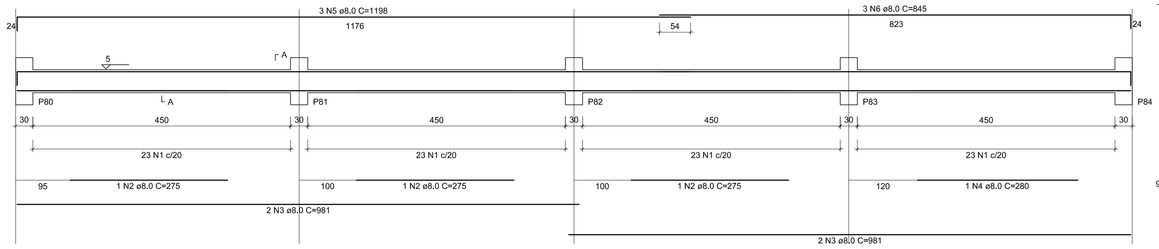
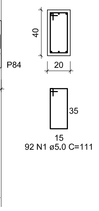
## VB33

1:50




SEÇÃO A-A
ESC 1:25




## VB37

1:50

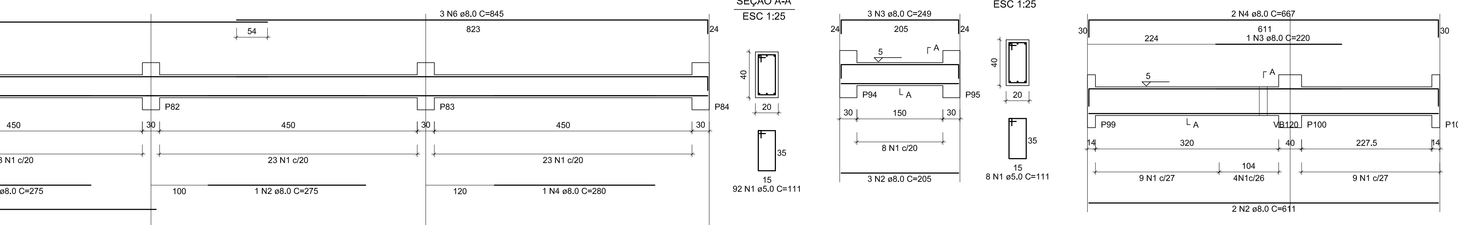



SEÇÃO A-A
ESC 1:25

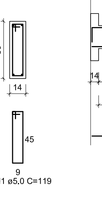



## VB39

1:50

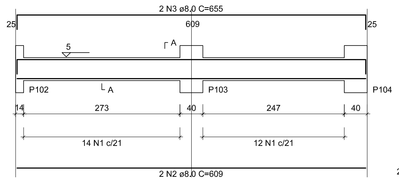



SEÇÃO A-A
ESC 1:25

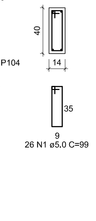



## VB40

1:50

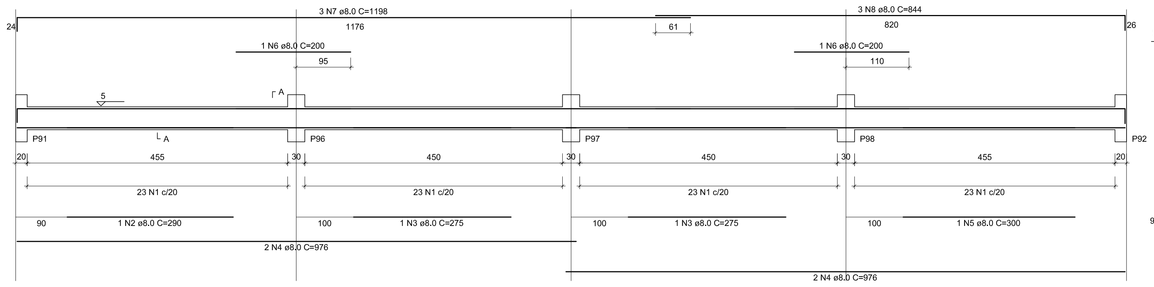



SEÇÃO A-A
ESC 1:25

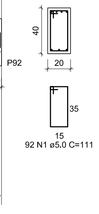



## VB38

1:50

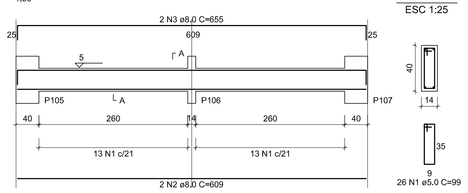



SEÇÃO A-A
ESC 1:25

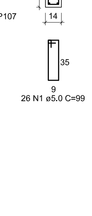



## VB41

1:50

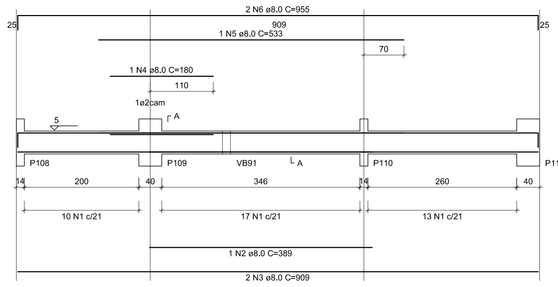



SEÇÃO A-A
ESC 1:25

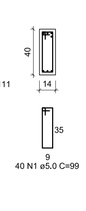



## VB42

1:50

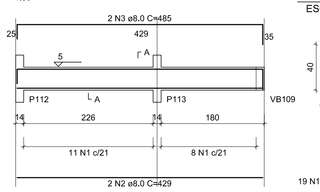



SEÇÃO A-A
ESC 1:25

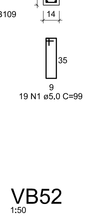



## VB43

1:50

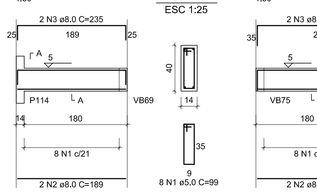



SEÇÃO A-A
ESC 1:25

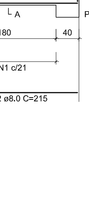



## VB44

1:50

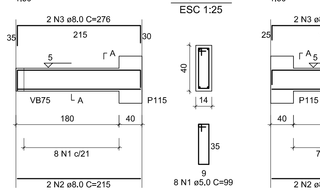



SEÇÃO A-A
ESC 1:25

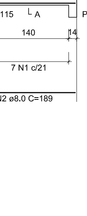



## VB45

1:50

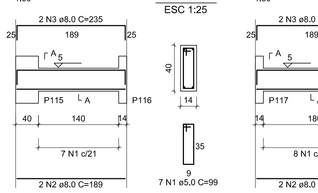



SEÇÃO A-A
ESC 1:25

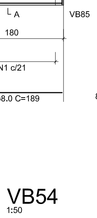



## VB46

1:50

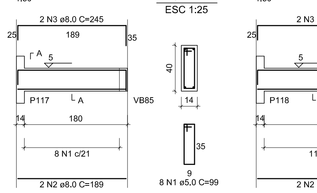



SEÇÃO A-A
ESC 1:25

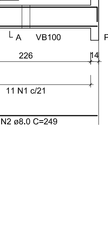



## VB47

1:50

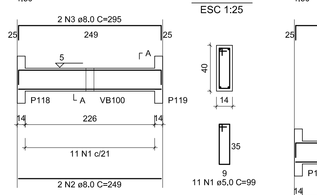



SEÇÃO A-A
ESC 1:25

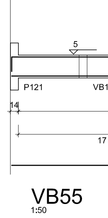



## VB48

1:50

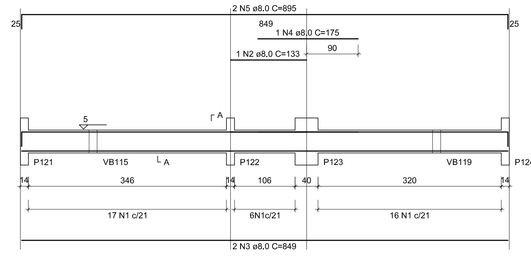



SEÇÃO A-A
ESC 1:25

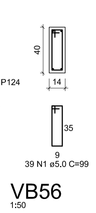



## VB49

1:50

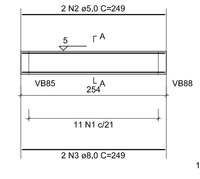



SEÇÃO A-A
ESC 1:25

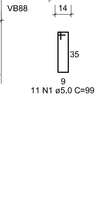



## VB50

1:50

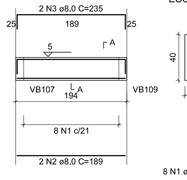



SEÇÃO A-A
ESC 1:25

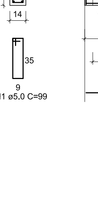



## VB51

1:50

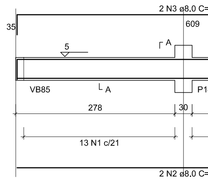



SEÇÃO A-A
ESC 1:25

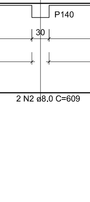



## VB52

1:50

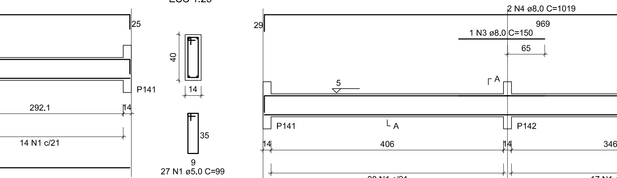



SEÇÃO A-A
ESC 1:25

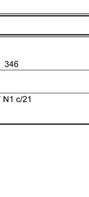



## VB53

1:50

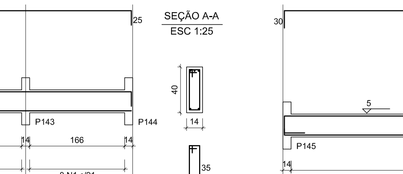



SEÇÃO A-A
ESC 1:25




## VB54

1:50




SEÇÃO A-A
ESC 1:25

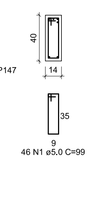



## VB55

1:50

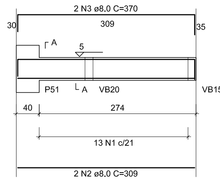



SEÇÃO A-A
ESC 1:25

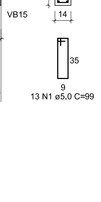



## VB56

1:50

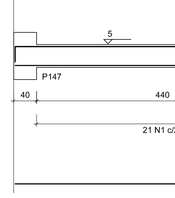



SEÇÃO A-A
ESC 1:25




## VB57

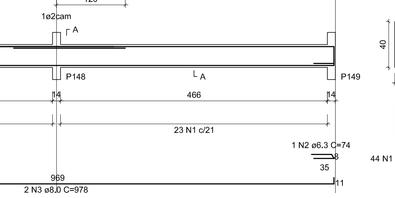
1:50




SEÇÃO A-A
ESC 1:25

## VB58

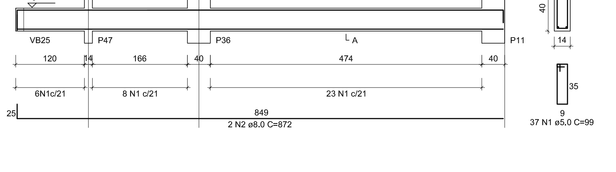
1:50




SEÇÃO A-A
ESC 1:25

## VB59

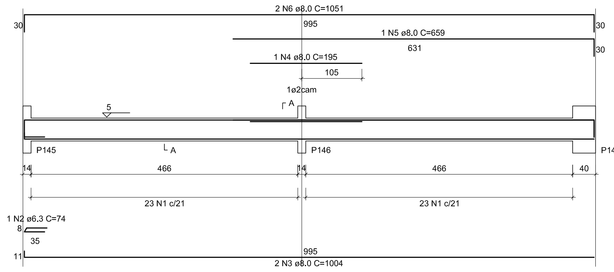
1:50




SEÇÃO A-A
ESC 1:25

## VB60

1:50




SEÇÃO A-A
ESC 1:25




## VB63

1:50




SEÇÃO A-A
ESC 1:25




## VB61

1:50




SEÇÃO A-A
ESC 1:25




## VB62

1:50

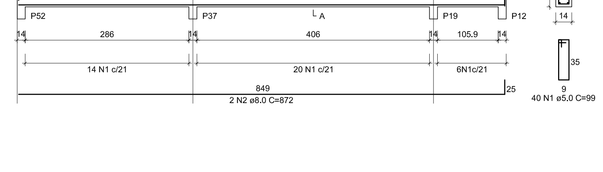



SEÇÃO A-A
ESC 1:25




## VB64

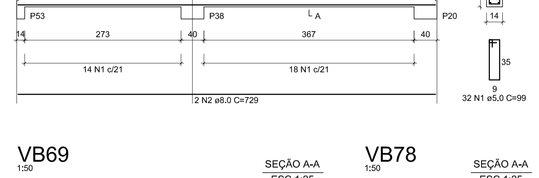
1:50




SEÇÃO A-A
ESC 1:25

## VB65

1:50

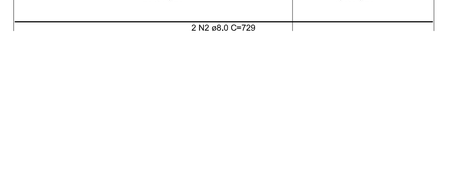



SEÇÃO A-A
ESC 1:25




## VB66

1:50

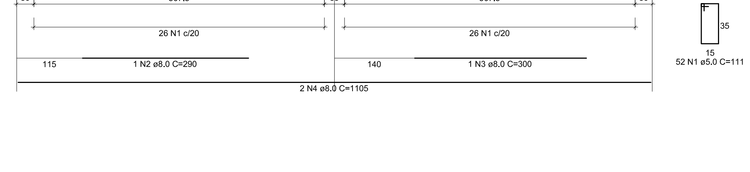



SEÇÃO A-A
ESC 1:25




## VB67

1:50

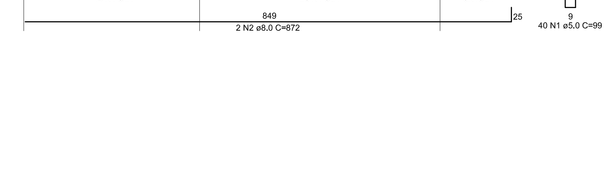



SEÇÃO A-A
ESC 1:25




## VB68

1:50




SEÇÃO A-A
ESC 1:25




## VB69

1:50




SEÇÃO A-A
ESC 1:25




## VB78

1:50




SEÇÃO A-A
ESC 1:25




### REALAÇÃO DO AÇO

| ELEMENTO | AÇO | N | DIAM | Q | UNIT (cm) | C.TOTAL (cm) |
|---|---|---|---|---|---|---|
| VB33 | 60 | 1 | 5,0 | 92 | 111 | 10212 |
| | 50 | 2 | 8,0 | 2 | 275 | 825 |
| | 50 | 3 | 8,0 | 2 | 981 | 3924 |
| | 50 | 4 | 8,0 | 1 | 280 | 280 |
| | 50 | 5 | 8,0 | 3 | 1198 | 3594 |
| | 50 | 6 | 8,0 | 3 | 845 | 2535 |
| VB37 | 60 | 1 | 5,0 | 8 | 111 | 888 |
| | 50 | 2 | 8,0 | 3 | 205 | 615 |
| | 50 | 3 | 8,0 | 3 | 249 | 747 |
| VB38 | 60 | 1 | 5,0 | 92 | 111 | 10212 |
| | 50 | 2 | 8,0 | 1 | 290 | 290 |
| | 50 | 3 | 8,0 | 2 | 275 | 550 |
| | 50 | 4 | 8,0 | 4 | 976 | 3904 |
| | 50 | 5 | 8,0 | 1 | 300 | 300 |
| | 50 | 6 | 8,0 | 2 | 200 | 400 |
| | 50 | 7 | 8,0 | 3 | 1198 | 3594 |
| | 50 | 8 | 8,0 | 3 | 844 | 2532 |
| VB39 | 60 | 1 | 5,0 | 222 | 111 | 24642 |
| | 50 | 2 | 8,0 | 1 | 111 | 1222 |
| | 50 | 3 | 8,0 | 1 | 933 | 933 |
| VB40 | 60 | 1 | 5,0 | 26 | 99 | 2574 |
| | 50 | 2 | 8,0 | 2 | 609 | 1218 |
| | 50 | 3 | 8,0 | 2 | 655 | 1310 |
| VB41 | 60 | 1 | 5,0 | 26 | 99 | 2574 |
| | 50 | 2 | 8,0 | 2 | 609 | 1218 |
| | 50 | 3 | 8,0 | 2 | 655 | 1310 |
| VB42 | 60 | 1 | 5,0 | 40 | 99 | 3960 |
| | 50 | 2 | 8,0 | 1 | 389 | 389 |
| | 50 | 3 | 8,0 | 2 | 909 | 1818 |
| | 50 | 4 | 8,0 | 1 | 180 | 180 |
| | 50 | 5 | 8,0 | 1 | 533 | 533 |
| VB43 | 60 | 1 | 5,0 | 19 | 99 | 1881 |
| | 50 | 2 | 8,0 | 1 | 485 | 485 |
| | 50 | 3 | 8,0 | 2 | 485 | 970 |
| VB44 | 60 | 1 | 5,0 | 8 | 99 | 792 |
| | 50 | 2 | 8,0 | 2 | 189 | 378 |
| | 50 | 3 | 8,0 | 2 | 235 | 470 |
| VB45 | 60 | 1 | 5,0 | 8 | 99 | 792 |
| | 50 | 2 | 8,0 | 2 | 215 | 430 |
| | 50 | 3 | 8,0 | 2 | 276 | 552 |
| VB46 | 60 | 1 | 5,0 | 7 | 99 | 693 |
| | 50 | 2 | 8,0 | 2 | 189 | 378 |
| | 50 | 3 | 8,0 | 2 | 235 | 470 |
| VB47 | 60 | 1 | 5,0 | 8 | 99 | 792 |
| | 50 | 2 | 8,0 | 2 | 189 | 378 |
| | 50 | 3 | 8,0 | 2 | 245 | 490 |
| VB48 | 60 | 1 | 5,0 | 11 | 99 | 1089 |
| | 50 | 2 | 8,0 | 2 | 249 | 498 |
| | 50 | 3 | 8,0 | 1 | 295 | 590 |
| VB49 | 60 | 1 | 5,0 | 39 | 99 | 3861 |
| | 50 | 2 | 8,0 | 1 | 133 | 133 |
| | 50 | 3 | 8,0 | 2 | 849 | 1698 |
| | 50 | 4 | 8,0 | 1 | 175 | 175 |
| | 50 | 5 | 8,0 | 2 | 895 | 1790 |
| VB50 | 60 | 1 | 5,0 | 11 | 99 | 1089 |
| | 60 | 2 | 5,0 | 2 | 249 | 498 |
| | 50 | 3 | 8,0 | 2 | 249 | 498 |
| VB51 | 60 | 1 | 5,0 | 11 | 99 | 1089 |
| | 50 | 2 | 8,0 | 2 | 249 | 498 |
| | 50 | 3 | 8,0 | 2 | 305 | 610 |
| VB52 | 60 | 1 | 5,0 | 6 | 99 | 594 |
| | 60 | 2 | 5,0 | 2 | 129 | 258 |
| | 50 | 3 | 8,0 | 2 | 129 | 258 |
| VB53 | 60 | 1 | 5,0 | 43 | 99 | 4257 |
| | 50 | 2 | 8,0 | 1 | 969 | 969 |
| | 50 | 3 | 8,0 | 2 | 969 | 1938 |
| | 50 | 4 | 8,0 | 2 | 1015 | 2030 |
| VB54 | 60 | 1 | 5,0 | 27 | 99 | 2673 |
| | 50 | 2 | 8,0 | 2 | 609 | 1218 |
| | 50 | 3 | 8,0 | 1 | 215 | 215 |
| | 50 | 4 | 8,0 | 2 | 655 | 1310 |
| VB55 | 60 | 1 | 5,0 | 24 | 99 | 2376 |
| | 50 | 2 | 8,0 | 2 | 609 | 1218 |
| | 50 | 3 | 8,0 | 2 | 655 | 1310 |
| VB56 | 60 | 1 | 5,0 | 8 | 99 | 792 |
| | 50 | 2 | 8,0 | 2 | 189 | 378 |
| | 50 | 3 | 8,0 | 2 | 245 | 490 |
| VB57 | 60 | 1 | 5,0 | 8 | 99 | 792 |
| | 50 | 2 | 8,0 | 2 | 189 | 378 |
| | 50 | 3 | 8,0 | 2 | 235 | 470 |
| VB58 | 60 | 1 | 5,0 | 27 | 99 | 2673 |
| | 50 | 2 | 8,0 | 2 | 609 | 1218 |
| | 50 | 3 | 8,0 | 2 | 665 | 1330 |
| VB59 | 60 | 1 | 5,0 | 45 | 99 | 4455 |
| | 50 | 2 | 8,0 | 2 | 969 | 1938 |
| | 50 | 3 | 8,0 | 1 | 150 | 150 |
| | 50 | 4 | 8,0 | 2 | 1019 | 2038 |
| VB60 | 60 | 1 | 5,0 | 46 | 99 | 4554 |
| | 50 | 2 | 8,0 | 1 | 74 | 74 |
| | 50 | 3 | 8,0 | 2 | 1004 | 2008 |
| | 50 | 4 | 8,0 | 1 | 195 | 195 |
| | 50 | 5 | 8,0 | 1 | 659 | 659 |
| | 50 | 6 | 8,0 | 2 | 1051 | 2102 |
| VB61 | 60 | 1 | 5,0 | 44 | 99 | 4356 |
| | 50 | 2 | 8,0 | 1 | 74 | 74 |
| | 50 | 3 | 8,0 | 2 | 978 | 1956 |
| | 50 | 4 | 8,0 | 1 | 195 | 195 |
| | 50 | 5 | 8,0 | 1 | 610 | 610 |
| | 50 | 6 | 8,0 | 2 | 1022 | 2044 |
| VB62 | 60 | 1 | 5,0 | 37 | 99 | 3663 |
| | 50 | 2 | 8,0 | 1 | 872 | 1744 |
| | 50 | 3 | 8,0 | 1 | 300 | 300 |
| | 50 | 4 | 8,0 | 3 | 902 | 5412 |
| VB63 | 60 | 1 | 5,0 | 13 | 99 | 1287 |
| | 50 | 2 | 8,0 | 2 | 309 | 618 |
| | 50 | 3 | 8,0 | 2 | 370 | 740 |
| VB64 | 60 | 1 | 5,0 | 40 | 99 | 3960 |
| | 50 | 2 | 8,0 | 2 | 872 | 1744 |
| | 50 | 3 | 8,0 | 2 | 905 | 1810 |
| VB65 | 60 | 1 | 5,0 | 32 | 99 | 3168 |
| | 50 | 2 | 8,0 | 2 | 729 | 1458 |
| | 50 | 3 | 8,0 | 2 | 775 | 1550 |
| VB66 | 60 | 1 | 5,0 | 31 | 99 | 3069 |
| | 50 | 2 | 8,0 | 2 | 729 | 1458 |
| | 50 | 3 | 8,0 | 2 | 778 | 1556 |
| VB67 | 60 | 1 | 5,0 | 52 | 111 | 5772 |
| | 50 | 2 | 8,0 | 1 | 290 | 290 |
| | 50 | 3 | 8,0 | 1 | 1160 | 1160 |
| | 50 | 4 | 8,0 | 2 | 1105 | 2210 |
| | 50 | 5 | 10,0 | 1 | 188 | 188 |
| | 50 | 6 | 10,0 | 2 | 1160 | 2320 |
| VB68 | 60 | 1 | 5,0 | 40 | 99 | 3960 |
| | 50 | 2 | 8,0 | 2 | 872 | 1744 |
| | 50 | 3 | 8,0 | 2 | 905 | 1810 |
| VB69 | 60 | 1 | 5,0 | 16 | 99 | 1584 |
| | 50 | 2 | 8,0 | 2 | 372 | 744 |
| | 50 | 3 | 8,0 | 2 | 418 | 836 |
| VB78 | 60 | 1 | 5,0 | 4 | 99 | 396 |
| | 50 | 2 | 8,0 | 2 | 129 | 258 |
| | 50 | 3 | 8,0 | 2 | 175 | 350 |

### RESUMO DO AÇO

| AÇO | DIAM | C.TOTAL (m) | PESO+10% (kg) |
|---|---|---|---|
| CA50 | 6,3 | 1,5 | 0,4 |
| | 8,0 | 1001,3 | 435,2 |
| | 10,0 | 25,1 | 17,0 |
| CA60 | 5,0 | 1007,3 | 170,6 |
| PESO TOTAL | | | |
| CA50 | 452,7 | | |
| CA60 | 170,6 | | |

Vol. de concreto total =13,63 m³
Área de forma total = 215,79 m²

### ESCALA DE PLOTAGEM 1:0,1

| COD/COR | PENA | Esp. |
|---|---|---|
| 1. | 7 | 0,13 |
| 2. | 7 | 0,20 |
| 3. | 7 | 0,30 |
| 4. | 7 | 0,35 |
| 5. | 7 | 0,40 |
| 6. | 7 | 0,50 |
| 7. | 7 | 0,15 |
| 8. | 8 | 0,20 |
| 9. | 9 | 0,20 |
| 10. | 10 | 0,10 |
| 11. | 252 | 0,20 |
| 22. | 7 | 0,25 |
| 33. | 7 | 0,10 |
| 41. | 7 | 0,20 |
| 51. | 7 | 0,25 |
| 52. | 7 | 0,25 |
| 61. | 252 | 0,20 |
| 62. | 7 | 0,20 |
| 63. | 7 | 0,25 |
| 132. | 7 | 0,15 |
| 151. | 7 | 0,15 |
| 155. | 7 | 0,15 |
| 156. | 7 | 0,25 |
| 162. | 7 | 0,25 |

### NOTAS – PROJETO DE ESTRUTURAS/FUNDAÇÕES

01 - QUALQUER MODIFICAÇÃO DO PROJETO DEVE SER FEITA MEDIANTE AVALIAÇÃO DOS AUTORES DO PROJETO;

02 - TODOS AS DIMENSÕES EM cm, SALVO REFERÊNCIA EM PLANTA;

03 - CONCRETO Fck=25 MPa PARA BLOCOS DE COROAMENTO, VIGAS, PILARES E LAJES;

04 - Fck = 20 MPa PARA AS FUNDAÇÕES;

05 - DEVE-SE FAZER CONTROLE TECNOLÓGICO DO CONCRETO UTILIZADO;

06 - RECOBRIMENTO DAS ARMADURAS:
PILARES = 2,5cm
VIGAS = 2,5cm
LAJES = 2,0cm
BLOCOS = 3 cm
ESTACAS = 4 cm

07 - AÇOS: CA-50 e CA-60;

08 - JUNTA DE DILATAÇÃO PREENCHIDA COM SELANTE À BASE DE POLIURETANO EXPANSÍVEL

BRASIL UM PAÍS DE TODOS — Ministério da Educação

FNDE Fundo Nacional de Desenvolvimento da Educação

PROINFÂNCIA – ESPAÇO EDUCATIVO INFANTIL

ENDEREÇO:

MUNICIPIO – UF:

PROPRIETÁRIO: FUNDO NACIONAL DE DESENVOLVIMENTO DA EDUCAÇÃO - FNDE

AUTORES DO PROJETO: RICARDO FILIZA LIMA - CREA/12.848/D-DF
GLAUCYO DE OLIVEIRA SANTOS - CREA/81.887/D-MG

RESPONSÁVEL TÉCNICO:

PROPRIETÁRIO

AUTOR DO PROJETO — CREA-AP-1-CREAXX

AUTOR DO PROJETO — CREA-AP-2-CREAXX

RESP. TÉCNICO — CREA

DLFO | CREA | RA

PROJETO TIPO B

PROJETO ESTRUTURAL

COORDENAÇÃO: CGEST - Coordenação Geral de Infra-estrutura

VIGAS BALDRAMES - PRANCHA 2

ES

DESENHO | REVISÃO R.01 JUL/2008 | ESCALA INDICADA | DATA EMISSÃO 13/03/2008 | PRANCHA 08/28