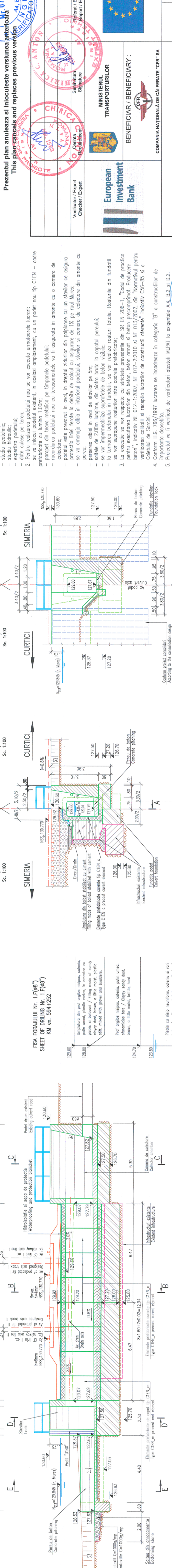
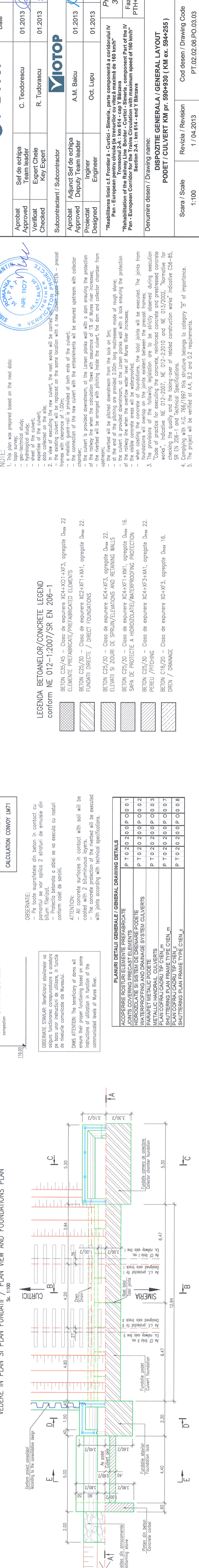


SECTIUNE LONGITUDINALA A-A / A-A LONGITUDINAL SECTION Sc. 1:100



VEDERE IN PLAN SI PLAN FUNDATII / PLAN VIEW AND FOUNDATIONS PLAN Sc. 1:100



FISA FORAULUI Nr. 1.F(08*)
SHEET OF DRILLING Nr. 1.F(08*)
KM ex. 594+252

limbulatura din prof argilos nisios, cafeeniu, puflin umed, plastic vortas, in amestec cu pietris si bolovani / Filling made of sandy clayey dust, brown, a little moist, plastic silt, mixed with gravel and boulders.

Prof argilos nisios, cafeeniu, puflin umed, stromcose tare / Clayey sandy dust, brown, a little moist, brittle, hard compaction

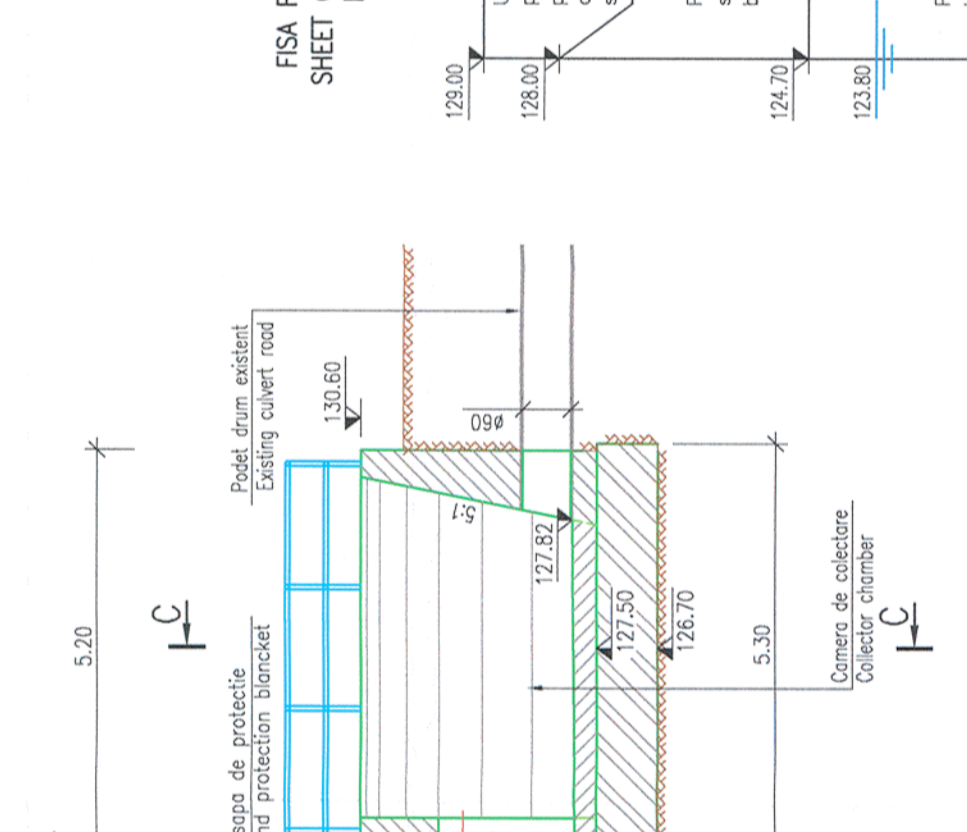
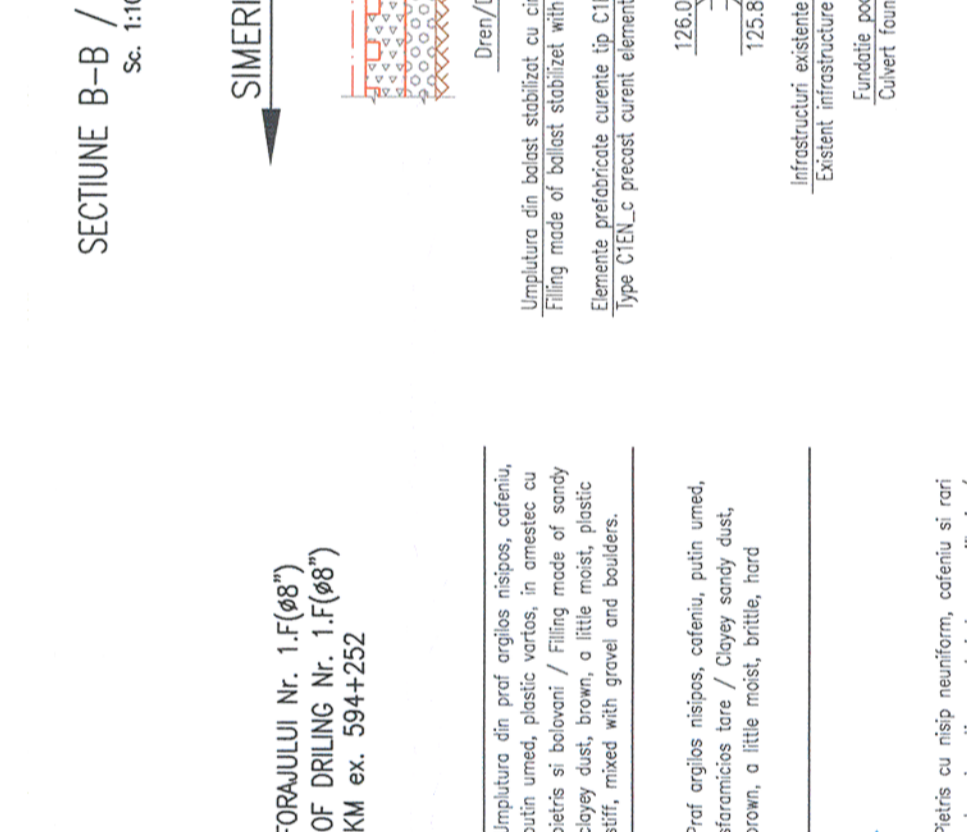
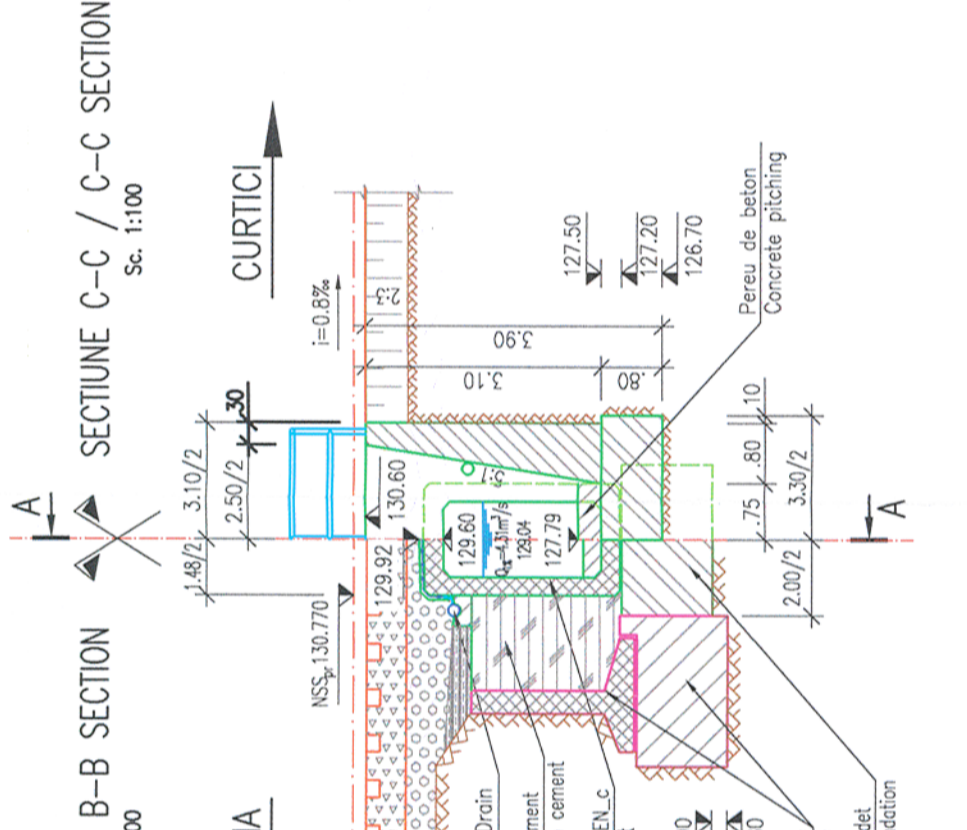
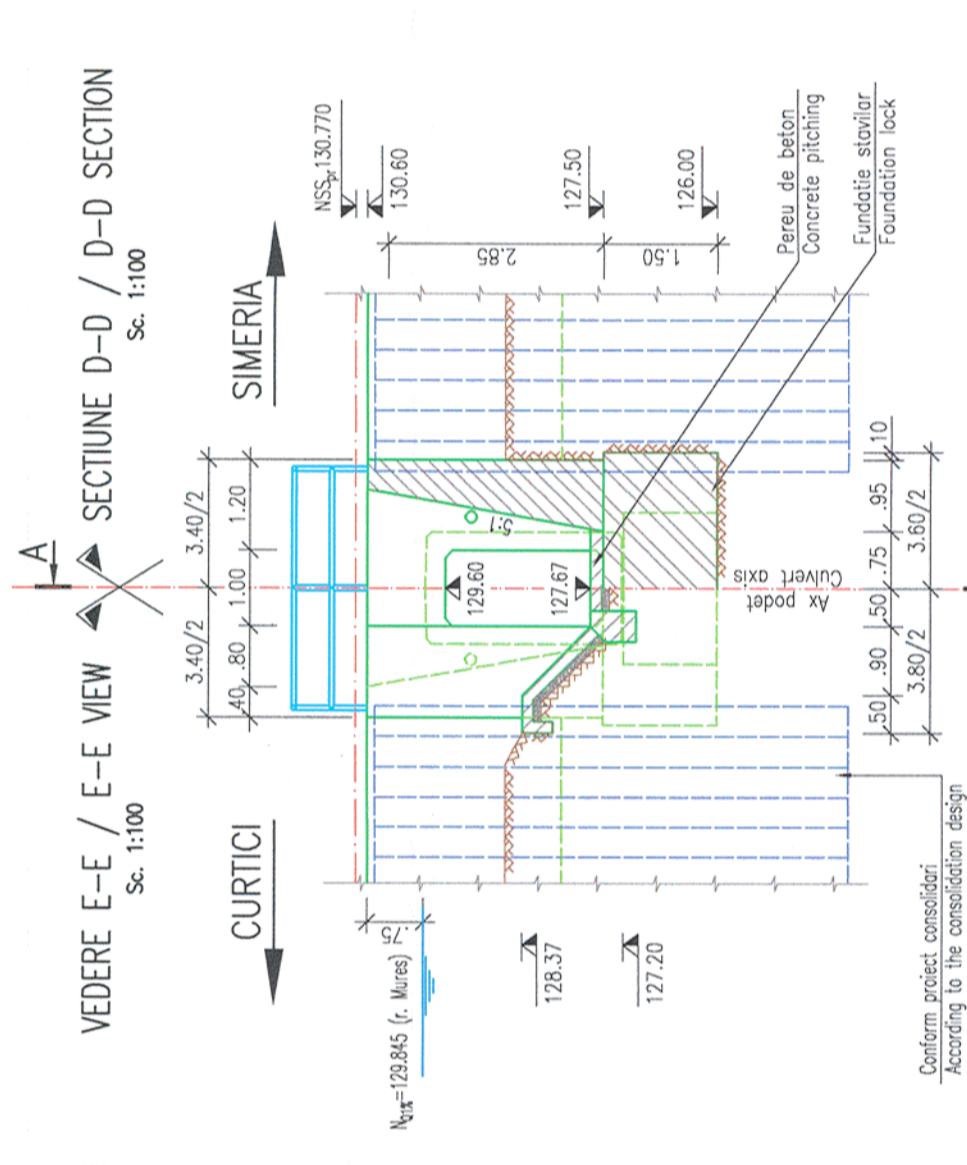
Pietris cu nisip neuniform, cafeeniu si rari bolovani, puflin umed, indesare mijlocie / Gravel mixed with uneven sand, brown and rare boulders, a little moist, of medium compaction

OBSERVATIE SIMILAR: Beneficiarul stavarilor va asigura functionarea corespunzatoare a ocestora pe baza unor instructiuni de utilizare, in functie de nivelul instructiunilor ale Muresului.

DAMS ATTENTION: The beneficiary of dams will ensure their proper functioning based on some instructions of utilization in function of the communicated levels of Mures River.

PLANURI DETALII GENERALE / GENERAL DRAWING DETAILS										
ACOPERIRE ROSTURI ELEMENTE PREFABRICATE	P	T	0	2	0	2	0	0	0	1
JOINTS COVERING PRECAST ELEMENTS	P	T	0	2	0	0	0	0	0	2
HIDROIZOLATIE SI SISTEM DE DRENARE PODETE	P	T	0	2	0	0	0	0	0	2
WATERPROOFING AND DRAINAGE SYSTEM CULVERTS	P	T	0	2	0	0	0	0	0	3
PARAPET METALIC-PODETE	P	T	0	2	0	0	0	0	0	3
METALLIC HANDRAIL CULVERTS	P	T	0	2	0	0	0	0	0	7
PLAN COFRAJ CADRU TIP CIEN_m	P	T	0	2	0	0	0	0	0	7
SHUTTERING PLAN FRAME TYPE CIEN_m	P	T	0	2	0	0	0	0	0	7
PLAN COFRAJ CADRU TIP CIEN_c	P	T	0	2	0	0	0	0	0	8
SHUTTERING PLAN FRAME TYPE CIEN_c	P	T	0	2	0	0	0	0	0	8

- NOTA:
- Prezentul plan s-a intocmit in baza urmatoarelor date:
 - ridicare topografica;
 - studiu geotehnic;
 - studiu hidrologic;
 - expertiza podetului;
 - date culuse pe teren;
 - Pentru realizarea podetului nou se vor executa urmatoarele lucrari:
 - se va inlocui podetul existent, in ocelasi amplasament, cu un podet nou tip CIEN - cadre prefabricate cu lumina 1.00m;
 - parapet din teava metalica pe limpanele podetului;
 - racordarea podetului nou cu terasamentele va fi asigurata in amonte cu o camera de colectare;
 - podetul este prevazut in aval, in dreptul zidurilor din palpiase cu un stavaril ce asigura protectia liniei ferate la debite de calcul cu asigurare de 1% pe raul Mures;
 - se va amenaja abia in interiorul podetului, stavaril si camera de colectare din amonte cu peris;
 - perisera albei, in aval de stavaril pe 5m;
 - saliale de 2.00m lungime, din piatra prua la capatul perelui;
 - se vor imperechea suprafețele de beton vizibile;
 - la turnarea betonului in fundatii, se vor realiza rosturi totale. Rosturile din fundatii se vor suprapune rosturilor intre cadrele prefabricate;
 - La executie se vor respecta cu strictete prevederile din SR EN 206-1, "Codul de practica pentru executarea lucrarilor din beton, beton armat si beton precomprimat. Producere beton", indicativ NE 012-1:2007, NE 012-2:2010 si NE 013/2002, din "Normativul pentru verificarea calitatii si receptia lucrurilor de constructii diferite" indicativ CS6-85 si a Caietului de Sarcini.
 - Conform H.G. 766/1997 lucrarea se incadreaza in categoria "B" a constructiilor de importanta deosebita.
 - Proiectul va fi verificat de verificatori atestati MLPAT la exigentele A.4, B.2. si D.2.



CONVOI DE CALCUL LM71
CALCULATION CONVOY LM71

OBSERVATIE:
- Pe toate suprafețele din beton in contact cu pamantul se vor aplica 2 straturi de emulsie din bitum fierzcat.
- Protectia betonata o albei se va executa cu rosturi conform caiet de sarcini.

ATTENTION:
- All concrete surfaces in contact with soil will be coated with 2 bituminous layers.
- The concrete protection of the riverbed will be executed with joints according with technical specifications.

LEGENDA BETONELOR/CONCRETE LEGEND conform NE 012-1:2007/SR EN 206-1

- BETON C35/A5 - Clasa de expunere XC4+XD1+XF3, agregate Dmax 22
ELEMENTE PREFABRICATE/PREFABRICATED ELEMENTS
- BETON C25/30 - Clasa de expunere XC2+XF1+XA1, agregate Dmax 22.
FUNDATII DIRECTE / DIRECT FOUNDATIONS
- BETON C25/30 - Clasa de expunere XC4+XF3, agregate Dmax 22.
ELEVATI SI ZIDURI DE SPRUJ/RETAINMENTS AND RETAINING WALLS
- BETON C25/30 - Clasa de expunere XC4+XF1+XA1, agregate Dmax 16.
SAPA DE PROTECTIE A HIDROIZOLATIEI/WATERPROOFING PROTECTION
- BETON C25/30 - Clasa de expunere XC4+XF3+XA1, agregate Dmax 22.
PEREU /PITCHING
- BETON C16/20 - Clasa de expunere XO+XF3, agregate Dmax 16.
DREN / DRAINAGE

NOTE:

- This plan was prepared based on the next data:
 - topo survey;
 - geo-technical study;
 - hydrological study;
 - sheet of the culvert;
 - expertise of the culvert;
 - data collected on the site;
- In view of executing the new culvert, the next works will be carried out:
 - the existing culvert will be replaced on the same location with a new culvert type CIEN - precast frames with clearance of 1.00m;
 - a metallic guard-rail is provided at both ends of the culvert;
 - the connection of the new culvert with the embankments will be ensured upstream with collector chamber;
 - the culvert is provided downstream, at the Larsen planks wall with a dam ensuring the protection of the railway line when the calculation flows with assurance of 1% of Mures river increases;
 - the riverbed will be arranged with pitching inside the culvert, the dam and collector chamber from upstream;
 - the riverbed will be pitched downstream from the lock on 5m;
 - at the end of the pitching are provided 2.00m long mattresses made of rough stone;
 - the culvert is provided downstream, at the Larsen planks wall with a lock ensuring the protection of the railway line when the overflow water level of Mures River increases;
 - when casting the concrete of foundations, the total joints will be executed. The joints from foundations will overlap on the joints existent between the precast frames;
- The provisions of the following legislation are to be strictly observed during execution checking the quality and the taking-over of related construction works' indicative CS6-85, SR EN 206-1 and Technical Specifications.
- Complying with H.G. 766/1997 this structure belongs to category "B" of importance.
- The project will be verified at A.4, B.2 and D.2 requirements.

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

MACAREL-T. IONUTRADU
ROMANIA
MLPAT
Nr. 07230
44. B2.2
INGINIER
PROIECTE

CHIRICĂ ROMANIA
INGINIER
PROIECTE

ANTD
ROMANIA
INGINIER
PROIECTE

Verificator / Expert
Signature

Referat / Expertiza
Report / Expertise

MINISTERUL TRANSPORTURILOR

BENEFICIAR / BENEFICIARY:
CFR

COMPANIA NATIONALA DE CAI FERATE "CFR"-SA

PROIECTANT / DESIGNER:
PÖYRY

Semnatura
Signature

Data
Date

Approbat Approved
Sef de echipa Team leader
C. Teodorescu

Verificat Checked
Expert Cheie Key Expert
R. Tudorascu

Subcontractant / Subcontractor
VIOTOP

Approbat Approved
Adjunct Sef de echipa Deputy Team leader
A.M. Baicu

Proiectat Designed
Inginier Engineer
Oct. Lupu

"Reabilitarea liniei c.f. Curtici - Simeria, parte componentă a coridorului IV Pan - European pentru circulația trenurilor cu viteză maximă de 160 km/h"
Tronsoanel 2-A : km 614 - cap Y Bărzava

"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 Bărzava

Denumire desen / Drawing name:
DISPOZITIE GENERALA / GENERAL LAYOUT
PODETE / CULVERT KM PR. 590+930 (KM ex. 594+255)

Project 9j
35311.1

Faza / Phase:
PTH+CS / TD+TS

Scara / Scale
1:100

Revizia / Revision
1 / 04.2013

Cod desen / Drawing Code
PT.02.02.06.PO.03.03

Nr / No
03