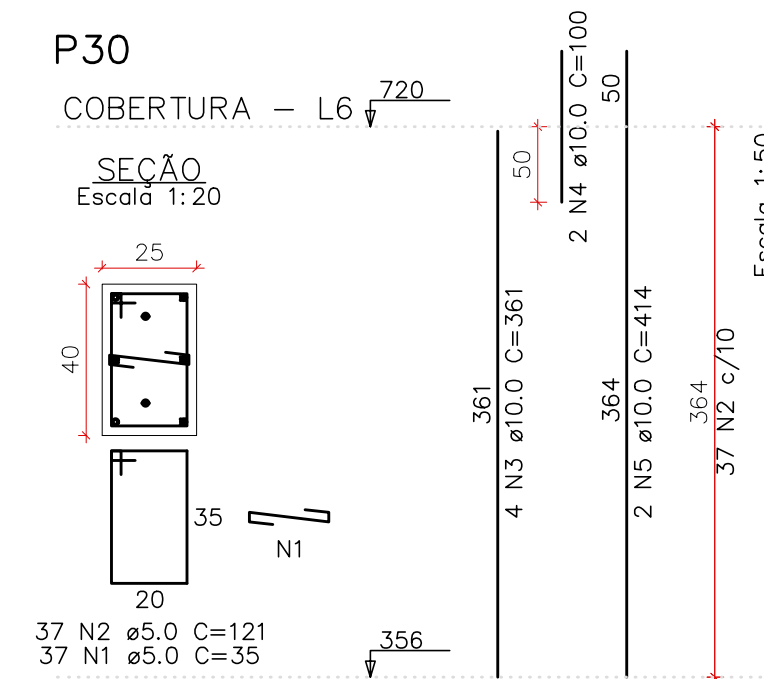
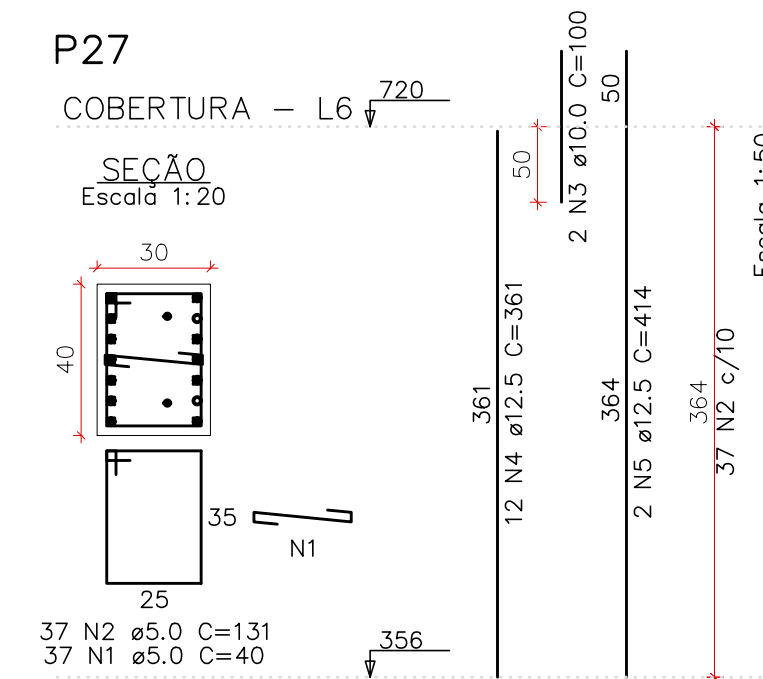
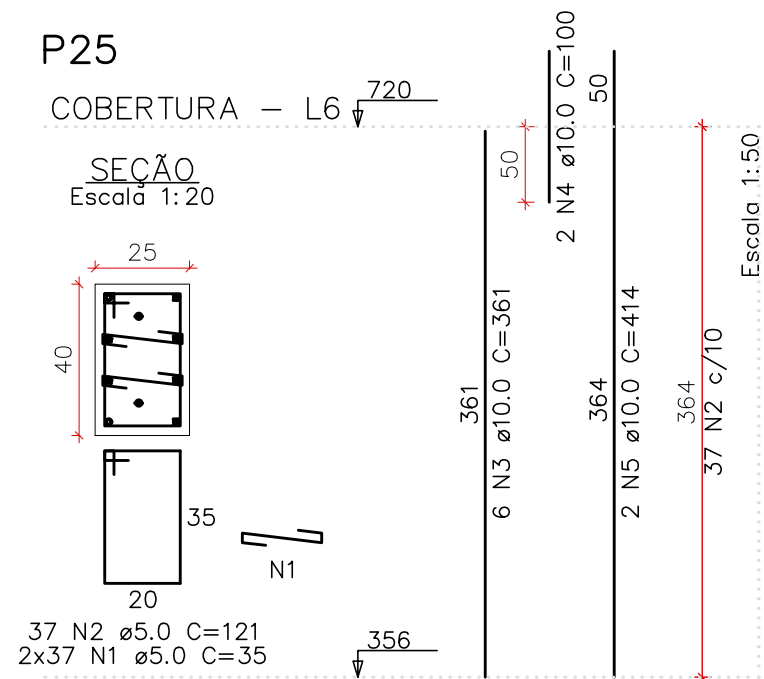
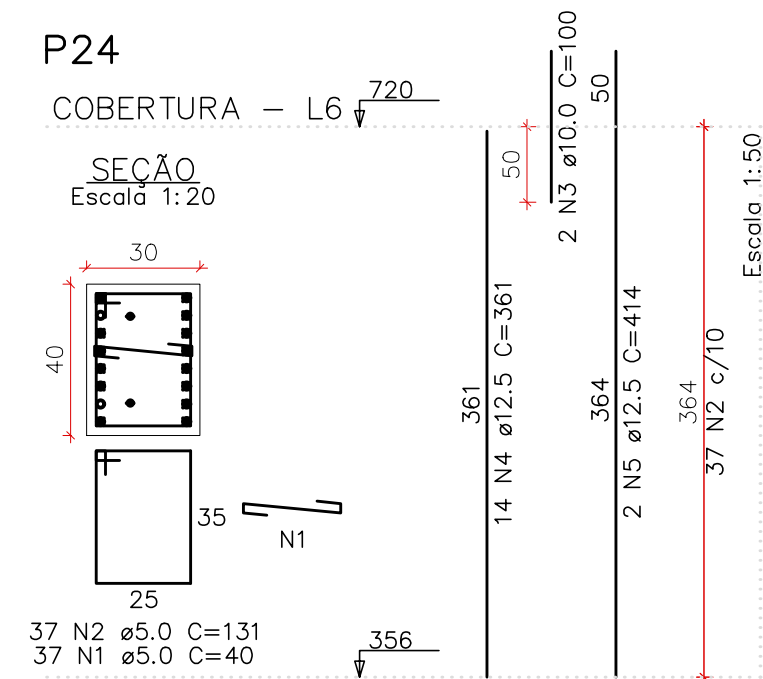
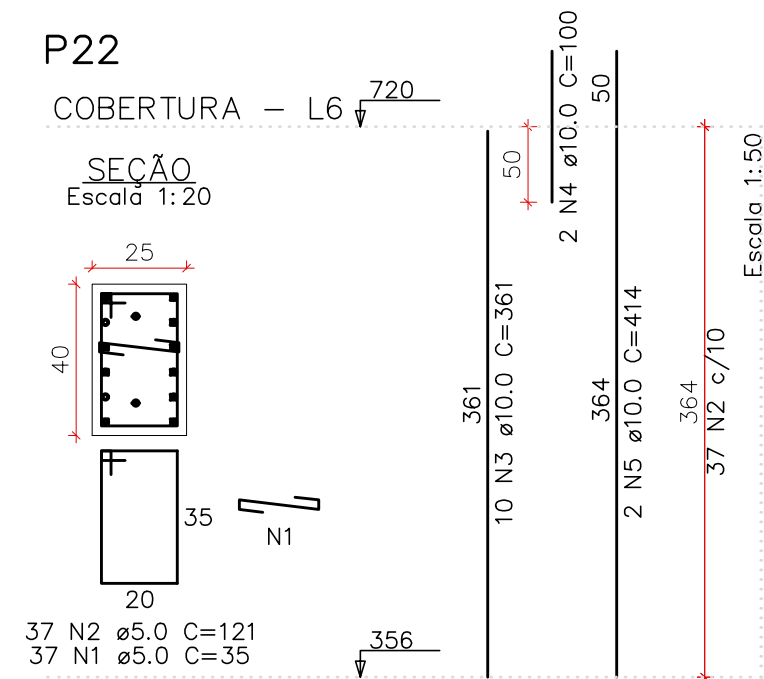
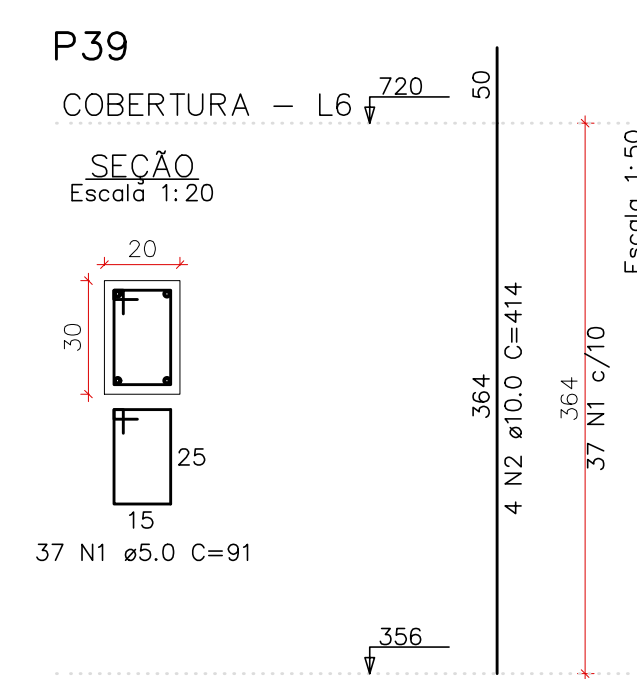
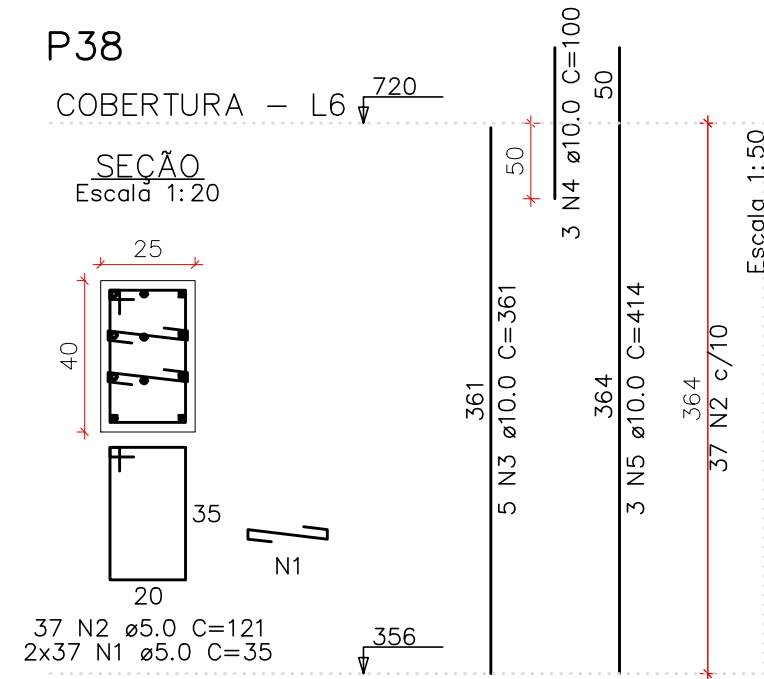
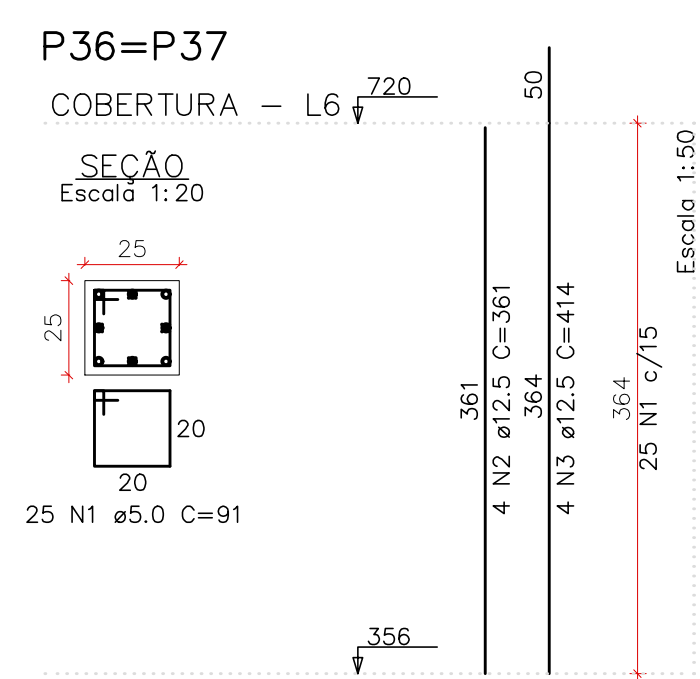
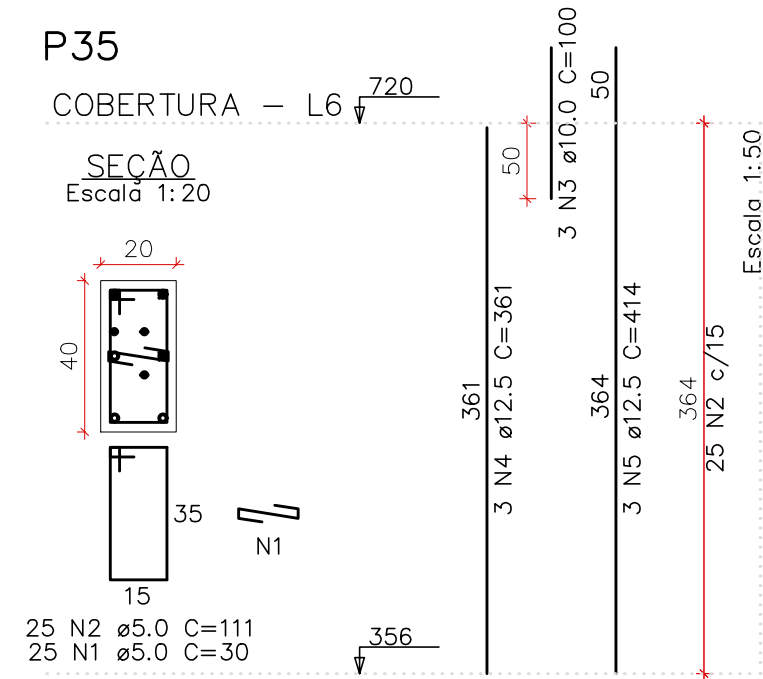
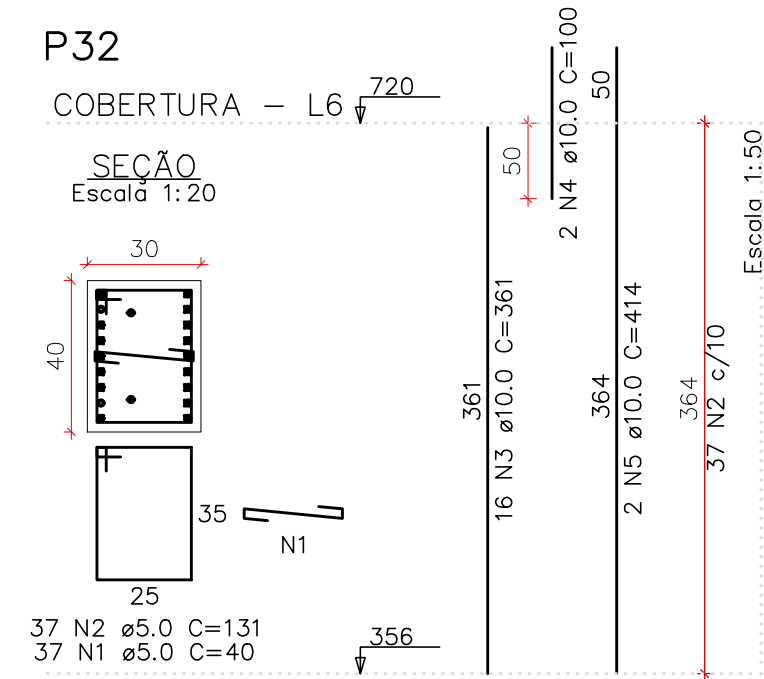


CONSTRUÇÃO DO HUB DE EMPREENDEDORISMO DE POUSO ALEGRE
ESCALA INDICADA



RELAÇÃO DO AÇO						
ELEMENTO	AÇO	N	DIAM (mm)	QUANT	C.UNIT (cm)	C.TOTAL (cm)
P22	CA60	1	5.0	37	35	1295
	CA60	2	5.0	37	121	4477
	CA50	3	10.0	10	361	3610
	CA50	4	10.0	2	100	200
	CA50	5	10.0	2	414	828
P24	CA60	1	5.0	37	40	1480
	CA60	2	5.0	37	131	4847
	CA50	3	10.0	2	100	200
	CA50	4	12.5	14	361	5054
	CA50	5	12.5	2	414	828
P25	CA60	1	5.0	37	35	1295
	CA60	2	5.0	37	121	4477
	CA50	3	10.0	6	361	2166
	CA50	4	10.0	2	100	200
	CA50	5	10.0	2	414	828
P27	CA60	1	5.0	37	40	1480
	CA60	2	5.0	37	131	4847
	CA50	3	10.0	2	100	200
	CA50	4	12.5	12	361	4332
	CA50	5	12.5	2	414	828
P30	CA60	1	5.0	37	35	1295
	CA60	2	5.0	37	121	4477
	CA50	3	10.0	4	361	1444
	CA50	4	10.0	2	100	200
	CA50	5	10.0	2	414	828
P32	CA60	1	5.0	37	40	1480
	CA60	2	5.0	37	131	4847
	CA50	3	10.0	16	361	5776
	CA50	4	10.0	2	100	200
	CA50	5	10.0	2	414	828
P35	CA60	1	5.0	25	30	750
	CA60	2	5.0	25	111	2775
	CA50	3	10.0	3	100	300
	CA50	4	12.5	3	361	1083
	CA50	5	12.5	3	414	1242
2xP36	CA60	1	5.0	50	91	4550
	CA50	2	12.5	8	361	2888
	CA50	3	12.5	8	414	3312
	CA60	1	5.0	74	35	2590
	CA60	2	5.0	37	121	4477
P38	CA50	3	10.0	5	361	1805
	CA50	4	10.0	3	100	300
	CA50	5	10.0	3	414	1242
	CA60	1	5.0	37	91	3367
	CA50	2	5.0	4	414	1656

RESUMO DO AÇO				
AÇO	DIAM (mm)	C.TOTAL (m)	QUANT + 10% (Barras)	PESO + 10% (kg)
CA50	10.0	228.1	21	154.7
CA60	5.0	195.7	18	207.3
PESO TOTAL (kg)			52	95.1
CA50	362			
CA60	95.1			

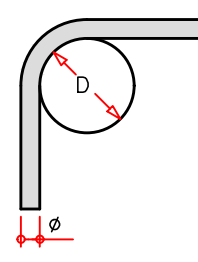
Volume de concreto (C-30) = 3,73 m³
Área de forma = 49,50 m²

DETALHE DE DOBRAS
SEM ESCALA

DIÂMETRO MÍNIMO DOS PINOS DE DOBRAMENTO DAS BARRAS:

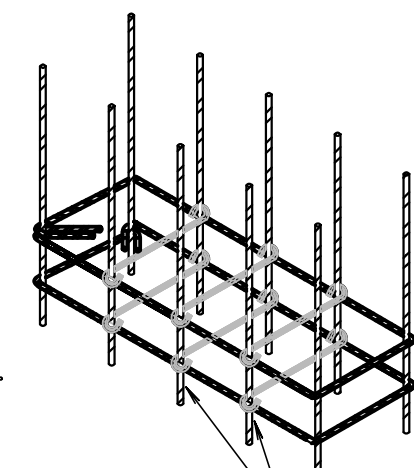
ESTRIBOS		BARRAS DE TRAÇÃO	
ø (mm)	D (mm)	ø (mm)	D (mm)
5,0	15,0	5,0	30,0
6,3	18,9	6,3	31,5
8,0	24,0	8,0	40,0
10,0	30,0	10,0	50,0
12,5	62,5	12,5	62,5
16,0	80,0	16,0	80,0
>= 20,0	8xø	>= 20,0	8xø

GANCHO DOS ESTRIBOS:

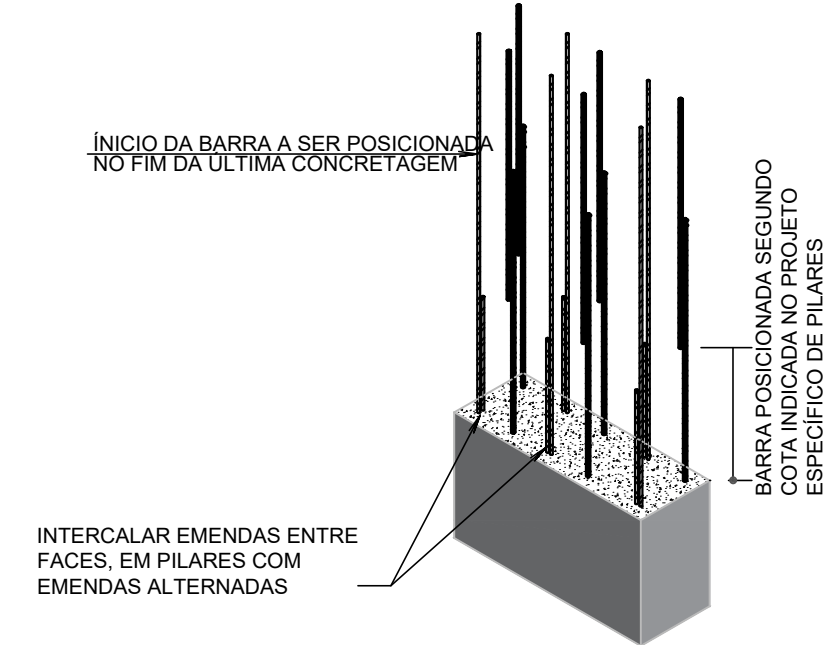


NOTA: gancho em ângulo de 45°

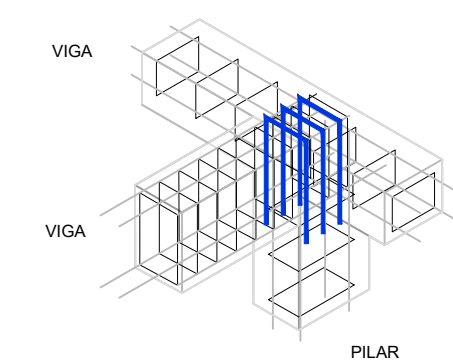
POSICIONAMENTO DOS GANCHOS
SEM ESCALA



MONTAGEM DE ARMADURAS ALTERNADAS
SEM ESCALA



GRAMPOS DE ANCORAGEM
SEM ESCALA



IMPORTANTE: OS GRAMPOS VERTICAIS DEVEM AMARRAR OS FERROS PRINCIPAIS DOS PILARES COM OS FERROS HORIZONTAIS DAS VIGAS. A QUANTIDADE DE GRAMPOS DEVE SER VERIFICADA NO DETALHEMANTO DO ÚLTIMO LANCE DO PILAR.

LEGENDA DAS BARRAS DOS PILARES

- BARRA QUE NASCE
- BARRA QUE MORRE
- BARRA QUE PASSA



HUB DE EMPREENDEDORISMO DE POUSO ALEGRE

ENDEREÇO
RUA GERALDO COUTINHO DE SOUZA, JARDIM VERGANI
POUSO ALEGRE - MINAS GERAIS

ASSUNTO
PROJETO ESTRUTURAL EM CONCRETO ARMADO
DETALHAMENTO DOS PILARES DO PAV. COBERTURA
LISTA DE MATERIAIS

DISCIPLINA
ESTRUTURAL

FASE DO PROJETO
EXECUTIVO

FOLHA Nº.
19/49

DATA INICIAL
30/05/2023

ESCALA
INDICADA

REVISÃO
R01

ARQUIVO
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