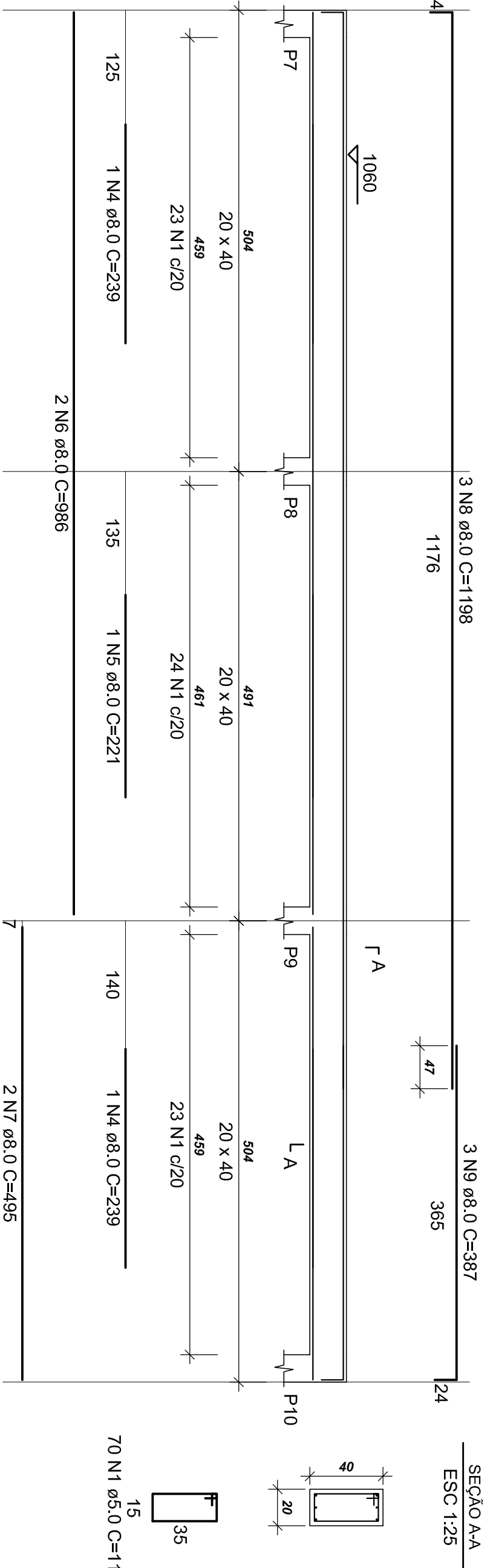
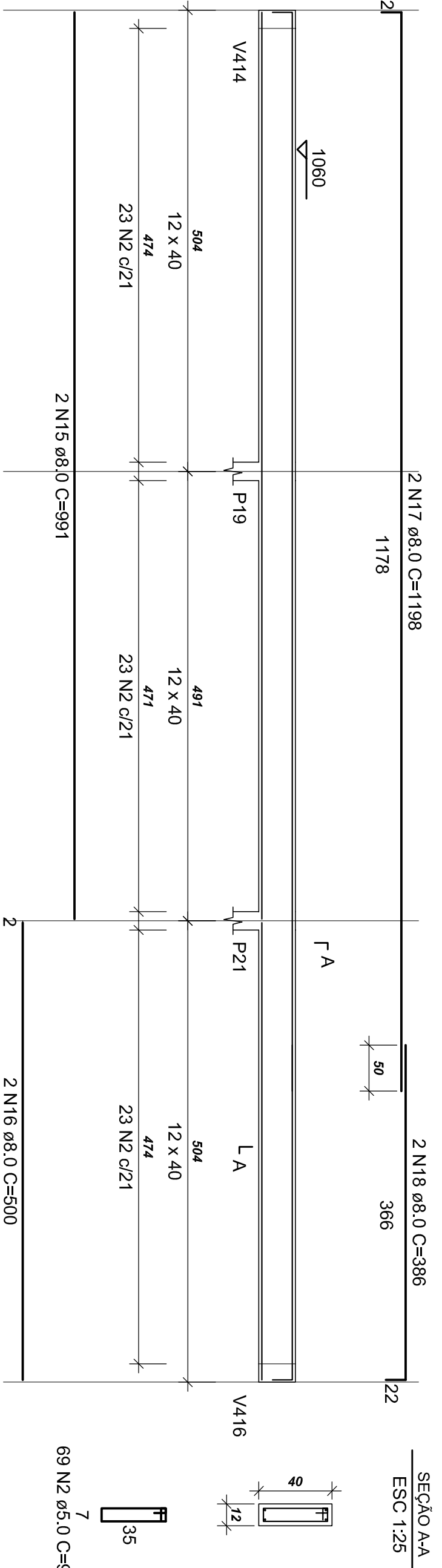


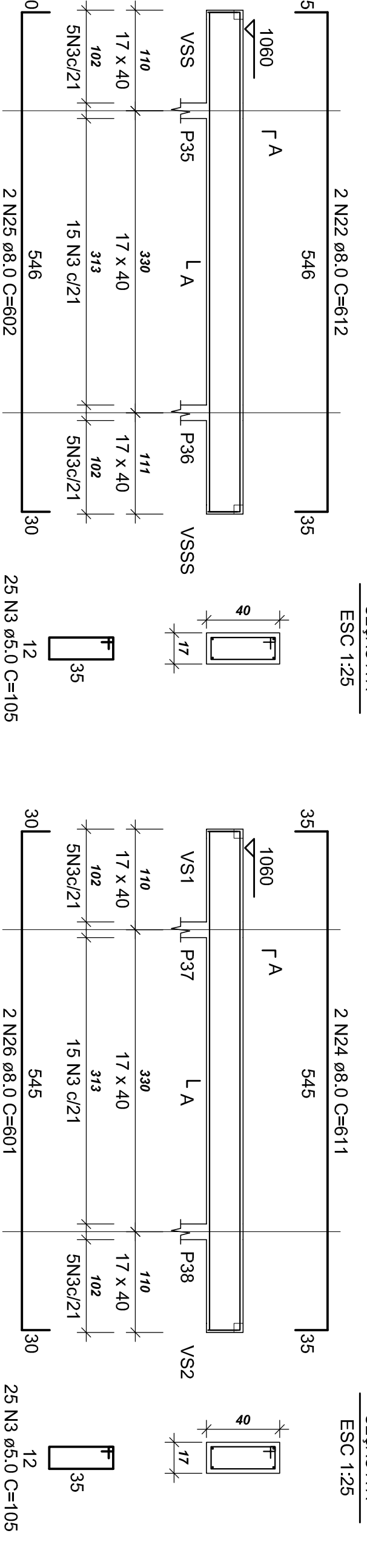
V401 (20 x 40)



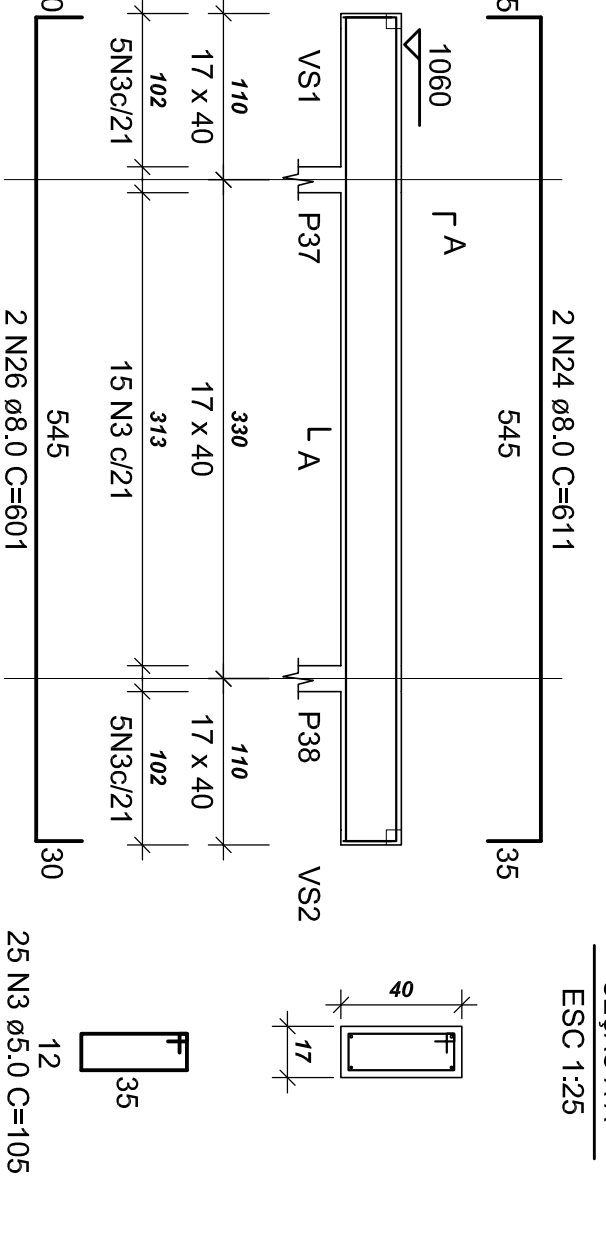
V403 (12 x 40)



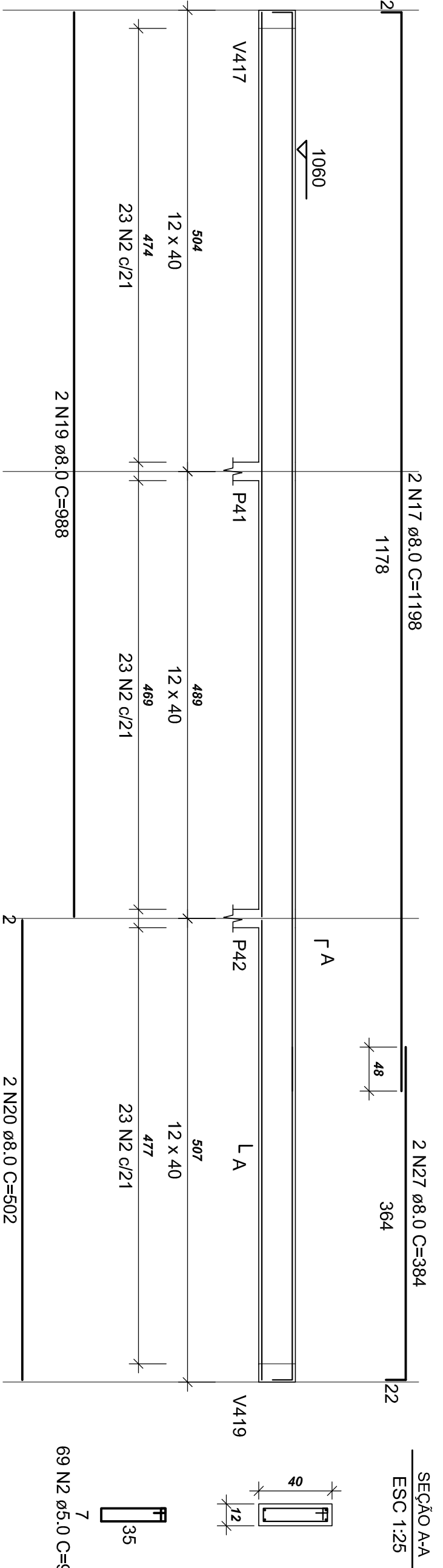
V407 (17 x 40)



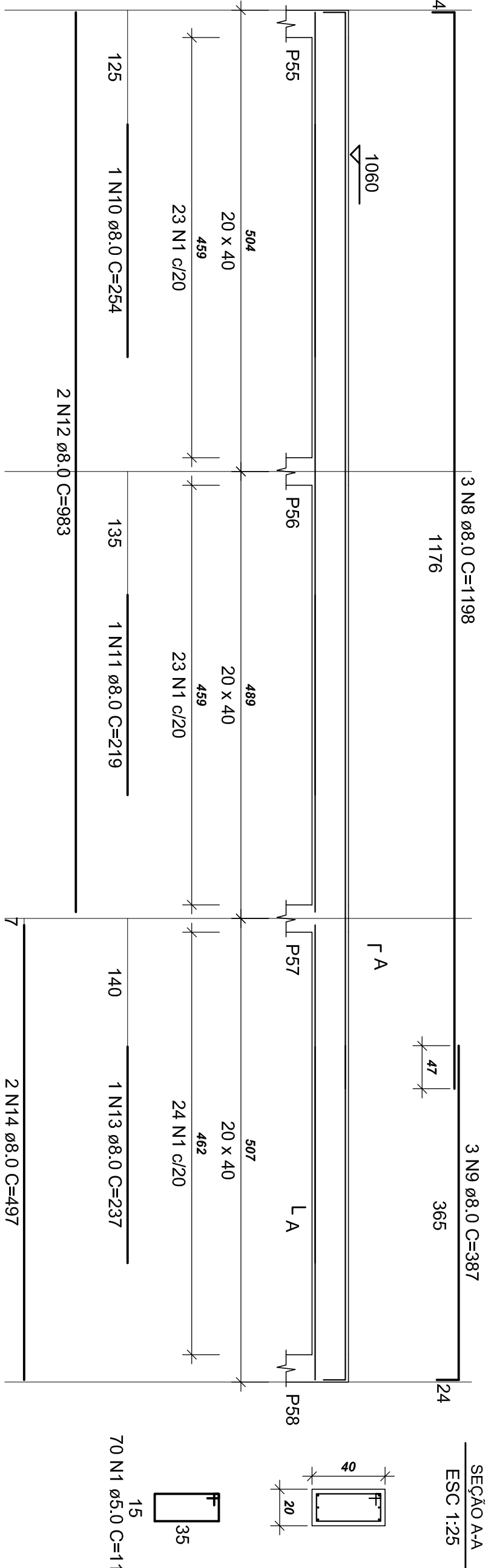
V408 (17 x 40)



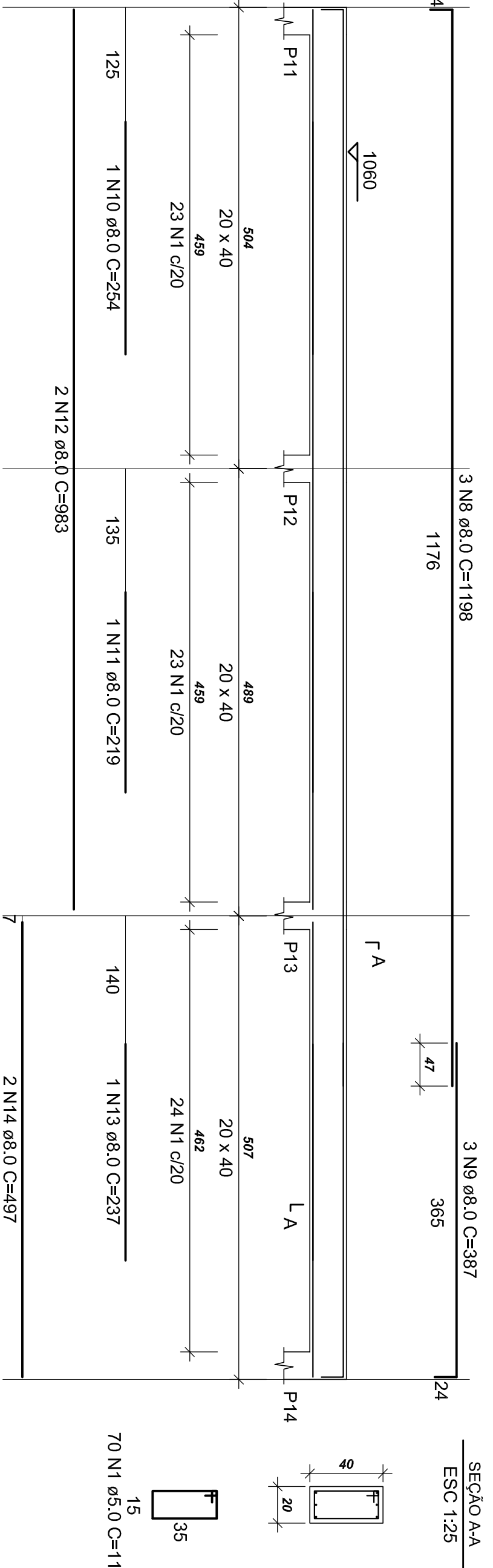
V410 (12 x 40)



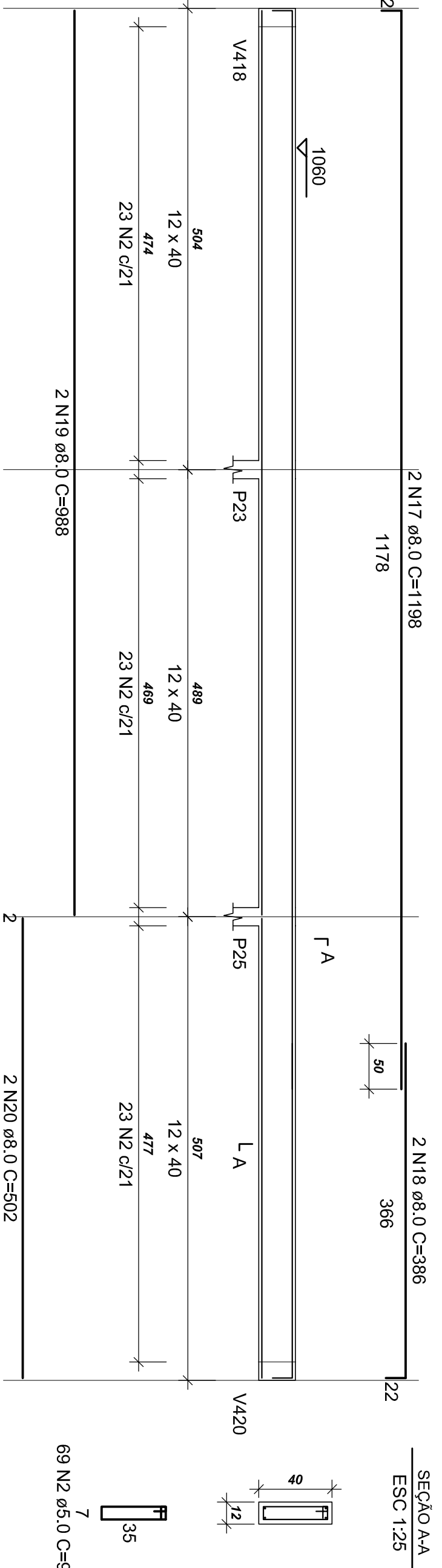
V412 (20 x 40)



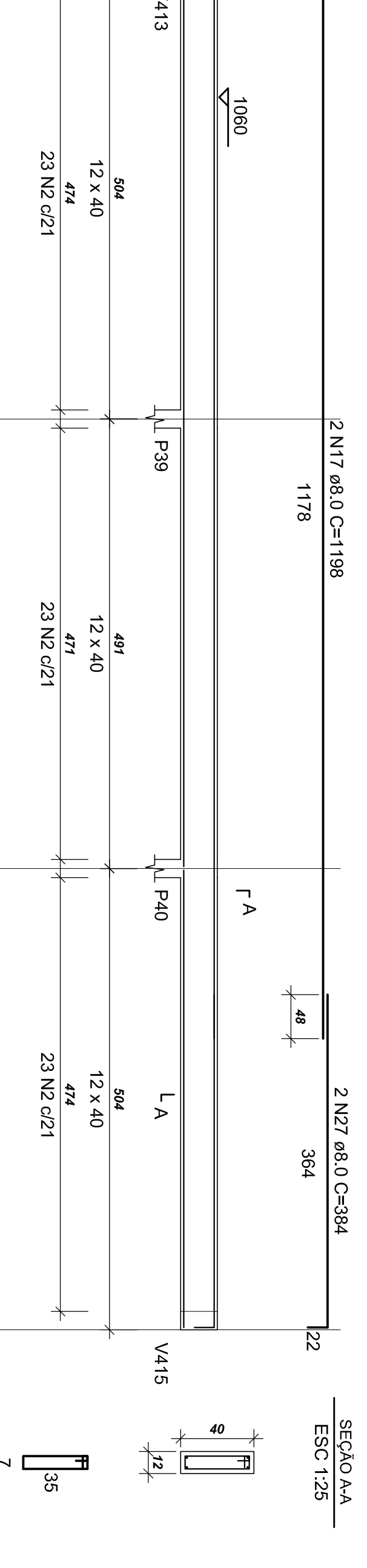
V420 (20 x 40)



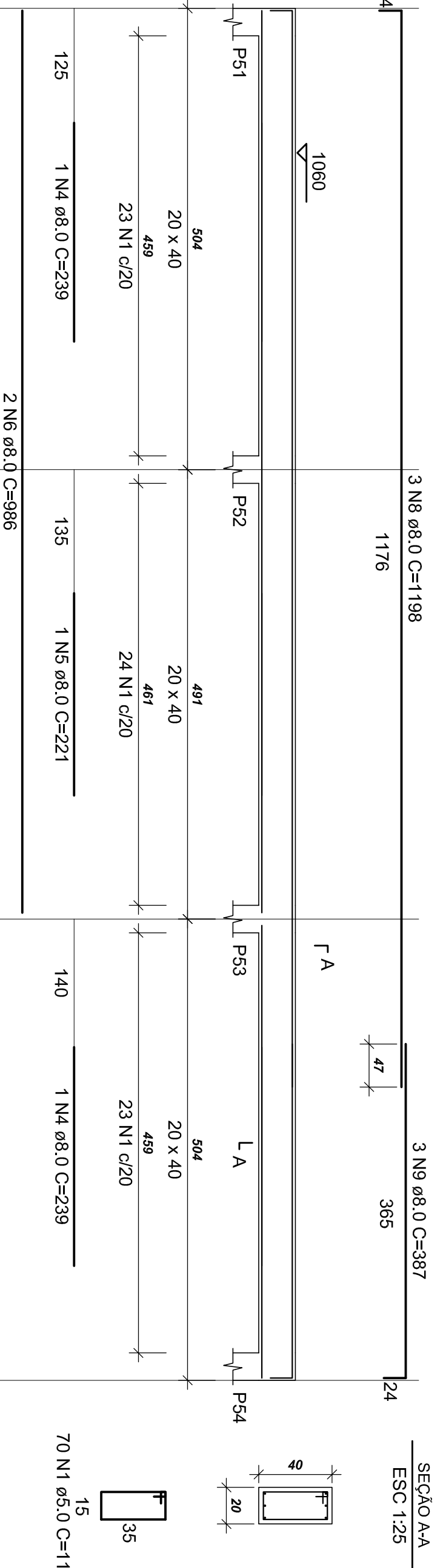
V404 (12 x 40)



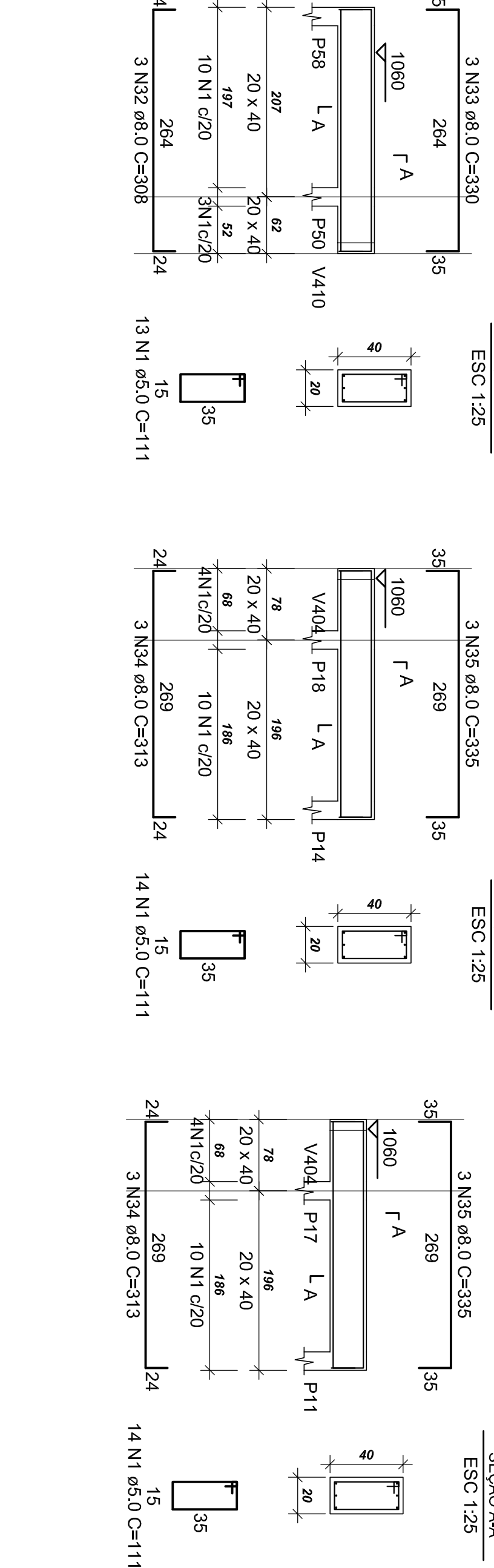
V409 (12 x 40)



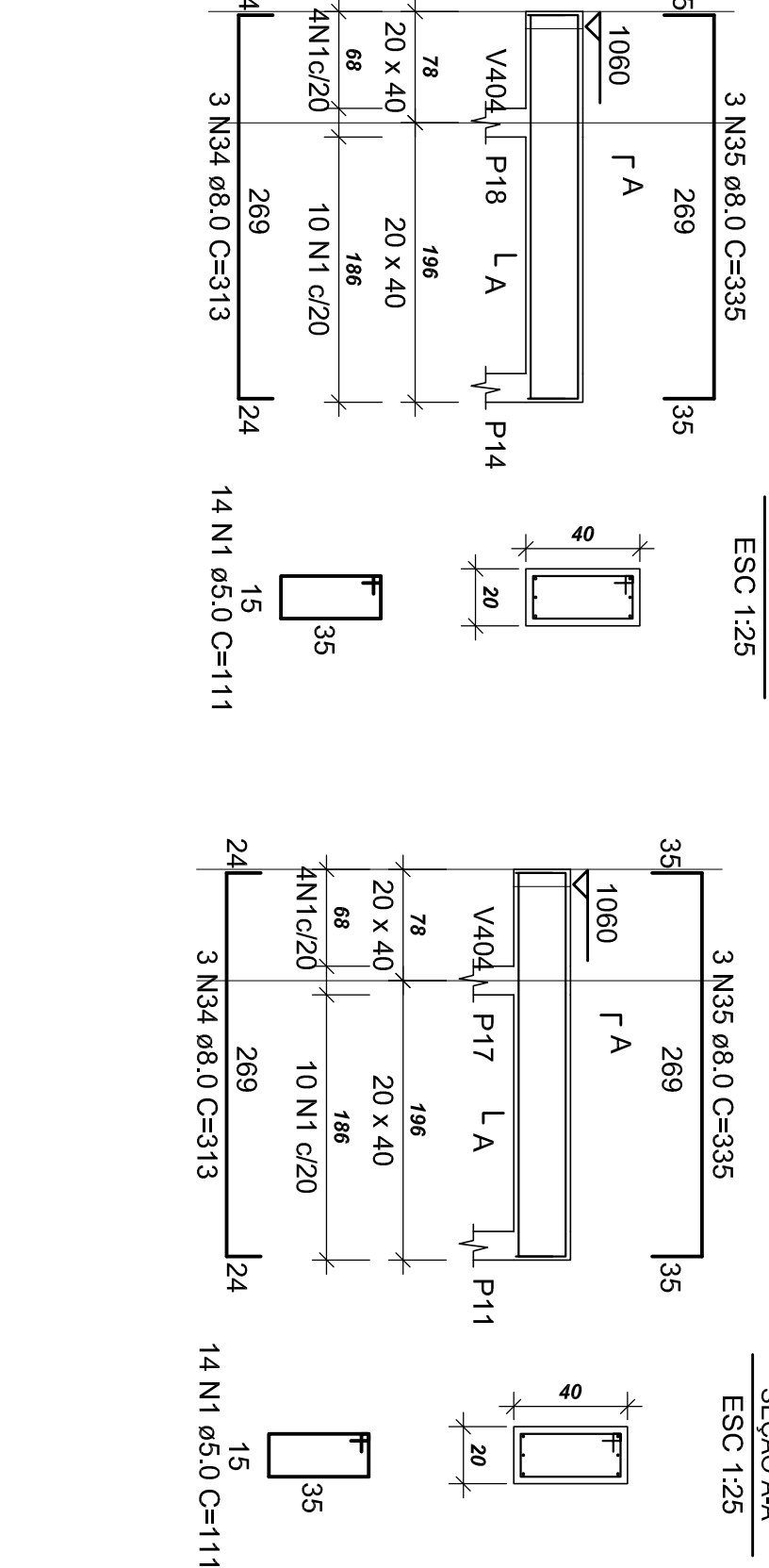
V411 (20 x 40)



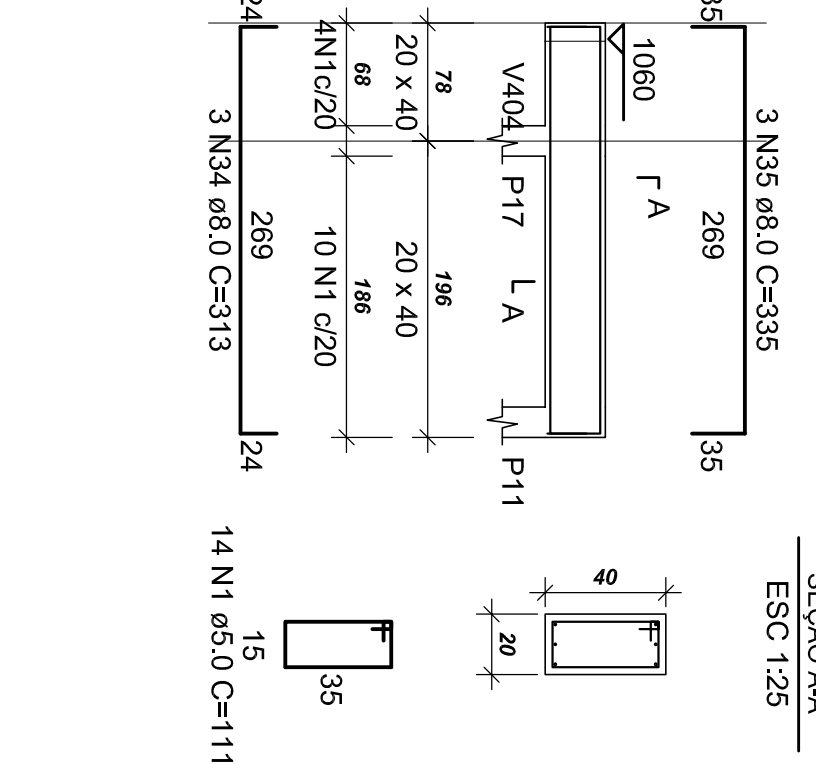
V419 (20 x 40)



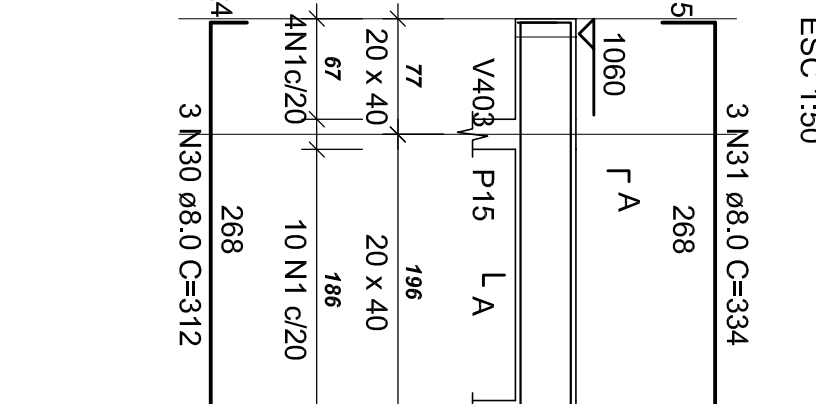
V420 (20 x 40)



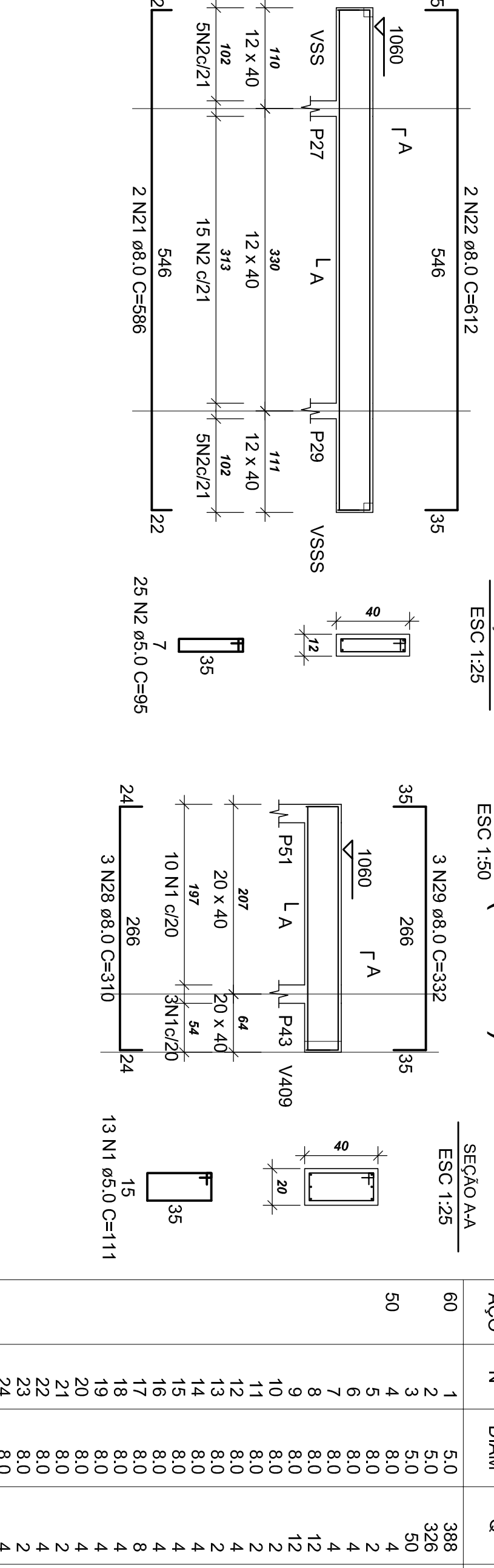
V418 (20 x 40)



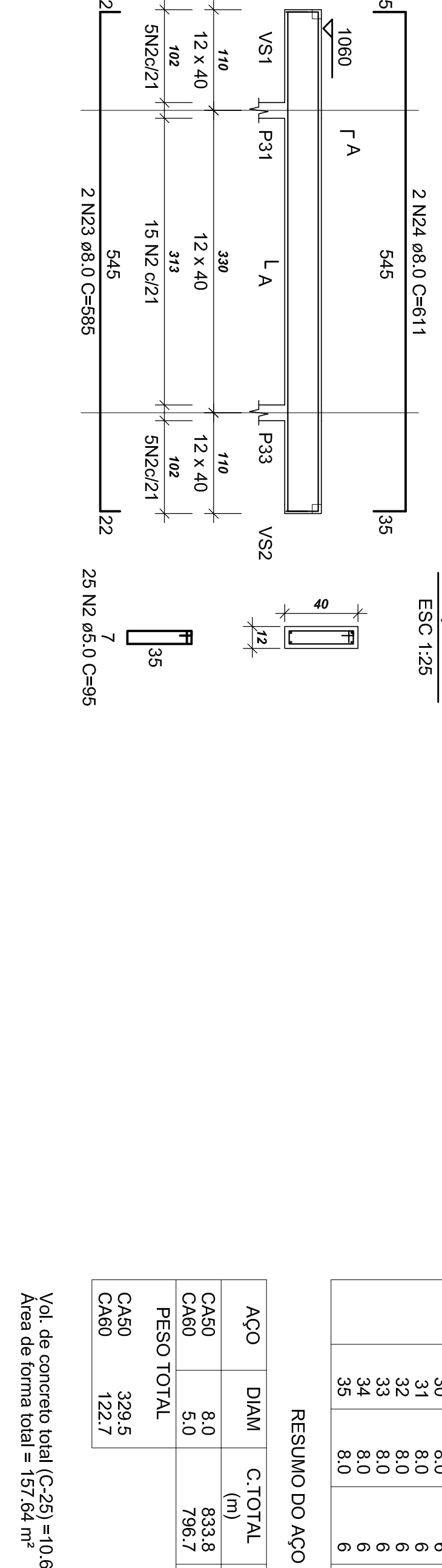
V414 (20 x 40)



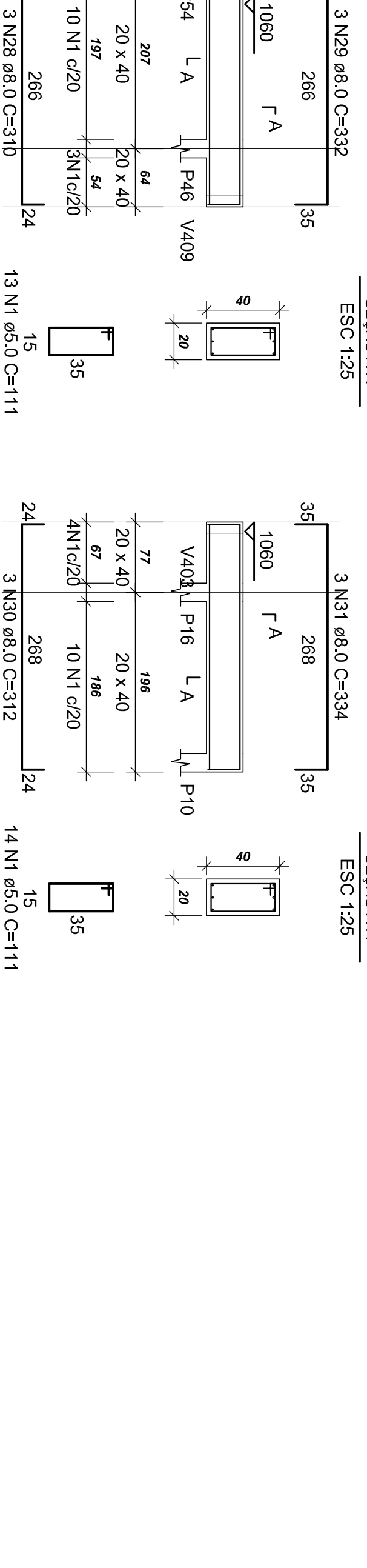
V405 (12 x 40)



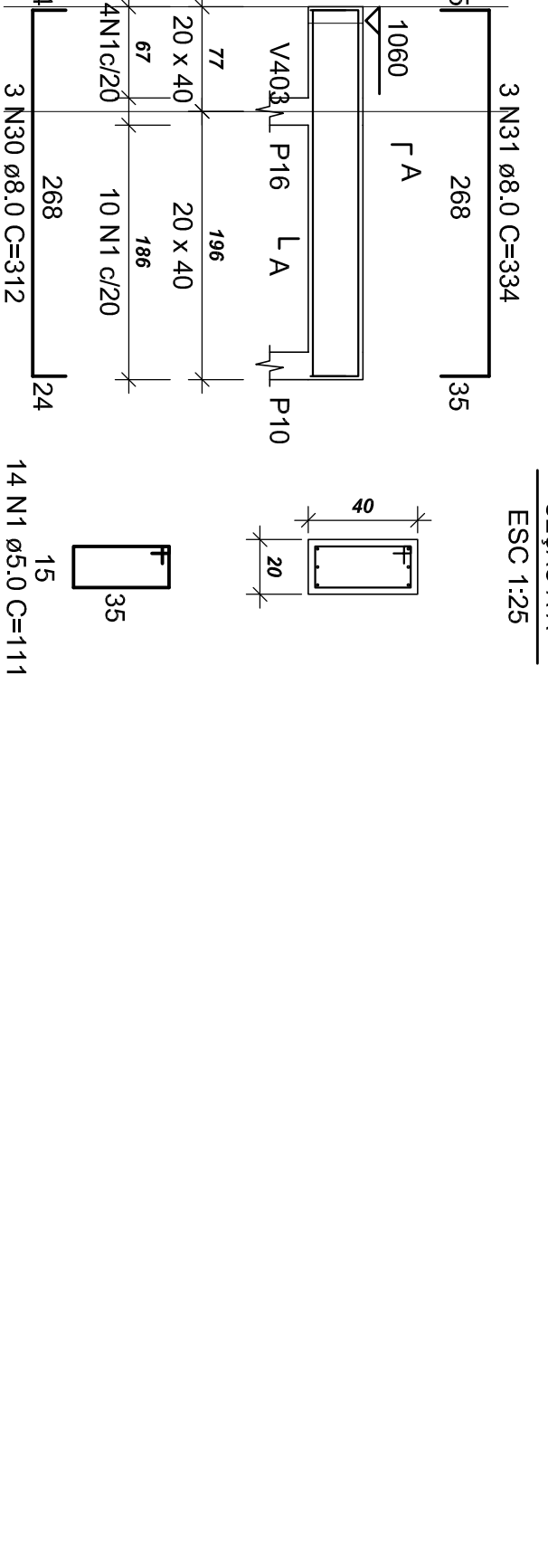
V406 (12 x 40)



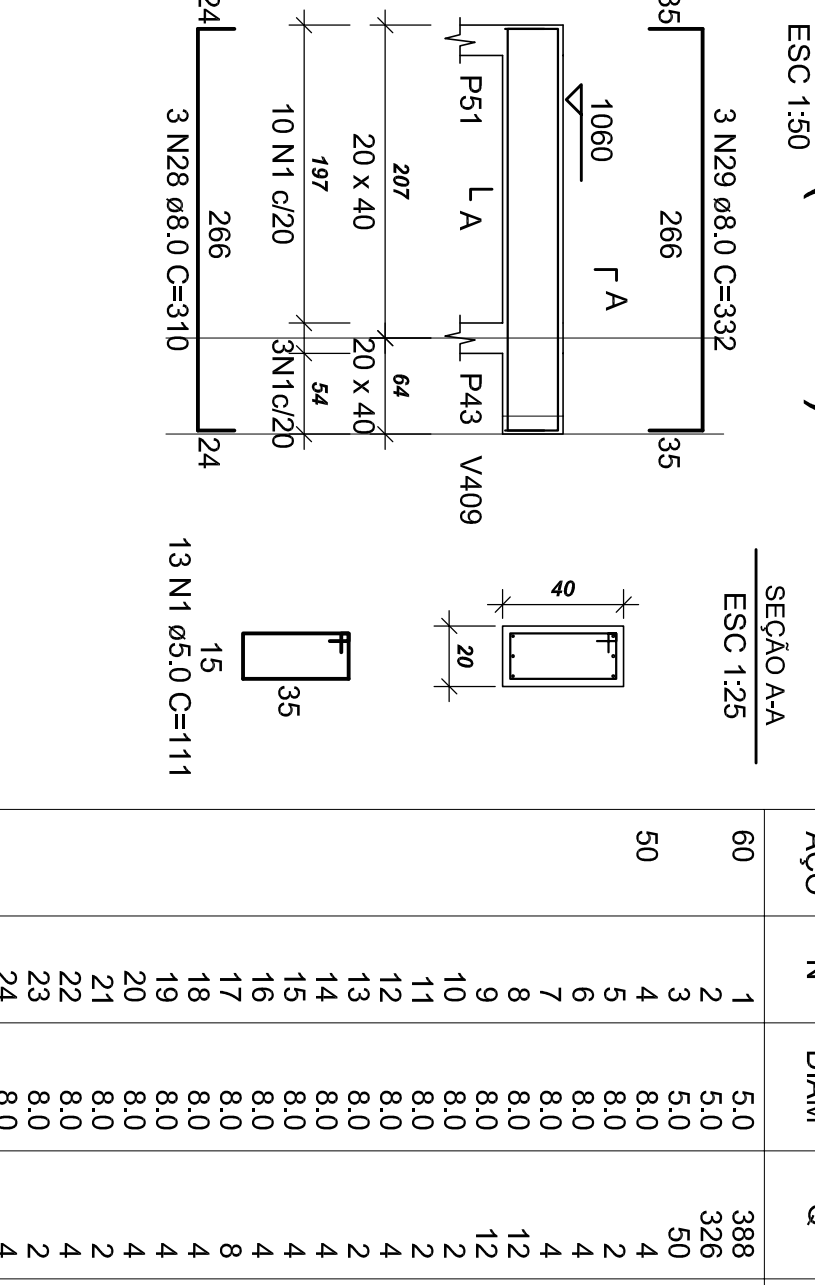
V415 (20 x 40)



V416 (20 x 40)



V413 (20 x 40)



| ACO | N  | DIAM | Q   | UNIT | C.TOTAL |
|-----|----|------|-----|------|---------|
| 60  | 1  | 5.0  | 388 | 111  | 43098   |
|     | 2  | 5.0  | 328 | 95   | 30970   |
|     | 4  | 8.0  | 54  | 239  | 566     |
| 50  | 5  | 8.0  | 4   | 221  | 442     |
|     | 6  | 8.0  | 2   | 221  | 442     |
|     | 7  | 8.0  | 4   | 495  | 14376   |
|     | 8  | 8.0  | 12  | 1198 | 14376   |
|     | 9  | 8.0  | 2   | 254  | 508     |
|     | 10 | 8.0  | 2   | 254  | 508     |
|     | 11 | 8.0  | 2   | 219  | 438     |
|     | 12 | 8.0  | 2   | 237  | 474     |
|     | 13 | 8.0  | 4   | 497  | 1988    |
|     | 14 | 8.0  | 4   | 500  | 2000    |
|     | 15 | 8.0  | 4   | 1198 | 9554    |
|     | 16 | 8.0  | 4   | 988  | 9952    |
|     | 17 | 8.0  | 4   | 502  | 2098    |
|     | 18 | 8.0  | 4   | 612  | 2446    |
|     | 19 | 8.0  | 4   | 612  | 2446    |
|     | 20 | 8.0  | 4   | 595  | 1170    |
|     | 21 | 8.0  | 4   | 602  | 1204    |
|     | 22 | 8.0  | 4   | 602  | 1204    |
|     | 23 | 8.0  | 2   | 601  | 1202    |
|     | 24 | 8.0  | 2   | 602  | 1204    |
|     | 25 | 8.0  | 2   | 602  | 1204    |
|     | 26 | 8.0  | 6   | 332  | 1982    |
|     | 27 | 8.0  | 6   | 332  | 1982    |
|     | 28 | 8.0  | 6   | 334  | 2004    |
|     | 29 | 8.0  | 6   | 334  | 2004    |
|     | 30 | 8.0  | 6   | 313  | 1678    |
|     | 31 | 8.0  | 6   | 313  | 1678    |
|     | 32 | 8.0  | 6   | 335  | 2010    |
|     | 33 | 8.0  | 6   | 335  | 2010    |

| ACO        | DIAM  | C.TOTAL | PESO-0% |
|------------|-------|---------|---------|
| CA60       | 8.0   | 193.8   | 122.7   |
| CA60       | 5.0   | 786.7   | 122.7   |
| PESO TOTAL |       |         | 122.7   |
| CA60       | 329.5 |         |         |
| CA60       | 122.7 |         |         |

Vol. de concreto total (C-25) = 10.69 m³

Área de forma total = 157.64 m²

|                                                        |  |                                                        |  |
|--------------------------------------------------------|--|--------------------------------------------------------|--|
| PROJETO ESTRUTURAL                                     |  | PROJETO ESTRUTURAL                                     |  |
| CONFERIR MEDIDAS NA OBRA                               |  | CONFERIR MEDIDAS NA OBRA                               |  |
| AMPLIAÇÃO PRÉDIO SALAS DE AULA<br>CAMPUS TEÓFILO OTONI |  | AMPLIAÇÃO PRÉDIO SALAS DE AULA<br>CAMPUS TEÓFILO OTONI |  |
| UNIVERSIDADE FEDERAL DO RIO DE JANEIRO                 |  | UNIVERSIDADE FEDERAL DO RIO DE JANEIRO                 |  |
| FERRAGEM DAS VIGAS:                                    |  | FERRAGEM DAS VIGAS:                                    |  |
| COBERTURA                                              |  | COBERTURA                                              |  |
| CARLOS HIRANOUE DE SOUZA GONÇALVES                     |  | CARLOS HIRANOUE DE SOUZA GONÇALVES                     |  |
| COTA 75.920 - 17                                       |  | COTA 75.920 - 17                                       |  |
| ESCALA INDICADA                                        |  | ESCALA INDICADA                                        |  |
| TÍTULO                                                 |  | TÍTULO                                                 |  |
| VERSÃO 1                                               |  | VERSÃO 1                                               |  |
| DATA                                                   |  | DATA                                                   |  |
| AUTOR                                                  |  | AUTOR                                                  |  |
| REVISOR                                                |  | REVISOR                                                |  |
| APROVADO                                               |  | APROVADO                                               |  |
| 09/09                                                  |  | 09/09                                                  |  |