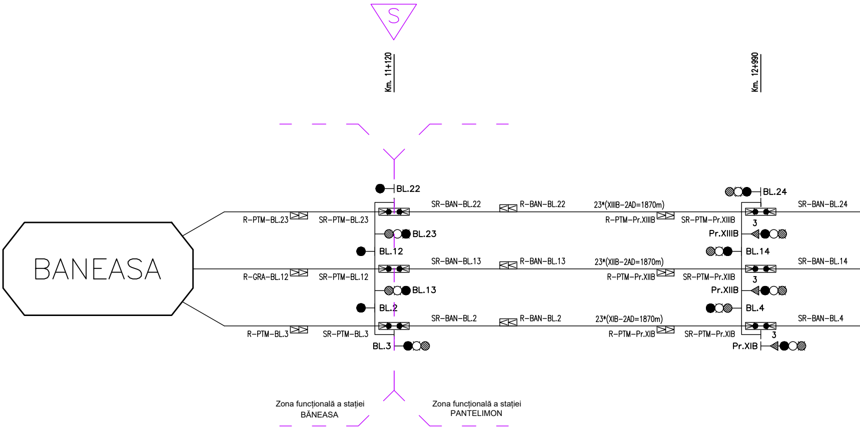
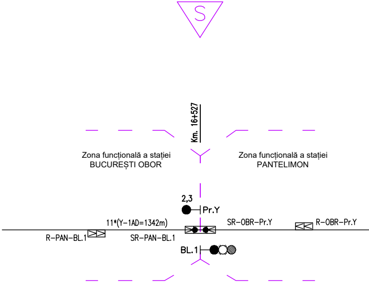
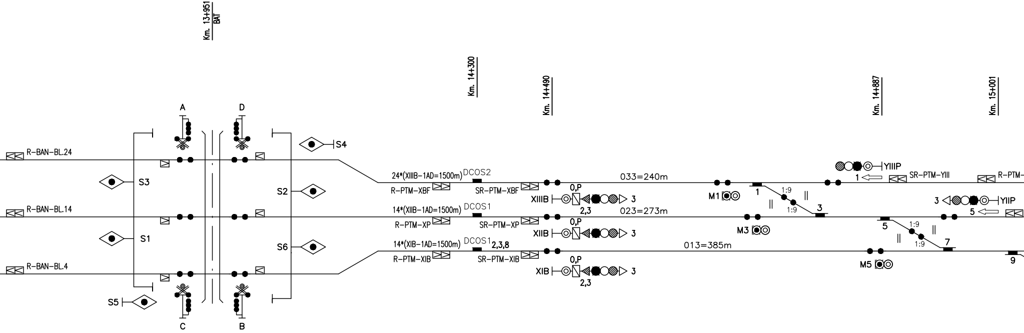
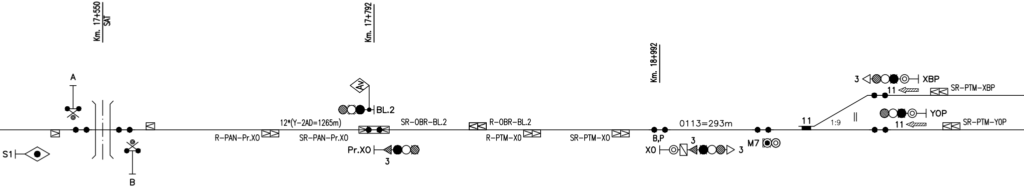
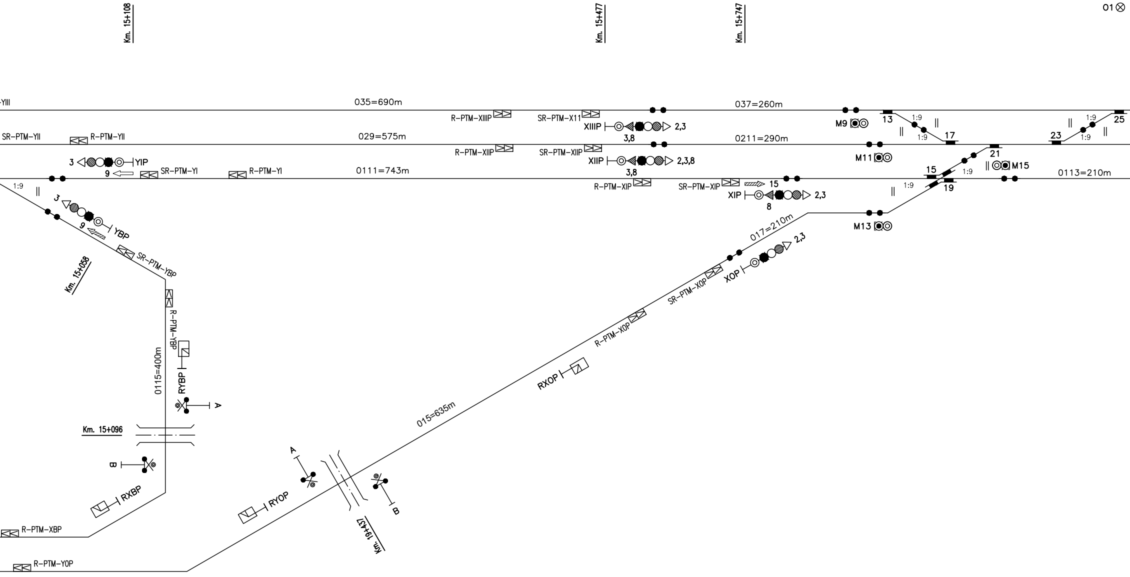
ESTE INTERZISA MODIFICAREA, INSTRAINAREA, COPIEREA SI MULTIPLICAREA ACESTOR SCHEME ELECTRICE SUB FORMA TIPARITA SAU ELECTRONICA, FARA APROBAREA SCRISA A ISPCF, CARE ARE DREPTUL DE PROPRIETATE INTELECTUALA ASUPRA ACESTORA.
ESTE PERMISA UTILIZAREA ACESTOR SCHEME NUMAI PENTRU SPECIALISTII DIN ISPCF SI NUMAI IN INTERESUL ISPCF.
ISPCF ISI REZERVA DREPTUL DE A MODIFICA ACESTE SCHEME ELECTRICE ATUNCI CAND CONSIDERA CA ESTE NECESAR, FARA PREAVIZ.

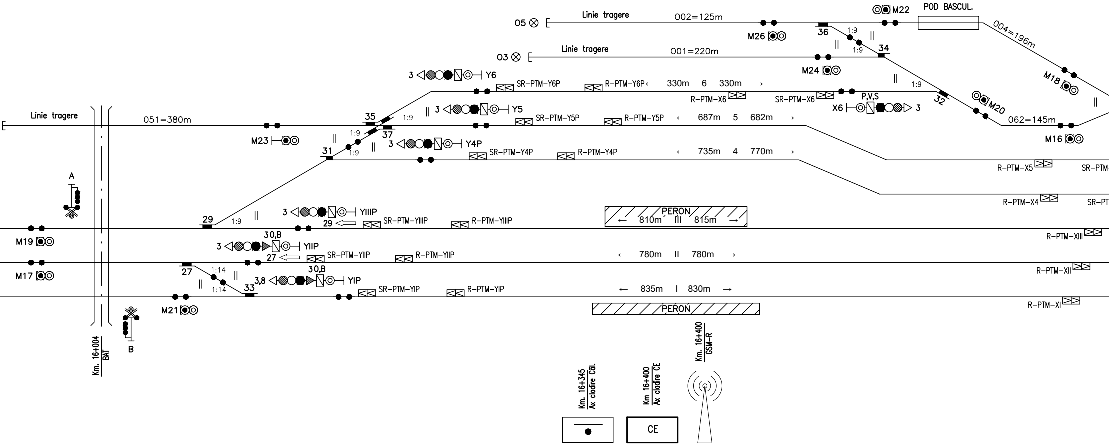

S
Km. 11+120
Km. 12+990
BANEASA
BL.22
SR-BAN-BL.22
R-BAN-BL.22
23*(XIIIB-2AD=1870m)
BL.24
SR-BAN-BL.24
R-PTM-BL.23
SR-PTM-BL.23
R-PTM-Pr.XIIIB
SR-PTM-Pr.XIIIB
3
BL.23
Pr.XIIIB
BL.12
BL.14
SR-BAN-BL.13
R-BAN-BL.13
23*(XIIB-2AD=1870m)
SR-BAN-BL.14
R-GRA-BL.12
SR-PTM-BL.12
R-PTM-Pr.XIIB
SR-PTM-Pr.XIIB
3
BL.13
Pr.XIIB
BL.2
BL.4
SR-BAN-BL.2
R-BAN-BL.2
23*(XIB-2AD=1870m)
SR-BAN-BL.4
R-PTM-BL.3
SR-PTM-BL.3
R-PTM-Pr.XIB
SR-PTM-Pr.XIB
3
BL.3
Pr.XIB
Zona funcțională a stației BĂNEASA
Zona funcțională a stației PANTELIMON


S
Km. 16+527
Zona funcțională a stației BUCUREȘTI OBOR
Zona funcțională a stației PANTELIMON
2,3
Pr.Y
11*(Y-1AD=1342m)
SR-OBR-Pr.Y
R-OBR-Pr.Y
R-PAN-BL.1
SR-PAN-BL.1
BL.1

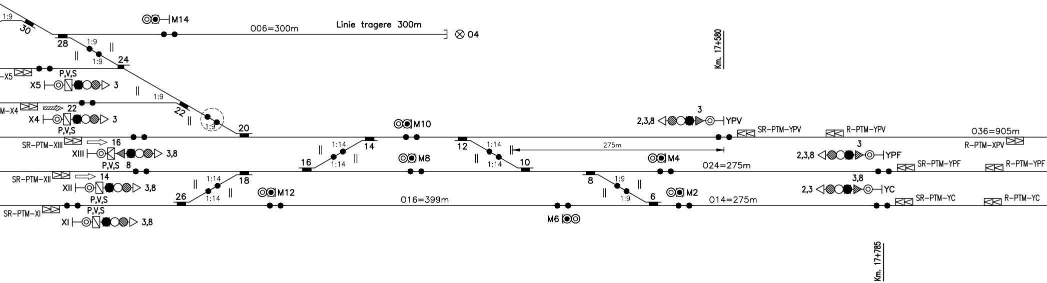

Km. 13+951
BAT
Km. 14+300
Km. 14+490
Km. 14+887
Km. 15+001
A
D
S4
R-BAN-BL.24
S3
S2
24*(XIIIB-1AD=1500m)
DCOS2
R-PTM-XBF
SR-PTM-XBF
XIIIB
0,P
2,3
3
033=240m
M1
1
1:9
3
YIIIP
1
SR-PTM-YIII
R-PTM-
R-BAN-BL.14
14*(XIIB-1AD=1500m)
DCOS1
R-PTM-XP
SR-PTM-XP
XIIB
0,P
3
023=273m
M3
YIIP
5
5
1:9
7
S1
S6
R-BAN-BL.4
14*(XIB-1AD=1500m)
DCOS1
2,3,8
R-PTM-XIB
SR-PTM-XIB
XIB
0,P
2,3
3
013=385m
M5
9
S5
C
B

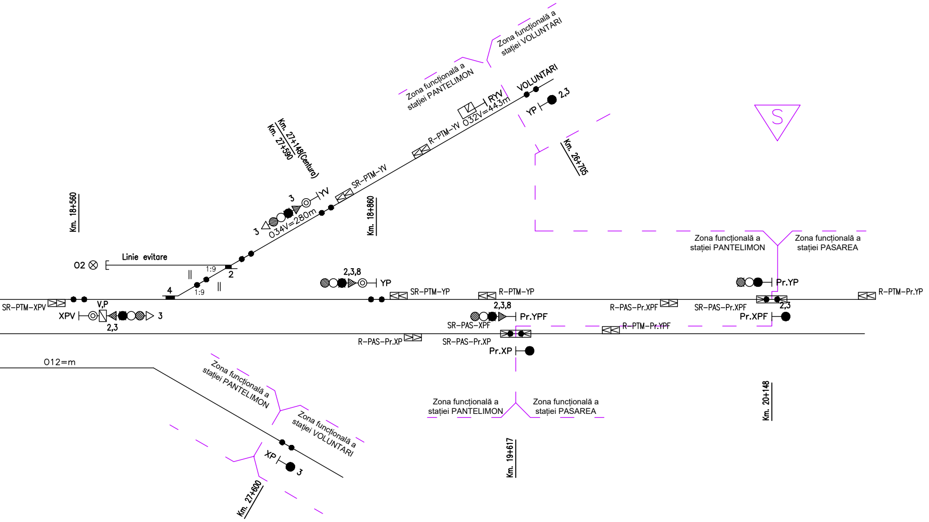

Km. 17+550
SAT
Km. 17+792
Km. 18+992
A
S1
B
BL.2
12*(Y-2AD=1265m)
SR-OBR-BL.2
R-OBR-BL.2
R-PAN-Pr.X0
SR-PAN-Pr.X0
Pr.X0
3
R-PTM-X0
SR-PTM-X0
0113=293m
B,P
X0
3
3
M7
11
1:9
3
XBP
11
SR-PTM-XBP
YOP
11
SR-PTM-YOP

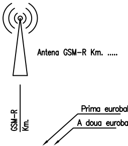

Km. 15+108
Km. 15+477
Km. 15+747
O1
-YIII
035=690m
037=260m
R-PTM-XIIIP
SR-PTM-X11
XIIIP
2,3
3,8
M9
13
1:9
17
23
25
SR-PTM-YII
R-PTM-YII
029=575m
0211=290m
R-PTM-XIIP
SR-PTM-XIIP
XIIP
2,3,8
3,8
M11
21
M15
3
YIP
9
SR-PTM-YI
R-PTM-YI
0111=743m
15
1:9
0113=210m
R-PTM-XIP
SR-PTM-XIP
15
XIP
2,3
8
19
M13
1:9
3
9
YBP
SR-PTM-YBP
Km. 15+058
017=210m
2,3
XOP
SR-PTM-XOP
R-PTM-XOP
R-PTM-YBP
0115=400m
RYBP
A
RXOP
015=635m
Km. 15+096
B
A
RXBP
RYOP
B
Km. 19+437
R-PTM-XBP
R-PTM-YOP



M22
POD BASCUL.
05
Linie tragere
002=125m
M26
36
1:9
1:9
34
004=196m
03
Linie tragere
001=220m
M24
M18
3
Y6
SR-PTM-Y6P
R-PTM-Y6P
330m 6 330m
R-PTM-X6
SR-PTM-X6
P,V,S
1:9
32
M20
X6
3
Linie tragere
051=380m
35
1:9
3
Y5
SR-PTM-Y5P
R-PTM-Y5P
687m 5 682m
062=145m
M23
1:9
37
M16
31
1:9
3
Y4P
SR-PTM-Y4P
R-PTM-Y4P
735m 4 770m
R-PTM-X5
SR-PTM
A
R-PTM-X4
SR-PT
29
1:9
3
YIIIP
29
SR-PTM-YIIIP
R-PTM-YIIIP
PERON
810m III 815m
M19
30,B
R-PTM-XIII
3
YIIP
27
SR-PTM-YIIP
R-PTM-YIIP
780m II 780m
M17
27
1:14
30,B
R-PTM-XII
3,8
YIP
1:14
33
SR-PTM-YIP
R-PTM-YIP
835m I 830m
R-PTM-XI
M21
PERON
B
Km. 16+004
BAT
Km. 16+400
GSM-R
Km. 16+345
Ax cladire Căl.
Km 16+400
Ax cladire CE
CE


1:9
30
M14
28
1:9
1:9
24
006=300m
Linie tragere 300m
04
Km. 17+580
-X5
P,V,S
X5
3
1:9
M-X4
22
X4
3
P,V,S
22
1:9
20
M10
3
2,3,8
YPV
SR-PTM-YPV
R-PTM-YPV
036=905m
SR-PTM-XIII
16
XIII
3,8
P,V,S
8
1:14
14
1:14
16
M8
12
1:14
1:14
10
275m
M4
024=275m
3
2,3,8
YPF
R-PTM-XPV
SR-PTM-YPF
R-PTM-YPF
SR-PTM-XII
14
XII
3,8
P,V,S
1:14
18
1:14
26
M12
016=399m
8
1:9
1:9
6
M2
014=275m
3,8
2,3
YC
SR-PTM-YC
R-PTM-YC
SR-PTM-XI
P,V,S
XI
3,8
M6
Km. 17+785


Zona funcțională a
stației VOLUNTARI
Zona funcțională a
stației PANTELIMON
VOLUNTARI
RYV
032V=443m
YP
2,3
R-PTM-YV
Km. 26+705
Km. 27+148(Centura)
Km. 27+590
SR-PTM-YV
3
YV
3
034V=280m
Km. 18+560
Km. 18+860
O2
Linie evitare
1:9
2
1:9
4
2,3,8
YP
SR-PTM-YP
R-PTM-YP
SR-PTM-XPV
V,P
XPV
2,3
3
2,3,8
Pr.YPF
SR-PAS-XPF
R-PAS-Pr.XP
SR-PAS-Pr.XP
Pr.XP
R-PAS-Pr.XPF
SR-PAS-Pr.XPF
R-PTM-Pr.YPF
Pr.YP
R-PTM-Pr.YP
2,3
Pr.XPF
Zona funcțională a
stației PANTELIMON
Zona funcțională a
stației PASAREA
O12=m
Zona funcțională a
stației PANTELIMON
Zona funcțională a
stației VOLUNTARI
XP
3
Km. 27+600
Zona funcțională a
stației PANTELIMON
Zona funcțională a
stației PASAREA
Km. 19+617
Km. 20+148
S


Antena GSM-R Km. .....
GSM-R
Km.

Prima eurobaliza din grup – BG
A doua eurobaliza din grup – BG

a-bcd-e ▷▷ → Directia nominala a balizei

a= Functia BG

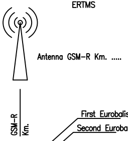
C: Conexiune radio
A: Nivel de tranzitie anuntat (L0>L2)
D: Deconectare RBC
P: Schimbarea fazei
R: Recalibrare
LT: Nivel de tranzitie (Sistem Clasic >ERTMS; ERTMS >
SR: Stop pentru modul "Staff Responsable"

bcd= Identificator Statie (ex. SAS=Sascut)

e= Obiect de referinta

R, SR: Semnal urmator
F: Schimbare faza axa in Km

11*, 21* Numerotarea sectiunilor BLA în sistemul ERTMS


Antenna GSM-R Km. .....
GSM-R
Km.

First Eurobalise of BG
Second Eurobalise of BG

a-bcd-e ▷▷ → Nominal direction of BG

a= BG function

C: Radio Conexion
A: Level Transition Announcement (L0>L2)
D: RBC Disconnection
P: Change of Phase (power traction) Recalibration
R: Recalibration
LT: Level Transition (Clasic Signalling System >ERTMS; ERTMS > Clasic Signalling System)
SR: Stop if in "Staff Responsable"

bcd= Station ID (ex. SAS=Sascut)

e= Referred Object

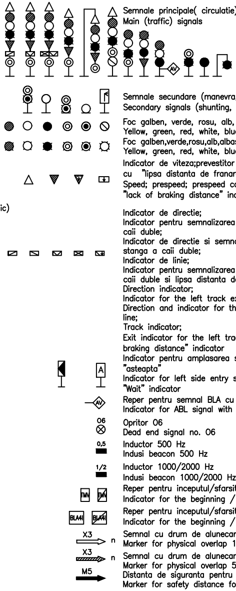
R, SR: Next Signal
F: Change phase axis in Km

11*, 21* ABL section numbering in ERTMS system

◁◁ Baliza schimbare nivel ETCS

LEGENDA
LEGEND

Clasic)



Semnale principale(circulatie)
Main (traffic) signals

Semnale secundare (manevra,repetitoare)
Secondary signals (shunting, repeater)

Foc galben, verde, rosu, alb, albastru, iesire pe stânga
Yellow, green, red, white, blue ,exit on left

Foc galben,verde,rosu,alb,albastru,verde clipitor normal aprins
Yellow, green, red, white, blue, flashing green normaly lit

Indicator de viteza;prevestitor de viteza; prevestitor de viteza combinat cu "lipsa distanta de franare"; "lipsa distanta de franare"
Speed; prespeed; prespeed combined with "lack of braking distance"; "lack of braking distance" indicator

Indicator de directie;
Indicator pentru semnalizarea iesirii trenurilor pe linia din stanga a caii duble;
Indicator de directie si semnalizare a iesirii trenurilor pe linia din stanga a caii duble;
Indicator de linie;
Indicator pentru semnalizarea iesirii trenurilor pe linia din stanga a caii duble si lipsa distanta de frânare
Direction indicator;
Indicator for the left track exit on the double line;
Direction and indicator for the exit on the left track of the double line;
Track indicator;
Exit indicator for the left track on the double line and "lack of braking distance" indicator

Indicator pentru amplasarea semnalului pe stanga liniei; Indicator "asteapta"
Indicator for left side entry signal;
"Wait" indicator

Reper pentru semnal BLA cu functie de avarie la TN
Indicator for ABL signal with emergency function for level crossing

Opritor 06
Dead end signal no. 06

Inductor 500 Hz
Indusi beacon 500 Hz

Inductor 1000/2000 Hz
Indusi beacon 1000/2000 Hz

Reper pentru inceputul/sfarsitul zonei cu semnalizare "TMV"
Indicator for the beginning / end to the "TMV" signalling area

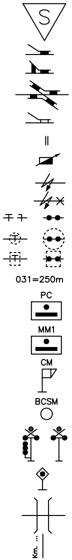
Reper pentru inceputul/sfarsitul zonei cu semnalizare "BLA4I"
Indicator for the beginning / end to the "BLA4I" signalling area

Semnal cu drum de alunecare fizic 100m fata de marca macazului n
Marker for physical overlap 100m in front of the mark of the turnout n

Semnal cu drum de alunecare fizic 50m fata de marca macazului n
Marker for physical overlap 50m in front of the mark of the turnout n

Distanta de siguranta pentru parcurs de manevra
Marker for safety distance for shunting route

AV
06
0,5
1/2
TMV
BLA4I
X3
n
M5



Granita instalatiei de centralizare electronica
Electronic interlocking border

Macaz simplu centralizat
Central operated single turnout

Macaz simplu cu inima mobila
Single turnout with movable crossing

Macaz dublu centralizat
Centralized double point

Macaz necentralizat
Local operated single point

Marca de siguranta
Foul point

Sabot de deraiere centralizat
Central operated derailer

Linie electrificata
Electrified track

Limita electrificării liniei
Limit of electrified track

Joante izolante/Numarator de osii
Insulating joints/Axle counter

Joanta izolanta/ Numarator de osii fara gabarit
Gaugeless insulating joint/Axle counter

Joanta izolanta/Numarator de osii cumulată
Cumulated insulating joint/Axle counter

Numele si lungimea unei sectiuni fara macazuri
The nume and length of a section without points

Post centralizare
Interlocking post

Masa de manevră
Shunting post

Coloana de manevră
Shunting panel

Buton consimtământ semnale de manevră
Aknowledgement button for a shunting area

Semnal avertizare rutiera cu/fara semibariera
Road traffic signal with/without half barrier at the level crossing

Semnal de avarie la trecere la nivel
Level crossing damage signal

Trecere la nivel la Km. ..
Level crossing at Km. ..

S
031=250m
PC
MM1
CM
BCSM
Km.

ENTITATE CONTRACTANTA
CONTRACTING ENTITY

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

CONTRACTANT
CONTRACTOR

Asocierea S.C. ISPCF S.A. - S.C. BAICONS IMPEX SRL

	Nume *Name*	Data *Date*	Semnatura *Signature*
Şef Proiect *Project Manager*	ing. Viorel Gorgonețu	11.2024	
Verificat *Checked*	ing. Emil Dinu	11.2024	
Proiectat *Designed*	ing. Alexandru Voicu	11.2024	

"Modernizarea liniilor și instalațiilor din Complexul Feroviar București"
Studiu de fezabilitate

"Modernization lines and installations in the Bucharest Railway Complex
Feasibility Study

Proiect / *Project*
38 / 2022

Faza / *Phase*
S.F.
F.S.

Denumire / Title
STAȚIA / STATION PANTELIMON
Schița stației cu amplasarea balizelor ETCS /
Signaling sketch with ETCS beacons location

Scara / *Scale*
Fără / No scale
-

Codificare / Codification System

C O B U   S F   C E D   D T H   4 9   0 1   0 0 2   R 0 0

Istoricul reviziilor / Revision History

Rev.	Data/Date	Descriere Modificare / Modification description
00	11.2024	Prima ediție
01		
02		
03		

297x2730=0,810m^2