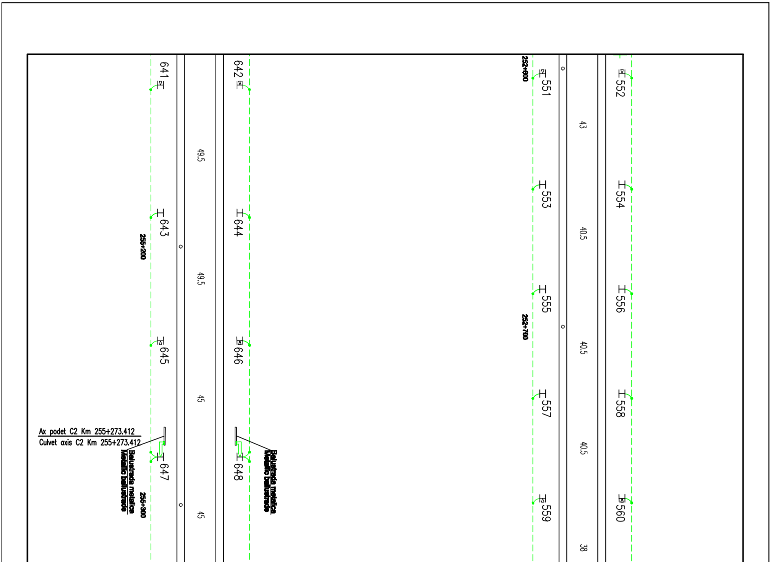
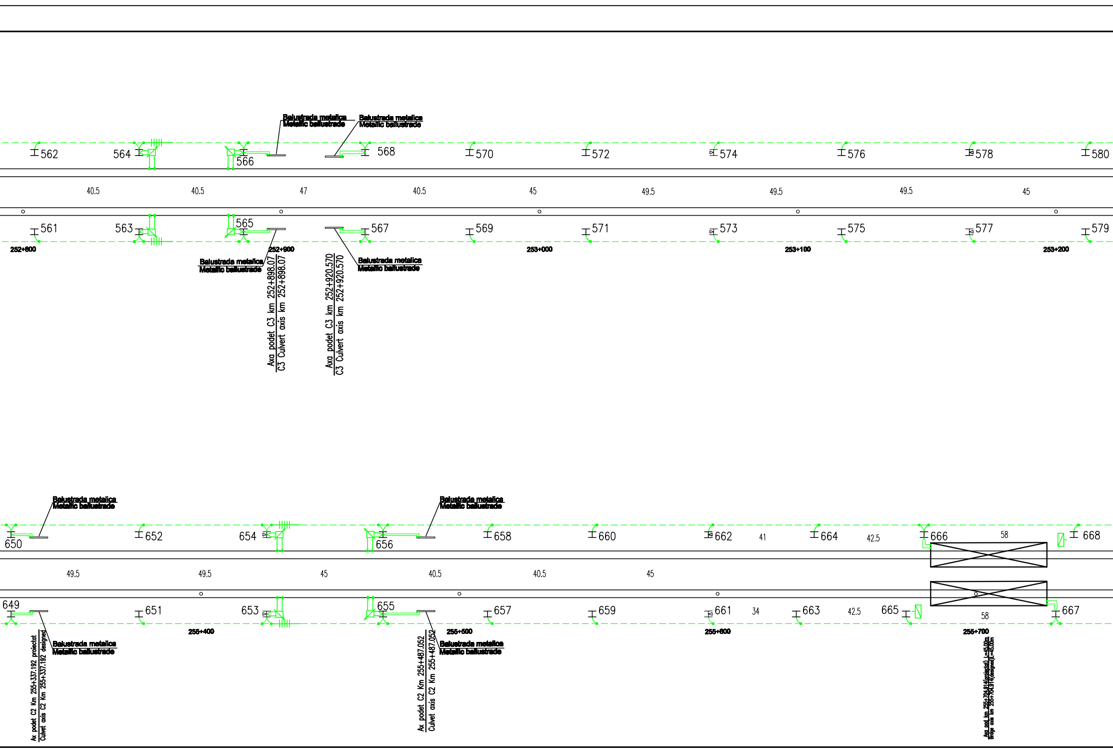
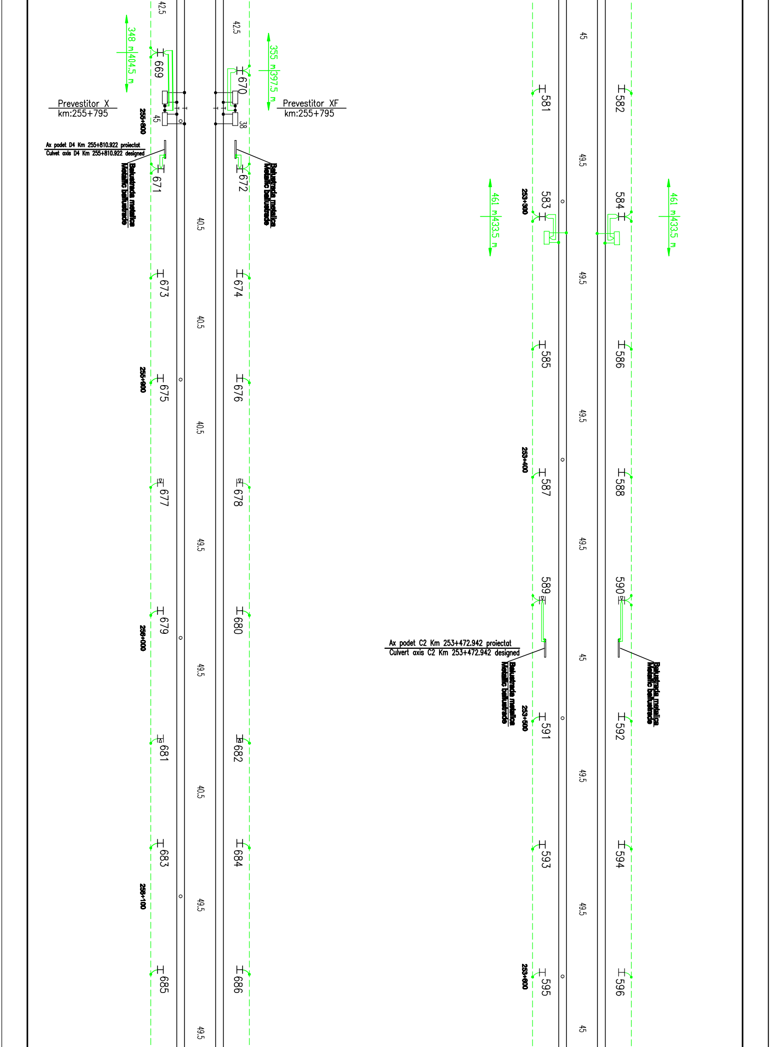

Ax podet C2 Km 255+273.412
Culvet axis C2 Km 255+273.412
Balustrada metalica
Metallic ballustrade
Balustrada metalica
Metallic ballustrade
255+200
255+300
252+600
252+700
641
642
643
644
645
646
647
648
551
552
553
554
555
556
557
558
559
560
49.5
49.5
45
45
43
40.5
40.5
40.5
38


Balustrada metalica
Metallic ballustrade
Balustrada metalica
Metallic ballustrade
562
564
566
568
570
572
574
576
578
580
40.5
40.5
47
40.5
45
49.5
49.5
49.5
45
561
563
565
567
569
571
573
575
577
579
252+800
252+900
253+000
253+100
253+200
Balustrada metalica
Metallic ballustrade
Axa podet C3 km 252+898.07
C3 Culvert axis km 252+898.07
Axa podet C3 km 252+920.570
C3 Culvert axis km 252+920.570
Balustrada metalica
Metallic ballustrade
Balustrada metalica
Metallic ballustrade
Balustrada metalica
Metallic ballustrade
650
652
654
656
658
660
662
41
664
42.5
666
58
668
49.5
49.5
45
40.5
40.5
45
649
651
653
655
657
659
661
34
663
42.5
665
58
667
255+400
255+500
255+600
255+700
Ax podet C2 Km 255+337.192 proiectat
Culvet axis C2 Km 255+337.192 designed
Balustrada metalica
Metallic ballustrade
Ax podet C2 Km 255+487.052
Culvet axis C2 Km 255+487.052
Balustrada metalica
Metallic ballustrade
Axa pod km 255+704.914(proiectat) L=45.00m
Bridge axis km 255+704.914(designed)L=45.00m


Prevestitor X
km:255+795
Prevestitor XF
km:255+795
Ax podet D4 Km 255+810.922 proiectat
Culvert axis D4 Km 255+810.922 designed
Balustrada metalica
Metallic balustrade
Balustrada metalica
Metallic balustrade
348 m
404.5 m
355 m
397.5 m
461 m
433.5 m
461 m
433.5 m
255+800
255+900
256+000
256+100
253+300
253+400
253+500
253+600
669
670
671
672
673
674
675
676
677
678
679
680
681
682
683
684
685
686
581
582
583
584
585
586
587
588
589
590
591
592
593
594
595
596
Ax podet C2 Km 253+472.942 proiectat
Culvert axis C2 Km 253+472.942 designed
Balustrada metalica
Metallic balustrade
Balustrada metalica
Metallic balustrade
42.5
42.5
45
38
40.5
40.5
40.5
49.5
49.5
40.5
49.5
49.5
45
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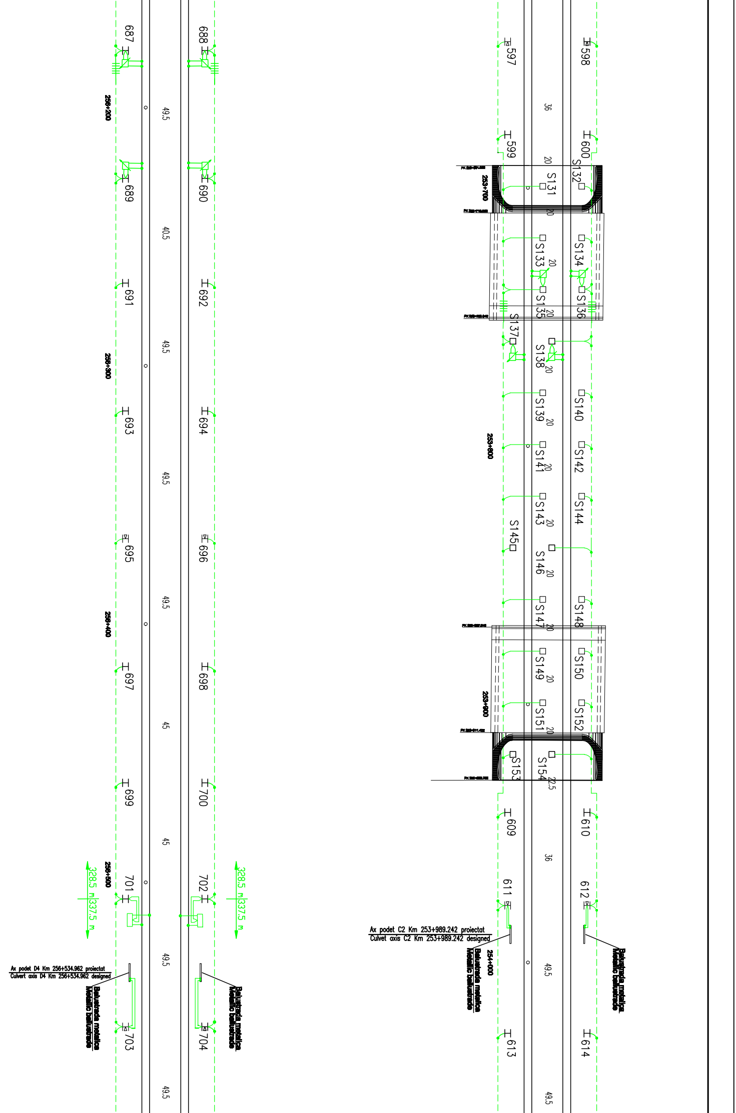
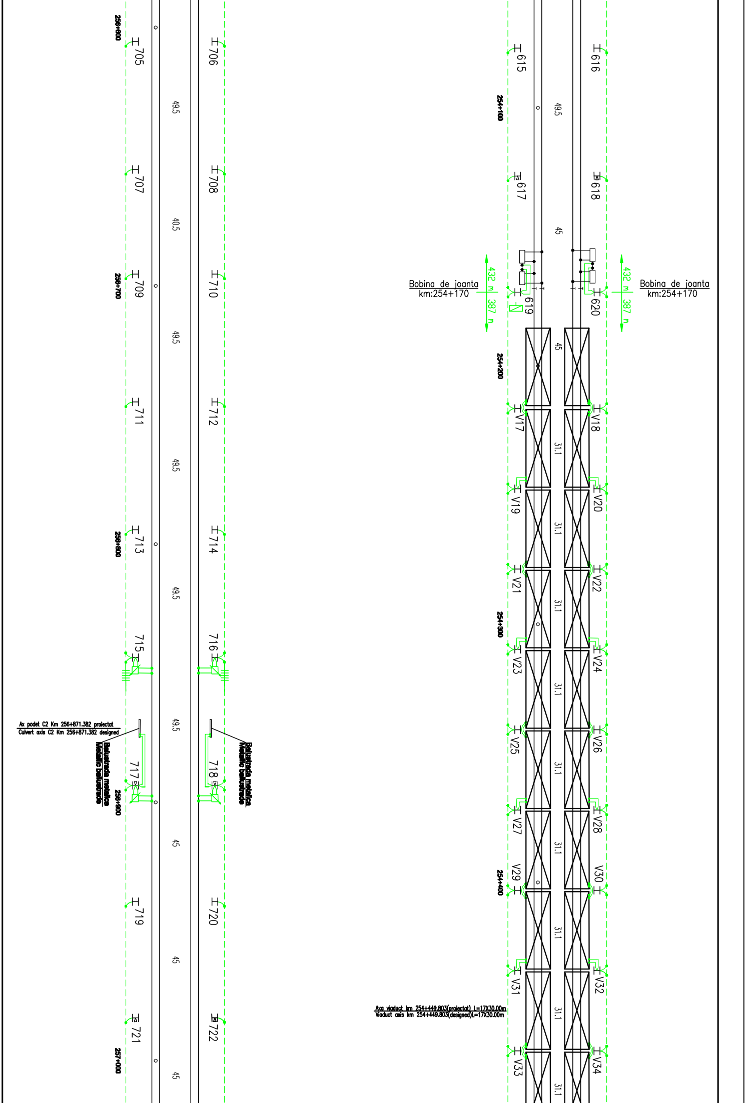
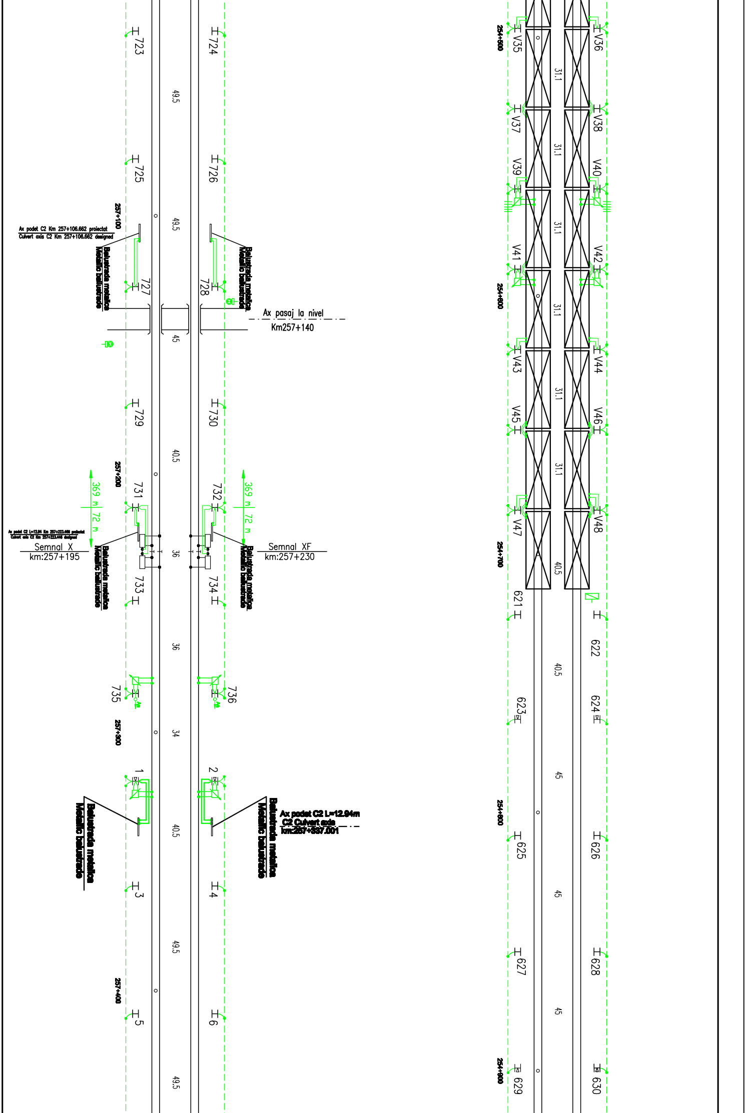
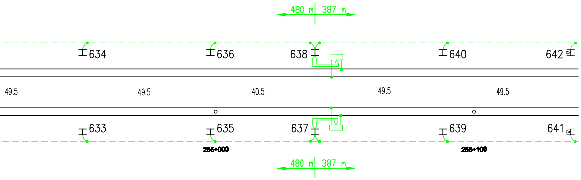
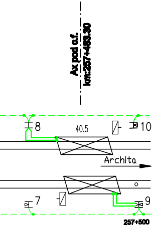
45
49.5
49.5
45


687
688
689
690
691
692
693
694
695
696
697
698
699
700
701
702
703
704
256+200
256+300
256+400
256+500
49.5
40.5
45
328.5 m
337.5 m
Ax podet D4 Km 256+534.962 proiectat
Culvert axis D4 Km 256+534.962 designed
Balustrada metalica
Metallic balustrade
597
598
599
600
609
610
611
612
613
614
S131
S132
S133
S134
S135
S136
S137
S138
S139
S140
S141
S142
S143
S144
S145
S146
S147
S148
S149
S150
S151
S152
S153
S154
36
20
22.5
253+700
253+800
253+900
254+000
Ax podet C2 Km 253+989.242 proiectat
Culvert axis C2 Km 253+989.242 designed

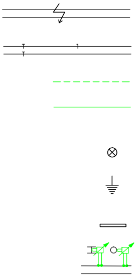

256+600
705
706
49.5
707
708
40.5
256+700
709
710
49.5
711
712
49.5
256+800
713
714
49.5
715
716
Ax podet C2 Km 256+871.382 proiectat
Culvert axis C2 Km 256+871.382 designed
Balustrada metalica
Metallic balustrade
49.5
717
718
Balustrada metalica
Metallic balustrade
256+900
45
719
720
45
721
722
257+000
45
615
616
254+100
49.5
617
618
45
Bobina de joanta
km:254+170
432 m
387 m
619
620
Bobina de joanta
km:254+170
432 m
387 m
45
254+200
V17
V18
31.1
V19
V20
31.1
V21
V22
31.1
254+300
V23
V24
31.1
V25
V26
31.1
V27
V28
31.1
V29
V30
254+400
31.1
V31
V32
Axa viaduct km 254+449.803(proiectat) L=17X30.00m
Viaduct axis km 254+449.803(designed)L=17X30.00m
31.1
V33
V34
31.1


723
724
725
726
727
728
729
730
731
732
733
734
735
736
1
2
3
4
5
6
49.5
49.5
45
40.5
36
36
34
40.5
49.5
49.5
257+100
257+200
257+300
257+400
Ax podet C2 Km 257+106.662 proiectat
Culvert axis C2 Km 257+106.662 designed
Balustrada metalica
Metallic balustrade
Ax pasaj la nivel
Km257+140
369 m
72 m
Ax podet C2 L=12.94 Km 257+223.466 proiectat
Culvert axis C2 Km 257+223.446 designed
Semnal X
km:257+195
Semnal XF
km:257+230
Ax podet C2 L=12.94m
C2 Culvert axle
km:257+337.001
V35
V36
V37
V38
V39
V40
V41
V42
V43
V44
V45
V46
V47
V48
31.1
31.1
31.1
31.1
31.1
31.1
40.5
621
622
623
624
625
626
627
628
629
630
40.5
45
45
45
254+500
254+600
254+700
254+800
254+900


480 m
387 m
634
636
638
640
642
49.5
49.5
40.5
49.5
49.5
633
635
637
639
641
255+000
255+100
480 m
387 m


Ax pod c.f.
km:257+483.30
8
40.5
10
Archita
7
9
257+500

LEGENDA / LEGEND:



Linie c.f. electrificata
electrified line c.f.

Joanta izolata
Insulated rail joints

Conductor colector din otel-aluminiu 95/15 mmp
Earthing conductor steel-aluminum 95/15 sq mm

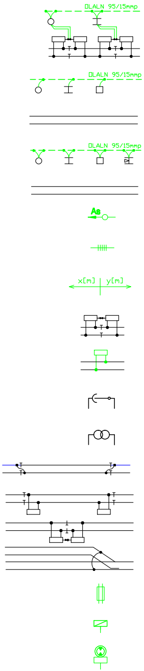
Conductor din banda de otel Ø 10 mm galvanizat
Galvanised steel conductor Ø 10 mm

Stalp de beton echipat cu corp de iluminat
Concrete pole equipped with lighting unit

Priza de pământ
Earth plate

Balustrada metalica
Metallic ballustrade

Legarea individuala a stalpului LC la sina de tractiune
Individual connection of CL pole to the traction rail


OLALN 95/15mmp
OLALN 95/15mmp
OLALN 95/15mmp
As
x[m]
y[m]

Legarea colectivă a stâlpului LC la mediana bobinei de joantă
prin conductorul de protecţie OLALN 95/15mmp /
CL pole collective connection through OLALN 95/15mmp protection conductor
at the impedance coil mid-point

Legarea simplă a stâlpului LC la conductorul de protecţie OLALN95/15mmp
Simple connection of CL pole at OLALN95/15mmp protection conductor

Legarea dublă a stâlpului LC la conductorul de protecţie OLALN95/15mmp
Double connection of CL pole at OLALN95/15mmp protection conductor

Ancora pentru conductorul de protecţie OLALN 95/15mmp
Anchor for OLALN 95/15mmp protection conductor

Izolator de separare electrică a conductorului de protecţie
Sectionning insulator of over-head protective conductor

x, y - Lungimile conductorului de protecţie
x, y - Overhead protective conductor lenghts

Bobina de joanta
Impedance coil

Bobina de protectie
Protection coil

Separator monopolar de exterior
Outdoor single phase disconnector

Transformator
Transformer

Circuit de cale monofilar
Single-track circuit

Circuit de cale bifilar
Double-track circuit

Bobina de joanta CED
Joint coil CED

Funie de cupru de 50mmp
Copper cord 50mmp

Subtraversare linie c.f. in tub de cauciuc
Railway lines under-crossing by rubber tube

Placa avertizoare "STATIONAREA PE POD INTERZISA"
Marker "Staying on the bridge is not permised"

Indicator cerc pentru restrictie gabarit si placuta
suplimentara pentru indicarea distantei
Circle indicator for gauge restriction and additional
plate to indicate distance

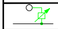
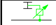
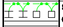
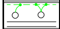
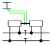
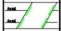
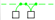
NOTA / NOTE:

SEMNIFICAŢIA CULORILOR FOLOSITE ÎN PREZENTAREA PLANULUI DE PROTECTIE ESTE URMĂTOAREA:
- verde - elemente noi ale instalaţiei de protecţie
- negru - elemente noi care aparţin altor specialităţi
- gri - elemente existente din planul de situaţie

THE SIGNIFICATION OF COLORS USED TO PRESENT THE PROTECTION DRAWING:
- green - new elements of the protection installations
- black - new elements of others specialities
- gray - existing elements of the layout plan

- balustradele podurilor si podetelor c.f. se vor proteja conform ID 33
- the ballustrades of the bridges and culverts at will be protected according to ID 33
- stalpii de iluminat de pe peroane se vor proteja conform ID 33
- the lighting poles on the platforms will be protected according to ID 33

LISTA DE COMPONENTA / ITEM LIST

REF / ITEM	DENUMIRE REFERINTA / ITEM DESIGNATION	REFERINTA DWG / DWG REFERENCE	CANTITATE / QUANTITY
	Stâlp de beton protejat individual Individual protected concrete pole		4 pcs
	Stâlp de metal protejat individual Individualy protected metallic pole		-
	Stâlp de metal protejat colectiv Collectively protected metallic pole		799pcs
	Stâlp de beton protejat colectiv Collectively protected concrete pole		-
OLALN 95/15mmp	Conductor colector din oţel-aluminiu 95/15 mmp Earthing conductor steel-aluminum 95/15 sq mm		36736m
	Ancoră pentru conductorul de protecţie OLALN 95/15mmp Anchor for OLALN 95/15mmp protection conductor		8 pcs
	Legatură dublă la mediana bobinei de joantă Double connection at mid-point of coil		48pcs
	Indicator restricţie gabarit Restriction indicator gauge		6 pcs
	Bobina de protecţie Protection coil		24 pcs
	Priza de pământ Earth plate		-
	Interstiţiu de scânteiere Sparking gap		98 pcs.
	Panouri protecţie Protection panel		-
	Izolator de separare electrică Sectionning insulator		44 pcs
	Placa avertizoare"STATIONAREA PE POD INTERZISA" Marker "Staying on the bridge is not permised"		16 pcs
	Subtraversare linie c.f. în tub de cauciuc Railway lines under-crossing by rubber tube		2 pcs
	Prinderi conductor colector în tunel Fastening device for earth conductor in the tunnel		141 pcs

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

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	12.2011	
Aprobat Approved	Coordonator Secţiune 1 Section 1 Coordinator	C. Gambelli	12.2011	
Verificat Checked	Expert Verificator Checking Expert	G. Battistini	12.2011	

SUBCONTRACTANT / SUBCONTRACTOR

AREX COMPANY

Aprobat Approved	Responsabil Subcontractant Subcontractor Responsible	A.Stanciu - Dinulescu	12.2011	
Întocmit Elaborated	Proiectant Designer	M. Badiu	12.2011	

Reabilitarea liniei de cale ferata Braşov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia 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 Cata-Archita/Cata-Archita section
Protecţia instalaţiilor din cale şi vecinătate / Protection of track and proximity installations

Codificare / Codification System	Scara / Scale 1:1000	LOT / LOT	Nr. / No 01 / 01

E A 5 1 | 0 1 | C | 1 4 | L 7 | P I | 0 0 | 1 | 0 | 0 0 1 | 0

297 X 3090