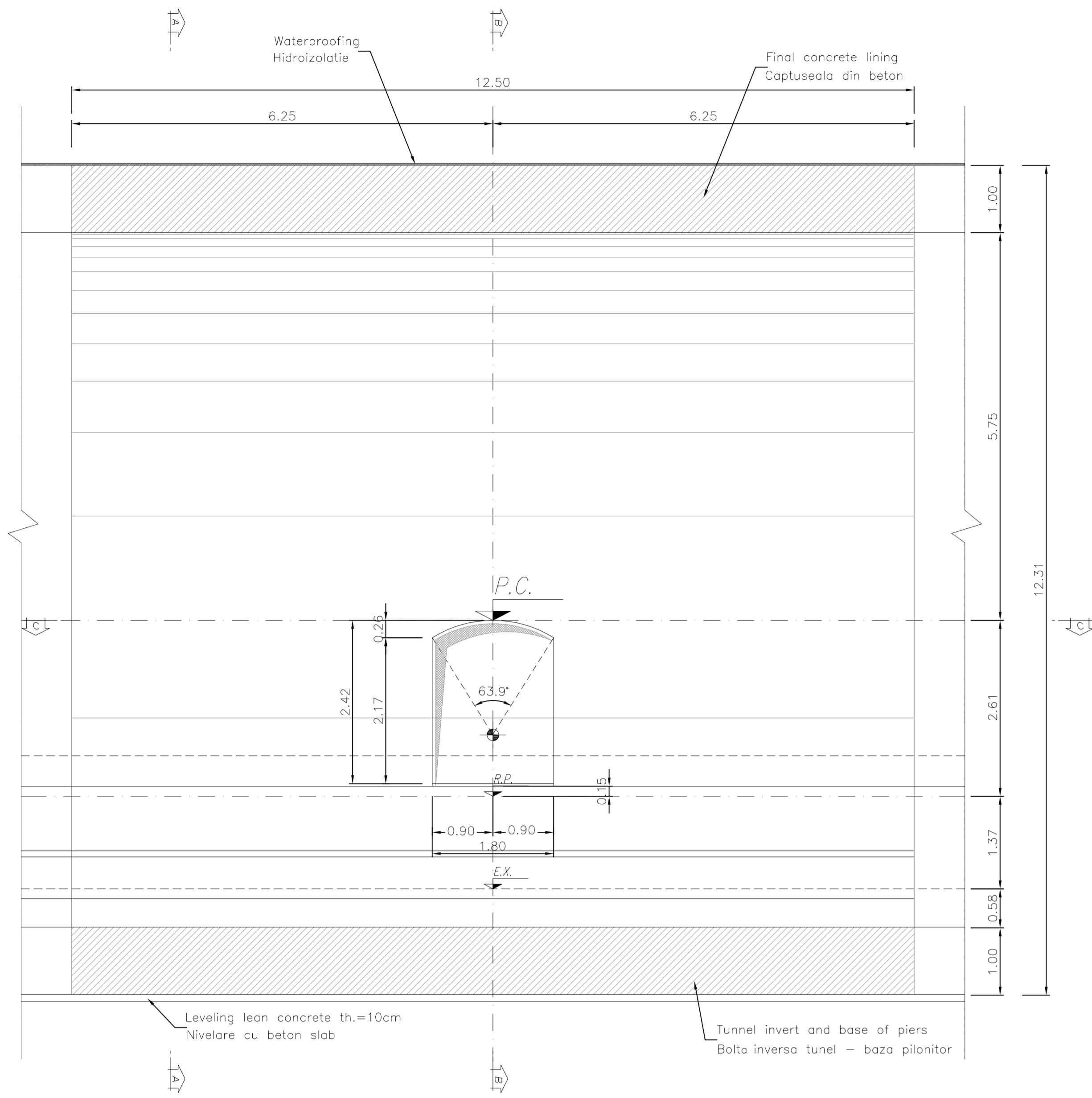
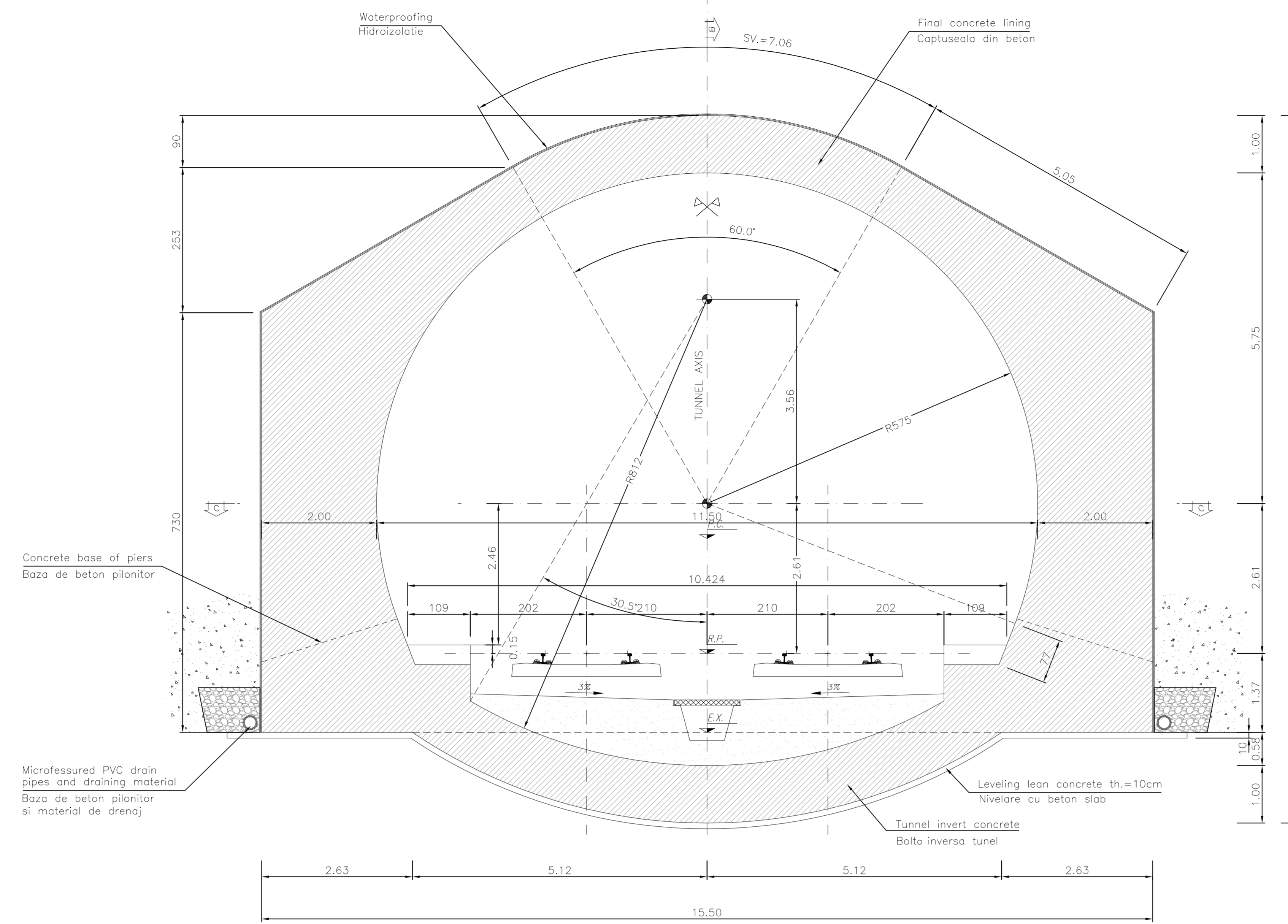


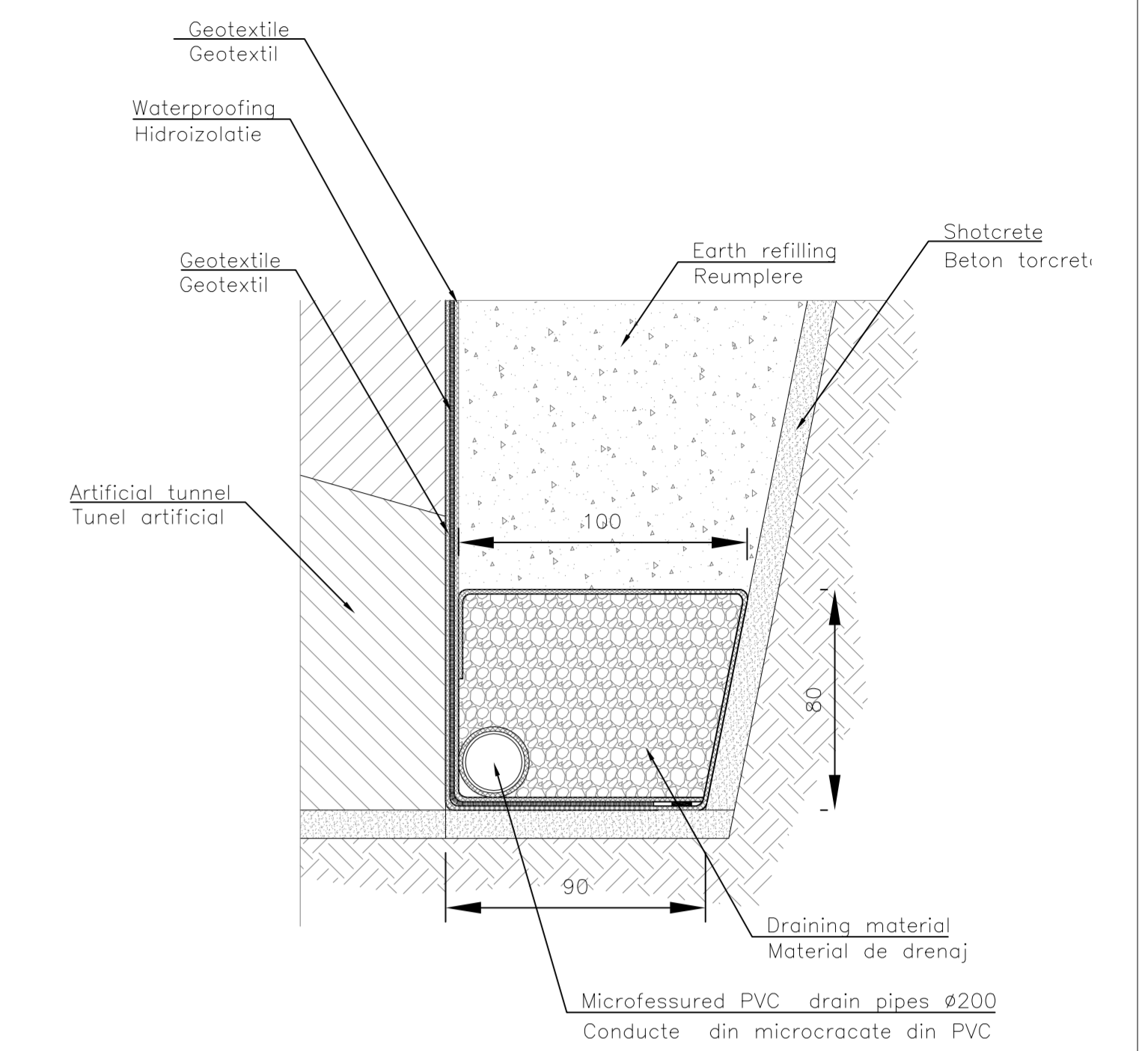
SECTION B-B
SECTIUNEA CURENTA B-B
Scale/Scara 1:50



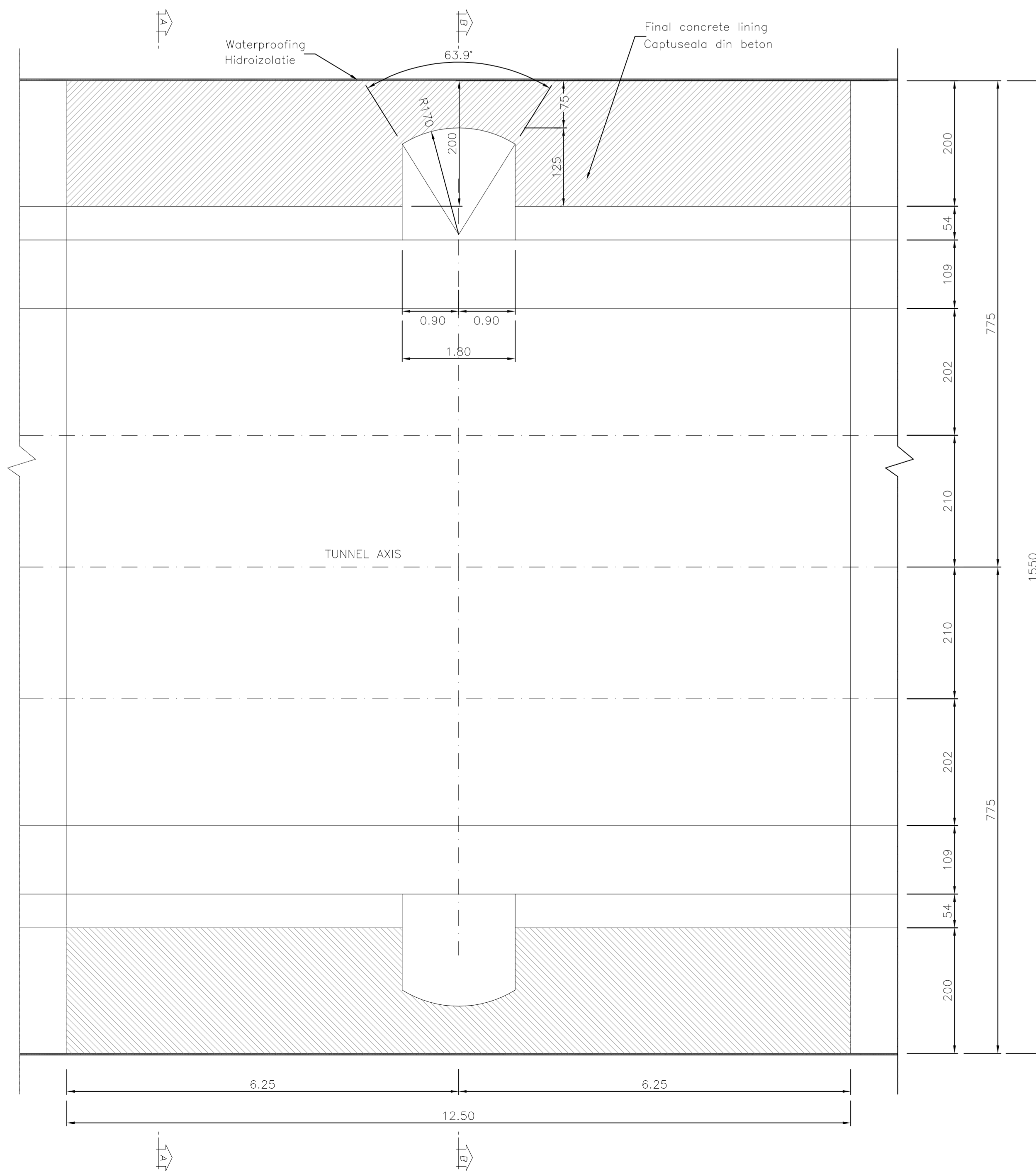
SECTION A-A
SECTIUNEA CURENTA A-A
Scale/Scara 1:50



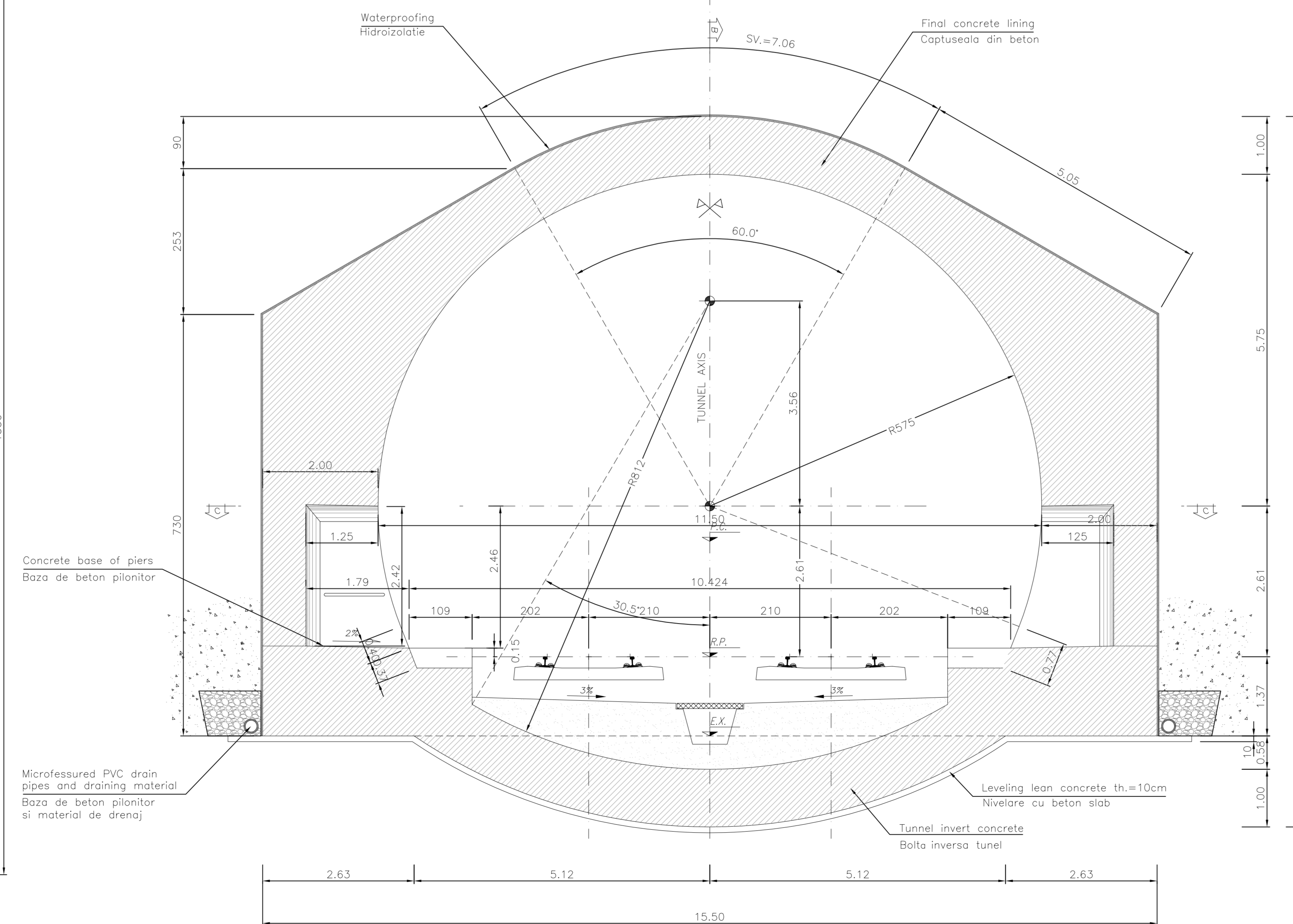
WATERPROOFING PIER DETAIL
DETALIUL PILONULUI HIDROIZOLATIEI
Scale/Scara 1:20



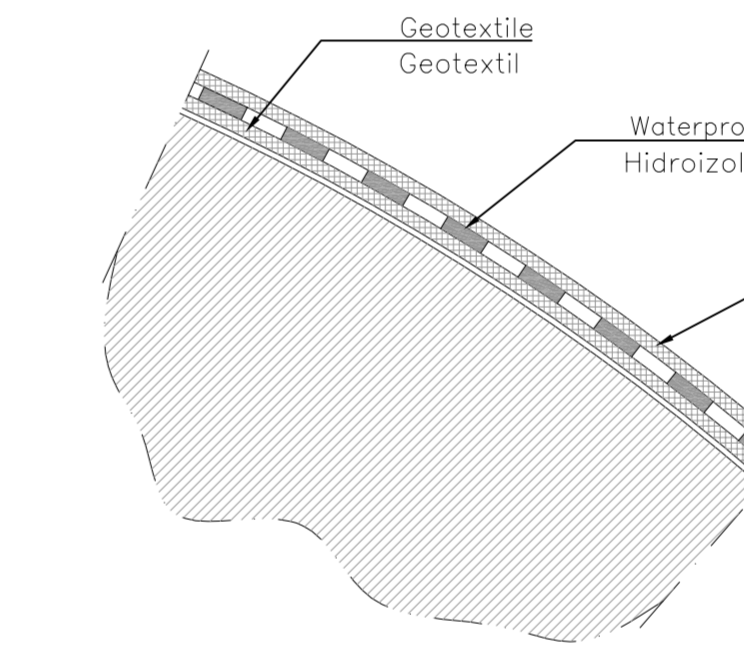
SECTION C-C
SECTIUNEA CURENTA C-C
Scale/Scara 1:50



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



WATERPROOFING TUNNEL CROWN DETAIL
DETALIUL COROANA TUNELULUI HIDROIZOLATIEI
Scale/Scara 1:20



MATERIAL TABLE

TUNNEL INVERT CONCRETE:

- Type C2
- fck >=30 MPa
- Water/cement ratio <0.50
- Minimum structural Class S3/S4
- Exposure class related to environmental conditions: XA2
- Cement type CEM III/V
- Class of chloride content Cl 0.20
- max aggregate = 32 mm

TUNNEL CROWN CONCRETE:

- Type C1
- fck >=30 MPa
- Water/cement ratio <0.50
- Minimum structural Class S4/S5
- Exposure class related to environmental conditions: XA2
- Cement type CEM III/V
- Class of chloride content Cl 0.20
- max aggregate = 32 mm

REINFORCING STEEL:

- B500: controlled by establishment
- Weldable

LEAN CONCRETE:

- Type I
- fck >=12 MPa
- Cement type CEM I/V

LEGEND

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

NOTE:
- The integrity of the concrete structures of the artificial and natural tunnels have to be maintained in case of fire (4.2.2.3 fire protection requirements for structure TSI Technical Specification for interoperability).

NOTA:
- Integritatea structurilor de beton a tunelului artificial si natural, trebuie sa ramana integra in caz de incendiu (4.2.2.3 carințele de protecție la foc pentru structuri TSI Specificații tehnice pentru interoperabilitate).

NOTE:
- Handrails shall be installed approximately at 1 m above walkway providing a route to a safe area (4.2.2.7. Escape walkways TSI).

NOTA:
- Bara de mână trebuie să fie instalată aproximativ la 1 m deasupra cailor de evacuare oferind un traseu într-o zonă sigură (4.2.2.7. evacuare trăsătoare TSI).

NOTE:
- Escape signs shall be installed on the side walls at a maximum distance between escape signs of 50m (4.2.2.9 Escape Signage TSI).

NOTA:
- Semnele de evacuare trebuie să fie instalate pe pereții laterali, la o distanță maximă între semne de evacuare de 50m (4.2.2.9 Escape Signage TSI).

D									
C									
B									
A									
Index	Date	Modifications/Revision	Projectant	Approved Consultant	Approved CFR				

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANȚAT DE UNIUNEA EUROPEANĂ
EUROPEAN UNION FINANCED PROJECT

CFR
C.N.C.F. "C.F.R." - S.A.

CLIENT / CLIENT

ITALFERR
Scop Wilson
OBERMEYER
PLANEN - BERATIN GmbH
TECNIC
Consulting Engineers

CONSULTANT / CONSULTANT

Approved	Self project	Date	Signature
Approved	Project manager		R. Liuzza
Approved	Coordinator Section 1		C. Gambelli
Verified	Tunnel Export		C. Gambelli
Checked	Tunnel Export		C. Gambelli
Elaborated	Projectant		C. Gambelli
Elaborated	Designer		C. Gambelli

SUBCONSULTANT / SUBCONSULTANT

Approved	Responsible Subconsultant		
Approved	Subconsultant Responsible		
Elaborated	Projectant		
Elaborated	Designer		

Reabilitarea liniei de cale ferată Brașov - Simeria, parte componentă a coridorului IV Pan European, pentru circulația trenurilor cu viteză maximă de 160 km/h. Secțiunea 1 Brașov - Sighisoara
Project/Project 2004RO16/PP/PA/002

Rehabilitation of the railway line Brașov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h. Section 1 Brașov - Sighisoara
Faza / Phase: P.Th. / T.D.

Denumire desen / Drawing Title : ARCHITA 2 TUNNEL
ENTRANCE ARCHITA SIDE
Artificial tunnel: formwork sections
Tunnel artificial: sectiuni de cofraje

Codificare / Codification System	Scara / Scale variat / various	LOT	Nr. / No
E A 5 1 0 1 C 1 4 B B G A 0 9 0 0 0 0 6 0			