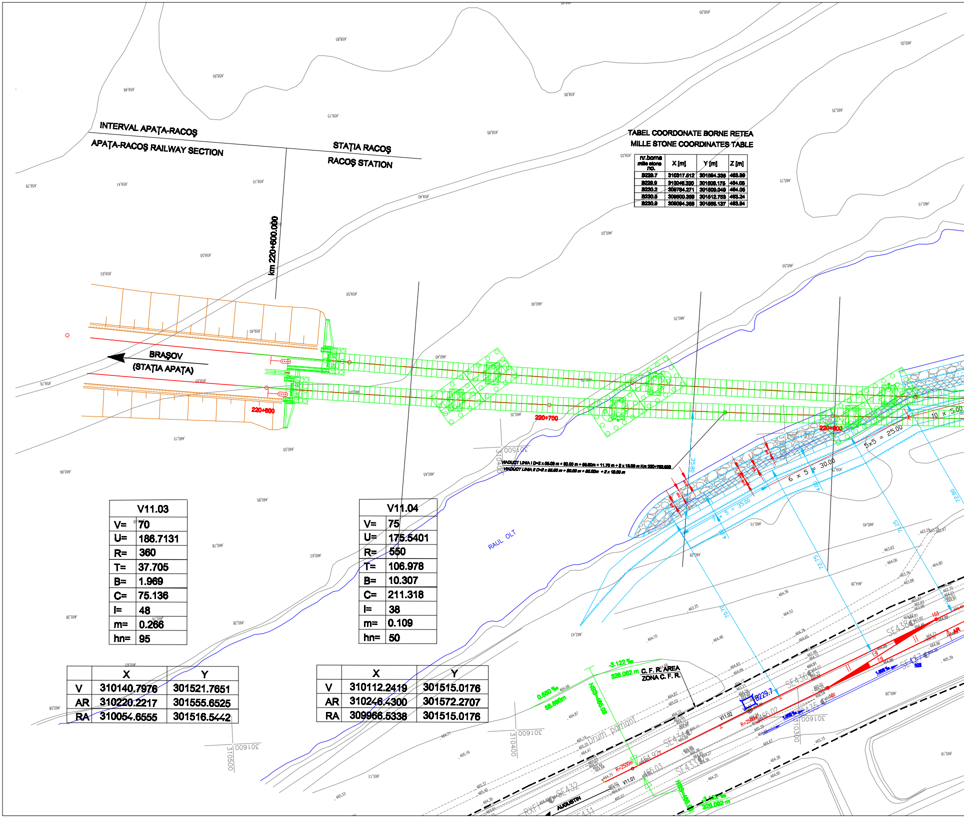

INTERVAL APAȚA-RACOȘ
APAȚA-RACOȘ RAILWAY SECTION
STAȚIA RACOȘ
RACOȘ STATION
km 220+600.000
BRAȘOV
(STAȚIA APAȚA)
220+600
220+700
220+800
RAUL OLT
10 x 5.00
5x5 = 25.00
6 x 5 = 30.00
7 x 5 = 35.00
35.80
70.70
72.75
VIADUCT LINIA I D=2 x 55.00 m + 60.00 m + 55.00m + 11.75 m + 2 x 18.00 m Km 220+762.500
VIADUCT LINIA II D=2 x 55.00 m + 60.00 m + 55.00m + 2 x 18.00 m
-3.122 ‰
326.082 m
0.650 ‰
58.690m
NSS=465.03
C. F. R. AREA
ZONA C. F. R.
Drum pamant
B229.7
V11.01
V11.02
R=2500m
SE431
SE432
SE433
SE434
SE435
SE436
SE438
SE437
RXF1
AUGUSTIN
AR
465.02
465.03
464.92
310400
310500
310300
301500
301600

TABEL COORDONATE BORNE RETEA
MILLE STONE COORDINATES TABLE

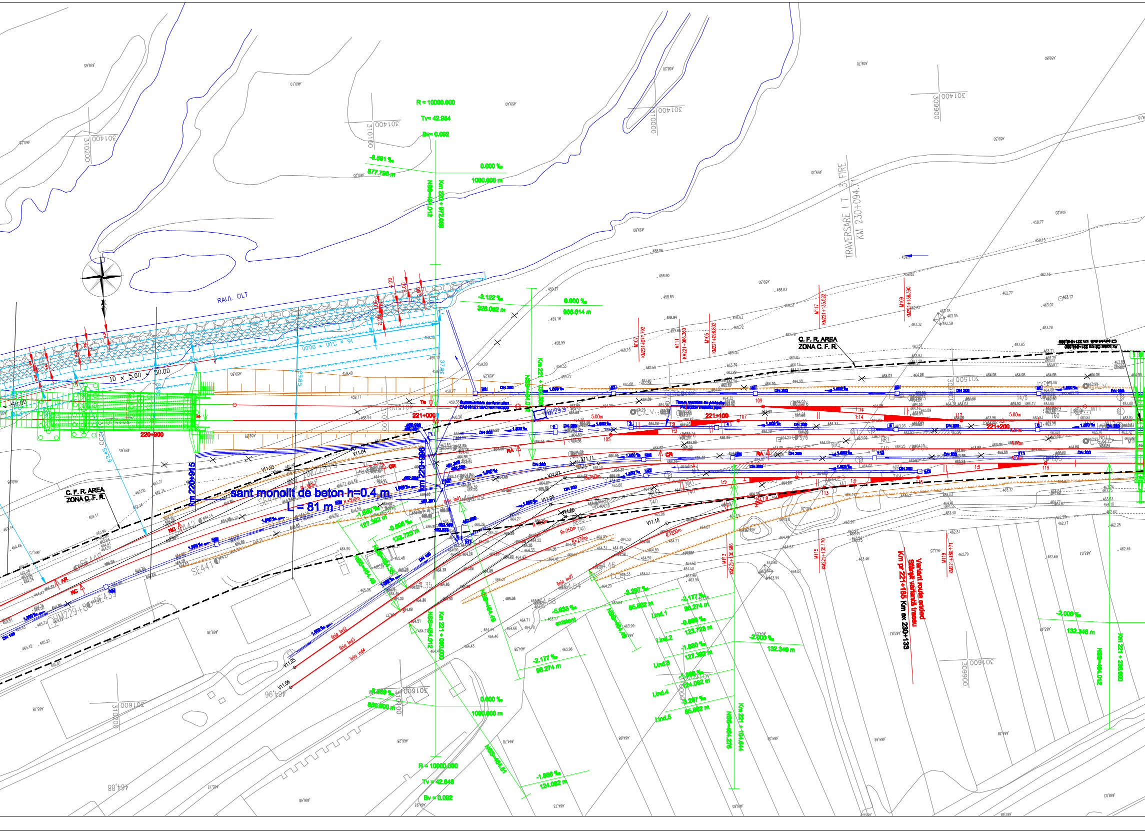
nr.borna mille stone no.	X [m]	Y [m]	Z [m]
B229.7	310317.512	301594.335	463.99
B229.9	310046.330	301606.175	464.05
B230.2	309764.271	301509.049	464.05
B230.5	309500.369	301512.753	463.24
B230.9	309094.368	301555.137	463.94

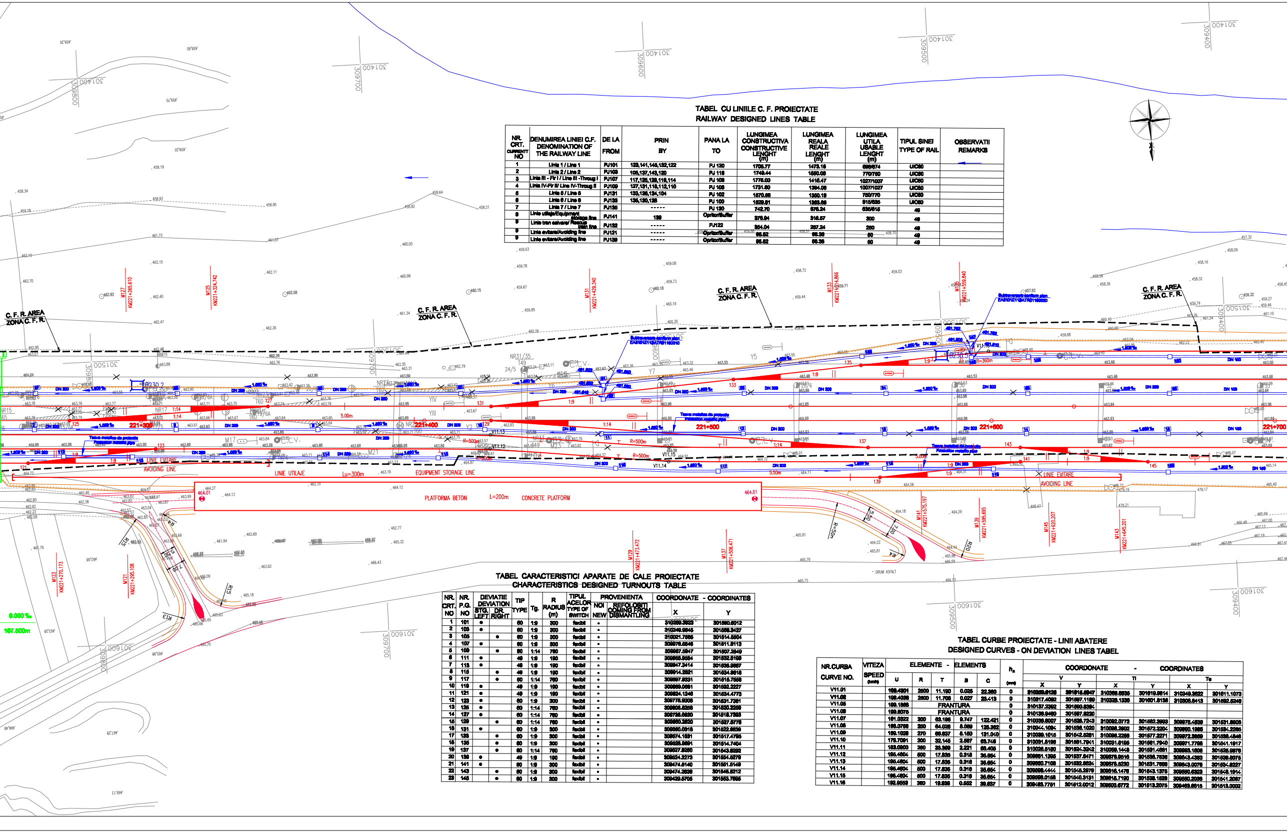
V11.03	
V=	70
U=	186.7131
R=	360
T=	37.705
B=	1.969
C=	75.136
I=	48
m=	0.266
hn=	95

V11.04	
V=	75
U=	175.5401
R=	550
T=	106.978
B=	10.307
C=	211.318
I=	38
m=	0.109
hn=	50

	X	Y
V	310140.7976	301521.7651
AR	310220.2217	301555.6525
RA	310054.6555	301516.5442

	X	Y
V	310112.2419	301515.0176
AR	310246.4300	301572.2707
RA	309966.5338	301515.0176


RAUL OLT
R = 10000.000
Tv= 42.854
Bv= 0.092
-8.591 ‰
877.796 m
0.000 ‰
1000.000 m
NSS=464.012
Km 221 + 972.098
-3.122 ‰
328.062 m
0.000 ‰
986.614 m
TRAVERSARE L.T. 3 FIRE
KM 230+094.71
C. F. R. AREA
ZONA C. F. R.
10 × 5.00 = 50.00
16 × 5.00 = 80.00
221+000
220+900
221+100
221+200
Km 220+915
Km 220+986
sant monolit de beton h=0.4 m
L = 81 m
R=550m
R=250m
R=270m
R=200m
-1.680 ‰
127.392 m
-0.596 ‰
123.723 m
linia ind1
linia ind2
linia ind3
linia ind4
linia ind5
V11.03
V11.04
V11.05
V11.06
V11.07
V11.08
V11.09
V11.10
V11.11
M107
KM221+071.792
M111
KM221+086.350
M105
KM221+096.802
M117
KM221+135.532
M109
KM221+136.390
M113
KM221+100.686
M115
KM221+135.170
M119
KM221+180.171
Variant route ended
Sfârșit variantă traseu
Km pr 221+185 Km ex 230+133
-3.297 ‰
55.802 m
-2.177 ‰
98.274 m
l.ind.1
-0.596 ‰
123.723 m
l.ind.2
-1.680 ‰
127.392 m
l.ind.3
-1.886 ‰
124.062 m
l.ind.4
-3.297 ‰
55.802 m
l.ind.5
-2.000 ‰
132.346 m
Km 221 + 104.644
NSS=464.278
-5.635 ‰
existent
-2.177 ‰
98.274 m
NSS=464.49
NSS=464.51
Km 221 + 000.000
NSS=464.012
-8.450 ‰
880.000 m
0.000 ‰
1000.000 m
R = 10000.000
Tv = 42.848
Bv = 0.092
-1.886 ‰
124.062 m
-2.000 ‰
132.346 m
Km 221 + 236.980
NSS=464.012
Teava metalica de protectie
Protection metallic pipe
DN 200
5.00m
1:14
1:9
RA
CR
RC
AR
301400
310200
310100
310000
309900
301500
301600


C. F. R. AREA
ZONA C. F. R.
M127 KM221+265.610
M125 KM221+324.742
M131 KM221+429.340
M133 KM221+514.866
M135 KM221+559.840
M123 KM221+270.173
M121 KM221+295.108
M129 KM221+473.472
M137 KM221+506.471
M141 KM221+575.197
M139 KM221+595.695
M145 KM221+620.207
M143 KM221+645.201
221+300
221+400
221+500
221+600
221+700
Teava metalica de protectie
Protection metallic pipe
R=500m
R=360m
R=50m
LINIE EVITARE
AVOIDING LINE
LINIE UTILAJE
Lu=300m
EQUIPMENT STORAGE LINE
PLATFORMA BETON
L=200m
CONCRETE PLATFORM
5.00m
5.50m
0.000 ‰
107.500m
DRUM ASFALT

TABEL CU LINIILE C. F. PROIECTATE
RAILWAY DESIGNED LINES TABLE

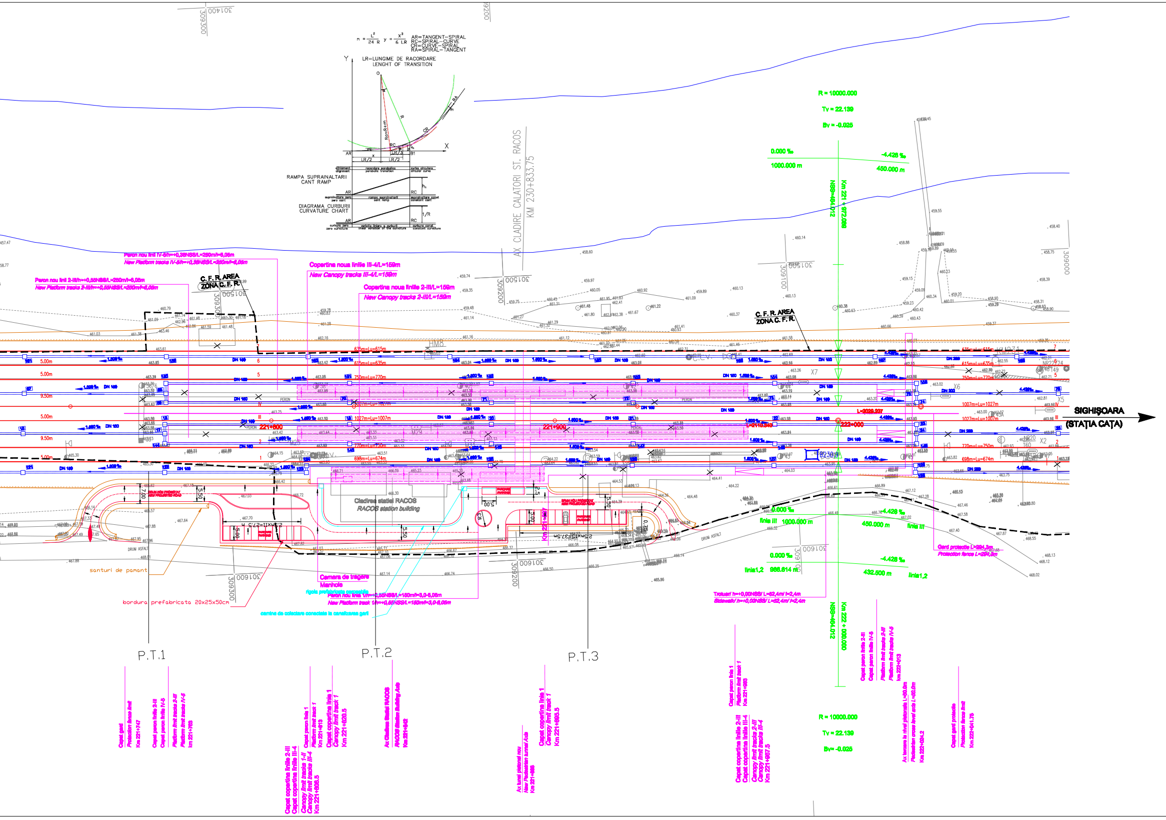
NR. CRT. CURRENTT NO	DENUMIREA LINIEI C.F. DENOMINATION OF THE RAILWAY LINE	DE LA FROM	PRIN BY	PANA LA TO	LUNGIMEA CONSTRUCTIVA CONSTRUCTIVE LENGHT (m)	LUNGIMEA REALA REALE LENGHT (m)	LUNGIMEA UTILA USABLE LENGHT (m)	TIPUL SINEI TYPE OF RAIL	OBSERVATII REMARKS
1	Linia 1 / Line 1	PJ101	123,141,145,132,122	PJ 120	1706.77	1473.16	696/674	UIC60	
2	Linia 2 / Line 2	PJ103	105,137,143,120	PJ 116	1749.44	1550.06	770/750	UIC60	
3	Linia III - Fir I / Line III -Throug I	PJ107	117,125,129,118,114	PJ 108	1776.00	1416.47	1027/1007	UIC60	
4	Linia IV-Fir II/ Line IV-Throug II	PJ109	127,131,118,112,110	PJ 106	1731.80	1394.06	1007/1027	UIC60	
5	Linia 5 / Line 5	PJ131	133,126,124,104	PJ 102	1570.88	1350.19	750/770	UIC60	
6	Linia 6 / Line 6	PJ133	135,130,128	PJ 100	1529.61	1363.66	615/635	UIC60	
7	Linia 7 / Line 7	PJ135	-----	PJ 130	742.70	676.24	635/615	49	
8	Linie utilaje/Equipment storage line	PJ141	139	Opritor/Buffer	376.94	316.57	300	49	
9	Linie tren salvare/ Rescue train line	PJ132	-----	PJ122	354.04	287.24	280	49	
9	Linie evitare/Avoiding line	PJ121	-----	Opritor/Buffer	95.52	66.36	50	49	
9	Linie evitare/Avoiding line	PJ139	-----	Opritor/Buffer	95.52	66.36	50	49	

TABEL CARACTERISTICI APARATE DE CALE PROIECTATE
CHARACTERISTICS DESIGNED TURNOUTS TABLE

NR. CRT. NO	NR. P.G. NO	DEVIATIE DEVIATION STG. LEFT	DR. RIGHT	TIP TYPE	Tg.	R RADIUS (m)	TIPUL ACELOR TYPE OF SWITCH	PROVENIENTA NOI NEW	REFOLOSITI COMING FROM DISMANTLING	COORDONATE - COORDINATES X	Y
1	101	●		60	1:9	300	flexibil	•		310289.3923	301580.6012
2	103	●		60	1:9	300	flexibil	•		310249.9645	301568.3427
3	105		●	60	1:9	300	flexibil	•		310021.7585	301514.5504
4	107	●		60	1:9	300	flexibil	•		309978.5546	301511.5113
5	109		●	60	1:14	760	flexibil	•		309967.5947	301507.2549
6	111	●		49	1:9	190	flexibil	•		309955.9584	301532.5199
7	113	●		49	1:9	190	flexibil	•		309947.3414	301535.9667
8	115		●	49	1:9	190	flexibil	•		309914.2821	301534.9618
9	117		●	60	1:14	760	flexibil	•		309897.9331	301515.7558
10	119	●		49	1:9	190	flexibil	•		309869.0681	301532.2227
11	121	●		49	1:9	190	flexibil	•		309824.1246	301534.4773
12	123	●		60	1:9	300	flexibil	•		309778.9306	301531.7381
13	125	●		60	1:14	760	flexibil	•		309808.8256	301520.2259
14	127	●		60	1:14	760	flexibil	•		309736.6630	301518.7393
15	129		●	60	1:14	760	flexibil	•		309680.2820	301527.5778
16	131	●		60	1:9	300	flexibil	•		309660.0918	301522.8639
17	133		●	60	1:9	300	flexibil	•		309674.1831	301517.4795
18	135		●	60	1:9	300	flexibil	•		309528.9891	301514.7404
19	137		●	60	1:14	760	flexibil	•		309527.9250	301543.8292
20	139	●		49	1:9	190	flexibil	•		309524.2273	301554.5279
21	141	●		60	1:9	300	flexibil	•		309474.5140	301551.5149
22	143		●	60	1:9	300	flexibil	•		309474.2836	301546.5212
23	145		●	60	1:9	300	flexibil	•		309429.5705	301553.7695

TABEL CURBE PROIECTATE - LINII ABATERE
DESIGNED CURVES - ON DEVIATION LINES TABEL

NR.CURBA CURVE NO.	VITEZA SPEED (km/h)	ELEMENTE - ELEMENTS U	R	T	B	C	h_n (mm)	COORDONATE - COORDINATES V X	V Y	Ti X	Ti Y	Te X	Te Y
V11.01		199.4301	2500	11.190	0.025	22.380	0	310359.6128	301615.6947	310369.8535	301619.9614	310349.3622	301611.1073
V11.02		199.4036	2500	11.706	0.027	23.413	0	310317.4092	301597.1189	310328.1336	301601.8138	310306.6413	301592.5246
V11.05		199.1866	FRANTURA				0	310137.2392	301590.8384				
V11.06		199.6075	FRANTURA				0	310136.9460	301597.8220				
V11.07		161.0322	200	63.196	9.747	122.421	0	310036.8007	301528.7243	310092.0773	301582.3993	309975.4639	301531.8906
V11.08		166.0768	250	64.028	8.069	125.362	0	310044.1094	301536.1020	310096.2902	301572.2204	309980.1986	301534.2285
V11.09		169.1028	270	66.837	8.150	131.040	0	310039.1015	301542.5261	310096.2256	301577.2271	309972.3869	301536.4846
V11.10		179.7091	200	32.145	2.567	63.748	0	310031.8196	301561.7941	310031.8195	301561.7940	309971.7798	301541.1917
V11.11		183.0900	250	33.369	2.221	66.405	0	310026.5150	301524.3242	310059.1448	301531.4661	309993.1606	301525.9978
V11.12		195.4604	500	17.835	0.318	35.654	0	309661.1395	301537.8471	309678.9516	301536.7536	309643.4363	301539.8075
V11.13		195.4604	500	17.835	0.318	35.654	0	309660.7108	301532.8624	309678.5230	301531.7668	309643.0078	301534.8227
V11.14		195.4604	500	17.835	0.318	35.654	0	309598.4444	301545.2979	309616.1476	301543.1375	309580.6323	301546.1914
V11.15		195.4604	500	17.835	0.318	35.654	0	309598.0158	301540.3131	309615.7190	301538.1528	309580.2036	301541.2067
V11.16		192.9553	360	19.939	0.552	39.837	0	309483.7751	301512.0012	309503.6772	301513.2075	309463.8815	301513.0002


AR=TANGENT–SPIRAL
RC=SPIRAL–CURVE
CR=CURVE–SPIRAL
RA=SPIRAL–TANGENT
LR=LUNGIME DE RACORDARE
LENGHT OF TRANSITION
RAMPA SUPRAINALTARII
CANT RAMP
DIAGRAMA CURBURII
CURVATURE CHART
AX CLADIRE CALATORI ST. RACOS
KM 230+833.75
R = 10000.000
Tv = 22.139
Bv = -0.025
C.F.R. AREA
ZONA C.F.R.
Copertina noua liniile III-4/L=159m
New Canopy tracks III-4/L=159m
Copertina noua liniile 2-III/L=159m
New Canopy tracks 2-III/L=159m
221+800
221+900
222+000
Cladirea statiei RACOS
RACOS station building
Camera de tragere
Manhole
santuri de pamant
bordura prefabricata 20x25x50cm
SIGHIŞOARA
(STAŢIA CAŢA)
P.T.1
P.T.2
P.T.3

[1] 2

LEGENDA
LEGEND

- Ax linie c.f. existent / Axis of existing railway line
- Ax linie c.f. demontat / Demounted axis line of railway line
- Aparate de cale existente / Existing turnouts
- Aparate de cale demontate / Demounted turnouts
- Name Level — Borne de retea / Benchmarks
- Ax linie c.f. proiectat / Axis of designed railway line
- Aparate de cale proiectate / Designed turnouts
- Marca proiectata / Designed marck
- Semnal proiectat / Designed signal
- Peron proiectat / Designed platform
- Copertina proiectata / Designed canopy
- Sant monolit de beton / Prefabricate concrete ditch
- Dren longitudinal / Longitudinal drain
- Ampriza sapatura/umplutura / Excavation/fillings at the work place of natural soil
- Lucrari de consolidare / Consolidatio works
- Lucrari de drumuri proiectate / Designed road works
- AD — Aparat de dilatatie–joante de compensare / Expancion device–compensating joint

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

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT FINANŢAT DE UNIUNEA EUROPEANĂ
EUROPEAN UNION FINANCED PROJECT

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	Semnătură Signature
Aprobat Approved	Şef proiect Project manager	R. Lizza		
Aprobat Approved	Coordonator Secţiune 1 Section 1 Coordinator	C. Gambeli		
Verificat Checked	Expert Verificator Checking Expert	S. MENICHINI		

SUBCONTRACTANT / SUBCONTRACTOR

AREX COMPANY

Aprobat Approved	Responsabil Sub contractant Subcontractor Responsible	A.Stanciu - Dinulescu		
Întocmit Elaborated	Proiectant Designer	F. Mihai	12.2011	

Reabilitarea liniei de cale ferata Brasov - Simeria, parte componentă a coridorului IV Pan European, pentru circulaţia trenurilor cu viteza maximă 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 :

Plan de situaţie - Haltă mişcare Racoş
Racoş Railway Halt - Track Layout on designed plan

Codificare / Codification System	Scara / Scale 1:500	LOT / LOT	Nr. / No
E A 6 1 0 1 C 1 1 L 8 S L 0 0 6 0 0 0 1			1