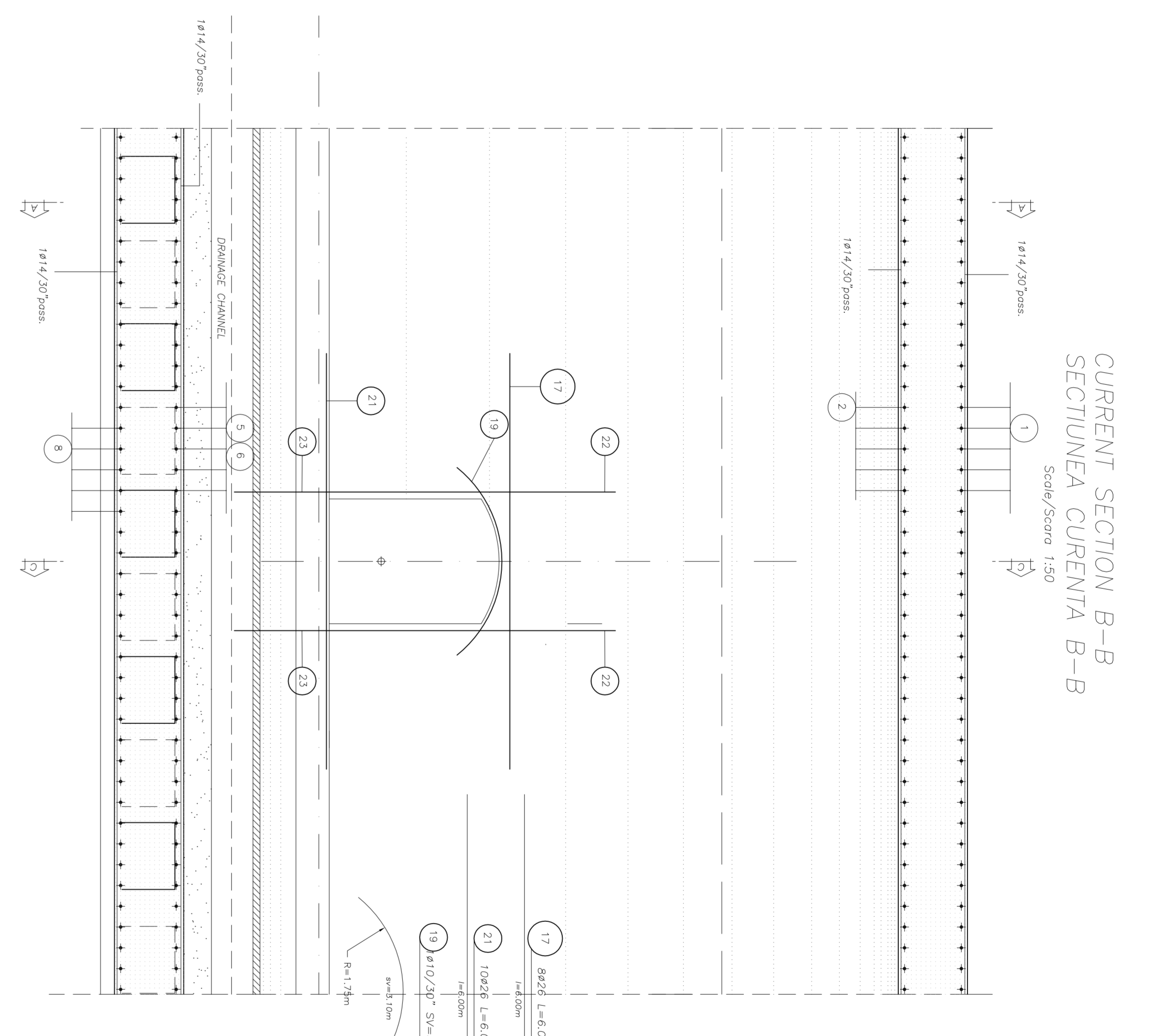
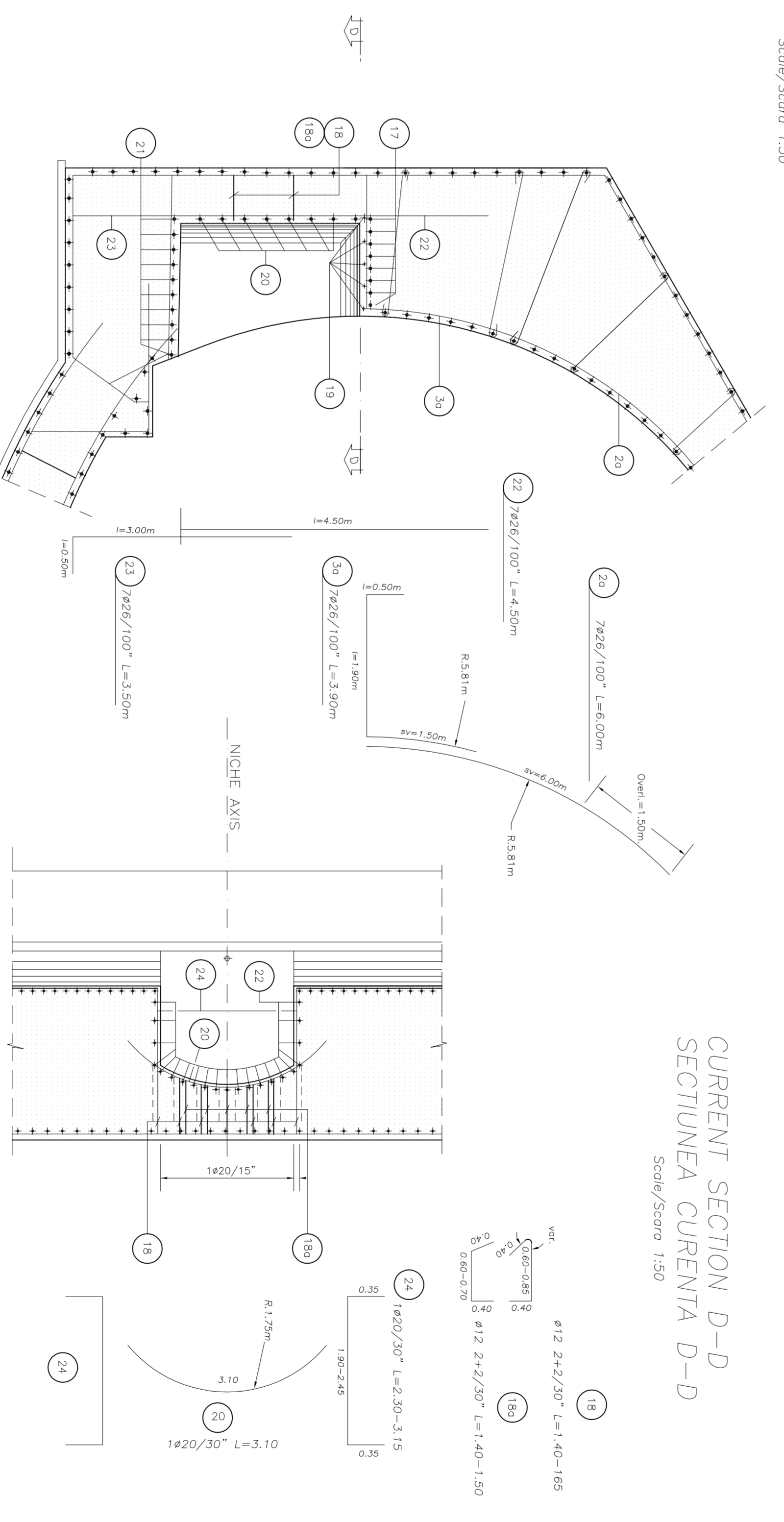
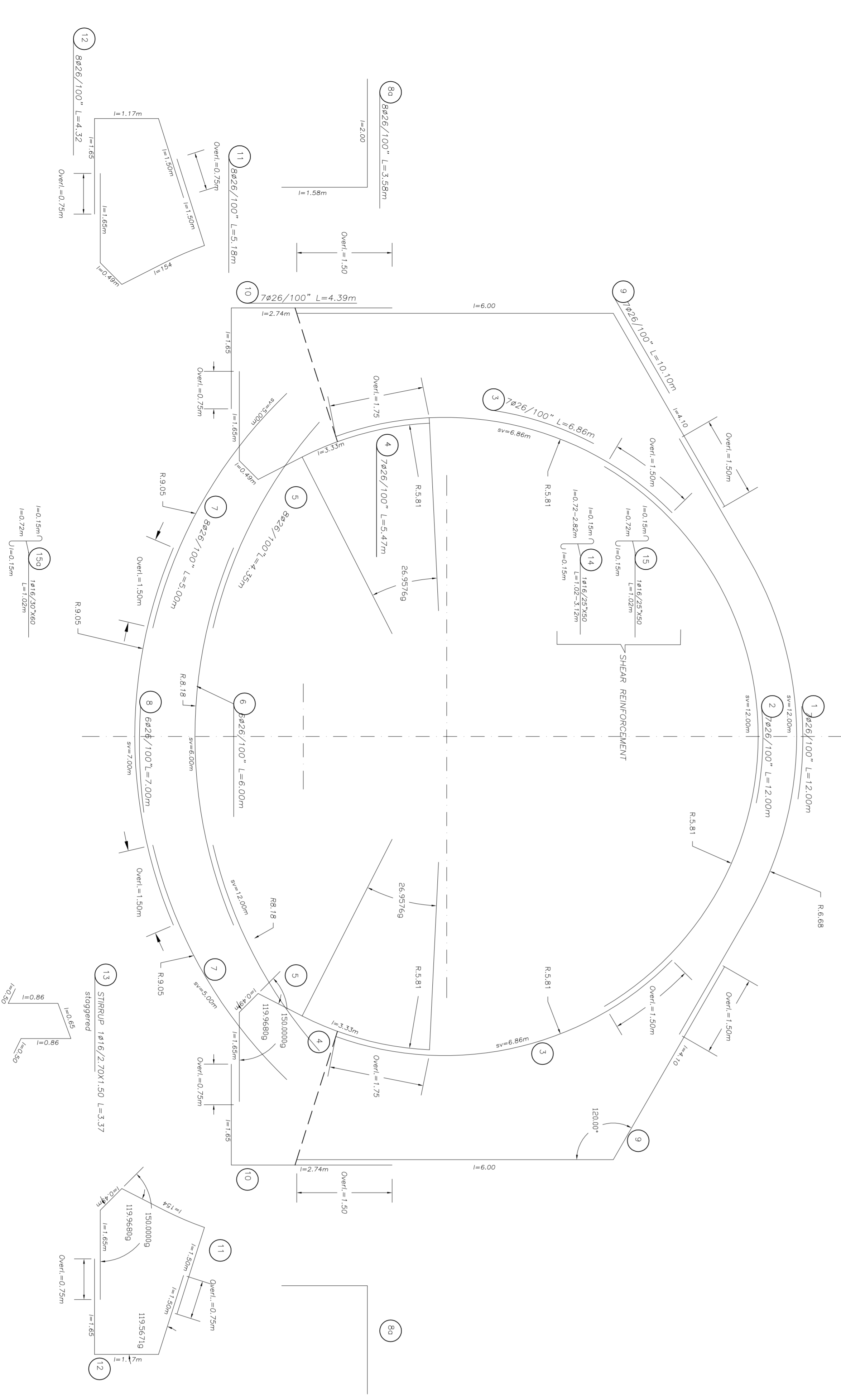


CURRENT SECTION A-A
SECTIUNEA CURENTA A-A
ARMATURA
Scara/Scale 1:50



CURRENT SECTION B-B
SECTIUNEA CURENTA B-B
Scara/Scale 1:50

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



CURRENT SECTION D-D
SECTIUNEA CURENTA D-D
Scara/Scale 1:50

STEELS TABLE

REFERENCE STEEL:
- BRQC (vertical)
Bending diameter R_{b1} :
 $\# Bar < 400 \rightarrow R_{b1} = 6a$
 $\# Bar \geq 400 \rightarrow R_{b1} = 8a$

MATERIAL TABLE

TUNNEL INNER CONCRETE:

- Type C2
- $f_{ck} = 20$ MPa
- Initial/Cement ratio: 0.50
- Maximum aggregate size: 16 mm
- Exposure class related to environmental conditions: XE2
- Class of concrete: C 20
- ϕ max aggregate = 16 mm

TUNNEL EXTERNAL CONCRETE:

- Type C1
- $f_{ck} = 15$ MPa
- Initial/Cement ratio: 0.50
- Maximum aggregate size: 16 mm
- Exposure class related to environmental conditions: XE2
- Class of concrete: C 15
- ϕ max aggregate = 16 mm

REFERENCE STEEL:

- BRQC, provided by establishment
- BRQC
- Type I
- $f_{yk} \geq 474$ MPa
- $f_{tk} \geq 12$ MPa
- Cement Type CEM I/V

LEGEND

RP = REFERENCE PLANE
EX = EXCAVATIONS PLANE
PC = JOINTS PLANE

Index	Date	Modification	Project Manager	Author/Designer	Approver/Check	Approval/Stamp
A						
B						
C						

CLIENT / CLIENT

 ROMANIAN GOVERNMENT
 GOVERNUL ROMÂNIEI
 EUROPEAN UNION FINANCED PROJECT

CLIENT / CLIENT

 CN.C.F. 'C.F.R.' SA

CONSULTANT / CONSULTANT

 OBERMEYER
 Consulting Engineers

CONSULTANT / SUBCONSULTANT

 TECNIC
 Consulting Engineers

APPROVED
 Approved: R. LUTZA (Date: _____)
 Approved: C. GEMELLI (Date: _____)
 Verified: C. GEMELLI (Date: _____)
 Issued: C. GEMELLI (Date: _____)

PROJECT / PROJECT
 Reproduction of the railway line Bulgaria - Slovenia, component Part of the TV Plan European, pentru decalajul tehnologic cu viteză maximă de 160 km/h, Partea cuprinsă de Secțiunile 1 Bristov - Srebarna și Secțiunile 1 Bristov - Sibintana

ARCHITECT 2 TUNNEL
 ENTRANCE BABA SIDE
 TUNEL artificial terminal

Scale:
 vertical / verticala: 1:50
 horizontal / orizontal: 1:50

Scale:
 vertical / verticala: 1:50
 horizontal / orizontal: 1:50

Scale:
 vertical / verticala: 1:50
 horizontal / orizontal: 1:50