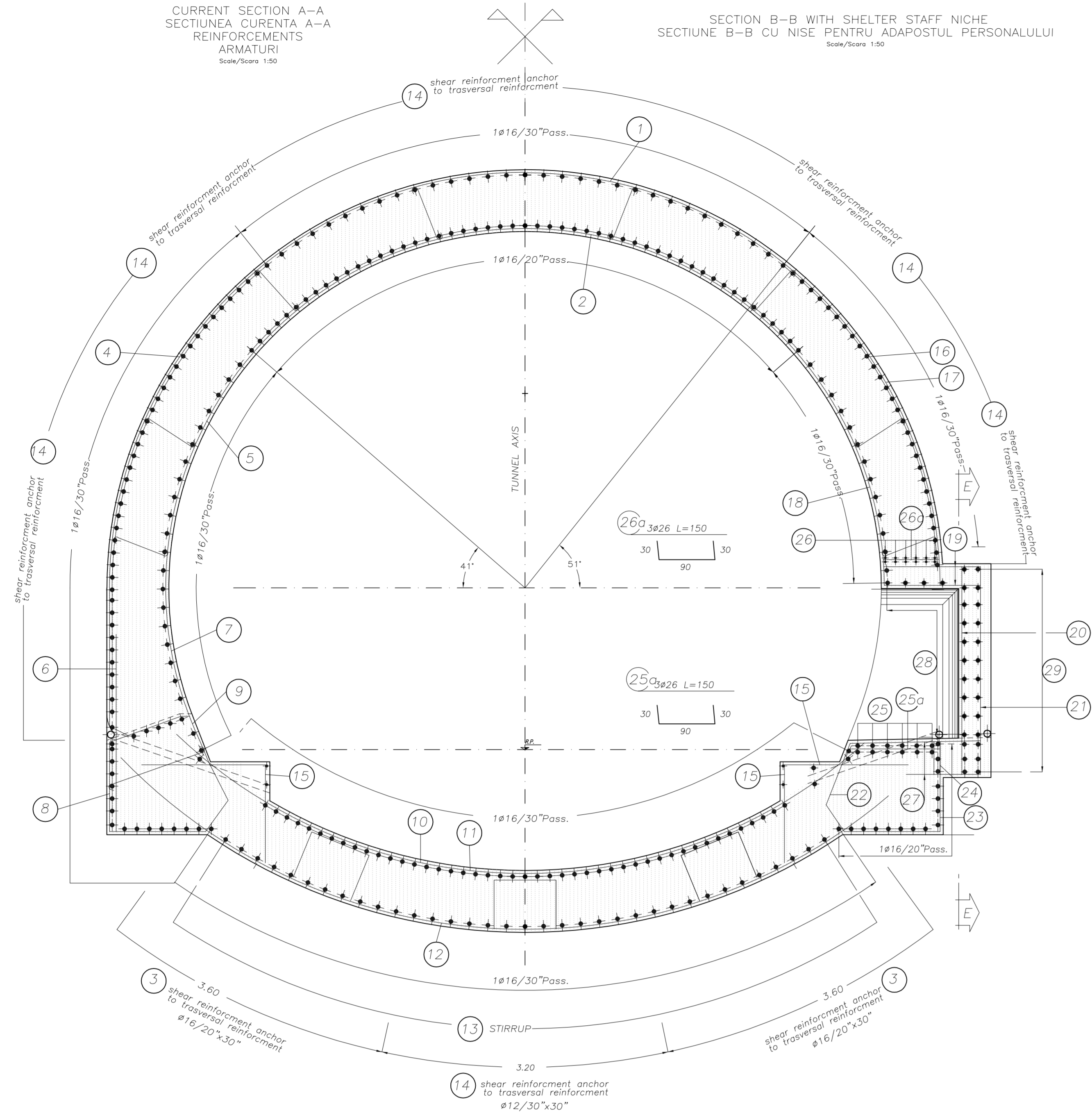
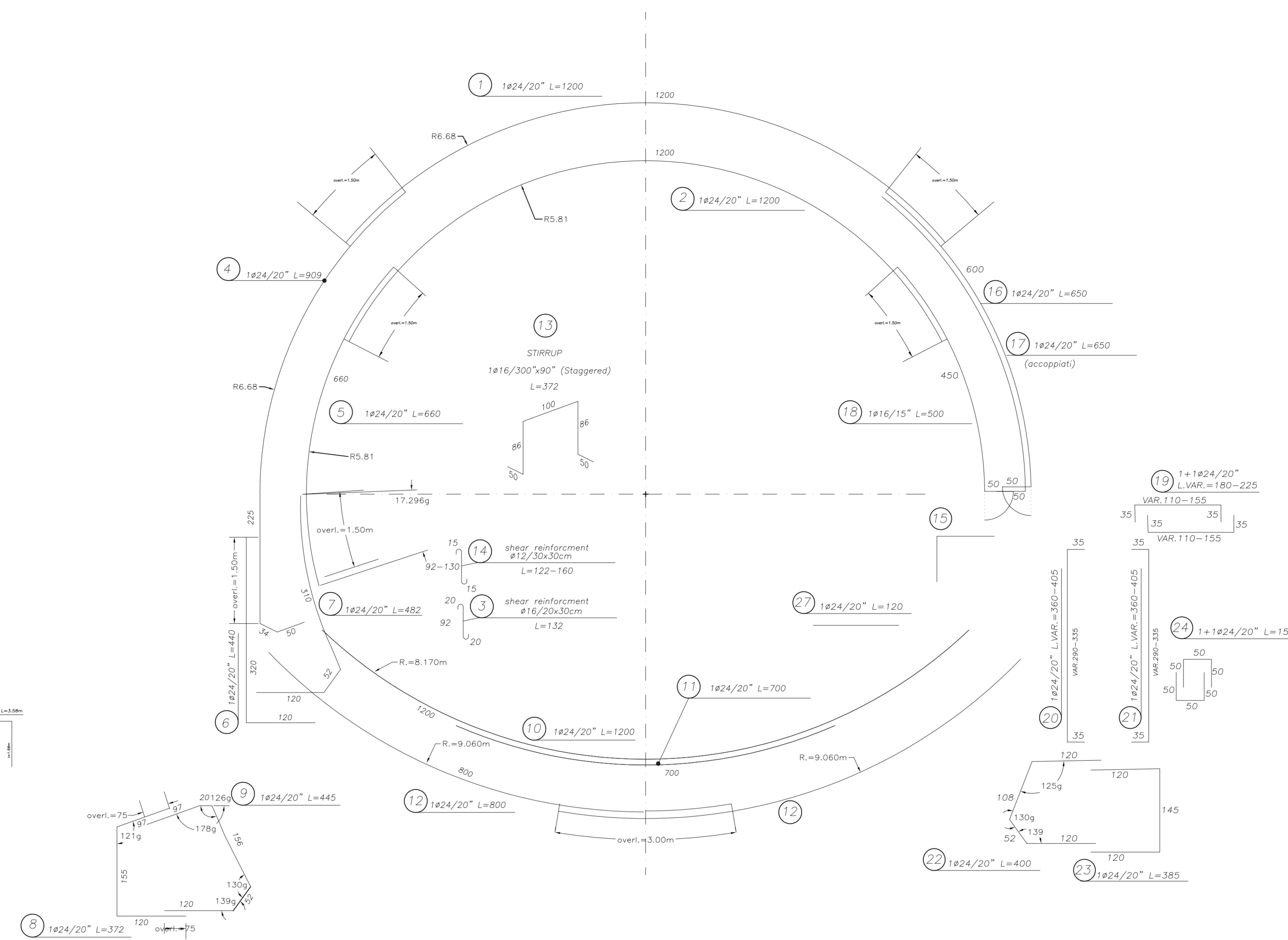


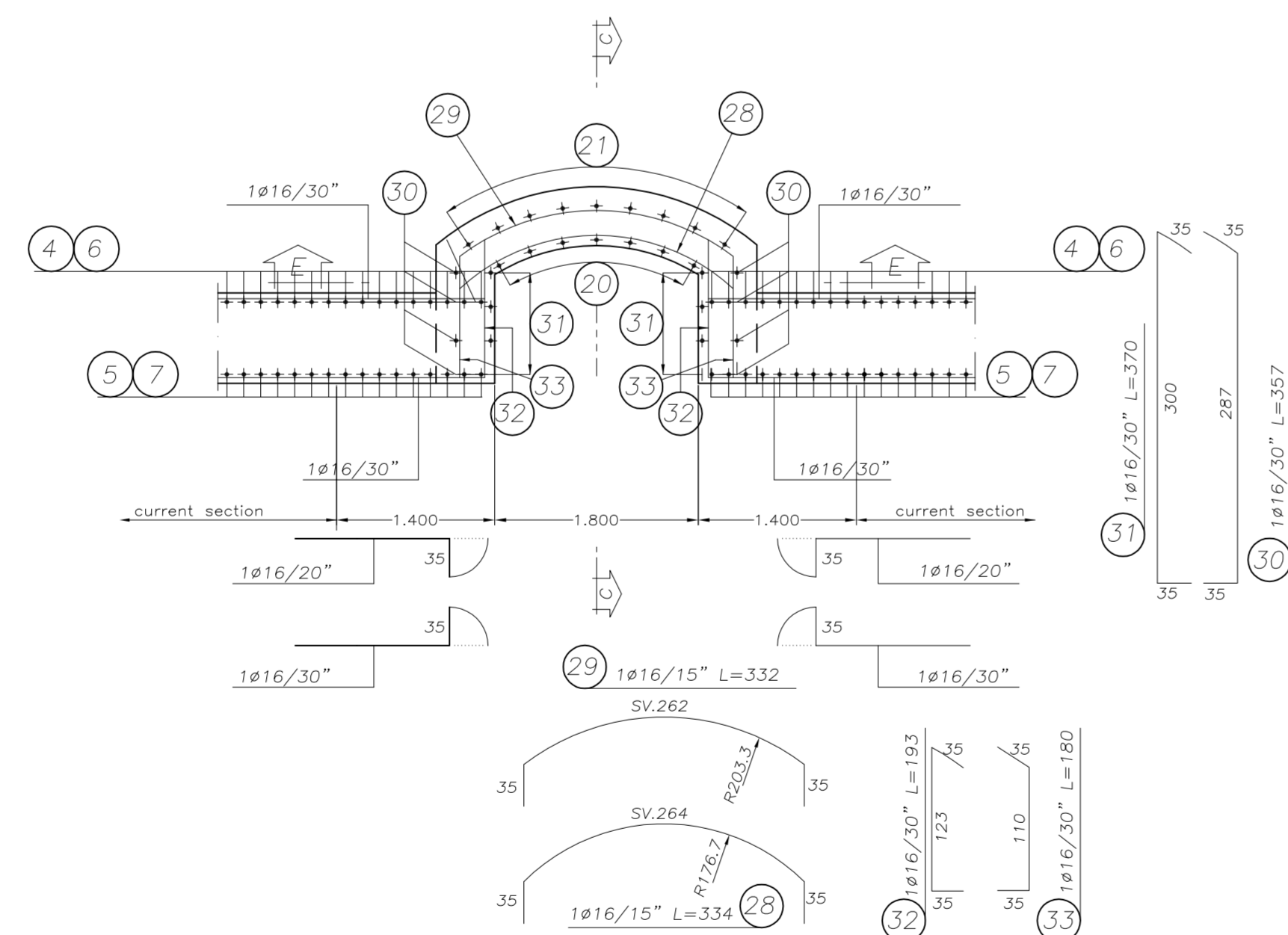
CURRENT SECTION A-A  
SECTIUNEA CURENTA A-A  
REINFORCEMENTS  
ARMATURI  
Scale/Scara 1:50



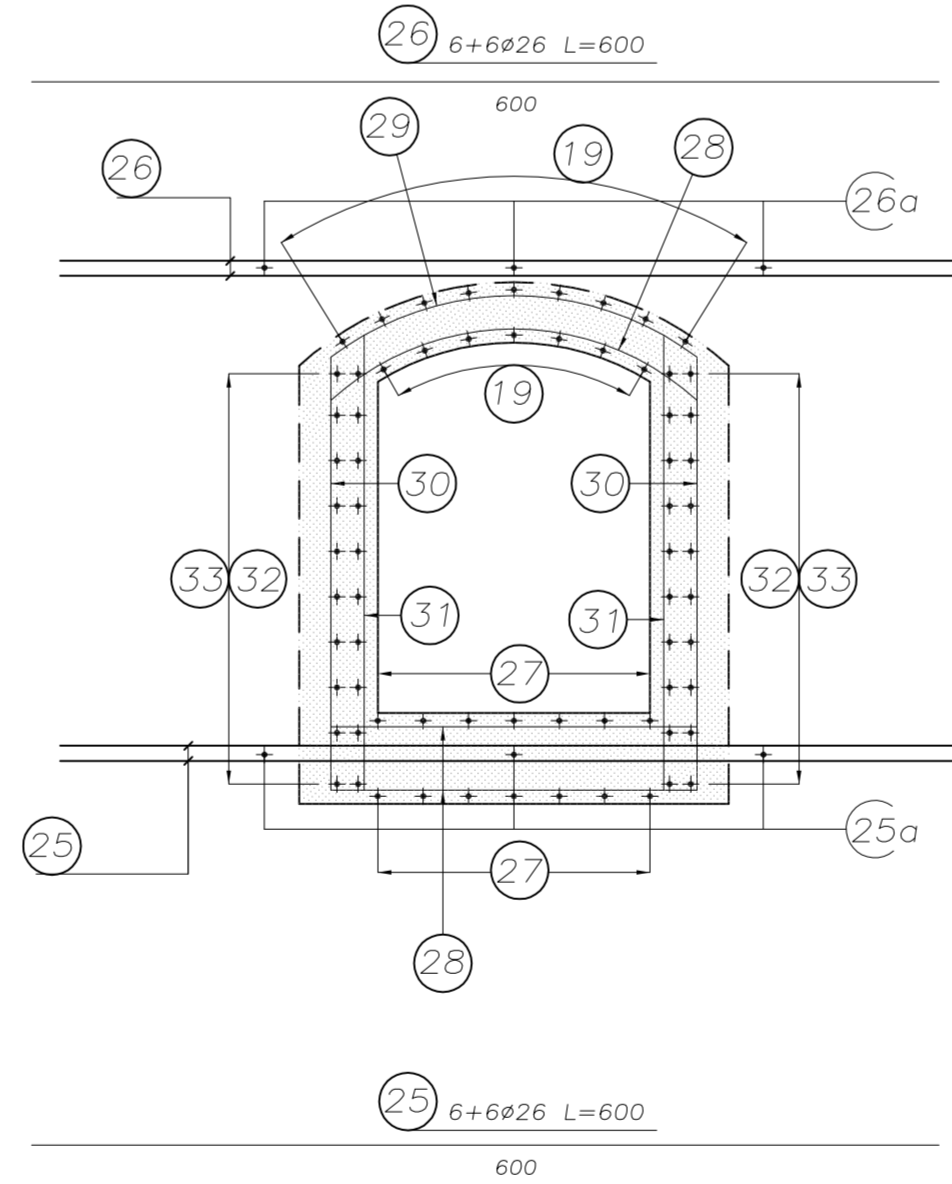
SECTION B-B WITH SHELTER STAFF NICHE  
SECTIUNEA B-B CU NISE PENTRU ADAPOSTUL PERSONALULUI  
Scale/Scara 1:50



PLAN WITH SHELTER STAFF NICHE  
PLAN CU NISE PENTRU ADAPOSTUL PERSONALULUI  
Scale/Scara 1:50



CURRENT SECTION C-C  
SECTIUNEA CURENTA C-C  
REINFORCEMENTS  
ARMATURI  
Scale/Scara 1:50



| STEELS TABLE   |  |
|--|--|
| <b>REINFORCING STEEL:</b>                                  |  |
| - B450C (weldable)   |  |
| Bending diameter $d_{B\%}$ :                               |  |
| $\phi$ Bar $< \phi 20 \rightarrow d_{B\%} = 6\phi$         |  |
| $\phi$ Bar $\phi 20 - \phi 28 \rightarrow d_{B\%} = 8\phi$ |  |
| Legend measures:   |  |
|  |  |
| <b>MATERIAL TABLE</b>                                      |  |
| <b>TUNNEL INVERT CONCRETE:</b>                             |  |
| - Type C2  |  |
| - $f_{ck} \geq 30$ MPa                                     |  |
| - Water/cement ratio $< 0.50$                              |  |
| - Minimum structural Class S3/S4                           |  |
| - Exposure class related to environmental conditions: XA2  |  |
| - Cement type CEM III/A                                    |  |
| - Class of chloride content Cl 0.20                        |  |
| - $\phi$ max aggregate = 32 mm                             |  |
| <b>TUNNEL CROWN CONCRETE:</b>                              |  |
| - Type C1  |  |
| - $f_{ck} \geq 30$ MPa                                     |  |
| - Water/cement ratio $< 0.50$                              |  |
| - Minimum structural Class S4/S5                           |  |
| - Exposure class related to environmental conditions: XA2  |  |
| - Cement type CEM III/A                                    |  |
| - Class of chloride content Cl 0.20                        |  |
| - $\phi$ max aggregate = 32 mm                             |  |
| <b>REINFORCING STEEL:</b>                                  |  |
| - B450C controlled by establishment                        |  |
| - Weldable   |  |
| <b>LEAN CONCRETE:</b>                                      |  |
| - Type I   |  |
| - $f_{ck} \geq 12$ MPa                                     |  |
| - Cement type CEM I/V                                      |  |

LEGEND

RP = REFERENCE PLANE  
EX = EXCAVATIONS PLANE  
PC = CENTERS PLANE

| D   | C | B | A | Index   | Date | Modificari<br>Modification/Revision  | Proiectant<br>Designer | Aprobant Consultant<br>Approved Consultant | Aprobant CFR<br>Approved CFR |
|---|---|---|---|---|------|--|------------------------|--|------------------------------|
|   |   |   |   |   |      |  |                        |  |                              |
|   |   |   |   |   |      | PROIECT FINANAT DE UNIUNEA EUROPEANA<br>EUROPEAN UNION FINANCED PROJECT                                  |                        |  |                              |
|   |   |   |   |   |      | CLIENT / CLIENT  |                        |  |                              |
|   |   |   |   |   |      | CONSULTANT / CONSULTANT  |                        |  |                              |
|   |   |   |   | Reabilitarea liniei de cale ferata Brasov - Simeria, parte componenta a coridorului IV Pan European, pentru circulatia trenurilor cu viteza maxima de 160 km/h. Sectiune 1 Brasov - Sighisoara. |      | Project/Project<br>2004/RO/16/PA/002   |                        |  |                              |
|   |   |   |   | Reabilitarea liniei de cale ferata Brasov - Simeria, componenta Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h. Section 1 Brasov - Sighisoara. |      | Faza / Phase:<br>P.Th. / T.D.  |                        |  |                              |
|   |   |   |   | Denumire desen / Drawing Title:   |      | MURENI TUNNEL<br>ENTRANCE ARCHITECTURE SIDE<br>First segment: reinforcements<br>Primul segment: armaturi |                        |  |                              |
| Codificare / Codification System          |   |   |   | Scara / Scale   |      | LOT  |                        | Nr. / No                                   |                              |
| E A 5 1 0 1 C 1 6 B B C A 1 0 0 0 0 0 9 0 |   |   |   | variat / various  |      |  |                        |  |                              |