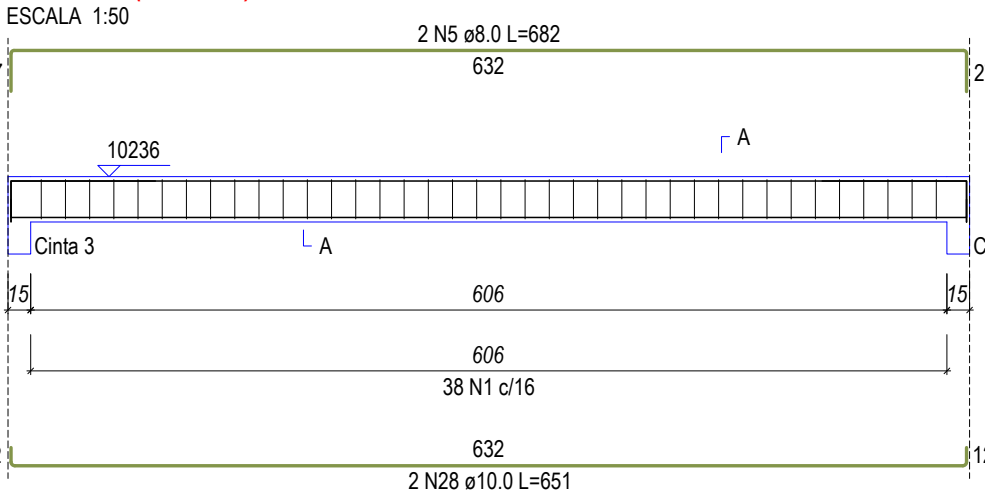
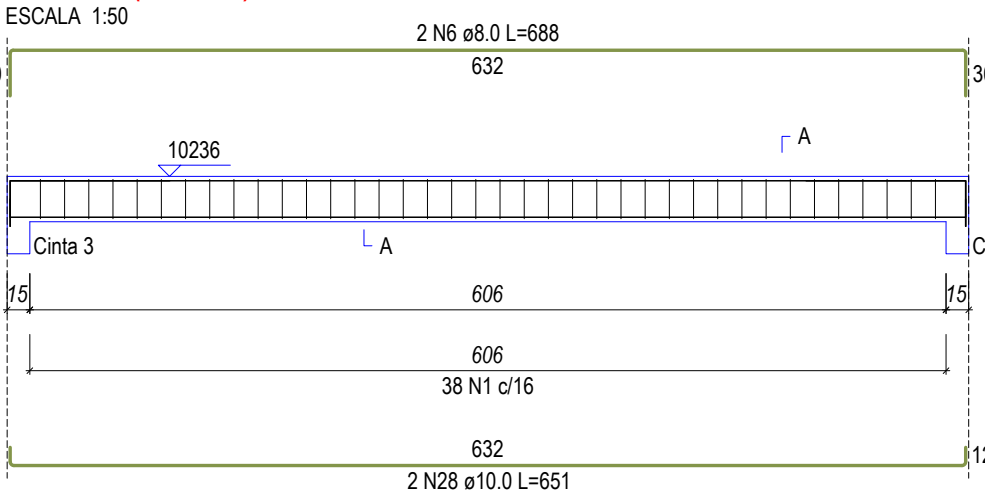


COBERTURA - DETALHAMENTO DAS VIGAS

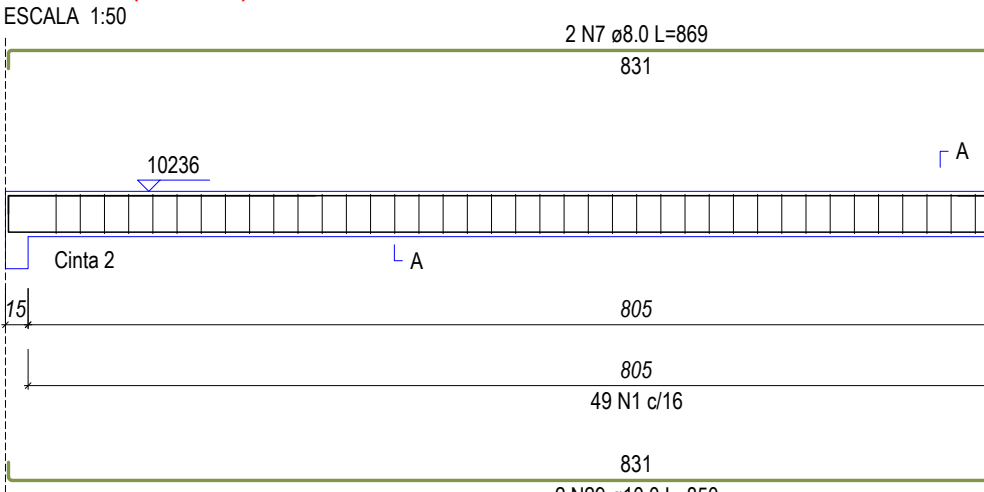
CINTA 1 (15 x 30)



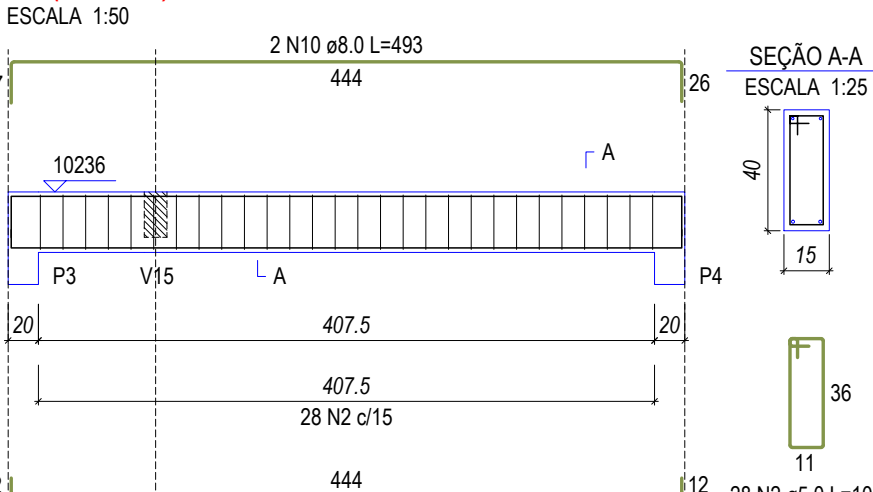
CINTA 2 (15 x 30)



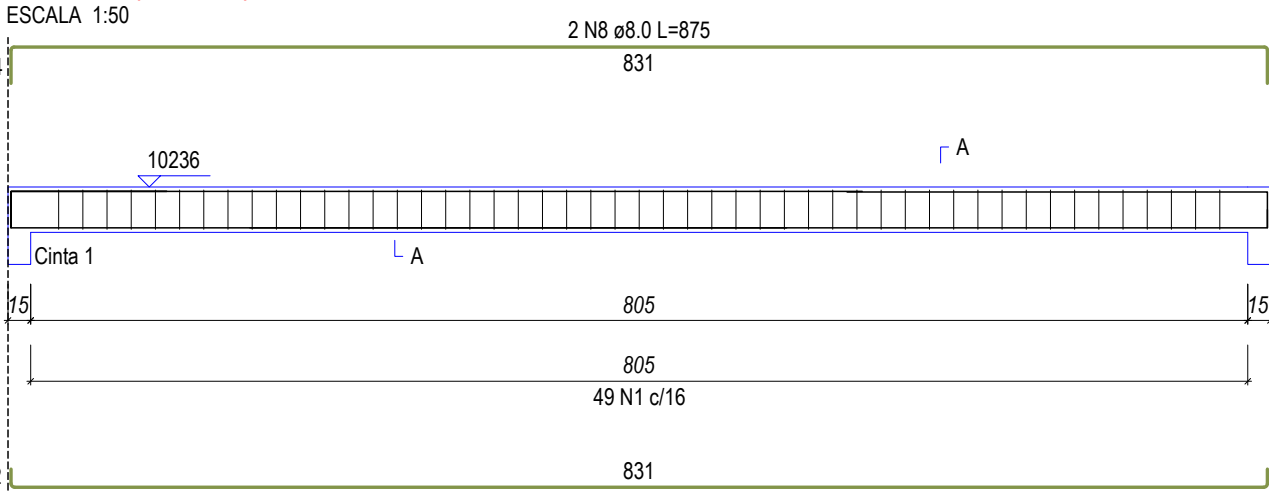
CINTA 3 (15 x 30)



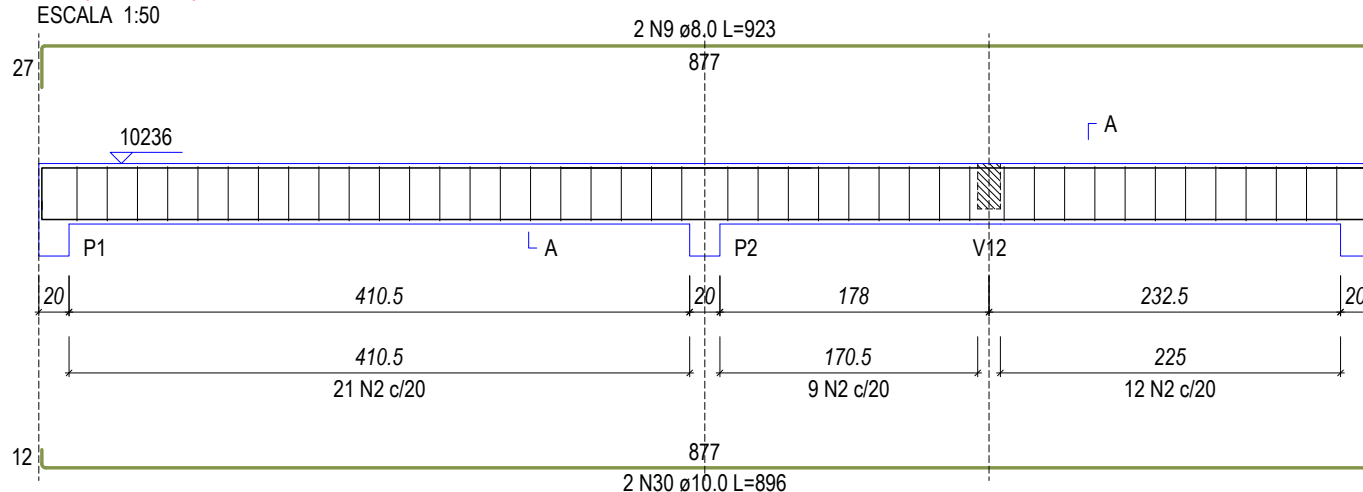
V2 (15 x 40)



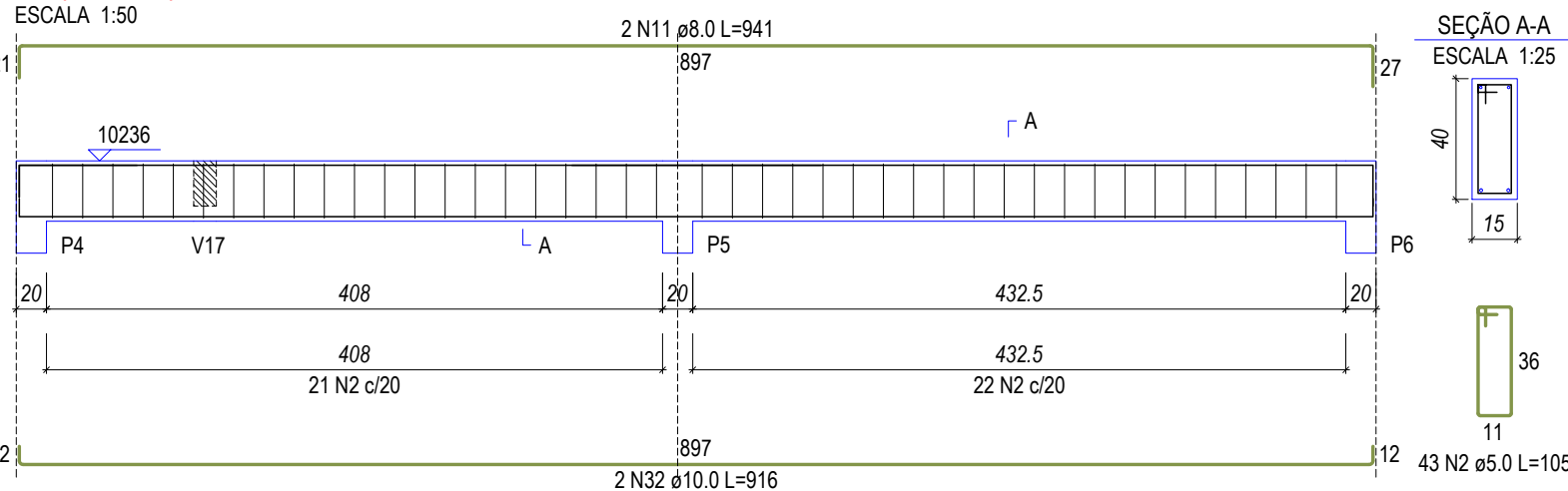
CINTA 4 (15 x 30)



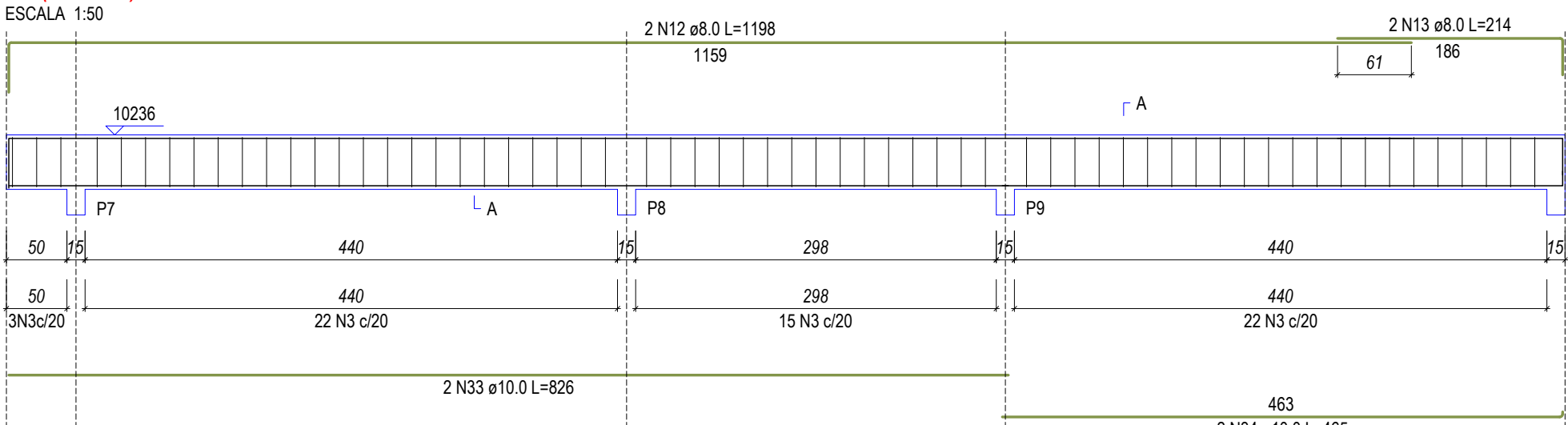
V1 (15 x 40)



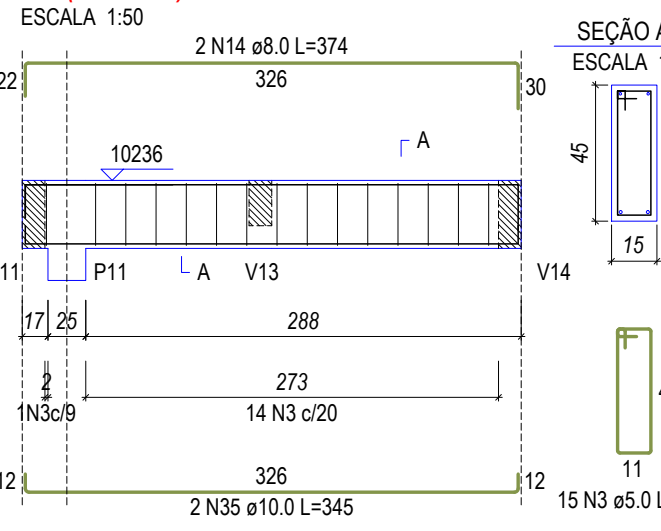
V3 (15 x 40)



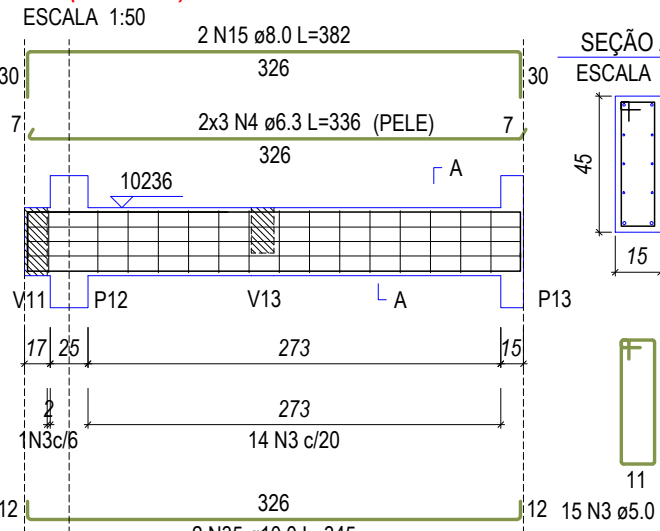
V4 (15 x 45)



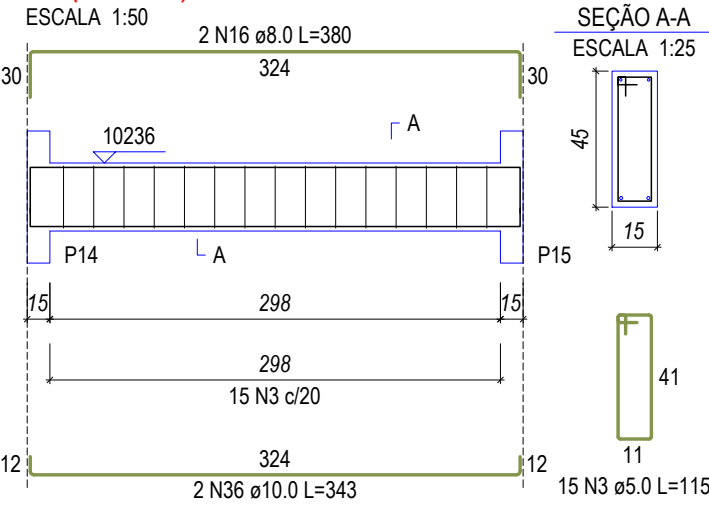
V5 (15 x 45)



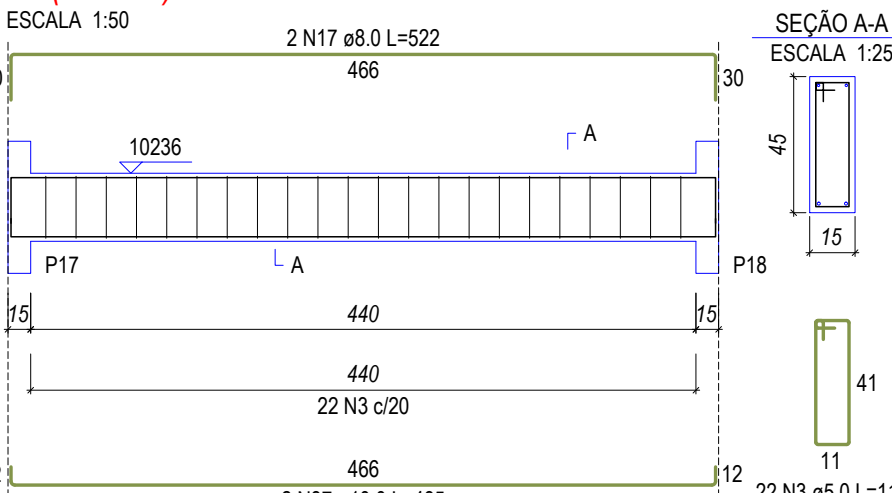
V6 (15 x 45)



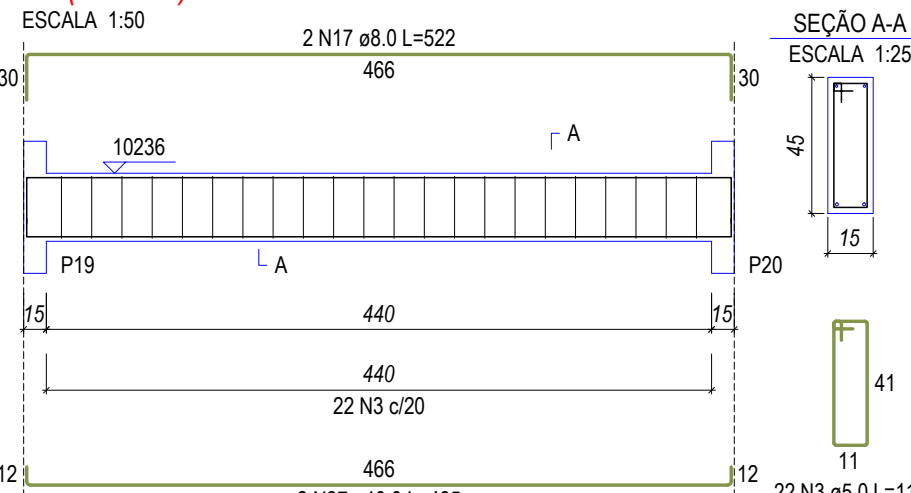
V7 (15 x 45)



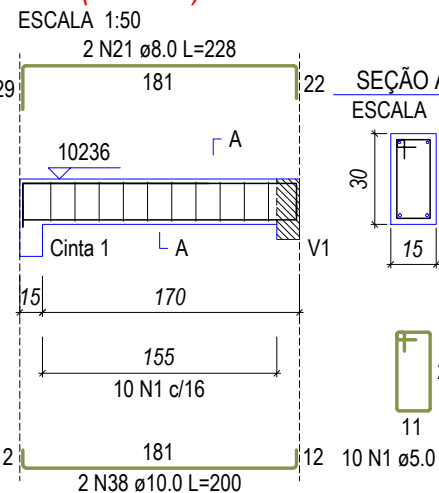
V8 (15 x 45)



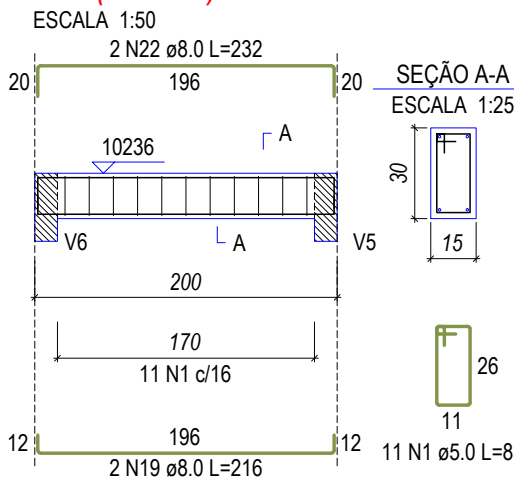
V9 (15 x 45)



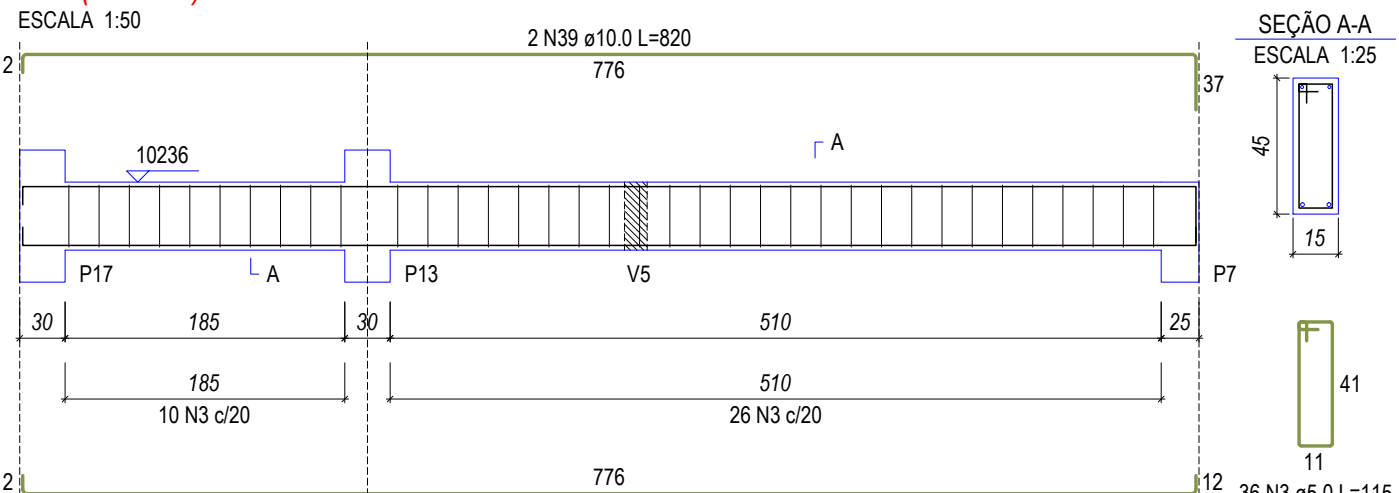
V12 (15 x 30)



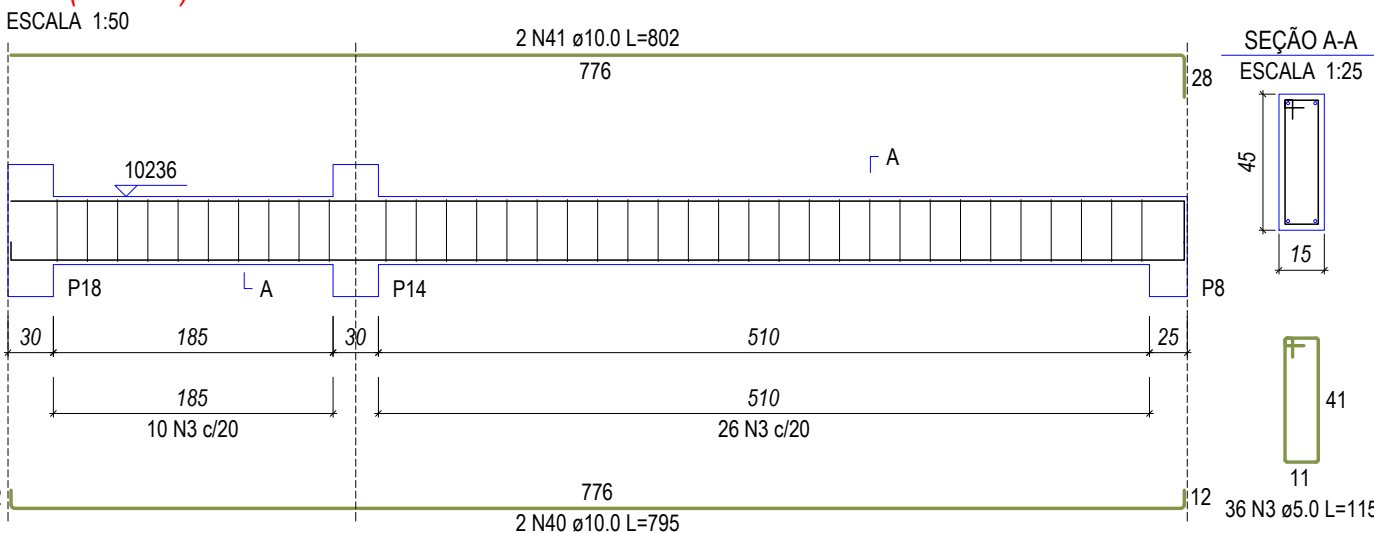
V13 (15 x 30)



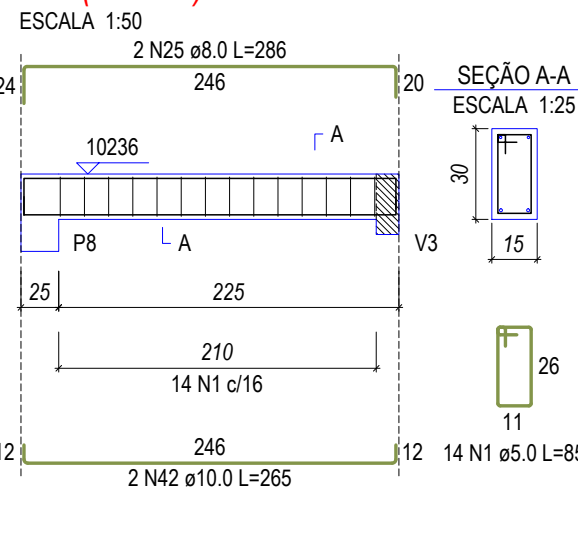
V14 (15 x 45)



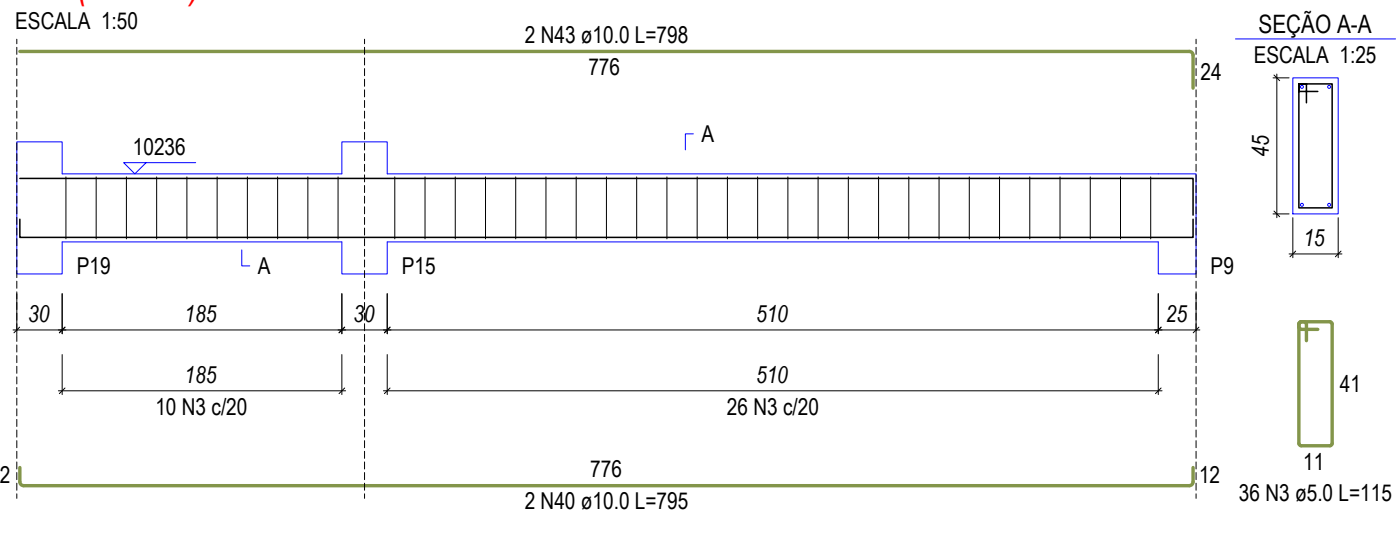
V16 (15 x 45)



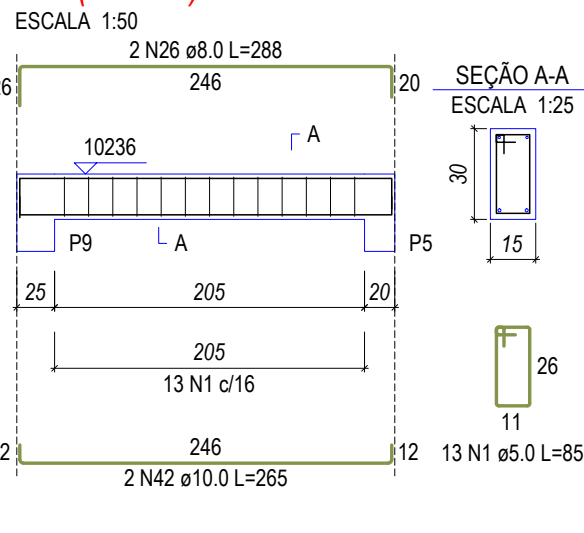
V17 (15 x 30)



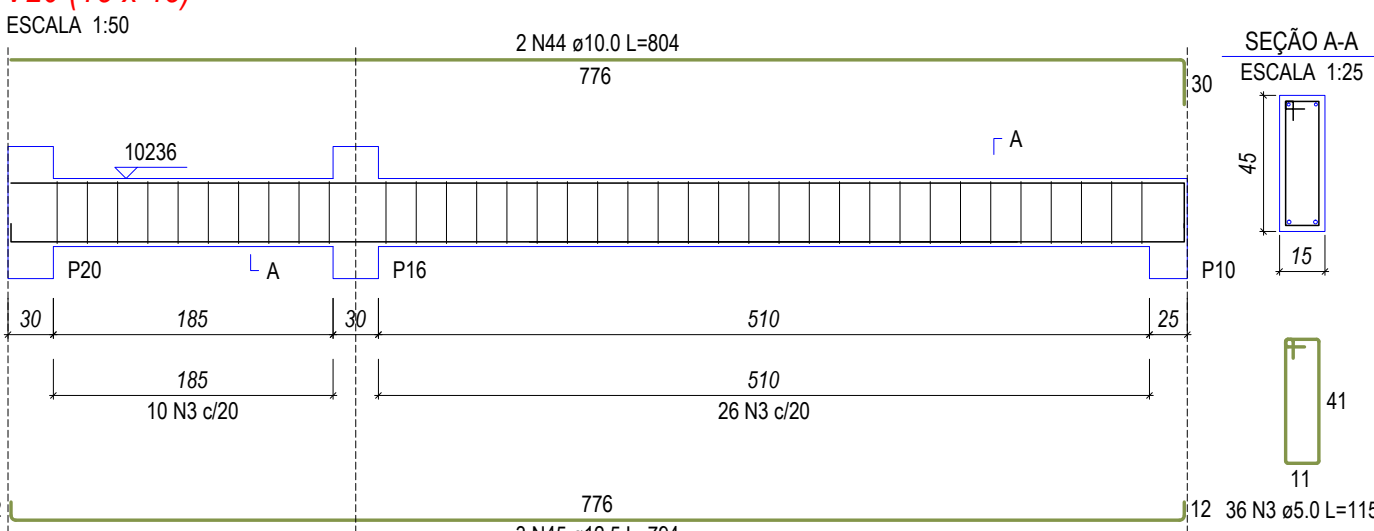
V18 (15 x 45)



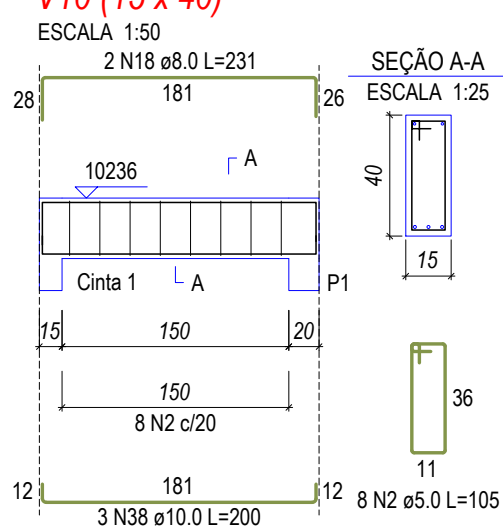
V19 (15 x 30)



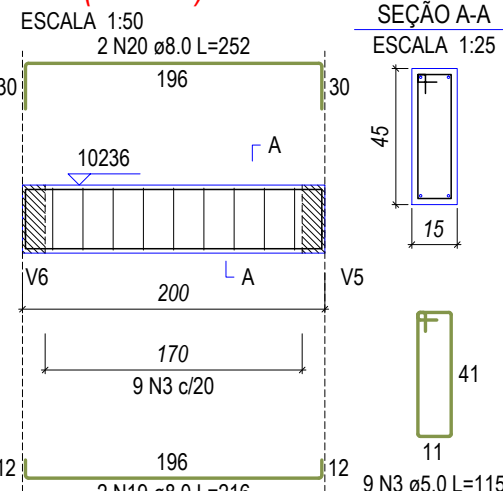
V20 (15 x 45)



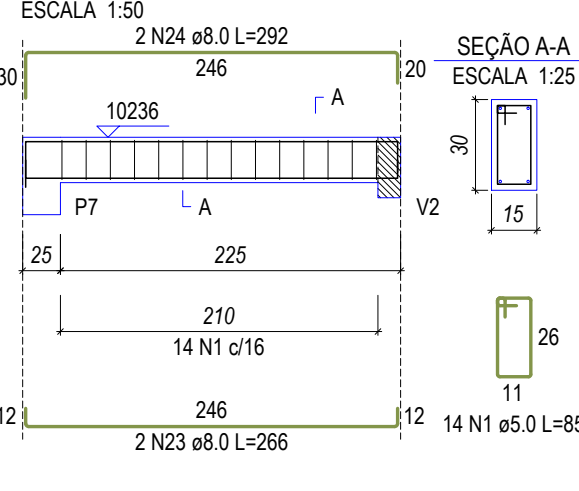
V10 (15 x 40)



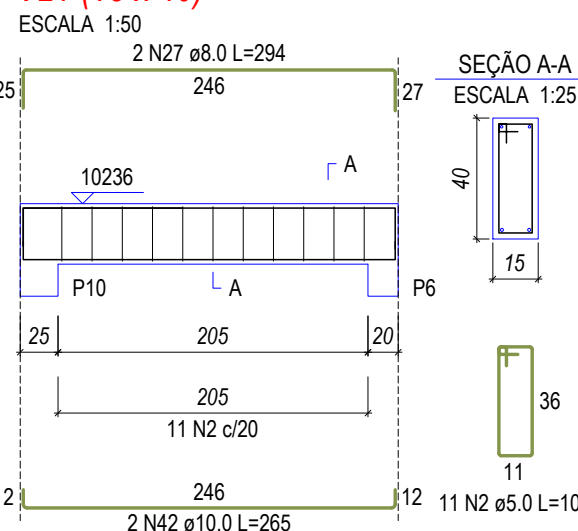
V11 (15 x 45)



V15 (15 x 30)



V21 (15 x 40)



| RESUMO DO AÇO   |           |                                     |                     |                |
|-----------------|-----------|-------------------------------------|---------------------|----------------|
| AÇO             | DIAM (mm) | C.TOTAL (m)                         | QUANT + 0% (Barras) | PESO + 0% (kg) |
| CA50            | 6.3       | 20.2                                | 2                   | 4.9            |
|                 | 8.0       | 237.3                               | 20                  | 93.6           |
|                 | 10.0      | 293.6                               | 25                  | 181            |
| CA60            | 12.5      | 39.7                                | 4                   | 38.2           |
|                 | 5.0       | 688.8                               | 58                  | 106.2          |
| PESO TOTAL (kg) |           | Volume de concreto (C-25) = 7.16 m³ |                     |                |
| CA50            | 317.8     | Área de forma = 124.77 m²           |                     |                |
| CA60            | 106.2     |                                     |                     |                |

| RELAÇÃO DO AÇO |         |           |         |             |              |
|----------------|---------|-----------|---------|-------------|--------------|
| CINTA 1        | CINTA 2 | CINTA 3   | CINTA 4 | V1          | V2           |
| V3             | V4      | V5        | V6      | V7          | V8           |
| V9             | V10     | V11       | V12     | V13         | V14          |
| V15            | V16     | V17       | V18     | V19         | V20          |
| V21            |         |           |         |             |              |
| AÇO            | N       | DIAM (mm) | QUANT   | C.UNIT (cm) | C.TOTAL (cm) |
| CA60           | 1       | 5.0       | 236     | 85          | 20060        |
|                | 2       | 5.0       | 105     | 105         | 13860        |
| CA50           | 3       | 5.0       | 304     | 115         | 34960        |
|                | 4       | 6.3       | 6       | 336         | 2016         |
|                | 5       | 8.0       | 2       | 682         | 1364         |
|                | 6       | 8.0       | 2       | 688         | 1376         |
|                | 7       | 8.0       | 2       | 869         | 1738         |
|                | 8       | 8.0       | 2       | 875         | 1750         |
|                | 9       | 8.0       | 2       | 923         | 1846         |
|                | 10      | 8.0       | 2       | 493         | 986          |
|                | 11      | 8.0       | 2       | 941         | 1882         |
|                | 12      | 8.0       | 2       | 1198        | 2396         |
|                | 13      | 8.0       | 2       | 214         | 428          |
|                | 14      | 8.0       | 2       | 374         | 748          |
|                | 15      | 8.0       | 2       | 382         | 764          |
|                | 16      | 8.0       | 2       | 380         | 760          |
|                | 17      | 8.0       | 4       | 522         | 2088         |
|                | 18      | 8.0       | 2       | 231         | 462          |
|                | 19      | 8.0       | 4       | 216         | 864          |
|                | 20      | 8.0       | 2       | 252         | 504          |
|                | 21      | 8.0       | 2       | 228         | 456          |
|                | 22      | 8.0       | 2       | 232         | 464          |
|                | 23      | 8.0       | 2       | 266         | 532          |
|                | 24      | 8.0       | 2       | 292         | 584          |
|                | 25      | 8.0       | 2       | 286         | 572          |
|                | 26      | 8.0       | 2       | 288         | 576          |
|                | 27      | 8.0       | 2       | 294         | 588          |
|                | 28      | 10.0      | 4       | 651         | 2604         |
|                | 29      | 10.0      | 4       | 850         | 3400         |
|                | 30      | 10.0      | 2       | 896         | 1792         |
|                | 31      | 10.0      | 2       | 463         | 926          |
|                | 32      | 10.0      | 2       | 916         | 1832         |
|                | 33      | 10.0      | 2       | 826         | 1652         |
|                | 34      | 10.0      | 2       | 465         | 930          |
|                | 35      | 10.0      | 4       | 345         | 1380         |
|                | 36      | 10.0      | 2       | 343         | 686          |
|                | 37      | 10.0      | 4       | 485         | 1940         |
|                | 38      | 10.0      | 5       | 200         | 1000         |
|                | 39      | 10.0      | 2       | 820         | 1640         |
|                | 40      | 10.0      | 4       | 795         | 3180         |
|                | 41      | 10.0      | 2       | 802         | 1604         |
|                | 42      | 10.0      | 6       | 265         | 1590         |
|                | 43      | 10.0      | 2       | 798         | 1596         |
|                | 44      | 10.0      | 2       | 804         | 1608         |
|                | 45      | 12.5      | 5       | 794         | 3970         |



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EMEF ERLINDA MINÓGGIO VINADÉ

RUA JORDÂNIA, Nº 133 - BAIRRO SÃO JOÃO - SANTA MARIA - RS

PROJETO ESTRUTURAL - REFEITÓRIO  
DETALHAMENTO DAS VIGAS DA COBERTURA E PLATIBANDA

| PROPRIETÁRIA / SECRETARIA GESTORA   |                                  | PROJETISTA / RESPONSÁVEL TÉCNICO             |                                 |
|-------------------------------------|----------------------------------|--|---------------------------------|
| PREFEITURA MUNICIPAL DE SANTA MARIA |                                  | Eng. Civil Regis C. Moraes<br>CREA/RS 93.278 |                                 |
| ÁREA                                | DESENHO ORIGINAL                 | A.R.T.                                       | PRANCHA<br><br><div>21/22</div> |
| ESCALA                              | AJUSTES                          |  |                                 |
| UNIDADES                            | Regis Moraes<br>Engenheiro Civil | DATA   |                                 |
| CENTÍMETROS                         |                                  | JUNHO/2024                                   |                                 |
| ARQUIVO                             |                                  |  |                                 |