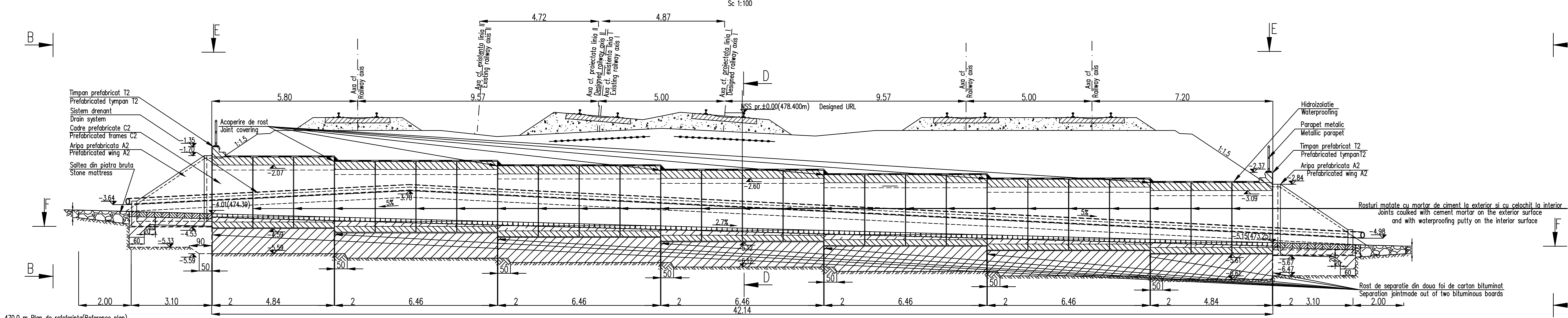
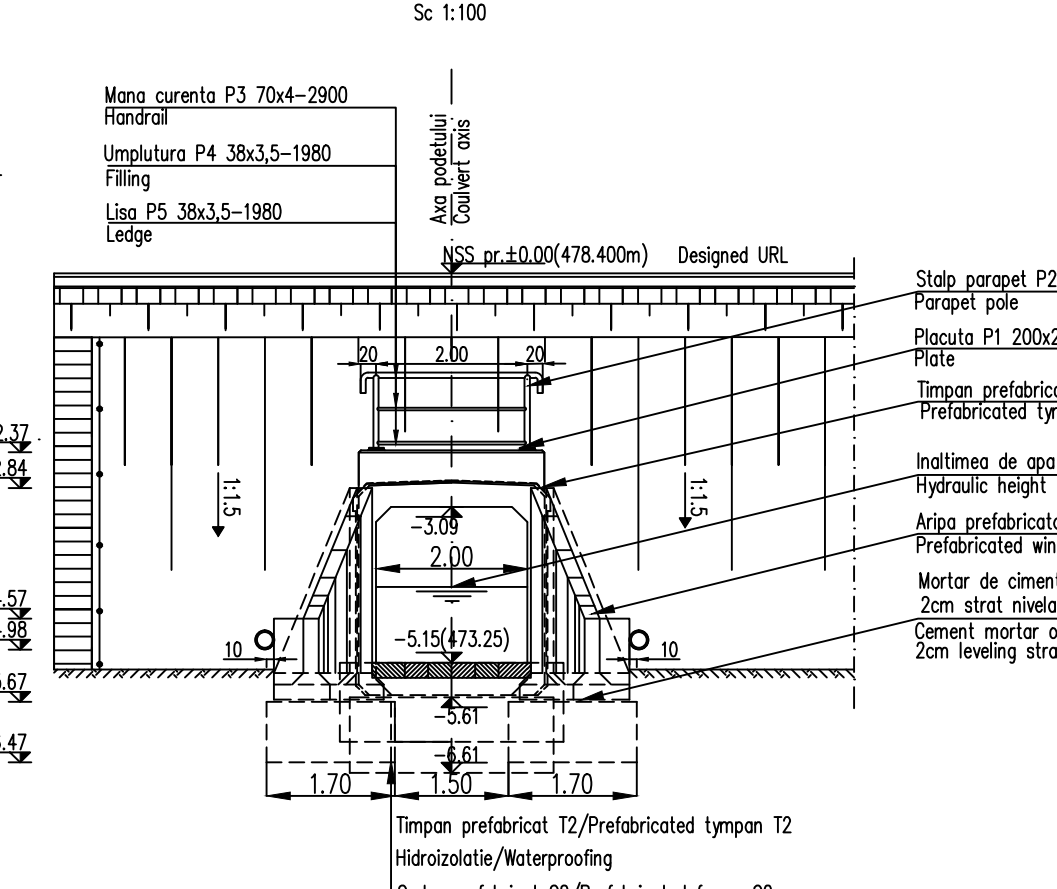


SECTIUNE LONGITUDINALA A-A / LONGITUDINAL SECTION A-A

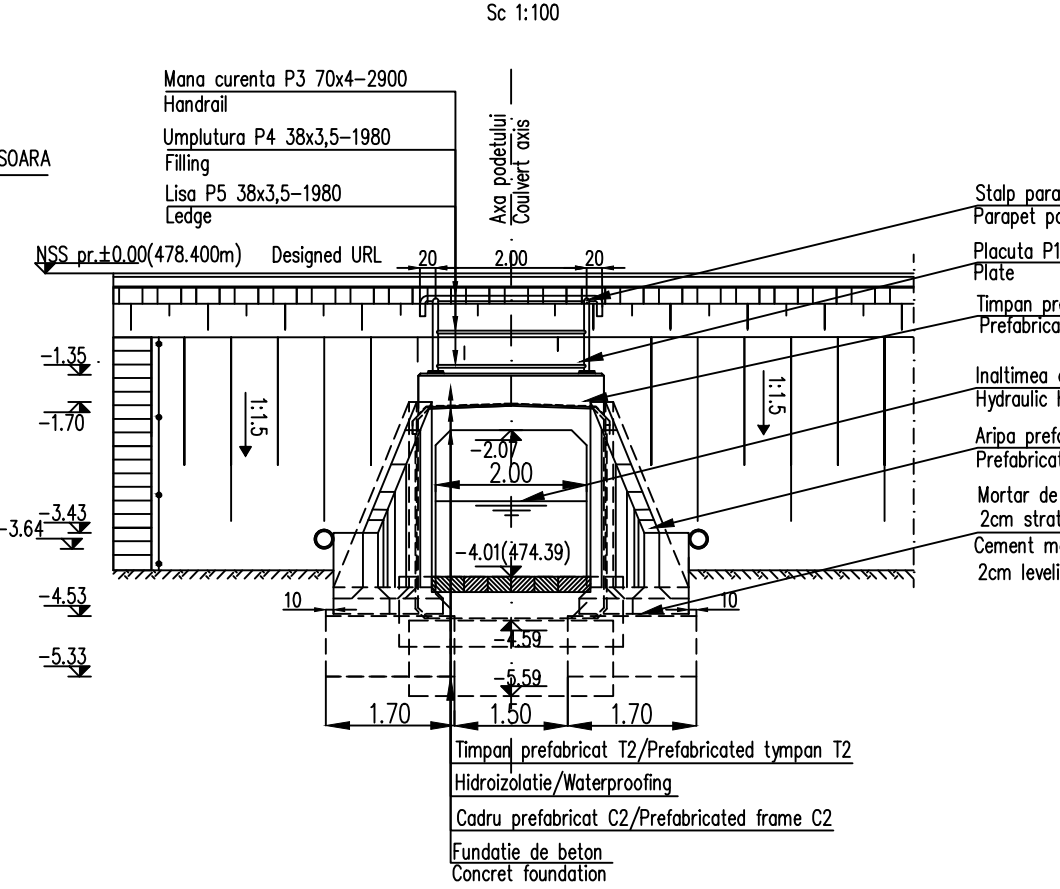


470.0 m Plan de referinta/Reference plan

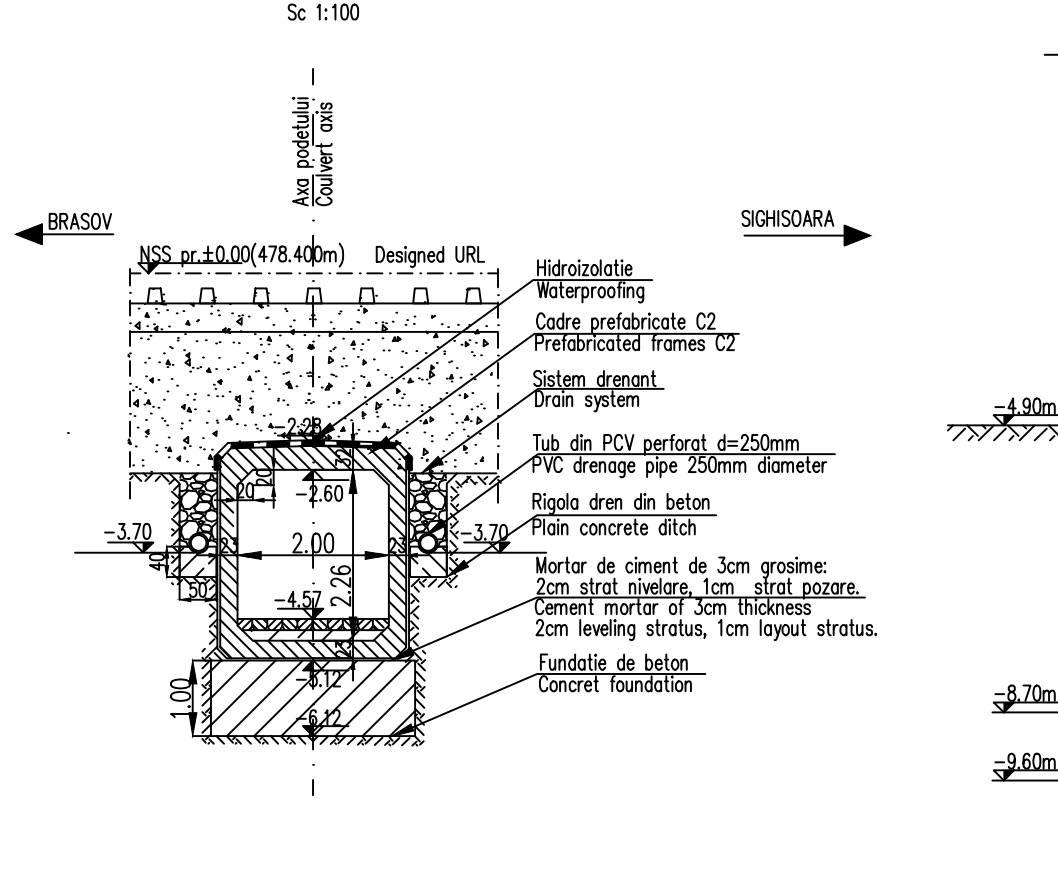
VEDERE DIN AVAL C-C / C-C DOWNSTREAM VIEW



VEDERE DIN AMONTE B-B / B-B UPSTREAM VIEW



SECTIUNE TRANSVERSALA D-D / D-D CROSS SECTION



SONDAJ/DRILL nr. 3F077
km ex.206+984
Sc: 1:100

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Nivelul terenului natural/Natural ground level
Nisip argilos, coleni, plastic consistent-vartos, cu pietris mic
Sandy clayey, brown, plastic consistent-vigorous, with small gravel
Nisip mic, slab argilos, cu pietris mic, cenușiu, saturat, mediu
Small sand, weak clayey, with small gravel, gray, wet, plastic soft-consistent
Pietris neuniform cu nisip mic, cenușiu, saturat, mediu
Uneven gravel with small sand, gray, saturated, medium stocky

Opriți sondajul/Pull off

Index	Data	Modificare / Modification/Revision	Proiectant / Designer	Aprobat / Approved	Consultant / Consultant	Aprobat CFR / Approved CFR
A	011.2011	Revizia 1	Olar Mihai			

GUVERNUL ROMANIEI / ROMANIAN GOVERNMENT
PROIECT FINANȚAT DE UNIUNEA EUROPEANĂ / EUROPEAN UNION FINANCED PROJECT

CLIENT / CLIENT
CFR
C.N.C.F. "C.F.R." - S.A.
OBERMEYER PLANEN + BERATEN GmbH
TECNIC Consulting Engineers

CONSULTANT / CONSULTANT		Data	Semn. tur / Signature
Approved	el proiect / Project manager	R. Liuzza	
Approved	Coordonator Sec Iune 1 / Section 1 Coordinator	C. Gambelli	
Verified / Checked	Expert Chief / Key Expert	V.Kalidromitis	

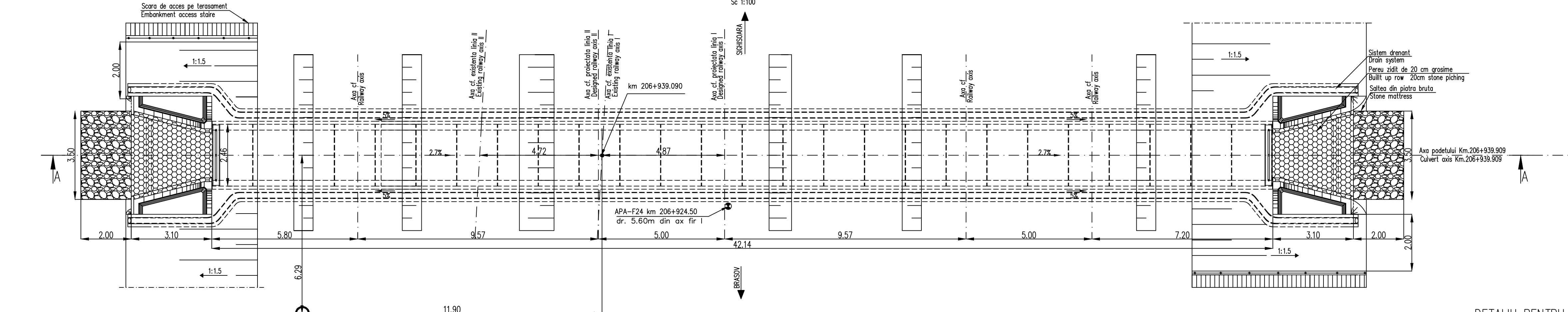
SUBCONTRACTANT / SUBCONTRACTOR		Data	Semn. tur / Signature
Approved	Responsabil Subcontractant / Subcontractant Responsible	A. Dinulescu Stanciu	05.2011
Elaborated	Proiectant / Designer	Olar Mihai Adrian	05.2011

Reabilitarea liniei de cale ferata / Rehabilitation of the railway line
IV Pan European, pentru circulația trenurilor cu viteza maximă de 160 km/h, **Tronsoanel: Brașov - Sighișoara**
Corridor, for the trains circulation with maximum speed of 160 km/h, **Section : Brașov - Sighișoara**

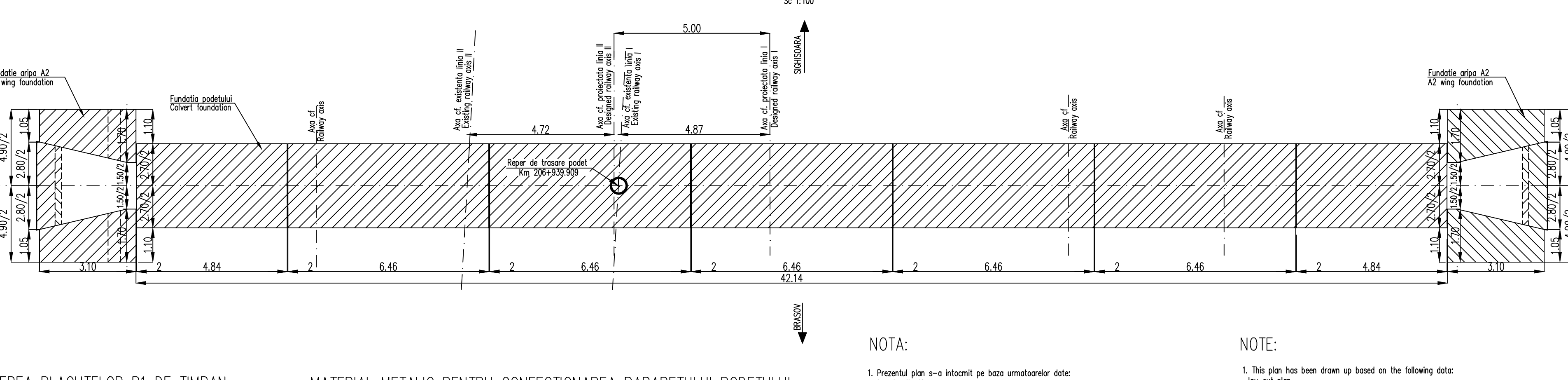
Denumire desen / Drawing Title :
STATA APATA / STATION APATA
PODET km 206+939,090 / DISPOZITIE GENERALA
CULVERT km 206+939,090 / GENERAL LAYOUT

Codificare / Codification System	Scara / Scale	LOT / LOT	Nr. / No
EAS1 01 C 09 PA PO 02 5 1 002 1	1:100		01 / 01

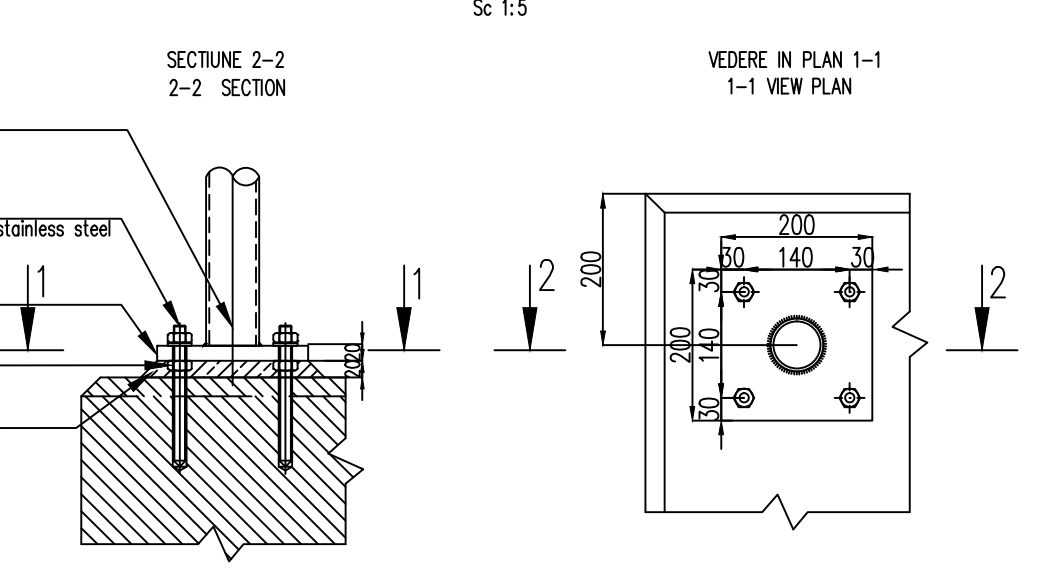
VEDERE IN PLAN E-E / E-E PLAN VIEW



PLAN FUNDATII F-F / F-F FOUNDATIONS PLAN



DETALIU PENTRU PRINDEREA PLACUTELOR P1 DE TIMPAN / DETAIL TO JOIN THE SLABS P1 AT THE TYMPANUM



MATERIAL METALIC PENTRU CONFECTIONAREA PARAPETULUI / THE METALLIC MATERIAL TO BUILD PARAPET OF CULVERT

Poz. / Piece	Denumirea materialului / The denomination of the material	Buc. / Pieces	Section / Section	Lung. / Long. (mm)	Sectione/Section		
					kg/ml	kg/buc	kg
P1	Placuta prindere / Clamping plate	4	200x20	200	31.40	6.28	25.12
P2	Stalp parapet / Parapet pole	4	70x4	970	6.51	6.32	25.28
P3	Mano curenta / Impulsura EN 10297 - E275	2	70x4	2900	6.51	18.88	37.76
P4	Umplutura / Filling	4	38x3,5	1980	2.98	5.90	11.80
P5	Lisă / Ledge	4	38x3,5	1980	2.98	5.90	11.80
Total partial / Parțial total							111.76
Sudura / Welding							2.23
TOTAL							113.99

NOTA:

- Prezentul plan s-a întocmit pe baza următoarelor date:
-plan de situație
-profil în lung
-profil transversal
-studiu geotehnic Nr. 12.2/1311/June 2003
-diagrama file
-hidraulic
-date culese pe teren
- Podul nou, cu lumina de 2,00m se execută din 26 capace prefabricate C3. Podul corespunde la convențiile de calcul UIC (LM7) și SW(2).
- Rozdarea podului cu terasamentul și cu terenul se realizează:
- în amonte și în aval cu arși prefabricate A2.
- La execuție se vor respecta cu strictețe prevederile din "Normativ pentru producerea betonului și executarea lucrărilor din beton, beton armat și beton precomprimit-Parte 2: Executarea lucrărilor din beton", indicativ NE 012/2-2010, iar verificarea calitatii lucrărilor și recepționarea lor se va face conform normativului CSE-1985.
- Doza la execuție se vor constata necorespunzătoare între situațiile existente pe teren și cea din proiect se va modifica proiectantului.
- Construcția se încadrează în categoria B de importanță (construcții de importanță deosebită), modul 1-ensuring the quality and class of importance B according to G.O. 766/97.
- Proiectul va fi verificat la cerințele A4.2; B2.2; D2.2.

NOTE:

- This plan has been drawn up based on the following data:
-lay-out plan
-longitudinal profile
-cross-section profile
-geotechnical study No. 12.2/1311/June 2003
-bridge's file
-hydraulic determination
-field data
- The new culvert, 2,00m span shall be carried out using 26 prefabricated elements C3. The culverts corresponds to the UIC determination convey (LM7) and SW(2).
- The culverts shall be connected to the embankment and with the ground as follows:
- upstream and downstream using prefabricated wings, type A2.
- At the execution it will strictly comply with the provisions of "Practice code for the concrete production and works, execution, reinforced and pre-stressed concrete-Part 1: Practice code for concrete production" NE 012/1-2007 and "Practice code for the concrete production and works execution, reinforced and pre-stressed concrete-Part2: The execution of concrete works" NE 012/2-2010, and the quality and the reception of the works shall be made accordingly to Norm C SE-1985.
- If during the execution, discrepancies are found between the existing situation on site and the situation stated in this project, the designer will be notified.
- The construction has been classified in B category of importance (high important constructions) modul 1-ensuring the quality and class of importance B according to G.O. 766/97.
- The project will be checked in order to comply with the A4.2; B2.2; D2.2 requirements.

DATE HIDRAULICE

-Inaltimea de apa in pod: / Hydraulic height:	h=1.0m
-Perimetru ud: / Wet perimeter:	P=4.0m
-Aria ud: / Wet surface:	A=2.0m ²
-Viteza de curgere apt: / Water low speed:	V=3.13m/s

HYDRAULIC DATA

-Hydraulic height:	h=1.0m
-Wet perimeter:	P=4.0m
-Wet surface:	A=2.0m ²
-Water low speed:	V=3.13m/s

NOTA

Numar de elemente prefabricate / Number of precast sections:	-26buc.
-Cadre prefabricate C2: / Prefabricated Frame C2:	-2buc.
-Timpane prefabricate T2: / Prefabricated tympan T2	-4buc.
-Arși prefabricate A2: / Prefabricated wings A2	-4buc.

NOTE

Number of precast sections:	-26pcs.
-Prefabricated Frame C2:	-2buc.
-Prefabricated tympan T2	-4buc.
-Prefabricated wings A2	-4buc.

LEGENDA BETOANELOR / CONCRETE LIST

Beton armat in elemente prefabricate / Reinforced concrete in the prefabricated elements	C25/30-CEM II/A-S32,5-(M3+VF3+XA1)-A/C=0,50-Dmax 22-C 0,20
Beton simplu in fundatia elementelor prefabricate / Plain concrete in the prefabricated elements foundation	C25/30-CEM II/A-S 32,5-(VF1)-A/C=0,50-Dmax32-C 0,20
Beton simplu de panza si la piers / Plain concrete for slope and in the carbet	C 25/30-CEM II/A-S 32,5-(VF3)-A/C=0,55-Dmax 16-C 0,20

TEPA P2 40mm / Pipe 70mm diameter

Suruburi chimice prevazute cu filet M16, sigila si piulița M16 din oțel inoxidabil / Chemical bolts M16, washer and nut M16 on stainless steel

Placa de baza P1 200x20-200 / Base plate

Plăcuță de ajustare / Adjusting tile

Mortar fluid cu intrare rapida de 2cm grosime / 2cm thick fluid mortar-fast setting