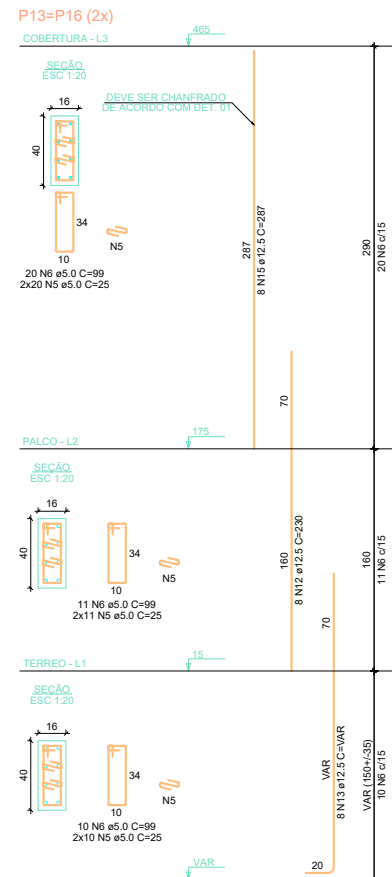
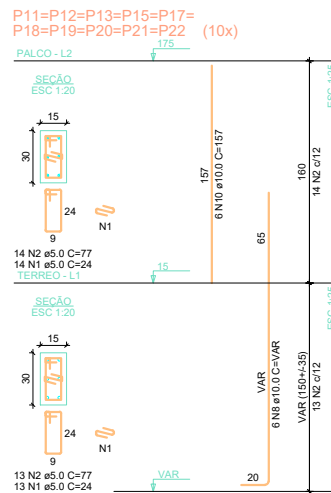
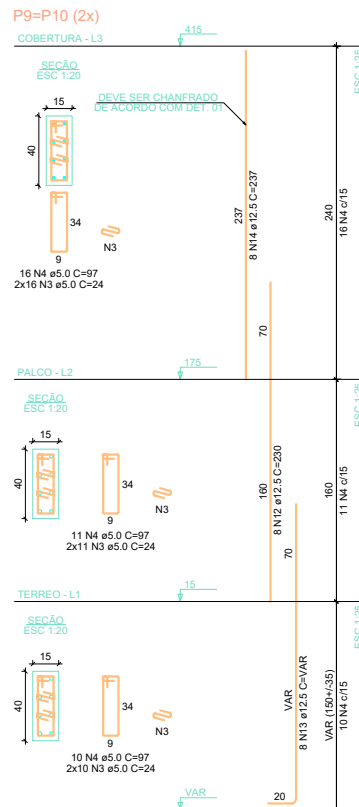
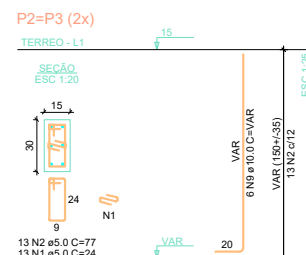
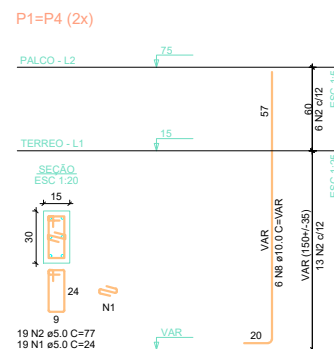


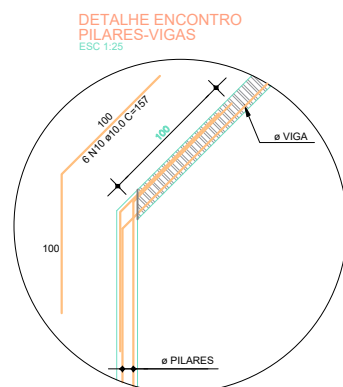
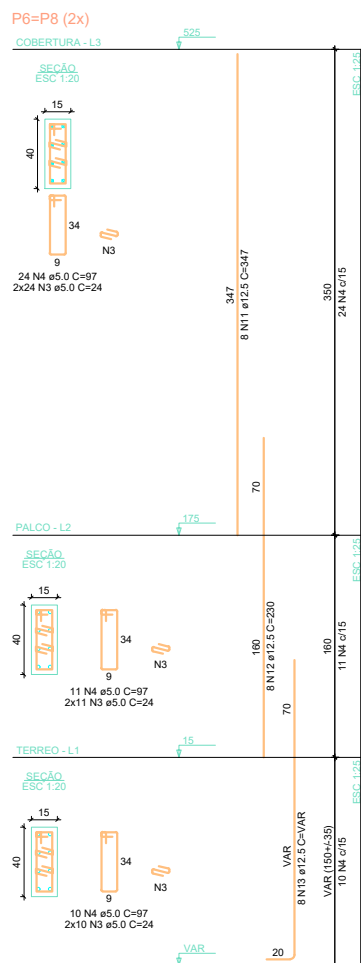
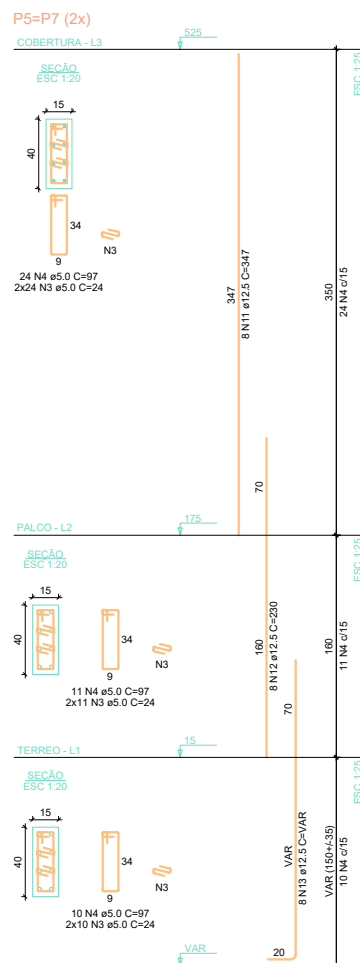
DETALHE ARMAÇÃO DOS PILARES



RELAÇÃO DO AÇO					
AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
CA60	1	5,0	328	24	7872
	2	5,0	328	77	25256
	3	5,0	208	24	12192
	4	5,0	254	97	24638
	5	5,0	244	25	6100
CA50	6	5,0	82	89	8198
	7	10,0	12	27	324
	8	10,0	72	VAR	VAR
	9	10,0	12	VAR	VAR
	10	10,0	60	157	9420
	11	12,5	32	147	11104
	12	12,5	64	230	14720
	13	12,5	64	VAR	VAR
	14	12,5	16	237	3792
		12,5	5	237	650

AÇO	DIAM (mm)	C.TOTAL (m)	PESO + 10% (kg)
CA50	10.0	281.5	190.9
	12.5	491.2	520.5
CA60	5.0	841.8	142.7
PESO TOTAL (kg)			
CA50	711.4		
CA60	142.7		

Volume de concreto (C-30) = 4.12 m³
Área de forma = 77.19 m²



Revisão:	Data:	Descrição:			CBSA	Verificado Por:	
Araíza & Sérgio PROJETOS ESTRUTURAIS Rua A- do Sacerdote Leonardo, N° 40/33 (altos) - Belém - Pa CEP: 86120-920 E-mail: araisaserio@yahoo.com						FRANCHA 0//3217	FRANCHA E-03/12
ASSUNTO: PRAÇAÇA LAIR ROD. PA-151, SIN IGARAPE-MIRI - PA DETALHE ARMAÇÃO PILARES					ENG. FRANCISCO SÉRIO F. Jr - CP 180234498-6 GIANDY H. ARAÍZA JR., - CP 180334649-6		
DATA	MARÇO/2008	ESCALA	INDICADA	CAD	ANA CAROLINA SILVA	CÁLCULO	VISTO