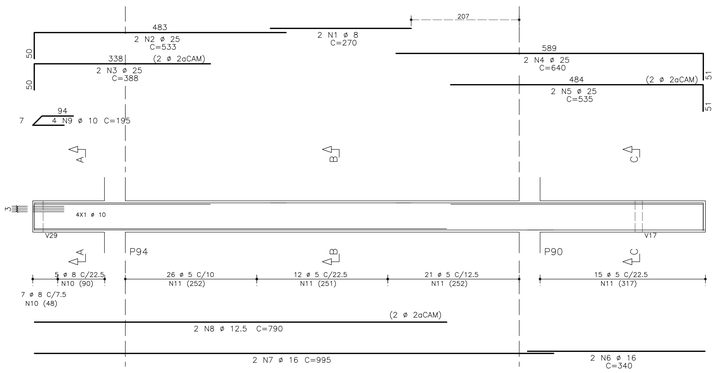
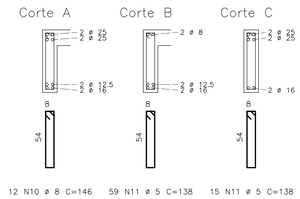
# ARMAÇÃO DE VIGAS DO PAV +1

## V50 14X60

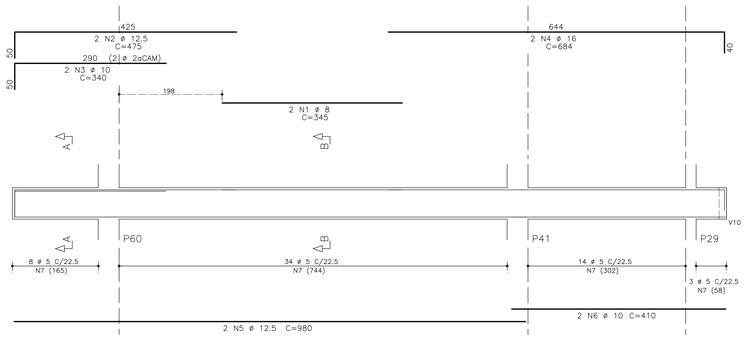



Corte A Corte B Corte C

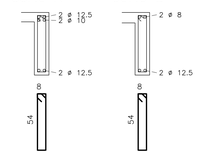



12 N10 ø 8 C=146 59 N11 ø 5 C=138 15 N11 ø 5 C=138

## V52 14X60

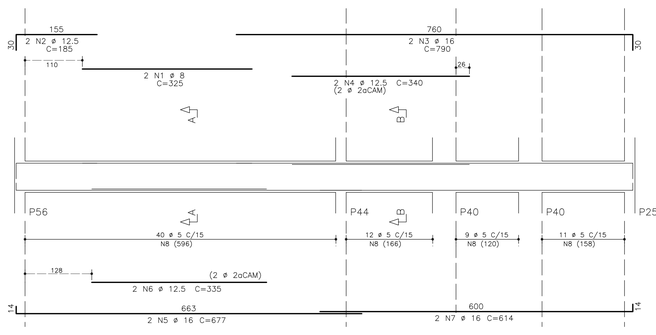



Corte A Corte B

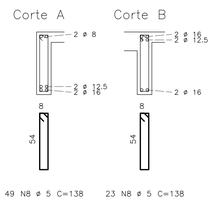



8 N7 ø 5 C=138 51 N7 ø 5 C=138

## V54 14X60

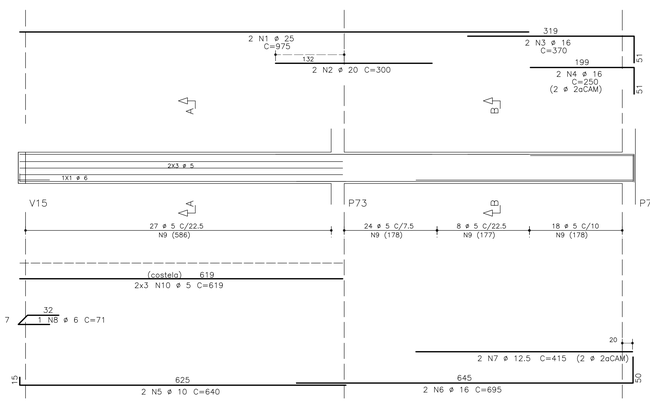



Corte A Corte B

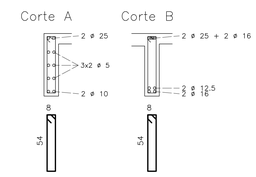



49 N8 ø 5 C=138 23 N8 ø 5 C=138

## V60 14X60

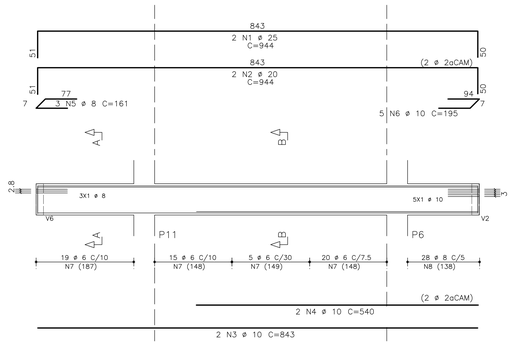



Corte A Corte B

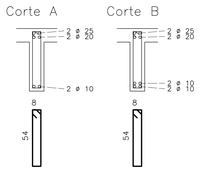



27 N9 ø 5 C=138 50 N9 ø 5 C=138

## V68 14X60

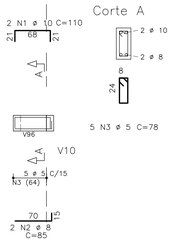



Corte A Corte B

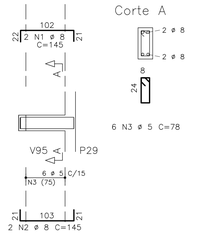



19 N7 ø 6 C=141 40 N7 ø 6 C=141 28 N8 ø 8 C=146

## V95 14X30




## V96 14X30




| | AÇO | POS | BIT (mm) | QUANT | COMPRIMENTO UNIT (cm) | COMPRIMENTO TOTAL (cm) |
|---|---|---|---|---|---|---|
| V50 | | | | | | |
| | 50 | 1 | 8 | 2 | 270 | 540 |
| | 50 | 2 | 25 | 2 | 533 | 1066 |
| | 50 | 3 | 25 | 2 | 388 | 776 |
| | 50 | 4 | 25 | 2 | 640 | 1280 |
| | 50 | 5 | 25 | 2 | 535 | 1070 |
| | 50 | 6 | 16 | 2 | 340 | 680 |
| | 50 | 7 | 16 | 2 | 995 | 1990 |
| | 50 | 8 | 12.5 | 2 | 790 | 1580 |
| | 50 | 9 | 10 | 4 | 195 | 780 |
| | 50 | 10 | 8 | 12 | 146 | 1752 |
| | 60 | 11 | 5 | 74 | 138 | 10212 |
| V52 | | | | | | |
| | 50 | 1 | 8 | 2 | 345 | 690 |
| | 50 | 2 | 12.5 | 2 | 475 | 950 |
| | 50 | 3 | 10 | 2 | 340 | 680 |
| | 50 | 4 | 16 | 2 | 684 | 1368 |
| | 50 | 5 | 12.5 | 2 | 980 | 1960 |
| | 50 | 6 | 10 | 2 | 410 | 820 |
| | 60 | 7 | 5 | 59 | 138 | 8142 |
| V54 | | | | | | |
| | 50 | 1 | 8 | 2 | 325 | 650 |
| | 50 | 2 | 12.5 | 2 | 185 | 370 |
| | 50 | 3 | 16 | 2 | 790 | 1580 |
| | 50 | 4 | 12.5 | 2 | 340 | 680 |
| | 50 | 5 | 16 | 2 | 677 | 1354 |
| | 50 | 6 | 12.5 | 2 | 335 | 670 |
| | 50 | 7 | 16 | 2 | 614 | 1228 |
| | 60 | 8 | 5 | 72 | 138 | 9936 |
| V60 | | | | | | |
| | 50 | 1 | 25 | 2 | 975 | 1950 |
| | 50 | 2 | 20 | 2 | 300 | 600 |
| | 50 | 3 | 16 | 2 | 370 | 740 |
| | 50 | 4 | 16 | 2 | 250 | 500 |
| | 50 | 5 | 10 | 2 | 640 | 1280 |
| | 50 | 6 | 16 | 2 | 695 | 1390 |
| | 50 | 7 | 12.5 | 2 | 415 | 830 |
| | 60 | 8 | 6 | 1 | 71 | 71 |
| | 60 | 9 | 5 | 77 | 138 | 10626 |
| | 60 | 10 | 5 | 6 | 619 | 3714 |
| V68 | | | | | | |
| | 50 | 1 | 25 | 2 | 944 | 1888 |
| | 50 | 2 | 20 | 2 | 944 | 1888 |
| | 50 | 3 | 10 | 2 | 843 | 1686 |
| | 50 | 4 | 10 | 2 | 540 | 1080 |
| | 50 | 5 | 8 | 3 | 161 | 483 |
| | 50 | 6 | 10 | 5 | 195 | 975 |
| | 60 | 7 | 6 | 59 | 141 | 8319 |
| | 50 | 8 | 8 | 28 | 146 | 4088 |
| V95 | | | | | | |
| | 50 | 1 | 10 | 2 | 110 | 220 |
| | 50 | 2 | 8 | 2 | 85 | 170 |
| | 60 | 3 | 5 | 5 | 78 | 390 |
| V96 | | | | | | |
| | 50 | 1 | 8 | 2 | 145 | 290 |
| | 50 | 2 | 8 | 2 | 145 | 290 |
| | 60 | 3 | 5 | 6 | 78 | 468 |

| RESUMO AÇO CA 50-60 | | | |
|---|---|---|---|
| AÇO | BIT (mm) | COMPR (m) | PESO (kg) |
| 60 | 5 | 435 | 70 |
| 60 | 6 | 84 | 19 |
| 50 | 8 | 90 | 36 |
| 50 | 10 | 75 | 47 |
| 50 | 12,5 | 70 | 70 |
| 50 | 16 | 108 | 173 |
| 50 | 20 | 25 | 62 |
| 50 | 25 | 80 | 321 |
| Peso Total | 60 = | | 88 kg |
| Peso Total | 50 = | | 710 kg |

| 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 |

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: ENG. GUSTAVO FERNANDES ROSADO COELHO | CIC Nº: 365.873.624-00 |
| AUTOR DO PROJETO: RUI NUNES REGO FILHO | CREA Nº: 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 +1

| DATA | ESCALA(S) | Resistência Característica à Compressão do Concreto | PRANCHA Nº |
|---|---|---|---|
| 27/08/2014 | 1:50 | Fck = 30 MPa | 70/144 |

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.

PR-97x70