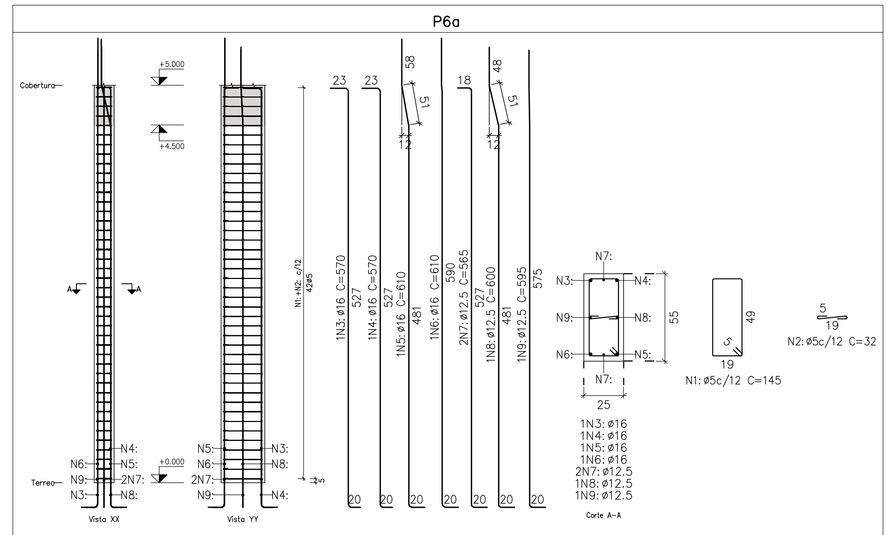
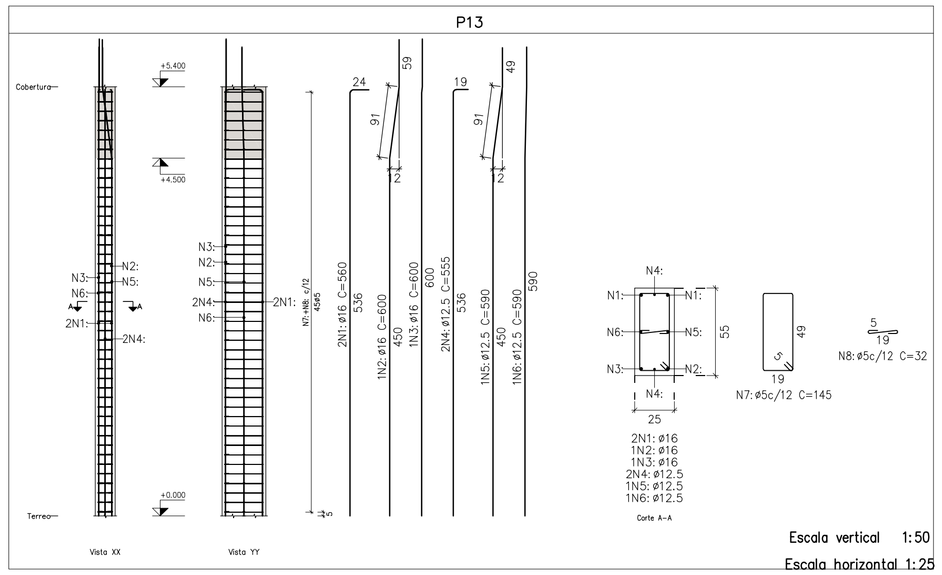
P6a



Escala vertical 1:50
Escala horizontal 1:25

P13



Escala vertical 1:50
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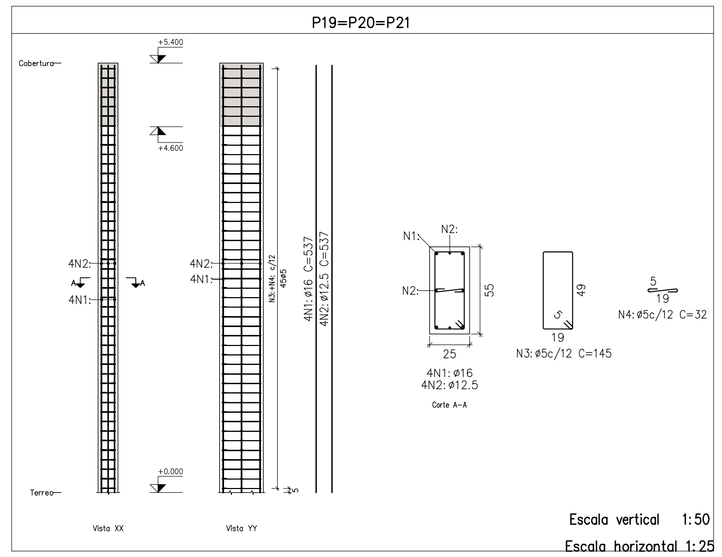
P19=P20=P21



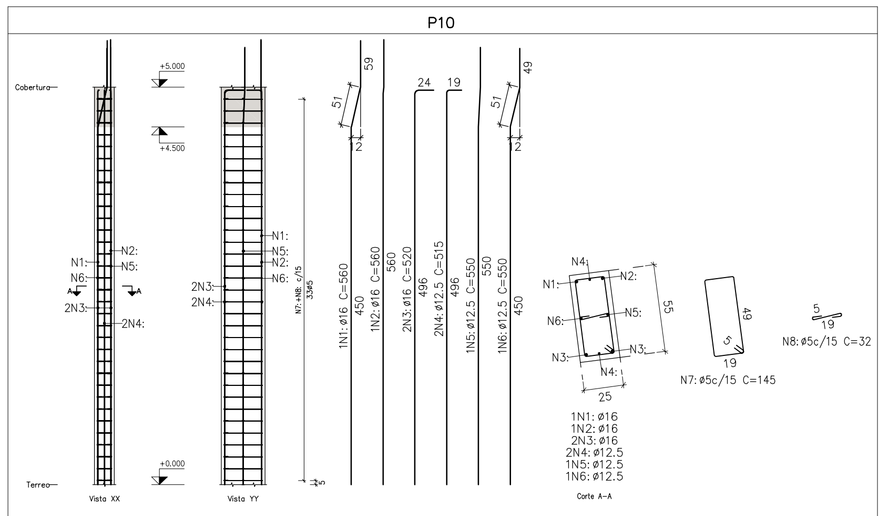
Escala vertical 1:50
Escala horizontal 1:25

Elemento	Pos.	Diam.	Q.	Dob. (cm)	Reta (cm)	Dob. (cm)	Comp. Total (cm)	CA-50 (kg)	CA-60 (kg)
P6a	1	Ø5	42				145	6090	
	2	Ø5	42				32	1344	
	3	Ø16	1				570	570	9.0
	4	Ø16	1				570	570	9.0
	5	Ø16	1				610	610	9.6
	6	Ø16	1				610	610	9.6
	7	Ø12.5	1				565	1130	10.9
	8	Ø12.5	1				600	600	5.8
	9	Ø12.5	1				595	595	5.7
							Total+10%	65.6	12.9
P10	1	Ø16	1				560	560	8.8
	2	Ø16	1				560	560	8.8
	3	Ø16	2				520	1040	16.4
	4	Ø12.5	2				515	1030	9.9
	5	Ø12.5	1				550	550	5.3
	6	Ø12.5	1				550	550	5.3
	7	Ø5	33				145	4785	7.5
	8	Ø5	33				32	1056	1.7
							Total+10%	60.0	10.1
P13	1	Ø16	2				560	1120	17.7
	2	Ø16	1				600	600	9.5
	3	Ø16	1				600	600	9.5
	4	Ø12.5	2				555	1110	10.7
	5	Ø12.5	1				590	590	5.7
	6	Ø12.5	1				590	590	5.7
	7	Ø5	45				145	6525	10.2
	8	Ø5	45				32	1440	2.3
							Total+10%	64.7	13.8
P14	1	Ø16	4				537	2148	33.9
	2	Ø12.5	4				537	2148	20.7
	3	Ø5	45				145	6525	10.2
	4	Ø5	45				32	1440	2.3
							Total+10%	60.1	13.8
P15	1	Ø16	4				537	2148	33.9
	2	Ø12.5	4				537	2148	20.7
	3	Ø5	45				145	6525	10.2
	4	Ø5	45				32	1440	2.3
							Total+10%	60.1	13.8
P17	1	Ø16	2				560	1120	17.7
	2	Ø16	1				610	610	9.6
	3	Ø16	1				610	610	9.6
	4	Ø12.5	2				555	1110	10.7
	5	Ø12.5	1				610	610	5.9
	6	Ø12.5	1				610	610	5.9
	7	Ø5	45				145	6525	10.2
	8	Ø5	45				32	1440	2.3
							Total+10%	65.3	13.8
P18	1	Ø16	4				537	2148	33.9
	2	Ø12.5	4				537	2148	20.7
	3	Ø5	45				145	6525	10.2
	4	Ø5	45				32	1440	2.3
							Total+10%	60.1	13.8
P19=P20=P21	1	Ø16	4				537	2148	33.9
	2	Ø12.5	4				537	2148	20.7
	3	Ø5	45				145	6525	10.2
	4	Ø5	45				32	1440	2.3
							Total+10% (x3)	60.1 180.3	13.8 41.4
							Ø5:	0.0	333.4
							Ø12.5:	233.1	0.0
							Ø16:	383.1	0.0
							Total:	816.2	333.4

Planta: Cobertura
Concreto: C30, usina.rigor
Aço das barras: CA-50 e CA-60
Aço dos estribos: CA-50 e CA-60

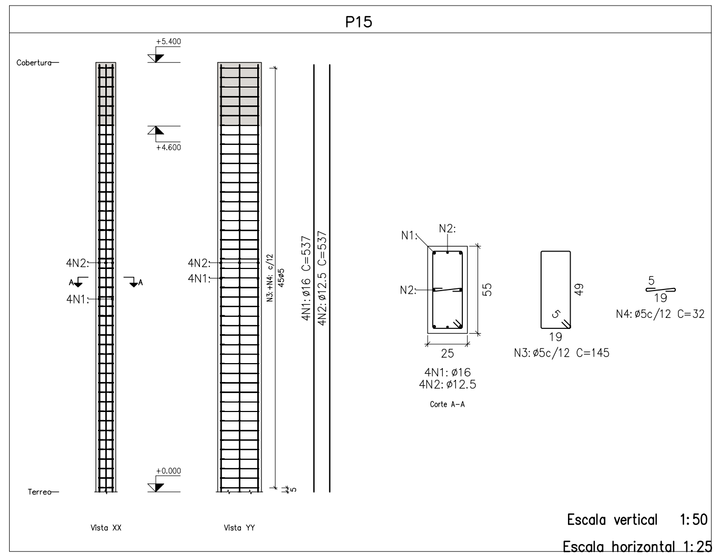
Resumo Aço Pilares		Comp. total (m)	Peso+10% (kg)	Total
CA-50	Ø12.5	263.9	280	
	Ø16	265.4	461	741
CA-60	Ø5	929.3	160	160
Total				901

P10



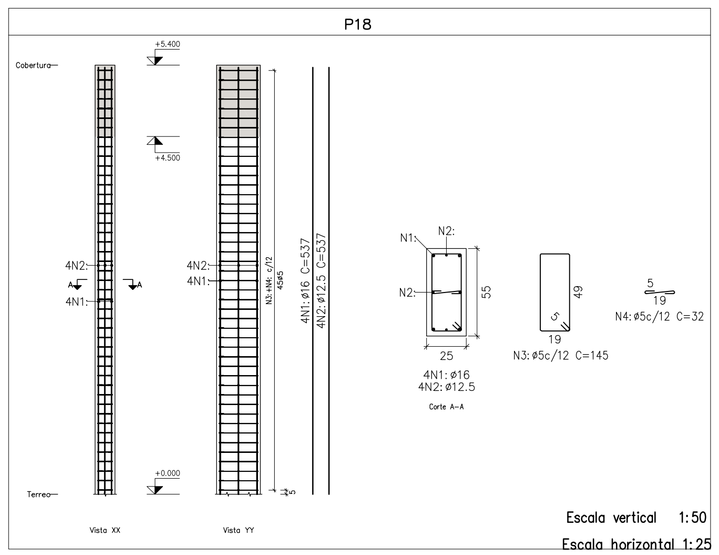
Escala vertical 1:50
Escala horizontal 1:25

P15



Escala vertical 1:50
Escala horizontal 1:25

P18



Escala vertical 1:50
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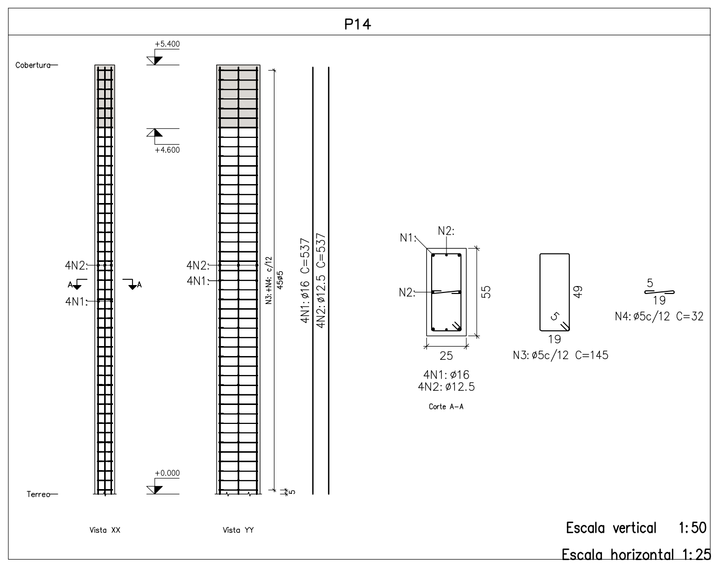
P14



Escala vertical 1:50
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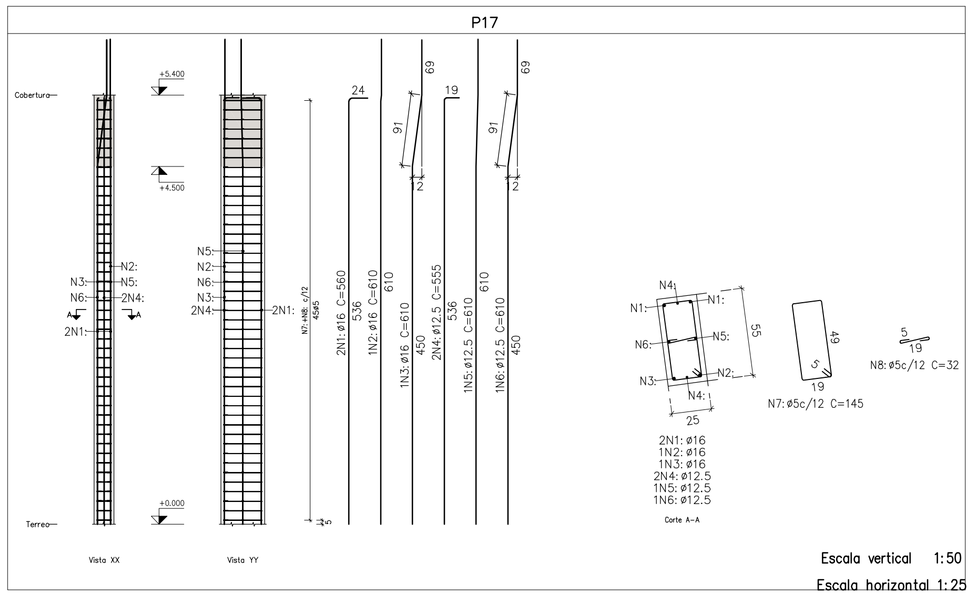
P17



Escala vertical 1:50
Escala horizontal 1:25

Concreto 30MPa

REVISÕES				
NÚMERO	DATA	DESCRIÇÃO	DESENHO	VERIF.

PROJETO ESTRUTURAL

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CREA/SC 147.347-0
Eng.º Eletricista Eduardo Marcelo da Silva
CREA/SC 107.293-8
Eng.ª Mecânico Fábio Domingos Guimarães
CREA/SC 075.436-1
Arquiteto e Urbanista David Tartari
CAU/SC A118224-2

RESPONSÁVEL PELO PROJETO: Eng.º Civil Celso Zanoni Filho

PROPRIETÁRIO (OBRA DA OBRA): Pref. Mun. Governador Celso Ramos
CNPJ: 82.892.373/0001-89

ESCOLA MUNICIPAL PROF. SILVIA PRAZERES DE CARVALHO
Serv. João Kinquinha
Bairro Caieira da Norte - Governador Celso Ramos /SC

APROVAÇÃO:

CONTEÚDO: - Pilar chega em cobertura - 01/02

ESCALA: INDIC.

CAD: C.Z.F | ÁREA: 362.30m² | DATA: Set/2019 | OBRA: 448 | PRANCHA: PI 04 / 06

BL - BLOCOS / CA - CARGAS / ES - ESCADAS / FO - FORMAS / LA - LAJES / LO - LOCAÇÃO / PI - PILARES/ SA -SAPATAS/VI-VIGAS
HI - HIDROSSANITÁRIO / DR - DRENAGEM / PR - PREVENTIVO CONTRA INCÊNDIO
EL - ELÉTRICO / TE - TELEFÔNICO