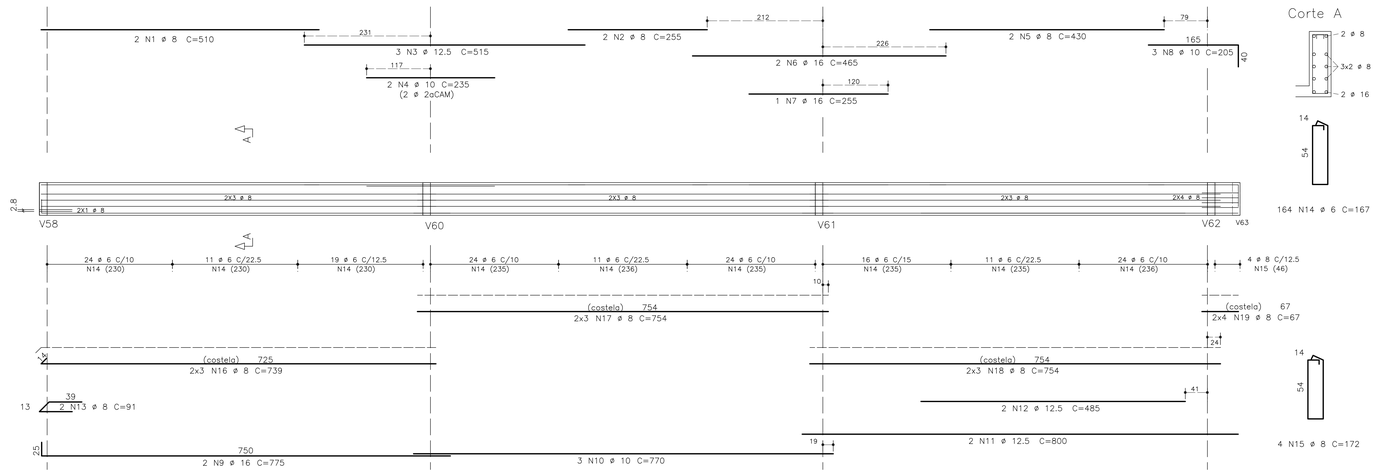
# ARMAÇÃO DE VIGAS DO PAV 0

## V39 20X60




Corte A

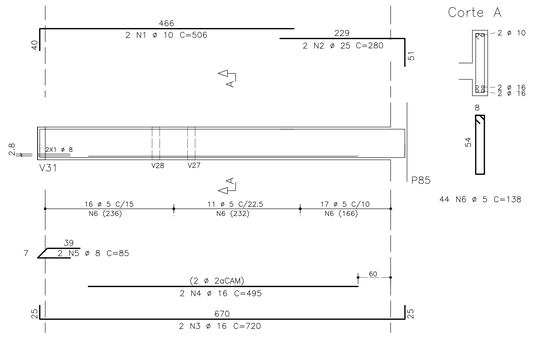



164 N14 ø 6 C=167




4 N15 ø 8 C=172

## V49 14X60

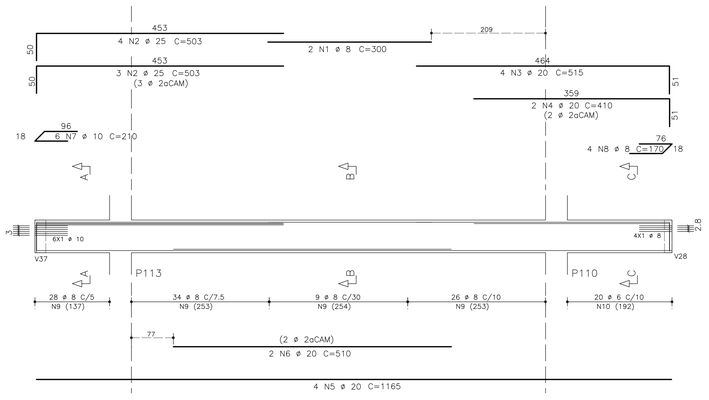



Corte A

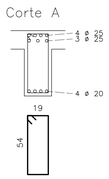



44 N6 ø 5 C=138

## V42 25X60

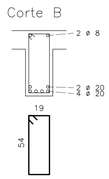



Corte A



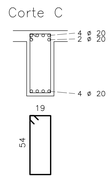

28 N9 ø 8 C=168

Corte B



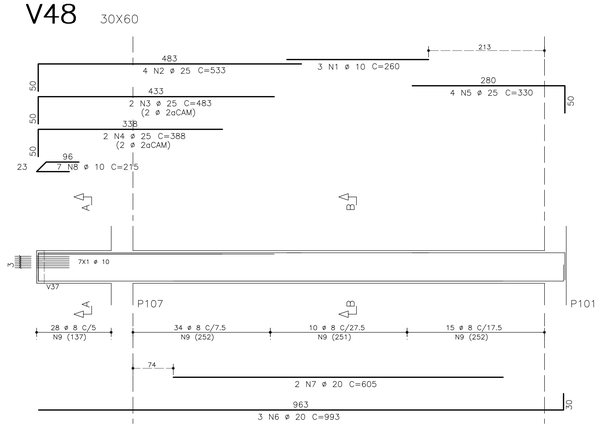

69 N9 ø 8 C=168

Corte C

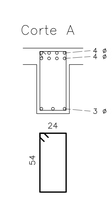



20 N10 ø 6 C=163

## V48 30X60

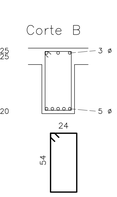



Corte A



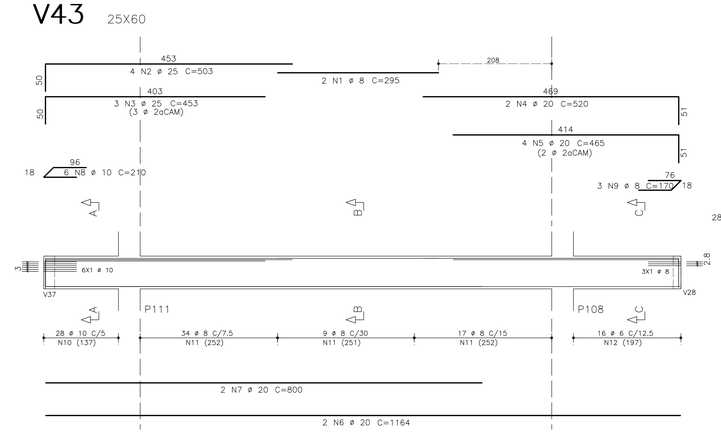

28 N9 ø 8 C=178

Corte B

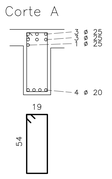



59 N9 ø 8 C=178

## V43 25X60

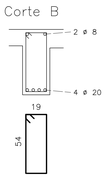



Corte A



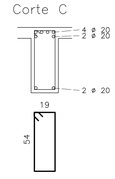

28 N10 ø 10 C=174

Corte B



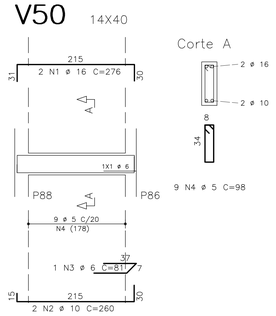

60 N11 ø 8 C=168

Corte C




16 N12 ø 6 C=163

## V50 14X40

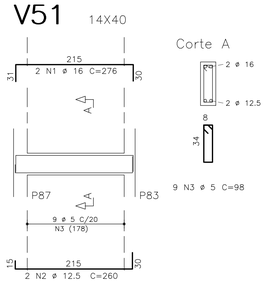



Corte A




9 N4 ø 5 C=98

## V51 14X40




Corte A




9 N3 ø 5 C=98

| | AÇO | POS | BIT (mm) | QUANT | COMPRIMENTO UNIT (cm) | COMPRIMENTO TOTAL (cm) |
|---|---|---|---|---|---|---|
| V39 | | | | | | |
| | 50 | 1 | 8 | 2 | 510 | 1020 |
| | 50 | 2 | 8 | 2 | 255 | 510 |
| | 50 | 3 | 12.5 | 3 | 515 | 1545 |
| | 50 | 4 | 10 | 2 | 235 | 470 |
| | 50 | 5 | 8 | 2 | 430 | 860 |
| | 50 | 6 | 16 | 2 | 465 | 930 |
| | 50 | 7 | 16 | 1 | 255 | 255 |
| | 50 | 8 | 10 | 3 | 205 | 615 |
| | 50 | 9 | 16 | 2 | 775 | 1550 |
| | 50 | 10 | 10 | 3 | 770 | 2310 |
| | 50 | 11 | 12.5 | 2 | 800 | 1600 |
| | 50 | 12 | 12.5 | 2 | 485 | 970 |
| | 50 | 13 | 8 | 2 | 91 | 182 |
| | 60 | 14 | 6 | 164 | 167 | 27388 |
| | 50 | 15 | 8 | 4 | 172 | 688 |
| | 50 | 16 | 8 | 6 | 739 | 4434 |
| | 50 | 17 | 8 | 6 | 754 | 4524 |
| | 50 | 18 | 8 | 6 | 754 | 4524 |
| | 50 | 19 | 8 | 8 | 67 | 536 |
| V42 | | | | | | |
| | 50 | 1 | 8 | 2 | 300 | 600 |
| | 50 | 2 | 25 | 7 | 503 | 3521 |
| | 50 | 3 | 20 | 4 | 515 | 2060 |
| | 50 | 4 | 20 | 2 | 410 | 820 |
| | 50 | 5 | 20 | 4 | 1165 | 4660 |
| | 50 | 6 | 20 | 2 | 510 | 1020 |
| | 50 | 7 | 10 | 6 | 210 | 1260 |
| | 50 | 8 | 8 | 4 | 170 | 680 |
| | 50 | 9 | 8 | 97 | 168 | 16296 |
| | 60 | 10 | 6 | 20 | 163 | 3260 |
| V43 | | | | | | |
| | 50 | 1 | 8 | 2 | 295 | 590 |
| | 50 | 2 | 25 | 4 | 503 | 2012 |
| | 50 | 3 | 25 | 3 | 453 | 1359 |
| | 50 | 4 | 20 | 2 | 520 | 1040 |
| | 50 | 5 | 20 | 4 | 465 | 1860 |
| | 50 | 6 | 20 | 2 | 1164 | 2328 |
| | 50 | 7 | 20 | 2 | 800 | 1600 |
| | 50 | 8 | 10 | 6 | 210 | 1260 |
| | 50 | 9 | 8 | 3 | 170 | 510 |
| | 50 | 10 | 10 | 28 | 174 | 4872 |
| | 50 | 11 | 8 | 60 | 168 | 10080 |
| | 60 | 12 | 6 | 16 | 163 | 2608 |
| V48 | | | | | | |
| | 50 | 1 | 10 | 3 | 260 | 780 |
| | 50 | 2 | 25 | 4 | 533 | 2132 |
| | 50 | 3 | 25 | 2 | 483 | 966 |
| | 50 | 4 | 25 | 2 | 388 | 776 |
| | 50 | 5 | 25 | 4 | 330 | 1320 |
| | 50 | 6 | 20 | 3 | 993 | 2979 |
| | 50 | 7 | 20 | 2 | 605 | 1210 |
| | 50 | 8 | 10 | 7 | 215 | 1505 |
| | 50 | 9 | 8 | 87 | 178 | 15486 |
| V49 | | | | | | |
| | 50 | 1 | 10 | 2 | 506 | 1012 |
| | 50 | 2 | 25 | 2 | 280 | 560 |
| | 50 | 3 | 16 | 2 | 720 | 1440 |
| | 50 | 4 | 16 | 2 | 495 | 990 |
| | 50 | 5 | 8 | 2 | 85 | 170 |
| | 60 | 6 | 5 | 44 | 138 | 6072 |
| V50 | | | | | | |
| | 50 | 1 | 16 | 2 | 276 | 552 |
| | 50 | 2 | 10 | 2 | 260 | 520 |
| | 60 | 3 | 6 | 1 | 81 | 81 |
| | 60 | 4 | 5 | 9 | 98 | 882 |
| V51 | | | | | | |
| | 50 | 1 | 16 | 2 | 276 | 552 |
| | 50 | 2 | 12.5 | 2 | 260 | 520 |
| | 60 | 3 | 5 | 9 | 98 | 882 |

RESUMO AÇO CA 50-60

| AÇO | BIT (mm) | COMPR (m) | PESO (kg) |
|---|---|---|---|
| 60 | 5 | 78 | 13 |
| 60 | 6 | 333 | 74 |
| 50 | 8 | 617 | 247 |
| 50 | 10 | 146 | 92 |
| 50 | 12.5 | 46 | 71 |
| 50 | 16 | 63 | 100 |
| 50 | 20 | 196 | 489 |
| 50 | 25 | 126 | 506 |
| Peso Total | 60 = | | 87 kg |
| Peso Total | 50 = | | 1481 kg |

REPRESENTANTE LEGAL: GUSTAVO F. R. COELHO
CIC Nº 365.873.624-00

RUI NUNES REGO FILHO
ENGENHEIRO CIVIL - CREA 2105077943

RESPONSÁVEL PELA OBRA

**UNIVERSIDADE FEDERAL DO RIO GRANDE DO NORTE**
**Superintendência de Infra-estrutura**

| SUPERINTENDENTE | CIC Nº |
|---|---|
| ENG. GUSTAVO FERNANDES ROSADO COELHO | 365.873.624-00 |
| AUTOR DO PROJETO | CREA Nº |
| RUI NUNES REGO FILHO | 2105077943 |

PROJETO: ESTRUTURAL - CONCRETO ARMADO

LOCAL: CAMPUS CENTRAL DA UFRN - AV. SEN. SALGADO FILHO - 3000 - 59078-970 - NATAL - RN

OBRA: INSTITUTO DO CÉREBRO

ASSUNTO: ARMAÇÃO DE VIGAS DO PAV 0

| DATA | ESCALA(S) | Resistência Característica à Compressão do Concreto | PRANCHA Nº |
|---|---|---|---|
| 27/08/2014 | 1:50 | Fck = 30 MPa | 53/144 |

OBSERVAÇÕES
INFORMAÇÕES TÉCNICAS:
MÓDULO DE ELASTICIDADE SECANTE DO CONCRETO: 26071 MPa
AÇO: CA-50A / 60B
DÚVIDAS SOBRE O PROJETO: CONTATE O(A) ENGENHEIRO(A) - UFRN/SIN - TEL.: 3215 3162

DIREITOS AUTORAIS RESERVADOS - PROIBIDA QUALQUER MODIFICAÇÃO OU REPRODUÇÃO NO TODO OU EM PARTE, SEM PRÉVIO CONSENTIMENTO DO AUTOR, DE ACORDO COM A LEI FEDERAL 9.610/98.

| Plotagem | |
|---|---|
| Esc.: | 1/100 |
| Penas | |
| 1=0.15 | **6=0.45** |
| 2=0.25 | 7=0.25 |
| 3=0.25 | 8=0.25 |
| 4=0.25 | 9=0.25 |
| 5=0.25 | 10=0.25 |

PR-97x70