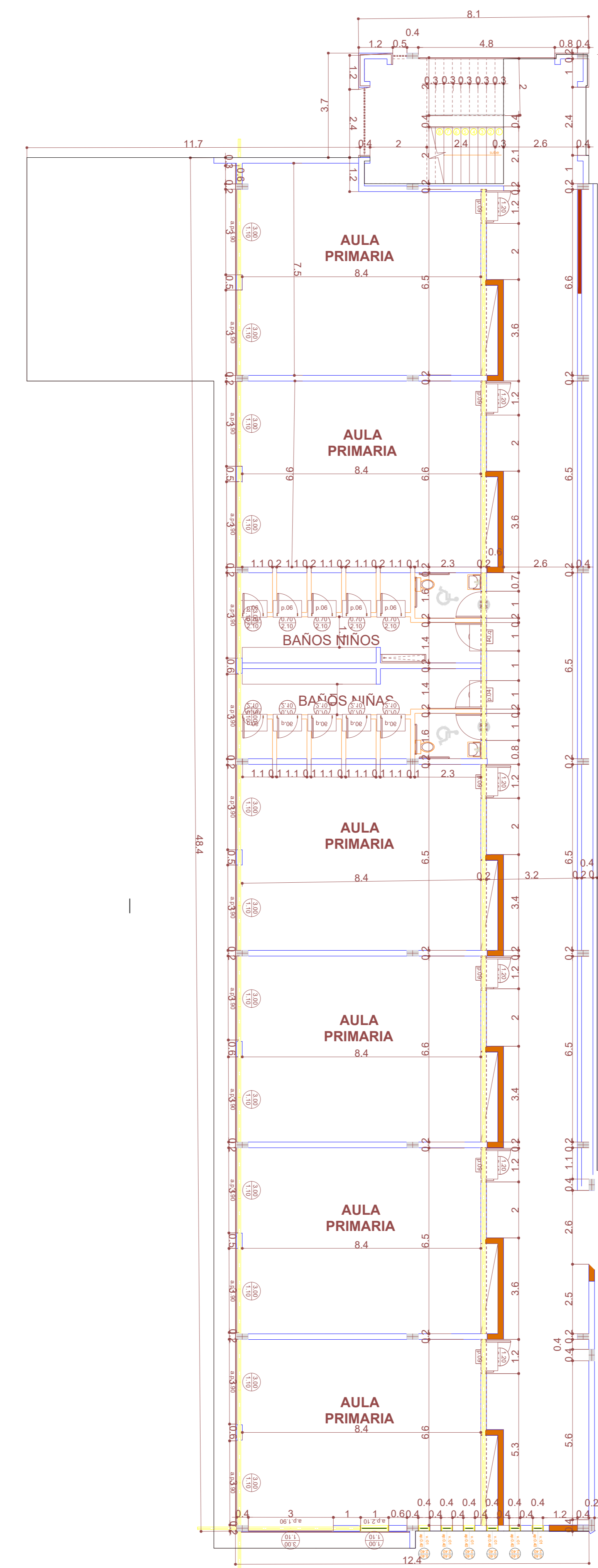
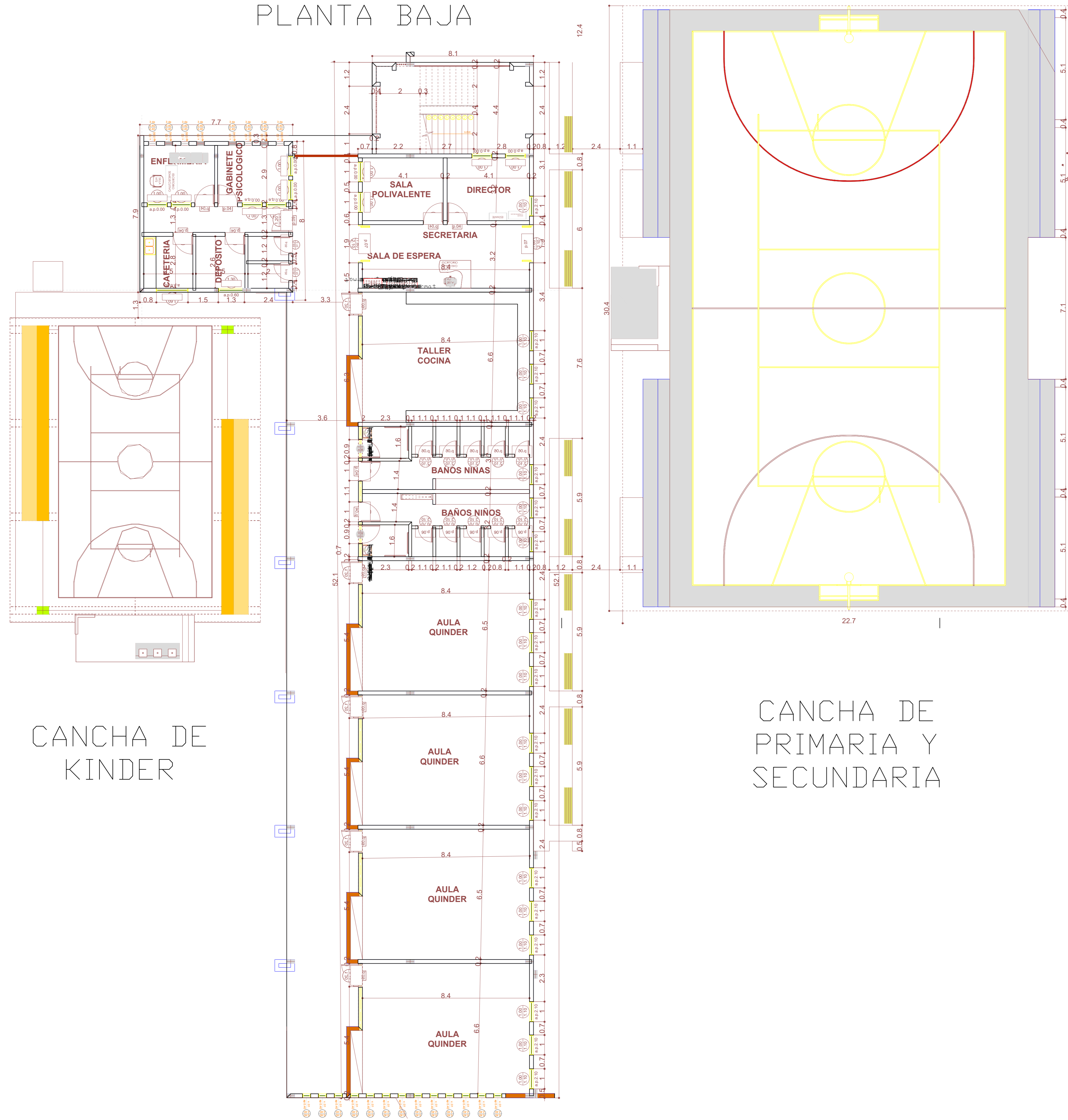


# PLANOS ARQUITECTONICOS UNIDAD EDUCATIVA SANTA ROSA

PRIMER PISO (2DO Y 3ER PISO)

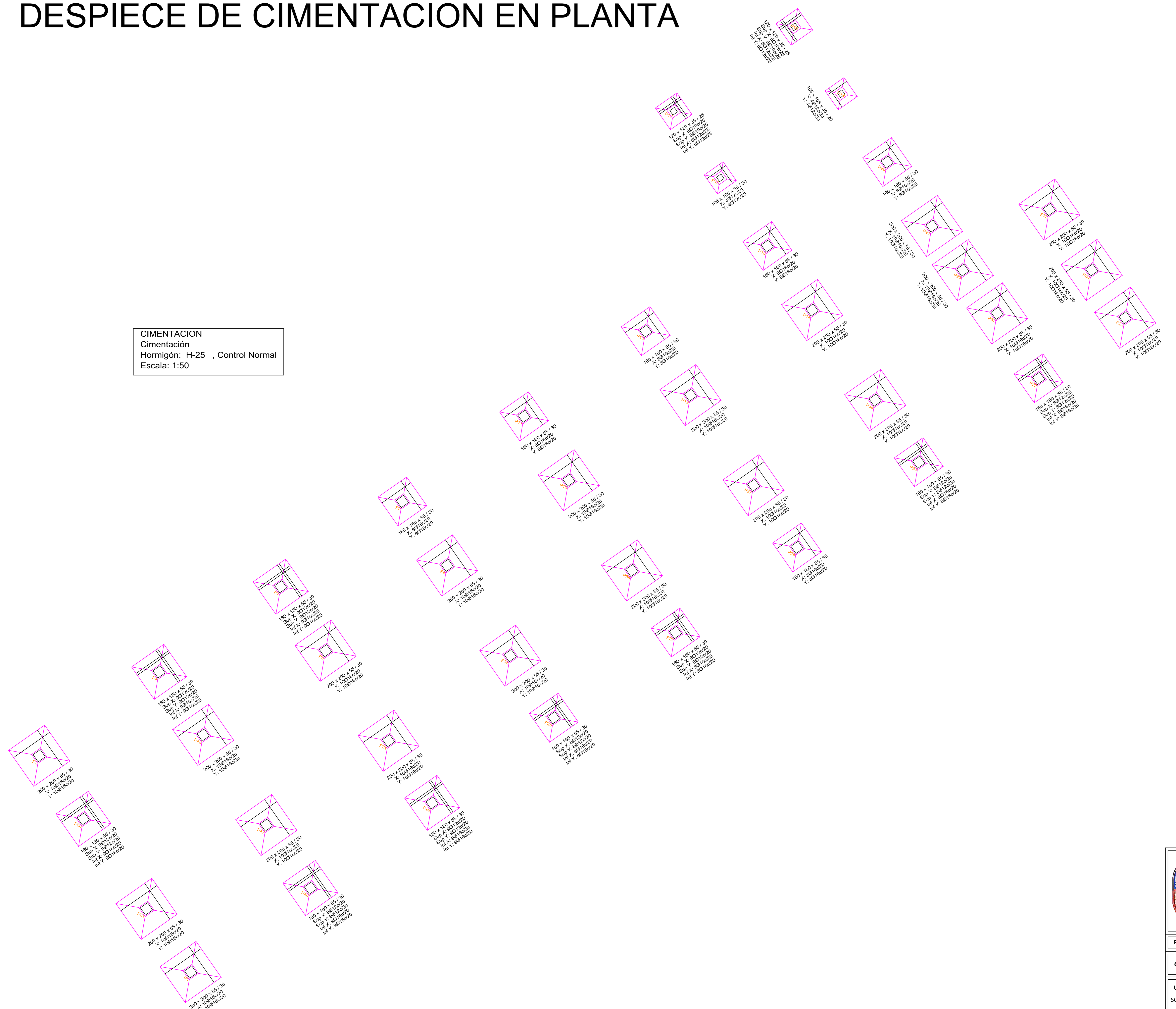
PLANTA BAJA



 <p>UNIVERSIDAD AUTÓNOMA JUAN MISAE SARACHO DISEÑO ESTRUCTURAL "UNIDAD EDUCATIVA SANTA ROSA"</p>		
<p>UBICACIÓN</p> <p>Departamento: Tarija      Municipio: Tarija Provincia: Cercado      Zona: Santa Rosa</p>		
<p>PLANO ARQUITECTONICO</p>	<p>ESCALA: 1:100</p>	
<p>CARACTER: PLANTAS ACOTADAS</p>	<p>APROBADO</p>	
<p>Universitario: SOSSA COLQUE FREDDY ERICK</p>	<p>Lamina <b>1/23</b></p>	<p>GESTIÓN 2018</p>

# DESPIECE DE CIMENTACION EN PLANTA

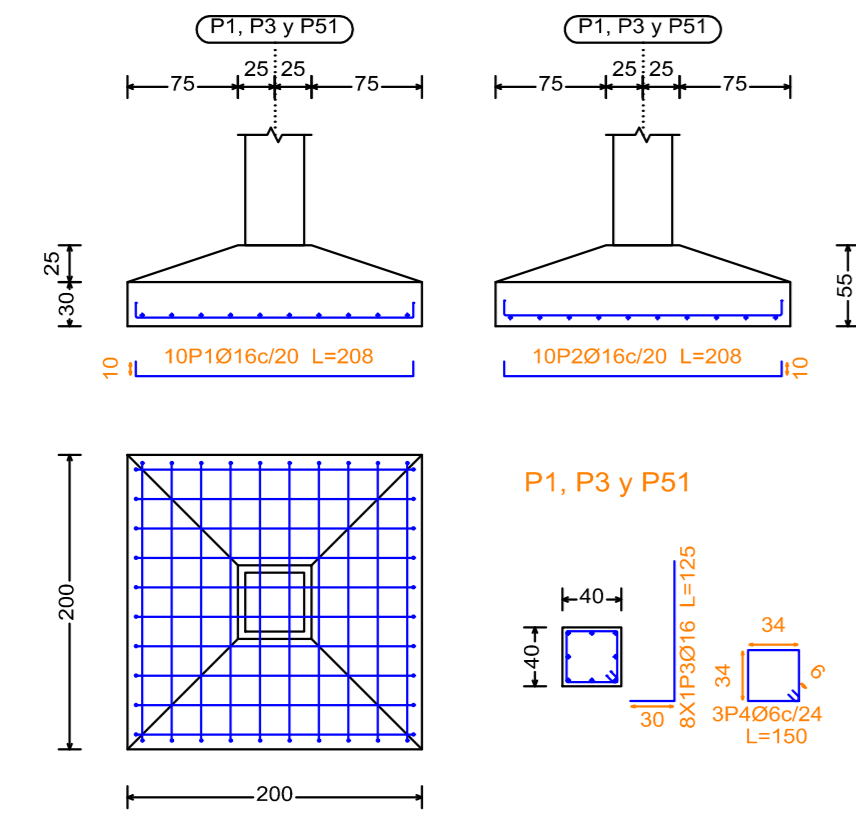
**CIMENTACION**  
 Cimentación  
 Hormigón: H-25 , Control Normal  
 Escala: 1:50



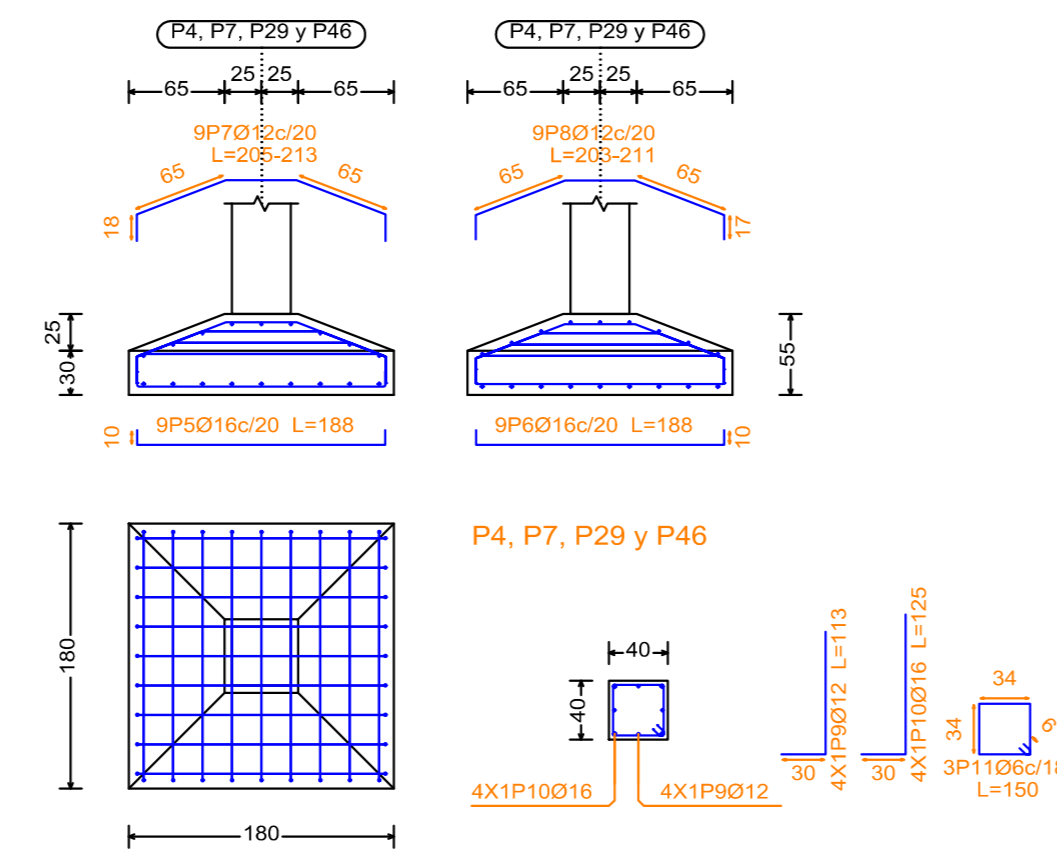
 UNIVERSIDAD AUTÓNOMA JUAN MISAE SARACHO DISEÑO ESTRUCTURAL "UNIDAD EDUCATIVA SANTA ROSA"		UBICACIÓN Departamento: Tarija Provincia: Cercado Municipio: Tarija Zona: Santa Rosa	
		PLANO ARQUITECTONICO	ESCALA: 1:50
CARACTER : DESPIECE DE CIMENTACION EN PLANTA		APROBADO	
Universitario: SOSSA COLQUE FREDDY ERICK	Lamina <b>2/23</b>	GESTIÓN 2018	

# DESPIECE DE ARMADOS DE CIMENTACION

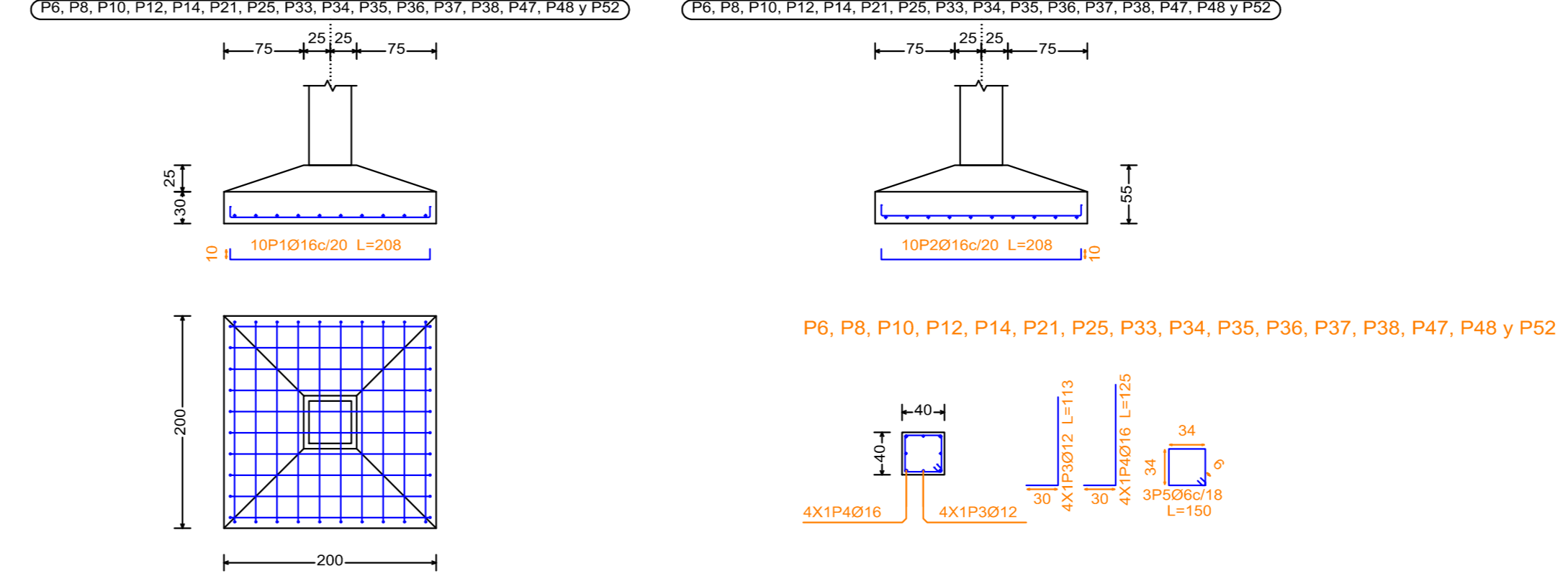
P1, P3 y P51



P4, P7, P29 y P46

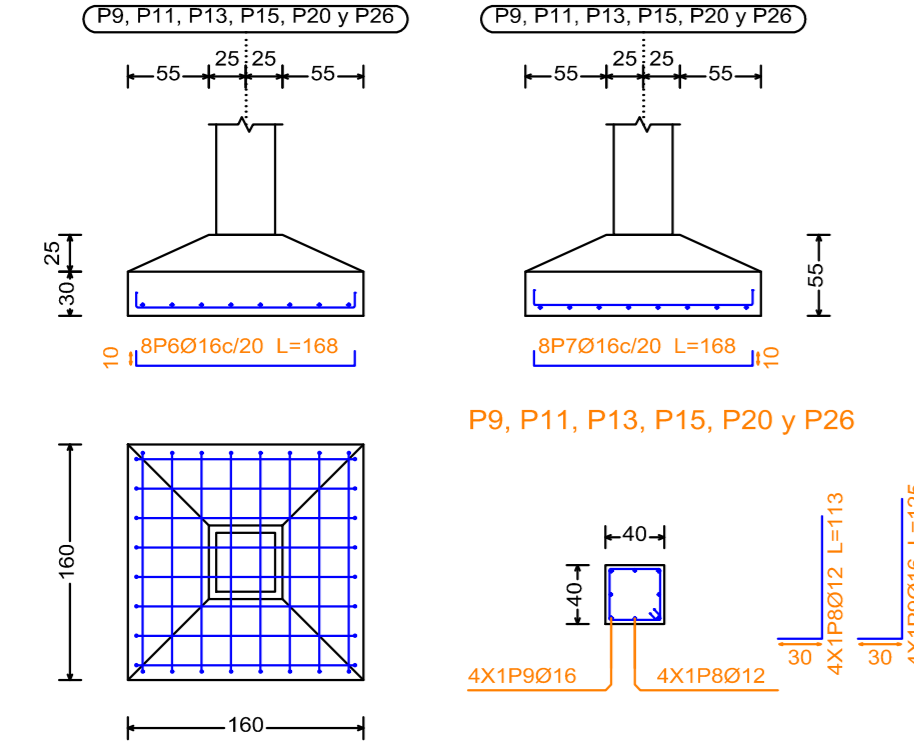


P6, P8, P10, P12, P14, P21, P25, P33, P34, P35, P36, P37, P38, P47, P48 y P52

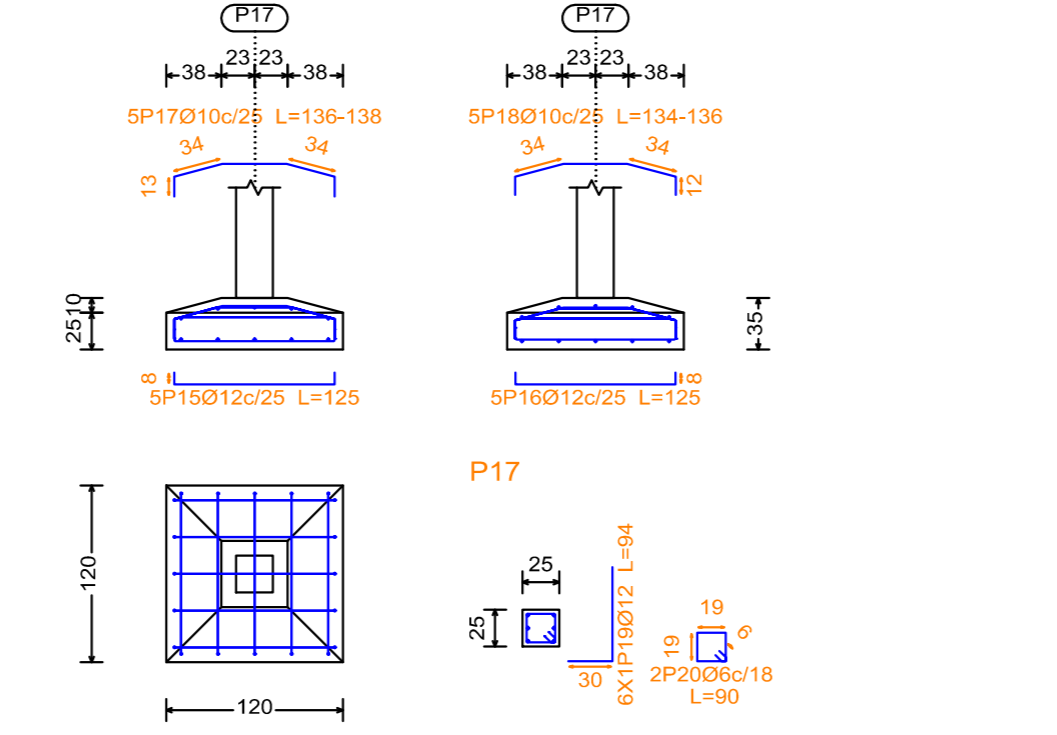


CUADRO DE ELEMENTOS DE CIMENTACION						
Referencias	Dimensiones (cm)	Canto (cm)	Armado inf. X	Armado inf. Y	Armado sup. X	Armado sup. Y
P1, P3, P6, P8, P10, P12, P14, P21, P23, P25, P33, P34, P35, P36, P37, P38, P47, P48, P51, P52 y P53	200x200	55 / 30	10Ø16c/20	10Ø16c/20		
P4, P7, P29, P46 y P50	180x180	55 / 30	9Ø16c/20	9Ø16c/20	9Ø12c/20	9Ø12c/20
P9, P11, P13, P15, P20 y P26	160x160	55 / 30	8Ø16c/20	8Ø16c/20		
P16 y P19	105x105	30 / 20	4Ø12c/23	4Ø12c/23		
P17 y P18	120x120	35 / 25	5Ø12c/25	5Ø12c/25	5Ø10c/25	5Ø10c/25
P22, P24, P27 y P28	160x160	55 / 30	8Ø16c/20	8Ø16c/20	8Ø12c/20	8Ø12c/20

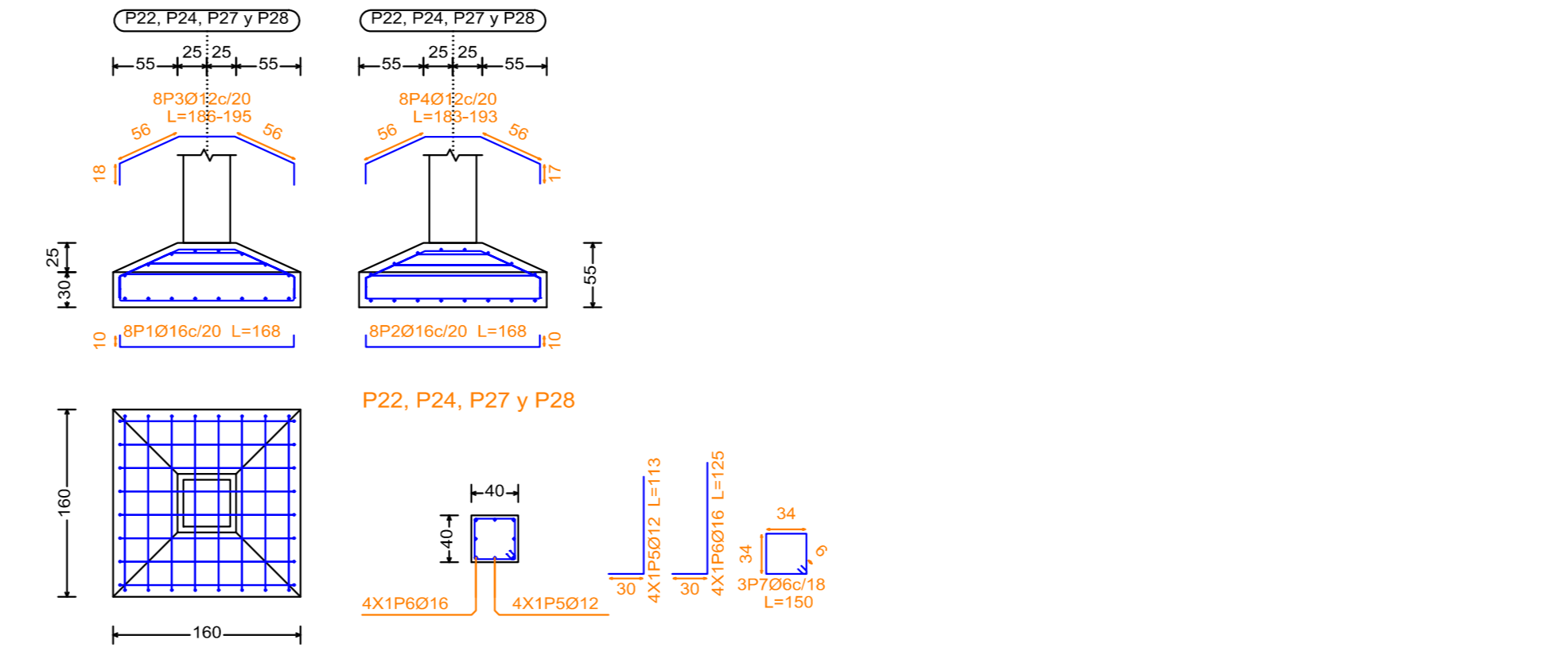
P9, P11, P13, P15, P20 y P26



P17

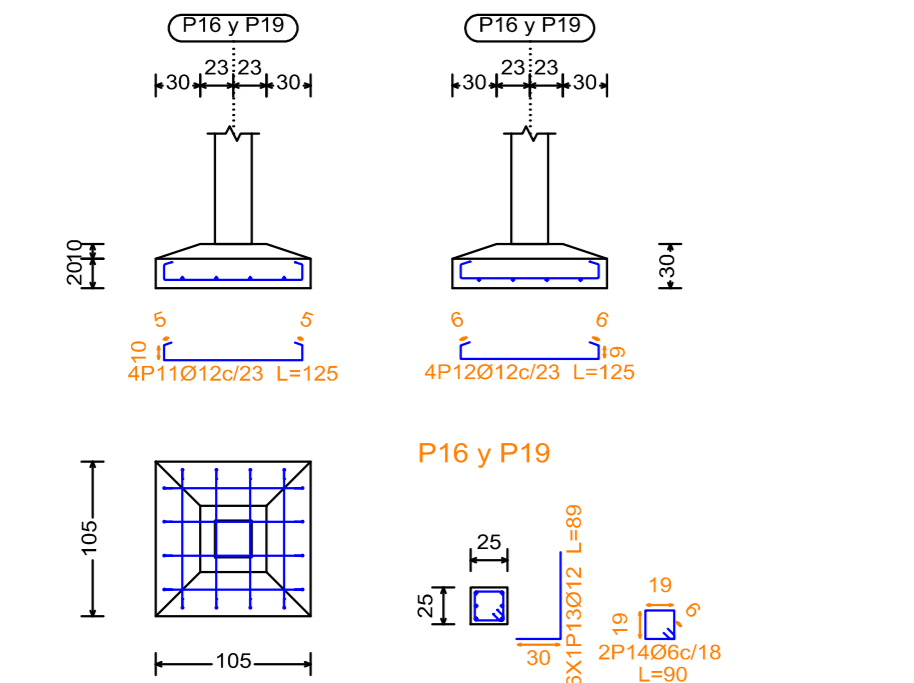


P22, P24, P27 y P28

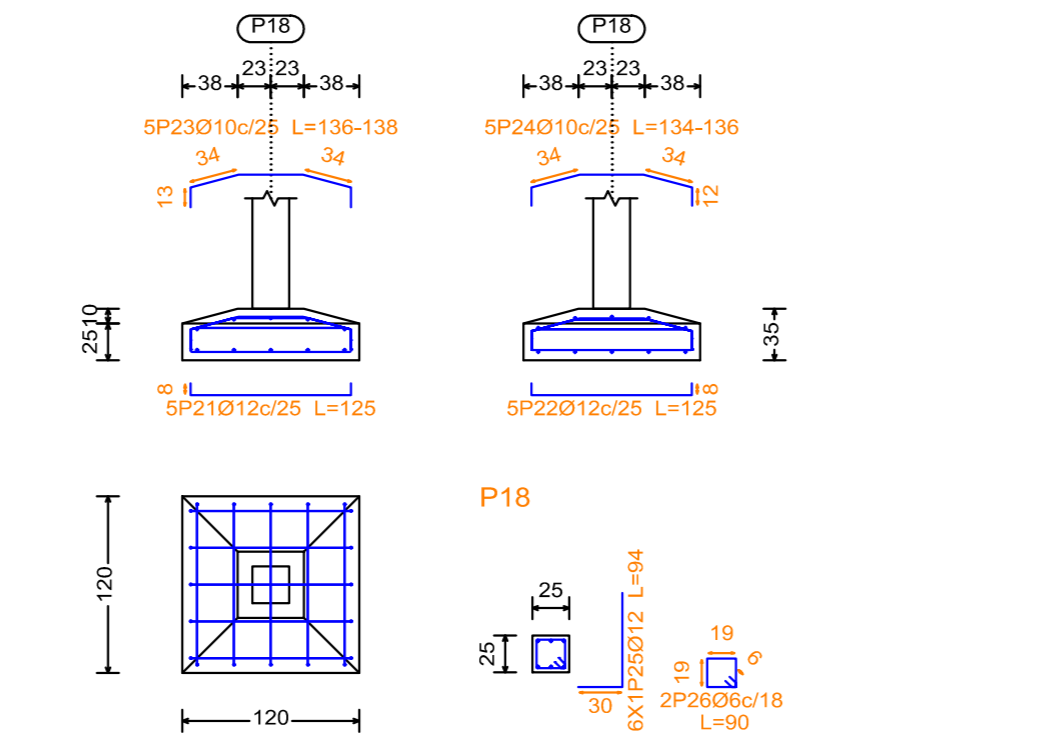


Resumen Acero CIMENTACION	Long. total (m)	Peso+10% (kg)	Total
AH-400CN Ø6	169.2	41	
Ø10	27.4	19	
Ø12	519.4	507	
Ø16	1509.1	2620	
Ø20	5.8	16	3203

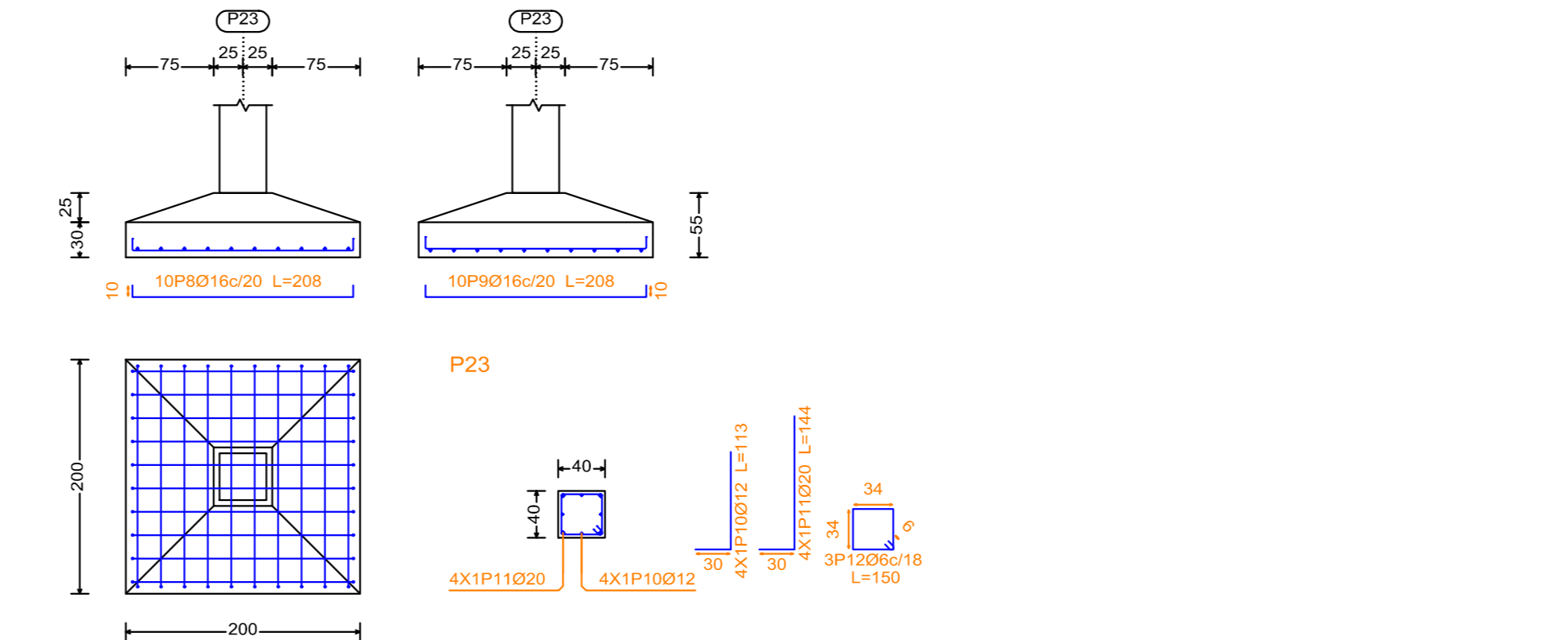
P16 y P19



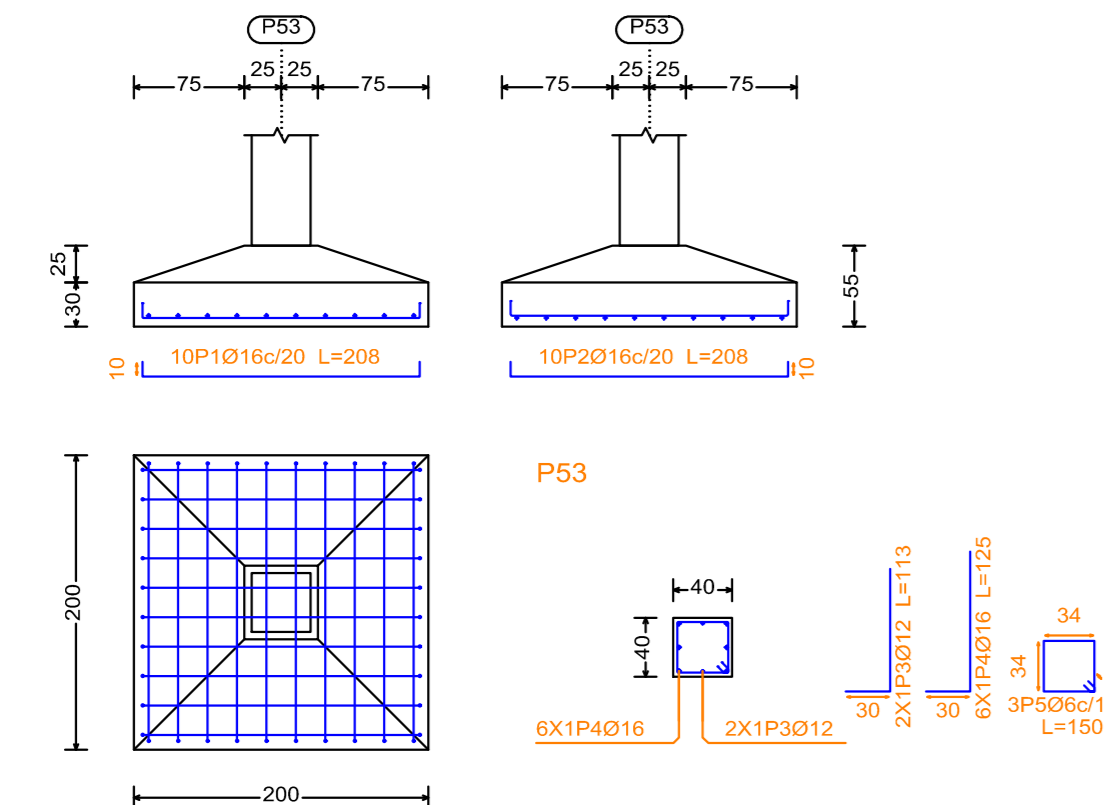
P18



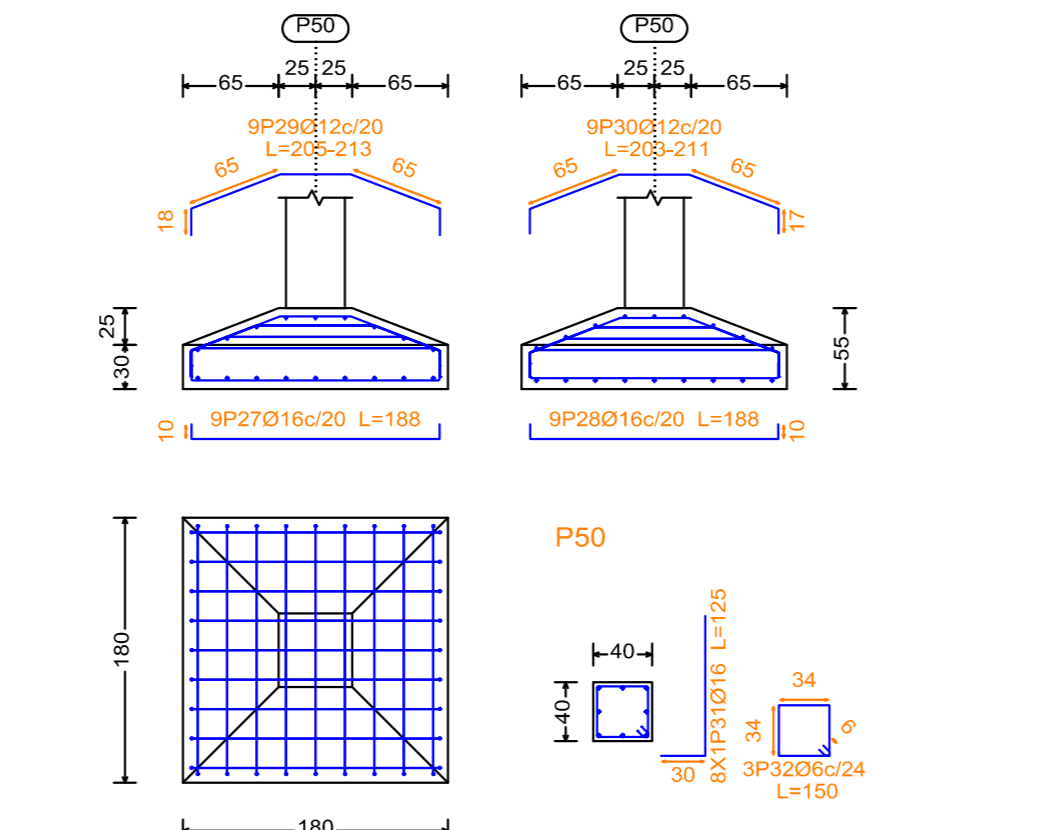
P23



P53



P50





**UNIVERSIDAD AUTÓNOMA JUAN MISAE SARACHO**  
**DISEÑO ESTRUCTURAL**  
**"UNIDAD EDUCATIVA SANTA ROSA"**

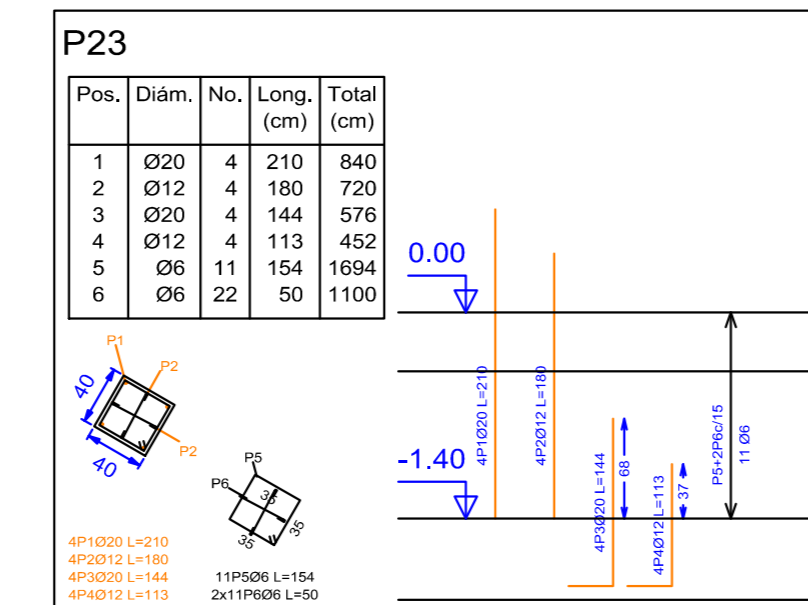
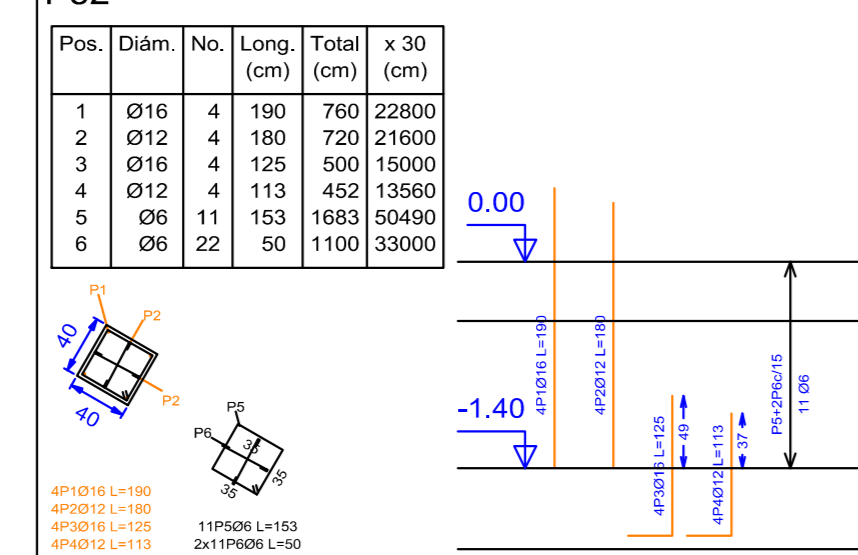
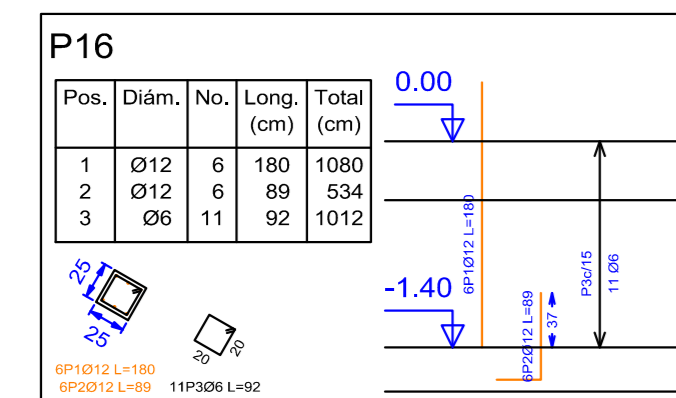
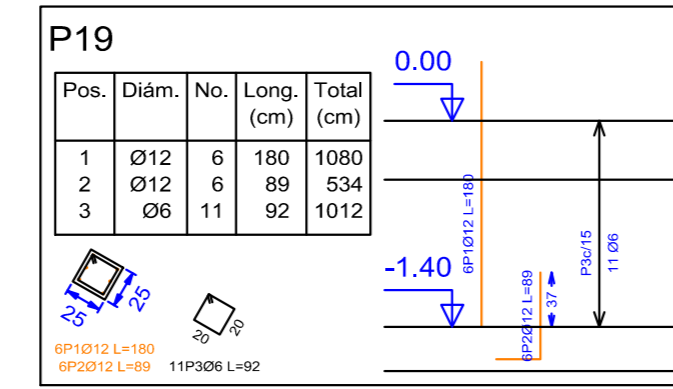
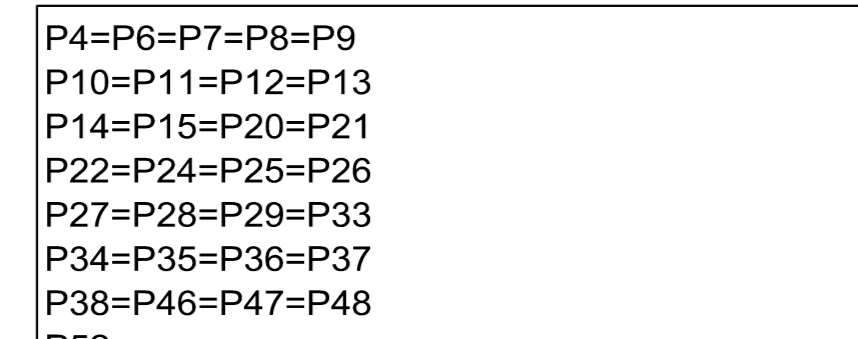
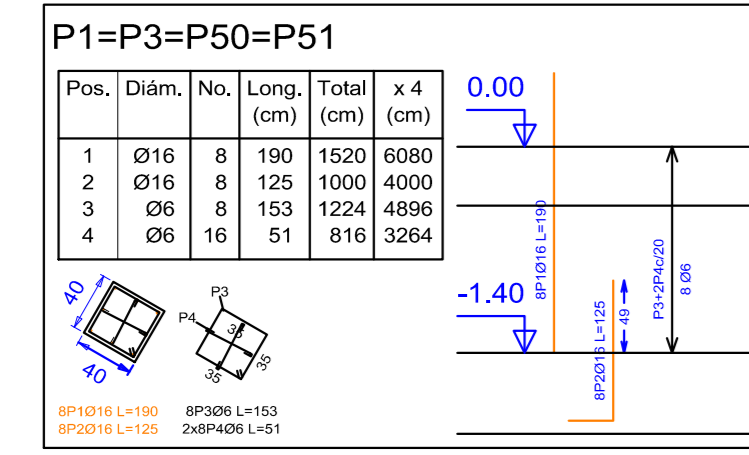
UBICACION

Departamento: Tarija      Municipio: Tarija  
 Provincia: Cercado      Zona: Santa Rosa

PLANO ARQUITECTONICO	ESCALA: 1:50
CARACTER :DESPIECE DE ARMADOS DE CIMENTACION	APROBADO
Universitario: SOSSA COLQUE FREDDY ERICK	Lamina <b>2/23</b> GESTIÓN 2018

# DESPIECE DE COLUMNAS (PILARES)

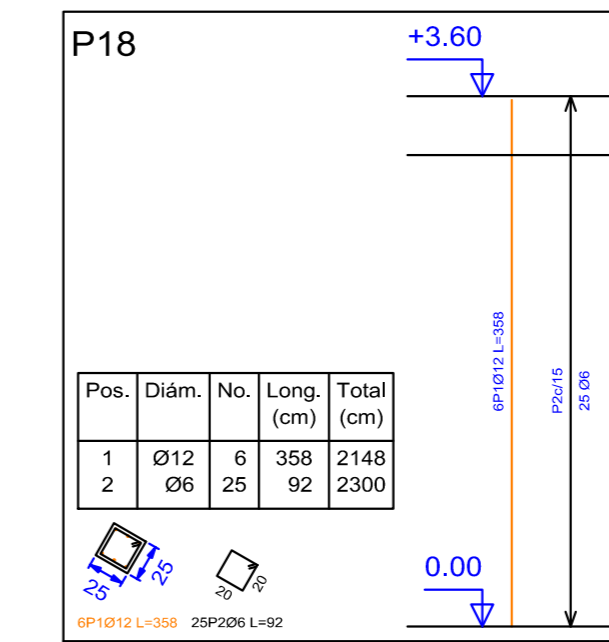
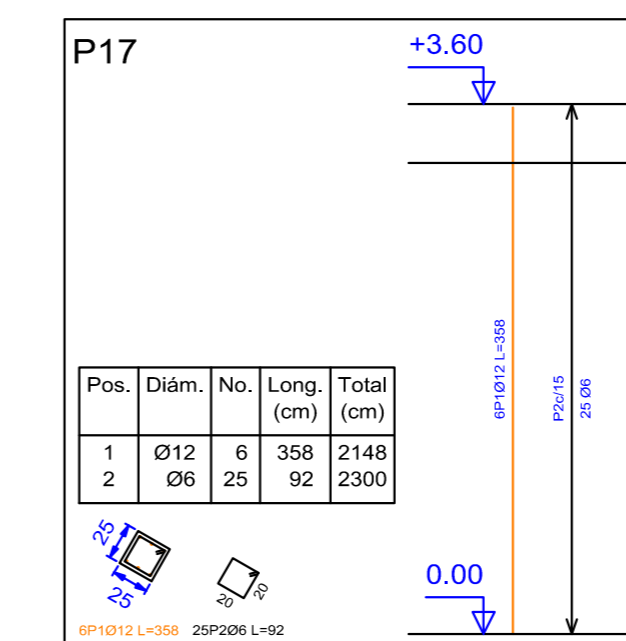
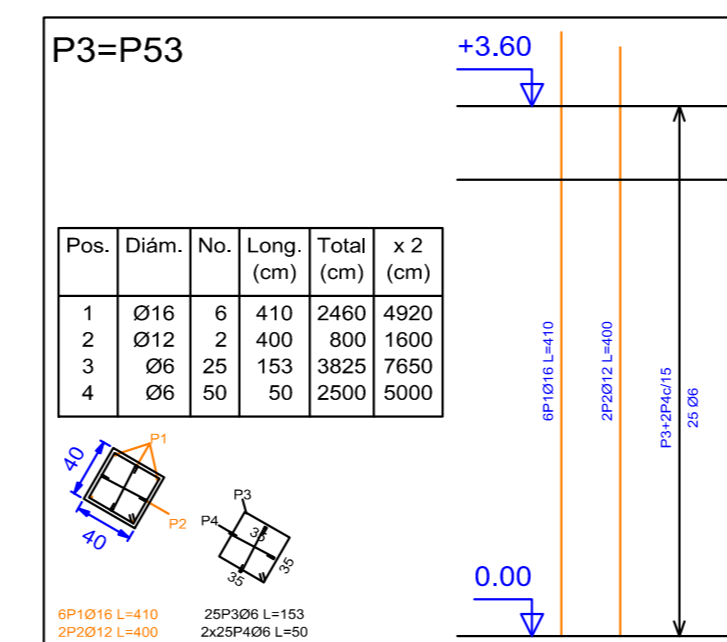
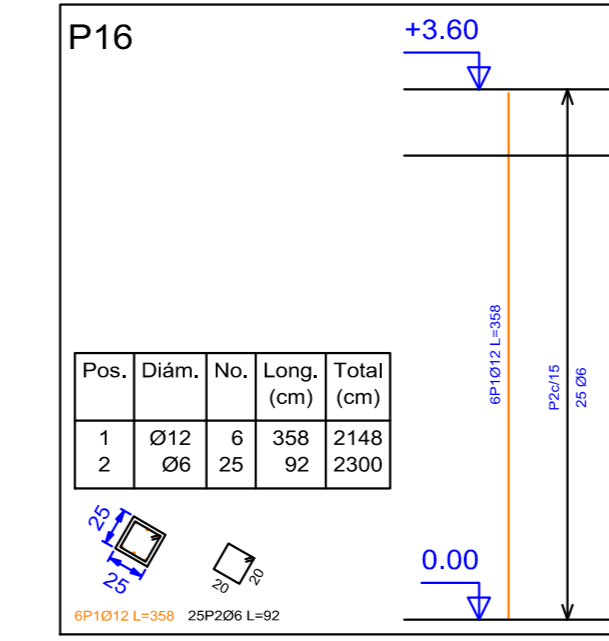
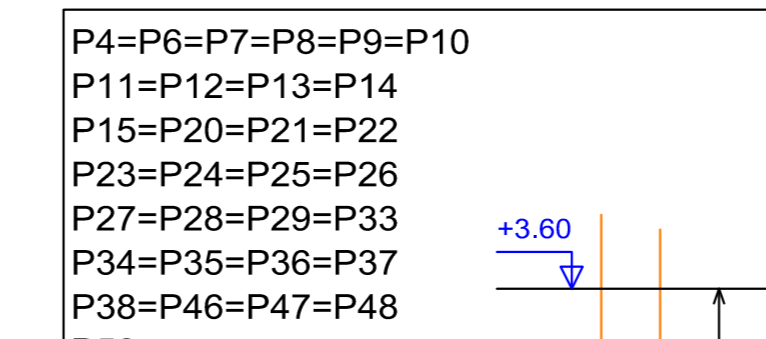
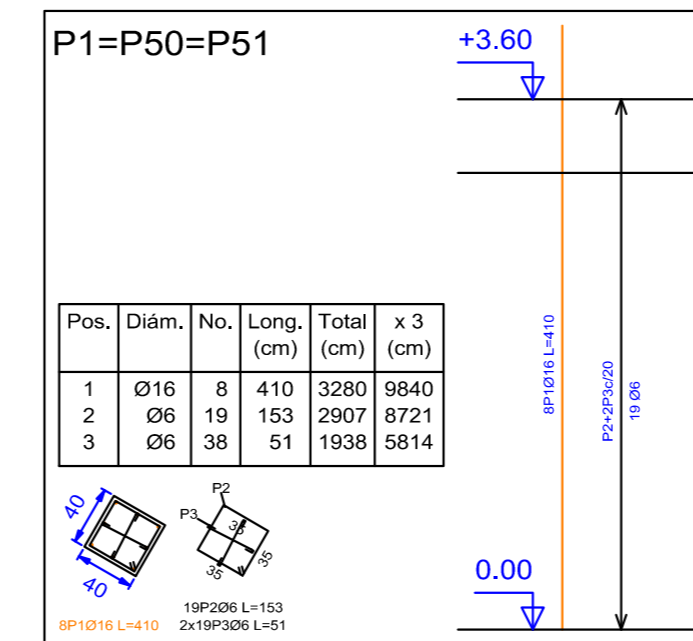
## COLUMNAS PLANTA BAJA



Pilares que terminan en PLANTA BAJA  
 Hormigón: H-25 , Control Normal  
 Acero: AH-400 , Control Normal  
 Escala: 1:50

Resumen Acero PLANTA BAJA Pilares	Long. total (m)	Peso+10% (kg)	Total
AH-400CN Ø6	1012.8	247	
Ø12	434.3	424	
Ø16	497.7	864	
Ø20	14.2	38	1573

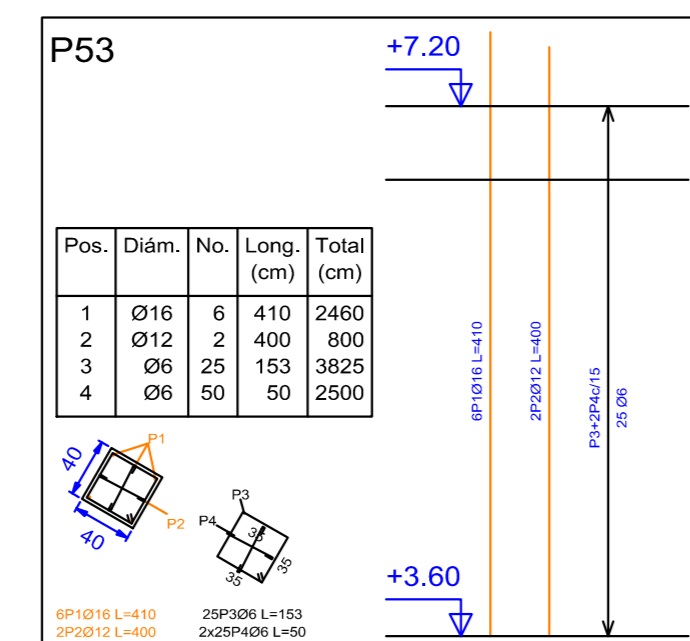
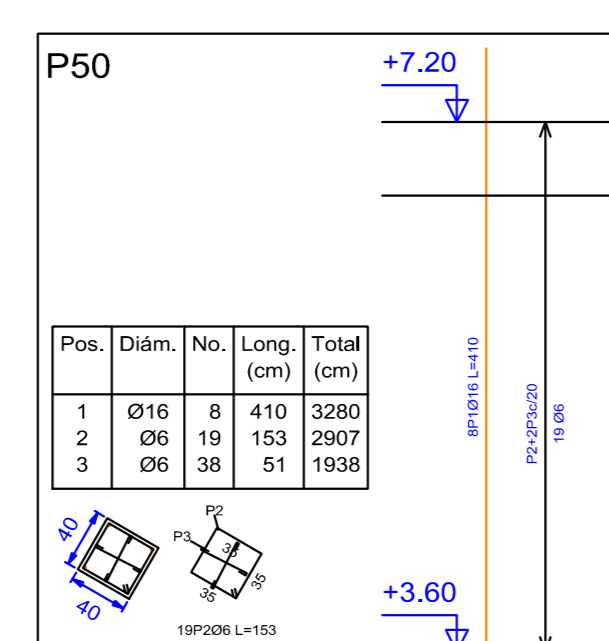
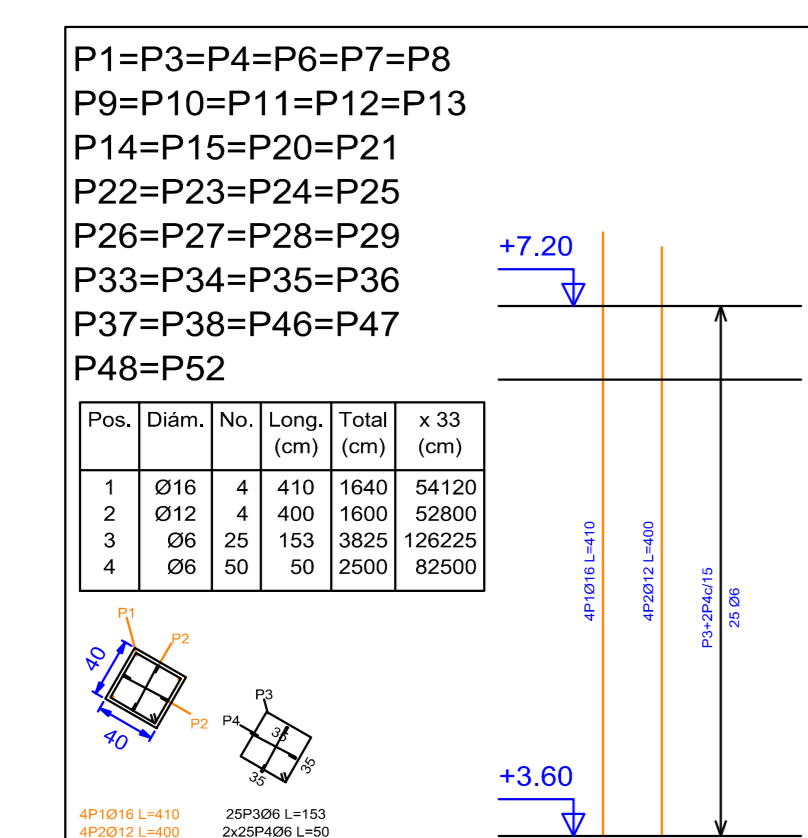
## COLUMNAS PRIMER PISO



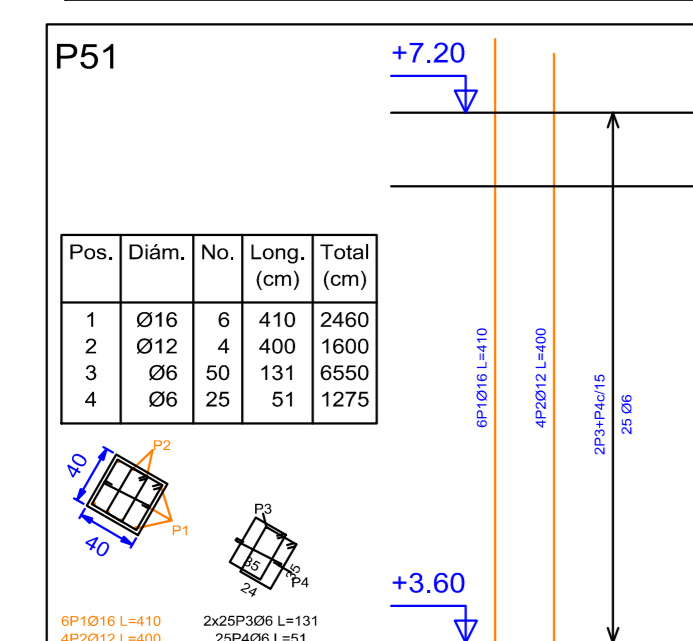
Pilares que terminan en LOSA 1  
 Hormigón: H-25 , Control Normal  
 Acero: AH-400 , Control Normal  
 Escala: 1:50

Resumen Acero LOSA 1 Pilares	Long. total (m)	Peso+10% (kg)	Total
AH-400CN Ø6	2324.6	567	
Ø12	597.9	584	
Ø16	656.0	1139	2290

## COLUMNAS SEGUNDO PISO

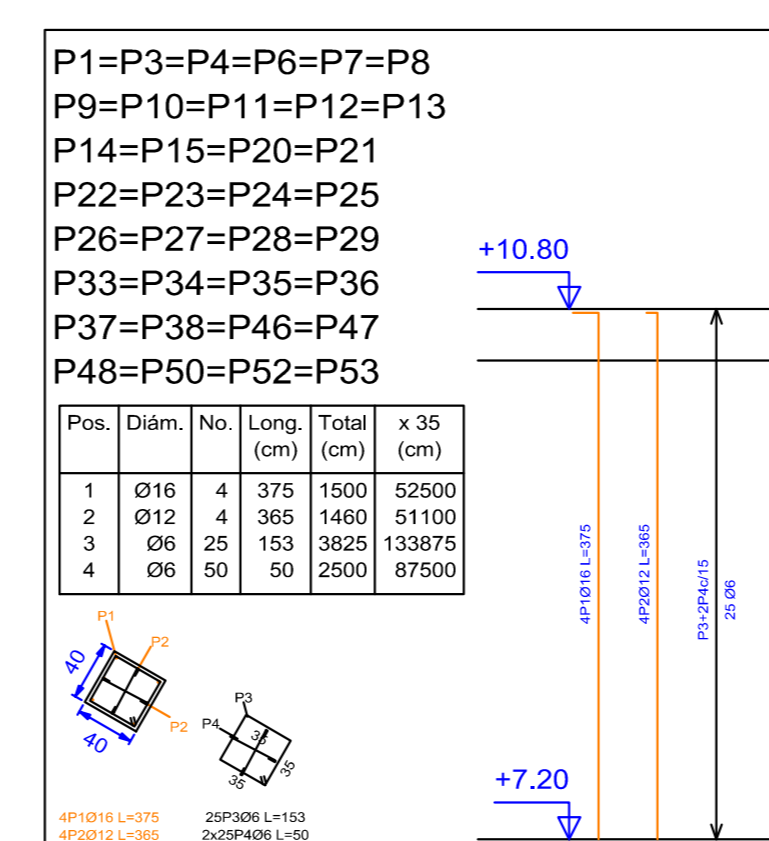


Resumen Acero LOSA 2 Pilares	Long. total (m)	Peso+10% (kg)	Total
AH-400CN Ø6	2277.2	556	
Ø12	552.0	539	
Ø16	623.2	1082	2177

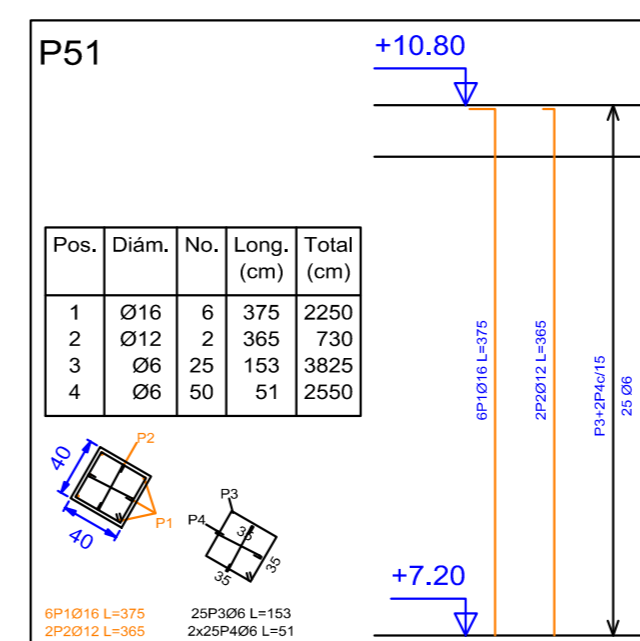



Pilares que terminan en LOSA 2  
 Hormigón: H-25 , Control Normal  
 Acero: AH-400 , Control Normal  
 Escala: 1:50

## COLUMNAS CUBIERTA



Pilares que terminan en CUBIERTA  
 Hormigón: H-25 , Control Normal  
 Acero: AH-400 , Control Normal  
 Escala: 1:50





**UNIVERSIDAD AUTÓNOMA JUAN MISAEL SARACHO**  
**DISEÑO ESTRUCTURAL**  
**"UNIDAD EDUCATIVA SANTA ROSA"**

UBICACIÓN

Departamento: Taríja      Municipio: Taríja  
 Provincia: Cercado      Zona: Santa Rosa

PLANO DE COLUMNAS	ESCALA: 1:50
CARACTER: DESPIECE DE COLUMNAS	APROBADO
Universitario: SOSSA COLQUE FREDDY ERICK	Lamina <b>4/23</b> GESTIÓN 2018

# CUADRO DE COLUMNAS (PILARES)

P1	P3	P4=P6=P7=P8=P9 P10=P11=P12 P13=P14=P15 P20=P21=P22 P24=P25=P26 P27=P28=P29 P33=P34=P35 P36=P37=P38 P46=P47=P48 P52	P23	P50	P51	P53
 4Ø16 L=375 4Ø12 L=365	 4Ø16 L=375 4Ø12 L=365	 4Ø16 L=375 4Ø12 L=365	 4Ø16 L=375 4Ø12 L=365	 4Ø16 L=375 4Ø12 L=365	 6Ø16 L=375 2Ø12 L=365	 4Ø16 L=375 4Ø12 L=365
 25P306c/15 L=156 2x25P406c/15 L=55	 25P306c/15 L=156 2x25P406c/15 L=55	 25P306c/15 L=156 2x25P406c/15 L=55	 25P306c/15 L=156 2x25P406c/15 L=55	 25P306c/15 L=156 2x25P406c/15 L=55	 25P306c/15 L=156 2x25P406c/15 L=58	 25P306c/15 L=156 2x25P406c/15 L=55
 4Ø16 L=410 4Ø12 L=400	 4Ø16 L=410 4Ø12 L=400	 4Ø16 L=410 4Ø12 L=400	 4Ø16 L=410 4Ø12 L=400	 8Ø16 L=410	 6Ø16 L=410 4Ø12 L=400	 6Ø16 L=410 2Ø12 L=400
 25P306c/15 L=156 2x25P406c/15 L=55	 25P306c/15 L=156 2x25P406c/15 L=55	 25P306c/15 L=156 2x25P406c/15 L=55	 25P306c/15 L=156 2x25P406c/15 L=55	 19P206c/20 L=156 2x19P306c/20 L=58	 2x25P306c/15 L=136 25P406c/15 L=58	 25P306c/15 L=156 2x25P406c/15 L=55

CUBIERTA

LOSA 2

P1	P3	P4=P6=P7=P8=P9 P10=P11=P12 P13=P14=P15 P20=P21=P22 P24=P25=P26 P27=P28=P29 P33=P34=P35 P36=P37=P38 P46=P47=P48 P52	P16	P17	P18	P19	P23	P50	P51	P53
 8Ø16 L=410	 6Ø16 L=410 2Ø12 L=400	 4Ø16 L=410 4Ø12 L=400	 6Ø12 L=358	 6Ø12 L=358	 6Ø12 L=358	 6Ø12 L=358	 4Ø16 L=410 4Ø12 L=400	 8Ø16 L=410	 8Ø16 L=410	 6Ø16 L=410 2Ø12 L=400
 19P206c/20 L=156 2x19P306c/20 L=58	 25P306c/15 L=156 2x25P406c/15 L=55	 25P306c/15 L=156 2x25P406c/15 L=55	 25Ø6c/15 L=95	 25Ø6c/15 L=95	 25Ø6c/15 L=95	 25Ø6c/15 L=95	 25P306c/15 L=156 2x25P406c/15 L=55	 19P206c/20 L=156 2x19P306c/20 L=58	 19P206c/20 L=156 2x19P306c/20 L=58	 25P306c/15 L=156 2x25P406c/15 L=55

LOSA 1

**Cuadro de pilares**  
 Hormigón: H-25 , Control Normal  
 Acero: AH-400 , Control Normal  
 Escala: 1:30

Resumen Acero Forjados 1 a 4 Pilares	Long. total (m)	Peso+10% (kg)	Total
AH-400CN Ø6	8300.6	2026	
Ø12	2102.6	2053	
Ø16	2324.4	4036	
Ø20	14.2	38	8153

**UNIVERSIDAD AUTÓNOMA JUAN MISAE SARACHO**  
**DISEÑO ESTRUCTURAL**  
**"UNIDAD EDUCATIVA SANTA ROSA"**

UBICACIÓN

Departamento: Tarija      Municipio: Tarija  
 Provincia: Cercado      Zona: Santa Rosa

**PLANO DE COLUMNAS**

**CARACTER:** CUADRO DE COLUMNAS

**Universitario:**  
SOSSA COLQUE FREDDY ERICK

**ESCALA:** 1:25

**APROBADO**

**Lamina**  
**5/23**

GESTIÓN 2018

# CUADRO DE COLUMNAS (PILARES)

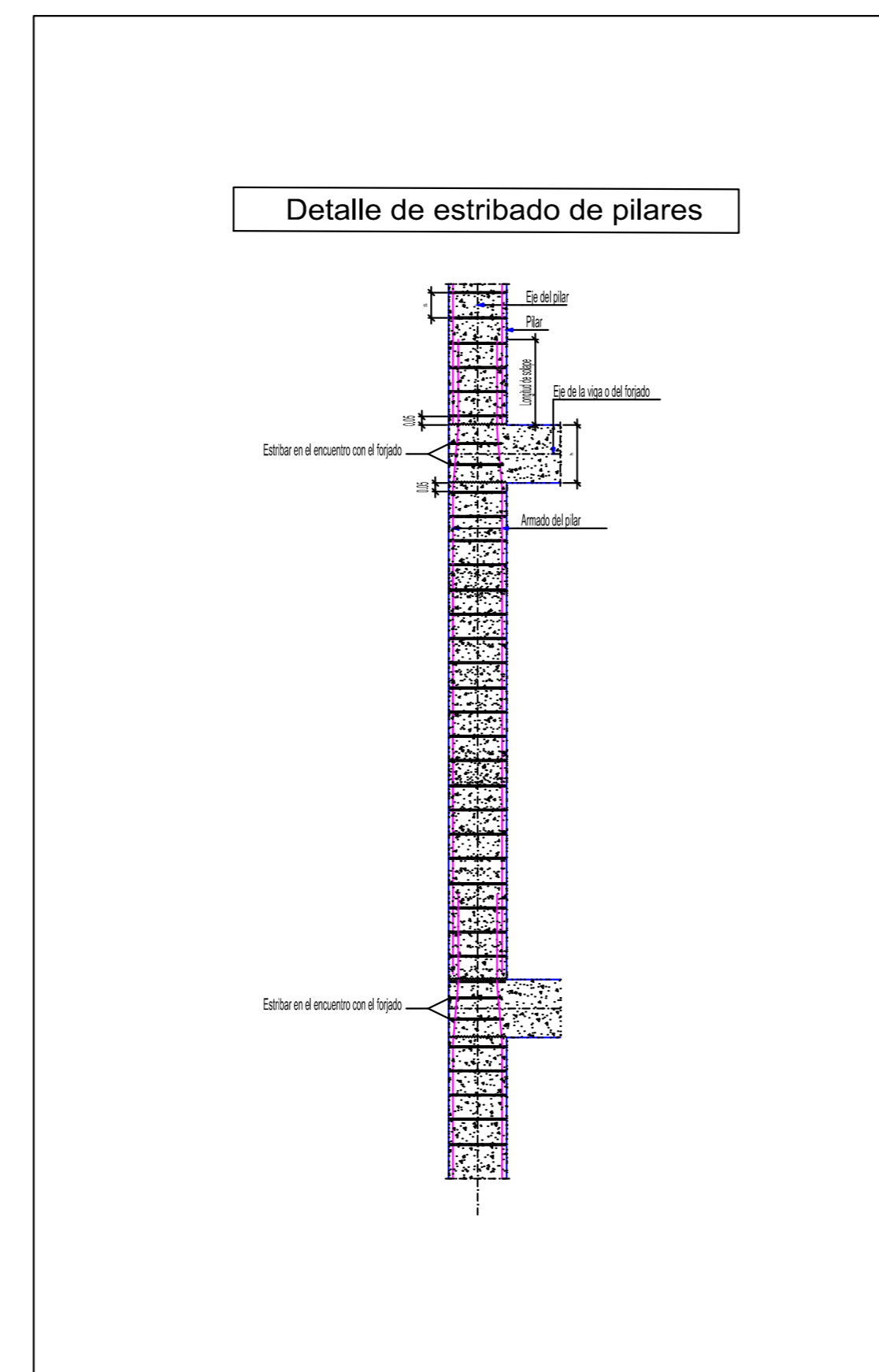
P1	P3	P4=P6=P7=P8=P9 P10=P11=P12 P13=P14=P15 P20=P21=P22 P24=P25=P26 P27=P28=P29 P33=P34=P35 P36=P37=P38 P46=P47=P48 P52	P16	P17	P18	P19	P23	P50	P51	P53
<p>8Ø16 L=190 8Ø16 L=125</p> <p>8P3Ø6c/20 L=156 2x8P4Ø6c/20 L=58</p>	<p>8Ø16 L=190 8Ø16 L=125</p> <p>8P3Ø6c/20 L=156 2x8P4Ø6c/20 L=58</p>	<p>4Ø16 L=190 4Ø12 L=180 4Ø16 L=125 4Ø12 L=113</p> <p>11P5Ø6c/15 L=156 2x11P6Ø6c/15 L=55</p>	<p>6Ø12 L=180 6Ø12 L=89</p> <p>11Ø6c/15 L=95</p>	<p>6Ø12 L=180 6Ø12 L=94</p> <p>11Ø6c/15 L=95</p>	<p>6Ø12 L=180 6Ø12 L=94</p> <p>11Ø6c/15 L=95</p>	<p>6Ø12 L=180 6Ø12 L=89</p> <p>11Ø6c/15 L=95</p>	<p>4Ø20 L=210 4Ø12 L=180 4Ø20 L=144 4Ø12 L=113</p> <p>11P5Ø6c/15 L=158 2x11P6Ø6c/15 L=55</p>	<p>8Ø16 L=190 8Ø16 L=125</p> <p>8P3Ø6c/20 L=156 2x8P4Ø6c/20 L=58</p>	<p>8Ø16 L=190 8Ø16 L=125</p> <p>8P3Ø6c/20 L=156 2x8P4Ø6c/20 L=58</p>	<p>6Ø16 L=190 2Ø12 L=180 6Ø16 L=125 2Ø12 L=113</p> <p>11P5Ø6c/15 L=156 2x11P6Ø6c/15 L=55</p>


PLANTA BAJA

CIMENTACION

Cuadro de pilares  
Hormigón: H-25 , Control Normal  
Acero: AH-400 , Control Normal  
Escala: 1:30

Resumen Acero Forjados 1 a 4 Pilares	Long. total (m)	Peso+10% (kg)	Total
AH-400CN Ø6	8300.6	2026	
Ø12	2102.6	2053	
Ø16	2324.4	4036	
Ø20	14.2	38	8153



 <p>UNIVERSIDAD AUTÓNOMA JUAN MISAE SARACHO DISEÑO ESTRUCTURAL "UNIDAD EDUCATIVA SANTA ROSA"</p>	
UBICACIÓN Departamento: Tarija      Municipio: Tarija Provincia: Cercado      Zona: Santa Rosa	
PLANO DE COLUMNAS	ESCALA: 1:25
CARACTER: CUAADRO DE PILARES	APROBADO
Universitario: SOSSA COLQUE FREDDY ERICK	Lamina <b>6/23</b> GESTIÓN 2018