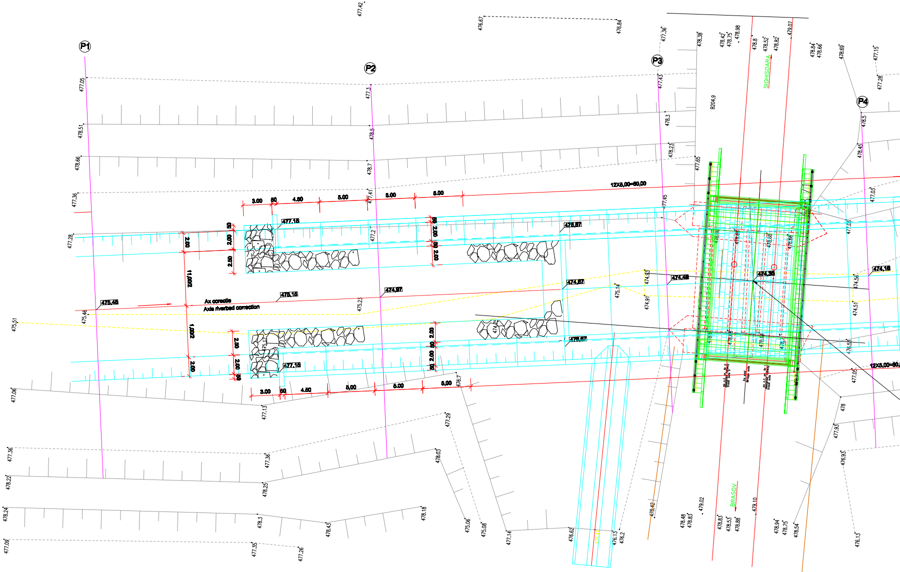
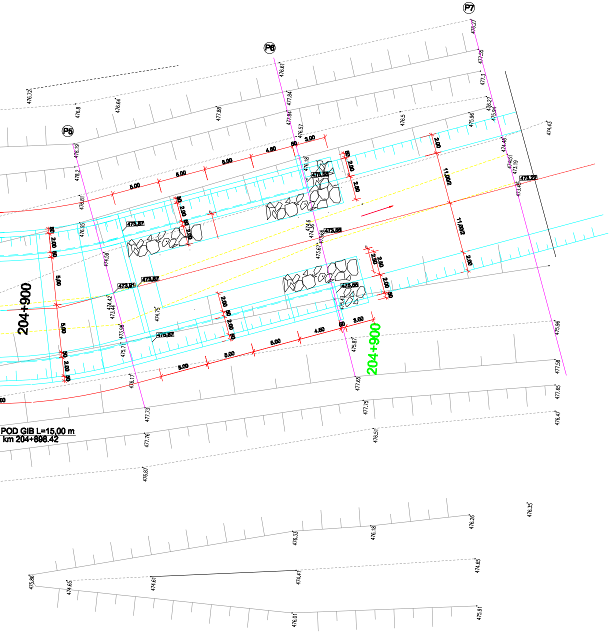
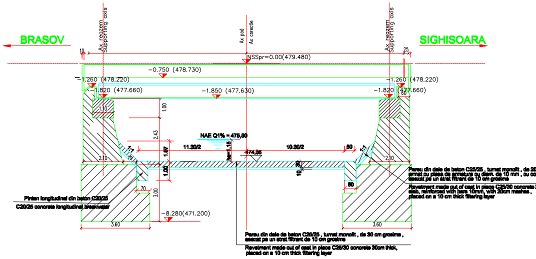

P1
P2
P3
P4
12X5,00=60,00
Ax corectie
Axis riverbed correction
475,45
475,15
474,97
474,87
474,48
474,35
474,16
477,15
475,57
SIGHISOARA
BRASOV
B204.9
3.00
50
4.50
5.00
2.00
2.50
11.00/2
10.00/2


P5
P6
P7
204+900
204+900
5.00
4.50
3.00
2.00
2.50
11.00/2
475.57
473.81
475.50
473.22
476.72
476.8
476.64
477.88
476.61
477.84
476.5
476.27
475.96
474.43
477.55
477.3
477.73
477.76
476.87
477.65
477.75
476.51
477.58
477.65
476.47
475.96
476.35
476.33
476.18
476.26
474.65
475.86
474.61
474.41
476.01
475.91

POD GIB L=15,00 m
km 204+898.42

SECTIUNE TRANSVERSALA IN AXUL PODULUI

Scara 1:100/Scale 1:100


BRASOV
SIGHISOARA
Ax reazem
Supporting axis
Ax pod
Ax corectie
Ax reazem
Supporting axis
NSSpr=0.00(479.480)
−0.750 (478.730)
−1.260 (478.220)
−1.820 (477.660)
−1.850 (477.630)
−1.260 (478.220)
−1.820 (477.660)
NAE Q1% = 475,80
474,35
11.30/2
10.30/2
hc=1,15
2.43
1.00
1.67
1.00
3.00
2.10
2.10
3.60
3.60
70
50
1:1
1:1
−8.280(471.200)

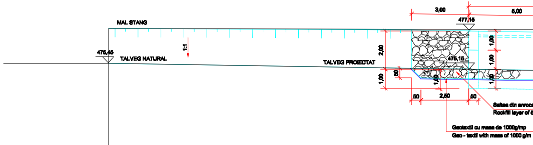
Pinten longitudinal din beton C20/25
C20/25 concrete longitudinal breakwater

Pereu din dale de beton C25/25 , turnat monolit , de 30 cm grosime ,
asezat pe un strat filtrant de 10 cm grosime

Revetment made out of cast in place C25/30 concrete 30cm thick,
placed on a 10 cm thick filtering layer

Pereu din dale de beton C25/25 , turnat monolit , de 20
armat cu plasa de armatura cu diam. de 10 mm , cu oc
asezat pe un strat filtrant de 10 cm grosime

Revetment made out of cast in place C25/30 concrete
slab, reinforced with bars 10mm, with 20cm meshes ,
placed on a 10 cm thick filtering layer


MAL STANG
475,45
TALVEG NATURAL
TALVEG PROIECTAT
1:1
3,00
5,00
477,15
475,15
2,00
1,00
1,00
1,00
1,00
50
50
2,50
50
470,00

Saltea din anroc
Rockfill layer of 5

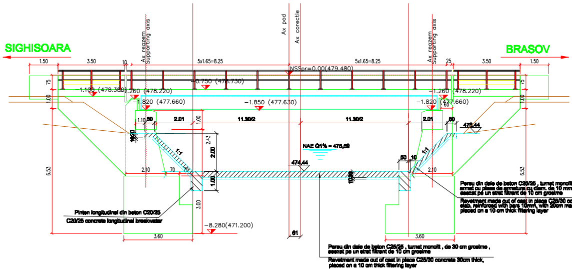
Geotextil cu masa de 1000g/mp
Geo - textil with mass of 1000 g/m

COTE TALVEG PROIECTAT	475,45	
COTE TALVEG NATURAL	475,45	
COTE MAL STANG	477,28	
DISTANTA INTRE PROFILE		29,79
PROFIL	P1	

SECTIUNE TRANSVERSALA AMONTE FATA CULEE

Scara 1:100/Scale 1:100

...0 cm grosime ,
...hiuri de 20 cm ,
...20cm thick


SIGHISOARA
BRASOV
Ax reazem
Supporting axis
Ax pod
Ax corectie
1.50
3.50
10
5x1.65=8.25
25
NSSpr=0.00(479.480)
-0.750 (478.730)
-1.100 (478.380)
-1.260 (478.220)
-1.820 (477.660)
-1.850 (477.630)
75
1.00
1.10
50
2.01
11.30/2
10
20
1:1
2.43
2.00
1.00
3.00
2.10
70
476.44
NAE Q1% = 475,59
474.44
6.53
3.60
61
-8.280(471.200)
Pinten longitudinal din beton C20/25
C20/25 concrete longitudinal breakwater

Pereu din dale de beton C25/25 , turnat monolit , de 20 cm grosime , armat cu plase de armatura cu diam. de 10 mm , cu ochiuri de 20 cm , asezat pe un strat filtrant de 10 cm grosime

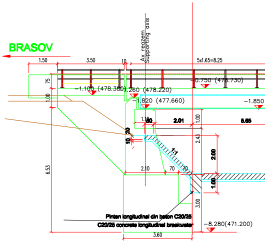
Revetment made out of cast in place C25/30 concrete 20cm thick slab, reinforced with bars 10mm, with 20cm meshes , placed on a 10 cm thick filtering layer

Pereu din dale de beton C25/25 , turnat monolit , de 30 cm grosime , asezat pe un strat filtrant de 10 cm grosime

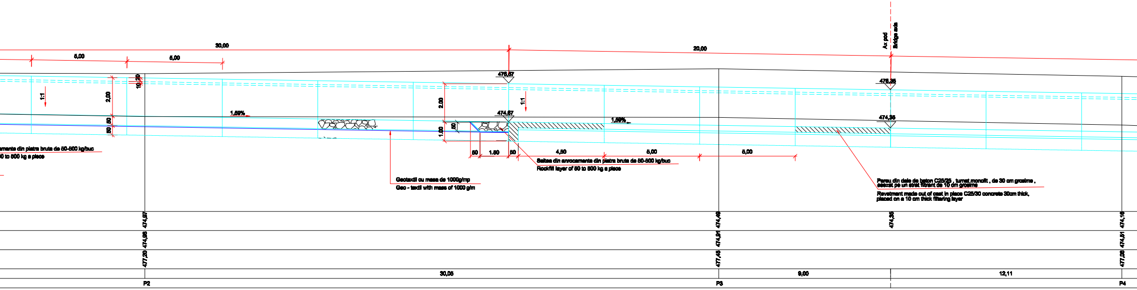
Revetment made out of cast in place C25/30 concrete 30cm thick, placed on a 10 cm thick filtering layer

SECTIUNE TRANSV

Scara 1:


BRASOV
Ax reazem
Supporting axis
1.50
3.50
10
5x1.65=8.25
-0.750 (478.730)
-1.100 (478.380)
-1.260 (478.220)
-1.820 (477.660)
-1.850
75
1.00
1.10
50
2.01
5.65
10
20
1:1
2.43
2.00
1.00
3.00
2.10
70
6.53
3.60
Pinten longitudinal din beton C20/25
C20/25 concrete longitudinal breakwater
-8.280(471.200)

SECTIUNE LONGITUDINALA A-A - MAL STANG
A-A LONGITUDINAL SECTION - LEFT BANK


Ax pod
Bridge axis
30,00
20,00
5,00
5,00
476,57
476,35
474,57
474,35
10
20
1:1
2,00
50
50
1,59%
1,59%
1,00
50
1,50
50
4,50
5,00
5,00
474,57
474,96
477,20
474,49
474,91
477,45
474,35
474,16
474,51
477,08
30,05
9,00
12,11
P2
P3
P4

...amente din piatra bruta de 50-500 kg/buc
...0 to 500 kg a piece

Geotextil cu masa de 1000g/mp
Geo - textil with mass of 1000 g/m

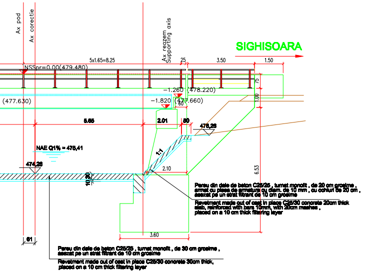
Saltea din anrocamente din piatra bruta de 50-500 kg/buc
Rockfill layer of 50 to 500 kg a piece

Pereu din dale de beton C25/25 , turnat monolit , de 30 cm grosime , asezat pe un strat filtrant de 10 cm grosime

Revetment made out of cast in place C25/30 concrete 30cm thick, placed on a 10 cm thick filtering layer

VERSALA AVAL FATA CULEE

:100/Scale 1:100


Ax pod
Ax corectie
Ax reazem
Supporting axis
SIGHISOARA
5x1.65=8.25
25
3.50
1.50
NSSpr=0.00(479.480)
−1.260 (478.220)
(477.630)
−1.820 (477.660)
5.65
2.01
50
476,26
NAE Q1% = 475,41
474,26
1:1
2.10
6.53
3.60
61

Pereu din dale de beton C25/25 , turnat monolit , de 20 cm grosime , armat cu plase de armatura cu diam. de 10 mm , cu ochiuri de 20 cm , asezat pe un strat filtrant de 10 cm grosime

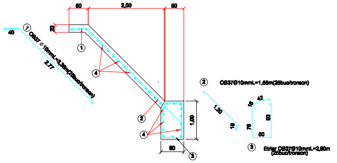
Revetment made out of cast in place C25/30 concrete 20cm thick slab, reinforced with bars 10mm, with 20cm meshes , placed on a 10 cm thick filtering layer

Pereu din dale de beton C25/25 , turnat monolit , de 30 cm grosime , asezat pe un strat filtrant de 10 cm grosime

Revetment made out of cast in place C25/30 concrete 30cm thick, placed on a 10 cm thick filtering layer

DETALII ARMARE PROTECTIE
REINFORCEMENTPROTECTION DETAILS

Scara /scale 1:50

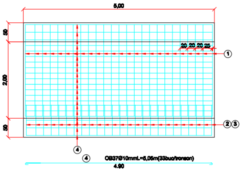

50
2,00
50
20
40
①
②
③
④
1,00
50
2.77
1.20
18
76
50
42
60

① OB37 Ø 10mmL=3,35m(25buc/tronson)

② OB37Ø10mmL=1,55m(25buc/tronson)

③ Etrier OB37Ø10mmL=2,80m (25buc/tronson)

VEDERE IN PLAN PROTECTIE TALUZ
PLAN VIEW ENBAKMENT PROTECTION


5,00
50
2,00
50
20 20 20 20
①
②③
④
4.90

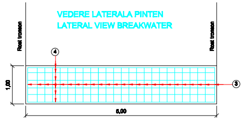
④ OB37Ø10mmL=5,05m(33buc/tronson)

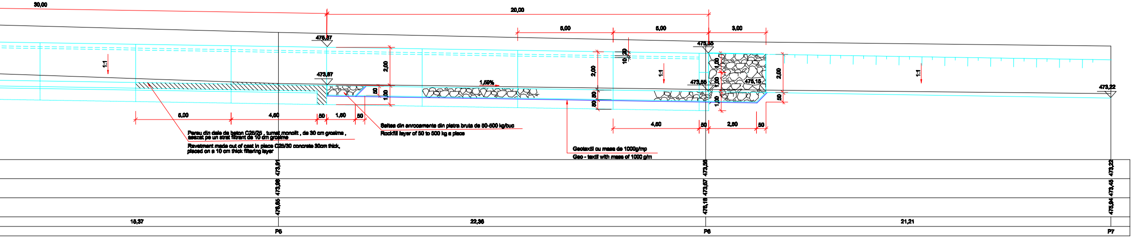
EXTRAS DE ARMATURA
pentru un tronson de 5,00 m

SUMMARY REINFORCING BARS
for a 5,00 m long section

Marca	Ø	Nr.buc. asem.	Lungime unitara (m)	Lungime totala (m)
1	10	25	3,35	83,75
2	10	25	1,55	38,75
3	10	25	2,80	70,00
4	10	31	5,05	156,55
Total lungime/tronson(m)				349,05
Greutate unitara (kg/m)				0,617
Greutate totala (kg) (rot.)				216,00

VEDERE LATERALA PINTEN
LATERAL VIEW BREAKWATER


Rost tronson
Rost tronson
④
③
1,00
5,00


30,00
20,00
5,00
5,00
3,00
475,37
473,87
475,55
473,55
475,15
1:1
1:1
1:1
2,00
2,00
2,00
1,59%
50
1,00
20
10
5,00
4,60
50
1,50
50
4,60
50
2,50
50
473,22
473,91
473,96
475,65
473,56
473,67
475,18
473,22
473,45
475,94
15,37
22,36
21,21
P5
P6
P7

Pereu din dale de beton C25/25 , turnat monolit , de 30 cm grosime , asezat pe un strat filtrant de 10 cm grosime

Revetment made out of cast in place C25/30 concrete 30cm thick, placed on a 10 cm thick filtering layer

Saltea din anrocamente din piatra bruta de 50-500 kg/buc

Rockfill layer of 50 to 500 kg a piece

Geotextil cu masa de 1000g/mp

Geo - textil with mass of 1000 g/m

D					
C					
B					
A	12.2011	Revizia 1	Popescu Anca Raluca		
Indice Index	Data Date	Modificare Modification/Revision	Proiectant Designer	Aprobat Consultant Approved Consultant	Aprobat CFR Approved CFR

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANTAT DE UNIUNEA EUROPEANA
EUROPEAN UNION FINANCED PROJECT

C.N.C.F. "C.F.R." - S.A.

CLIENT / CLIENT

ITALFERR
GRUPPO FERROVIE DELLO STATO
Joint Venture leader

Scott Wilson

OBERMEYER
PLANEN + BERATEN GmbH

TECNIC
Consulting Engineers

CONSULTANT / CONSULTANT

			Data Date	Semnătură Signature
Aprobat Approved	Şef proiect Project manager	R. Liuzza		
Aprobat Approved	Coordonator Secțiune 1 Section 1 Coordinator	C. Gambelli		
Verificat Checked	Expert Cheie Checking Expert	V. Kallidromitis		VK

SUBCONTRACTANT / SUBCONTRACTOR

AREX COMPANY

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A. Dinulescu Stanciu		
Întocmit Elaborated	Proiectant Designer	Popescu Anca-Raluca	21.07.2011	

Reabilitarea liniei de cale ferata Brasov - Simeria, parte componentă a coridorului IV Pan European, pentru circulația trenurilor cu viteza maximă de 160 km/h, Tronsonul : Braşov - Sighişoara

Rehabilitation of the railway line Braşov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h, Section : Braşov - Sighişoara

Proiect/Project
2004/RO/16/P/PA/003

Faza / Phase:
P.Th. / P.Th

Denumire desen / Drawing Title :

INTERVAL FELDIOARA-APATA / FELDIOARA-APATA SECTION
PROTECTIE POD C.F. KM. 204+698.42
DETALII DE EXECUTIE
204+698.42 KM RAILWAY BRIDGE PROTECTION
DETAILS FOR EXECUTION

Codificare / Codification System	Scara / Scale 1:100	LOT / LOT	Nr. / No 01 / 01

E	A	5	1		0	1		E		0	8		B	A		A	P		0	0		8		2		0	0	4		1

420x2500