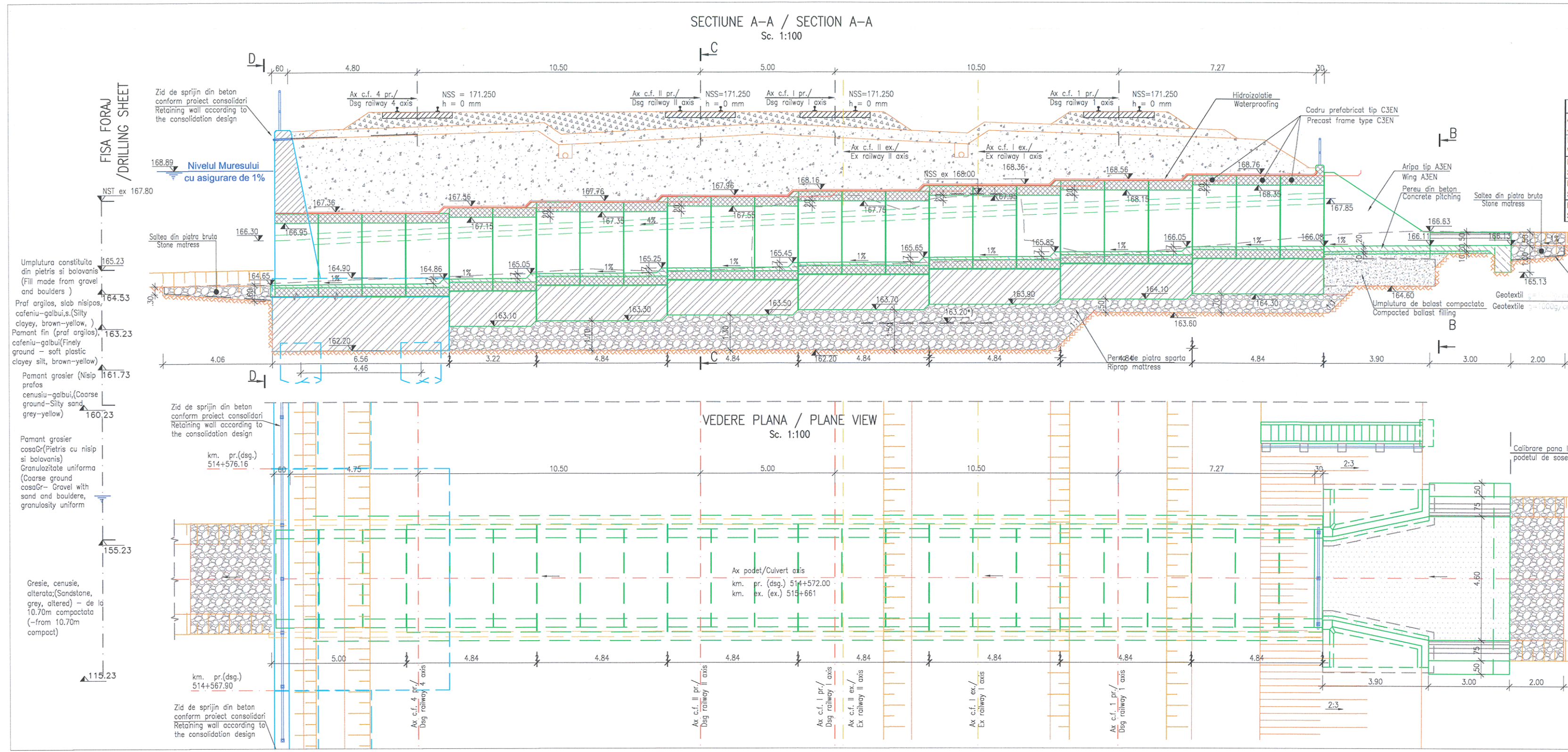

SECTIUNE A–A / SECTION A–A
Sc. 1:100
FISA FORAJ /DRILLING SHEET
Nivelul Muresului cu asigurare de 1%
NSS=171.250
Ax c.f. I pr./ Ax railway I axis
Hidroizolatie Waterproofing
Cadru prefabricat tip C3EN Precast frame type C3EN
Aripa tip A3EN Wing A3EN
Pereu din beton Concrete pitching
Saltea din piatra bruta Stone matress
Geotextil Geotextile
Umplutura din balast compactat Compacted ballast filling
Pereu din piatra sparta Riprap mattress
Zid de sprijin din beton conform proiect consolidari Retaining wall according to the consolidation design
VEDERE PLANA / PLANE VIEW
Sc. 1:100
Calibrare pana la podetul de sosea
Ax pod/Culvert axis km. pr. (deg.) 514+572.00 km. ex. (ex.) 515+661
Pamant grosier cu fragmente (Nisip cu pietris) / Coarse soil
Pietris, nisip, bolovanis / Gravel, sand, boulders
Umplutura constituita din pietris si bolovanis

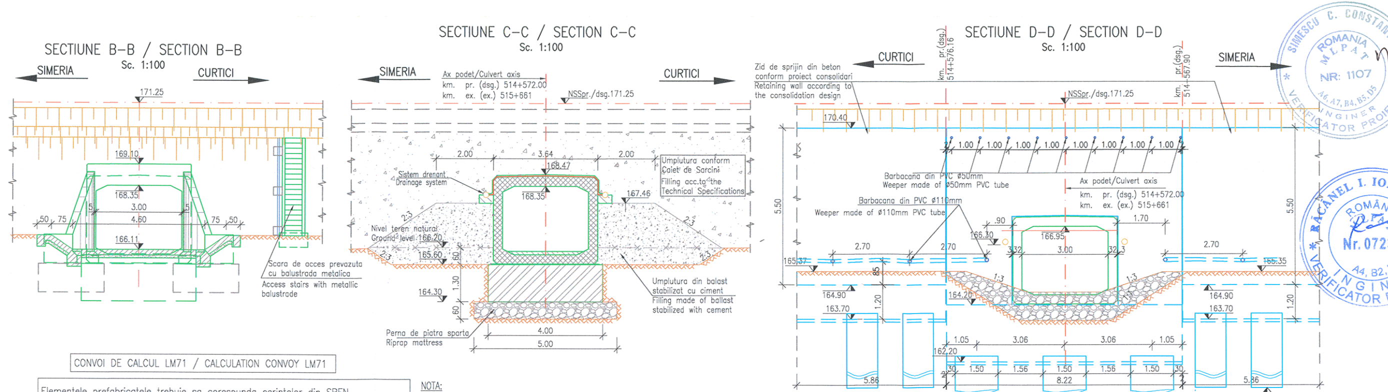
PLANURI DETALII GENERALE / GENERAL DRAWING DETAILS					
ACOPERIRE ROSTURI ELEMENTE PREFABRICATE JOINTS COVERING PRECAST ELEMENTS	P T 0 2	0 2	0 0	P O	0 0 1
HIDROIZOLATIE SI SISTEM DE DRENARE PODETE WATERPROFFING AND DRAINAGE SYSTEM CULVERTS	P T 0 2	0 2	0 0	P O	0 0 2
PLAN COFRAJ CADRU TIP C3EN_m SHUTTERING PLAN FRAME TYPE C3EN_m	P T 0 2	0 2	0 0	P O	0 1 1
PLAN COFRAJ CADRU TIP C3EN_c SHUTTERING PLAN FRAME TYPE C3EN_c	P T 0 2	0 2	0 0	P O	0 1 2
PLAN COFRAJ ARIPA TIP A3EN SHUTTERING PLAN WING A3EN TYPE	P T 0 2	0 2	0 0	P O	0 1 5

LEGENDA BETOANELOR/CONCRETE LEGEND conform NE 012–1:2007/SR EN 206–1

▩	BETON C35/45 – Clasa de expunere XC4+XD1+XF3, agregate D_{max} 22 ELEMENTE PREFABRICATE/PREFABRICATED ELEMENTS
▨	BETON C25/30 – Beton cu caldura de hidratare limitata, clasa de expunere XC2+XF3+XA1, agregate D_{max} 22. RADIER COLOANE SI FUNDATII DIRECTE/CAP PILES AND DIRECT FOUNDATIONS
▧	BETON C25/30 – Clasa de expunere XC4+XF1+XM1, agregate D_{max} 16. SAPA DE PROTECTIE A HIDROIZOLATIEI/WATERPROOFING PROTECTION
▧	BETON C25/30 – Clasa de expunere XC4+XF3+XA1, agregate D_{max} 22. PEREU SI SCARI DE ACCES/PITCHING, ACCES AND STAIRS
▧	BETON C16/20 – Clasa de expunere X0+XF3, agregate D_{max} 16 DREN, BETON DE PANTA, DE EGALIZARE DRAINAGE, SLOPE, LEAN CONCRETE
▨	BETON C25/30 – Clasa de expunere XC4+XF3, agregate D_{max} 22. ELEVATII SI ZIDURI DE SPRIJIN/ELEVATIONS AND RETAINING WALLS
▧	BETON C25/30 – Clasa de expunere XC2+XF3+XA1, agregate D_{max} 22. PILOTI FORATI/DRILL PILES

Observatie:
–Cota indicata cu (*) se refera la cota presupusa a fundatiei existente. Daca la executie, dupa demolarea podetului existent se va constata o alta cota de fundare se va contacta proiectantul pentru adaptarea la situatia existenta.

Observation:
–The level indicated with (*) refers to the presumed level of the existing foundation. If at execution after dismantling the existing culvert another foundation level is found, the designer will be contacted in order to adapt to the existing situation.


SECTIUNE B–B / SECTION B–B
Sc. 1:100
SECTIUNE C–C / SECTION C–C
Sc. 1:100
SECTIUNE D–D / SECTION D–D
Sc. 1:100
SIMERIA
CURTICI
Ax pod/Culvert axis km. pr. (deg.) 514+572.00 km. ex. (ex.) 515+661
Barbacana din PVC Ø50mm Weeper made of Ø50mm PVC tube
Barbacana din PVC Ø110mm Weeper made of Ø110mm PVC tube
Umplutura conform Caiet de Sarcini Filling according to Technical Specifications
Umplutura din balast stabilizat cu ciment Filling made of ballast stabilized with cement
Scara de acces prevazuta cu balustrada metalica Access stairs with metallic balustrade
Pereu de piatra sparta Riprap mattress
Nivel teren natural Ground level
Zid de sprijin din beton conform proiect consolidari Retaining wall according to the consolidation design

CONVOI DE CALCUL LM71 / CALCULATION CONVOY LM71

Elementele prefabricatele trebuie sa corespunda cerintelor din SREN 206–1/2002
The precast elements have to observe the requirements specified in SREN 206–1/2002

OBSERVATIE: Pe toate suprafetele din beton in contact cu pamantul se vor aplica 2 straturi de emulsie din bitum filerizat.
ATTENTION: All concrete surfaces in contact with soil will be coated with 2 bituminuous layers.

NOTA:
1. Pentru trasarea lucrarilor se vor folosi ca repere in plan axele liniilor c.f. iar ca repere de nivel cota NSS proiectat pe linia I.
2. Orice neconcordanta intre elementele avute in vedere la elaborarea proiectului si situatia de pe teren va fi anuntata proiectantului pentru adaptare la situatia existenta.

NOTE:
1. For the mapping out of the works there will be used as landmarks in plan the axis of the railways and as benchmarks for level the ULR dsg. level on track I.
2. Any incongruity between the elements taken into account when preparing the design and the situation on the site will be announced to the designed in order to adapt to the existing situation.

Observatie:
–Forma definitiva al fundatiei podetului se va stabilii dupa decopertarea terenului pana la fundatia existenta, si contactarea proiectantului.

Observation:
–The culvert's foundation final shape will be determined after digging till the existing foundation, and contacting the designer.

NOTA:
1. Prezentul plan s–a intocmit in baza urmatoarelor date:
- ridicarea topografica;
- studiu hidraulic, studiu geotehnic;
- expertiza tehnica a podetului;

2. La executie se vor respecta cu strictete prevederile din "Codul de practica pentru executarea lucrarilor din beton, beton armat si beton precomprimat",indicativ NE 012, NE 013–2002 din "Instructiunile tehnice privind procedeele de remediere a defectelor pentru elementele de beton si beton armat" indicativ C149–87, din "Normativul pentru verificarea calitatii si receptia lucrarilor de constructii aferente" indicativ C56–85 si a Caietului de Sarcini.
3. Pentru constructia podetului se vor executa urmatoarele lucrari:
- Inlocuirea podetului existent, in acelasi amplasament, cu un podet nou tip C3EN.
- Racordarea podetului nou cu terasamentele cu aripi prefabricate tip A3EN in amonte.
- Parapet din teava metalica pe timpane.
- Protectia albiei in zona podetului cu pereu din beton.
- Profilarea albiei in aval.
- Impermeabilizarea suprafetelor din beton vizibile.
- Scari de acces.

4. Conform H.G. 766/1997 lucrarea se incadreaza in categoria "B" a constructiilor de importanta deosebita.
5. Proiectul va fi verificat de verificatori atestati MLPAT la exigentele A.4, B.2 si D.2.

NOTE:
1. This plan has been drawn up on the basis of the following data:
- topo layout;
- the hydraulic study, the geotechnical study;
- culvert sheet;

2. There will be strictly respected the provisions from "Practice code for plain concrete, reinforced concrete and prestressed concrete works execution" ind. NE012 NE013–2002 "Practice code for plain concrete, reinforced concrete and prestressed concrete prefabricated elements execution" ind. NE013–2002, from "Technical instructions regarding the fixing procedures for concrete and reinforced concrete elements" C149–87, from "Normative for quality checking and works reception for afferent construction" ind. C56–85 and Technical Specifications of this project.
3.In view of executing the culvert, the next works will be executed:
- Replacement of the existing culvert, on the same location with a new culvert type C3EN.
- Connection of the new culvert to the embankments with precast wings type A3EN downstream, and upstream.
- Parapet made out of metallic pipe on the tympans.
- Riverbed protection in the area of the culvert by help of a concrete pitching.
- Riverbed calibration downstream.
- Coating all visible concrete surfaces.
- Access stairs.

4. Complying with H.G. 766/1997 this structure belongs to category "B" of importance.
5. The project will be verified at A.4, B.2 and D.2 requirements.

Observatii privind realizarea coloanelor:
– Conform "NP123" Normativ privind proiectarea geotehnica a fundatiilor pe piloti, capacitatea portanta a coloanelor se va stabili la executie, dupa realizarea incarcarilor de proba (conform tabel 3, punctul 5.3.2.5);
–Incarcarile statice de proba vor avea la baza un proiect special, intocmit de catre antreprenorul lucrarii si se vor realiza in concordanta cu "NP045" Normativ privind incercarea pe teren a pilotilor de proba si a pilotilor din fundatii;
– Daca la executie , dupa realizarea incarcarilor de proba se va constata ca rezistenta unui pilot este mai mica decat cea avuta in vedere la proiectare atunci se va convoca proiectantul pentru redimensionarea fundatiilor si adaptarea proiectului la noua situatie;
– Pe toate coloanele se vor monta cate 3 tevi (conform indicatiilor din prezentul proiect) pentru realizarea controlului ultrasonic.

Observations concerning the columns' execution:
– According to "NP123" Normative for the geotechnical designing of foundations on piles, the bearing capacity of columns will be established at the execution, after carrying–out the test loadings (according to table 3, point 5.3.2.5);
– The static test loadings will be based on a special design, prepared by the work's contractor and will be carried–out in compliance "NP045" Normative concerning the site testing of test piles and of piles from foundations;
– If at the execution, after carrying–out the test loadings, it will be found that the strength of a pile is smaller than the one taken into account when designing, the designer will be convoked in order to resize the foundations and to adapt the design to the new situation;
– 3 pipes will be mounted on each column (according to the indications from this design), in order to carry–out the ultrasonic inspection.

Observatie:
Zidul de sprijin din aval este cuprins in cadrul proietului de consolidari

Observatie:
Zidul de sprijin din aval este cuprins in cadrul proietului de consolidari

CHIRICA C. ANTON

Nr. 07230

Verificator / Expert Checker / Expert	Cerinta Requirement	Semnatura Signature	Referat / Expertiza Report / Expertise

European Investment Bank

MINISTERUL TRANSPORTURILOR

BENEFICIAR / BENEFICIARY :

COMPANIA NAȚIONALĂ DE CĂI FERATE "CFR" SA

PROIECTANT / DESIGNER: PÖYRY

			Data Date	Semnatura Signature
Aprobat Approved	Sef de echipa Team leader	C. Teodorescu	01.2013	
Verificat Checked	Expert Cheie Key Expert	R. Tudorascu	01.2013	RTudorascu

Subcontractant / Subcontractor: VIOTOP

Aprobat Approved	Adjunct Sef de echipa Deputy Team leader	A.M. Baicu	01.2013	
Proiectat Designed	Inginer Engineer	T. Toma	01.2013	

"Reabilitarea liniei c.f. Frontieră - Curtici - Simeria, parte componentă a coridorului IV Pan - European pentru circulaţia trenurilor cu viteză maximă de 160 km/h"
Tronsonul 2-C : cap Y Ilteu - cap Y Gurasada
"Rehabilitation of the Railway Line Border - Curtici - Simeria, component Part of the IV Pan - European Corridor for the Trains Circulation with maximum speed of 160 km/h"
Section 2-C : end Y Ilteu - end Y Gurasada

Project 9i 35311.1

Faza / Phase: PTH+CS / TD+TS

Denumire desen / Drawing name:
DISPOZITIE GENERALA/ GENETAL LAYOUT
PODET / CULVERT
km 514+572(pr.) 515+661(ex.)

Scara / Scale	Revizia / Revision	Cod desen / Drawing Code	Nr / No
1:100	1 / 04.2013	PT.02.02.18.PO.05.03	03