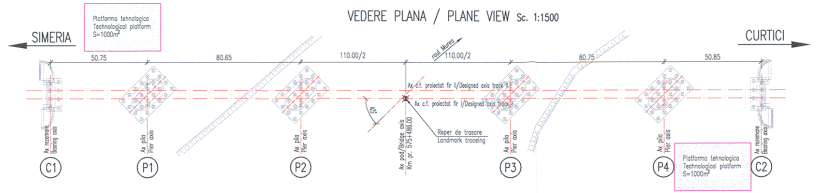
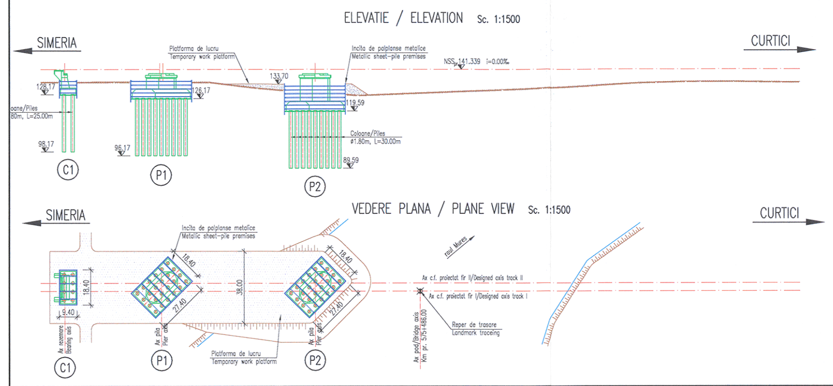
FAZA I: LUCRARI PREGATITOARE
STAGE I: PRELIMINARY WORKS



FAZA II: REALIZARE INFRASTRUCTURI MAL SIMERIA (C1, P1, P2)
STAGE II: MAKING THE INFRASTRUCTURES ON THE SIMERIA BANK (C1, P1, P2)


ELEVATIE / ELEVATION Sc. 1:1500
VEDERE PLANA / PLANE VIEW Sc. 1:1500
SIMERIA
CURTICI
C1
P1
P2

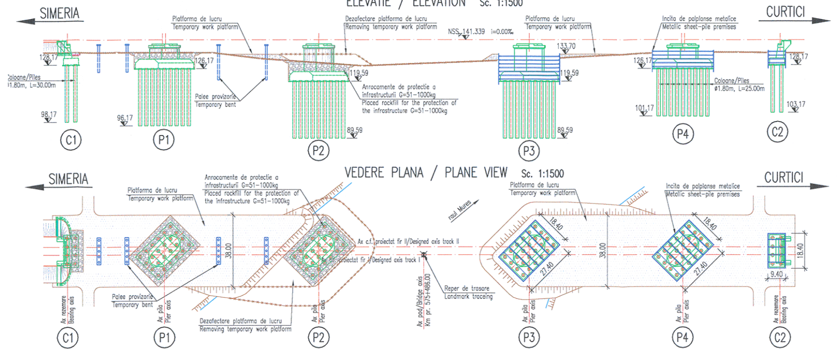
FAZA I: LUCRARI PREGATITOARE
1. Se amenajeaza drumul de acces si platforma tehnologica.
2. Se realizeaza organizarea de santier.
3. Se reamplaseaza digurile pe zona afectata de lucrari.
4. Se executa rampele de acces.

STAGE I: PRELIMINARY WORKS
1. Arranging the access roads and the technological platforms.
2. Making the site organization.
3. Repositioning the dams from the work site.
4. Executing the access ramps.

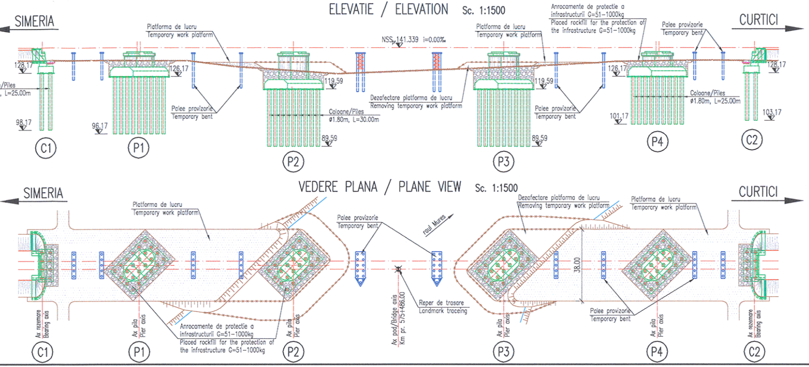
FAZA II: REALIZARE INFRASTRUCTURI MAL SIMERIA (C1, P1, P2):
1. Se executa platforma de lucru a utilajelor la infrastructuri pe malul Simeria (cota superioara a platformei va fi cu 25 cm peste nivelul Muresului cu asigurare 10%).
2. Se foreaza pilotii de la nivelul platformei de acces la infrasturcturile C1, P1 si P2.
3. Se executa incintele de palplanse pentru infrastructurile de pe malul Simeria.
4. Se executa sapaturile in interiorul incintelor iar odata cu avansarea acestora se vor monta spraituri.
5. Se executa betonul de egalizare iar dupa atingerea clasei se demonteaza spraiturile de la partea inferioara.
6. Se executa lucrarile de spargere a capetelor de piloti.
7. Se realizeaza incercarea pilotilor.
8. Se monteaza cofrajele pentru fundatii, si se executa fundatiile infrastructurilor.
9. Dupa atingerea a 80% din clasa betonului din fundatii, acestea se decofreaza si se executa umpluturile din jurul lor.
10. Se monteaza cofrajele pentru elevatii, si se executa elevatiile infrastructurilor.
11. Dupa atingerea clasei betonului din elevatiile infrastructurilor acestea se decofreaza, si se demonteaza spraiturile de pe zona lor odata cu executarea umpluturile alaturate.
12. Se monteaza cofrajele pentru banchete infrastructurilor si pentru zidurile intoarse ale culeei si se betoneaza.
13. Dupa atingerea clasei betonului din banchete si din zidurile intoarse se decofreaza.
14. Se executa lucrarile de protectie a infrastructurilor cu saltele de anrocamente.
15. Se demonteaza incintele de palplanse.
16. Se realizeaza sistemul drenant, umpluturile din spatele celeei si se executa sferturile de con.
17. Se executa paleele provizorii pe malul Simeria.
18. Se dezafecteaza platforma de acces de pe malul Simeria din zona albiei minore.

STAGE II: MAKING THE INFRASTUCTURES ON THE SIMERIA BANK (C1, P1, P2)
1. Making the work platform of plants to the Simeria bank (the top level of the platform will be 25 cm over the level of Mures River with 10% protection).
2. Drilling the piles from the level of the platform of access to infrastructures C1, P1 and P2.
3. Making the sheet-pile premises for the infrastructures on the left bank.
4. Making the excavations inside the premises and mounting spurs as the excavation progresses.
5. Making the levelling concrete and dismantling the spurs from the bottom side after reaching the concrete class.
6. Making the works for breaking the pile ends.
7. Testing the piles.
8. Mounting the shutters for foundations and making the infrastructures' foundations.
9. After reaching 80% of the class of concrete in the foundations, their shutters are removed and the filling around them is carried-out.
10. Mounting the shutters for the elevations and executing the infrastructures' elevations.
11. After reaching the class of concrete in the infrastructures' elevations, their shutters are removed and the spurs on their area are dismantled at the same time with the execution of the adjacent filling.
12. Mounting the shutters for the infrastructures' benches and for the wing walls of the abutment and covering with concrete.
13. After reaching the class of concrete in the benches and in the wing walls, the shutters are removed.
14. Making the infrastructure protection works with riprap mattresses.
15. Dismantling the sheet-pile premises.
16. Making the draining system, the filling behind the abutment and carrying-out the cone quarters.
17. Making the temporary bents on the Simeria bank.
18. Closing-down the access platform from the Simeria bank in the area of the minor riverbed.

FAZA III: REALIZARE INFRASTRUCTURI MAL CURTICI (P3, P4, C2)
STAGE III: MAKING THE INFRASTRUCTURES ON THE CURTICI BANK (P3, P4, C2)


ELEVATIE / ELEVATION Sc. 1:1500
VEDERE PLANA / PLANE VIEW Sc. 1:1500
SIMERIA
CURTICI
C1
P1
P2
P3
P4
C2

FAZA IV: REALIZARE PALEI PROVIZORII IN ALBIA MINORA
STAGE IV: MAKING THE TEMPORARY BENTS IN THE MINOR RIVERBED


ELEVATIE / ELEVATION Sc. 1:1500
VEDERE PLANA / PLANE VIEW Sc. 1:1500
SIMERIA
CURTICI
C1
P1
P2
P3
P4
C2

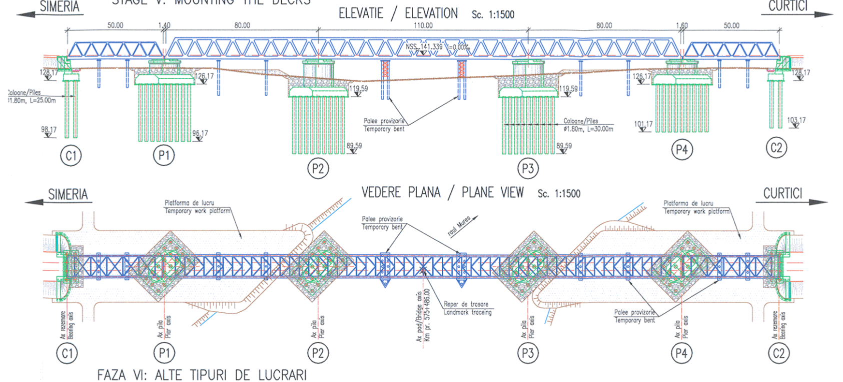
FAZA III: REALIZARE INFRASTRUCTURI MAL CURTICI (P3, P4 si C2):
1. Se executa platforma de acces a utilajelor la infrastructuri pe malul Curtici (cota superioara a platformei va fi cu 25 cm peste nivelul Muresului cu asigurare 10%).
2. Se foreaza pilotii de la nivelul platformei de acces la infrasturcturile P3, P4 si C2.
3. Se executa incintele de palplanse pentru infrastructurile de pe malul Curtici.
4. Se executa sapaturile in interiorul incintelor iar odata cu avansarea acestora se vor monta spraituri.
5. Se executa betonul de egalizare iar dupa atingerea clasei se demonteaza spraiturile de la partea inferioara.
6. Se executa lucrarile de spargere a capetelor de piloti.
7. Se realizeaza incercarea pilotilor.
8. Se monteaza cofrajele pentru fundatii, si se executa fundatiile infrastructurilor.
9. Dupa atingerea a 80% din clasa betonului din fundatii, acestea se decofreaza si se executa umpluturile din jurul lor.
10. Se monteaza cofrajele pentru elevatii, si se executa elevatiile infrastructurilor.
11. Dupa atingerea clasei betonului din elevatiile infrastructurilor acestea se decofreaza, si se demonteaza spraiturile de pe zona lor odata cu executarea umpluturile alaturate.
12. Se monteaza cofrajele pentru banchete infrastructurilor si pentru zidurile intoarse ale culeei si se betoneaza.
13. Dupa atingerea clasei betonului din banchete si din zidurile intoarse se decofreaza.
14. Se executa lucrarile de protectie a infrastructurilor cu saltele de anrocamente.
15. Se demonteaza incintele de palplanse.
16. Se realizeaza sistemul drenant, umpluturile din spatele celeei si se executa sferturile de con.
17. Se executa paleele provizorii pe malul Curtici.
18. Se dezafecteaza platforma de acces de pe malul Curtici din zona albiei minore.

STAGE III: MAKING THE INFRASTUCTURES ON THE CURTICI BANK (P3, P4 and C2):
1. Making the platform for the access of plants to the Curtici bank (the top level of the platform will be 25 cm over the level of Mures River with 10% protection).
2. Drilling the piles from the level of the platform of access to infrastructures P3, P4, P5 and C2.
3. Making the sheet-pile premises for the infrastructures on the right bank.
4. Making the excavations inside the premises and mounting spurs as the excavation progresses.
5. Making the levelling concrete and dismantling the spurs from the bottom side after reaching the concrete class.
6. Making the works for breaking the pile ends.
7. Testing the piles.
8. Mounting the shutters for foundations and making the infrastructures' foundations.
9. After reaching 80% of the class of concrete in the foundations, their shutters are removed and the filling around them is carried-out.
10. Mounting the shutters for the elevations and executing the infrastructures' elevations.
11. After reaching the class of concrete in the infrastructures' elevations, their shutters are removed and the spurs on their area are dismantled at the same time with the execution of the adjacent filling.
12. Mounting the shutters for the infrastructures' benches and for the wing walls of the abutment and covering with concrete.
13. After reaching the class of concrete in the benches and in the wing walls, the shutters are removed.
14. Making the infrastructure protection works with riprap mattresses.
15. Dismantling the sheet-pile premises.
16. Making the draining system, the filling behind the abutment and carrying-out the cone quarters.
17. Making the temporary bents on the Curtici bank.
18. Closing-down the access platform from the Curtici bank in the area of the minor riverbed

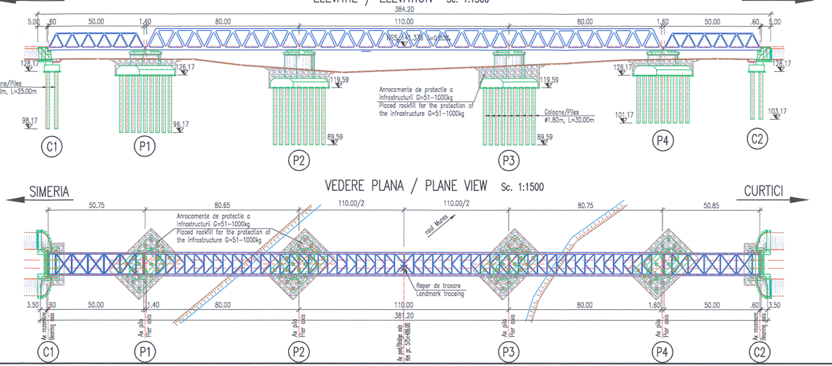
FAZA IV: REALIZARE PALEI PROVIZORII IN ALBIA MINORA:
1. Se realizeaza paleele provizorii in albia minora cu ajutorul unor platforme plutitoare.
2. Se monteaza la capetele din amonte dispozitivele de spart gheata.

STAGE IV: MAKING THE TEMPORARY BENTS IN THE MINOR RIVERBED
1. Making the temporary bents in the minor riverbed by help of floating platforms.
2. Mounting devices for breaking the ice at the upstream ends.

FAZA V: MONTARE TABLIERE
STAGE V: MOUNTING THE DECKS


ELEVATIE / ELEVATION Sc. 1:1500
VEDERE PLANA / PLANE VIEW Sc. 1:1500
SIMERIA
CURTICI
C1
P1
P2
P3
P4
C2

FAZA VI: ALTE TIPURI DE LUCRARI
STAGE VI: OTHER TYPES OF WORKS


ELEVATIE / ELEVATION Sc. 1:1500
VEDERE PLANA / PLANE VIEW Sc. 1:1500
SIMERIA
CURTICI
C1
P1
P2
P3
P4
C2

FAZA V: MONTARE TABLIERE:
1. Se monteaza talpile inferioare, antretoazele, barele grinzilor principale si contravantuirea superioara (pe maluri se monteaza cu ajutorul utilajelor care au acces pe platforme iar in albia minora cu ajutorul unor plarforme plutitoare).
2. Se monteaza platelajul metalic, cu exceptia zonelelor in care se afla paleele provizorii.
3. Se pozitioneaza tablierele metalice pe aparatele de reazem.
4. Se extrag paleele provizorii, prin spatiile libere lasate in platelaj.
5. Se monteaza platelajul metalic in zonele libere, opritorii de balast si consolele de trotuar.

STAGE V: MOUNTING THE DECKS
1. Mounting the lower flanges, the cross pieces, the bars of the main girders and the upper wind bracing (on banks they are mounted by help of equipment with access to the platforms and in the minor riverbed by help of floating platforms).
2. Mounting the metallic bridge planks, except for the areas where there are temporary bents.
3. Placing the metallic decks on the bearing devices.
4. Extracting the temporary bents through the free spaces left in the bridge planks.
5. Mounting the metallic bridge planks in the free areas, the ballast retainers and the footpath cantilevers.

FAZA VI: ALTE TIPURI DE LUCRARI:
1. Se executa hidroizolatia cuvelor metalice pe podul nou.
2. Se monteaza linia de contact.
3. Se executa calea pe pod si pe terasament.
4. In corelare cu lucrarile de suprastructura cf inainte de deschiderea circulatiei se realizeaza incercarea podului.
5. Se executa scarile de acces pe terasament.
6. Se deschide circulatia feroviara in trepte de viteza conform instructiilor in vigoare.
7. Se dezafecteaza platformele din albia minora.
8. Se dezafecteaza accesele din zona de lucru si organizarea de santier.

STAGE VI: OTHER TYPES OF WORKS
1. Making the waterproofing of the metallic vats on the new bridge.
2. Mounting the contact line.
3. Making the track on the bridge.
4. On the embankment and testing the bridge in correlation with the railway superstructure works before opening the traffic.
5. Making the access stairs on the embankment.
6. Opening the railway traffic in speed levels according to the instructions in force.
7. Closing-down the platforms in the area of the minor riverbed.
8. Closing-down the accesses from the work area and the site organization.

NOTA:
1. Detaliile prezentate in acest plan nu sunt obligatorii si pot fi modificate sau adaptate in functie de dotarile constructorului cu respectarea conditiilor de realizare a lucrarilor definitive prevazute in caietele de sarcini si cu acordul proiectantului.
2. Orice neconcordanta intre elementele avute in vedere la elaborarea proiectului si teren va fi anuntata proiectantului pentru adaptare la situatia existenta.

NOTE:
1. The details presented in this plan are not compulsory and can be modified or adapted depending on the constructor's endowments by observing the execution conditions of the final works provided in the Technical Specifications and the designer's approval.
2. Any incongruity between the elements taken into account when preparing the design and the site will be announced to the designer so that he can adapt to the existing situation.

RĂCĂNEL I. IONUȚ RADU
Nr. 07230

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

CHIRICĂ C. ANTON
NR. 1563

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	A. Negrei	01.2013	

"Reabilitarea liniei c.f. Frontieră - Curtici - Simeria, parte componentă a coridorului IV Pan - European pentru circulația 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:

TEHNOLOGIE DE EXECUTIE / EXECUTION TECHNOLOGY
POD / BRIDGE KM pr. 575+486

Scara / Scale	Revizia / Revision	Cod desen / Drawing Code	Nr / No
1:1500	1 / 04.2013	PT.02.02.09.PO.06.04	04