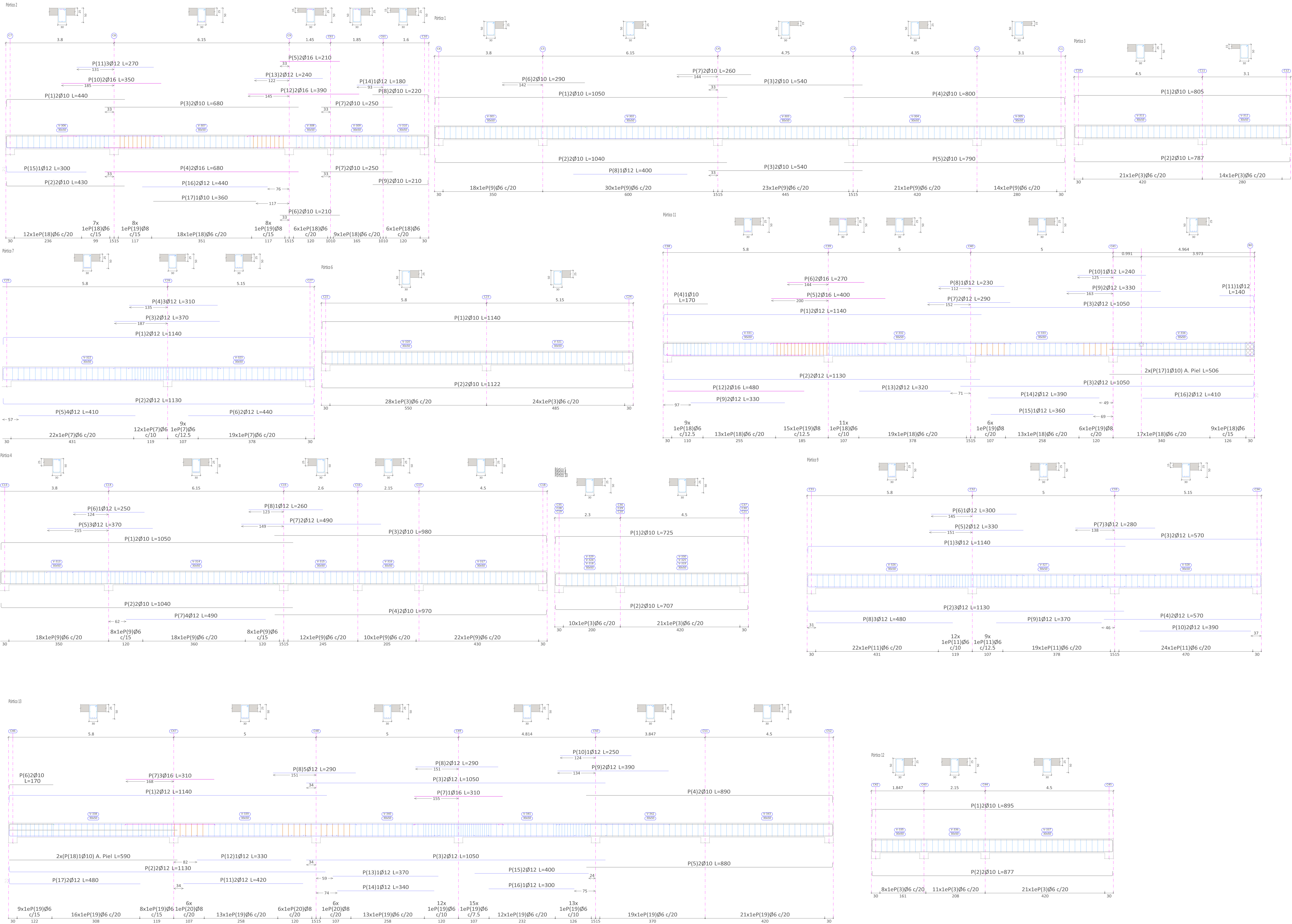




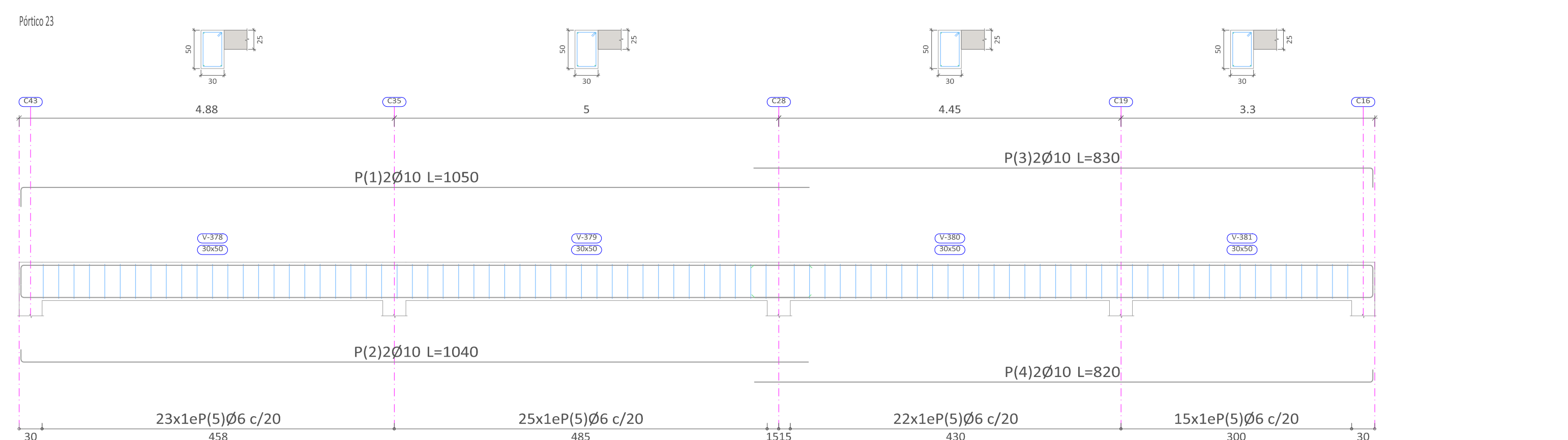
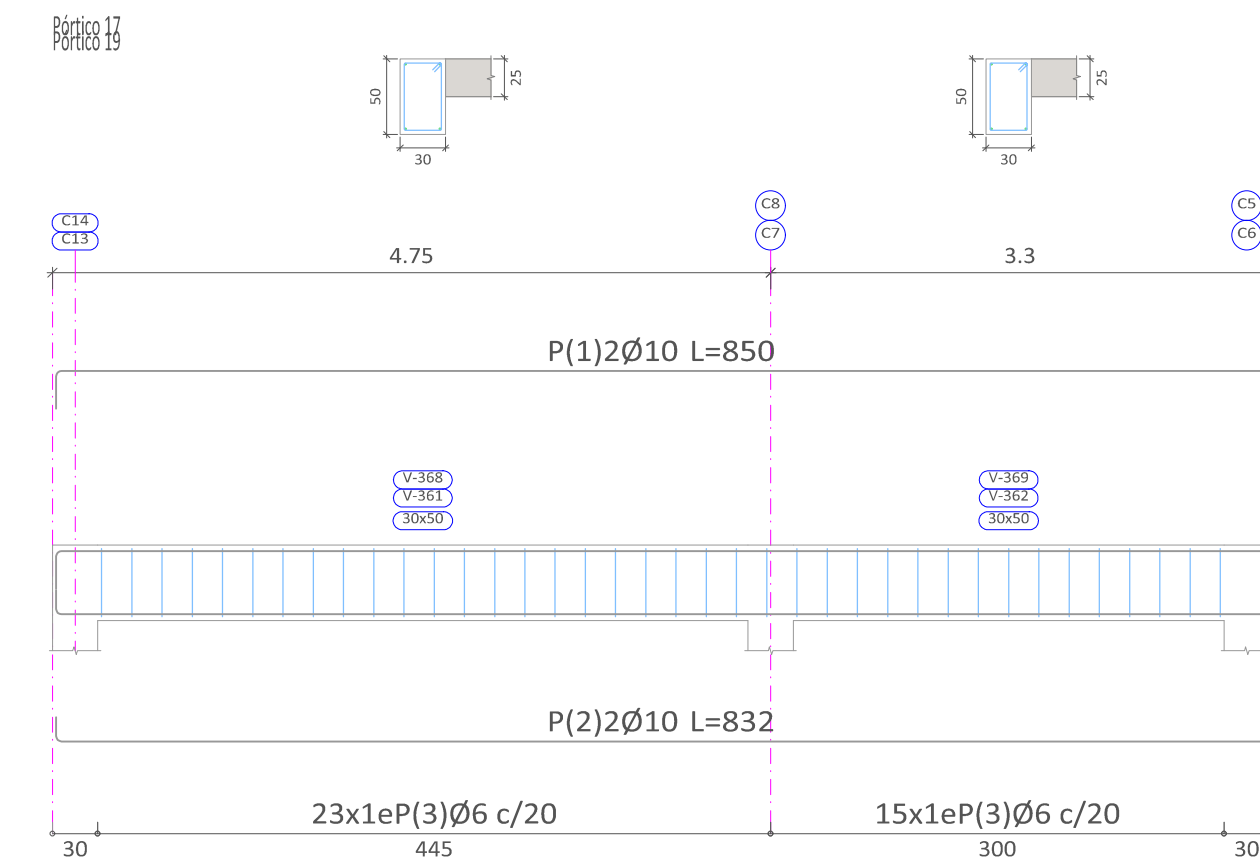
Elemento	Pos.	Dim.	No.	Equivalencia (cm ²)	Long. (cm)	Total (cm ²)	MT=500 (kg)
Porta 1	Ø10	2	1	1000	2130	12.9	
	Ø10	2	2	1000	2090	12.9	
	Ø10	2	3	1000	2140	13.3	
	Ø10	2	4	1000	2020	12.9	
	Ø12	2	5	1000	2090	12.9	
	Ø10	2	6	1000	2000	12.9	
	Ø10	2	7	1000	2000	12.9	
	Ø10	2	8	1000	2000	12.9	
	Ø12	2	9	1000	2000	12.9	
	Ø6	10	10	1000	15000	30.3	
Total=100.7							12.9
Porta 2	Ø10	2	1	1000	1430	5.4	
	Ø10	2	2	1000	1430	5.4	
	Ø10	2	3	1000	1430	5.4	
	Ø10	2	4	1000	1430	5.4	
	Ø10	2	5	1000	1430	5.4	
	Ø10	2	6	1000	1430	5.4	
	Ø10	2	7	1000	1430	5.4	
	Ø10	2	8	1000	1430	5.4	
	Ø10	2	9	1000	1430	5.4	
	Ø10	2	10	1000	1430	5.4	
	Ø10	2	11	1000	1430	5.4	
	Ø10	2	12	1000	1430	5.4	
	Ø10	2	13	1000	1430	5.4	
	Ø10	2	14	1000	1430	5.4	
	Ø10	2	15	1000	1430	5.4	
	Ø10	2	16	1000	1430	5.4	
	Ø10	2	17	1000	1430	5.4	
	Ø10	2	18	1000	1430	5.4	
	Ø6	10	19	1000	15000	30.3	
Total=100.7							12.9

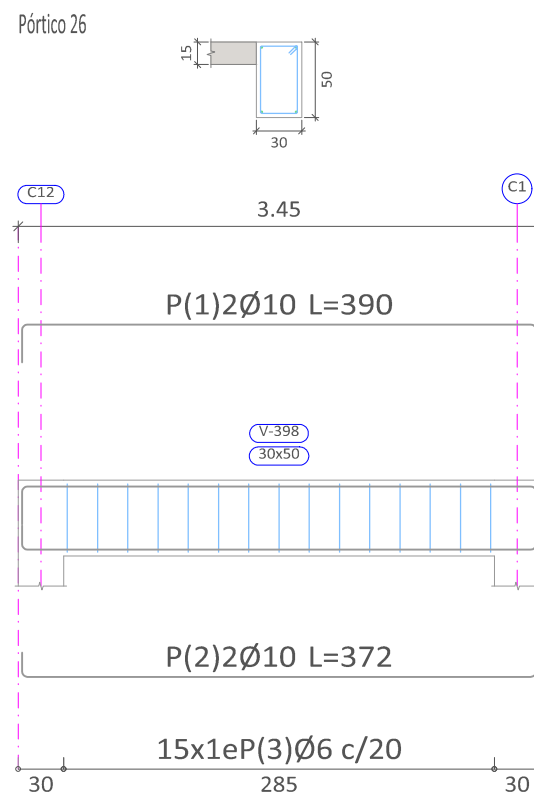
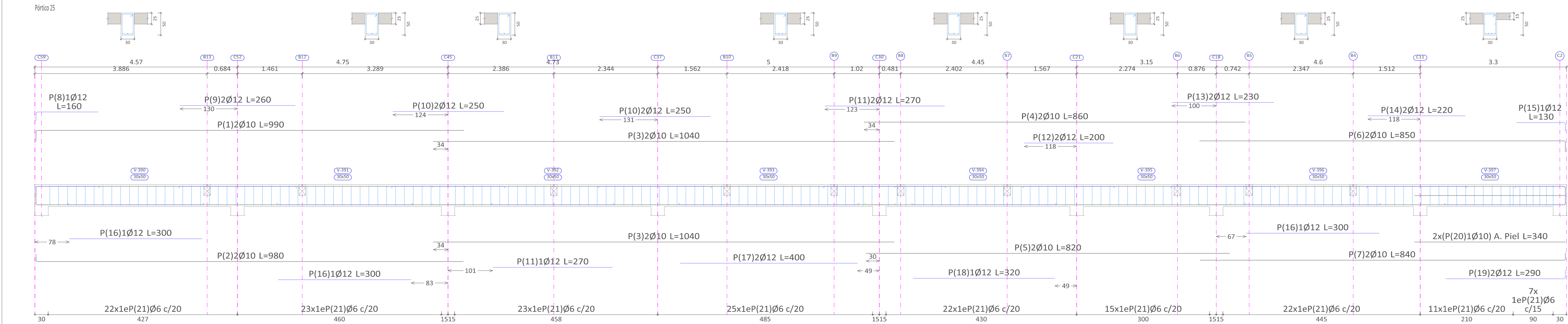
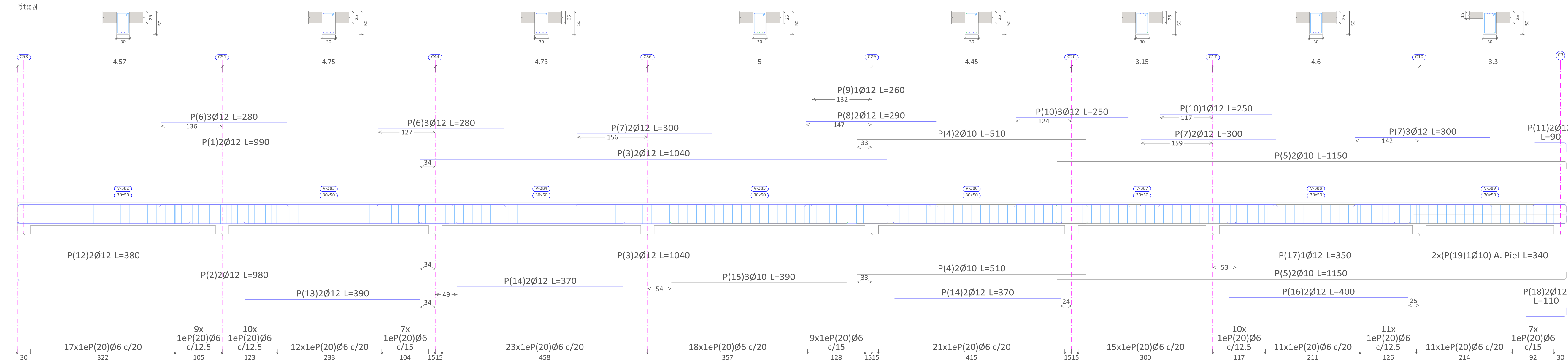
Elemento	Pos.	Dim.	No.	Equivalencia (cm ²)	Long. (cm)	Total (cm ²)	MT=500 (kg)
Porta 3	Ø10	2	1	1000	1430	5.4	
	Ø10	2	2	1000	1430	5.4	
	Ø10	2	3	1000	1430	5.4	
	Ø10	2	4	1000	1430	5.4	
	Ø6	10	5	1000	15000	30.3	
Porta 4	Ø12	2	1	1000	1430	5.4	
	Ø12	2	2	1000	1430	5.4	
	Ø12	2	3	1000	1430	5.4	
	Ø12	2	4	1000	1430	5.4	
	Ø12	2	5	1000	1430	5.4	
	Ø12	2	6	1000	1430	5.4	
	Ø12	2	7	1000	1430	5.4	
	Ø12	2	8	1000	1430	5.4	
	Ø12	2	9	1000	1430	5.4	
	Ø6	10	10	1000	15000	30.3	
Total=100.7							12.9

Elemento	Pos.	Dim.	No.	Equivalencia (cm ²)	Long. (cm)	Total (cm ²)	MT=500 (kg)
Porta 5	Ø10	2	1	1000	1430	5.4	
	Ø10	2	2	1000	1430	5.4	
	Ø10	2	3	1000	1430	5.4	
	Ø10	2	4	1000	1430	5.4	
	Ø10	2	5	1000	1430	5.4	
	Ø10	2	6	1000	1430	5.4	
	Ø10	2	7	1000	1430	5.4	
	Ø10	2	8	1000	1430	5.4	
	Ø10	2	9	1000	1430	5.4	
	Ø6	10	10	1000	15000	30.3	
Porta 6	Ø10	2	1	1000	1430	5.4	
	Ø10	2	2	1000	1430	5.4	
	Ø10	2	3	1000	1430	5.4	
	Ø10	2	4	1000	1430	5.4	
	Ø10	2	5	1000	1430	5.4	
	Ø10	2	6	1000	1430	5.4	
	Ø10	2	7	1000	1430	5.4	
	Ø10	2	8	1000	1430	5.4	
	Ø10	2	9	1000	1430	5.4	
	Ø6	10	10	1000	15000	30.3	
Total=100.7							12.9

Elemento	Pos.	Dim.	No.	Equivalencia (cm ²)	Long. (cm)	Total (cm ²)	MT=500 (kg)
Porta 7	Ø12	2	1	1000	1430	5.4	
	Ø12	2	2	1000	1430	5.4	
	Ø12	2	3	1000	1430	5.4	
	Ø12	2	4	1000	1430	5.4	
	Ø12	2	5	1000	1430	5.4	
	Ø12	2	6	1000	1430	5.4	
	Ø12	2	7	1000	1430	5.4	
	Ø12	2	8	1000	1430	5.4	
	Ø12	2	9	1000	1430	5.4	
	Ø6	10	10	1000	15000	30.3	
Porta 8	Ø12	2	1	1000	1430	5.4	
	Ø12	2	2	1000	1430	5.4	
	Ø12	2	3	1000	1430	5.4	
	Ø12	2	4	1000	1430	5.4	
	Ø12	2	5	1000	1430	5.4	
	Ø12	2	6	1000	1430	5.4	
	Ø12	2	7	1000	1430	5.4	
	Ø12	2	8	1000	1430	5.4	
	Ø12	2	9	1000	1430	5.4	
	Ø6	10	10	1000	15000	30.3	
Total=100.7							12.9

Terrazo +8.80
Desplaz. de vigas
Formigón: H21MFA
Acero en barras: A6-500
Acero en estribos: A6-500
Escala pódicos: 1:50
Escala secciones: 1:50
Escala huecos: 1:50





Elemento	Pos.	Diám.	No.	Esquema (cm)	Long. (cm)	Total (cm)	AH=500 (kg)
Pórtico 24	1	Ø12	2		950	1960	7.4
	2	Ø12	2		980	1960	7.4
	3	Ø12	4		1040	4160	15.5
	4	Ø10	4		510	2040	2.6
	5	Ø10	4		1150	4600	13.4
	6	Ø12	6		280	1680	4.5
	7	Ø12	7		300	2100	5.6
	8	Ø12	2		290	580	5.1
	9	Ø12	1		260	260	2.3
	10	Ø12	4		250	1000	8.5
	11	Ø12	2		80	180	1.6
	12	Ø12	2		380	760	6.7
	13	Ø12	2		390	780	6.5
	14	Ø12	4		370	1480	5.1
	15	Ø10	3		390	1170	7.2
	16	Ø12	2		400	800	7.1
	17	Ø12	1		350	350	3.1
	18	Ø12	2		110	220	2.0
	19	Ø10	2		340	680	4.2
	20	Ø6	191		150	28550	63.6
Total+10%: 205.6							
Ø6: 63.6							
Ø10: 67.7							
Ø12: 78.4							
Total: 205.6							

Elemento	Pos.	Diám.	No.	Esquema (cm)	Long. (cm)	Total (cm)	AH=500 (kg)
Pórtico 25	1	Ø10	2		990	1980	12.2
	2	Ø10	2		980	1960	12.1
	3	Ø10	4		1040	4160	25.3
	4	Ø10	2		860	1720	10.3
	5	Ø10	2		820	1640	10.1
	6	Ø10	2		850	1700	10.5
	7	Ø10	2		840	1680	10.4
	8	Ø12	1		160	160	1.4
	9	Ø12	2		260	520	4.5
	10	Ø12	4		250	1000	8.3
	11	Ø12	3		270	810	7.2
	12	Ø12	2		200	400	3.6
	13	Ø12	2		230	460	4.1
	14	Ø12	2		220	440	3.9
	15	Ø12	1		130	130	1.2
	16	Ø12	3		300	900	8.0
	17	Ø12	2		400	800	7.1
	18	Ø12	1		320	320	2.8
	19	Ø12	2		290	580	5.1
	20	Ø10	2		340	680	4.2
	21	Ø6	170		150	25500	56.3
Total+10%: 231.2							
Pórtico 26	1	Ø10	2		390	780	4.8
	2	Ø10	2		370	740	4.6
	3	Ø6	15		150	2250	5.0
Total+10%: 15.3							
Ø6: 67.7							
Ø10: 15.3							
Ø12: 63.7							
Total: 267.3							

Terraza +6.80
Despiece de vigas
Hormigón: H21MPA
Acero en barras: AH=500
Acero en estribos: AH=500
Escala pórticos 1:50
Escala secciones 1:50
Escala huecos 1:50

Resumen Acero Plano de pórticos	Long. total (m)	Peso+10% (kg)	Total
AH=500	Ø6	3064.5	746
	Ø8	145.4	53
	Ø10	1458.9	939
	Ø12	1122.1	1036
	Ø16	68.0	118
			3014

UNIVERSIDAD AUTÓNOMA "JUAN MISAEL SARACHO"
FACULTAD DE CIENCIAS Y TECNOLOGÍA
CARRERA DE INGENIERÍA CIVIL
DEPARTAMENTO DE ESTRUCTURAS Y CIENCIAS DE LOS MATERIALES

PROYECTO:

"DISEÑO ESTRUCTURAL DE UN HOTEL UBICADO EN EL BARRIO TABLADITA"

PLANO:

ARMADO DE VIGAS NIVEL TERRAZA

UNIVERSITARIO:

LUIS DARIO CHAVEZ RAMOS

ESCALA:

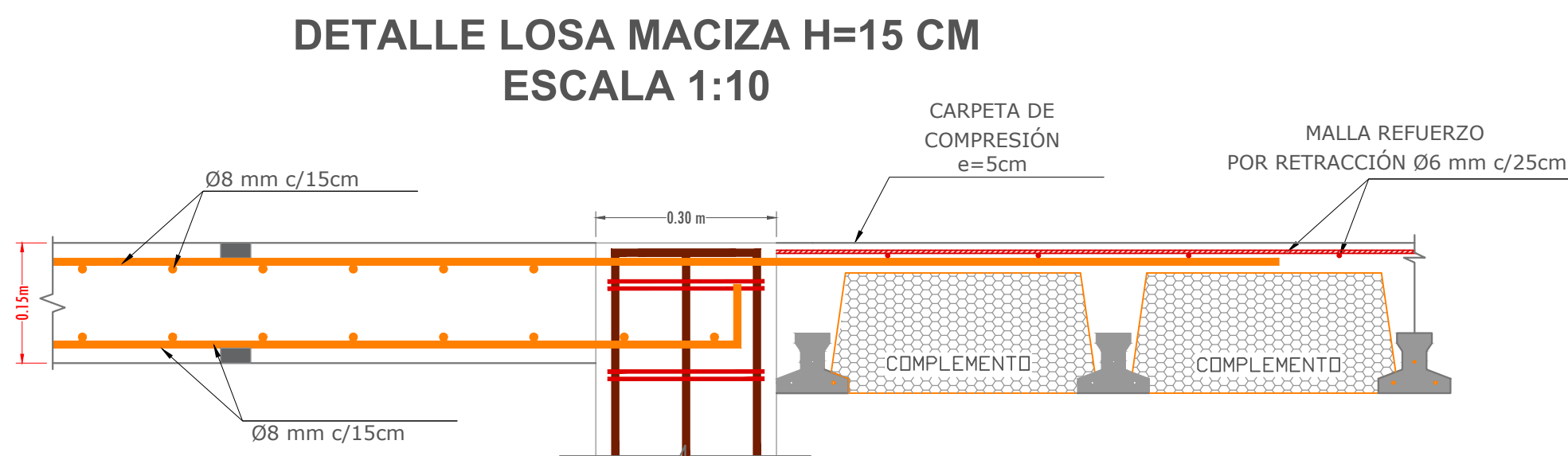
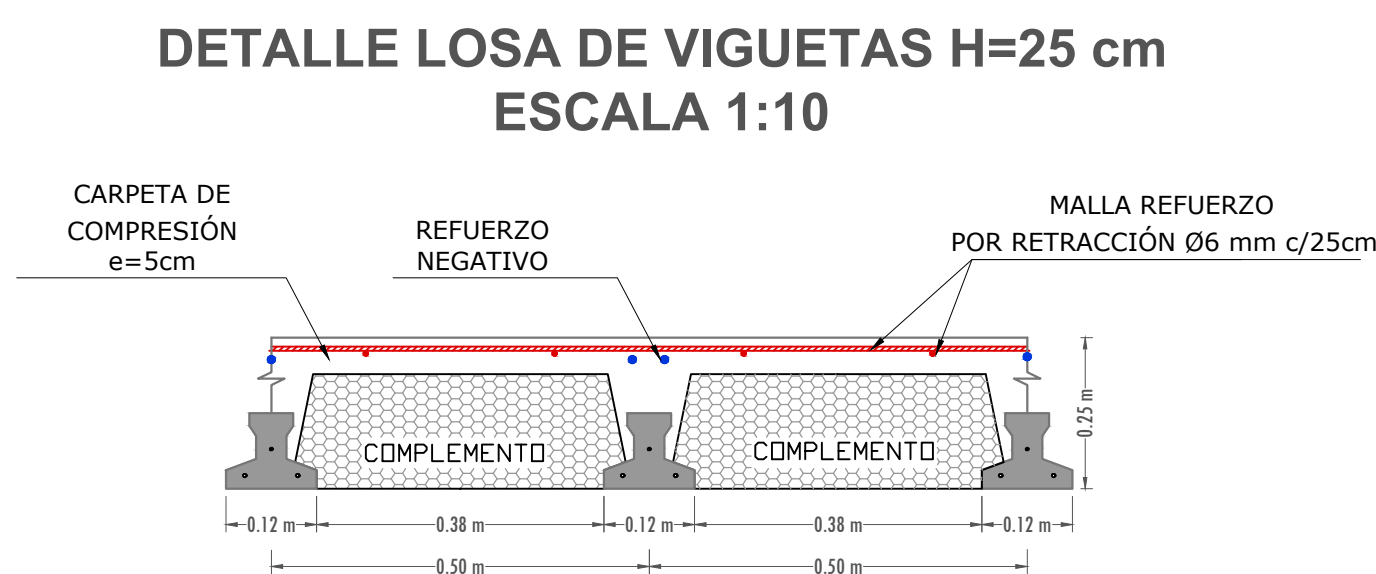
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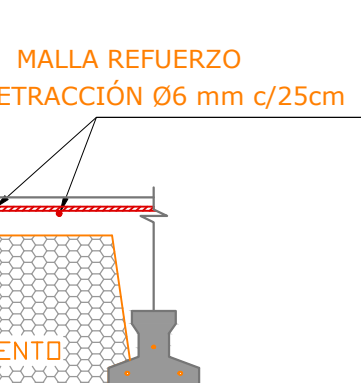
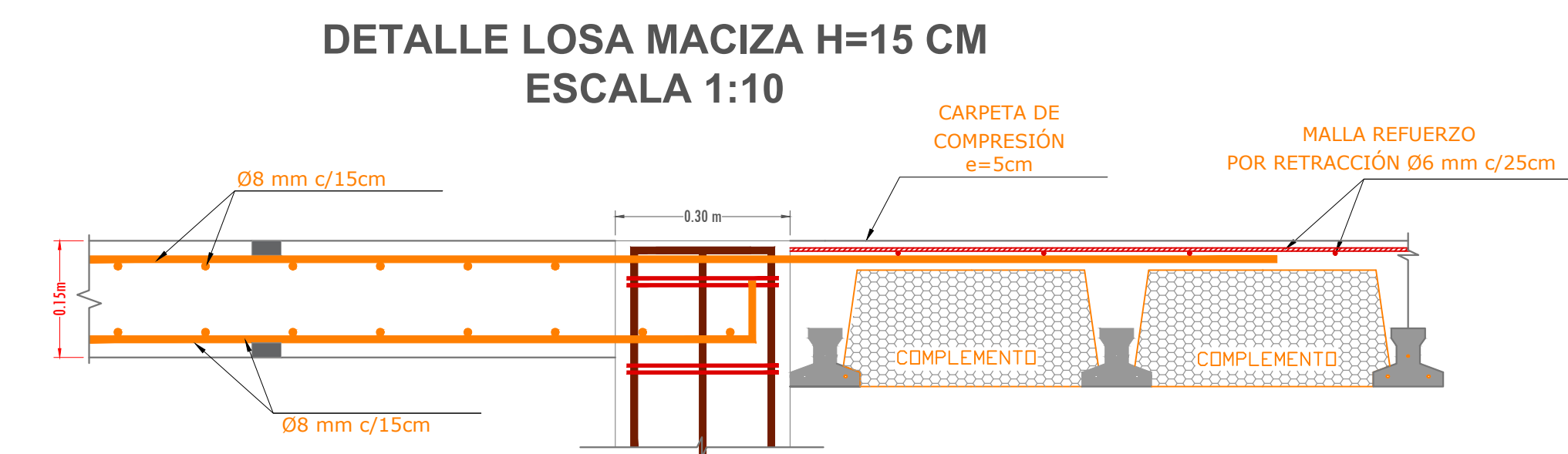
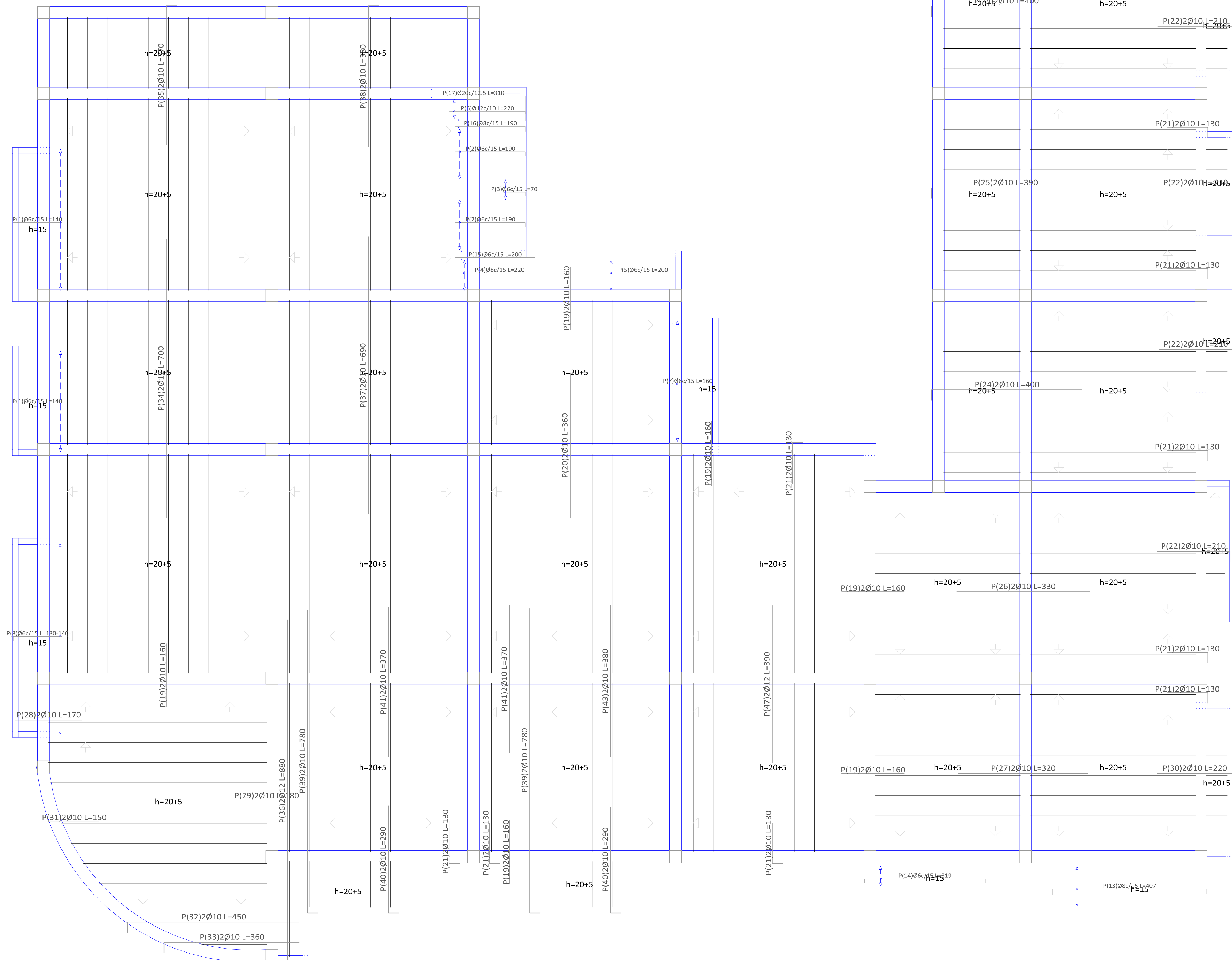
FECHA:

JULIO DE 2024

PLANO N°

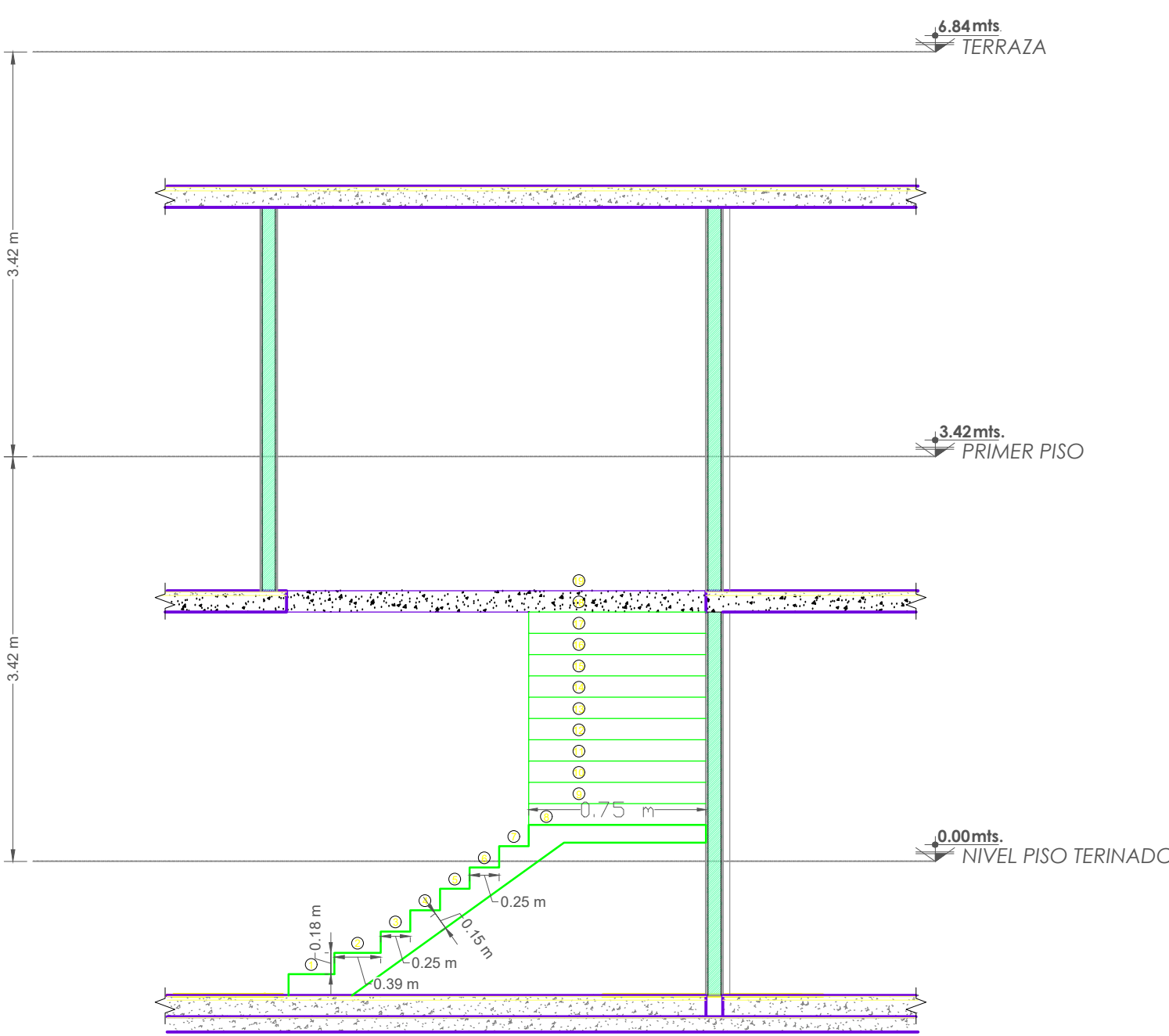
18/21





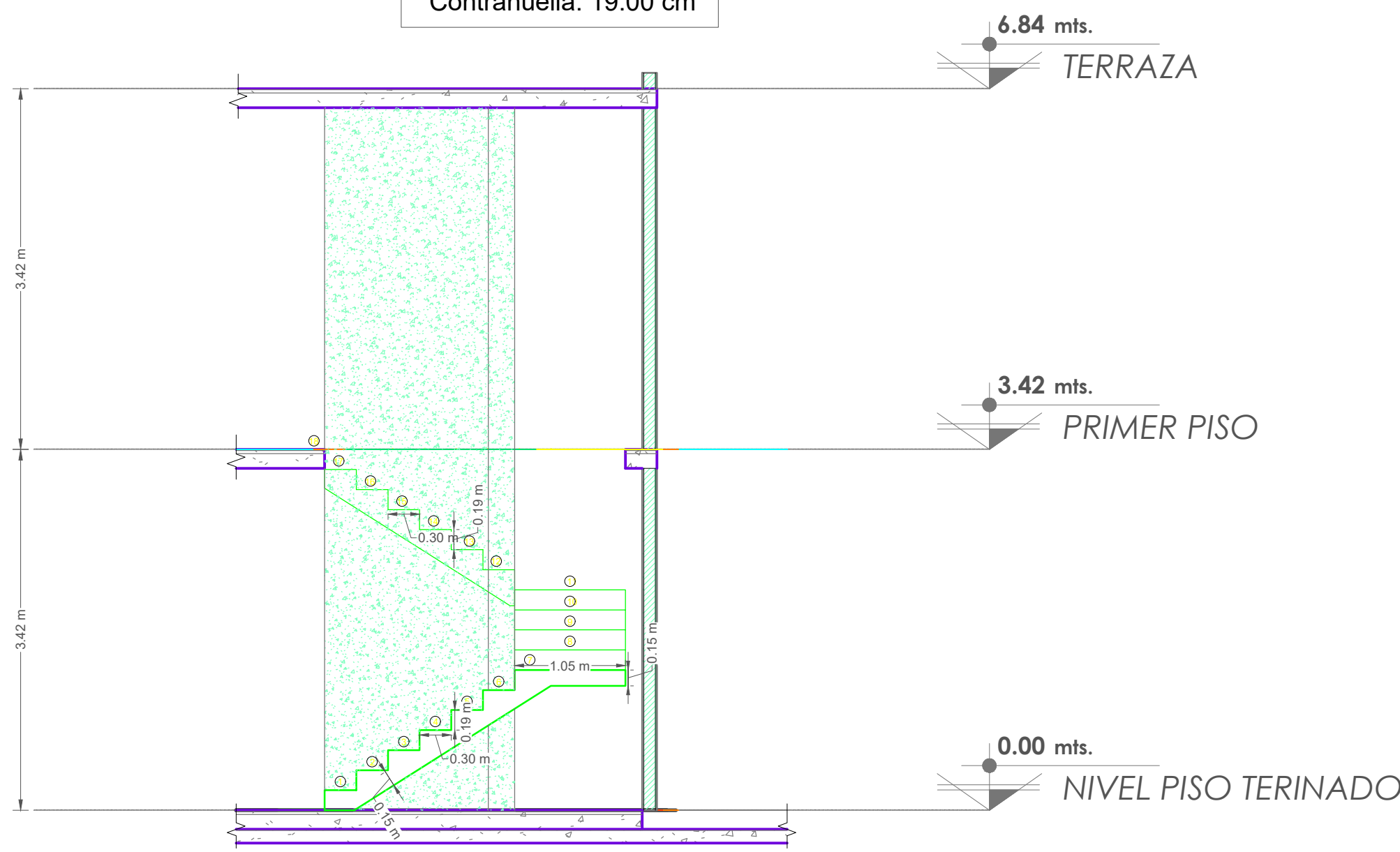
VISTA ELEVACIÓN ESCALERAS
ESCALA 1:25

Huella: 25.00 cm
ContraHuella: 18.00 cm



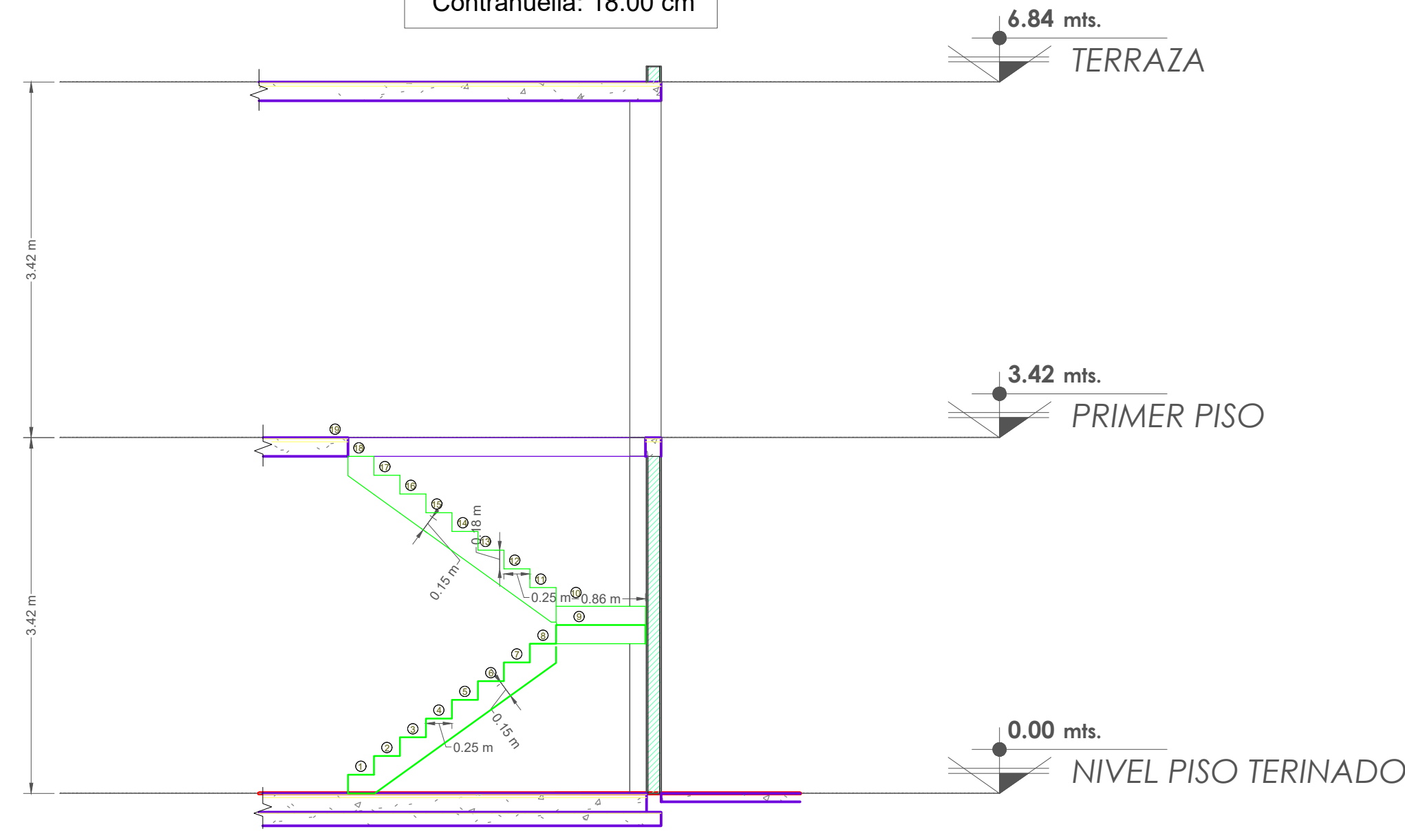
VISTA ELEVACIÓN ESCALERAS
ESCALA 1:25

Huella: 25.00 cm
ContraHuella: 19.00 cm



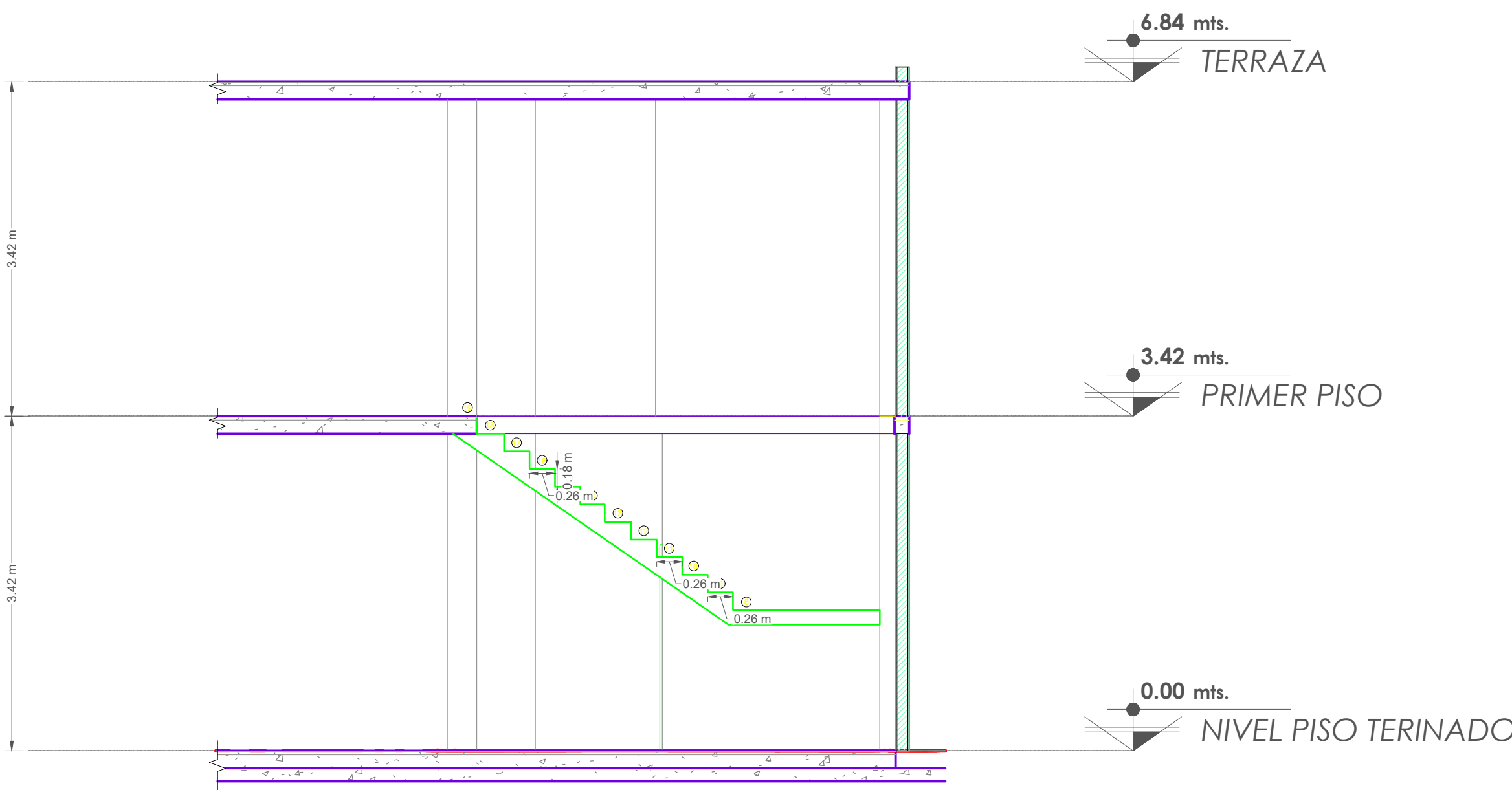
VISTA ELEVACIÓN ESCALERAS
ESCALA 1:25

Huella: 25.00 cm
ContraHuella: 18.00 cm

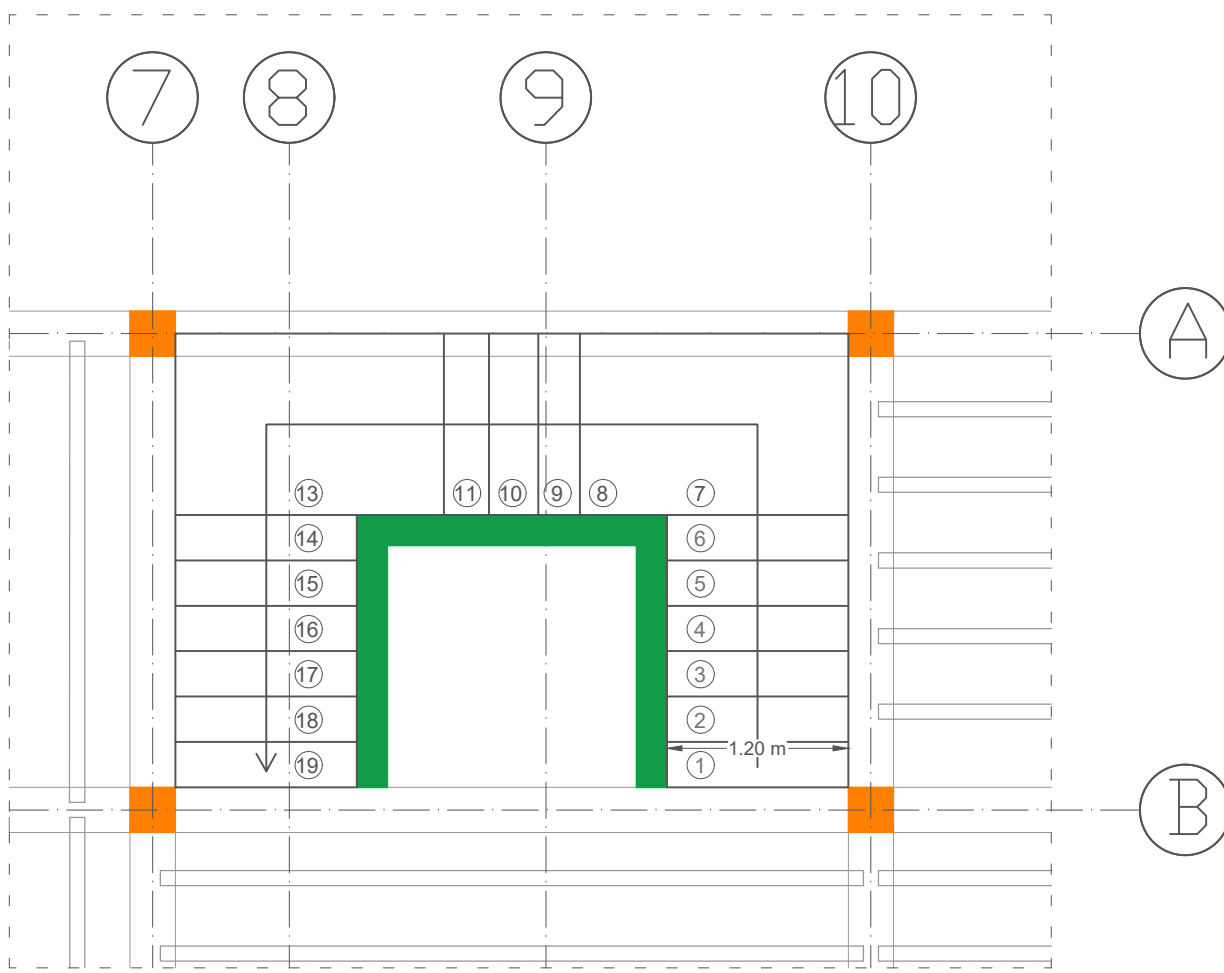


VISTA ELEVACIÓN ESCALERAS
ESCALA 1:25

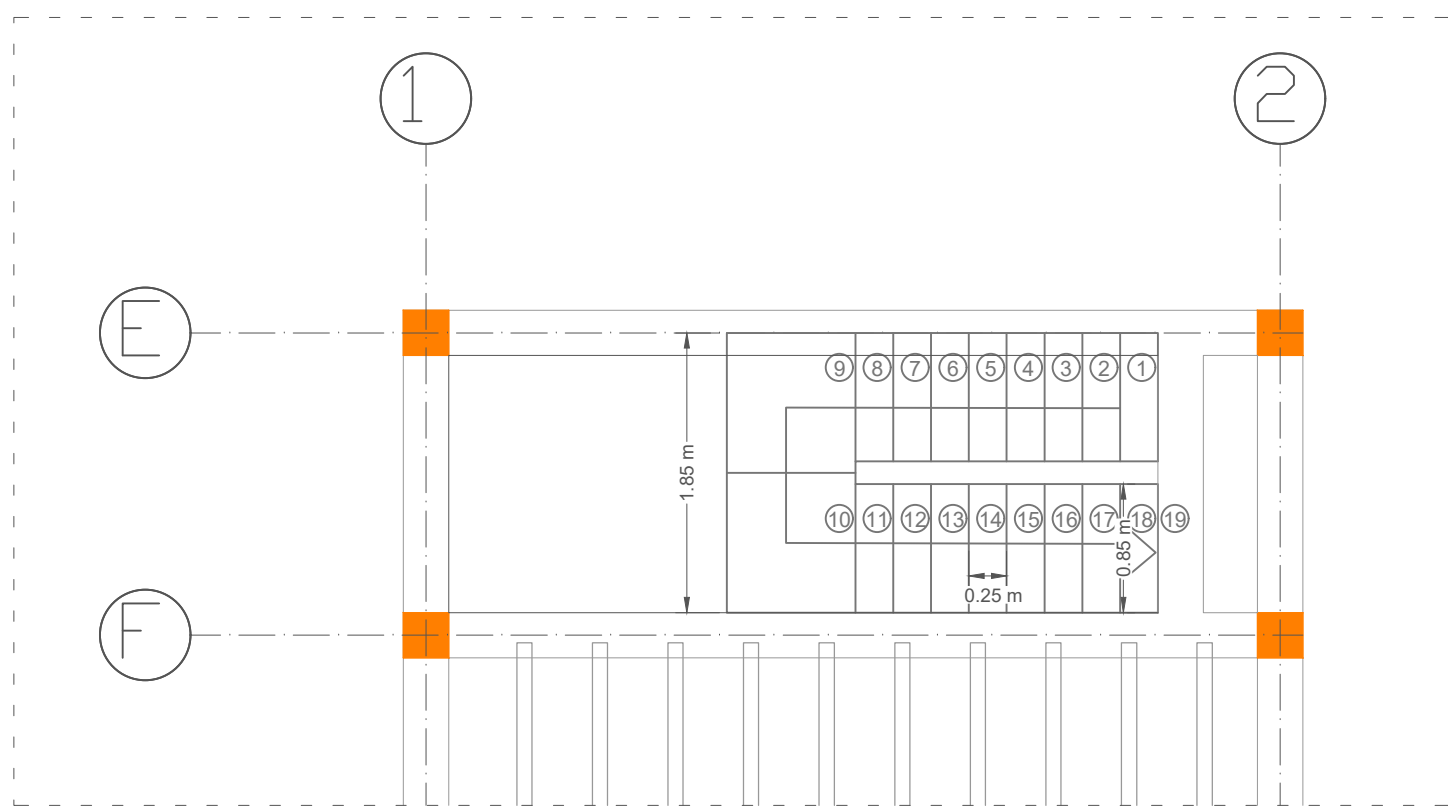
Huella: 26.00 cm
ContraHuella: 18.00 cm



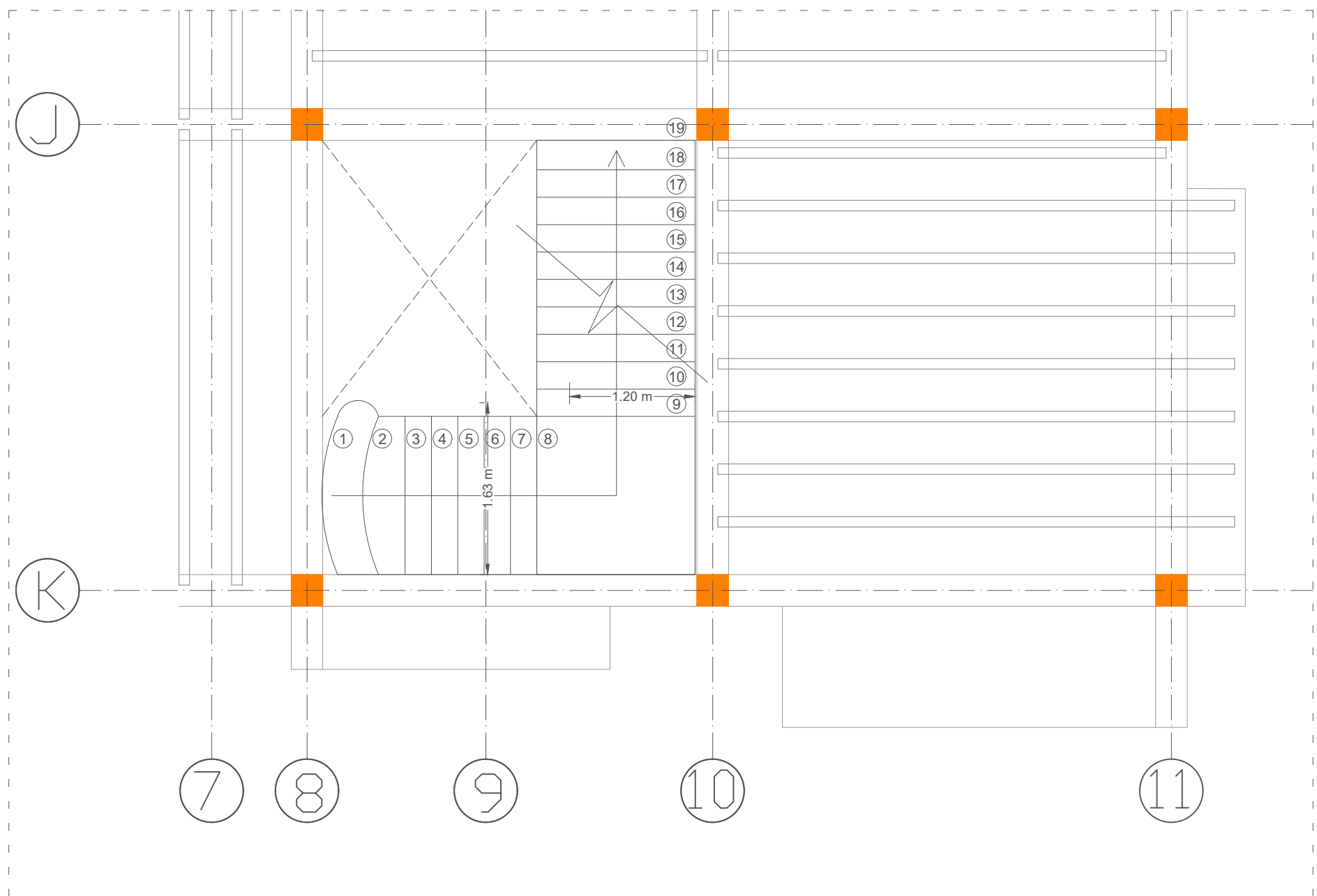
VISTA EN PLANTA ESCALERA PLANTA BAJA
ESCALERA TIPO II
NIVEL +0.00 A +3.42
ESCALA 1:25



VISTA EN PLANTA ESCALERA PLANTA BAJA
ESCALERA TIPO III
NIVEL +0.00 A +3.42
ESCALA 1:25



VISTA EN PLANTA ESCALERA PLANTA BAJA
ESCALERA TIPO I
NIVEL +0.00 A +3.42
ESCALA 1:25



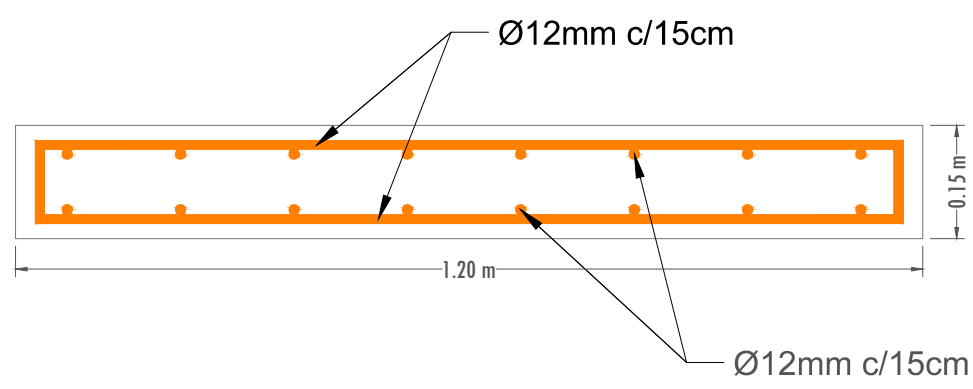
REFERENCIAS

DESCRIPCION	DIAMETRO [mm]
E Ø10 c/20 cm	SEPARACION
N° BARRAS	DIAMETRO [mm]
2 Ø20 c/L=600 cm	LONGITUD

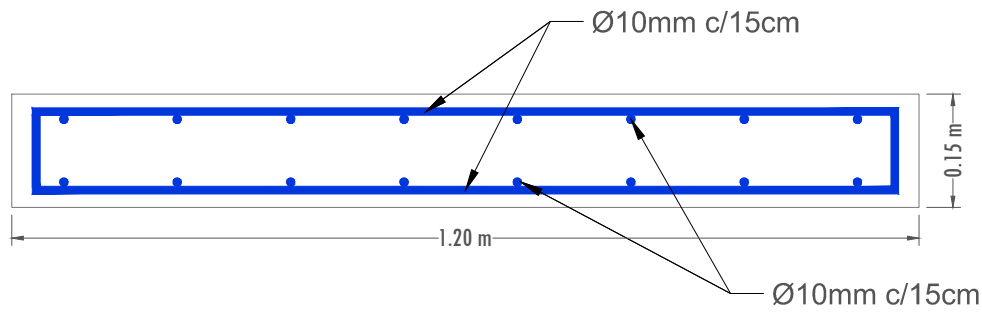
DIÁMETROS

DIAMETRO Ø6 mm	
DIAMETRO Ø8 mm	
DIAMETRO Ø10 mm	
DIAMETRO Ø12 mm	
DIAMETRO Ø16 mm	
DIAMETRO Ø20 mm	
DIAMETRO Ø25 mm	

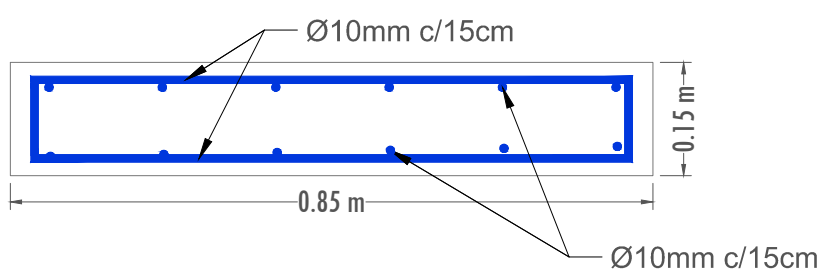
SECCIÓN TRANSVERSAL ESCALERA TIPO I
ESCALA 1:10



SECCIÓN TRANSVERSAL ESCALERA TIPO II
ESCALA 1:10



SECCIÓN TRANSVERSAL ESCALERA TIPO III
ESCALA 1:10



LONGITUD DE EMPALME DE VARILLAS EN: FUNDACIONES, MUROS DE SOTANO, MUROS DE ASCENSOR, LOSAS, ESCALERAS, VIGAS Y COLUMNAS
ESCALA 1:10

