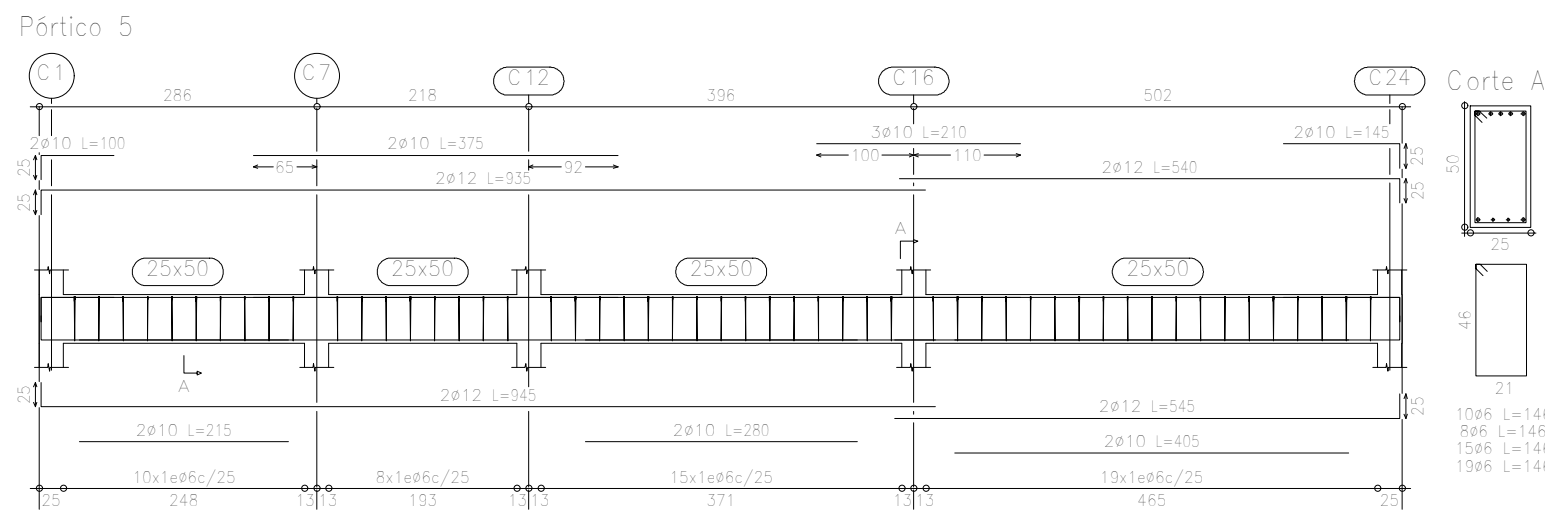
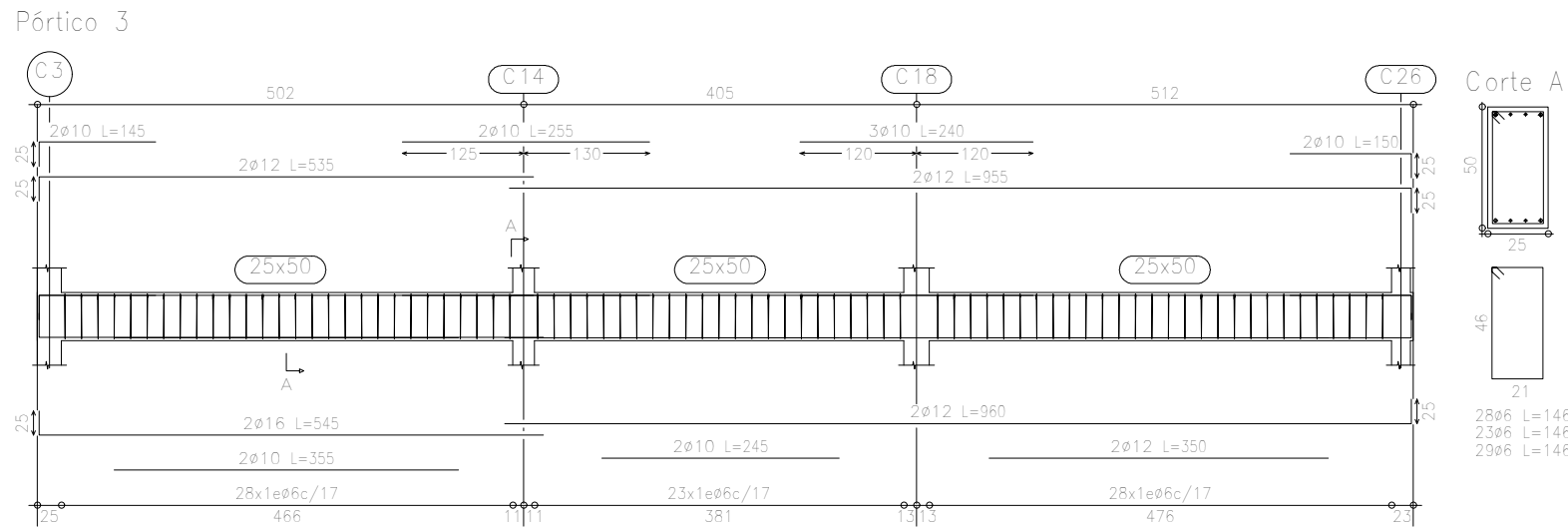
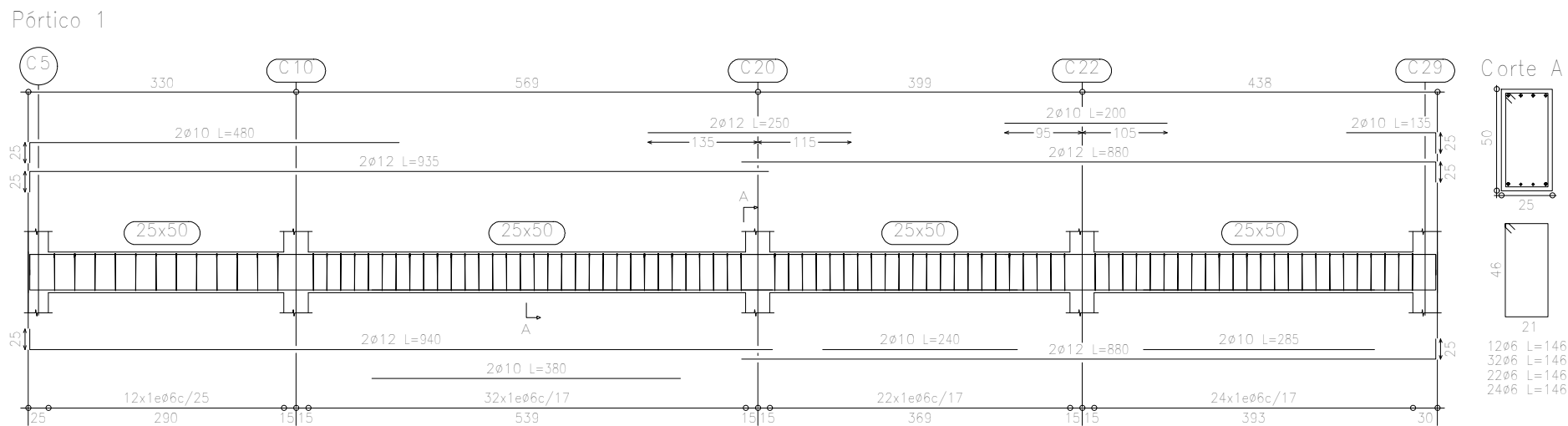
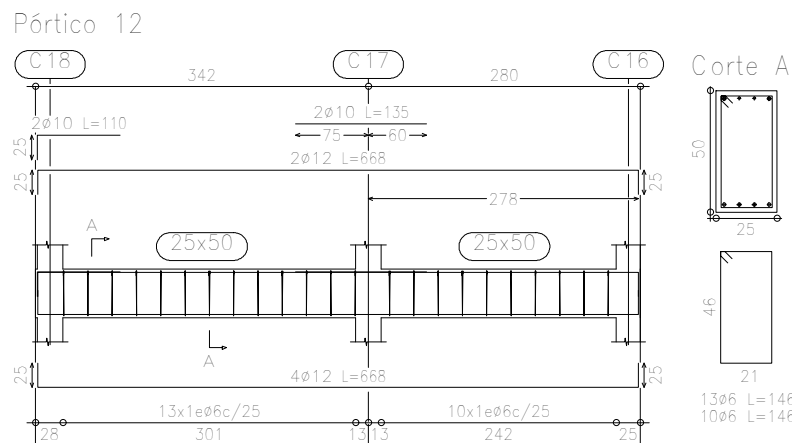
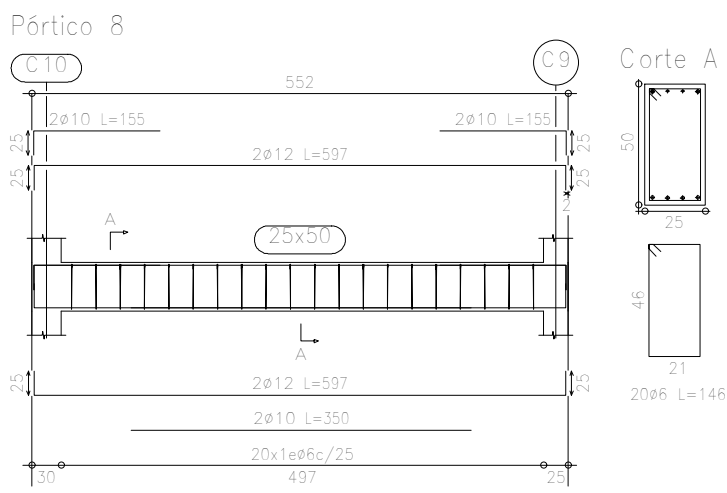
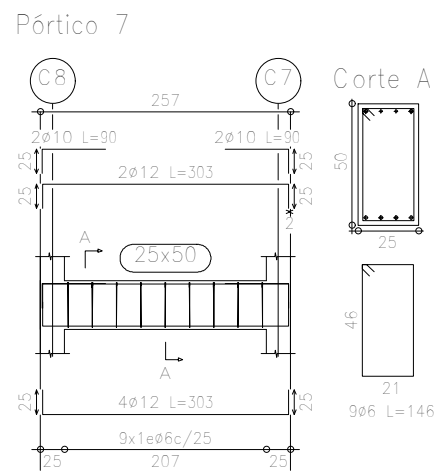
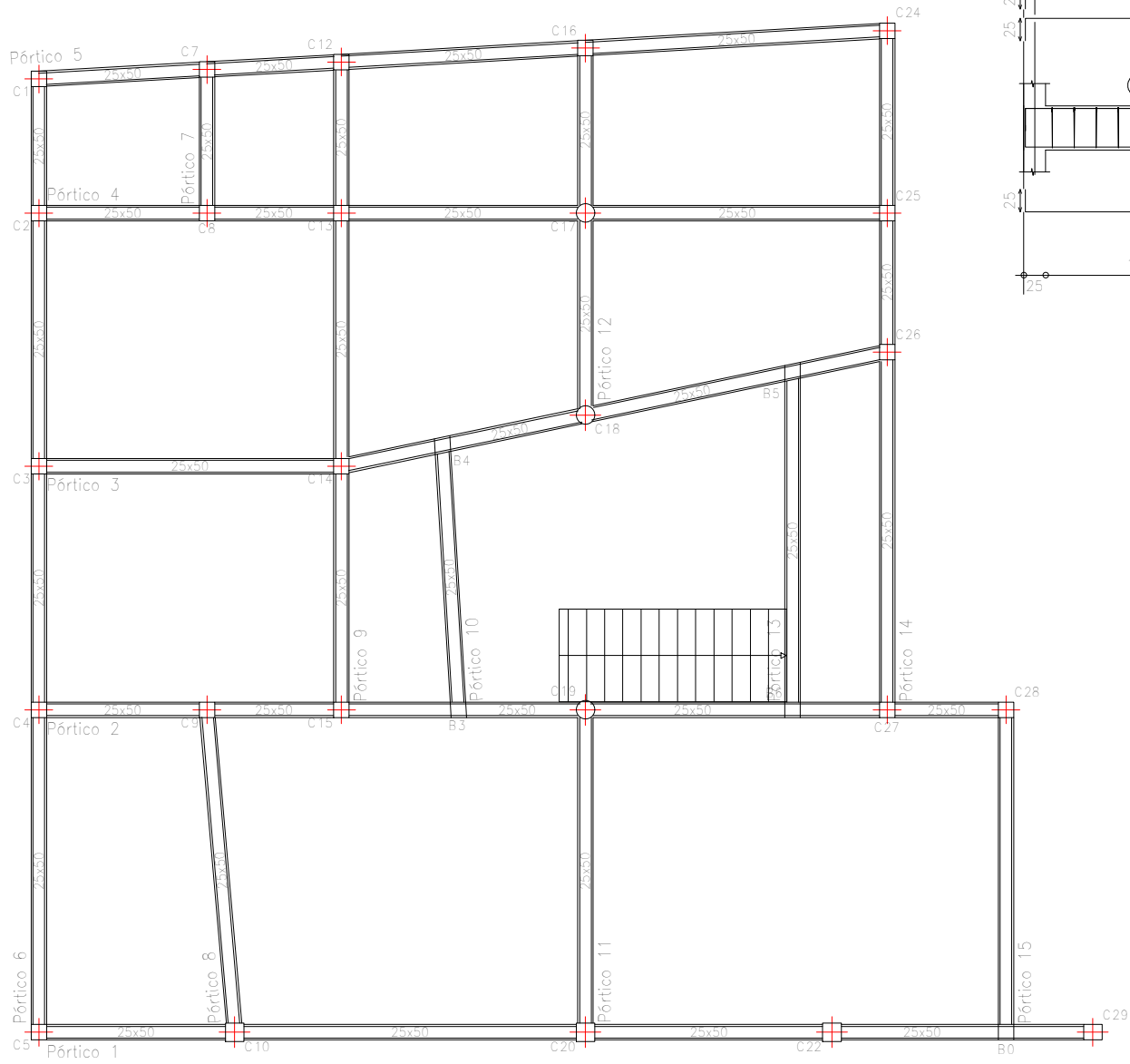
PROYECTO:
DISEÑO ESTRUCTURAL MUSEO DE LA BIODIVERSIDAD
MUNICIPIO DE PADCAYA

ESCALA: INDICADA	LÁMINA
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CONTENIDO:	PLANO ESTRUCTURAL - VIGA DE ENCADENADO LOSA 2-4-6
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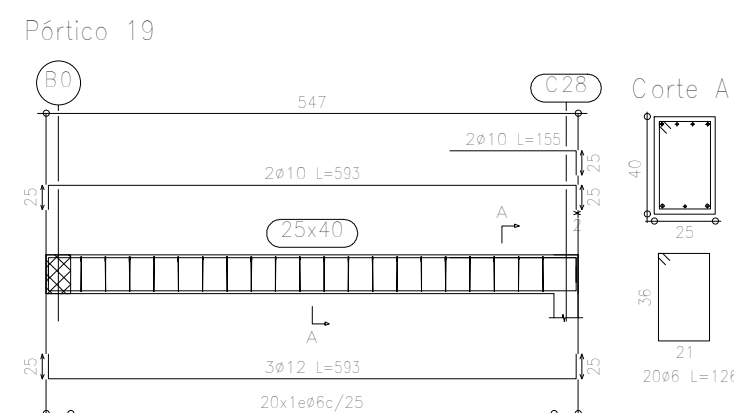
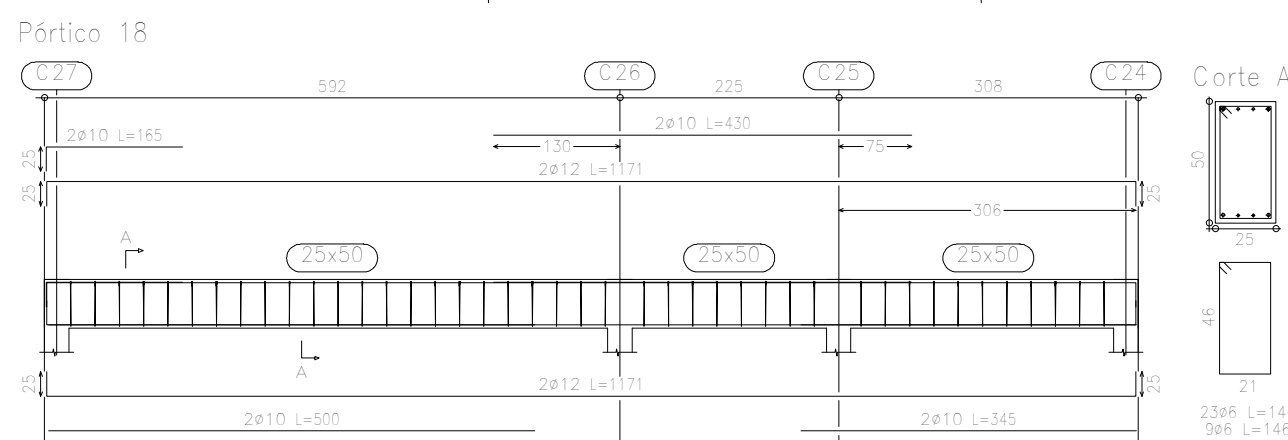
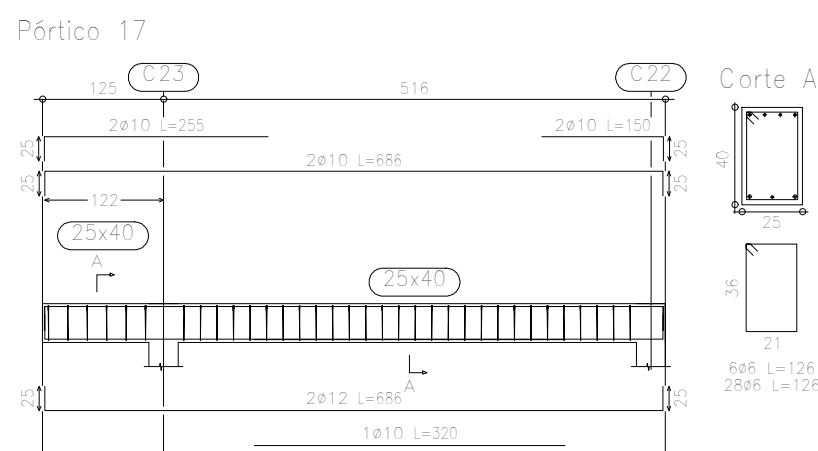
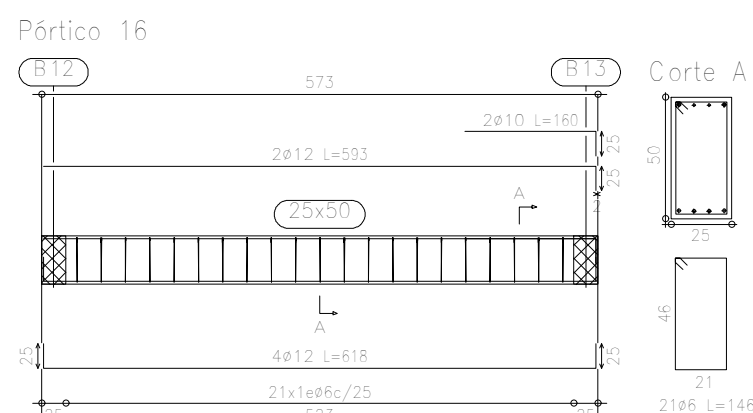
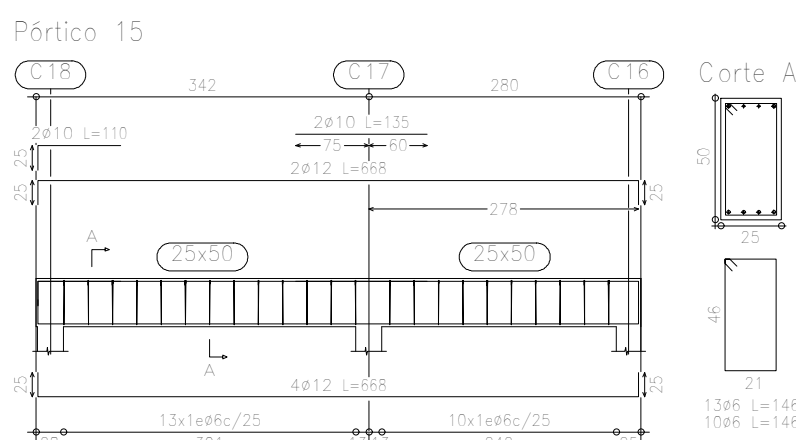
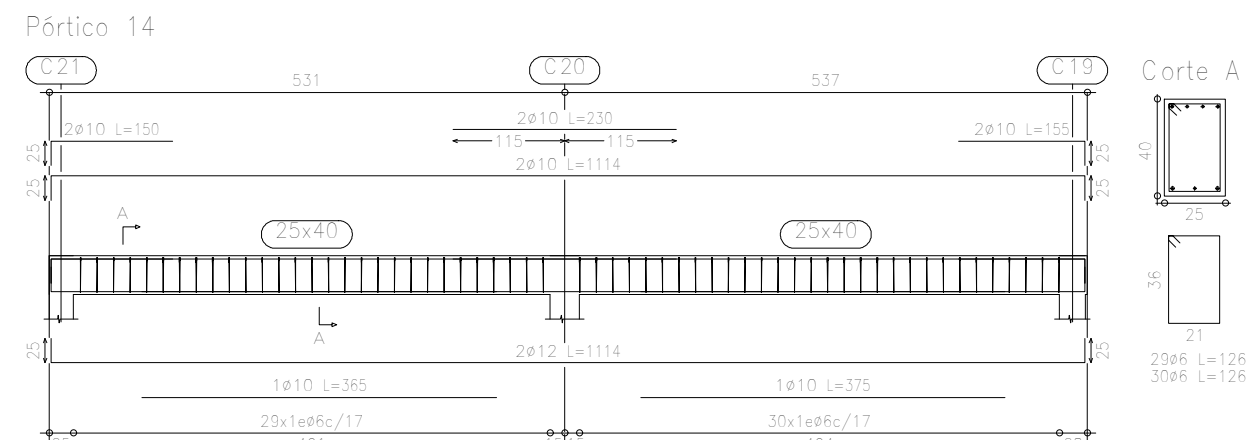
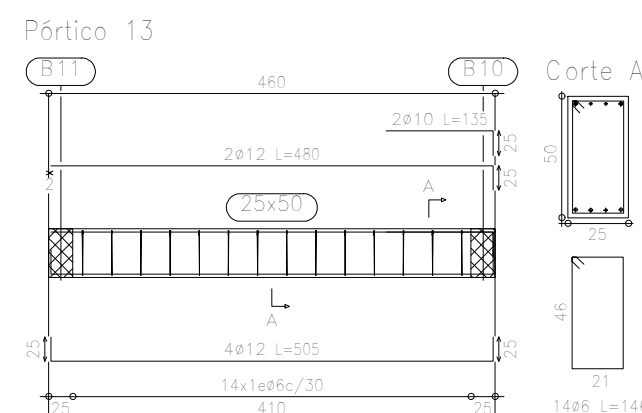
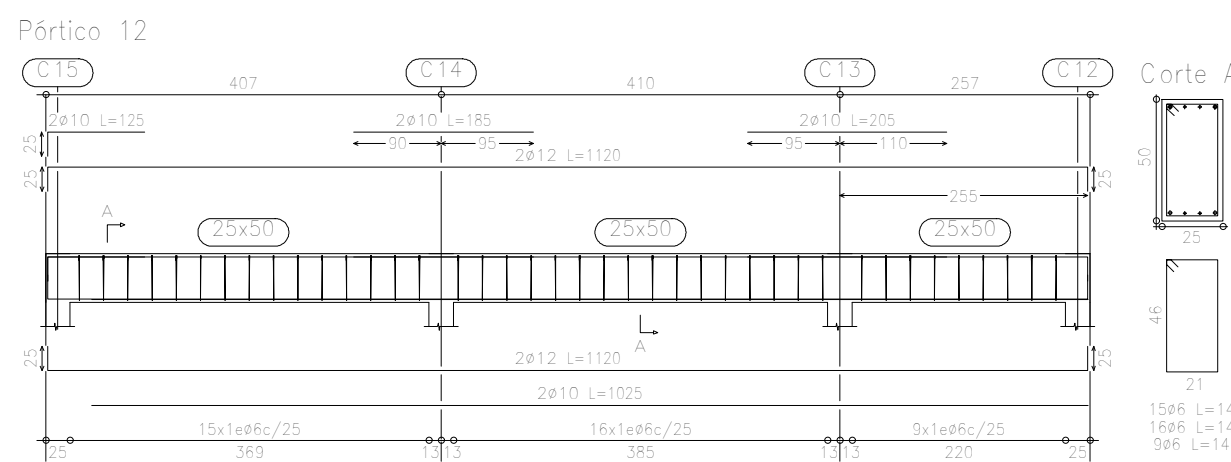
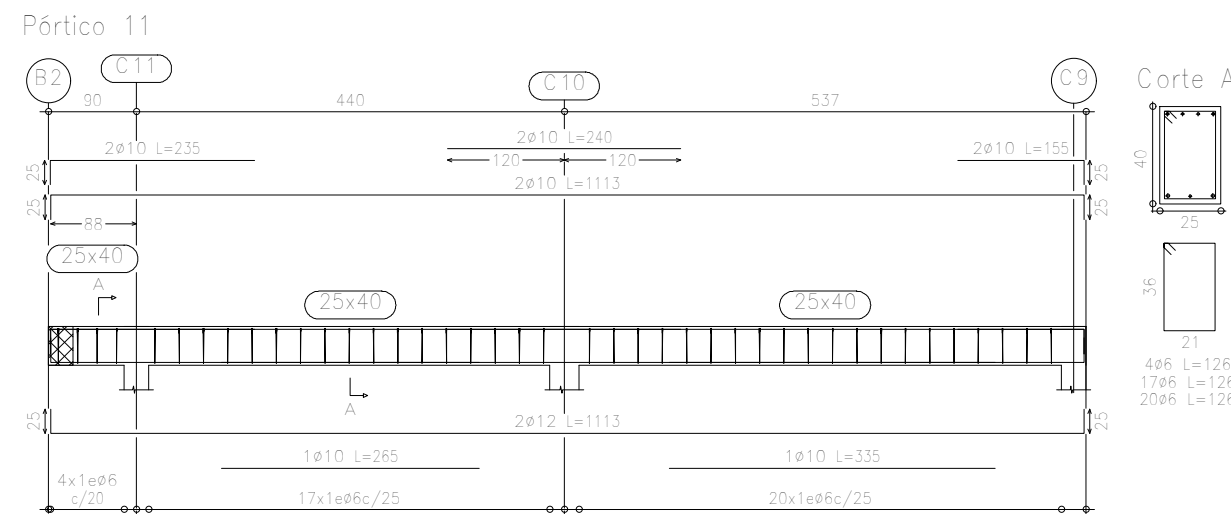
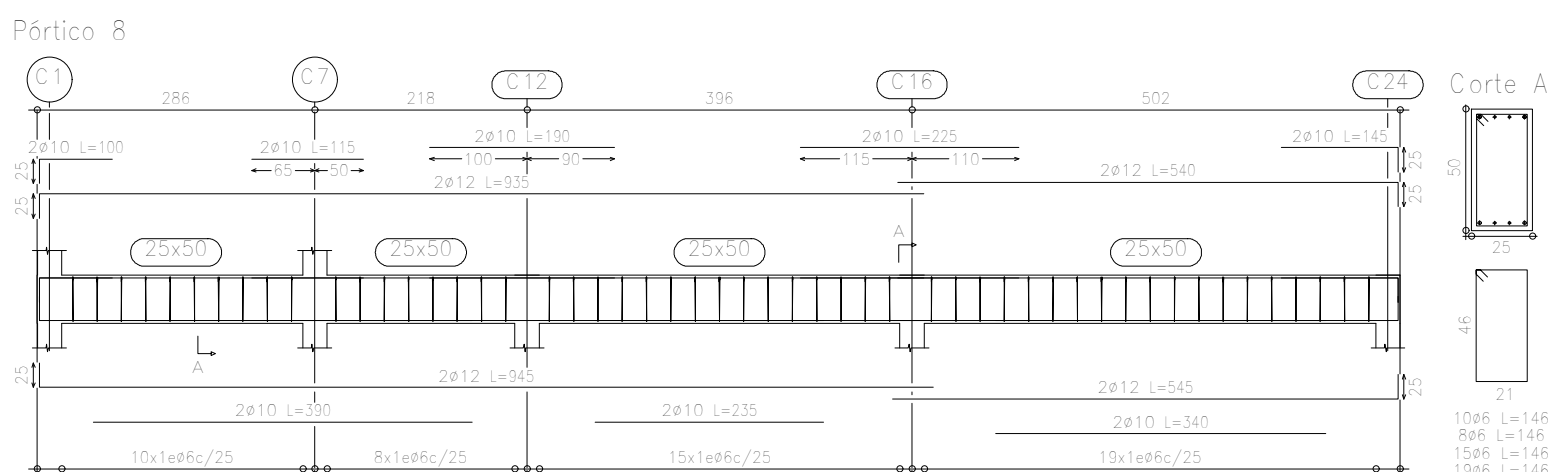
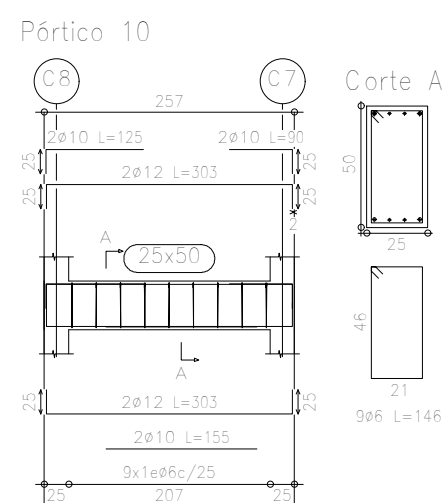
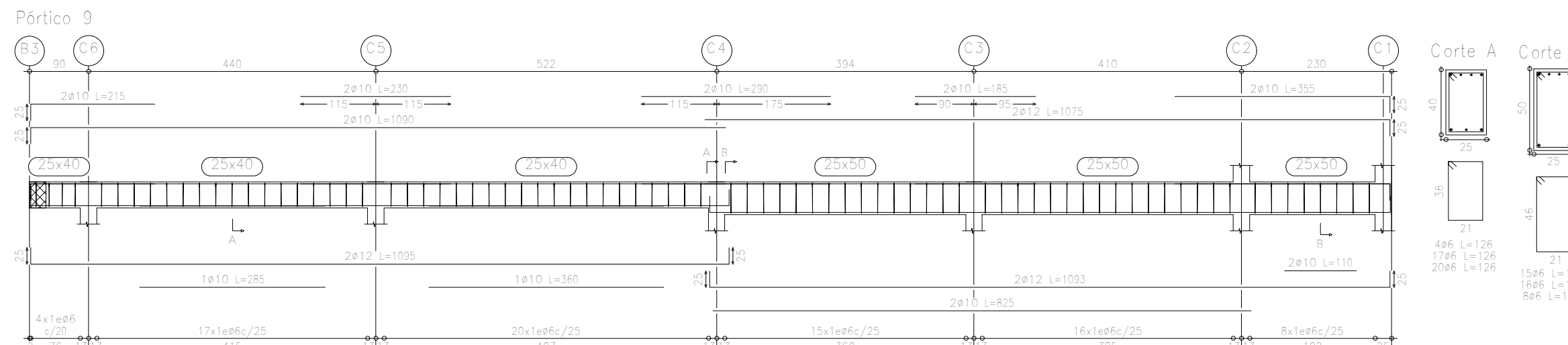
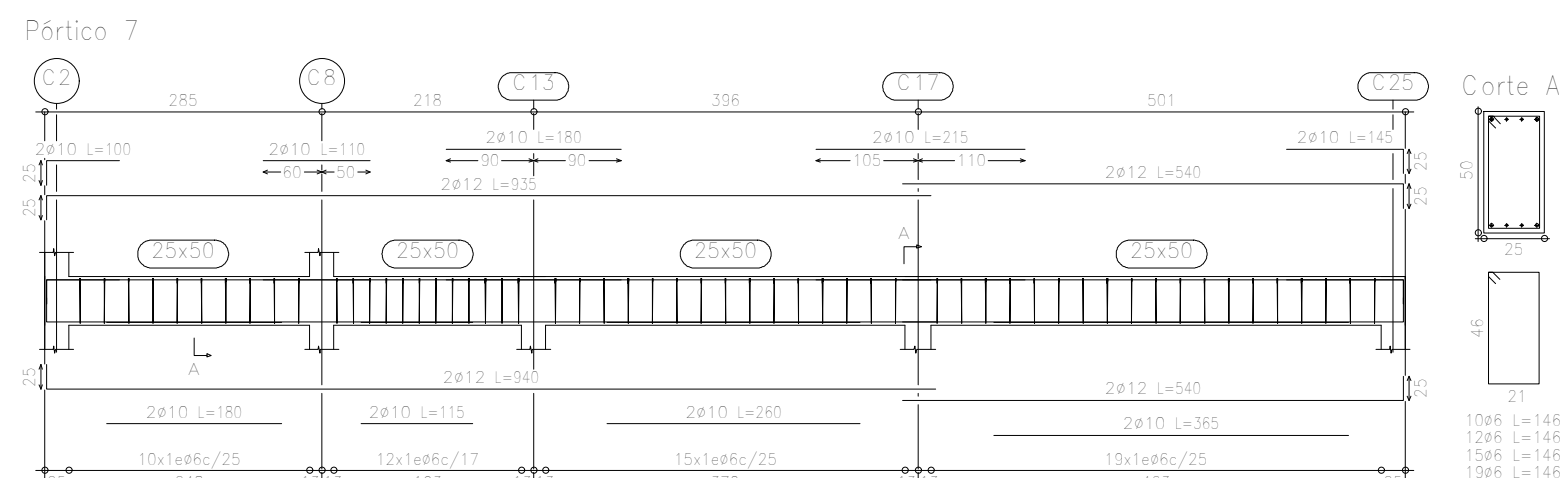
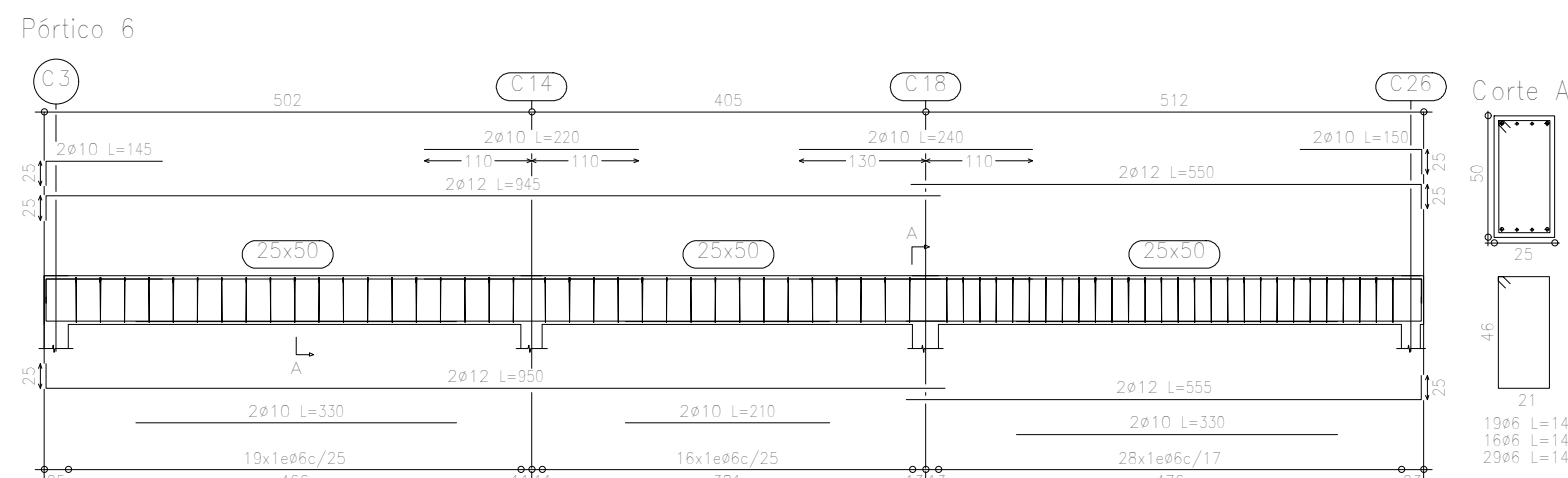
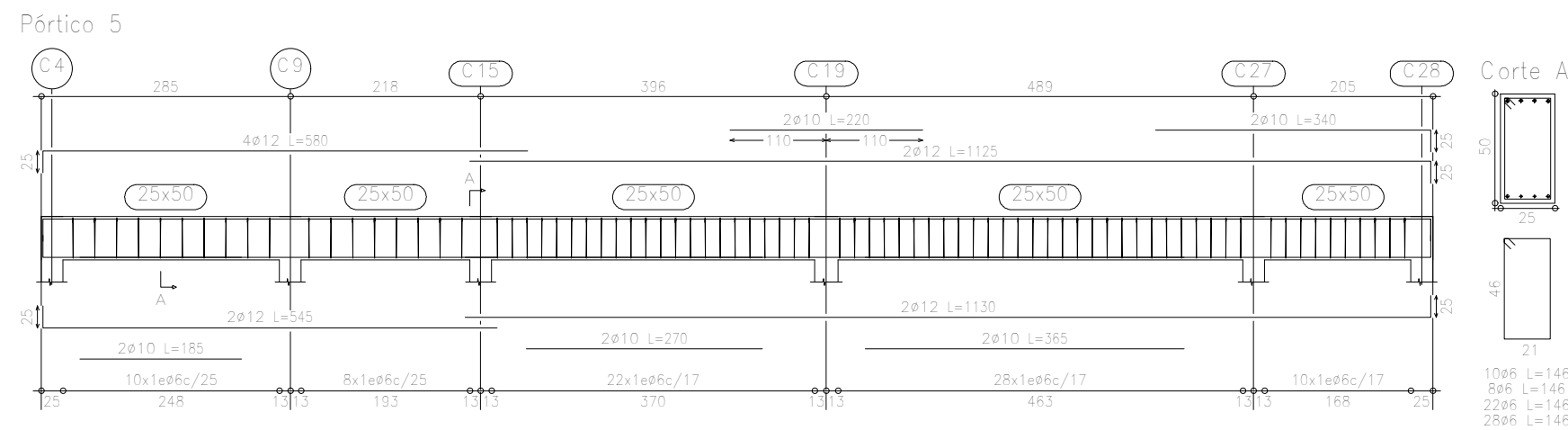
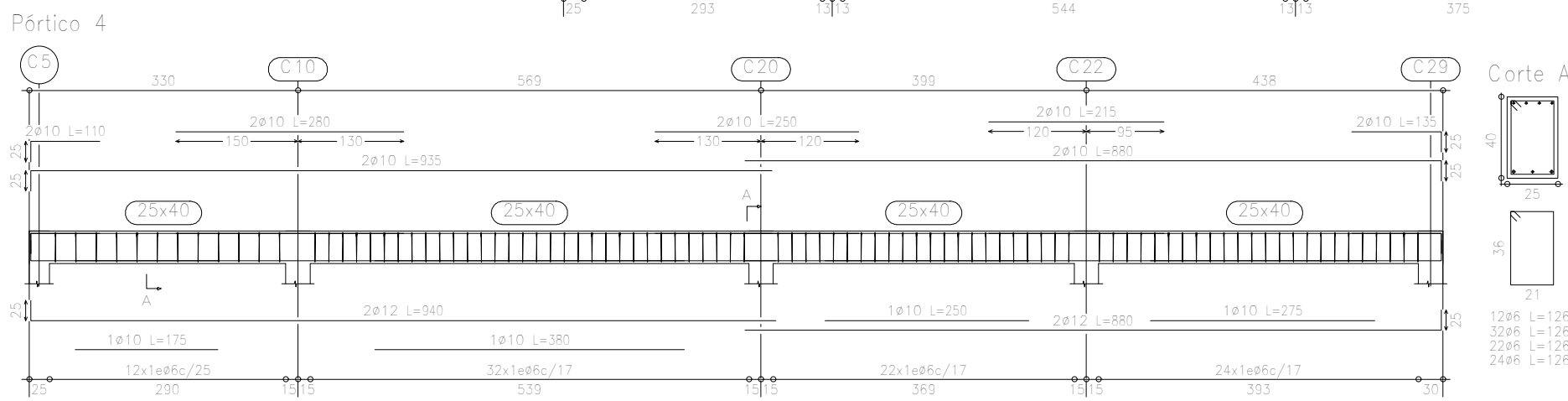
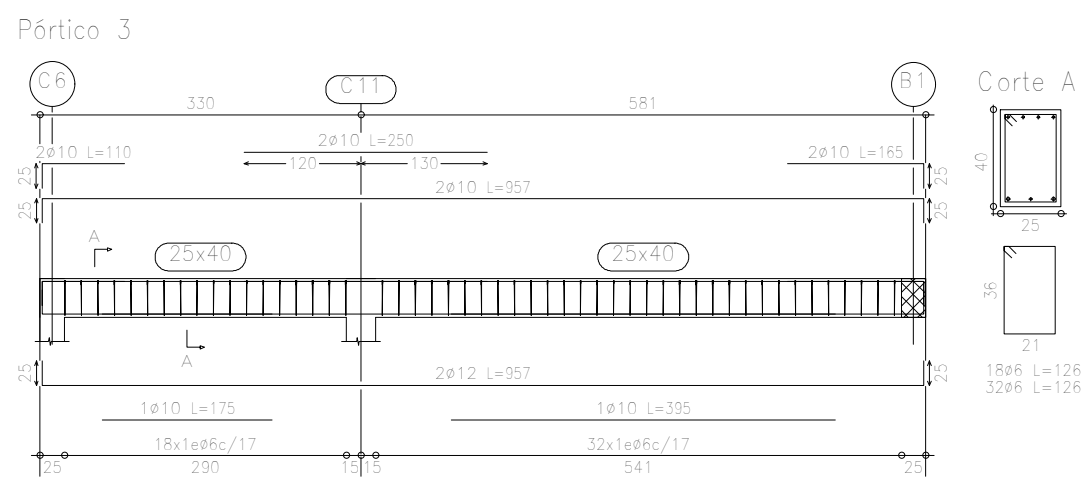
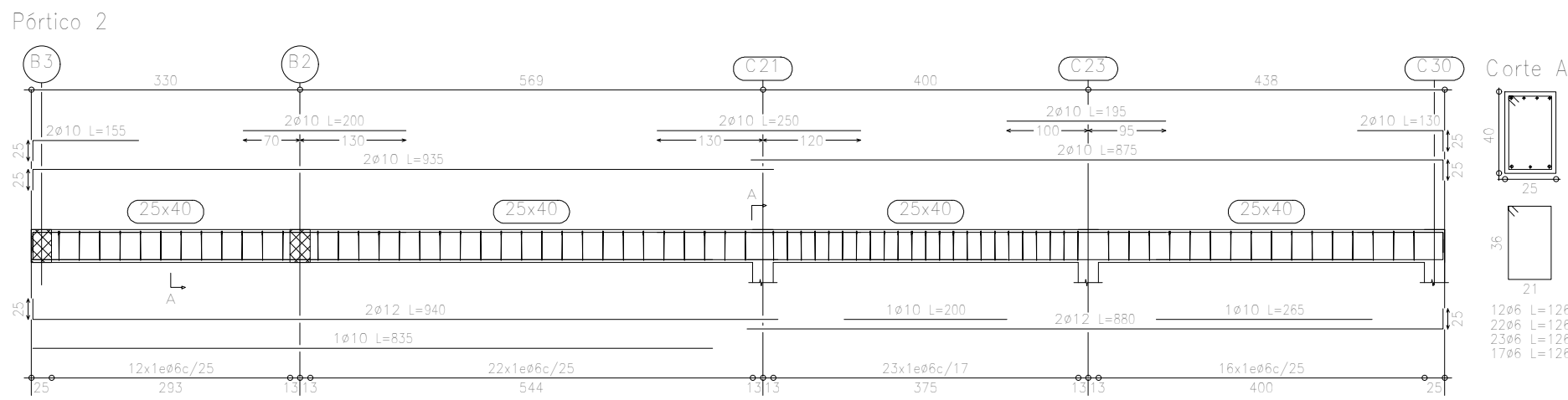
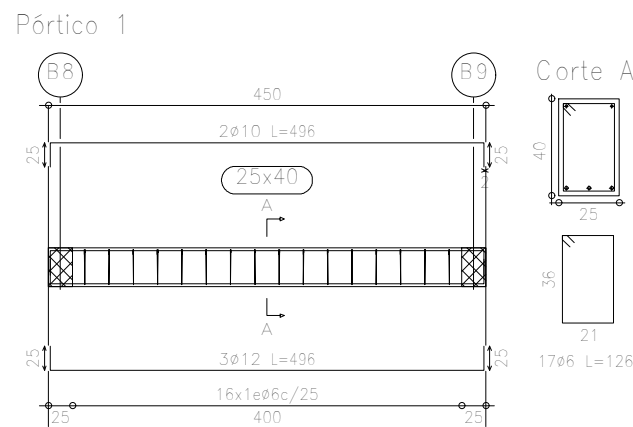
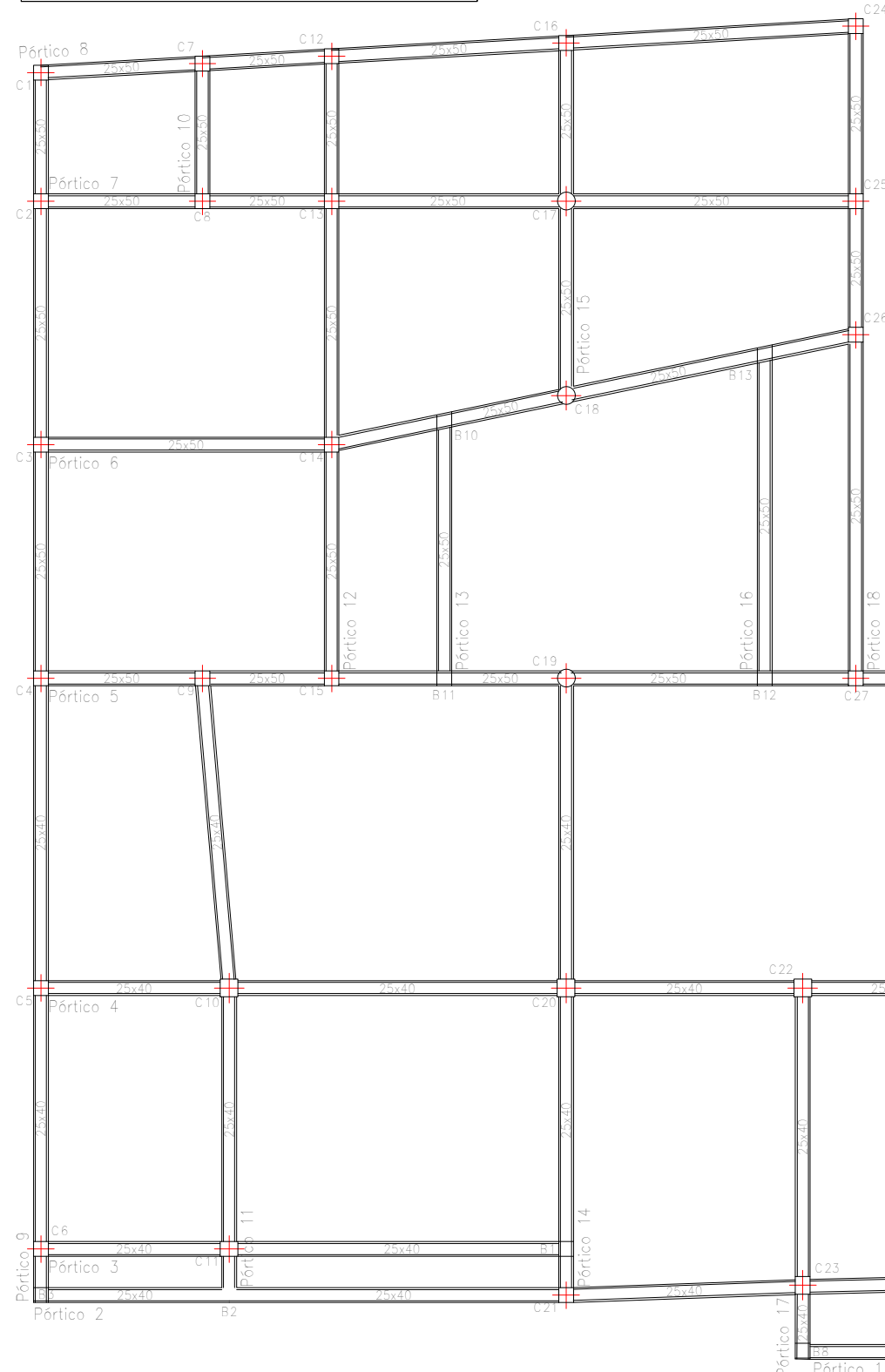
8/13

LOSA 3
Replanteo
Hormigón: H-21 , COTA +7.20
Escala: 1:100



LOSA 3
Despiece de vigas
Hormigón: H-21 , Control Normal
Acero: AH-500 , Control Normal
Escala: 1:70

VIGA PARA CUBIERTA
Replanteo
Hormigón: H-21 , COTA +10.70
Escala: 1:100



UNIVERSIDAD AUTÓNOMA "JUAN MISAEL SARACHO"
FACULTAD DE CIENCIAS Y TECNOLOGÍA
CARRERA DE INGENIERIA CIVIL



MATERIA:
PROYECTO DE INGENIERIA CIVIL
MENSION ESTRUCTURAS

PROYECTO:
DISEÑO ESTRUCTURAL MUSEO DE LA BIODIVERSIDAD
MUNICIPIO DE PADCAYA

UNIVERSITARIO:
FLORES BEJARANO ERLING DAVID

FECHA:
DICIEMBRE - 2019

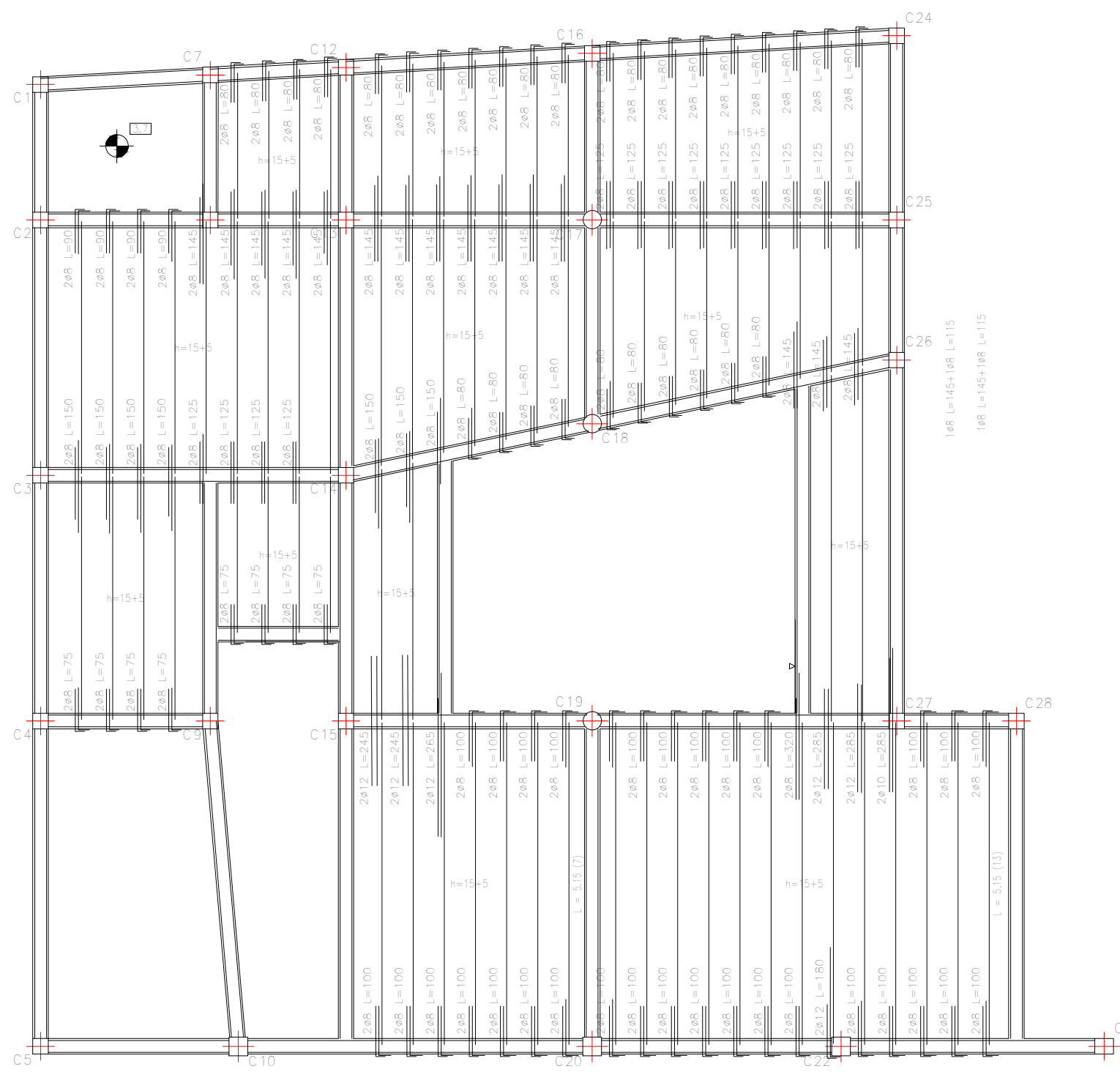
ESCALA:
INDICADA

LÁMINA:
10/13

VoBo

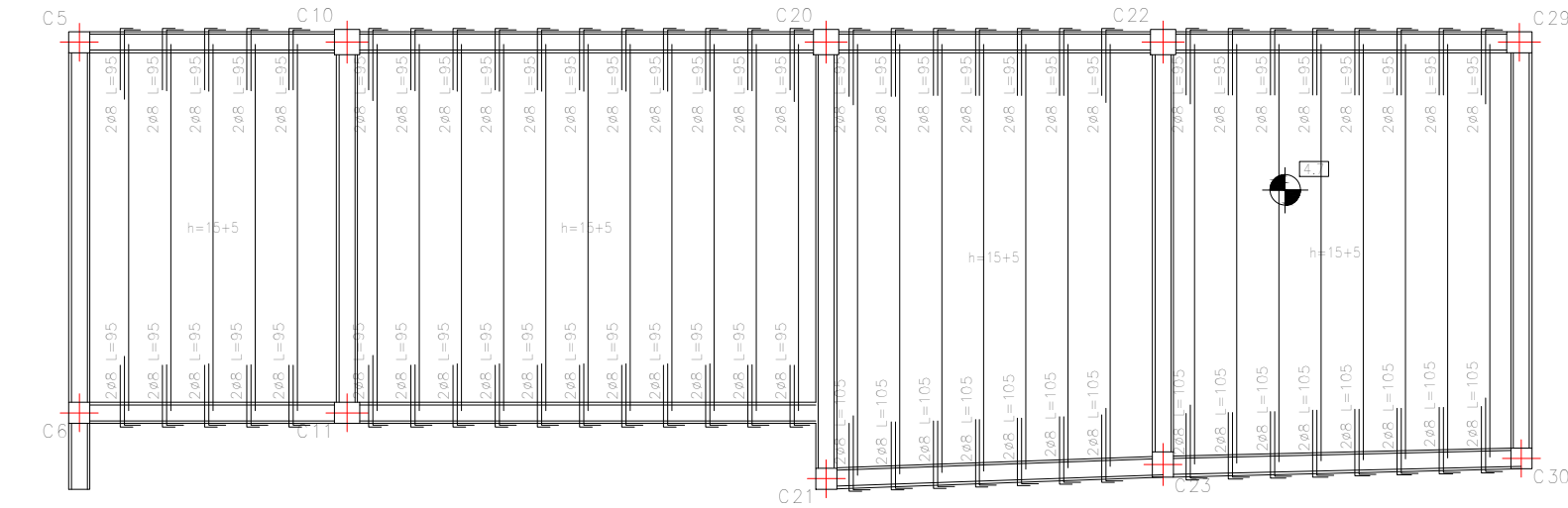
CONTENIDO:
PLANO ESTRUCTURAL - VIGA DE ENCADENADO CUBIERTA

LOSA ALIVIANADA 1
Replanteo
Hormigón: H-21 , COTA +3.70
Escala: 1:80



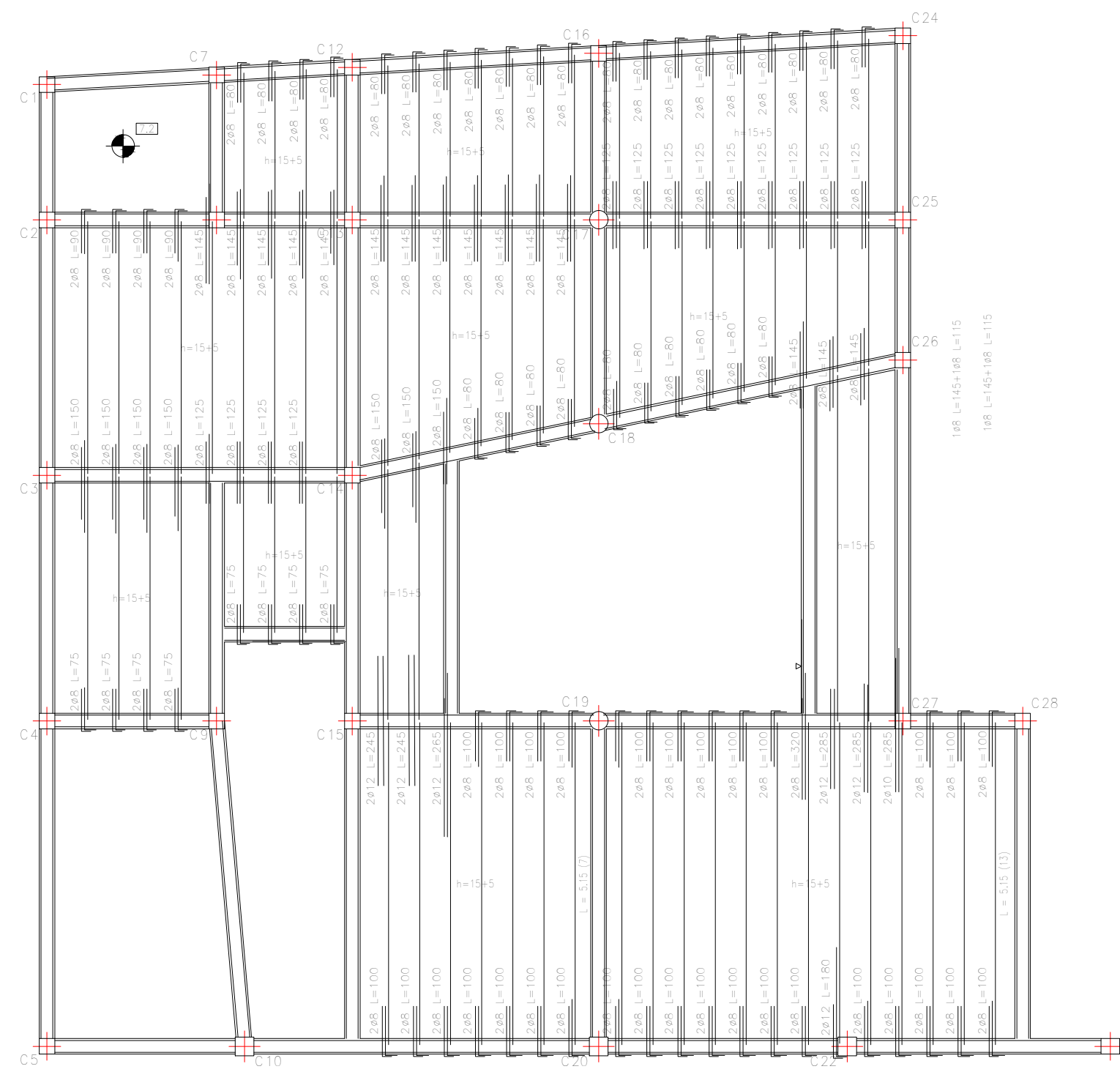
Resumen Acero LOSA 1 Replanteo	Long. total (m)	Peso+10% (kg)	Total
AH-500CN ø8	302.5	131	
ø10	14.0	9	
ø12	3.9	4	182

LOSA ALIVIANADA 2
Replanteo
Hormigón: H-21 , COTA +4.70
Escala: 1:80



Resumen Acero LOSA 2 Replanteo	Long. total (m)	Peso+10% (kg)
AH-500CN ø8	115.7	50

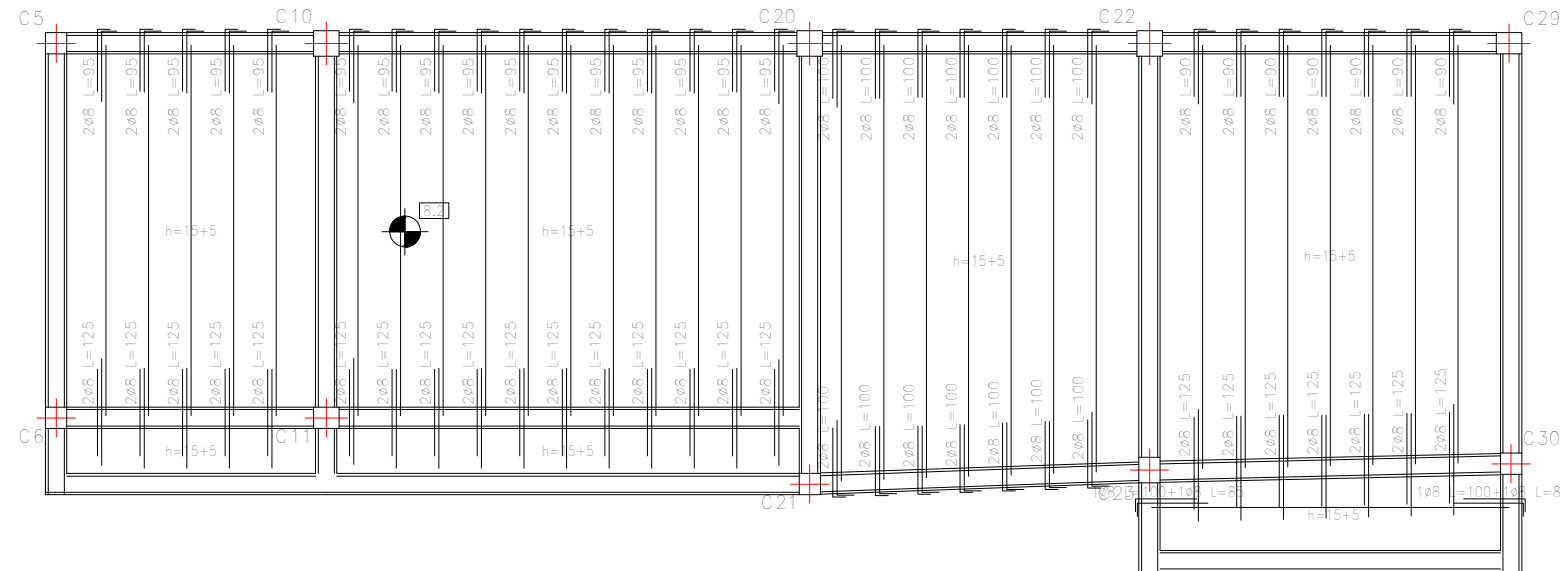
LOSA ALIVIANADA 3
Replanteo
Hormigón: H-21 , COTA +7.20
Escala: 1:80



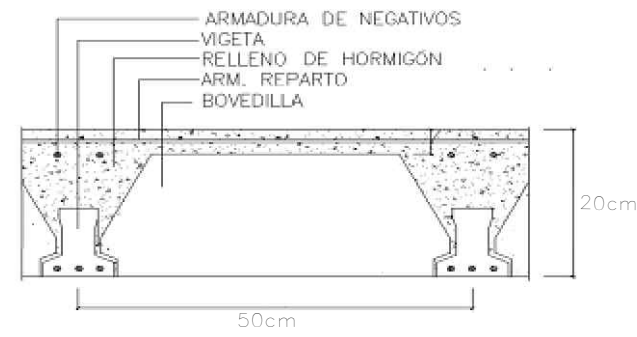
Resumen Acero LOSA 3 Replanteo	Long. total (m)	Peso+10% (kg)	Total
AH-500CN ø8	302.5	131	
ø10	14.0	9	
ø12	3.9	4	182

LOSA ALIVIANADA 4
Replanteo
Hormigón: H-21 , COTA +8.20
Escala: 1:80

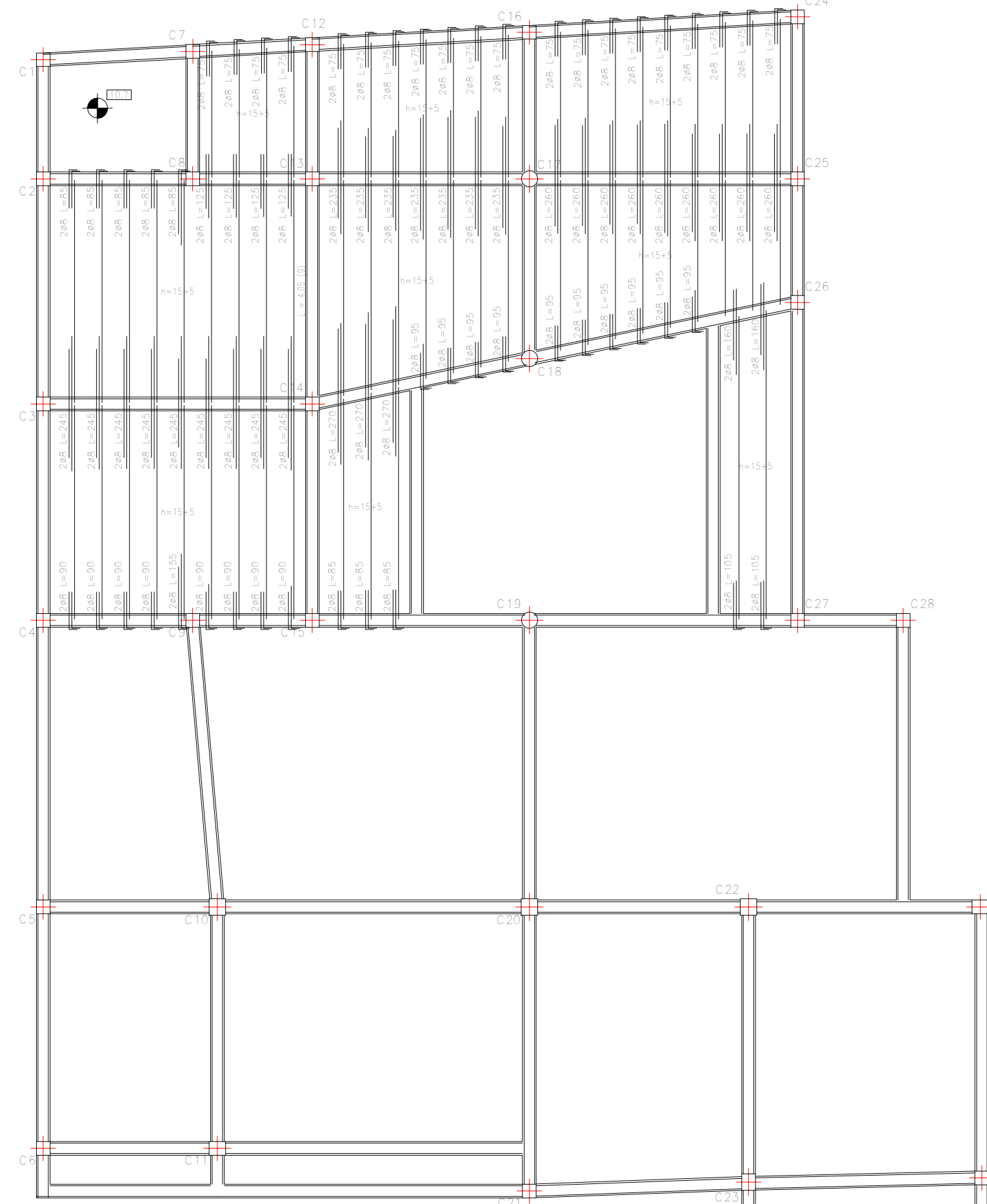
Resumen Acero LOSA 4 Replanteo	Long. total (m)	Peso+10% (kg)
AH-500CN ø8	130.2	57



ESQUEMA DE ARMADURA EN LOSA ALIVIANADA CON VIGUETAS



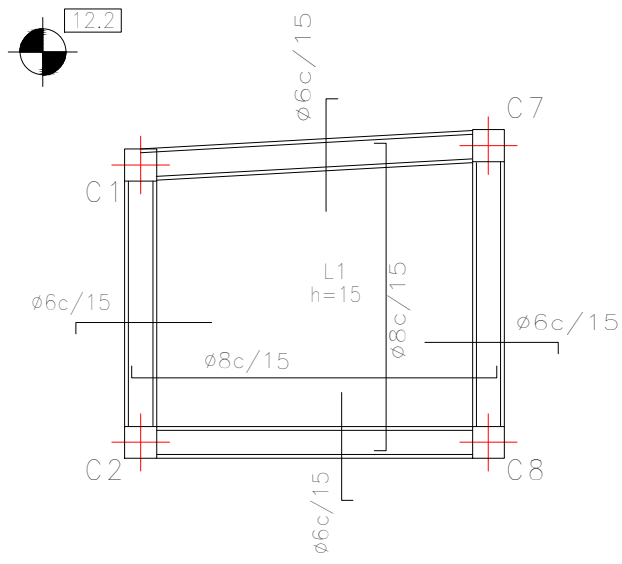
LOSA ALIVIANADA 5
Replanteo
Hormigón: H-21 , COTA +10.7
Escala: 1:80



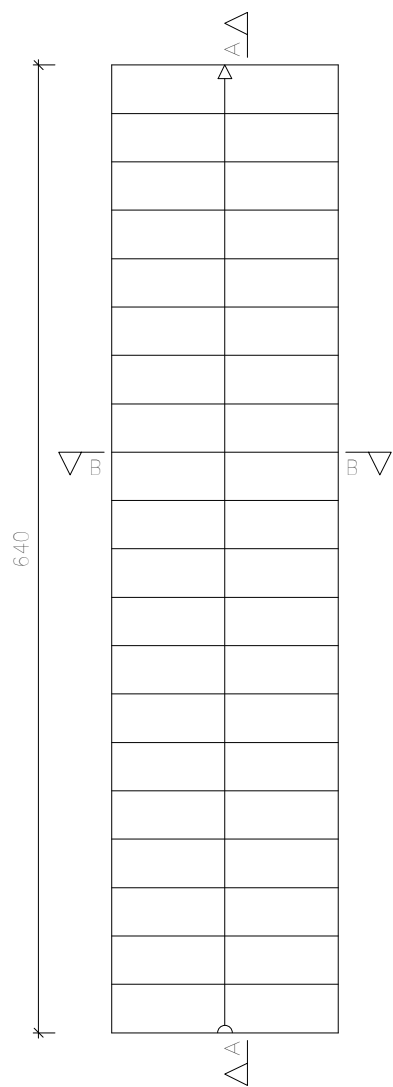
Resumen Acero CUBIERTA Replanteo	Long. total (m)	Peso+10% (kg)
AH-500CN ø8	229.4	100

LOSA ARMADA 1
Replanteo
Hormigón: H-21 , COTA +12.20
Escala: 1:80

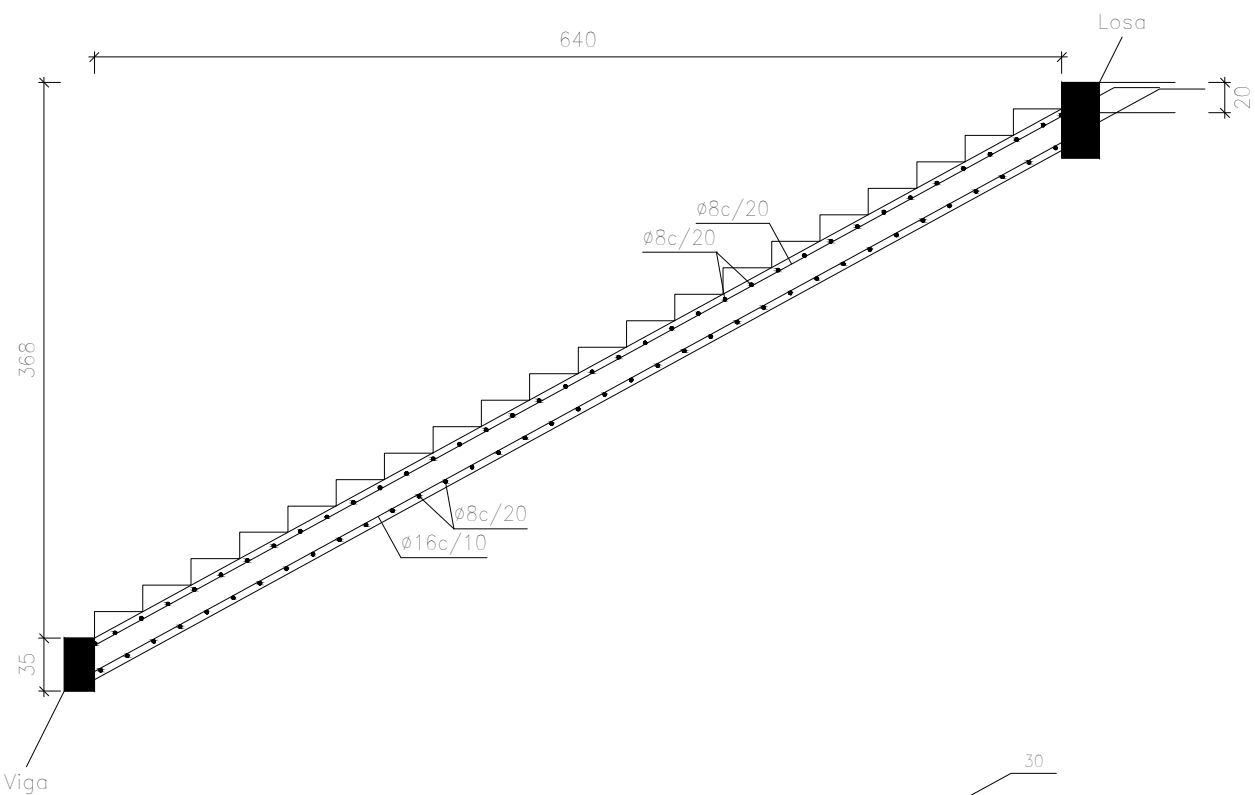
Resumen Acero ELEVADOR Replanteo	Long. total (m)	Peso+10% (kg)	Total
AH-500CN ø6	62.5	15	
ø8	85.3	37	52



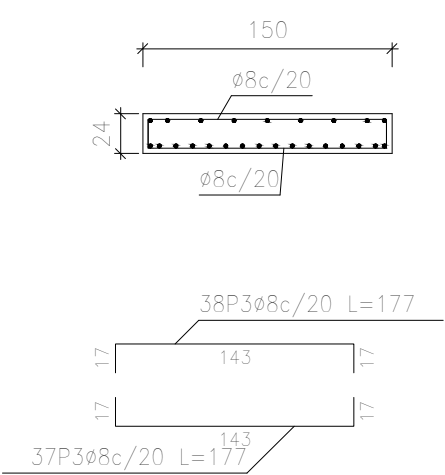
ESCALERA 1



Sección A-A



Sección B-B



Tramo 1		
Geometría	Ancho	1.500 m
	Espesor	0.24 m
	Huella	0.320 m
	Contrahuella	0.175 m
	Desnivel que salva	3.68 m
	N° de escalones	21
	Planta final	LOSA 1
	Planta inicial	SOBRECIMENTOS
Cargas	Peso propio	0.600 t/m2
	PeldaÑeado (Hormigonado con la losa)	0.192 t/m2
	Solado	0.100 t/m2
	Barandillas	0.100 t/m
	Sobrecarga de uso	0.400 t/m2
Materiales	Hormigón	f'c=210
	Acero	Fe 500 (IS 1786)
	Rec. geométrico	3.0 cm

Elemento	Pos.	Diám.	No.	Long. (cm)	Total (cm)	Fe 500 (kg)
Escalera 1—Tramo 1	1	Ø10	9	848	7632	30.1
	2	Ø16	16	878	14048	221.7
	3	Ø8	75	177	13275	52.4
	Total+10%:					334.6
					Ø8:	90.8
					Ø16:	243.8
					Total:	334.6

Resumen Acero	Long. total (m)	Peso+10% (kg)	Total
Escalera 1			
Fe 500	140.5	244	335

Escala 1:50

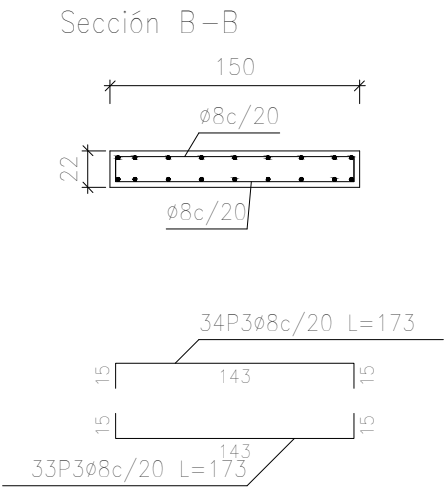
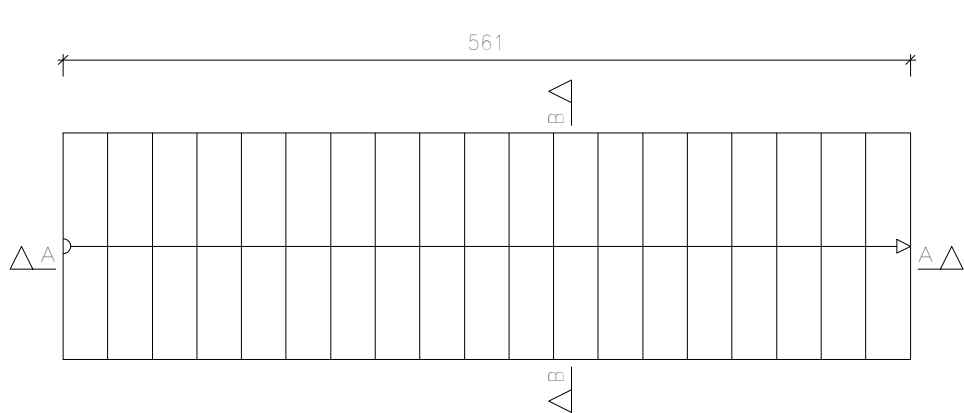
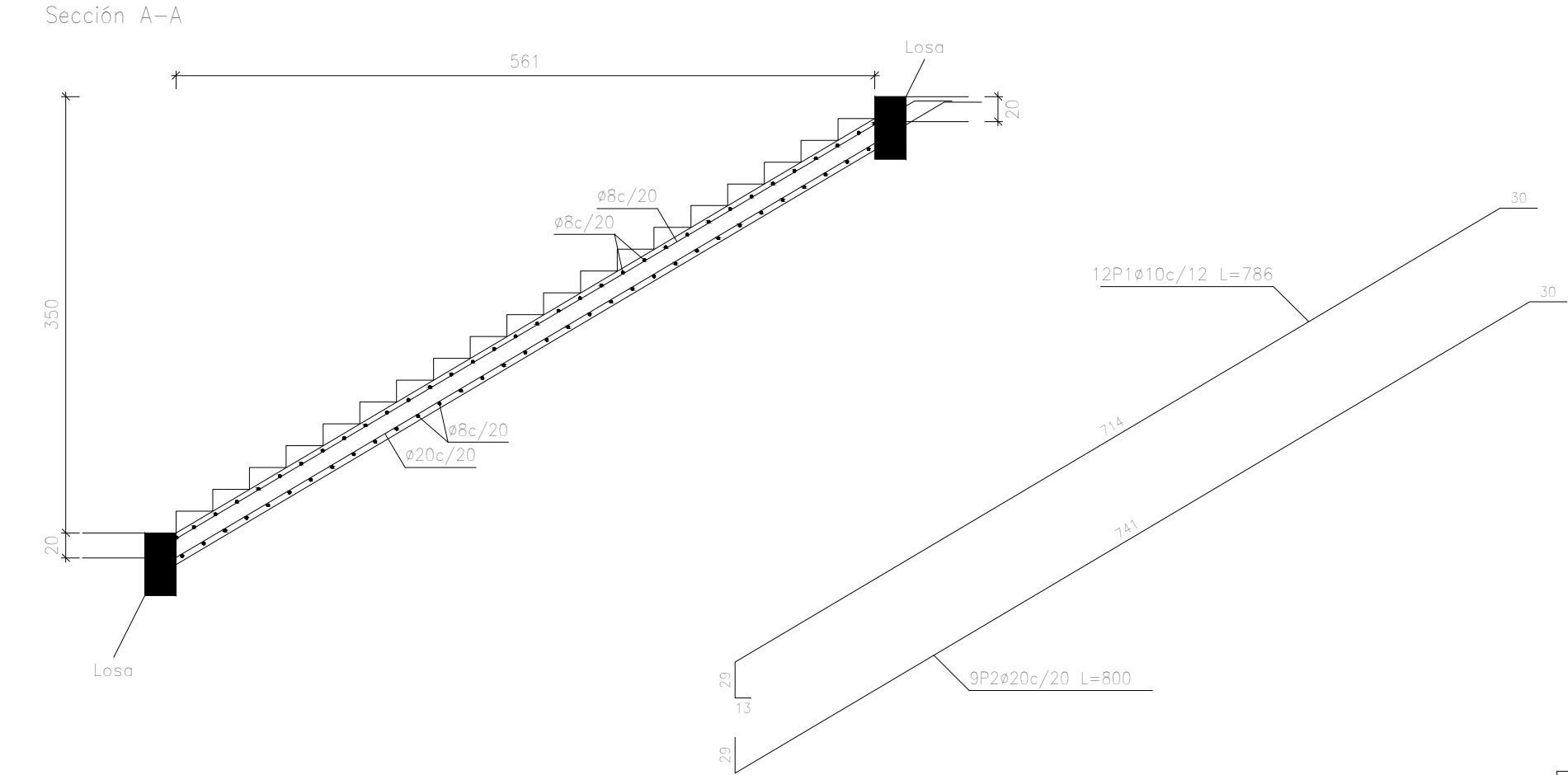


UNIVERSIDAD AUTÓNOMA "JUAN MISAEL SARACHO"
FACULTAD DE CIENCIAS Y TECNOLOGÍA
CARRERA DE INGENIERIA CIVIL



MATERIA: PROYECTO DE INGENIERIA CIVIL MENSION ESTRUCTURAS		PROYECTO: DISEÑO ESTRUCTURAL MUSEO DE LA BIODIVERSIDAD MUNICIPIO DE PADCAYA		
UNIVERSITARIO: FLORES BEJARANO ERLING DAVID		FECHA: DICIEMBRE - 2019	ESCALA: INDICADA	LÁMINA: 12/13
VoBo	CONTENIDO: PLANO ESTRUCTURAL - ESCALERA DE HORMIGON ARMADO Nº1			

ESCALERA 2



Tramo 1		
Geometría	Ancho	1.500 m
	Espesor	0.22 m
	Huella	0.295 m
	Contrahuella	0.175 m
	Desnivel que salva	3.50 m
	N° de escalones	20
	Planta final	LOSA 3
	Planta inicial	LOSA 1
Cargas	Peso propio	0.550 t/m2
	Peldañeado (Hormigonado con la losa)	0.188 t/m2
	Solado	0.100 t/m2
	Barandillas	0.100 t/m
	Sobrecarga de uso	0.400 t/m2
Materiales	Hormigón	f'c=210
	Acero	Fe 500 (IS 1786)
	Rec. geométrico	3.0 cm

Resumen Acero Escalera 2	Long. total (m)	Peso+10% (kg)	Total
Fe 500	72.0	195	276

Elemento	Pos.	Diám.	No.	Long. (cm)	Total (cm)	Fe 500 (kg)
Escalera 2-Tramo 1	1	$\phi 10$	9	786	7074	27.9
	2	$\phi 20$	9	800	7200	177.6
	3	$\phi 8$	67	173	11591	45.7
Total+10%:						276.3
						$\phi 8$: 81.0
						$\phi 20$: 195.3
						Total: 276.3

Escala 1:50



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PROYECTO DE INGENIERIA CIVIL
MENSION ESTRUCTURAS

PROYECTO:
DISEÑO ESTRUCTURAL MUSEO DE LA BIODIVERSIDAD
MUNICIPIO DE PADCAYA

UNIVERSITARIO:
FLORES BEJARANO ERLING DAVID

FECHA:
DICIEMBRE - 2019

ESCALA:
INDICADA

LÁMINA:

VoBo

CONTENIDO:
PLANO ESTRUCTURAL - ESCALERA DE HORMIGON ARMADO N°2

13/13