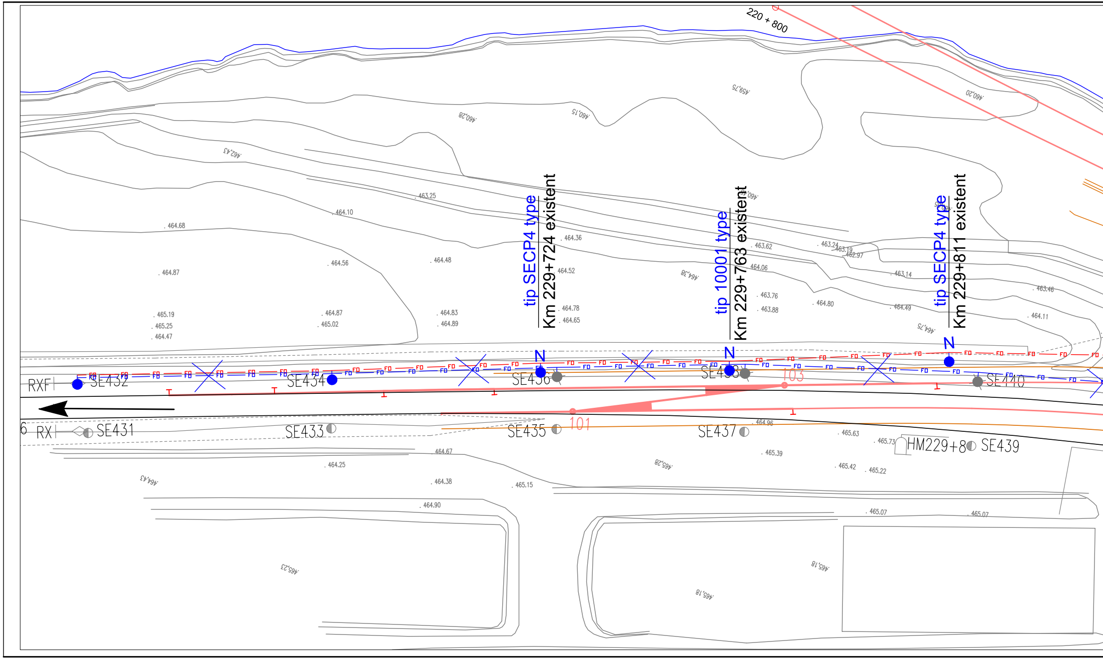
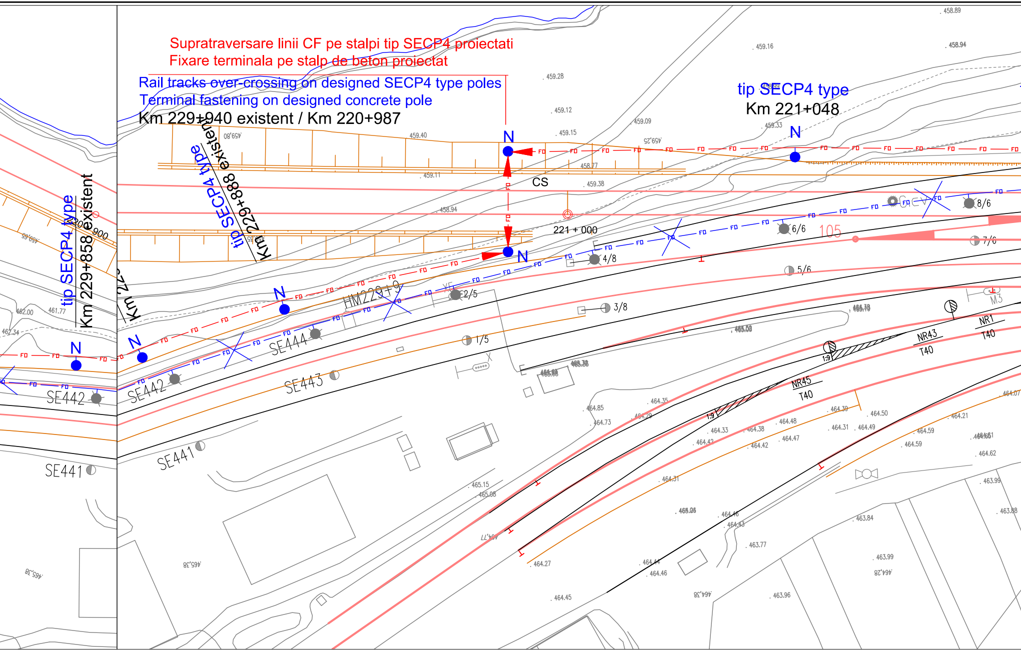

220 + 800
tip SECP4 type
Km 229+724 existent
tip 10001 type
Km 229+763 existent
tip SECP4 type
Km 229+811 existent
N
N
N
RXF
SE432
SE434
SE436
SE438
SE440
FO
103
101
6
RX
SE431
SE433
SE435
SE437
HM229+8
SE439
460.28
460.15
459.75
460.20
462.43
463.25
464.10
464.68
464.36
464.56
464.48
464.87
464.52
463.62
464.06
463.24
463.19
462.97
463.14
463.46
463.76
463.88
464.80
464.49
464.11
464.78
464.65
465.19
465.25
464.47
464.87
465.02
464.83
464.89
464.96
465.63
465.73
465.39
465.42
465.22
464.67
464.25
464.38
465.15
464.90
465.07
465.07



Supratraversare linii CF pe stalpi tip SECP4 proiectati
Fixare terminala pe stalp de beton proiectat

Rail tracks over-crossing on designed SECP4 type poles
Terminal fastening on designed concrete pole

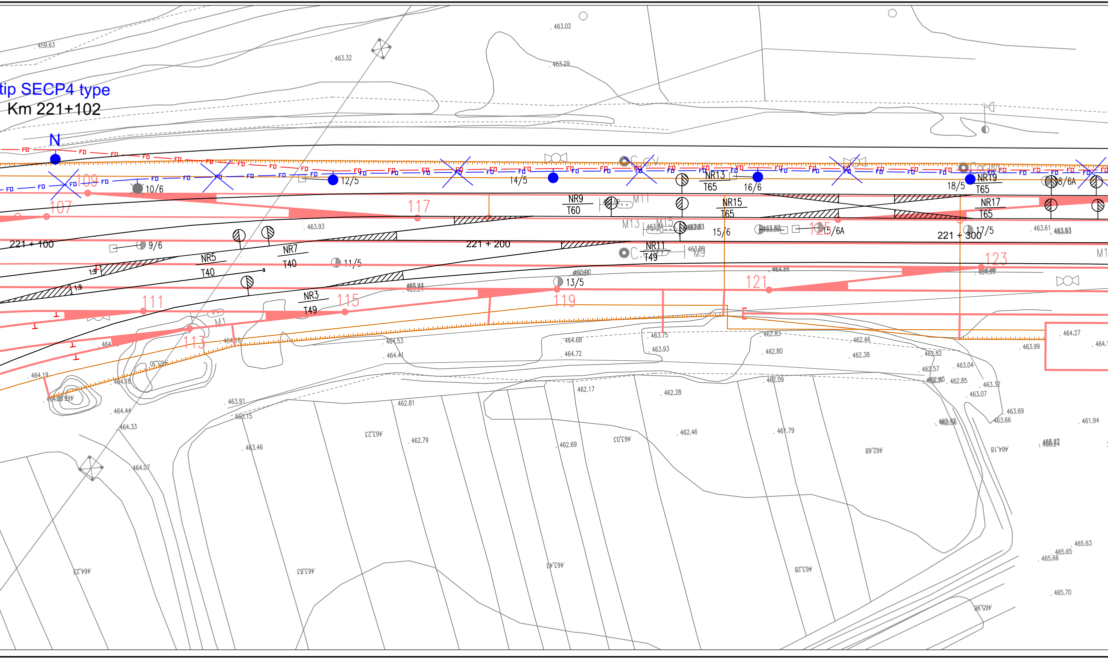
Km 229+940 existent / Km 220+987

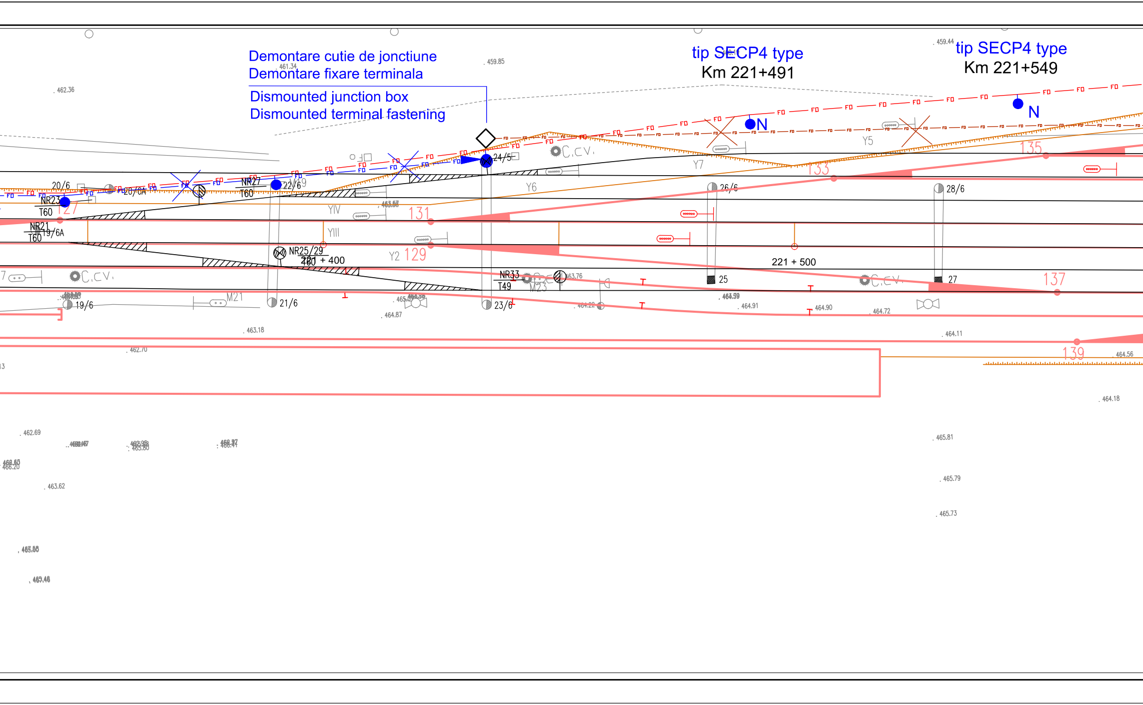
tip SECP4 type
Km 221+048

tip SECP4 type
Km 229+888 existent

tip SECP4 type
Km 229+858 existent

N
N
N
N
N
N
CS
221 + 000
FO
HM229+9
SE441
SE442
SE442
SE443
SE444
1/5
2/5
3/8
4/8
5/6
6/6
7/6
8/6
105
NR43
T40
NR45
T40
NR1
T40
1:9
1:9
M3
Km 22


tip SECP4 type
Km 221+102
N
FO
109
107
10/6
12/5
14/5
16/6
18/5
NR13
T65
NR19
T65
NR9
T60
NR15
T65
NR17
T65
117
221 + 100
221 + 200
221 + 300
9/6
11/5
13/5
15/6
15/6A
17/5
NR5
T40
NR7
T40
NR11
T49
NR3
T49
111
113
115
119
121
123
125
M1
M9
M11
M13
M15
1:9
463.02
463.29
463.32
459.63
463.93
463.61
464.53
464.41
464.68
464.72
463.75
463.93
462.83
462.80
462.46
462.38
462.82
462.57
463.04
462.85
463.32
463.07
463.69
463.66
464.27
463.99
461.94
462.09
462.17
462.28
462.81
462.79
462.69
462.46
461.79
463.91
463.15
463.46
464.19
464.18
464.16
464.44
464.33
464.07
465.63
465.65
465.66
465.70



Demontare cutie de jonctiune
Demontare fixare terminala

Dismounted junction box
Dismounted terminal fastening

tip SECP4 type
Km 221+491

tip SECP4 type
Km 221+549

462.36
461.34
459.85
459.44
N
N
FO
20/6
20/6A
NR23
T60
127
NR21
T60
19/6A
NR27
T60
22/6
24/5
C.C.V.
Y6
Y7
Y5
131
133
135
YIV
YIII
Y2
129
NR25/29
221 + 400
26/6
28/6
221 + 500
137
NR33
T49
M23
463.76
25
27
C.C.V.
C.C.V.
M21
19/6
21/6
23/6
464.87
464.91
464.90
464.72
463.18
462.70
464.11
139
464.56
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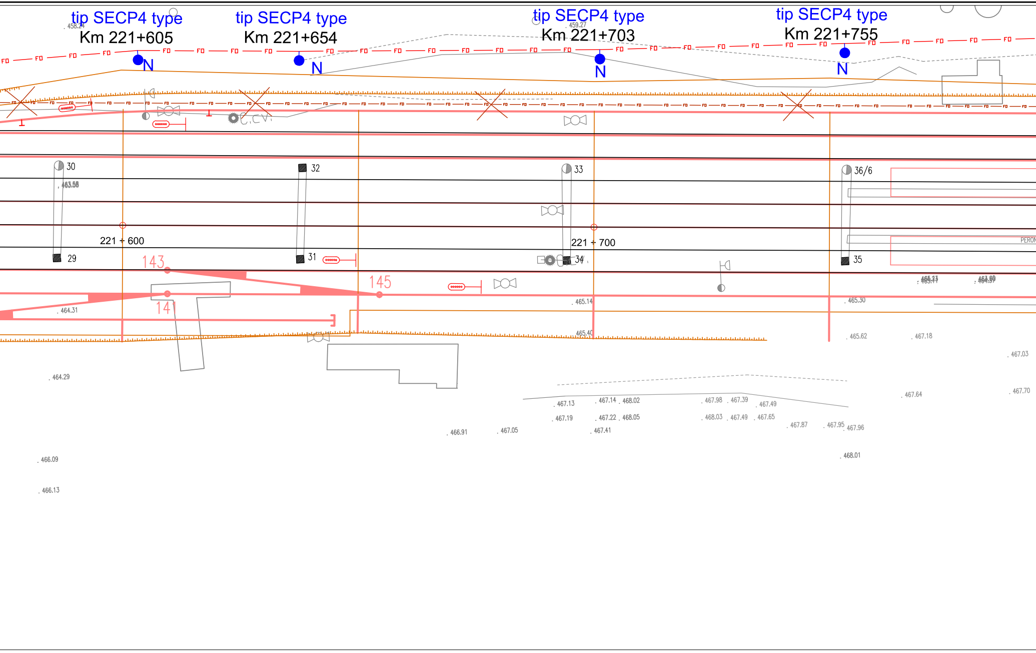
463.62
465.81
465.79
465.73


tip SECP4 type
Km 221+605
tip SECP4 type
Km 221+654
tip SECP4 type
Km 221+703
tip SECP4 type
Km 221+755
N
N
N
N
FD
C.C.V.
30
32
33
36/6
29
31
34
35
221 + 600
221 + 700
143
141
145
PERON
458.24
459.27
463.58
464.31
464.29
465.14
465.40
465.30
465.62
467.18
467.03
467.64
467.70
467.13
467.14
468.02
467.98
467.39
467.49
467.19
467.22
468.05
468.03
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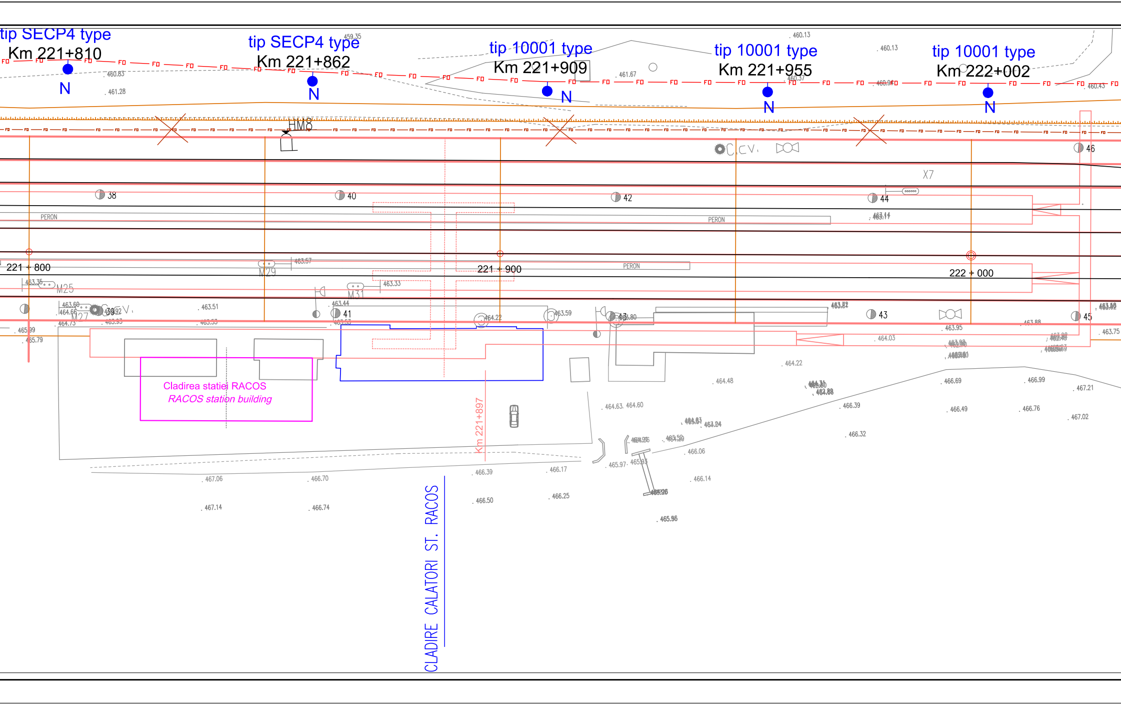
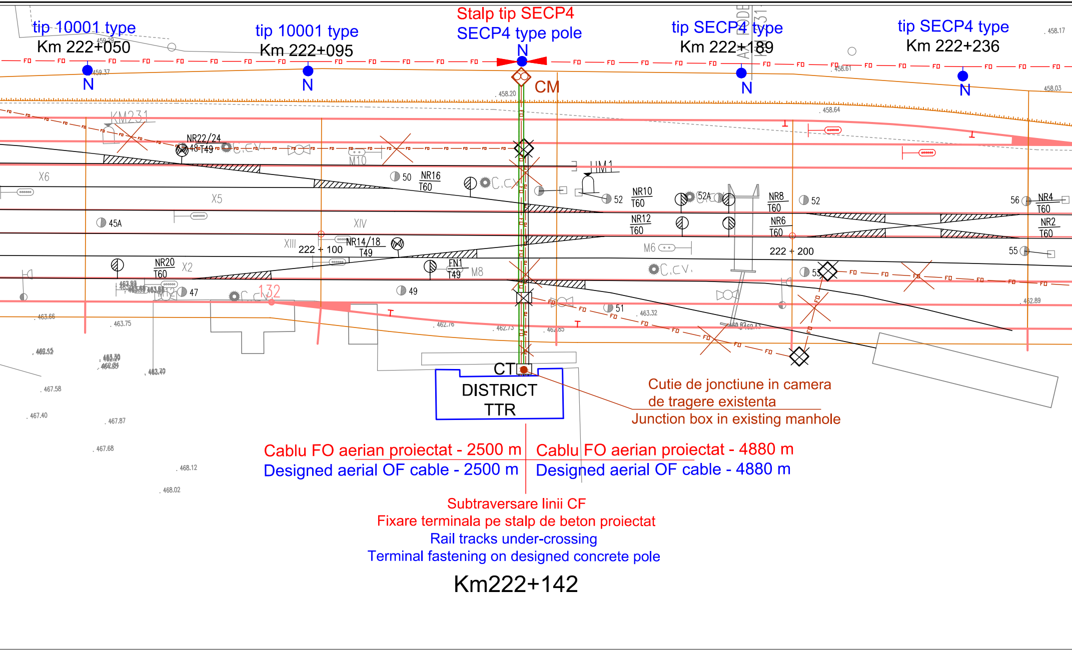
467.41
468.01
466.09
466.13


tip SECP4 type
Km 221+810
N
tip SECP4 type
Km 221+862
N
tip 10001 type
Km 221+909
N
tip 10001 type
Km 221+955
N
tip 10001 type
Km 222+002
N
HM8
C.CV.
X7
38
40
42
44
46
PERON
PERON
PERON
221 + 800
221 + 900
222 + 000
M25
M27
M29
M31
39
41
43
43
45
Cladirea statiei RACOS
RACOS station building
Km 221+897
CLADIRE CALATORI ST. RACOS
FO



N
N
N
N
N
N
CM
CT
DISTRICT
TTR
FO
KM231
NR22/24
48
T49
C.CV
M10
X6
X5
50
NR16
T60
LM1
52
NR10
T60
52A
NR8
T60
52
56
NR4
T60
NR2
T60
45A
XIV
NR12
T60
NR6
T60
XIII
222 + 100
NR14/18
T49
M6
222 + 200
55
NR20
T60
X2
FN1
T49
M8
C.CV.
53
47
C.CV
132
49
51
459.29
459.37
458.20
458.61
458.64
458.17
458.03
463.66
463.75
462.76
462.73
462.85
463.32
462.89
462.55
463.52
463.30
462.94
464.83
463.70
467.58
467.40
467.87
467.68
468.12
468.02

tip 10001 type
Km 222+050

tip 10001 type
Km 222+095

Stalp tip SECP4
SECP4 type pole

tip SECP4 type
Km 222+189

tip SECP4 type
Km 222+236

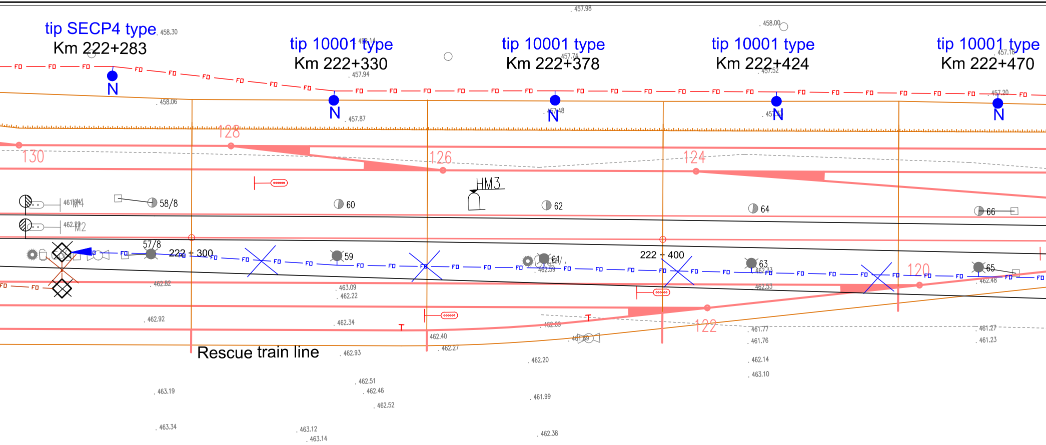
Cutie de jonctiune in camera
de tragere existenta
Junction box in existing manhole

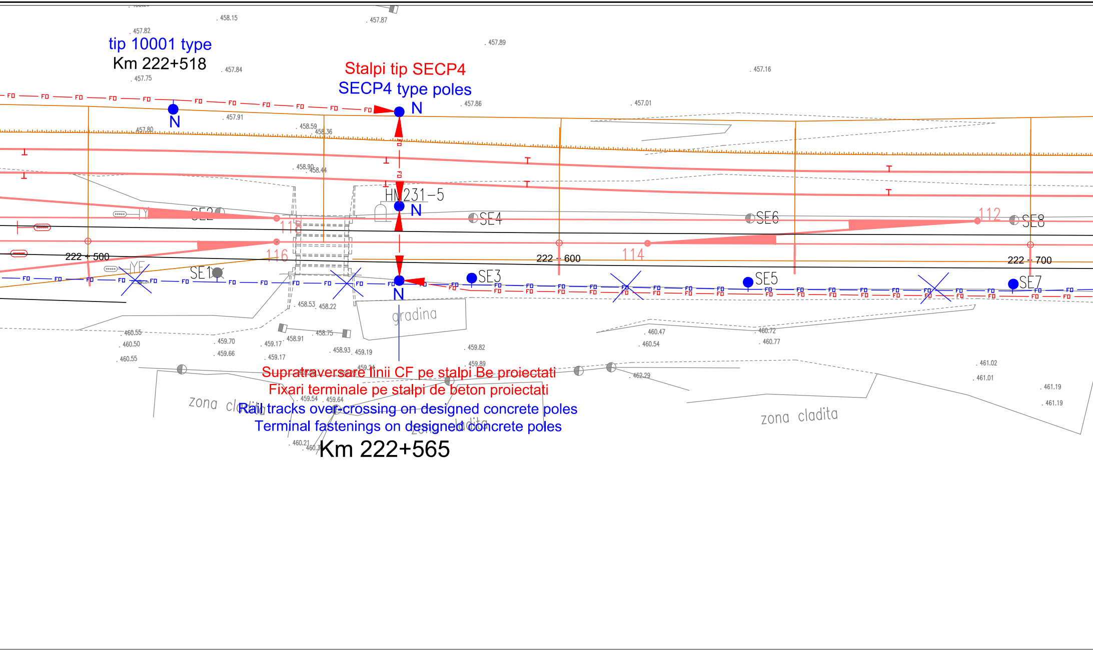
Cablu FO aerian proiectat - 2500 m
Designed aerial OF cable - 2500 m

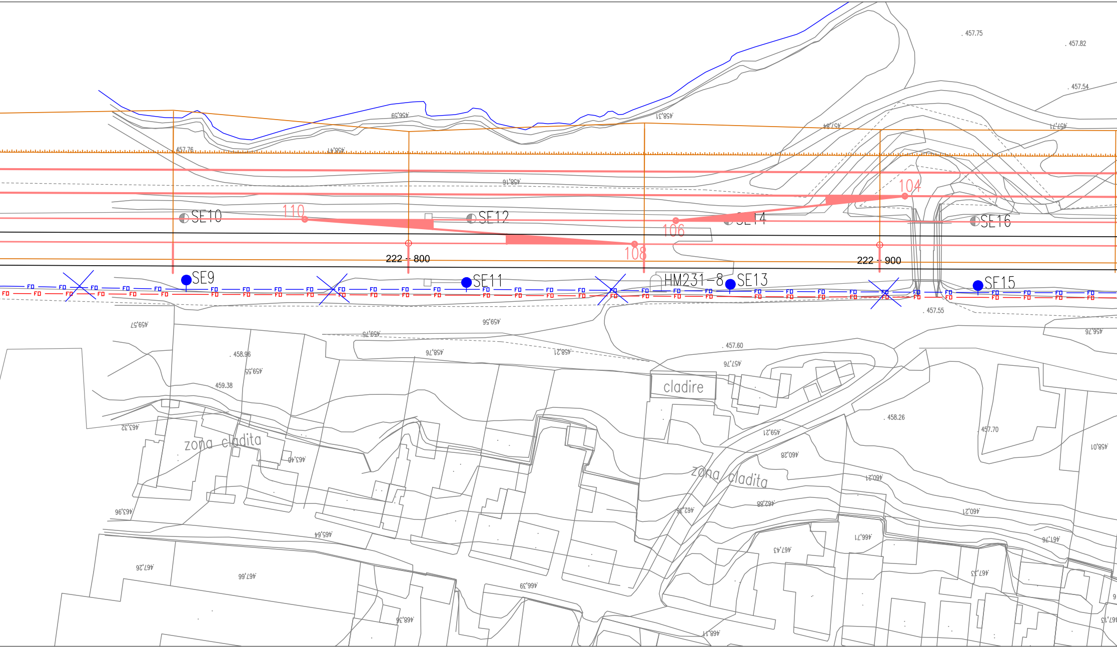
Cablu FO aerian proiectat - 4880 m
Designed aerial OF cable - 4880 m

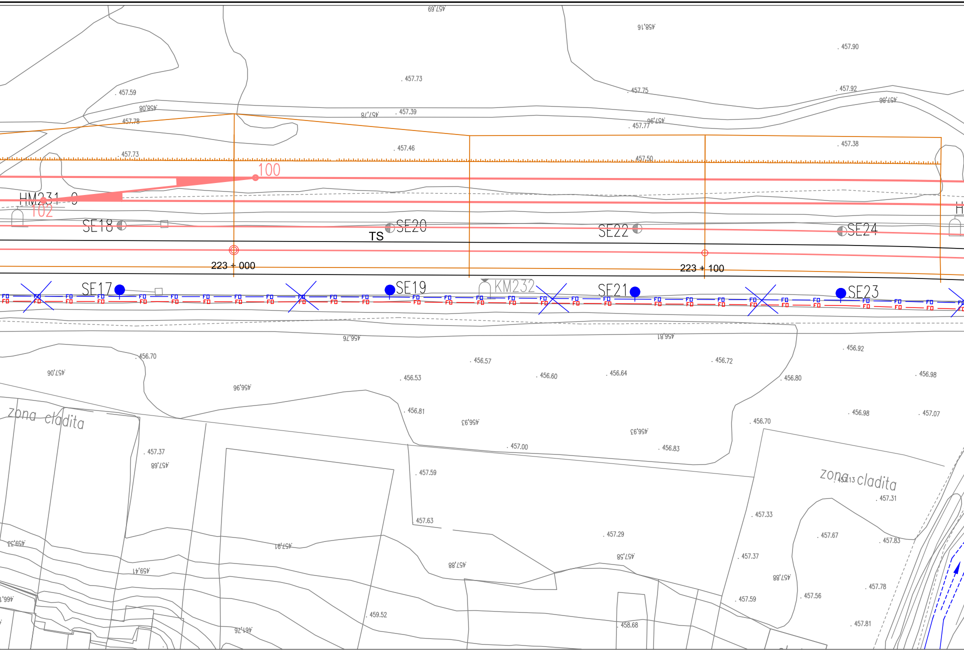
Subtraversare linii CF
Fixare terminala pe stalp de beton proiectat
Rail tracks under-crossing
Terminal fastening on designed concrete pole

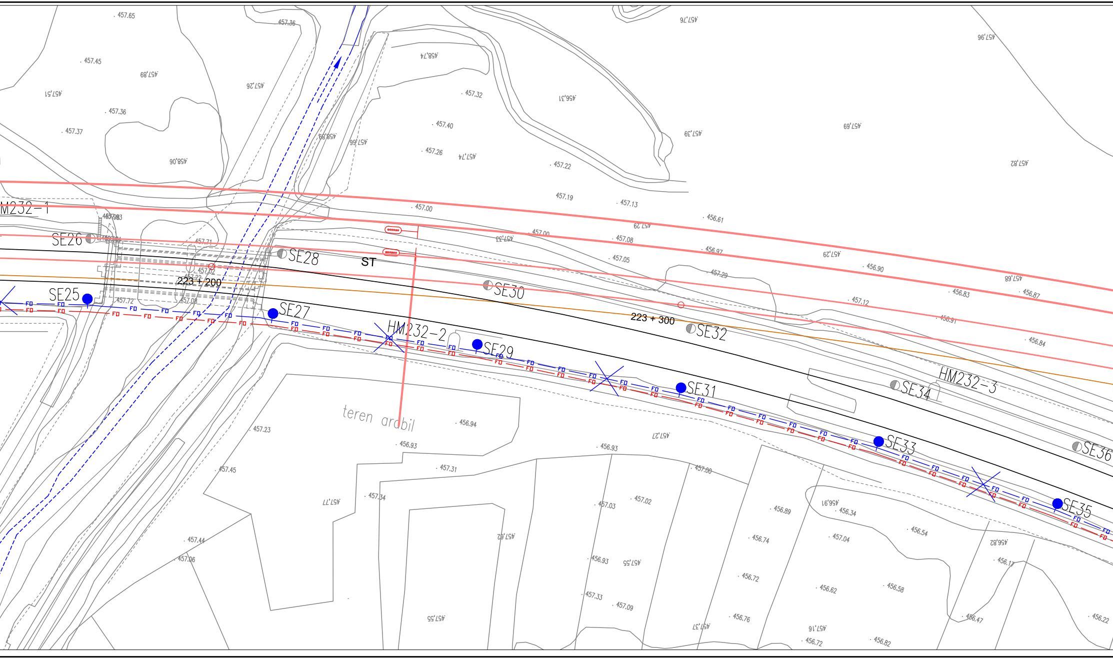
Km222+142


tip SECP4 type
Km 222+283
tip 10001 type
Km 222+330
tip 10001 type
Km 222+378
tip 10001 type
Km 222+424
tip 10001 type
Km 222+470
N
N
N
N
N
FO
130
128
126
124
122
120
HM3
M1
M2
58/8
60
62
64
66
57/8
222 + 300
59
61
222 + 400
63
65
Rescue train line
457.98
458.30
458.14
457.74
458.00
457.18
457.94
457.52
458.06
457.87
457.48
457.20
462.82
463.09
462.22
462.92
462.34
462.40
462.27
462.93
462.59
462.53
462.48
462.20
461.89
461.77
461.76
462.14
463.10
461.27
461.23
463.19
462.51
462.46
462.52
461.99
463.34
463.12
463.14
462.38


tip 10001 type
Km 222+518
Stalpi tip SECP4
SECP4 type poles
N
N
HM231-5
N
N
SE1
SE2
SE3
SE4
SE5
SE6
SE7
SE8
112
114
116
118
222 + 500
222 + 600
222 + 700
FO
gradina
zona cladita
zona cladita
zona cladita
Supratraversare linii CF pe stalpi Be proiectati
Fixari terminale pe stalpi de beton proiectati
Rail tracks over-crossing on designed concrete poles
Terminal fastenings on designed concrete poles
Km 222+565
458.15
457.87
457.82
457.89
457.84
457.75
457.16
457.86
457.01
457.91
457.80
458.59
458.36
458.90
458.44
458.53
458.22
460.55
460.50
460.55
459.70
459.66
459.17
459.17
458.91
458.75
458.93
459.19
459.82
459.89
460.47
460.54
460.72
460.77
462.29
461.02
461.01
461.19
461.19
459.54
459.64
460.21


457.75
457.82
457.54
457.76
SE10
110
SE12
SE14
106
104
SE16
108
222 + 800
222 + 900
SE9
SE11
HM231-8
SE13
SE15
FO
457.55
457.60
458.96
459.38
cladire
458.26
457.70
zona cladita
zona cladita


457.59
457.78
457.73
457.73
457.46
457.39
457.75
457.77
457.50
457.90
457.92
457.38
100
HM231+0
102
SE18
SE20
TS
SE22
SE24
223 + 000
223 + 100
SE17
SE19
KM232
SE21
SE23
FO
456.70
456.57
456.53
456.60
456.64
456.72
456.92
456.80
456.98
456.81
456.98
457.07
456.70
457.00
456.83
zona cladita
457.37
457.59
457.63
457.29
457.33
457.13
457.31
457.67
457.83
457.37
457.59
457.56
457.78
457.81
459.52
458.68


HM232-1
SE25
SE26
SE27
SE28
ST
223 + 200
HM232-2
SE29
SE30
SE31
223 + 300
SE32
SE33
SE34
HM232-3
SE35
SE36
teren arabil
FD
457.65
457.45
457.36
457.37
457.32
457.40
457.26
457.22
457.19
457.13
457.00
456.61
457.08
457.05
456.97
457.29
456.90
456.83
456.87
456.91
456.84
457.12
457.71
457.02
457.22
457.72
457.08
456.94
456.93
457.23
457.31
457.45
457.34
457.44
457.06
456.93
457.03
457.02
457.00
456.89
456.34
456.74
457.04
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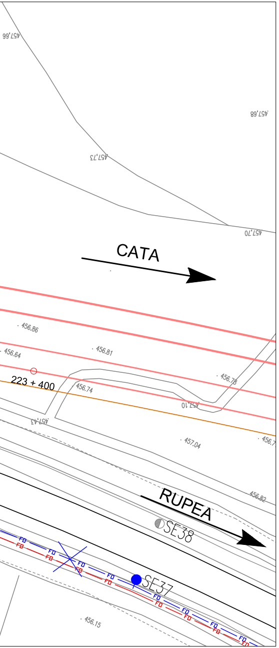
456.82
456.47
456.22


457,66
457,68
457,73
457,70
CATA
456,86
456,64
456,81
223 + 400
456,74
456,78
457,10
457,43
457,04
456,7
456,82
RUPEA
SE38
SE37
FO
456,15

LEGENDA TELECOMUNICATII
TELECOMMUNICATIONS LEGEND:

—FO—FO—	Cablu FO aerian proiectat Designed aerial OF cable
—FO—FO—	Cablu FO existent OF existing cable
—FO—FO—	Cablu FO subteran proiectat Designed underground OF cable
—✕FO—FO✕—	Demontare cablu FO aerian Dismounted aerial OF cable
—✕FO—FO✕—	Demontare cablu FO subteran existent Dismounted existing underground OF cable
═FO═FO═	Subtraversare CF cu tevi PVC Rail track under-crossing with PVC pipes
N ●	Stalp de beton proiectat Designed concrete pole
●	Stalp de beton existent care se pastreaza Existing concrete pole which preserved
●	Stalp de beton existent - demontat Dismounted existing concrete pole
CT ☐	Camera de tragere existenta / Existing manhole
CM ◇	Camereta de beton proiectata / Designed concrete handhole

DESCRIEREA LUCRĂRILOR

Lucrările de protejare şi menţine în funcţiune a cablului cu fibre optice existent, instalat pe partea stângă a căii ferate, se vor realiza în 2 faze.

Faza 1

Operaţiile de reamplasare a cablului cu fibre optice pentru eliberarea amplasamentului se va executa înaintea începerii lucrărilor de construire a liniilor ferate, în următoarea ordine:

A. Capătul X al staţiei

a) Instalarea unui cablu cu fibre optice nou pe partea stângă a căii ferate între semnalul de intrare X şi clădirea Districtului TTR din staţia Racoş. Menţionăm că instalarea cablului proiectat se va face începând de la stâlpul SE399 de pe intervalul Augustin - Racoş, unde se va realiza şi joncţionarea cablului proiectat de cel existent.
Cablul va fi instalat în principal pe stâlpii de beton proiectaţi amplasaţi în afara zonei lucrărilor de construcţii, având o supratraversare a noilor linii c.f. la km 220+987.

b) Introducerea cablului în sala de echipamente Tc din clădirea Districtului TTR se va realiza prin refacea subtraversării liniilor c.f. de la km 222+142 şi parţial prin canalizaţia telefonică existentă.

c) După preluarea comunicaţiilor pe cablul cu fibre optice proiectat, se vor demonta cablurile aerian şi subteran existente.

B. Capătul Y al staţiei

a) Instalarea unui cablu cu fibre optice nou între clădirea Districtului TTR şi semnalul de intrare Y:

- de la clădirea Districtului TTR cablul se instalează în canalizaţia telefonică existentă şi subtraversarea proiectată, la fel ca şi cablul proiectat din capătul X al staţiei
- în continuare cablul se instalează pe partea stângă a căii ferate pe stâlpii de beton proiectaţi amplasaţi în afara zonei lucrărilor de construcţii până la km 222+565, unde va supratraversa liniile c.f. pe stâlpi de beton proiectaţi
- după supratraversare cablul se instalează pe partea dreaptă a liniilor c.f. pe stâlpii de beton existenţi. Menţionăm că instalarea cablului proiectat se va face până la stâlpul SE63 de pe intervalul Racoş - Rupea.

b) După preluarea comunicaţiilor pe cablul cu fibre optice proiectat dintre clădirea Districtului TTR şi stâlpul SE63, se va demonta cablul existent.

DESCRIPTION OF WORKS

The protection and maintaining works of the existing fiber optic cable, which is installed on the left side of the railway tracks, will be performed in 2 phases.

1st Phase

The works for the relocation of the fiber optic cable for setting free the works site will be performed before the beginning of the construction works of the new rail tracks in the following order:

A. X end of station

a) Installation of a new fiber optic cable on the left side of the railway tracks between the X entrance signal and the Telecommunication District building of Racoş station. To mention that the installation of the designed cable will be made from the SE399 pole from the Augustin - Racoş section, where it will be performed the junction between the designed and existing cables.
The cable will be installed mainly on the designed concrete poles placed outside the works area having an over-crossing of the new rail tracks at km 220+987.

b) The introduction of the cable in the telecommunication equipment room from the Racoş Telecommunication District building will be performed by remaking the under-crossing of rail tracks at km 222+142 and partly through the existing telephone conduit.

c) After taking over the communications on the designed fibre optic cable, the existing aerial and underground cable will be dismounted.

B. Y end of station

a) Insertion of a new fiber optic cable between the Telecommunication District building and the Y entrance signal.

- from the Telecommunication District building the cable will be installed in the existing telephone conduit and in the designed under-crossing, identically as the designed cable from the X end of station
- further on up to the switching area the cable will be installed on the left side of the railway tracks on the designed concrete poles placed outside of the works area up to km 222+565, where it will over-crossing the rail tracks on designed concrete poles
- after the over-crossing the cable will be installed on the right side of the rail tracks on the existing concrete poles. To mention that the installation of the designed cable will be made up to the SE63 pole from the Racoş - Rupea section, where it will be performed the junction between the designed and existing cables.

b) After taking over the communications on the designed fibre optic cable between the Telecommunication District building and the SE63 pole, the existing cable will be dismounted.

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

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANŢAT DE UNIUNEA EUROPEANĂ
EUROPEAN UNION FINANCED PROJECT

CLIENT / CLIENT

CFR

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	Semnătură Signature
Aprobat Approved	Şef proiect Project manager	R. Liuzza		
Aprobat Approved	Coordonator Secţiune 1 Section 1 Coordinator	C. Gambelli		
Verificat Checked	Expert Verificator Checking Expert	Pino Amodio		

SUBCONTRACTANT / SUBCONTRACTOR

AREX COMPANY

Aprobat Approved	Responsabil Subcontractant Subcontractor Responsible	A.Stanciu - Dinulescu	09.2011	
Întocmit Elaborated	Proiectant Designer	Gabriela Trifan	09.2011	Trifan

Reabilitarea liniei de cale ferata Brasov - Simeria, parte componentã a coridorului IV Pan European, pentru circulatia trenurilor cu viteza maximã de 160 km/h,
Tronsonul : Brasov - Sighisoara
Rehabilitation of the railway line Brasov - Simeria, component Part of the IV Pan-European Corridor, for the trains circulation with maximum speed of 160 km/h,
Section : Brasov - Sighisoara

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

Faza / Phase:
P.Th. / T.D.

Denumire desen / Drawing Title :

Mutarea si protejarea cablului FO existent - Faza 1
Plan de situatie - statia RACOS station - Layout Plan
Relocation and protection of existing OF cable - 1st Phase

Codificare / Codification System	Scara / Scale 1:500	LOT / LOT	Nr. / No 01 / 02

E A 5 1 0 1 C 1 1 L 8 T C 0 5 7 1 0 0 1 1