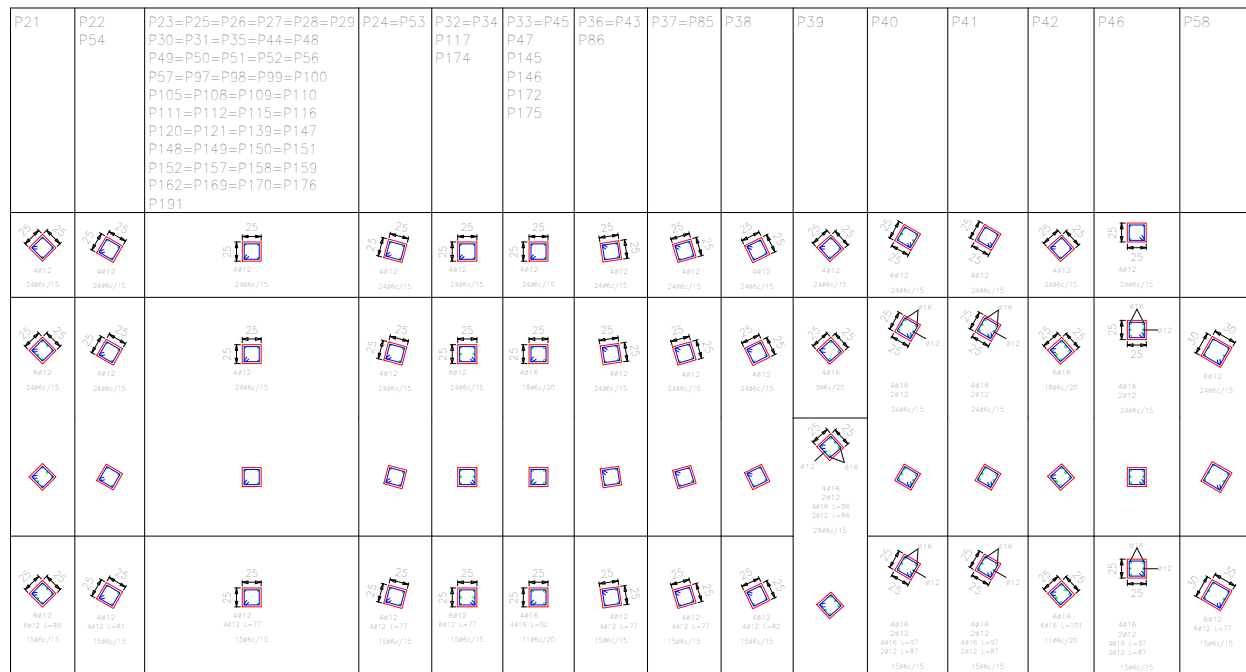


Cuadro de pilares
 Hormigón: H-21 , Control Normal
 Acero: AH-400 , Control Normal
 Escala: 1:50

Resumen Acero	Long. total	Peso+10%	Total
Forjados 1 a 4	(m)	(kg)	
Ø12	11184.0	2725	
Ø16	7107.7	6941	
Ø18	724.1	1257	0023



Cuadro de pilares
 Hormigón: H-21 , Control Normal
 Acero: AH-400 , Control Normal
 Escala: 1:50



P59	P60	P61	P62	P63	P64	P65	P66	P67	P70=P92 P96	P71	P74=P76 P78	P75=P77=P79=P93 P95=P103=P114 P119=P122=P123 P124=P125=P126 P127=P128=P129 P132=P133=P167 P188	P80	P81	P83

Forjado 4

Forjado 3

sobrecimiento b

sobrecimiento

Cimentación

Cuadro de pilares
Hormigón: H-21 , Control Normal
Acero: AH-400 , Control Normal
Escala: 1:50

P84	P87	P88	P89	P90	P91=P94	P101=P102 P104=P106 P107=P113 P144=P156 P171	P118	P130	P131	P134 P183	P135	P136	P137=P140 P142=P143 P160=P161 P165=P166 P192	P138	P141 P189 P190

Forjado 4

Forjado 3

sobrecimiento b

sobrecimiento

Cimentación

Cuadro de pilares
Hormigón: H-21 , Control Normal
Acero: AH-400 , Control Normal
Escala: 1:50



P153	P154	P163	P164	P168	P173	P177	P178	P179	P180	P181	P182	P184	P185	P186	P187

Forjado 4

Forjado 3

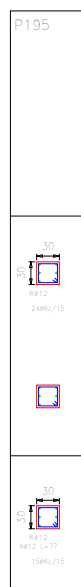
sobrecimiento b

sobrecimiento

Cimentación

Cuadro de pilares
 Hormigón: H-21 , Control Normal
 Acero: AH-400 , Control Normal
 Escala: 1:50

Detalle de estribado de pilares

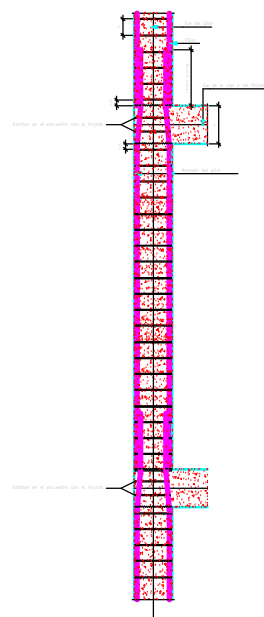


Forjado 3

sobrecimiento b

sobrecimiento

Cimentación

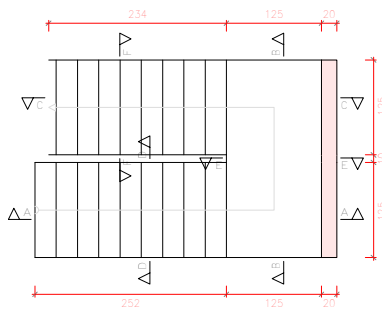
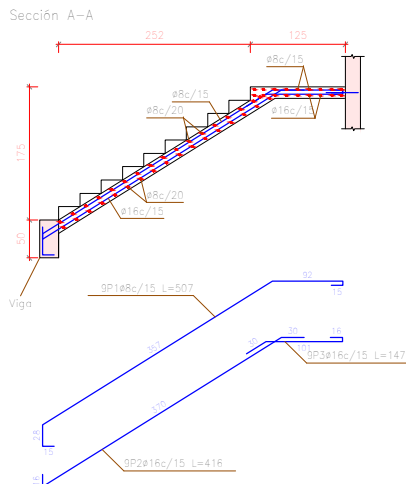
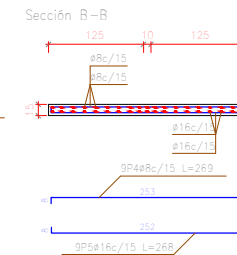
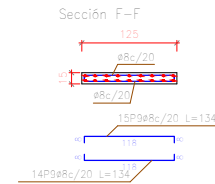
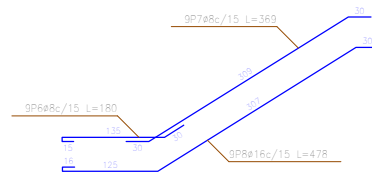
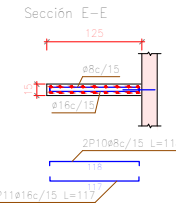
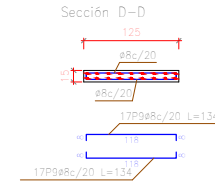
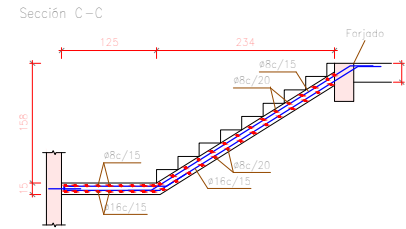


Cuadro de pilares
 Hormigón: H-21 , Control Normal
 Acero: AH-400 , Control Normal
 Escala: 1:50



Escalera 1

Tramo 1		
Geometría	Ámbito	1.250 m
	Espesor	0.15 m
	Huello	0.280 m
	Contrahuella	0.175 m
	Desnivel que salva	3.33 m
Cargas	N° de escalones	19
	Planta final	Forjado 3
	Planta inicial	sobrecimiento
	Peso propio	0.375 t/m ²
	Peldañado (Realizado con ladrillo)	0.119 t/m ²
Materiales	Solado	0.100 t/m ²
	Barandillas	0.300 t/m
	Sobrecarga de uso	0.500 t/m ²
	Hormigón	H-21, Control Normal
	Acero	AH-400, Control Normal
Rec. geométrico	3.0 cm	



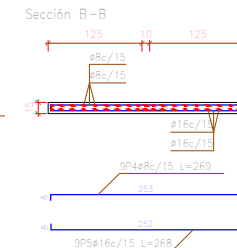
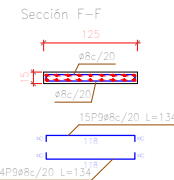
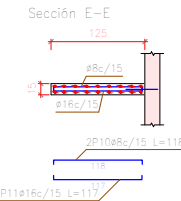
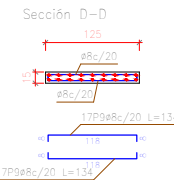
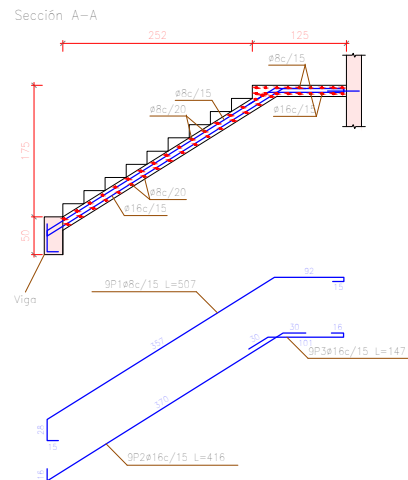
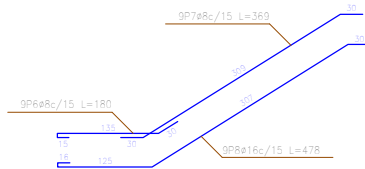
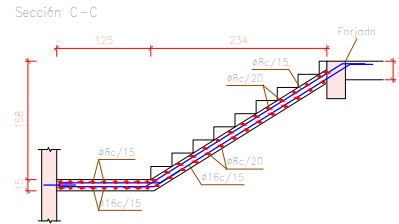
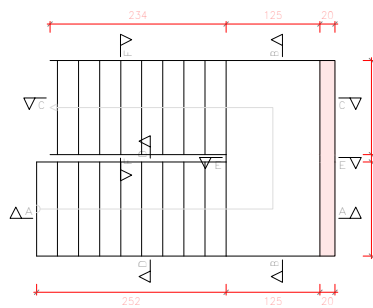
Elemento	Pes.	diám.	No.	Long. (cm)	Total (cm)	Ar=400CII (kg)
Columna						
1	ø8	2	210	210	840	
2	ø16	2	210	210	200	
3	ø8	2	147	147	200	
4	ø8	2	269	269	54	
5	ø16	2	269	269	36	
6	ø8	2	180	180	64	
7	ø8	2	269	269	52	
8	ø16	2	278	278	67	
9	ø8	2	154	154	33	
10	ø8	2	118	118	9	
11	ø16	2	117	117	37	
Total						298

Resumen Acero Escalera 1	Long. total (m)	Peso+10% (kg)	Total
AH-400N ø8	206,0	89	
ø16	120,2	209	298



Escalera 2

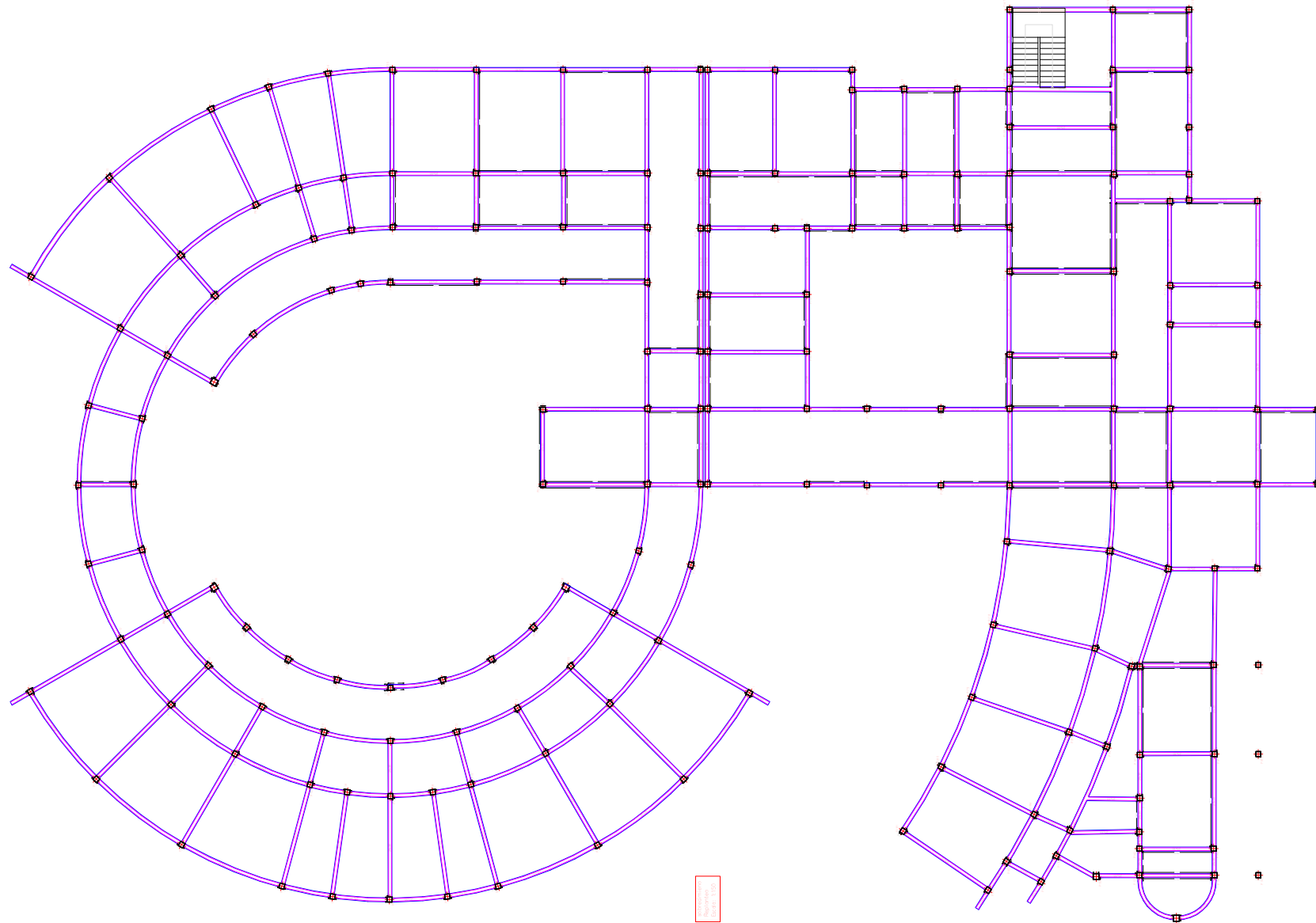
Tramo 1	
Geometría	
Ambito	1.250 m
Espesor	0,15 m
Huella	0,280 m
Contrahuella	0,175 m
Desnivel que salva	3,33 m
Nº de escalones	19
Planta final	Forjado 3
Planta inicial	sobrecimiento
Peso propio	0,375 t/m ²
PeldaReato (Realizado con ladrillo)	0,119 t/m ²
Carapas	
Solado	0,100 t/m ²
Barandillas	0,300 t/m
Sobrecarga de uso	0,500 t/m ²
Materiales	
Hormigón	H-21 Control Normal
Acero	AH-400 Control Normal
Rec. geométrico	3,0 cm

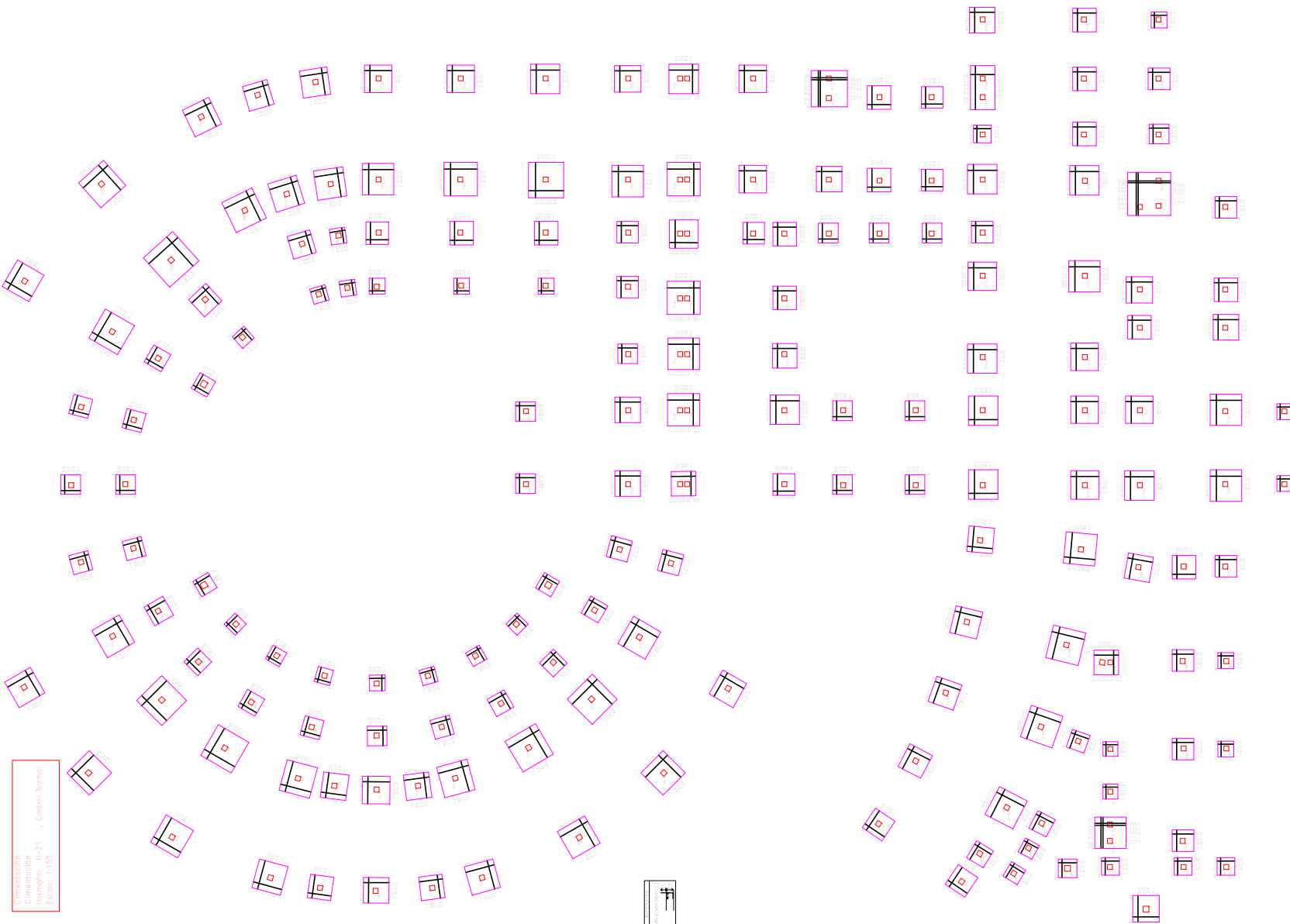


Elemento	Pos.	Ø(m)	No.	Long. (cm)	Vol. (cm ³)	Peso (kg)
Totales Tramos 1						
1	Ø8	0	307	1197	195,1	
2	Ø16	0	416	3761	59,1	
3	Ø8	0	142	1322	209,9	
4	Ø8	0	242	2421	9,9	
5	Ø8	0	268	2414	98,1	
6	Ø8	0	180	1620	6,4	
7	Ø8	0	360	3241	13,1	
8	Ø8	0	478	4322	67,3	
9	Ø8	0	134	842	33,3	
10	Ø8	0	118	242	9,9	
11	Ø16	0	117	231	3,7	
Totales (Ø8)						998,1
Totales (Ø16)						69,4
Total						1067,5

Resumen Acero	Long. total (m)	Peso+10% (kg)	Total
Escalera 1			
AH-400CN Ø8	206,0	89	
Ø16	120,2	209	298



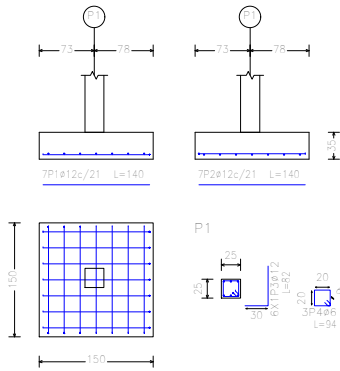




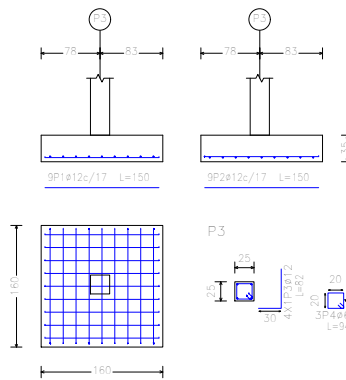
Dimensionación
 Circunferencia: H=21
 Homogeneidad: H=21
 Espesor: 10/50
 Control Normas



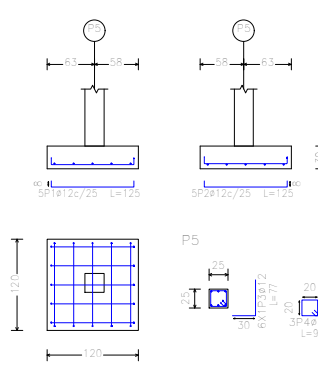
P1



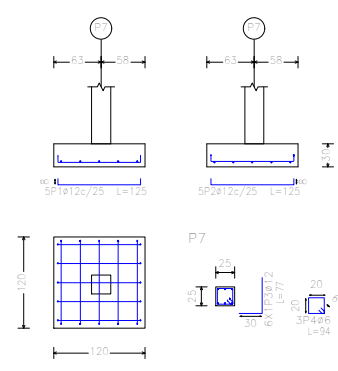
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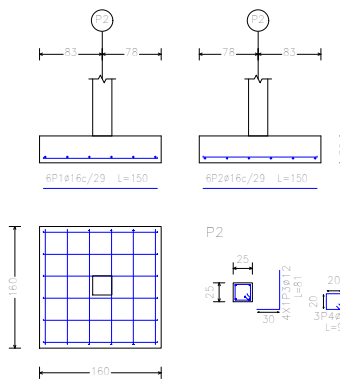
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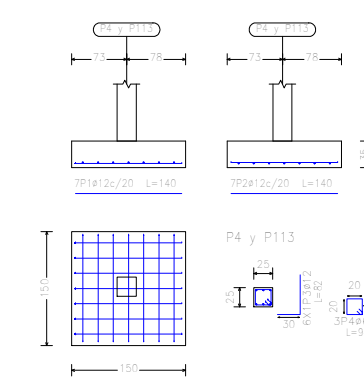
P7



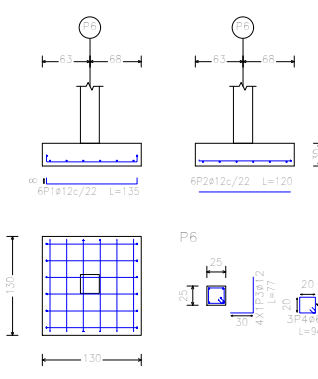
P2



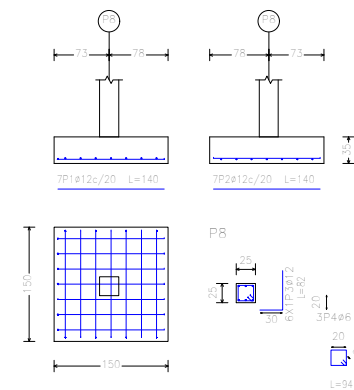
P4 y P113



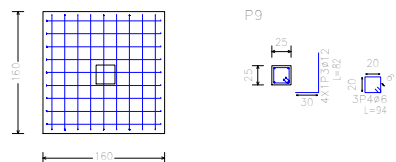
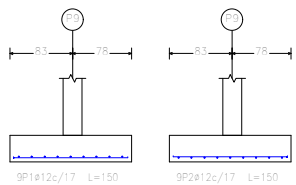
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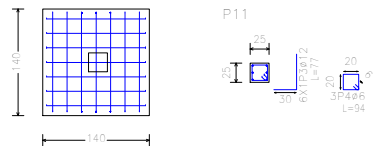
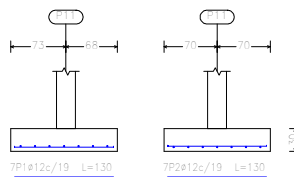
P8



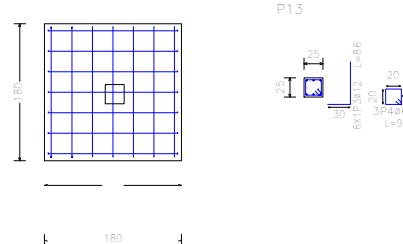
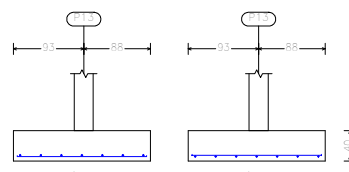
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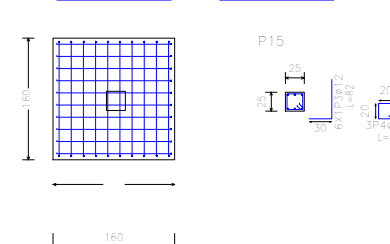
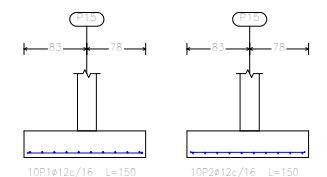
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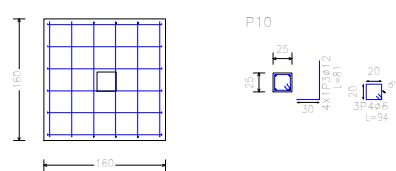
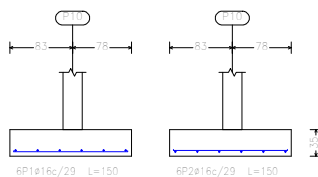
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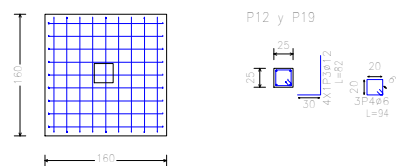
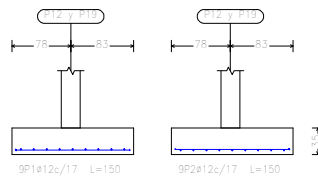
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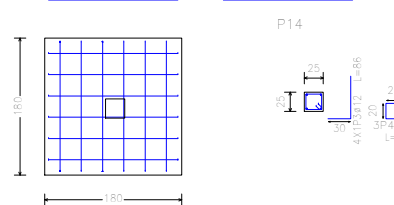
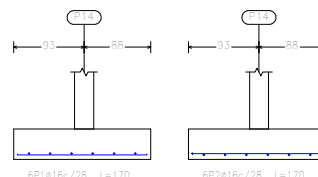
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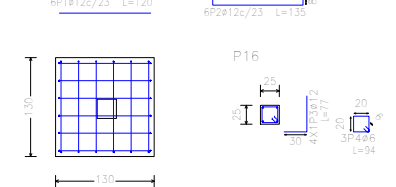
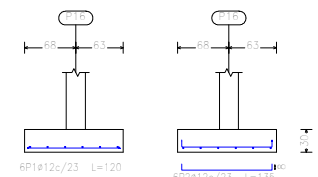
P12 y P19



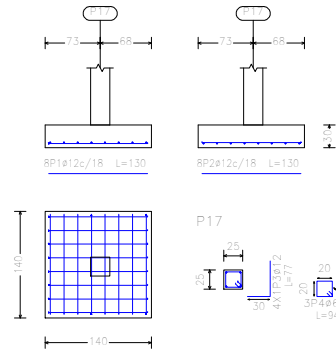
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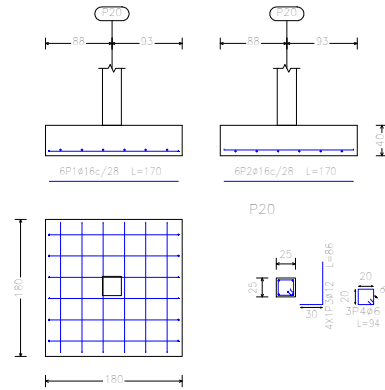
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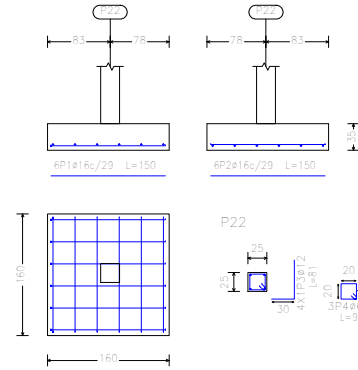
P17



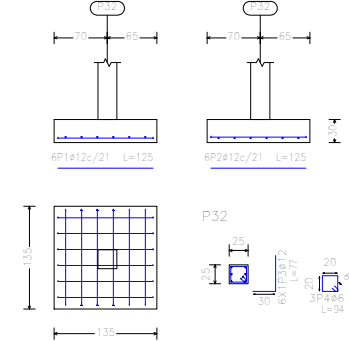
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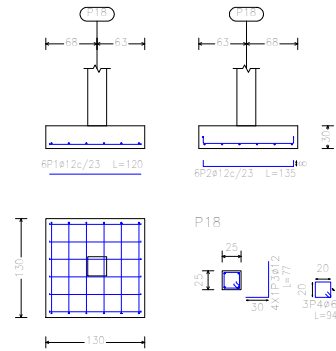
P22



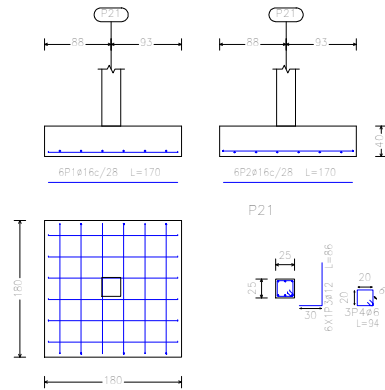
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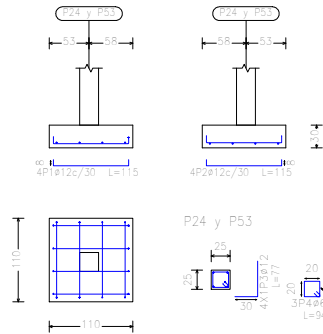
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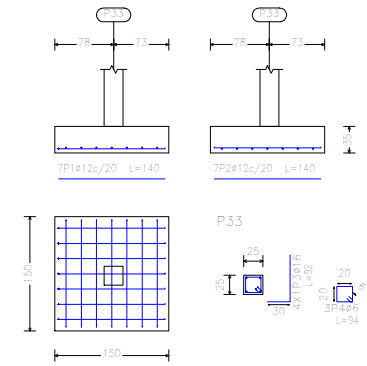
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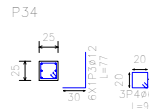
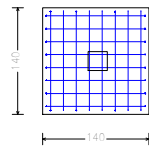
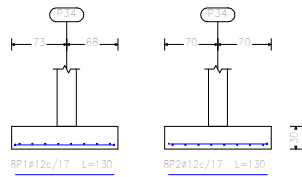
P24 y P53



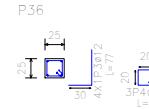
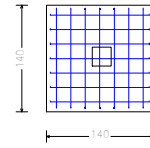
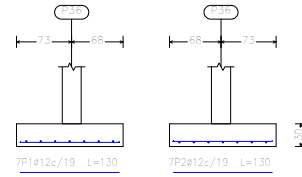
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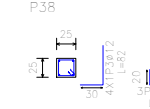
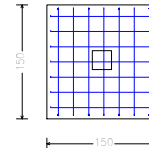
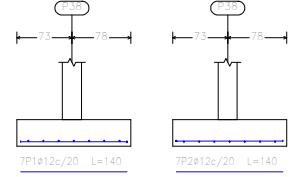
P34



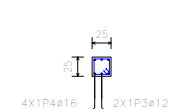
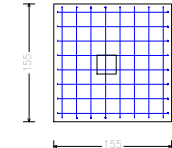
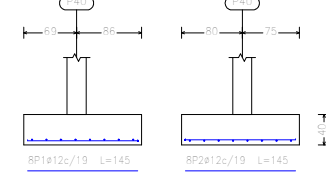
P36



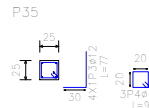
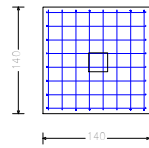
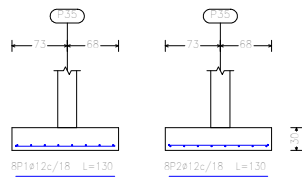
P38



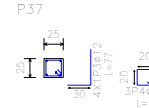
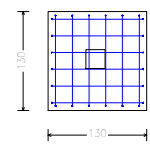
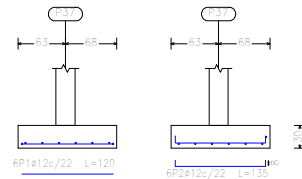
P40



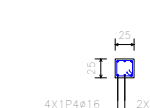
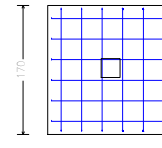
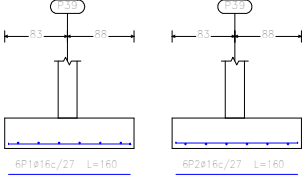
P35



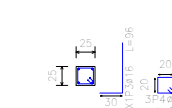
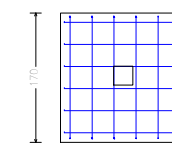
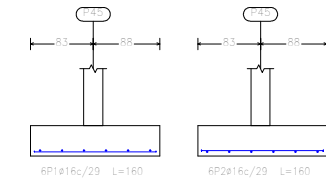
P37



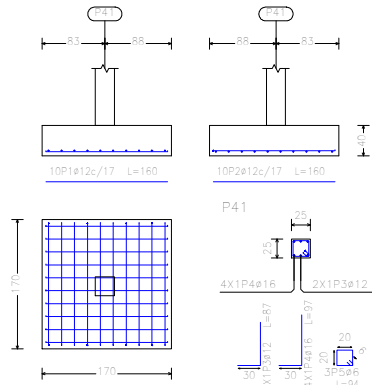
P39



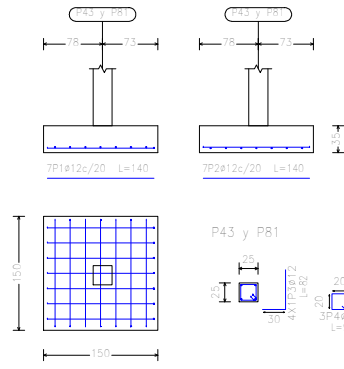
P45



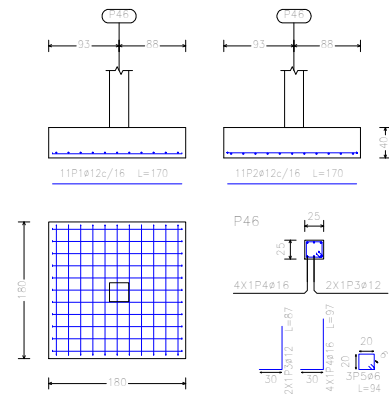
P41



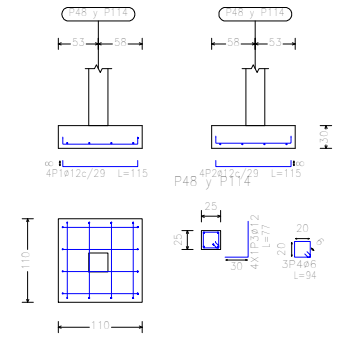
P43 y P81



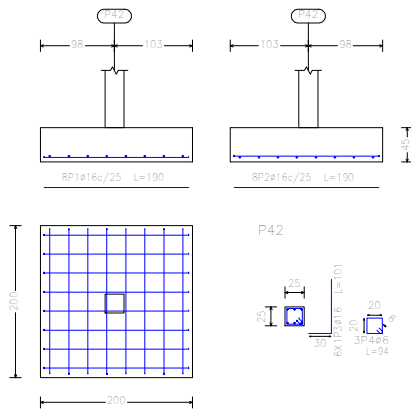
P46



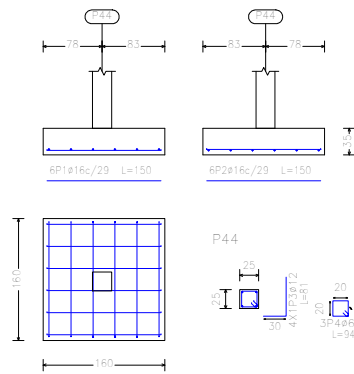
P48 y P114



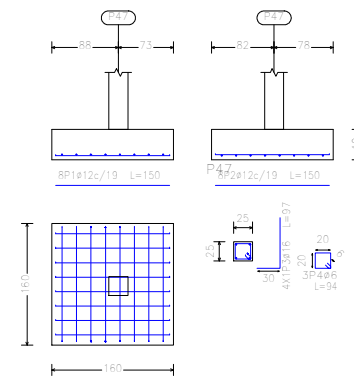
P42



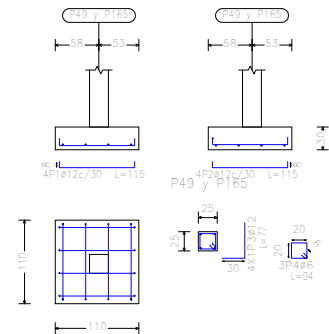
P44



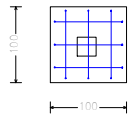
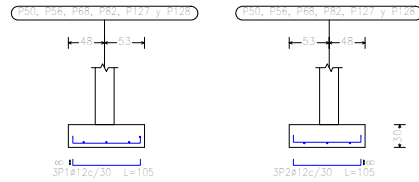
P47



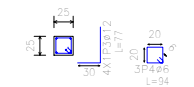
P49 y P165



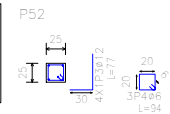
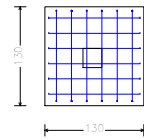
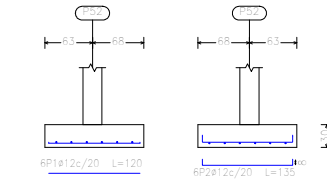
P50, P56, P68, P82, P127 y P128



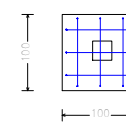
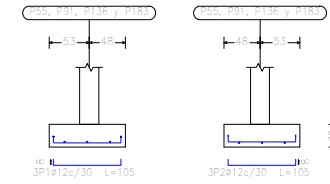
P50, P56, P68, P82, P127 y P128



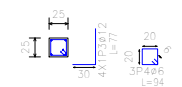
P52



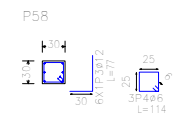
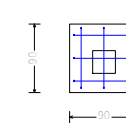
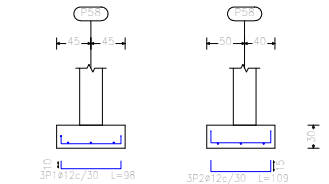
P55, P91, P136 y P183



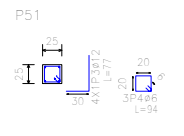
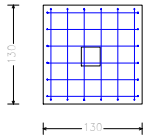
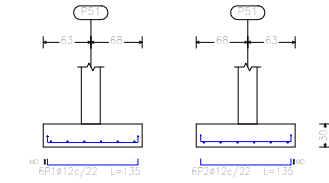
P55, P91, P136 y P183



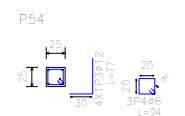
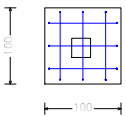
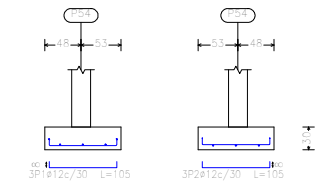
P58



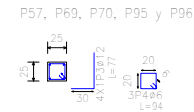
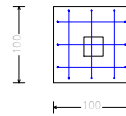
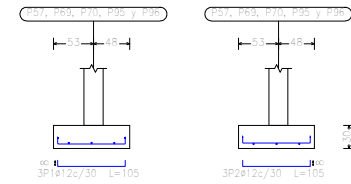
P51



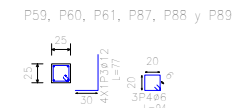
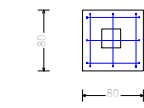
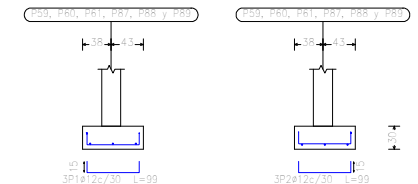
P54



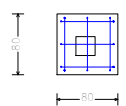
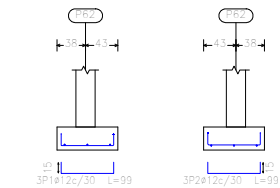
P57, P69, P70, P95 y P96



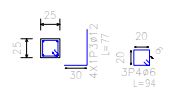
P59, P60, P61, P87, P88 y P89



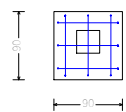
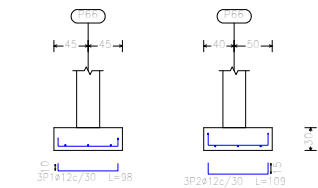
P62



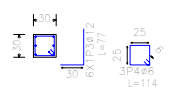
P62



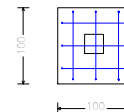
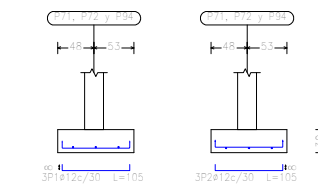
P66



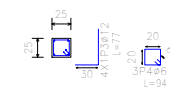
P66



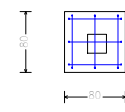
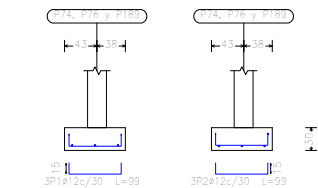
P71, P72 y P94



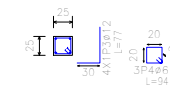
P71, P72 y P94



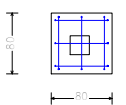
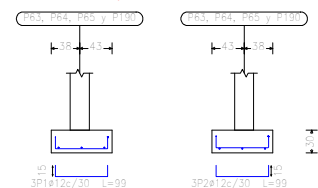
P74, P76 y P189



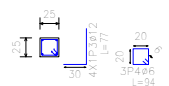
P74, P76 y P189



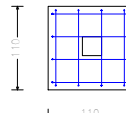
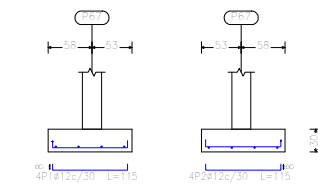
P63, P64, P65 y P190



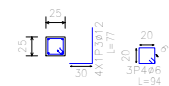
P63, P64, P65 y P190



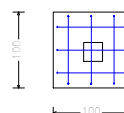
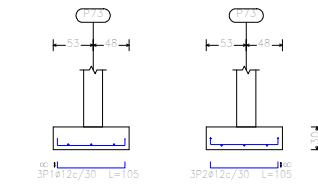
P67



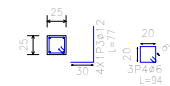
P67



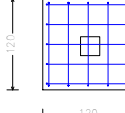
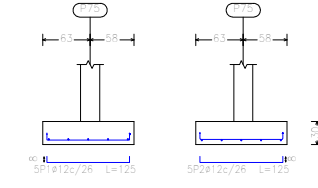
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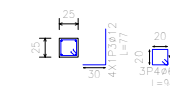
P73



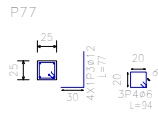
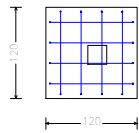
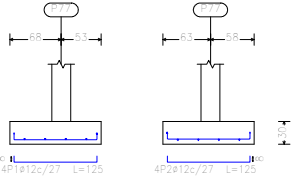
P75



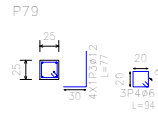
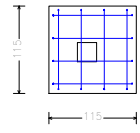
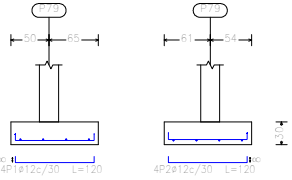
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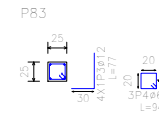
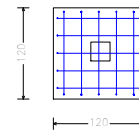
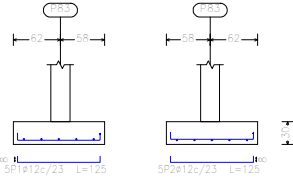
P77



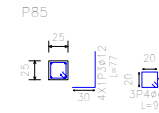
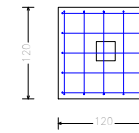
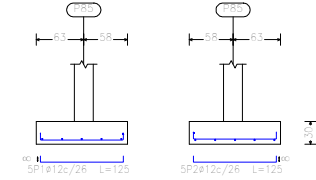
P79



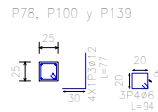
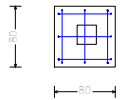
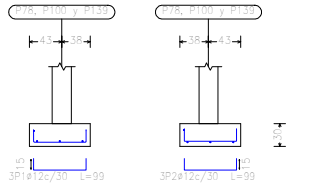
P83



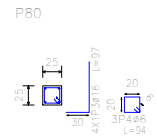
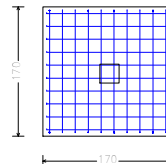
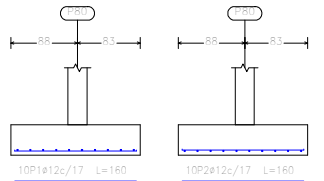
P85



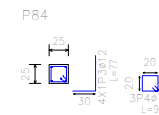
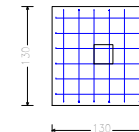
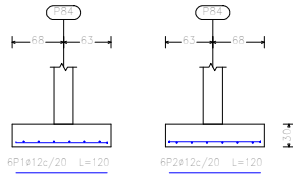
P78, P100 y P139



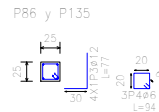
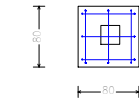
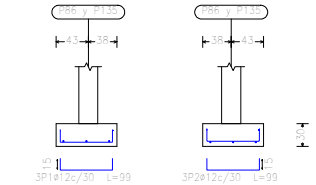
P80



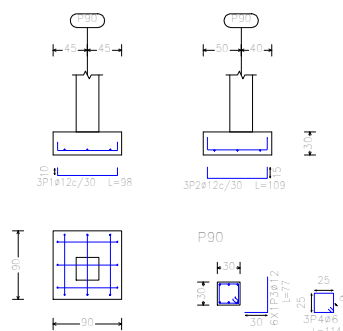
P84



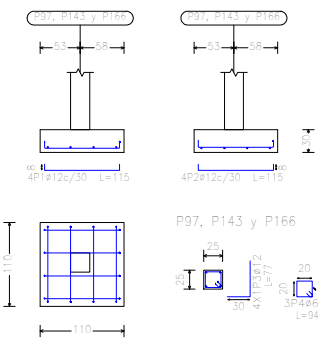
P86 y P135



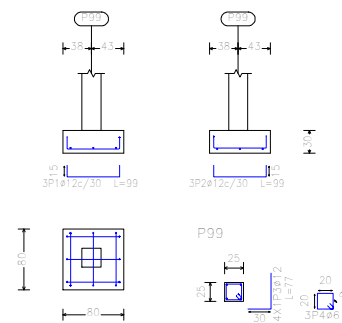
P90



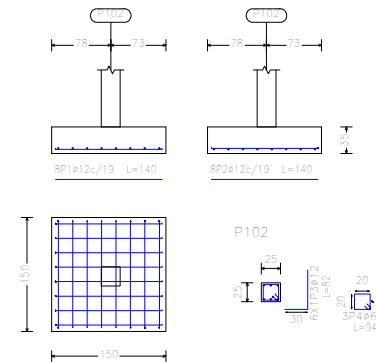
P97, P143 y P166



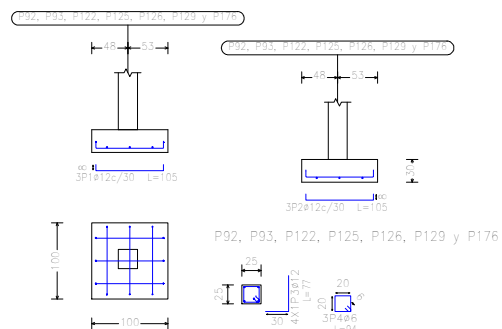
P99



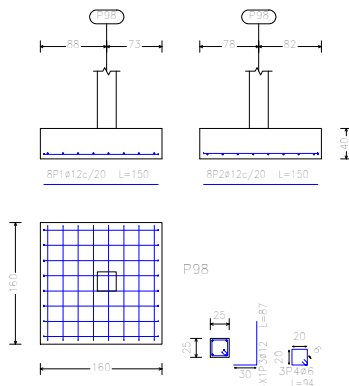
P102



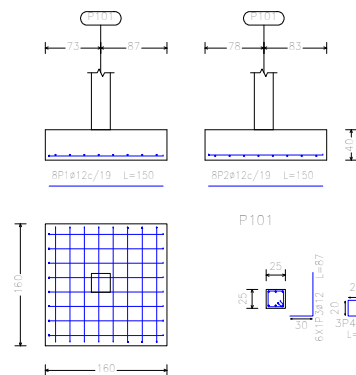
P92, P93, P122, P125, P126, P129 y P176



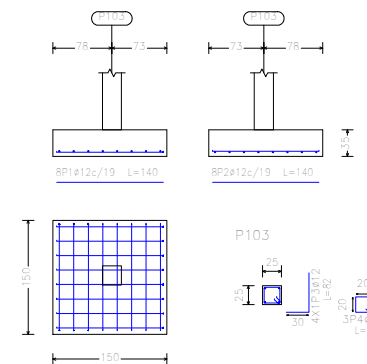
P98



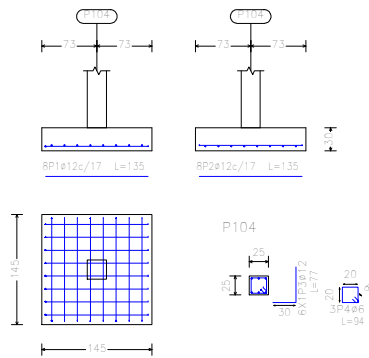
P101



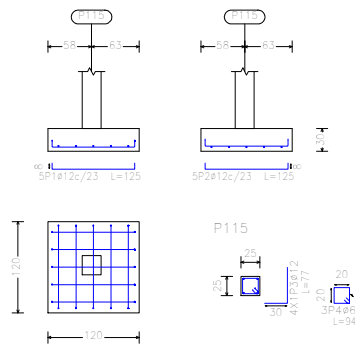
P103



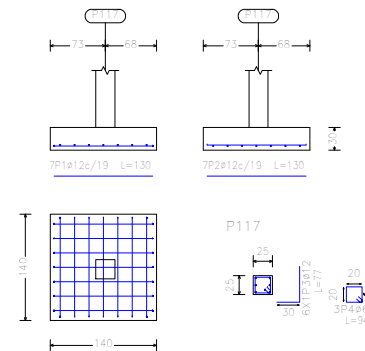
P104



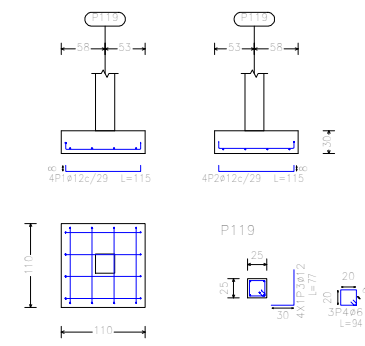
P115



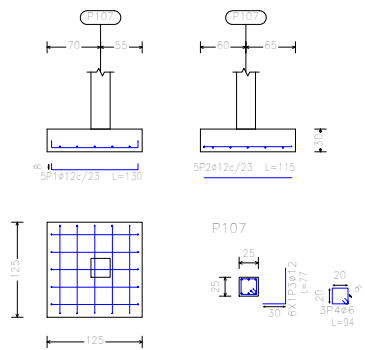
P117



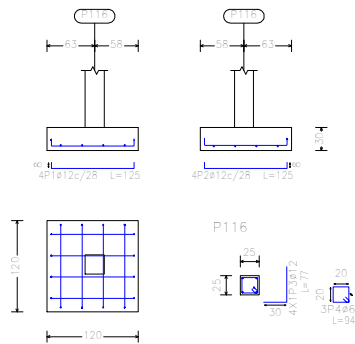
P119



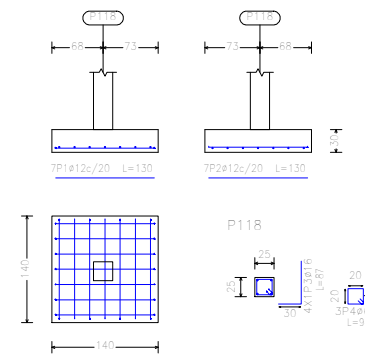
P107



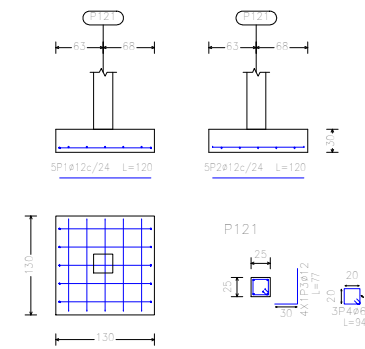
P116



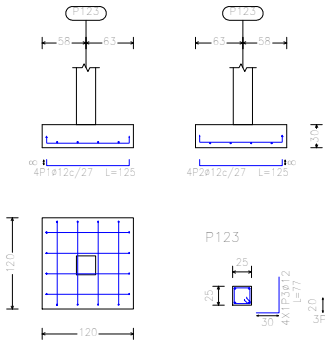
P118



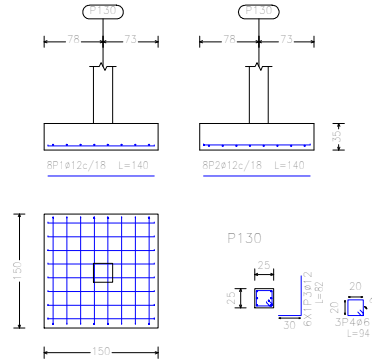
P121



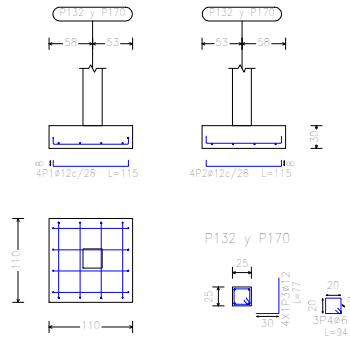
P123



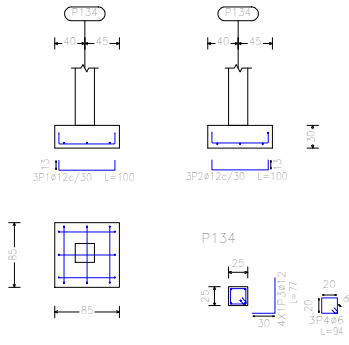
P130



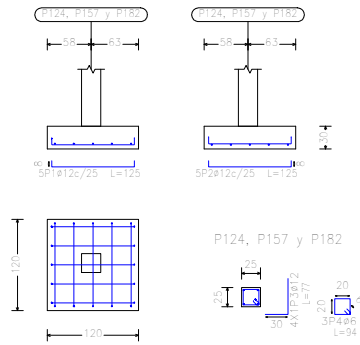
P132 y P170



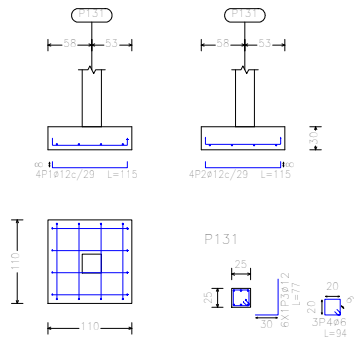
P134



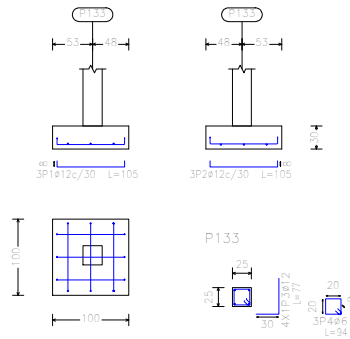
P124, P157 y P182



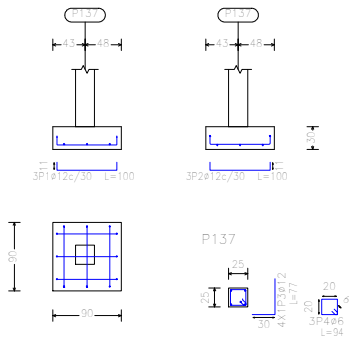
P131



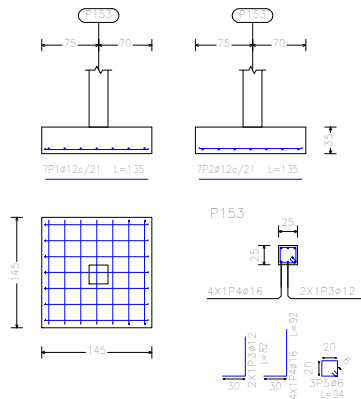
P133



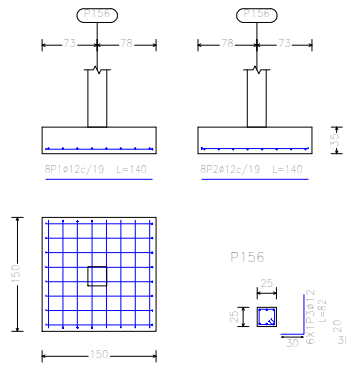
P137



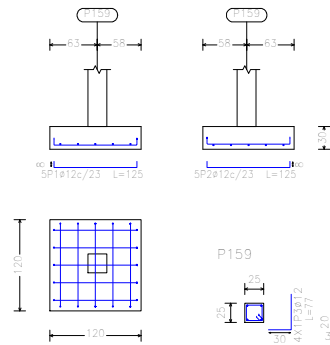
P153



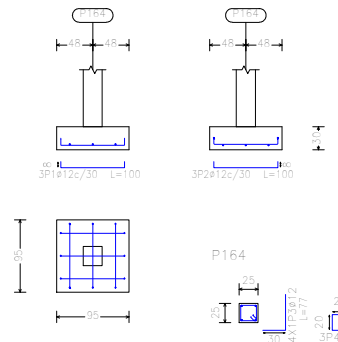
P156



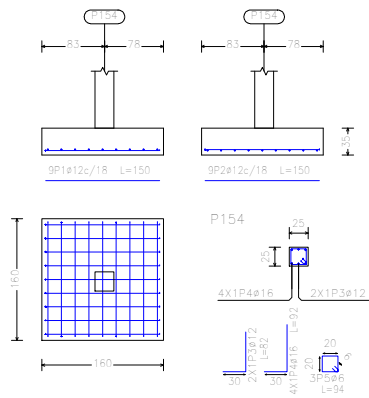
P159



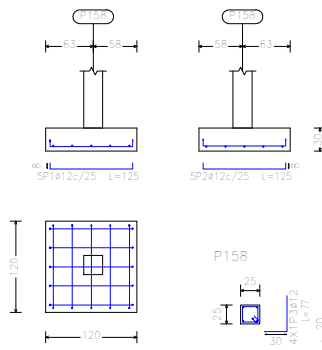
P164



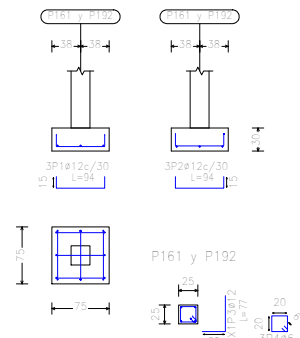
P154



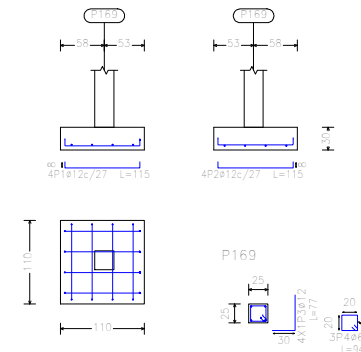
P158



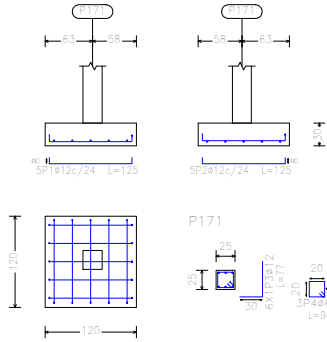
P161 y P192



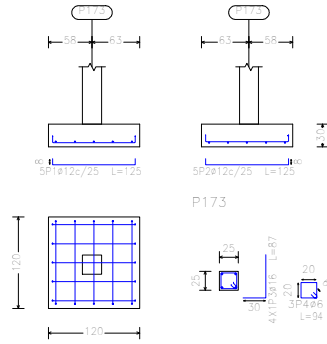
P169



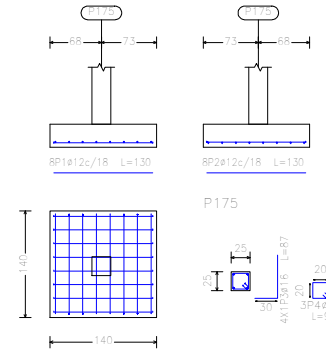
P171



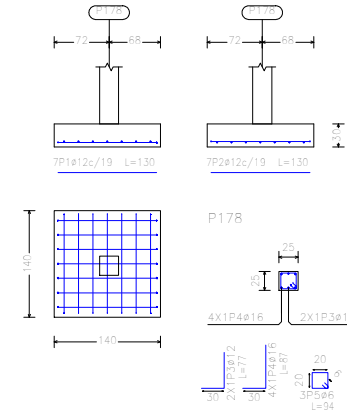
P173



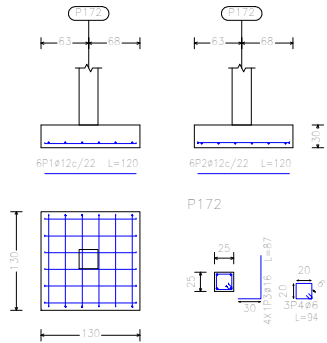
P175



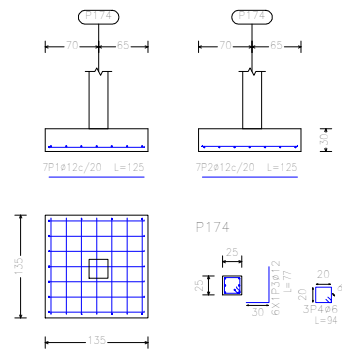
P178



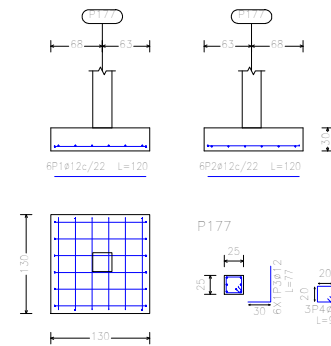
P172



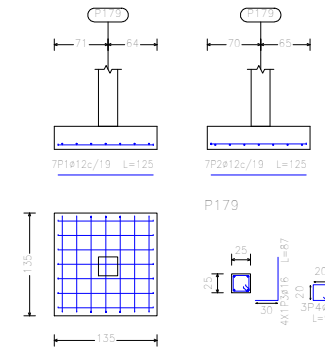
P174



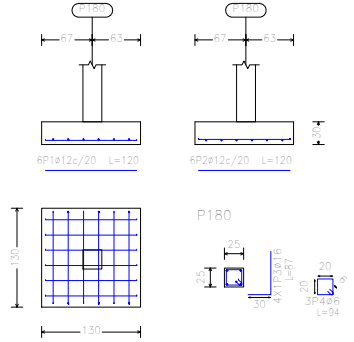
P177



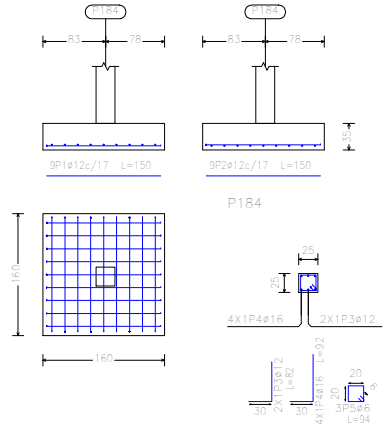
P179



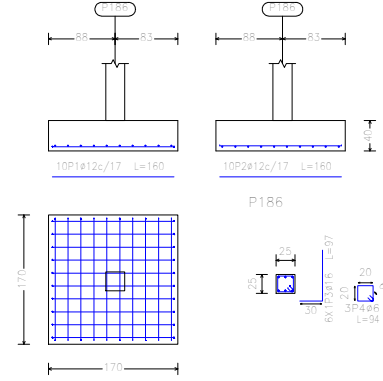
P180



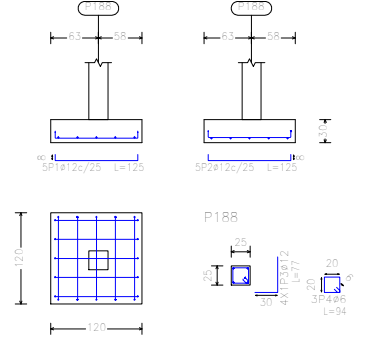
P184



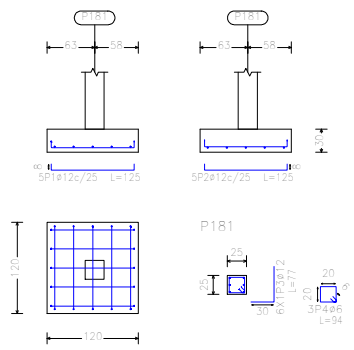
P186



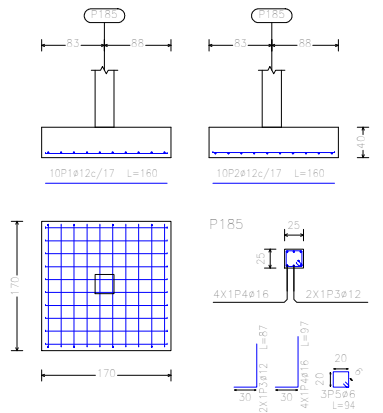
P188



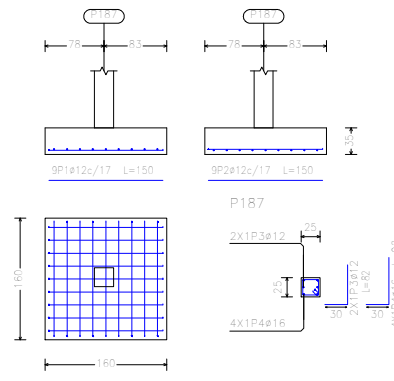
P181



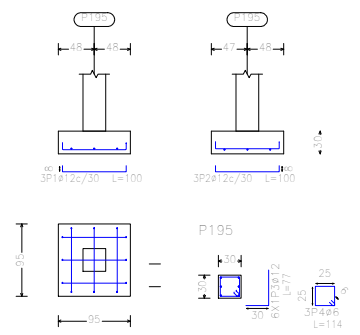
P185



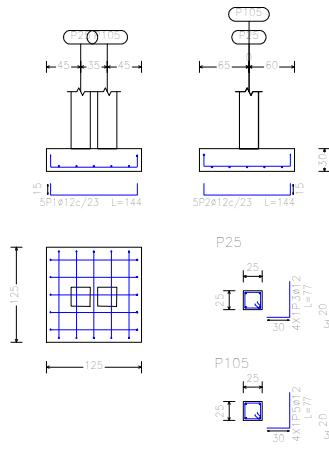
P187



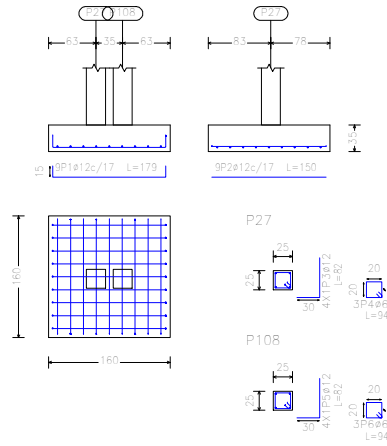
P195



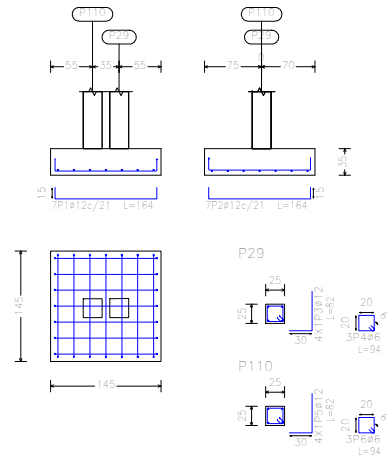
(P25-P105)



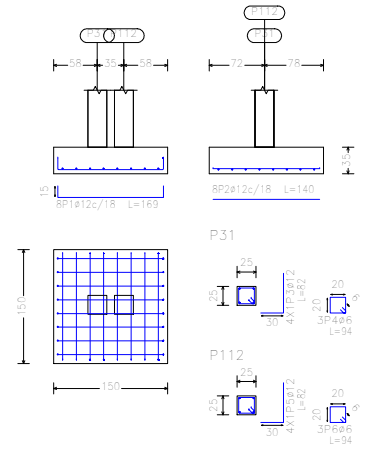
(P27-P108)



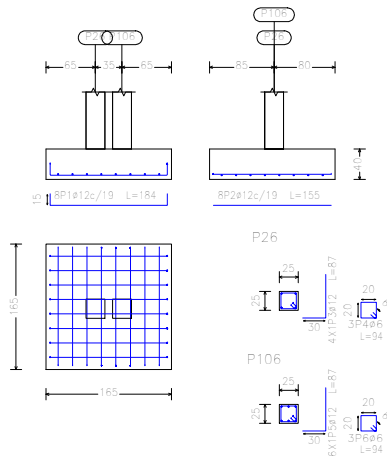
(P29-P110)



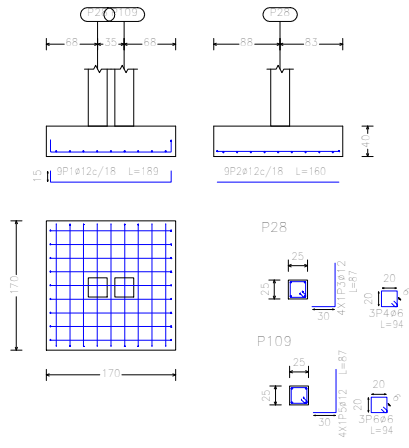
(P31-P112)



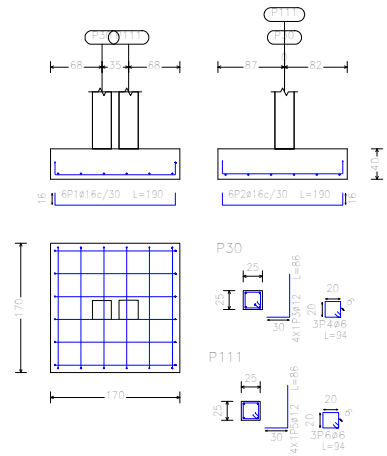
(P26-P106)



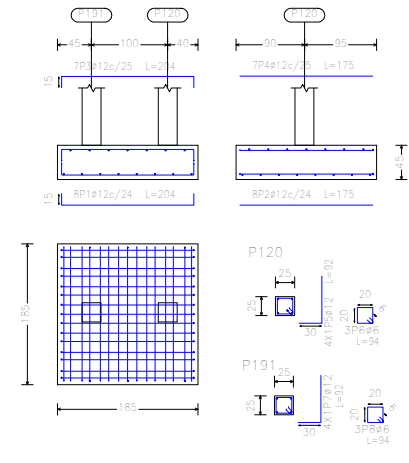
(P28-P109)



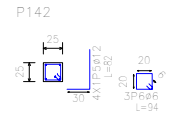
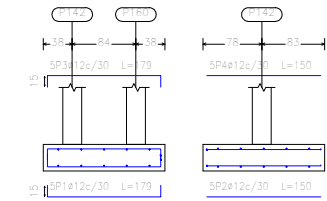
(P30-P111)



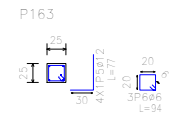
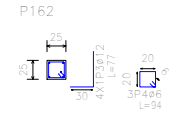
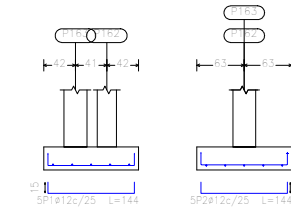
(P120-P191)



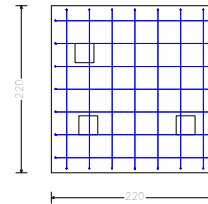
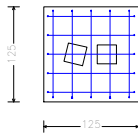
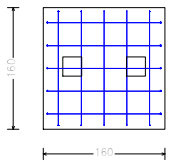
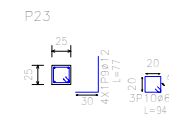
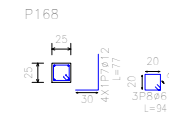
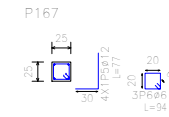
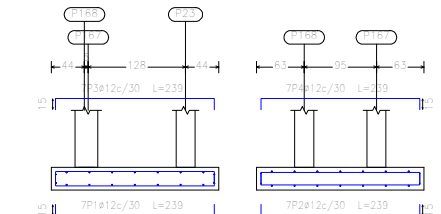
(P142-P160)



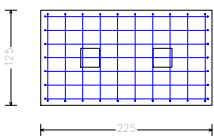
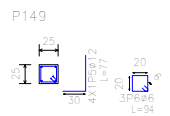
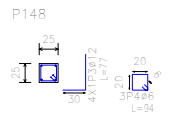
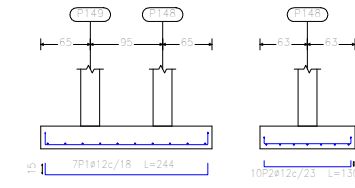
(P162-P163)

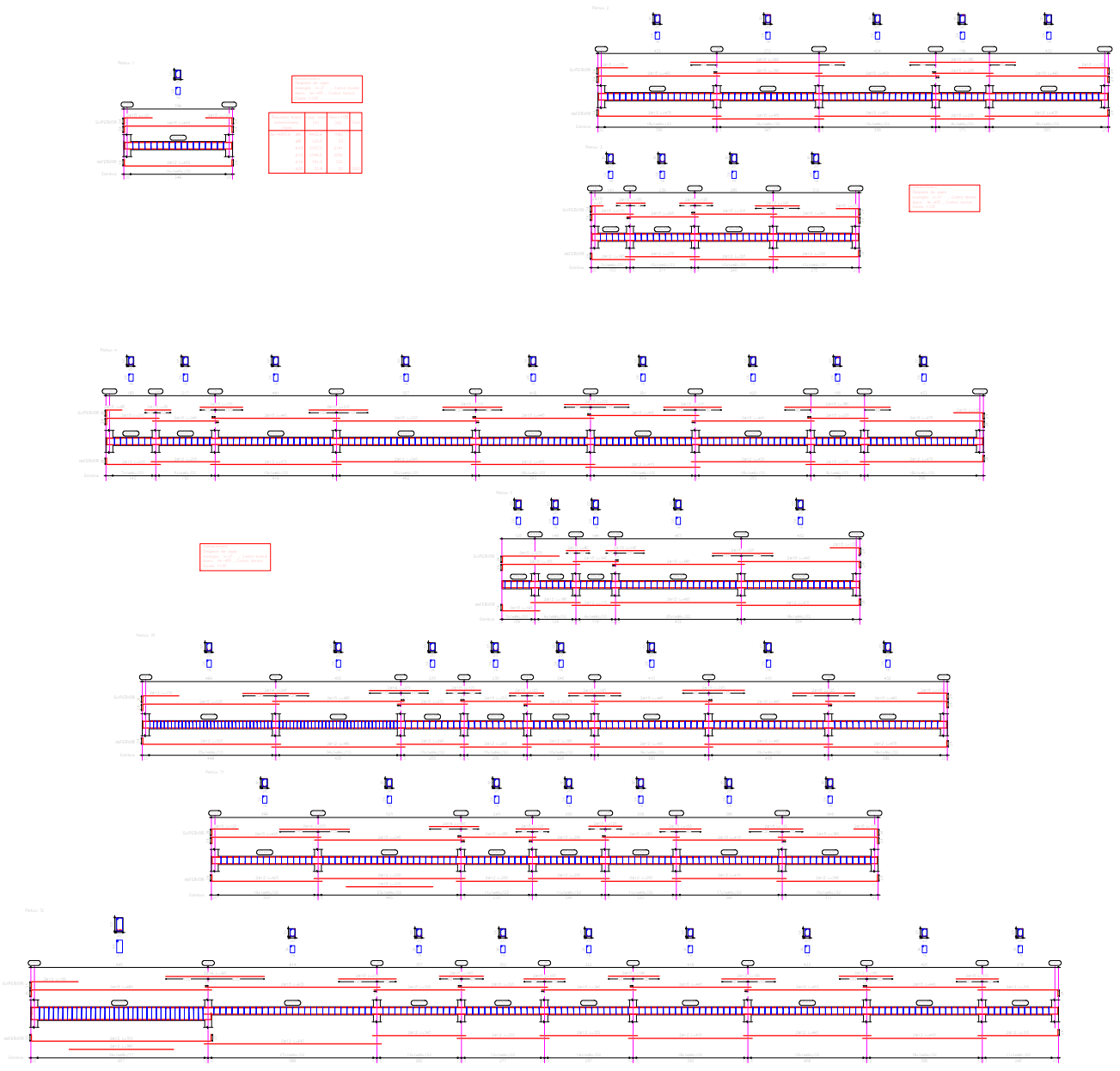


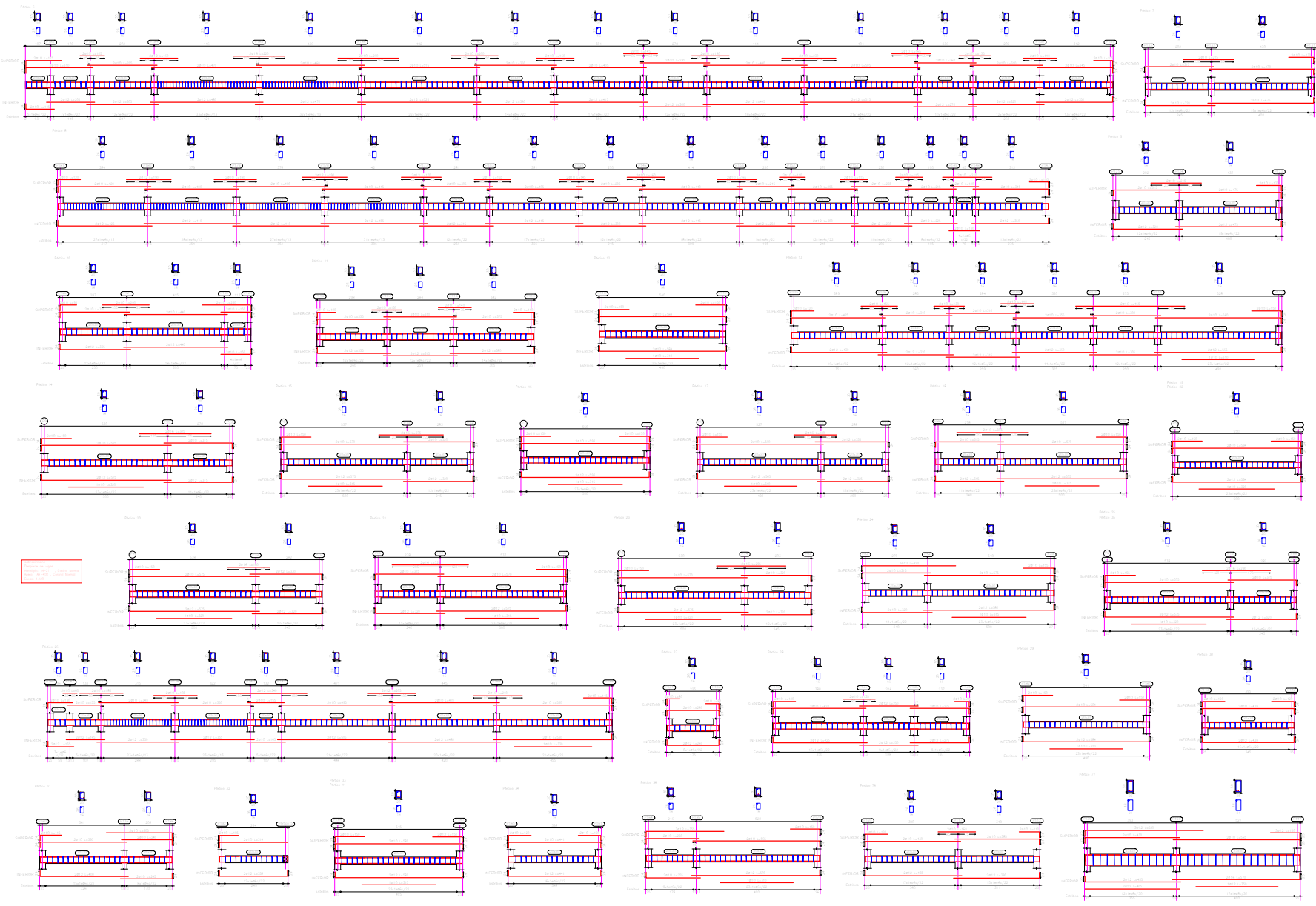
(P167-P168-P23)

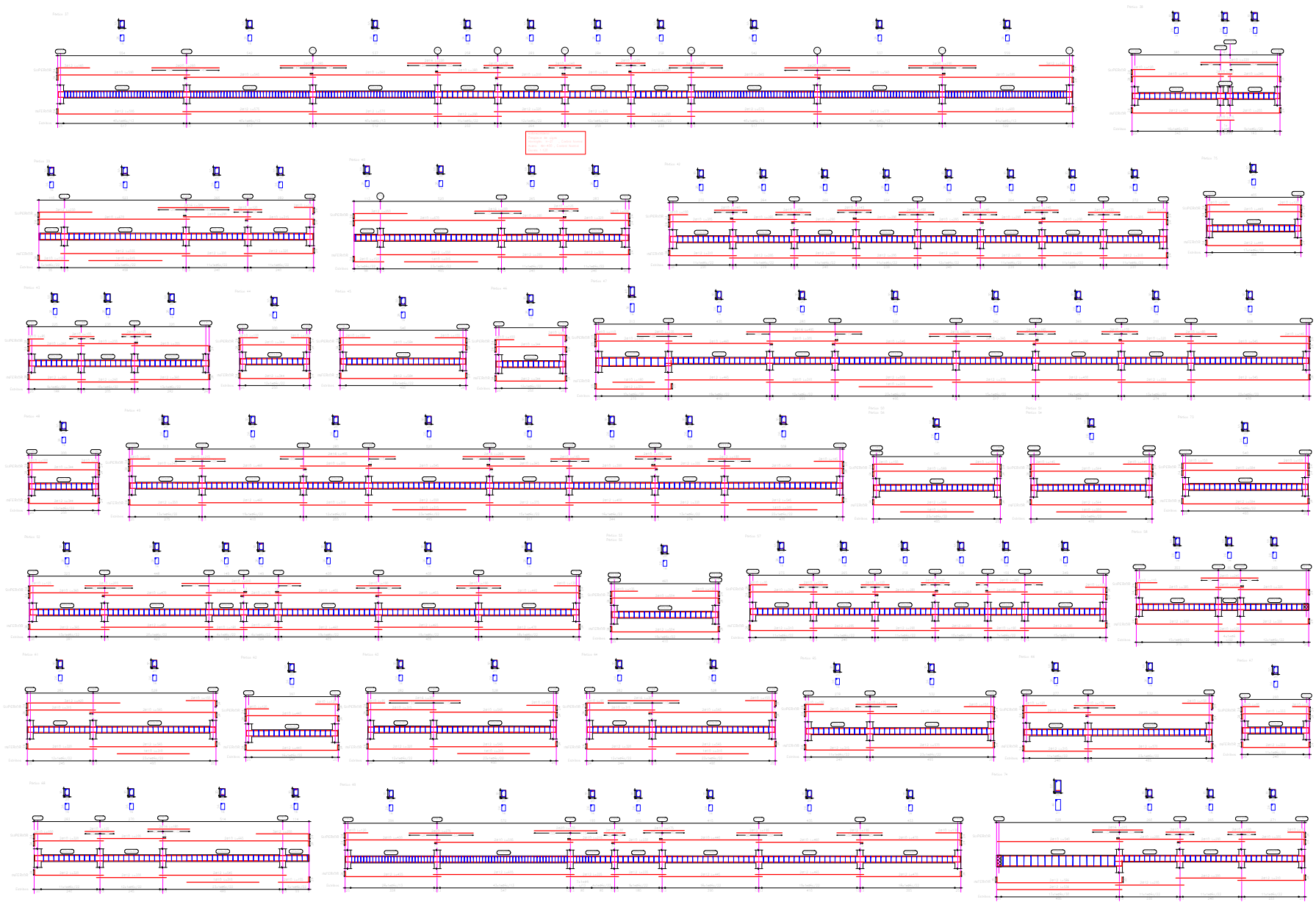


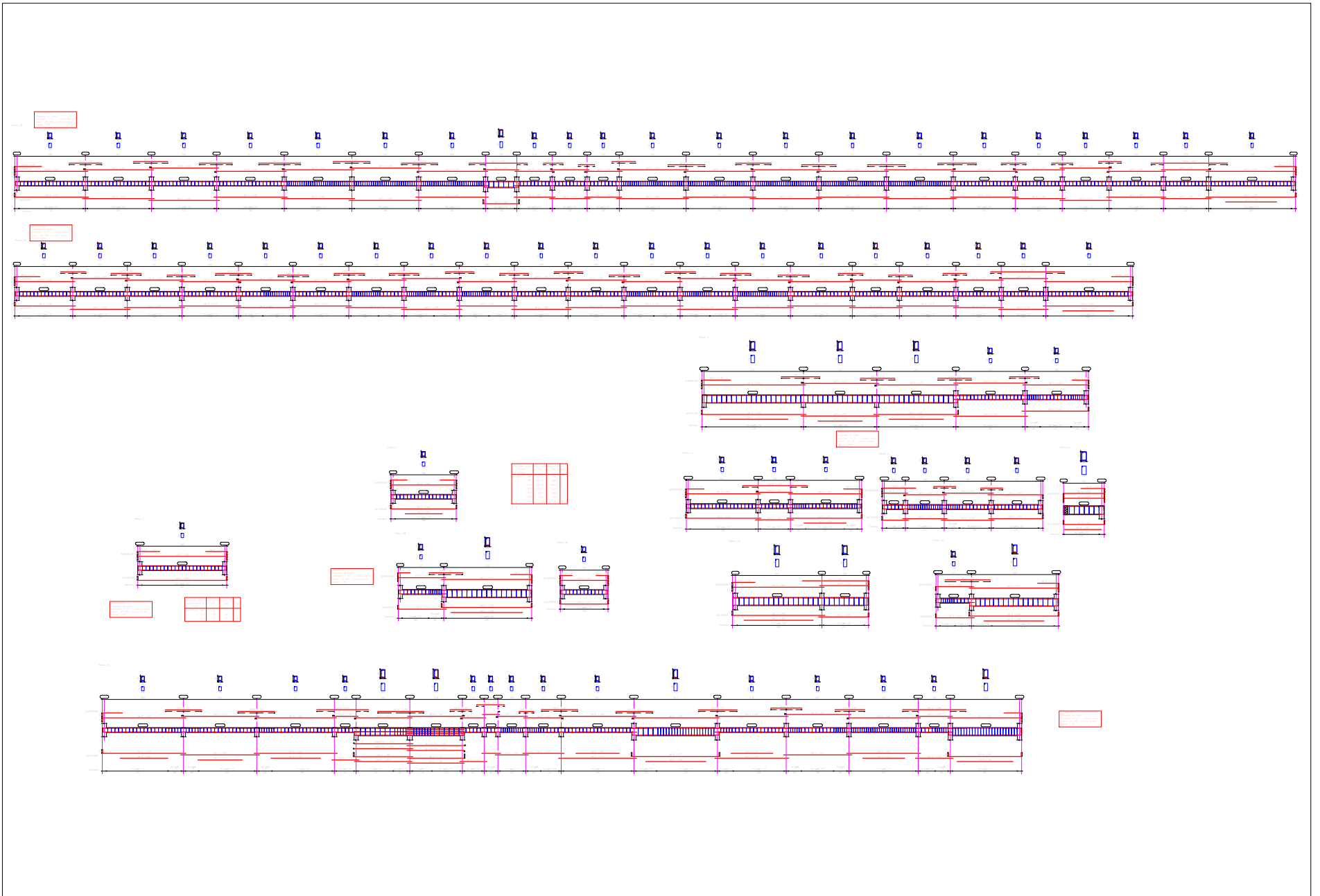
(P148-P149)

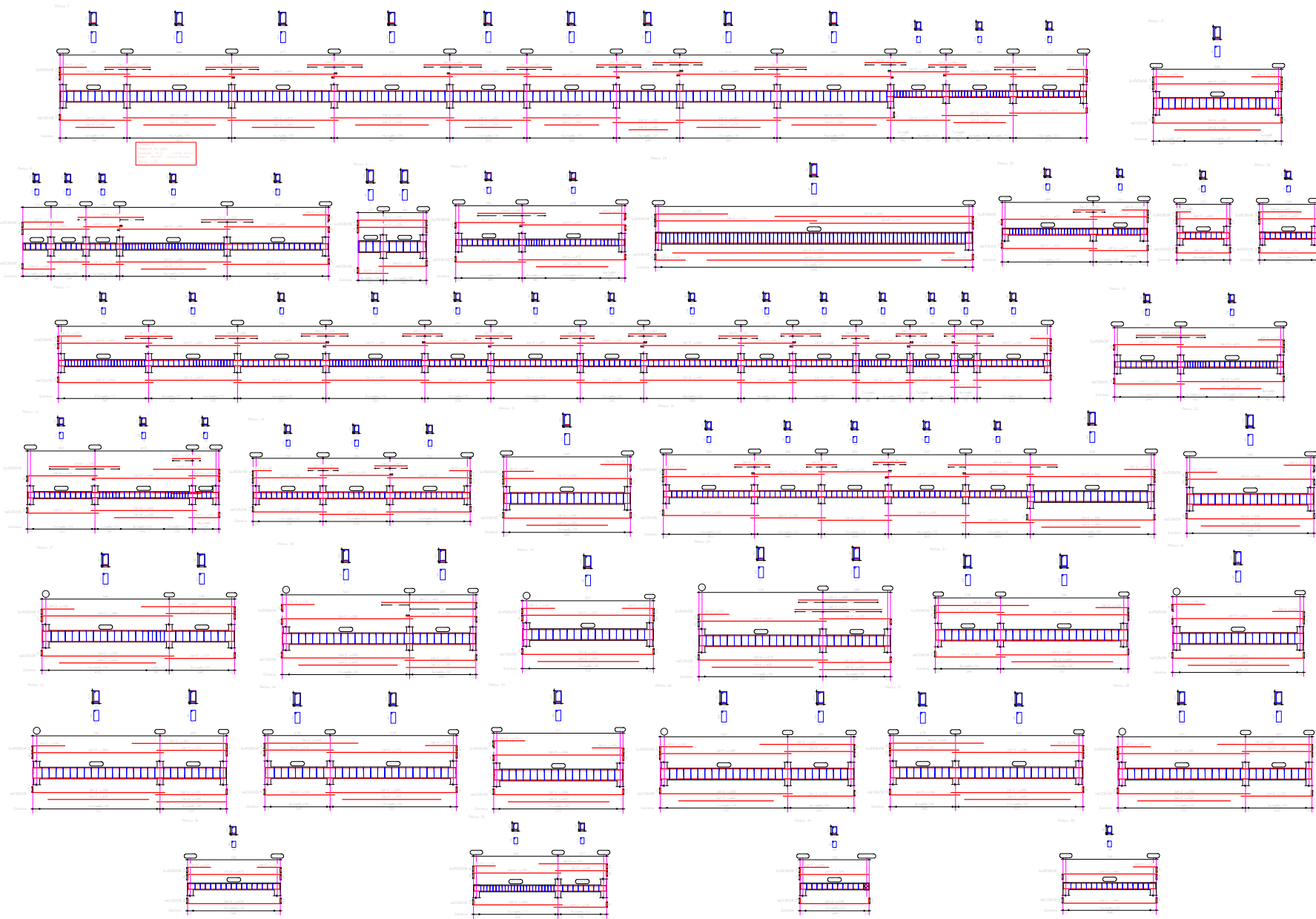


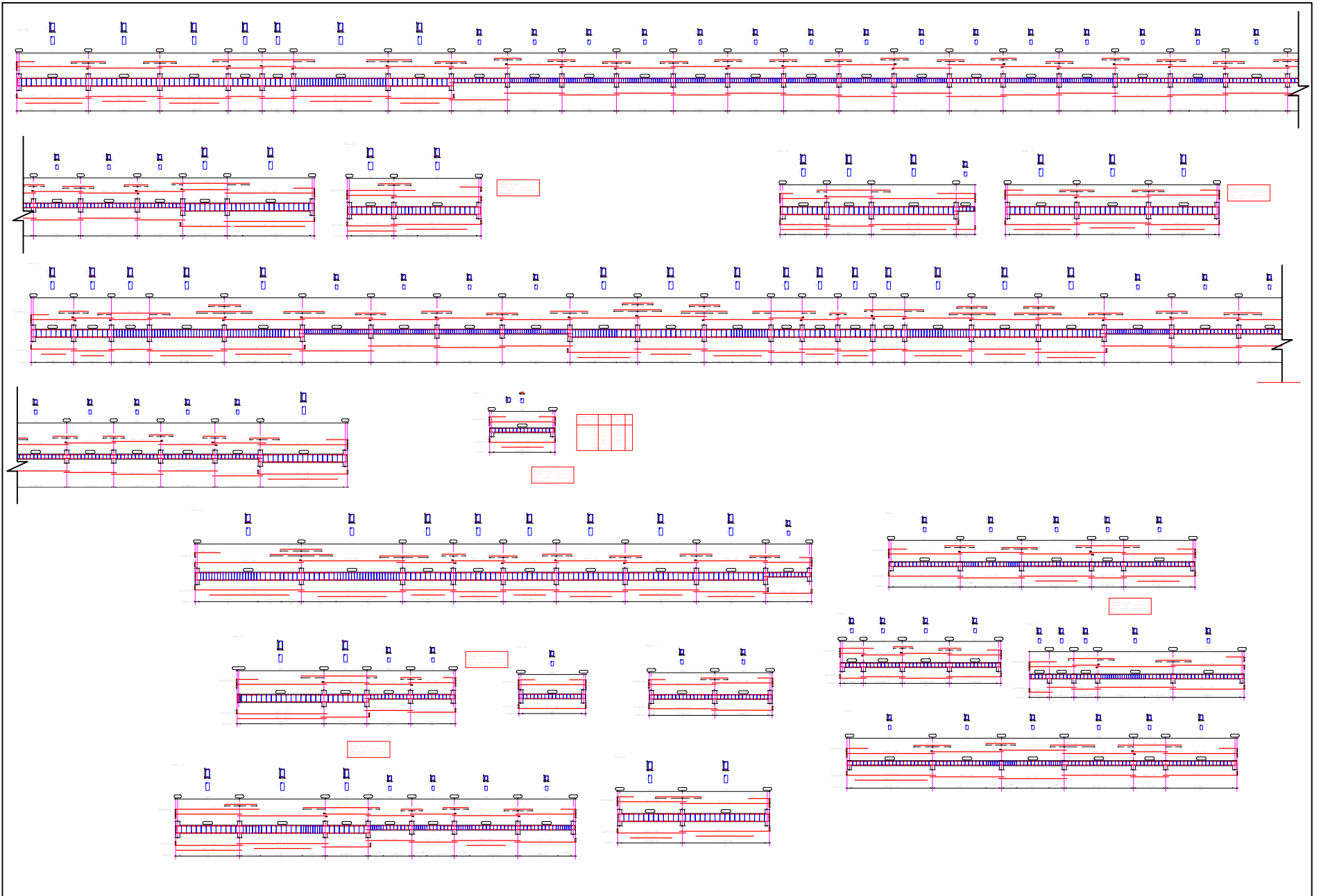












UNIVERSIDAD AUTÓNOMA JUAN MISAE SARACHO
 FACULTAD DE CIENCIAS Y TECNOLOGÍA
 CARRERA DE INGENIERÍA CIVIL



Proyecto :
 DISEÑO DEL CENTRO DE SALUD ITIKA GUAZU - TENTAGUAZU

Materia: PROYECTO DE INGENIERÍA CIVIL II
 Universitario: MAURICIO TEJERINA VACA

Plano : Detalle de Vigas

Fecha: Septiembre del 2018

Escala: 1:160

Nº de Lamina
7/10

