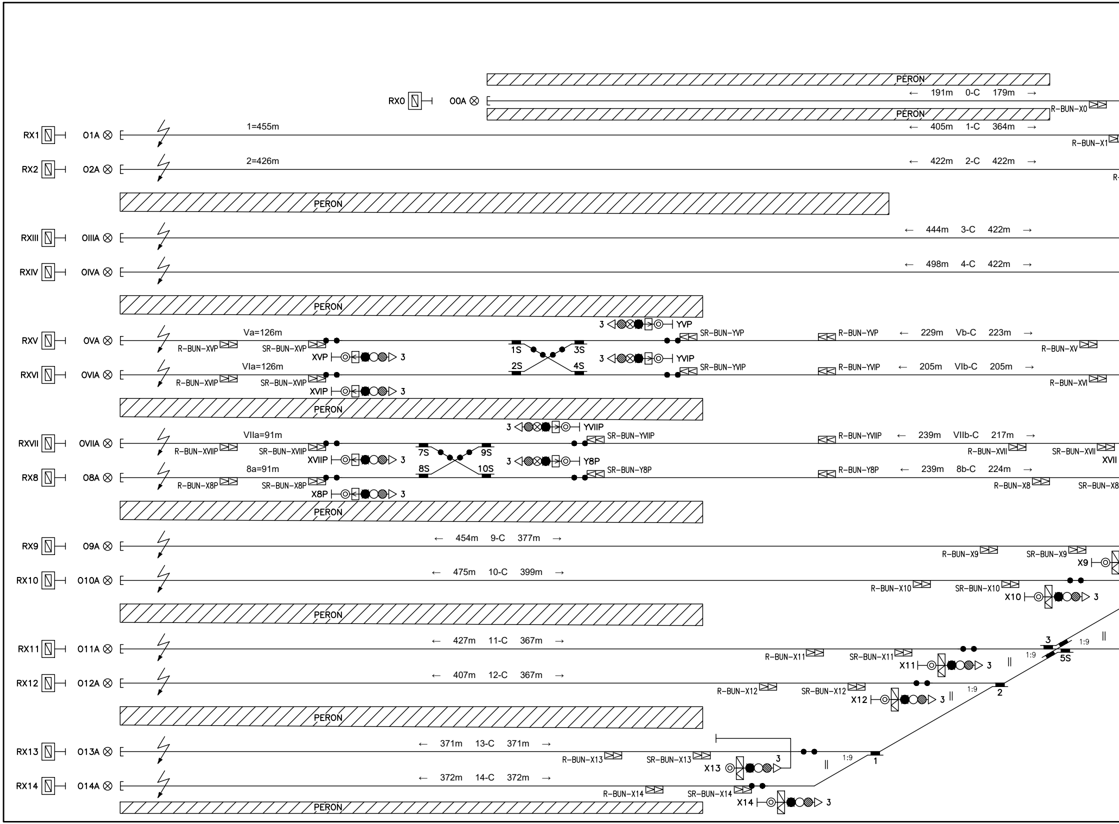
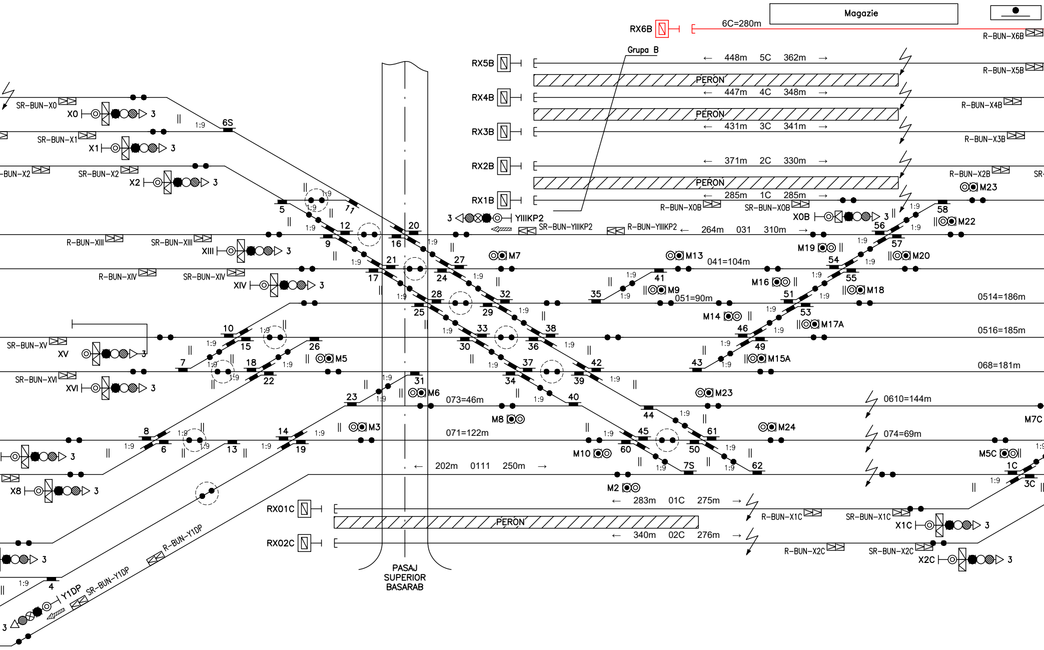
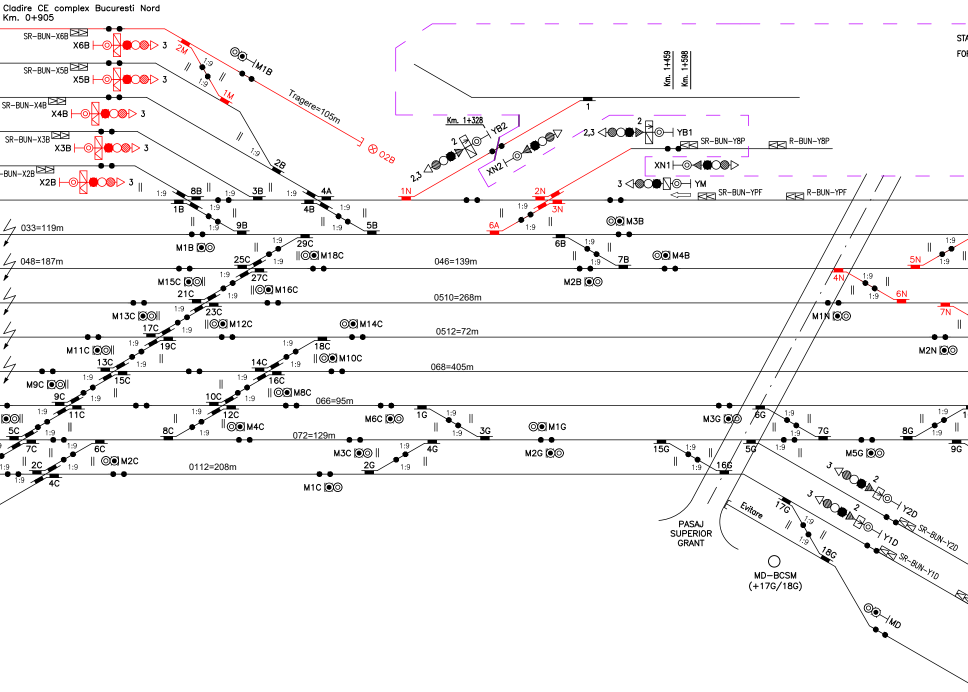
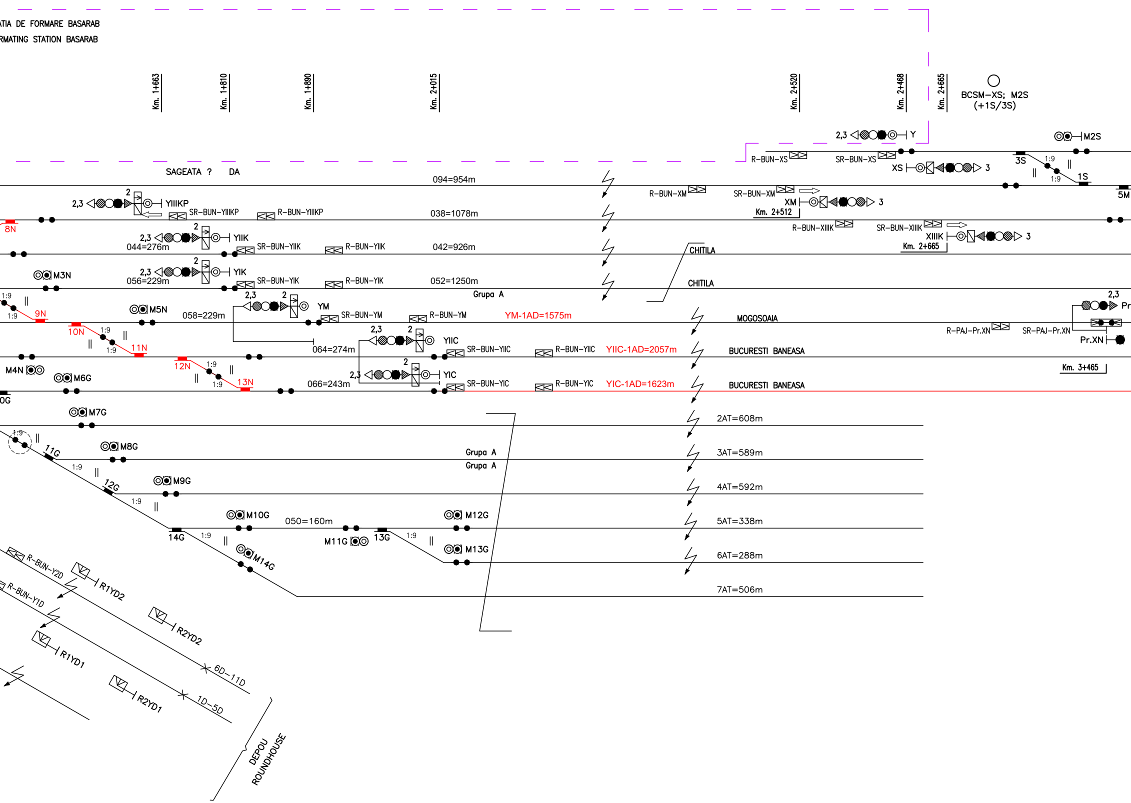
ESTE INTERZISA MODIFICAREA, INSTRAINAREA, COPIEREA SI MULTIPLICAREA ACESTOR SCHEME ELECTRICE SUB FORMA TIPARITA SAU ELECTRONICA, FARA APROBAREA SCRISA A ISPCF, CARE ARE DREPTUL DE PROPRIETATE INTELECTUALA ASUPRA ACESTORA.
ESTE PERMISA UTILIZAREA ACESTOR SCHEME NUMAI PENTRU SPECIALISTII DIN ISPCF SI NUMAI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

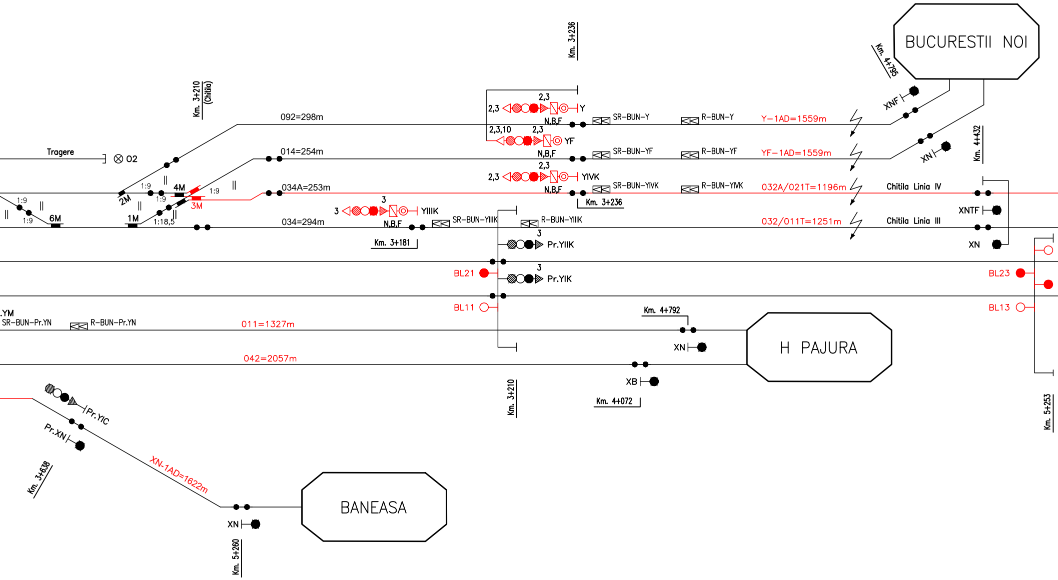

PERON
RX0
O0A
← 191m 0-C 179m →
R-BUN-X0
PERON
RX1
O1A
1=455m
← 405m 1-C 364m →
R-BUN-X1
RX2
O2A
2=426m
← 422m 2-C 422m →
PERON
RXIII
OIIIA
← 444m 3-C 422m →
RXIV
OIVA
← 498m 4-C 422m →
PERON
3
YVP
SR-BUN-YVP
R-BUN-YVP
← 229m Vb-C 223m →
R-BUN-XV
RXV
OVA
Va=126m
R-BUN-XVP
SR-BUN-XVP
XVP
3
1S
3S
2S
4S
3
YVIP
SR-BUN-YVIP
R-BUN-YVIP
← 205m VIb-C 205m →
R-BUN-XVI
RXVI
OVIA
VIa=126m
R-BUN-XVIP
SR-BUN-XVIP
XVIP
3
PERON
3
YVIIP
SR-BUN-YVIIP
R-BUN-YVIIP
← 239m VIIb-C 217m →
R-BUN-XVII
SR-BUN-XVII
XVII
RXVII
OVIIA
VIIa=91m
R-BUN-XVIIP
SR-BUN-XVIIP
XVIIP
3
7S
9S
8S
10S
3
Y8P
SR-BUN-Y8P
R-BUN-Y8P
← 239m 8b-C 224m →
R-BUN-X8
SR-BUN-X8
RX8
O8A
8a=91m
R-BUN-X8P
SR-BUN-X8P
X8P
3
PERON
RX9
O9A
← 454m 9-C 377m →
R-BUN-X9
SR-BUN-X9
X9
RX10
O10A
← 475m 10-C 399m →
R-BUN-X10
SR-BUN-X10
X10
3
PERON
RX11
O11A
← 427m 11-C 367m →
R-BUN-X11
SR-BUN-X11
X11
3
3
5S
1:9
1:9
RX12
O12A
← 407m 12-C 367m →
R-BUN-X12
SR-BUN-X12
X12
3
1:9
2
PERON
RX13
O13A
← 371m 13-C 371m →
R-BUN-X13
SR-BUN-X13
X13
3
1:9
1
RX14
O14A
← 372m 14-C 372m →
R-BUN-X14
SR-BUN-X14
X14
3
PERON
)


Magazie
RX6B
6C=280m
R-BUN-X6B
Grupa B
RX5B
← 448m 5C 362m →
R-BUN-X5B
PERON
RX4B
← 447m 4C 348m →
R-BUN-X4B
PERON
RX3B
← 431m 3C 341m →
R-BUN-X3B
RX2B
← 371m 2C 330m →
R-BUN-X2B
PERON
RX1B
← 285m 1C 285m →
R-BUN-X0B
SR-BUN-X0B
X0B
M23
58
M22
SR-BUN-X0
X0
6S
SR-BUN-X1
X1
-BUN-X2
SR-BUN-X2
X2
5
11
12
20
9
16
YIIIKP2
SR-BUN-YIIIKP2
R-BUN-YIIIKP2
← 264m 031 310m →
56
57
R-BUN-XIII
SR-BUN-XIII
XIII
21
27
M7
M13
041=104m
M19
54
M20
R-BUN-XIV
SR-BUN-XIV
XIV
17
24
32
35
41
M9
051=90m
M16
55
M18
0514=186m
28
25
29
51
53
M14
M17A
10
15
38
46
49
0516=185m
SR-BUN-XV
XV
7
18
26
M5
30
33
36
37
42
43
M15A
068=181m
SR-BUN-XVI
XVI
22
31
M6
073=46m
34
39
40
M23
23
44
0610=144m
M7C
M3
M8
8
6
14
13
19
071=122m
45
60
61
50
M24
074=69m
M10
M5C
7S
62
1C
3C
X8
← 202m 0111 250m →
M2
← 283m 01C 275m →
RX01C
R-BUN-X1C
SR-BUN-X1C
X1C
PERON
RX02C
← 340m 02C 276m →
R-BUN-X2C
SR-BUN-X2C
X2C
R-BUN-Y1DP
4
Y1DP
SR-BUN-Y1DP
PASAJ SUPERIOR BASARAB
1:9
3

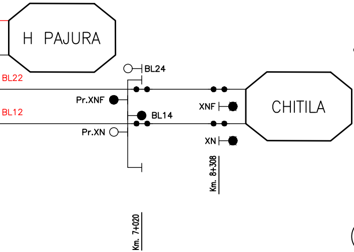
BUCURESTI NORD

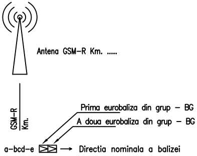

Cladire CE complex Bucuresti Nord
Km. 0+905
SR-BUN-X6B
X6B
3
2M
1:9
M1B
1:9
1M
SR-BUN-X5B
X5B
3
SR-BUN-X4B
X4B
3
Tragere=105m
02B
SR-BUN-X3B
X3B
3
2B
1:9
-BUN-X2B
X2B
3
8B
1:9
3B
1:9
4A
1B
1:9
4B
1:9
9B
1:9
5B
1:9
033=119m
M1B
29C
1:9
M18C
25C
1:9
048=187m
27C
M15C
1:9
M16C
21C
1:9
0510=268m
M13C
23C
1:9
17C
1:9
M12C
M14C
0512=72m
M11C
19C
1:9
18C
1:9
M10C
13C
1:9
14C
1:9
068=405m
M9C
15C
1:9
16C
1:9
M8C
9C
1:9
10C
1:9
066=95m
11C
12C
M4C
5C
1:9
8C
1:9
072=129m
7C
1:9
6C
2C
1:9
M2C
0112=208m
1:9
4C
M1C
M6C
1G
1:9
3G
1:9
M1G
M3C
2G
1:9
4G
1:9
M2G
Km. 1+459
Km. 1+598
1
Km. 1+328
YB2
2
2,3
XN2
1N
2,3
2
YB1
SR-BUN-Y8P
R-BUN-Y8P
XN1
2N
3N
6A
1:9
1:9
3
YM
SR-BUN-YPF
R-BUN-YPF
M3B
6B
1:9
7B
1:9
M4B
046=139m
M2B
STA
FOR
5N
1:9
1:9
4N
1:9
1:9
6N
M1N
7N
M2N
M3G
6G
1:9
7G
1:9
8G
1:9
1:9
15G
1:9
5G
1:9
M5G
9G
1:9
16G
3
2
Y2D
SR-BUN-Y2D
3
2
Y1D
SR-BUN-Y1D
17G
1:9
1:9
18G
Evitare
PASAJ
SUPERIOR
GRANT
MD-BCSM
(+17G/18G)
MD


ATIA DE FORMARE BASARAB
RMATING STATION BASARAB
Km. 1+663
Km. 1+810
Km. 1+890
Km. 2+015
Km. 2+520
Km. 2+468
Km. 2+665
BCSM–XS; M2S
(+1S/3S)
2,3
Y
M2S
R–BUN–XS
SR–BUN–XS
3S
1S
1:9
XS
3
SAGEATA ?
DA
094=954m
R–BUN–XM
SR–BUN–XM
XM
Km. 2+512
5M
2,3
2
YIIIKP
SR–BUN–YIIIKP
R–BUN–YIIIKP
038=1078m
8N
R–BUN–XIIIK
SR–BUN–XIIIK
XIIIK
Km. 2+665
YIIK
044=276m
SR–BUN–YIIK
R–BUN–YIIK
042=926m
CHITILA
M3N
YIK
056=229m
SR–BUN–YIK
R–BUN–YIK
052=1250m
CHITILA
Grupa A
9N
M5N
YM
058=229m
SR–BUN–YM
R–BUN–YM
YM-1AD=1575m
MOGOSOAIA
Pr
R–PAJ–Pr.XN
SR–PAJ–Pr.XN
Pr.XN
10N
11N
YIIC
064=274m
SR–BUN–YIIC
R–BUN–YIIC
YIIC-1AD=2057m
BUCURESTI BANEASA
Km. 3+465
M4N
M6G
12N
13N
YIC
066=243m
SR–BUN–YIC
R–BUN–YIC
YIC-1AD=1623m
BUCURESTI BANEASA
0G
M7G
2AT=608m
11G
M8G
Grupa A
Grupa A
3AT=589m
12G
M9G
4AT=592m
M10G
050=160m
M12G
5AT=338m
14G
M11G
13G
M13G
M14G
6AT=288m
7AT=506m
R–BUN–Y2D
R1YD2
R–BUN–Y1D
R2YD2
R1YD1
6D–11D
R2YD1
1D–5D
DEPOU
ROUNDHOUSE


BUCURESTII NOI
Km. 4+795
Km. 3+236
Km. 3+210
(Chitila)
2,3
2,3
Y
092=298m
N,B,F
SR-BUN-Y
R-BUN-Y
Y-1AD=1559m
XNF
2,3,10
2,3
YF
Tragere
O2
014=254m
N,B,F
SR-BUN-YF
R-BUN-YF
YF-1AD=1559m
XN
Km. 4+432
2,3
2,3
YIVK
1:9
4M
1:9
1:9
1:9
2M
3M
034A=253m
N,B,F
SR-BUN-YIVK
R-BUN-YIVK
032A/021T=1196m
Chitila Linia IV
Km. 3+236
3
3
YIIIK
1:9
6M
1M
1:18,5
034=294m
N,B,F
SR-BUN-YIIIK
R-BUN-YIIIK
032/011T=1251m
Chitila Linia III
XNTF
Km. 3+181
3
Pr.YIIK
XN
BL21
3
Pr.YIK
BL23
BL11
BL13
.YM
SR-BUN-Pr.YN
R-BUN-Pr.YN
011=1327m
Km. 4+792
H PAJURA
XN
042=2057m
XB
Km. 3+210
Km. 4+072
Km. 5+253
Pr.YIC
Pr.XN
Km. 3+638
XN-1AD=1622m
BANEASA
XN
Km. 5+260

LEGENDA
LEGEND


H PAJURA
BL22
BL24
Pr.XNF
BL12
BL14
XNF
CHITILA
Pr.XN
XN
Km. 8+308
Km. 7+020



Antena GSM-R Km. .....

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

a-bcd-e → Directia nominala a balizei

a= Functia BG

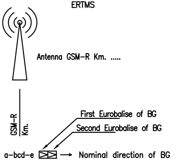
C: Conexiune radio
A: Nivel de tranzitie anuntat (L0>L2)
D: Deconectare RBC
P: Schimbarea fazei
R: Recalibrare
LT: Nivel de tranzitie (Sistem Clasic >ERTMS; ERTMS > Clasic)
SR: Stop pentru modul "Staff Responsable"

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. .....

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"

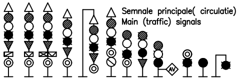
bcd= Station ID (ex. SAS=Sascut)

e= Referred Object

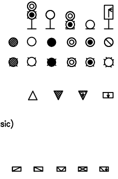
R, SR: Next Signal
F: Change phase axis in Km

11*, 21* ABL section numbering in ERTMS system

Baliza schimbare nivel ETCS



Semnale principale(circulatie)
Main (traffic) signals



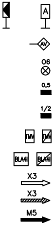
Semnale secundare (manevra,repetitoare)
Secondary signals (shunting, repeater)

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


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

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

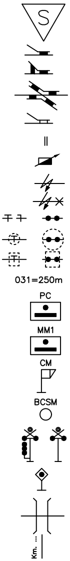
Reper pentru inceputul/sfarsitul zonei cu semnalizare "TMV"
Indicator for the beginning / end to the "TMV" signalling area

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


S
031=250m
PC
MM1
CM
BCSM
Km. ...

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. ..

ENTITATE CONTRACTANTA
CONTRACTING ENTITY

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

Fondat in 1947

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
STAŢIA / STATION BUCUREȘTI NORD
Schiţa staţiei 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 3 3 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		

297x2520=0,748m^2