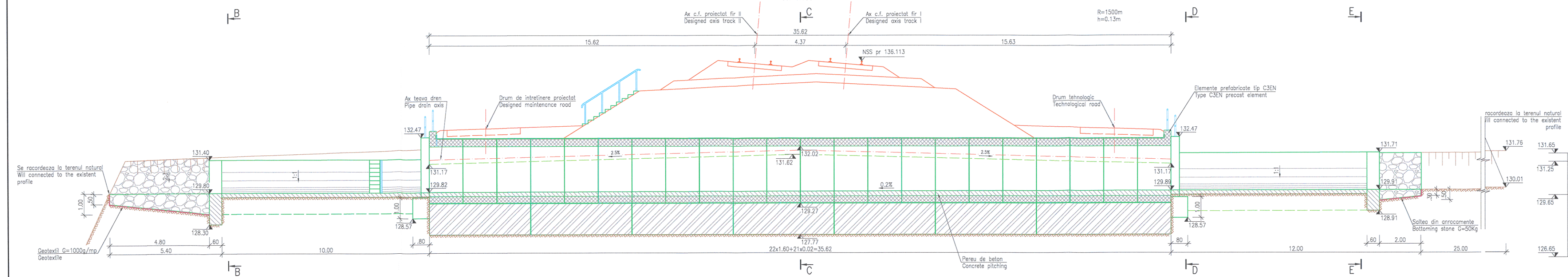
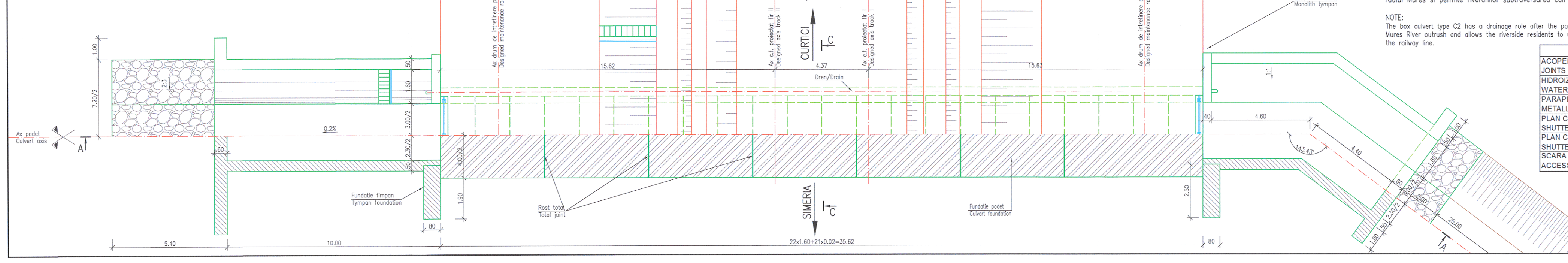
SECTIUNE LONGITUDINALA A–A/ A–A LONGITUDINAL SECTION
Sc. 1:100


Ax c.f. proiectat fir II
Designed axis track II
Ax c.f. proiectat fir I
Designed axis track I
R=1500m
h=0.13m
35.62
4.37
15.62
15.63
NSS pr 136.113
Ax teava dren
Pipe drain axis
Drum de intretinere proiectat
Designed maintenance road
Drum tehnologic
Technological road
Elemente prefabricate tip C3EN
Type C3EN precast element
Se racordeaza la terenul natural
Will connected to the existent profile
Geotextil G=1000g/mp/
Geotextile
Saltea din anrocamente
Bottoming stone G=50Kg
Pereu de beton
Concrete pitching
132.47
131.40
129.80
128.30
131.17
129.82
128.57
132.02
131.62
129.27
127.77
129.89
131.71
129.91
128.91
131.76
130.01
2.5%
0.2%
2:3
1:1
22x1.60+21x0.02=35.62
4.80
5.40
60
10.00
80
12.00
2.00
25.00
B
C
D
E

VEDERE PLANA SI PLANUL FUNDATIILOR/ PLAN VIEW AND FOUNDATIONS PLAN
Scara/Scale 1:100


Ax podet
Culvert axis
Ax drum de intretinere proiectat
Designed maintenance road axis
Ax c.f. proiectat fir II
Designed axis track II
Ax c.f. proiectat fir I
Designed axis track I
CURTICI
SIMERIA
Dren/Drain
Fundatie timpan
Tympan foundation
Rost total
Total joint
Fundatie podet
Culvert foundation
Timpan monolit
Monolith tympan
143.43°
0.2%
2:3
1:1
7.20/2
3.00/2
2.30/2
4.00/2
4.60
4.40
22x1.60+21x0.02=35.62
15.62
15.63
4.37
A
C

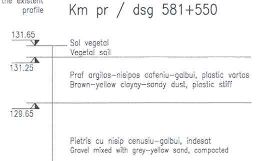
NOTA:
Podetul tip cadru C2 are rol de desecare dupa trecerea viiturilor raului Mures si permite riveranilor subtraversarea caii ferate.

NOTE:
The box culvert type C2 has a drainage role after the passage of Mures River outrush and allows the riverside residents to undercross the railway line.

OBSERVATIE: Pe toate suprafetele din beton in contact cu pamantul se vor aplica 2 straturi de emulsie din bitum filerizat.

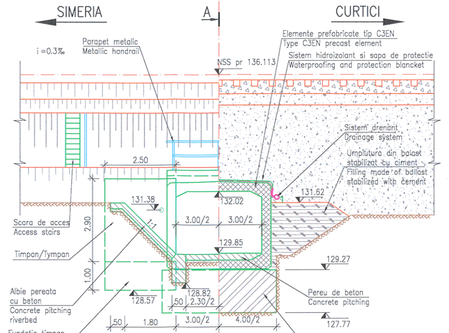
ATTENTION: All concrete surfaces in contact with soil will be coated with 2 bituminuous layers.

FISA FORAJAULUI F1
DRILLING SHEET F1
Km pr / dsg 581+550


131.65
Sol vegetal
Vegetal soil
131.25
Praf argilos–nisipos cafeniu–galbui, plastic vartos
Brown–yellow clayey–sandy dust, plastic stiff
129.65
Pietris cu nisip cenusiu–galbui, indesat
Gravel mixed with grey–yellow sand, compacted
126.65

VEDERE D–D / D–D VIEW
Sc. 1:100

SECTIUNE C–C / C–C SECTION
Sc. 1:100


SIMERIA
CURTICI
A
i =0.3‰
Parapet metalic
Metallic handrail
NSS pr 136.113
Elemente prefabricate tip C3EN
Type C3EN precast element
Sistem hidroizolant si sapa de protectie
Waterproofing and protection blancket
Sistem drenant
Drainage system
Umplutura din balast stabilizat cu ciment
Filling made of ballast stabilized with cement
Scara de acces
Access stairs
Timpan/Tympan
Albie pereata cu beton
Concrete pitching riverbed
Fundatie timpan
Tympan foundation
Pereu de beton
Concrete pitching
Fundatie podet
Culvert foundation
131.38
132.02
131.62
129.85
129.27
128.57
128.82
127.77
2.50
2.90
1.00
3.00/2
2.30/2
4.00/2
50
1.80
1:1

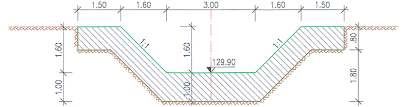
PLANURI DETALII GENERALE / GENERAL DRAWING DETAILS					
ACOPERIRE ROSTURI ELEMENTE PREFABRICATE JOINTS COVERING PRECAST ELEMENTS	P T 0 2	0 2	0 0	P O	0 0 1
HIDROIZOLATIE SI SISTEM DE DRENARE PODETE WATERPROFFING AND DRAINAGE SYSTEM CULVERTS	P T 0 2	0 2	0 0	P O	0 0 2
PARAPET METALIC PODETE METALLIC HANDRAIL CULVERTS	P T 0 2	0 2	0 0	P O	0 0 3
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
SCARA DE ACCES SI BALUSTRADA METALICA ACCESS STAIRS AND METALLIC BALUSTRADE	P T 0 2	0 2	0 0	P O	0 2 2

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

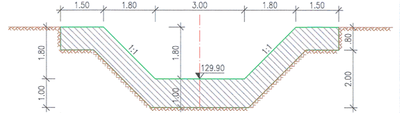
▩	BETON C35/45 – Clasa de expunere XC4+XD1+XF3, agregate D_{max} 22 ELEMENTE PREFABRICATE/PREFABRICATED ELEMENTS
▨	BETON C25/30 – Beton cu caldura de hidratare limitata, clasa de expunere XC2+XF1+XA1, agregate D_{max} 22. FUNDATII DIRECTE/DIRECT FOUNDATIONS
▨	BETON C25/30 – Clasa de expunere XC4+XF3, agregate D_{max} 22. ELEVATII TIMPANE/ELEVATIONS TYMPANS
▧	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 STAIRS
▧	BETON C16/20 – Clasa de expunere X0+XF3, agregate D_{max} 32. DREN, BETON DE PANTA DRAINAGE, SLOPE CONCRETE

CONVOI DE CALCUL LM71
CALCULATION CONVOY LM71

SECTIUNE B–B / B–B SECTION
Sc. 1:100


1.50
1.60
3.00
1.60
1.50
1:1
1:1
129.90
1.60
1.00
.80
1.80
2.95
.50
2.30
.50
2.95

SECTIUNE E–E / E–E SECTION
Sc. 1:100


1.50
1.80
3.00
1.80
1.50
1:1
1:1
129.90
1.80
1.00
.80
2.00
3.15
.50
2.30
.50
3.15

NOTA:
1. Prezentul plan s–a intocmit in baza urmatoarelor date:
- studiu topografic;
- studiu geotehnic;
- studiu hidraulic;
- date culese pe teren
2. Pentru asigurarea scurgerii apelor pe zona traseului cf nou proiectat se executa urmatoarele lucrari:
- se va executa un podet nou cf tip C3EN;
- racordarea podetului nou cu terasamentele va fi asigurata in amonte si aval cu timpane din beton turnate monolit;
- se vor impermeabiliza suprafetele de beton vizibile;
- se prevede parapet metalic la ambele timpane ale podetului;
- se prevad scari de acces pe terasament, de o parte si alta a podetului;
- se va amenaja albia in interiorul podetului si se va regulariza 12.00m in amonte si 15.40m in aval, cu pereu de beton
- saltea de 2.00m lungime, din piatra bruta la ambele capete ale pereului;
- in amonte si aval se va racorda la albia naturala.
- la turnarea betonului in fundatii, se vor realiza rosturi totale. Rosturile din fundatii se vor suprapune rosturilor intre cadrele prefabricate minimum din trei in trei cadre.
3. La executie se vor respecta cu strictete prevederile din SR EN 206–1, NE 012–1:2007, NE 012–2:2010, NE013/2002, C56–85 (C56–2002) si a Caietului de Sarcini.
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 was prepared based on the following data:
- topographic study;
- geotechnical study;
- hydraulic study;
- data collected on site.
2. In order to ensure the water discharge on the area of the new railway designed route, the following works will be executed:
- the execution of a new railway culvert type C3EN;
- The visible surfaces of concrete will be waterproofed;
- the connection of the new culvert with the embankments will be carried out upstream and downstream by help of concrete tympans cast in place;
- metallic handrail is provided at both tympans of the culvert;
- access stairs are provided on the embankment, on one side and the other of the culvert;
- the riverbed will be arranged inside the culvert and adjustment 12.00m upstream and 15.40m downstream, with concrete pitching;
- 2.00m long mattress, made of rough stone at both ends of the pitching;
- the natural riverbed will be connected upstream and downstream.
- when casting the concrete in the foundations, total joints will be executed. The joints in the foundations will be overlapped with the joints between the precast frames at least every three frames.
3. When executing, there will be strictly observed the provisions of SR EN 206–1, NE 012–1:2007, NE 012–1:2010, NE013/2002, C56–85 and of the Technical Specifications.
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.

RĂCĂNEL I. IONUȚ RADU
Nr. 07230

SIMESCU C. CONSTANTIN
NR: 1107

Prezentul plan anuleaza si inlocuieste versiunea anterioara
This plan cancels and replaces previous version

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

CHIRICA C. ANTON
NR. 1563

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	
Subcontractant / Subcontractor	VIOTOP			
Aprobat Approved	Adjunct Sef de echipa Deputy Team leader	A.M. Baicu	01.2013	
Proiectat Designed	Inginer Engineer	D. Stanciu	01.2013	

"Reabilitarea liniei c.f. Frontier ă - Curtici - Simeria , parte componentă a coridorului IV Pan - European pentru circula ţia trenurilor cu viteză maximă de 160 km/h"
Tronsonul 2-A : km 614 - cap Y Bârzava
"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-A : km 614 - end Y Bârzava

Project 9i
35311.1

Faza / Phase:
PTH+CS / TD+TS

Denumire desen / Drawing name:

DISPOZITIE GENERALA / GENERAL LAYOUT
PODET / CULVERT KM pr. 581+633

Scara / Scale	Revizia / Revision	Cod desen / Drawing Code	Nr / No
1:100	1 / 04.2013	PT.02.02.09.PO.15.03	03