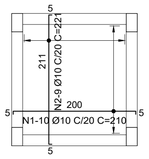
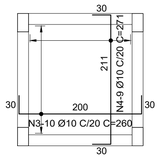
LAJE DE COBERTURA DO ELEVADOR h=10 cm

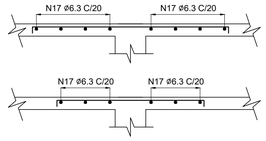
ARMADURAS NEGATIVAS
ESC.1:50



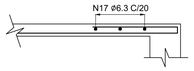
ARMADURAS POSITIVAS
ESC.1:50



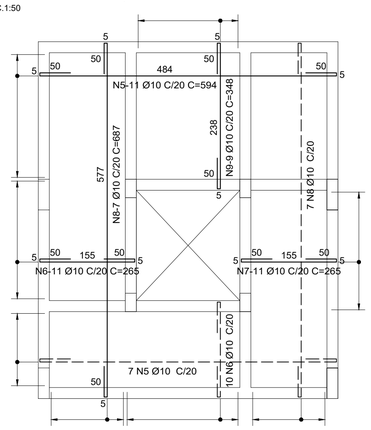
ARMADURA DE DISTRIBUIÇÃO PARA ARMAÇÃO NEGATIVA ENTRE LAJES
ESC.1:25



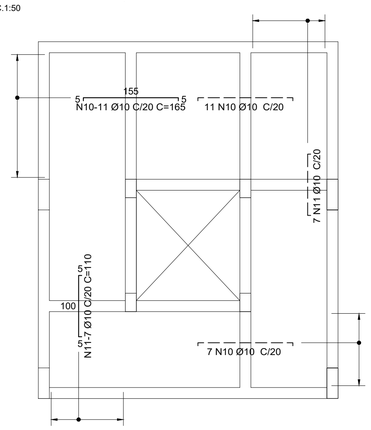
ARMADURA DE DISTRIBUIÇÃO PARA ARMAÇÃO NEGATIVA DE BORDA
ESC.1:25



LAJES NIVEL 807,710 - ARMADURAS POSITIVAS
ESC.1:50



LAJES NIVEL 807,710 - ARMADURAS NEGATIVAS
ESC.1:50



LAJES NIVEL 804,630 - ARMADURAS
ESC.1:50

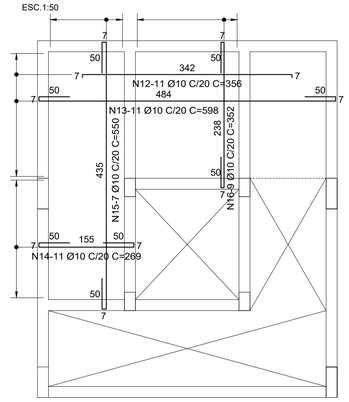


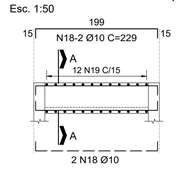
TABELA DE FERROS

N	Ø (mm)	Q	COMPRIMENTOS UNIT.(cm)	COMPRIMENTOS TOTAL(cm)
1	10	10	210	2100
2	10	9	221	1989
3	10	10	260	2600
4	10	9	271	2439
5	10	18	594	10692
6	10	21	265	5565
7	10	11	265	2915
8	10	14	687	9618
9	10	9	348	3132
10	10	29	165	4785
11	10	14	110	1540
12	10	11	356	3916
13	10	11	598	6578
14	10	11	269	2959
15	10	7	550	3850
16	10	9	352	3168
17	6.3	10	2486	24860
18	10	8	229	1832
19	6.3	24	128	3072
20	10	8	240	1920
21	6.3	22	128	2816
22	12.5	8	527	4216
23	10	16	503	8048
24	6.3	46	168	7728
25	12.5	8	385	3080
26	6.3	32	128	4096
27	12.5	8	620	4960
28	12.5	4	572	2288
29	10	16	597	9552
30	6.3	50	168	8400
31	12.5	4	478	1912
32	6.3	20	128	2560
33	12.5	4	620	2480
34	6.3	27	128	3456
35	12.5	8	527	4216
36	6.3	46	128	5888
37	12.5	4	242	968
38	6.3	9	128	1152
39	12.5	4	384	1536
40	6.3	16	128	2048
41	16	8	631	5048
42	16	4	572	2288
43	6.3	50	128	6400
44	16	8	489	3912
45	16	4	431	1724
46	6.3	40	128	5120

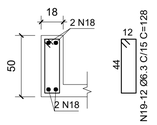
RESUMO CA-50

Ø (mm)	kg/m	COMPR.(m)	PESO (kg)
6.3	0.25	775.96	194
10	0.40	891.98	562
12.5	1.00	256.56	257
16	1.60	129.72	208
		TOTAL:	1221

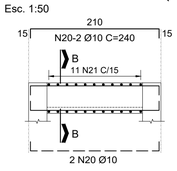
V501 = V502 - 18/50 (2x)
Esc. 1:50



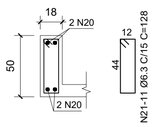
CORTE A-A
ESC.1:25



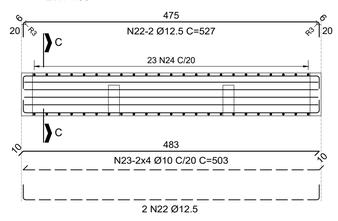
V503 = V504 - 18/50 (2x)
Esc. 1:50



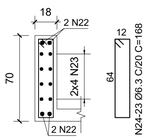
CORTE B-B
ESC.1:25



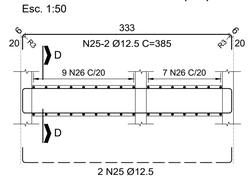
V401 = V404 - 18/70 (2x)
Esc. 1:50



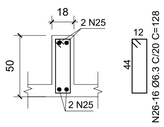
CORTE C-C
ESC.1:25



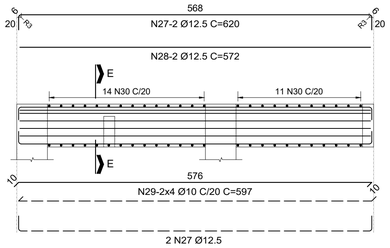
V402 = V403 - 18/50 (2x)
Esc. 1:50



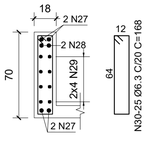
CORTE D-D
ESC.1:25



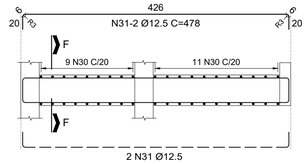
V405 = V408 - 18/70 (2x)
Esc. 1:50



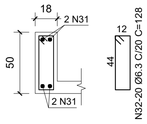
CORTE E-E
ESC.1:25



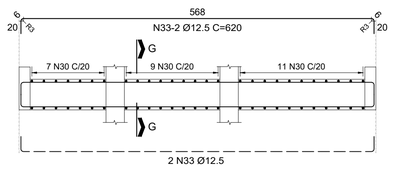
V406 - 18/50
Esc. 1:50



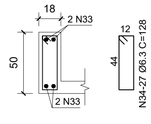
CORTE F-F
ESC.1:25



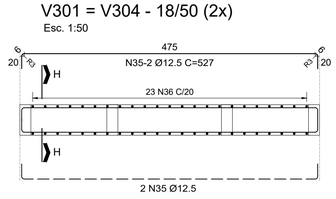
V407 - 18/50
Esc. 1:50



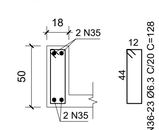
CORTE G-G
ESC.1:25



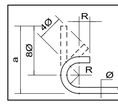
V301 = V304 - 18/50 (2x)
Esc. 1:50



CORTE H-H
ESC.1:25



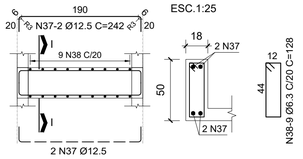
DOBRAMENTO PADRÃO DE BARRAS E GANCHOS



Ø	RAIO		
	CA - 25	CA - 50A	CA - 60
< 20	2 Ø	2,5 Ø	3 Ø
≥ 20	2,5 Ø	4 Ø	-

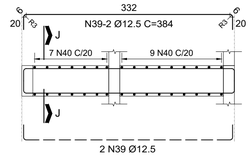
OBS.:QUANDO O DOBRAMENTO SAIR DO PADRÃO, SERÁ INDICADO NA LISTA DE FERROS O COMPRIMENTO (a) E/OU O RAIO (R).

V302 - 18/50
Esc. 1:50

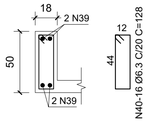


CORTE I-I
ESC.1:25

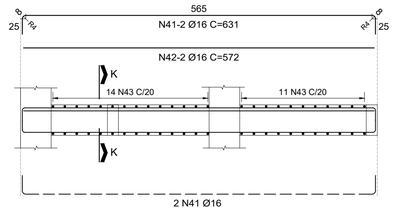
V303 - 18/50
Esc. 1:50



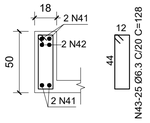
CORTE J-J
ESC.1:25



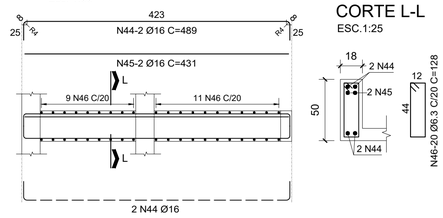
V305 = V308 - 18/70 (2x)
Esc. 1:50



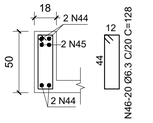
CORTE K-K
ESC.1:25



V306 = V307 - 18/70 (2x)
Esc. 1:50



CORTE L-L
ESC.1:25



NOTAS:

1 - MEDIDAS EM CENTÍMETRO, EXCETO INDICAÇÃO CONTRÁRIA

2- MATERIAIS:

- CONCRETO ESTRUTURAL fck = 30 MPa (FATOR A/C<0,5)
- AÇO CA50

3 - COBRIMENTO DAS ARMADURAS:

c = 2,5 cm PARA LAJES
c = 3,0 cm PARA VIGAS

4 - VERIFICAR TODAS AS MEDIDAS E NÍVEIS NA OBRA.

5 - O CONTROLE TECNOLÓGICO PARA GARANTIA DA QUALIDADE DOS MATERIAIS E SERVIÇOS DEVERÃO SEGUIR TODAS AS RECOMENDAÇÕES CONSTANTES DAS SEGUINTES NORMAS DA ABNT: NBR12655, NBR7480, NBR 7481, NBR 7482 E NBR 7483.

Nº	MODIFICACÕES	AUTOR DO PROJETO	DATA	APROVAÇÃO	DATA
				UFABC	
2	ATENDIMENTO COMENTÁRIOS	PAULO FACCIO	30.08.17		
1	EMISSAO INICIAL	PAULO FACCIO	31.05.17		

OBSERVAÇÕES

CSB-PE-EST-HAN-FOR-104-05
DESENHOS DE REFERÊNCIA

N.	APROVAÇÃO	DATA
	UFABC	

CSB-PE-EST-HAG-MCL-ARM - MEMÓRIA DE CÁLCULO
NOTAS

APROVACAO	DATA
AUTOR DO PROJETO	

FACCIO ARQUITETURA

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E-MAIL: PAULO@FACCIOARQUITETURA.COM.BR – SITE: WWW.FACCIOARQUITETURA.COM.BR

RESPONSÁVEL TÉCNICO: PAULO FACCIO NETO — CAU: A815330
PROJETISTA: DANIEL FAUSTO DE MENEZES — CAU: A50903-5
ASSINATURA:
CAU: 17338-0 — DATA: 31.05.17
Nº PROJETO:

Universidade Federal do ABC
Câmpus São Bernardo do Campo
UFABC

ETAPA – ÁREA TÉCNICA: PROJETO EXECUTIVO – ESTRUTURA	PE-EST
CONTEÚDO: ARMAÇÃO – ACESSO À COBERTURA	FOLHA: 14 / 20
LOCALIZAÇÃO – IDENTIFICAÇÃO: HANGAR	
ARQUIVO ELETRÔNICO: CSB-PE-EST-HAN-ARM-113-14-R02 — REVISÃO DA FOLHA: R02 — ESCALA: IND.	DATA: 30/08/17