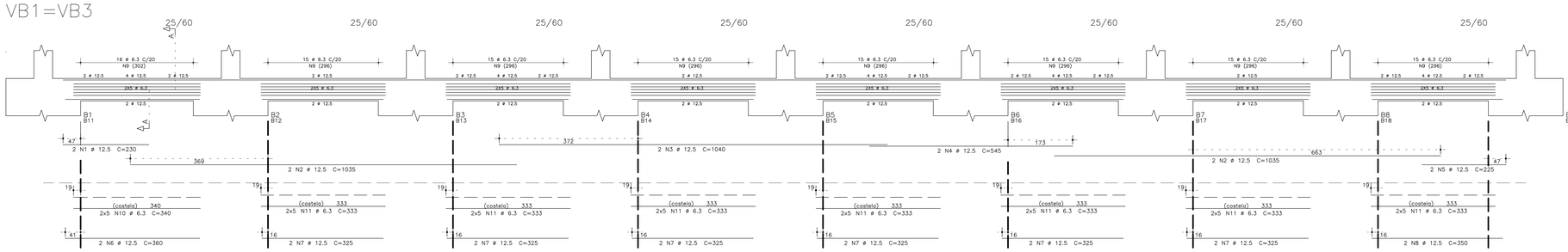
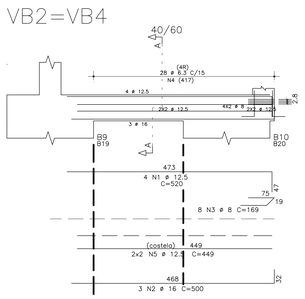
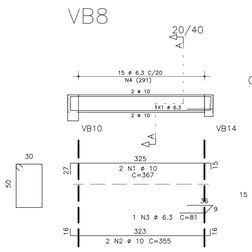
## VB1=VB3



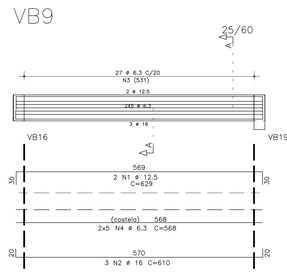

## VB2=VB4



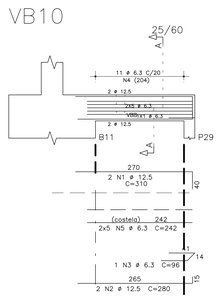

## VB8



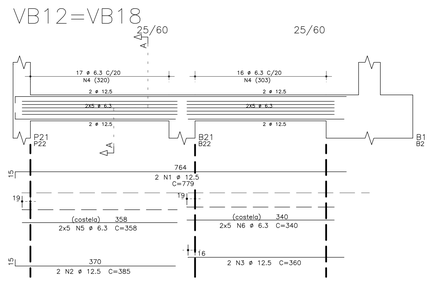

## VB9




## VB10




## VB12=VB18




## VB14




## VB16




## VB19



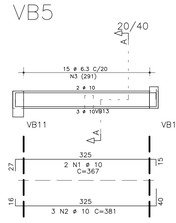

ARMAÇÃO - VIGAS BALDRAMES - 1 HANGAR ( Nível -0,15m )
ESC. 1:50 / 1:25

| AÇO | POS | BIT (mm) | QUANT | COMPRIMENTO UNIT (cm) | COMPRIMENTO TOTAL (cm) |
|---|---|---|---|---|---|
| VB1=VB3 (X2) | | | | | |
| 50A | 1 | 12.5 | 4 | 230 | 920 |
| 50A | 2 | 12.5 | 8 | 1035 | 8280 |
| 50A | 3 | 12.5 | 4 | 1040 | 4160 |
| 50A | 4 | 12.5 | 4 | 545 | 2180 |
| 50A | 5 | 12.5 | 4 | 225 | 900 |
| 50A | 6 | 12.5 | 4 | 360 | 1440 |
| 50A | 7 | 12.5 | 24 | 325 | 7800 |
| 50A | 8 | 12.5 | 4 | 340 | 1360 |
| 50A | 9 | 6.3 | 240 | 144 | 34560 |
| 50A | 10 | 6.3 | 20 | 340 | 6800 |
| 50A | 11 | 6.3 | 140 | 333 | 46620 |
| VB2=VB4 (X2) | | | | | |
| 50A | 1 | 12.5 | 8 | 520 | 4160 |
| 50A | 2 | 16 | 6 | 500 | 3000 |
| 50A | 3 | 8 | 16 | 169 | 2704 |
| 50A | 4 | 6.3 | 112 | 154 | 17248 |
| 50A | 5 | 12.5 | 8 | 449 | 3592 |
| VB8 | | | | | |
| 50A | 1 | 10 | 2 | 367 | 734 |
| 50A | 2 | 10 | 2 | 355 | 710 |
| 50A | 3 | 6.3 | 1 | 81 | 81 |
| 50A | 4 | 6.3 | 15 | 94 | 1410 |
| VB9 | | | | | |
| 50A | 1 | 12.5 | 2 | 629 | 1258 |
| 50A | 2 | 16 | 3 | 610 | 1830 |
| 50A | 3 | 6.3 | 27 | 144 | 3888 |
| 50A | 4 | 6.3 | 10 | 568 | 5680 |
| VB10 | | | | | |
| 50A | 1 | 12.5 | 2 | 310 | 620 |
| 50A | 2 | 12.5 | 2 | 280 | 560 |
| 50A | 3 | 6.3 | 1 | 96 | 96 |
| 50A | 4 | 6.3 | 11 | 144 | 1584 |
| 50A | 5 | 6.3 | 10 | 242 | 2420 |
| VB12=VB18 (X2) | | | | | |
| 50A | 1 | 12.5 | 4 | 779 | 3116 |
| 50A | 2 | 12.5 | 4 | 385 | 1540 |
| 50A | 3 | 12.5 | 4 | 360 | 1440 |
| 50A | 4 | 6.3 | 66 | 144 | 9504 |
| 50A | 5 | 6.3 | 20 | 358 | 7160 |
| 50A | 6 | 6.3 | 20 | 340 | 6800 |
| VB14 | | | | | |
| 50A | 1 | 10 | 2 | 395 | 790 |
| 50A | 2 | 12.5 | 2 | 360 | 720 |
| 60B | 3 | 5 | 20 | 114 | 2280 |
| 60B | 4 | 8 | 4 | 332 | 1328 |
| VB16 | | | | | |
| 50A | 1 | 12.5 | 2 | 315 | 630 |
| 50A | 2 | 12.5 | 2 | 280 | 560 |
| 50A | 3 | 6.3 | 1 | 96 | 96 |
| 50A | 4 | 6.3 | 11 | 144 | 1584 |
| 50A | 5 | 6.3 | 10 | 242 | 2420 |
| VB19 | | | | | |
| 50A | 1 | 12.5 | 3 | 300 | 900 |
| 50A | 2 | 8 | 2 | 205 | 410 |
| 50A | 3 | 6.3 | 5 | 184 | 920 |
| 50A | 4 | 6.3 | 14 | 155 | 2170 |

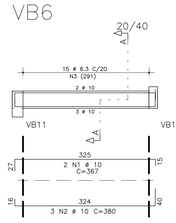
| RESUMO AÇO CA 50—60 | | | | |
|---|---|---|---|---|
| AÇO | BIT (mm) | COMPR (m) | | PESO (kg) |
| 60B | 5 | 23 | | 4 |
| 50A | 6.3 | 1513 | | 378 |
| 50A | 8 | 44 | | 18 |
| 50A | 10 | 22 | | 14 |
| 50A | 12.5 | 465 | | 465 |
| 50A | 16 | 48 | | 73 |
| Peso Total | 60B = | | | 4 kg |
| Peso Total | 50A = | | | 953 kg |

QUANTIDADES PARA 1 HANGAR

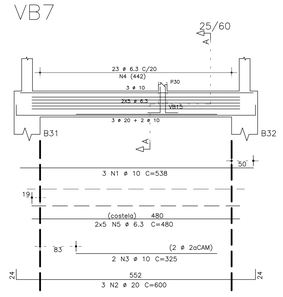
## VB5



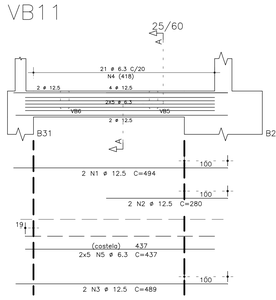

## VB6



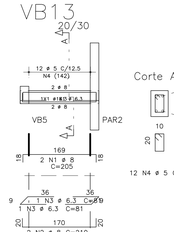

## VB7



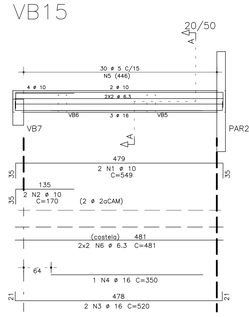

## VB11



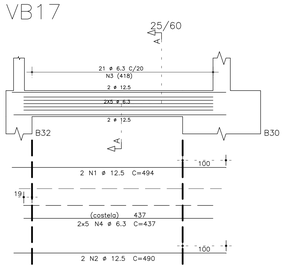

## VB13




## VB15




## VB17




ARMAÇÃO - VIGAS BALDRAMES - 1 HANGAR ( Nível -1,25m )
ESC. 1:50 / 1:25

| AÇO | POS | BIT (mm) | QUANT | COMPRIMENTO UNIT (cm) | COMPRIMENTO TOTAL (cm) |
|---|---|---|---|---|---|
| VB5 | | | | | |
| 50A | 1 | 10 | 2 | 367 | 734 |
| 50A | 2 | 10 | 3 | 381 | 1143 |
| 50A | 3 | 6.3 | 15 | 94 | 1410 |
| VB6 | | | | | |
| 50A | 1 | 10 | 2 | 367 | 734 |
| 50A | 2 | 10 | 3 | 380 | 1140 |
| 50A | 3 | 6.3 | 15 | 94 | 1410 |
| VB7 | | | | | |
| 50A | 1 | 10 | 3 | 538 | 1614 |
| 50A | 2 | 20 | 3 | 600 | 1800 |
| 50A | 3 | 8 | 23 | 325 | 7475 |
| 50A | 4 | 6.3 | 23 | 144 | 3312 |
| 50A | 5 | 6.3 | 10 | 480 | 4800 |
| VB11 | | | | | |
| 50A | 1 | 12.5 | 2 | 494 | 988 |
| 50A | 2 | 12.5 | 2 | 280 | 560 |
| 50A | 3 | 12.5 | 2 | 489 | 978 |
| 50A | 4 | 6.3 | 21 | 144 | 3024 |
| 50A | 5 | 6.3 | 10 | 437 | 4370 |
| VB13 | | | | | |
| 50A | 1 | 8 | 2 | 205 | 410 |
| 50A | 2 | 8 | 2 | 210 | 420 |
| 50A | 3 | 6.3 | 2 | 81 | 162 |
| 60B | 4 | 5 | 12 | 74 | 888 |
| VB15 | | | | | |
| 50A | 1 | 10 | 2 | 549 | 1098 |
| 50A | 2 | 10 | 2 | 170 | 340 |
| 50A | 3 | 16 | 2 | 520 | 1040 |
| 50A | 4 | 16 | 1 | 350 | 350 |
| 60B | 5 | 5 | 30 | 114 | 3420 |
| 50A | 6 | 6.3 | 4 | 481 | 1924 |
| VB17 | | | | | |
| 50A | 1 | 12.5 | 2 | 494 | 988 |
| 50A | 2 | 12.5 | 2 | 490 | 980 |
| 50A | 3 | 6.3 | 21 | 144 | 3024 |
| 50A | 4 | 6.3 | 10 | 437 | 4370 |

| RESUMO AÇO CA 50—60 | | | | |
|---|---|---|---|---|
| AÇO | BIT (mm) | COMPR (m) | | PESO (kg) |
| 60B | 5 | 23 | | 4 |
| 50A | 6.3 | 278 | | 70 |
| 50A | 8 | 8 | | 3 |
| 50A | 10 | 75 | | 47 |
| 50A | 12.5 | 45 | | 45 |
| 50A | 16 | 14 | | 22 |
| 50A | 20 | 18 | | 45 |
| Peso Total | 60B = | | | 7 kg |
| Peso Total | 50A = | | | 232 kg |

QUANTIDADES PARA 1 HANGAR

NOTAS GERAIS:

1. MEDIDAS EM CENTÍMETROS, COTAS EM METROS, EXCETO ONDE INDICADO;
2. PARA DEMAIS NOTAS, VER FOLHA 01.
3. QUANTIDADES PARA 1 HANGAR.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CNPJ 38.680.690/0001-60 CREA/SP: 380724
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ATHOS CONSTRUÇÕES LTDA

CODEMAR – COcompanhia de desenvolvimento de maricá
ENDEREÇO
Rua Jovino Duarte de Oliveira, 481 – Aeroporto de Maricá, Centro, Maricá – RJ CEP: 24901-130


Projeto: AEROPORTO DE MARICÁ - CONSTRUÇÃO HANGARES 2 E 3
Disciplina: ESTRUTURA
Etapa: PROJETO EXECUTIVO
Nome do Arquivo: PE-DE-EST-FL06-R00
Endereço: MARICÁ - RJ
Responsável Técnico


Kenhiti Sicito
Responsável Técnico
CREA/SP: 6004282215


Título: **ESTRUTURA - HANGARES 2 E 3**
**ARMAÇÃO DAS VIGAS BALDRAMES**

Folha: 06 | 12

ART: 28027230191229788 | Revisão: Rev. 00 | Data: ABR/2019 | Escala: INDICADA