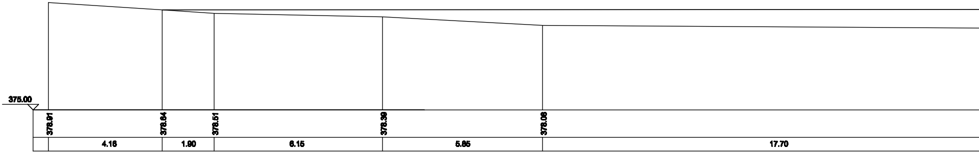
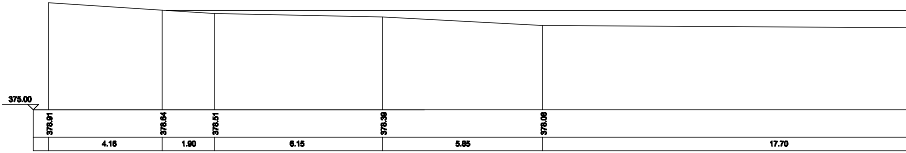
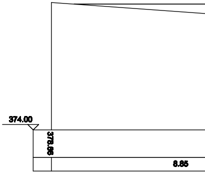
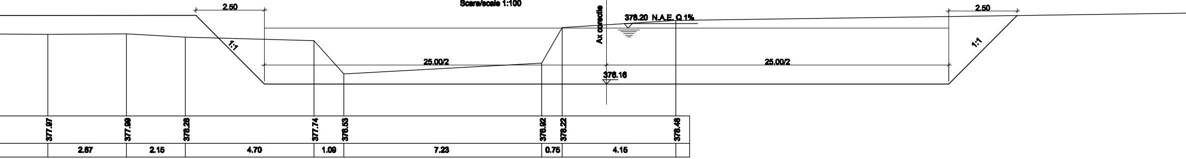

375.00
378.91
378.64
378.51
378.39
378.08
4.16
1.90
6.15
5.85
17.70

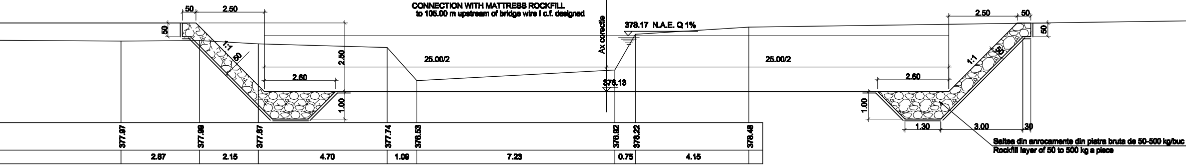

375.00
378.91
378.64
378.51
378.39
378.08
4.16
1.90
6.15
5.85
17.70


374.00
378.86
8.85

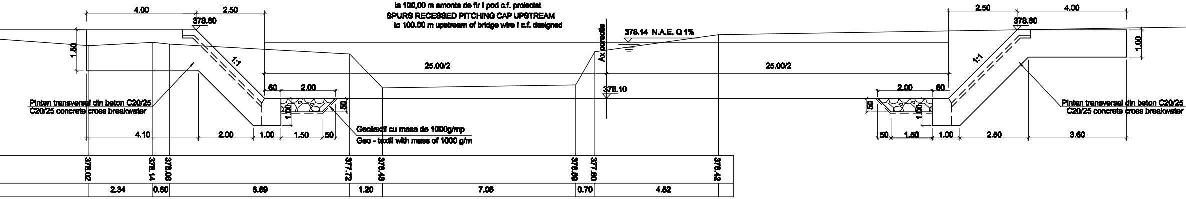
PROFIL/CROSS SECTION 1-1
CALIBRARE ALBIE AMONTE POD C.F.
CALIBRATION WHITE BRIDGE UPSTREAM C.F.
Scara/scale 1:100

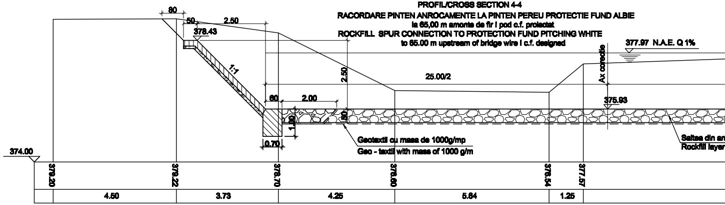

2.50
1:1
Ax corectie
378.20 N.A.E. Q 1%
25.00/2
378.16
25.00/2
2.50
1:1
377.97
377.99
378.28
377.74
376.53
376.92
378.22
378.48
2.87
2.15
4.70
1.09
7.23
0.75
4.15

PROFIL/CROSS SECTION 2-2
RACORDARE CU SALTEA DIN ANROCAMENTE
la 105,00 m amonte de fir I pod c.f. proiectat
CONNECTION WITH MATTRESS ROCKFILL
to 105.00 m upstream of bridge wire I c.f. designed


50
2.50
50
1:1
50
2.50
2.60
1.00
25.00/2
Ax corectie
378.17 N.A.E. Q 1%
376.13
25.00/2
2.50
50
50
1:1
50
2.60
1.00
1.30
3.00
30
Saltea din anrocamente din piatra bruta de 50-500 kg/buc
Rockfill layer of 50 to 500 kg a piece
377.97
377.99
377.87
377.74
376.53
376.92
378.22
378.48
2.87
2.15
4.70
1.09
7.23
0.75
4.15

PROFIL/CROSS SECTION 3-3
PINTENI INCASTRARE PEREU CAP AMONTE
la 100,00 m amonte de fir I pod c.f. proiectat
SPURS RECESSED PITCHING CAP UPSTREAM
to 100.00 m upstream of bridge wire I c.f. designed

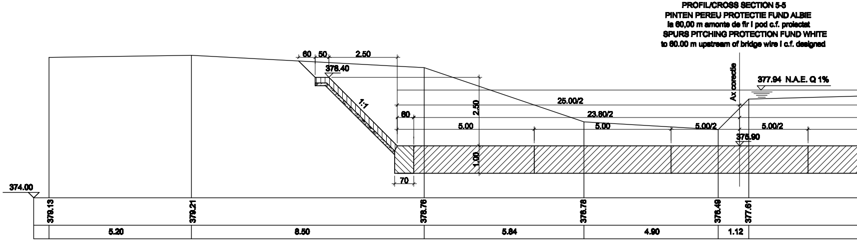

4.00
2.50
378.60
1.50
1:1
Ax corectie
378.14 N.A.E. Q 1%
25.00/2
376.10
60
2.00
1.00
50
Pinten transversal din beton C20/25
C20/25 concrete cross breakwater
Geotextil cu masa de 1000g/mp
Geo - textil with mass of 1000 g/m
4.10
2.00
1.00
1.50
50
25.00/2
2.50
4.00
378.60
1.00
1:1
2.00
60
50
1.00
Pinten transversal din beton C20/25
C20/25 concrete cross breakwater
50
1.50
1.00
2.50
3.60
378.02
378.14
378.06
377.72
376.48
376.59
377.80
378.42
2.34
0.80
6.59
1.20
7.06
0.70
4.52



PROFIL/CROSS SECTION 4-4

RACORDARE PINTEN ANROCAMENTE LA PINTEN PEREU PROTECTIE FUND ALBIE
la 65,00 m amonte de fir I pod c.f. proiectat
ROCKFILL SPUR CONNECTION TO PROTECTION FUND PITCHING WHITE
to 65.00 m upstream of bridge wire I c.f. designed

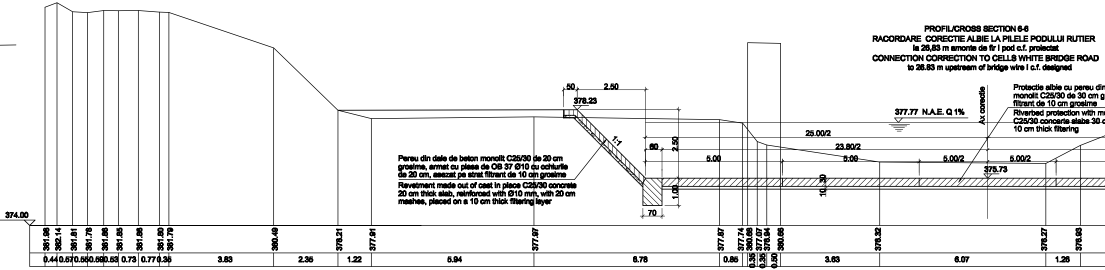
80
50
2.50
378.43
1:1
2.50
25.00/2
377.97 N.A.E. Q 1%
Ax corectie
375.93
60
2.00
1.00
50
0.70
Geotextil cu masa de 1000g/mp
Geo - textil with mass of 1000 g/m
Saltea din an
Rockfill layer
374.00
379.20
379.22
378.70
376.60
376.54
377.57
4.50
3.73
4.25
5.64
1.25



PROFIL/CROSS SECTION 5-5

PINTEN PEREU PROTECTIE FUND ALBIE
la 60,00 m amonte de fir I pod c.f. proiectat
SPURS PITCHING PROTECTION FUND WHITE
to 60.00 m upstream of bridge wire I c.f. designed

60
50
2.50
378.40
1:1
2.50
377.94 N.A.E. Q 1%
Ax corectie
25.00/2
23.80/2
60
5.00
5.00
5.00/2
5.00/2
375.90
1.00
70
374.00
379.13
379.21
378.76
376.78
376.49
377.61
5.20
8.50
5.84
4.90
1.12



PROFIL/CROSS SECTION 6-6

RACORDARE CORECTIE ALBIE LA PILELE PODULUI RUTIER
la 26,83 m amonte de fir I pod c.f. proiectat
CONNECTION CORRECTION TO CELLS WHITE BRIDGE ROAD
to 26.83 m upstream of bridge wire I c.f. designed

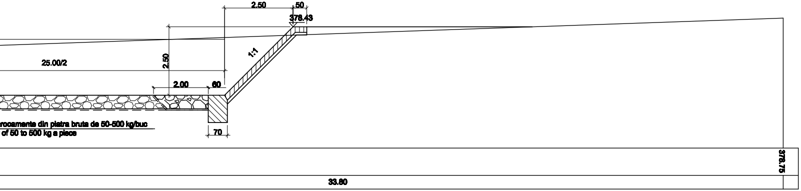
Protectie albie cu pereu din
monolit C25/30 de 30 cm g
filtrant de 10 cm grosime

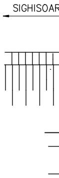
Riverbed protection with m
C25/30 concerte slabs 30 c
10 cm thick filtering

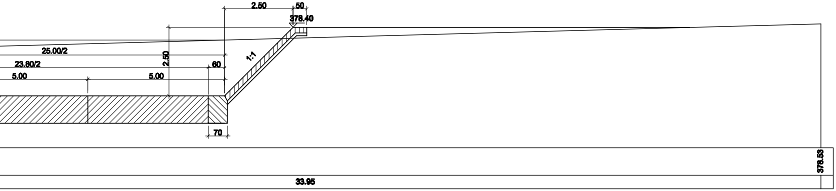
Pereu din dale de beton monolit C25/30 de 20 cm grosime, armat cu plasa de OB 37 Ø10 cu ochiurile de 20 cm, asezat pe strat filtrant de 10 cm grosime

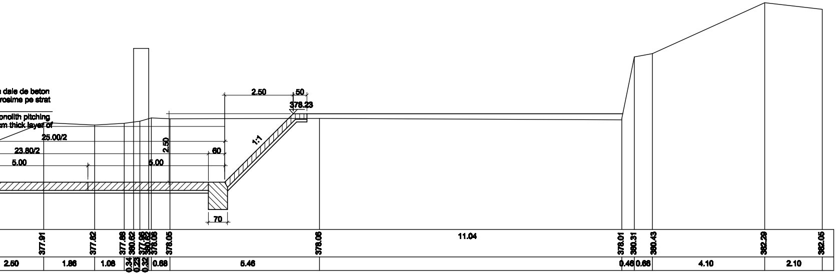
Revetment made out of cast in place C25/30 concrete 20 cm thick slab, reinforced with Ø10 mm, with 20 cm meshes, placed on a 10 cm thick filtering layer

50
2.50
378.23
377.77 N.A.E. Q 1%
Ax corectie
1:1
2.50
25.00/2
23.80/2
60
5.00
5.00
5.00/2
5.00/2
375.73
10.30
1.00
70
374.00
381.96
382.14
381.81
381.78
381.86
381.85
381.86
381.80
381.79
380.49
378.21
377.91
377.97
377.87
377.74
380.68
377.07
376.94
380.66
376.32
376.27
376.93
0.44
0.57
0.55
0.59
0.53
0.73
0.77
0.35
3.83
2.35
1.22
5.94
6.78
0.85
0.35
0.35
0.50
3.63
6.07
1.26

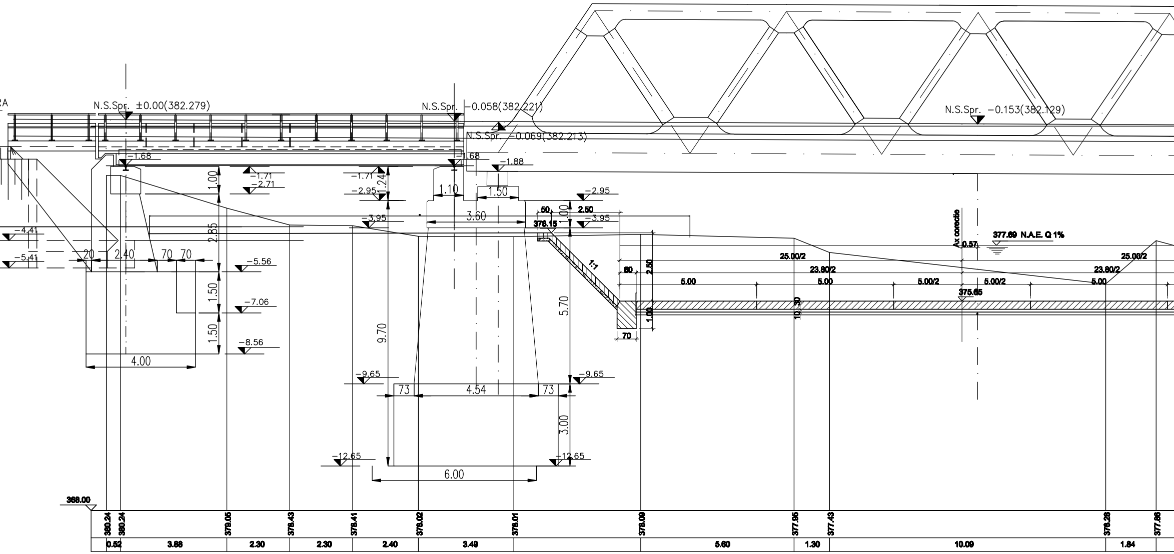

2.50
50
378.43
2.50
1:1
25.00/2
2.00
60
70
rocamente din piatra bruta de 50-500 kg/buc
of 50 to 500 kg a piece
378.75
33.80

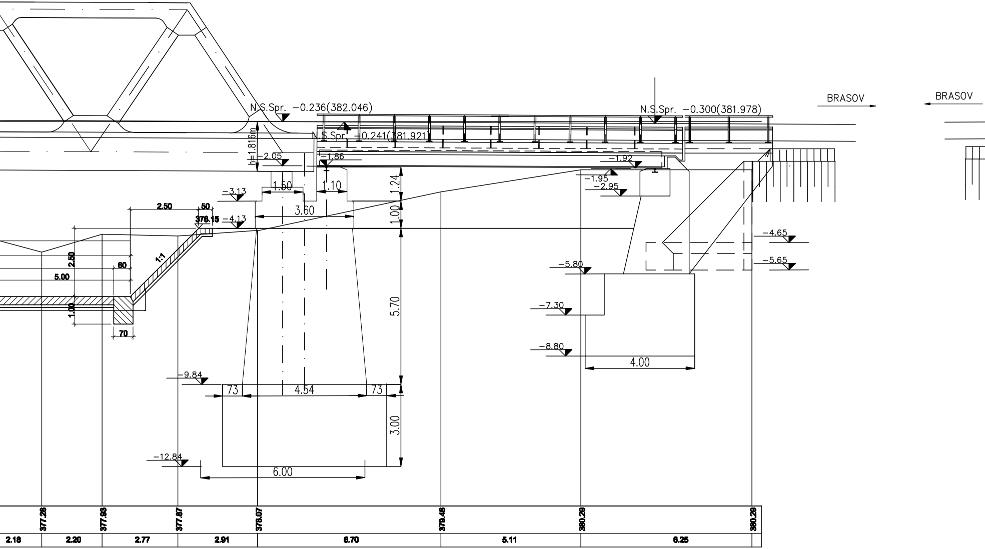



2.50
50
378.40
25.00/2
23.80/2
5.00
5.00
2.50
60
1:1
70
378.53
33.95

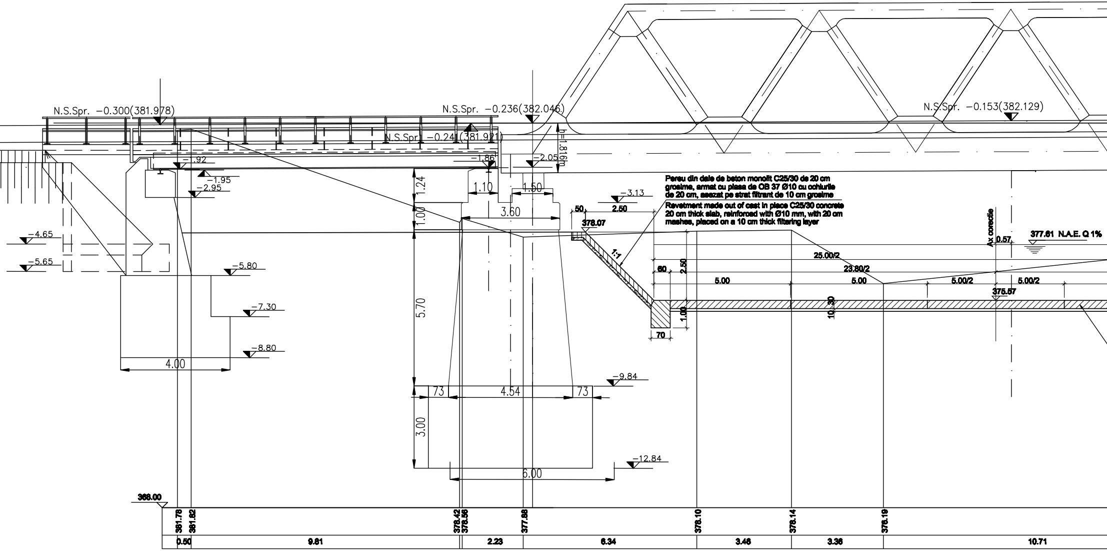

dale de beton
rosime pe strat
onolith pitching
cm thick layer of
2.50
50
378.23
1:1
25.00/2
23.80/2
5.00
5.00
2.50
60
70
377.91
377.82
377.88
380.62
377.88
380.62
378.06
378.05
378.06
11.04
378.01
380.31
380.43
382.29
382.05
2.50
1.86
1.06
0.34
0.23
0.32
0.68
5.46
0.46
0.66
4.10
2.10

PROFIL/CROSS SECTION 7-7
RACORDARE CORECTIE ALBIE LA PILELE PODULUI C.F. NOU
la 10,00 m amonte de fir I pod c.f. proiectat
CORRECTION WHITE BRIDGE CONNECTION TO CELLS C.F. NEW
to 10.00 m upstream of bridge wire I c.f. designed


RA
N.S.Spr. ±0.00(382.279)
N.S.Spr. −0.058(382.221)
N.S.Spr. −0.069(382.213)
N.S.Spr. −0.153(382.129)
−1.68
1.68
−1.88
−1.71
−2.71
−1.71
−2.95
1.24
1.00
1.10
1.50
3.60
−2.95
−3.95
−3.95
50
2.50
1.00
378.15
1:1
60
2.50
1.00
70
5.70
−4.41
−5.41
20
2.40
70
70
2.85
1.50
1.50
−5.56
−7.06
−8.56
4.00
9.70
−9.65
−9.65
73
4.54
73
3.00
−12.65
−12.65
6.00
Ax corectie
0.57
377.69 N.A.E. Q 1%
25.00/2
25.00/2
23.80/2
23.80/2
5.00
5.00
5.00/2
5.00/2
5.00
375.65
10.30
368.00
380.24
380.24
379.05
378.43
378.41
378.02
378.01
378.09
377.95
377.43
378.28
377.98
0.52
3.88
2.30
2.30
2.40
3.49
5.60
1.30
10.09
1.84


BRASOV
BRASOV
N.S.Spr. −0.236(382.046)
N.S.Spr. −0.241(381.921)
N.S.Spr. −0.300(381.978)
h=1.816m
−2.05
−1.86
−1.92
−1.95
−2.95
−3.13
−4.13
378.15
1.50
1.10
3.60
1.24
1.00
2.50
50
60
5.00
2.50
1.00
70
1:1
5.70
−4.65
−5.65
−5.80
−7.30
−8.80
4.00
−9.84
73
4.54
73
3.00
−12.84
6.00
377.28
377.93
377.87
378.07
379.48
380.29
380.29
2.18
2.20
2.77
2.91
6.70
5.11
6.25

PROFIL/CROSS SECTION 8-8
RACORDARE CORECTIE ALBIE LA PILELE PODULUI C.
la 5,86 m aval de fir I pod c.f. proiectat
CORRECTION WHITE BRIDGE CONNECTION TO CELLS
5.86 m downstream from the bridge wire I c.f. design



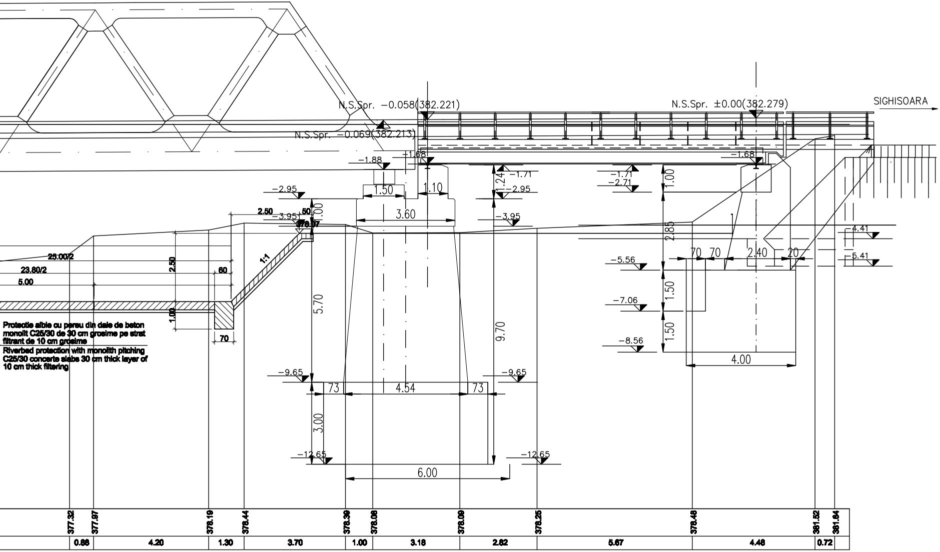
N.S.Spr. −0.300(381.978)
N.S.Spr. −0.236(382.046)
N.S.Spr. −0.241(381.921)
N.S.Spr. −0.153(382.129)
h=1.816m
−1.92
−1.86
−2.05
−1.95
−2.95
−3.13
1.24
1.00
1.10
1.50
3.60
5.70
3.00
73
4.54
73
6.00
4.00
−4.65
−5.65
−5.80
−7.30
−8.80
−9.84
−12.84
50
2.50
378.07
1:1
60
2.50
1.00
70
5.00
5.00
25.00/2
23.80/2
5.00/2
5.00/2
10.30
375.57
Ax corectie
0.57
377.61 N.A.E. Q 1%
366.00
381.76
381.82
378.42
378.56
377.88
378.10
378.14
376.19
0.50
9.81
2.23
6.34
3.46
3.36
10.71

Pereu din dale de beton monolit C25/30 de 20 cm grosime, armat cu plasa de OB 37 Ø10 cu ochiurile de 20 cm, asezat pe strat filtrant de 10 cm grosime

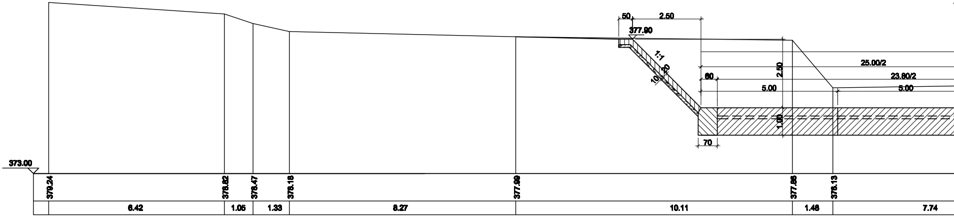
Revetment made out of cast in place C25/30 concrete 20 cm thick slab, reinforced with Ø10 mm, with 20 cm meshes, placed on a 10 cm thick filtering layer

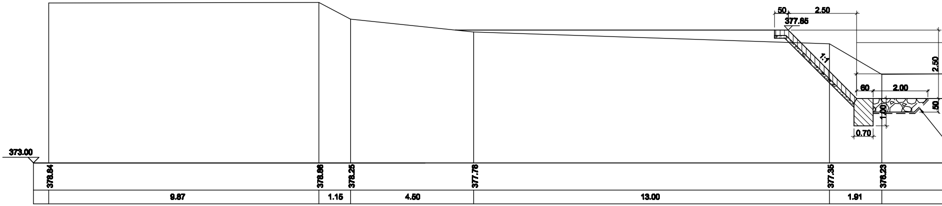
F. NOU

C.F. NEW
ed



N.S.Spr. −0.058(382.221)
N.S.Spr. ±0.00(382.279)
N.S.Spr. −0.069(382.213)
SIGHISOARA
−1.88
+1.68
−1.68
−1.71
−2.71
−2.95
−3.95
−4.41
−5.41
−5.56
−7.06
−8.56
−9.65
−12.65
1.50
1.10
1.24
3.60
1.00
2.85
1.50
70
20
2.40
4.00
5.70
9.70
73
4.54
3.00
6.00
2.50
50
378.97
1:1
60
25.00/2
23.80/2
5.00
2.50
1.00
70
Protectie albie cu pereu din dale de beton monolit C25/30 de 30 cm grosime pe strat filtrant de 10 cm grosime
Riverbed protection with monolith pitching C25/30 concerte slabe 30 cm thick layer of 10 cm thick filtering
377.32
377.97
378.19
378.44
378.39
378.08
378.09
378.25
378.48
381.52
381.64
0.66
4.20
1.30
3.70
1.00
3.18
2.82
5.67
4.48
0.72

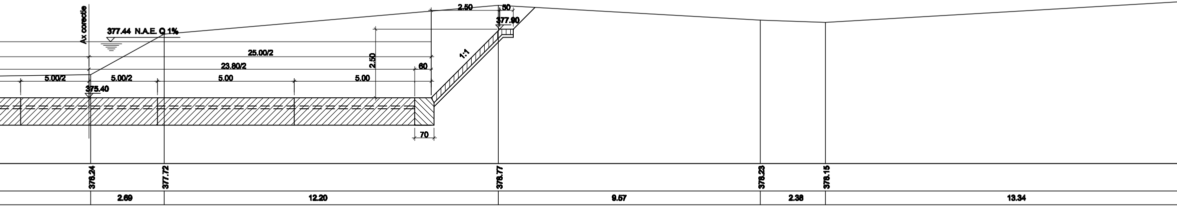

50
2.50
377.90
1:1
20
10
60
5.00
2.50
25.00/2
23.80/2
5.00
1.00
70
373.00
379.24
378.82
378.47
378.18
377.99
377.86
376.13
6.42
1.05
1.33
8.27
10.11
1.48
7.74


50
2.50
377.85
1:1
2.50
60
2.00
1.00
50
0.70
373.00
378.84
378.86
378.25
377.78
377.35
376.23
9.87
1.15
4.50
13.00
1.91

PROFIL/CROSS SECTION 9-9

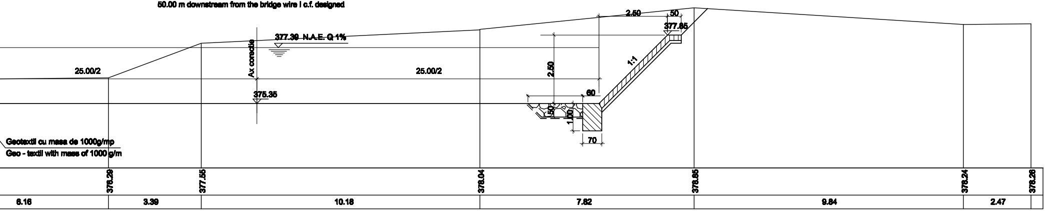
PINTEN PEREU PROTECTIE FUND ALBIE
la 40,00 m aval de fir I pod c.f. proiectat

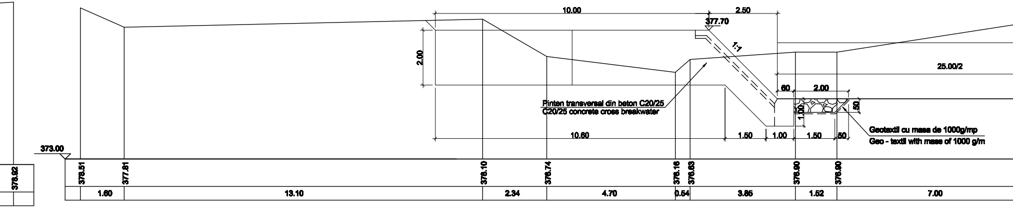
SPURS PITCHING PROTECTION FUND WHITE
40.00 m downstream from the bridge wire I c.f. designed


Ax corectie
377.44 N.A.E. Q 1%
2.50
50
377.90
25.00/2
23.80/2
2.50
60
1:1
5.00/2
5.00/2
5.00
5.00
375.40
70
376.24
377.72
378.77
378.23
378.15
2.69
12.20
9.57
2.38
13.34

PROFIL/CROSS SECTION 10-10

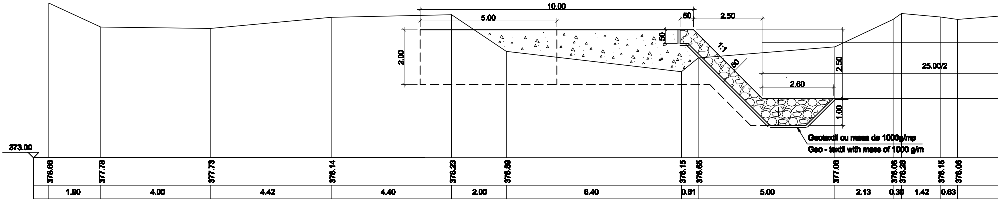
50.00 m în aval de fir I pod c.f. proiectat
50.00 m downstream from the bridge wire I c.f. designed


2.50
50
377.85
377.39 N.A.E. Q 1%
1:1
Ax corectie
25.00/2
25.00/2
2.50
375.35
60
50
1.00
70
Geotextil cu masa de 1000g/mp
Geo - textil with mass of 1000 g/m
376.28
377.55
378.04
378.65
378.24
378.26
6.16
3.39
10.18
7.82
9.84
2.47


Pinten transversal din beton C20/25
C20/25 concrete cross breakwater

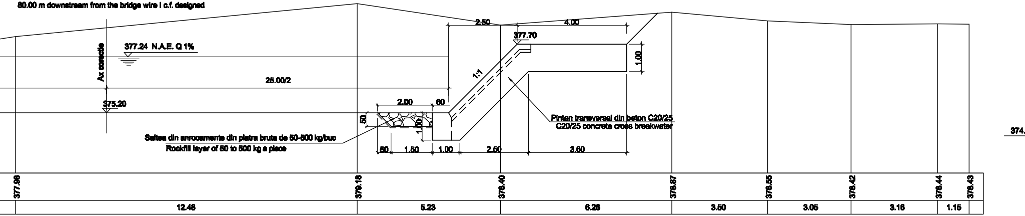
Geotextil cu masa de 1000g/mp
Geo - textil with mass of 1000 g/m

10.00
2.50
377.70
1:1
2.00
25.00/2
60
2.00
.50
1.00
10.60
1.50
1.00
1.50
.50
373.00
376.92
376.51
377.81
376.10
376.74
376.16
376.63
376.90
376.90
1.60
13.10
2.34
4.70
0.54
3.85
1.52
7.00

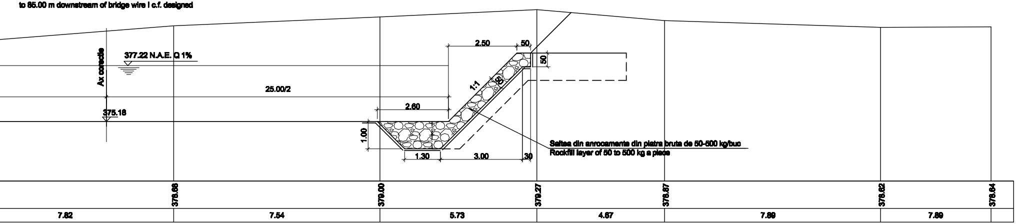

Geotextil cu masa de 1000g/mp
Geo - textil with mass of 1000 g/m

10.00
5.00
50
2.50
2.00
50
1:1
50
2.50
25.00/2
2.60
1.00
373.00
376.66
377.78
377.73
378.14
378.23
376.89
376.15
376.65
377.06
378.06
378.28
378.15
378.06
1.90
4.00
4.42
4.40
2.00
6.40
0.61
5.00
2.13
0.30
1.42
0.63

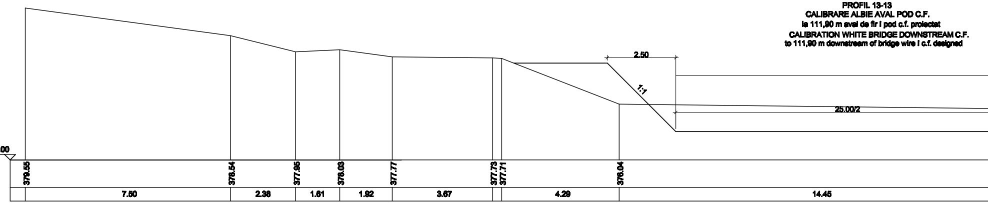
PROFIL/CROSS SECTION 11-11
PINTENI INCASTRARE PEREU CAP AVAL
la 80,00 m aval de fir I pod c.f. proiectat
SPURS RECESSED PITCHING CAP DOWNSTREAM
80.00 m downstream from the bridge wire I c.f. designed

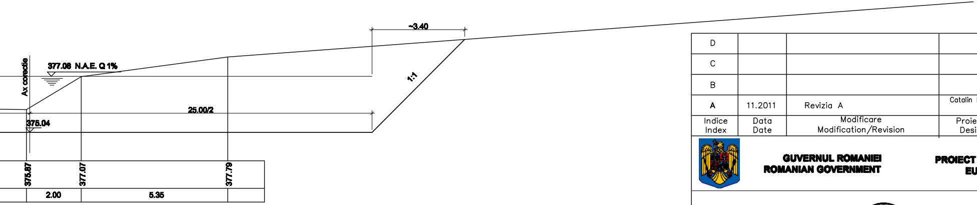

377.24 N.A.E. Q 1%
Ax corectie
25.00/2
375.20
2.50
4.00
377.70
1:1
1.00
2.00
60
50
1.00
Pinten transversal din beton C20/25
C20/25 concrete cross breakwater
Saltea din anrocamente din piatra bruta de 50-500 kg/buc
Rockfill layer of 50 to 500 kg a piece
50
1.50
1.00
2.50
3.60
374.
377.98
379.18
378.40
378.87
378.55
378.42
378.44
378.43
12.48
5.23
6.26
3.50
3.05
3.16
1.15

PROFIL 12-12
RACORDARE CU SALTEA DIN ANROCAMENTE
la 85,00 m aval de fir I pod c.f. proiectat
CONNECTION WITH MATTRESS ROCKFILL
to 85.00 m downstream of bridge wire I c.f. designed


377.22 N.A.E. Q 1%
Ax corectie
25.00/2
375.18
2.50
50
50
1:1
50
2.60
1.00
Saltea din anrocamente din piatra bruta de 50-500 kg/buc
Rockfill layer of 50 to 500 kg a piece
1.30
3.00
30
378.68
379.00
379.27
378.87
378.62
378.64
7.82
7.54
5.73
4.67
7.89
7.89

PROFIL 13-13
CALIBRARE ALBIE AVAL POD C.F.
la 111,90 m aval de fir I pod c.f. proiectat
CALIBRATION WHITE BRIDGE DOWNSTREAM C.F.
to 111,90 m downstream of bridge wire I c.f. designed


2.50
1:1
25.00/2
.00
379.55
378.54
377.95
378.03
377.77
377.73
377.71
376.04
7.50
2.38
1.61
1.92
3.67
4.29
14.45


Ax corectie
377.08 N.A.E. Q 1%
375.04
25.00/2
~3.40
1:1
375.87
377.07
377.79
2.00
5.35

D					
C					
B					
A	11.2011	Revizia A	Catalin Dobreanu		
Indice Index	Data Date	Modificare Modification/Revision	Proiectant Designer	Aprobat Consultant Approved Consultant	Aprobat CFR Approved CFR

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANȚAT DE UNIUNEA EURO
EUROPEAN UNION FINANCED PR

CLIENT / CLIENT

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

ITALFERR
GRUPPO FERROVIE DELLO STATO
Joint Venture leader

Scott Wilson

OBERMEYER
PLANEN + BERATEN GmbH

TECNIC
Consulting Engineers

CONSULTANT / CONSULTANT

			Data Date	Semnături 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		

SUBCONTRACTANT / SUBCONTRACTOR

AREX

Aprobat Approved	**Responsabil Subconsultant** **Subconsultant Responsible**	A. Dinulescu Stanciu	11.2011	
Întocmit **Elaborated**	Proiectant Designer	C. Dobreanu	11.2011	

Reabilitarea liniei **de cale ferata** Braşov – 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. / T.D.

Denumire desen / Drawing Title :

INTERVAL ARCHITA-VANATORI / ARCHITA-VANATORI SECTION
PROTECTIE POD C.F. KM. 267+963.152
PROFILE TRANSVERSALE
267+963.152 KM RAILWAY BRIDGE PROTECTION
CROSS SECTION

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

E A 5 1 0 1 C 1 6 W 9 A P 0 1 9 3 0 0 2 1