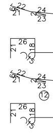
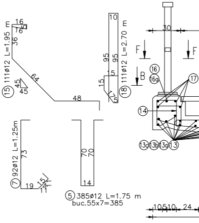
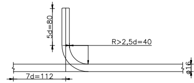

6
22
21
2
24
23
26
21
18
5
6
22
21
2
24
23
⑫
26
21
18
5

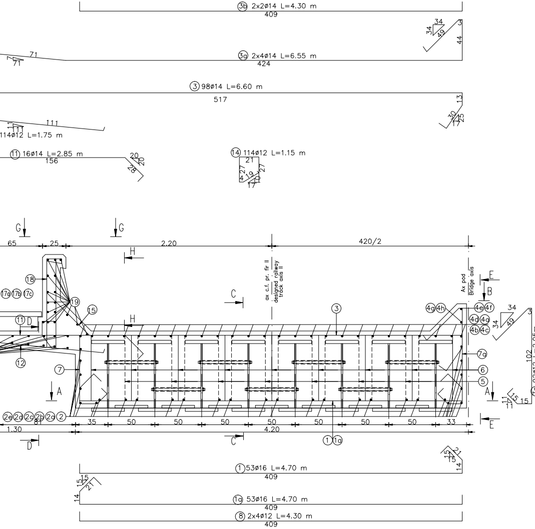

⑮ 111ø12 L=1.95 m
16
76
6
36
64
45
45
48
10
95
95
5
15
17
6
⑱ 111ø12 L=2.70 m
30
F
F
B
⑯
⑯a
⑰
⑭
⑬c ⑬b ⑬a ⑬
⑦ 92ø12 L=1.25m
73
19
15
11
11
70
70
14
⑤ 385ø12 L=1.75 m
buc.55x7=385
10510, 24

DETALIU "a" (STAS 10111/2-87)
"a" DETAIL (STAS 10111/2-87)
sc. 1:10


5d=80
R>2,5d=40
7d=112
ø16

SECTIUNE TRANSVERSALA TABLIER POD
BRIDGE DECK CROSS SECTION

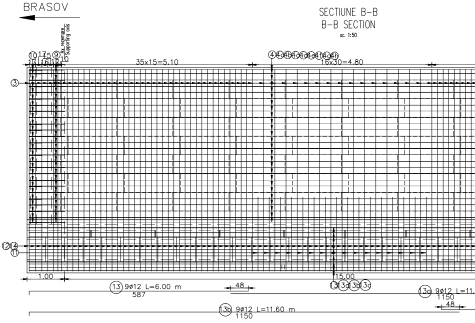
sc. 1:20


③b 2x2ø14 L=4.30 m
409
③a 2x4ø14 L=6.55 m
424
71
71
③ 98ø14 L=6.60 m
517
13
30
15
17
111
111
114ø12 L=1.75 m
⑪ 16ø14 L=2.85 m
156
20
20
28
⑭ 114ø12 L=1.15 m
21
27
19
27
17
34
34
49
44
G
G
65
25
2.20
420/2
H
H
ax c.f. pr. fir II
designed railway track axis II
Ax pod
Bridge axis
E
B
C
⑱
⑰a⑰b⑰c
⑲
⑮
⑪ D
⑫
⑦
③
④g④h
④e④f
④d④a
④b④c
⑦a
⑥
⑤
A
A
102
⑦a 92ø12 L=2.05m
11
11
15
15
②e②d②c②b②a②
81
1.30
35
50
50
50
50
50
50
50
33
4.20
D
C
①①a
E
① 53ø16 L=4.70 m
409
15
21
14
① a 53ø16 L=4.70 m
409
⑧ 2x4ø12 L=4.30 m
409

Beton: Concrete:	– C30/37 suprastructura/superstructure
Tipul grinzilor: Beams type:	– grinzi metalice sudate/steel welded girders
Otel pentru grinzi: Steel for the beams:	– (OL 37-EP) $S275J_3G_3$ (EN 10025/2004)
Armatura: Reinforcement:	– S355; S345
Strat de acoperire: Concrete cover	– min. 4cm expunere in aer/air exposed

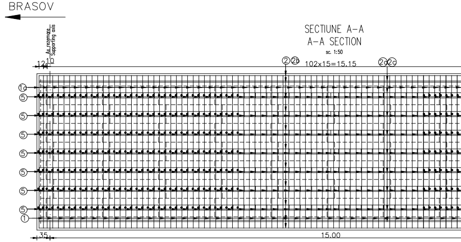
SECTIUNE B-B
B-B SECTION

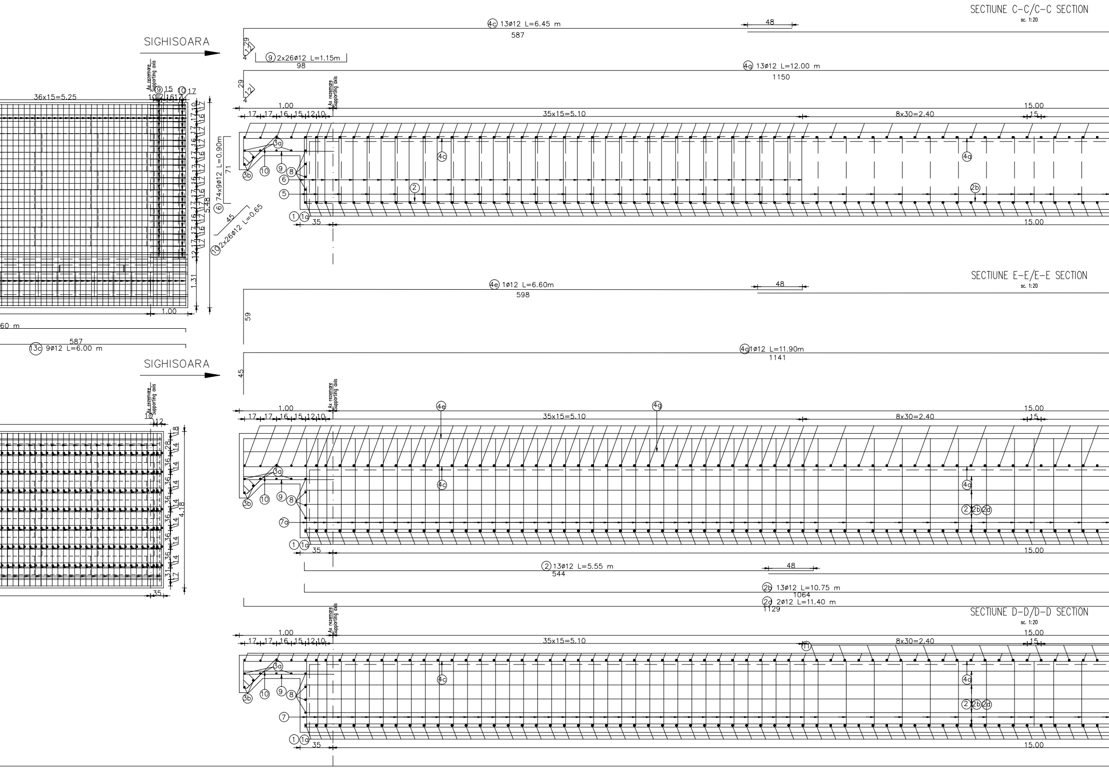
sc. 1:50


BRASOV
Ax rezemare
Supporting axis
⑩ 17 15 ⑨
17 16 12 10
35x15=5.10
④④a④b④c④d④e④f④g④h
16x30=4.80
③
⑫⑭
⑪
1.00
15.00
⑬⑬a⑬b⑬c
⑬ 9ø12 L=6.00 m
587
48
⑬a 9ø12 L=11.
1150
48
⑬b 9ø12 L=11.60 m
1150

SECTIUNE A-A
A-A SECTION

sc. 1:50


BRASOV
Ax rezemare
Supporting axis
12 10
②②b
102x15=15.15
②a②c
①a
⑤
⑤
⑤
⑤
⑤
⑤
⑤
①
35
15.00



SECTIUNE C-C/C-C SECTION

sc. 1:20

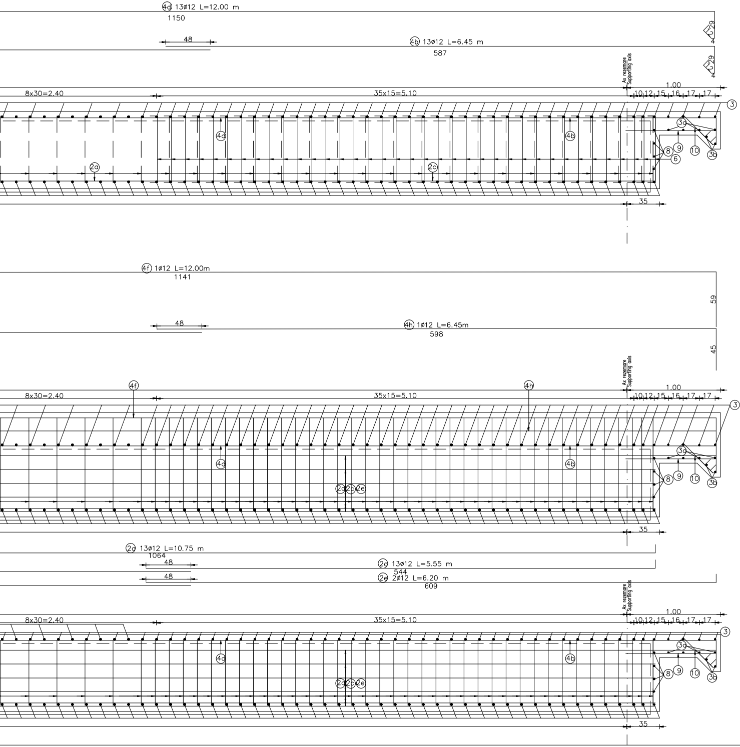
SECTIUNE E-E/E-E SECTION

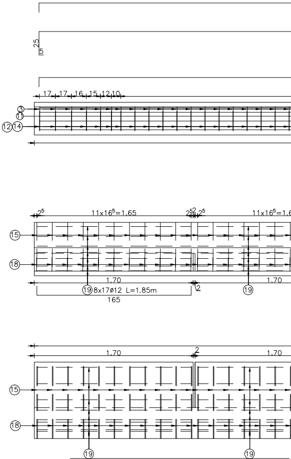
sc. 1:20

SECTIUNE D-D/D-D SECTION

sc. 1:20

SIGHISOARA
Ax rezemare Supporting axis
36x15=5.25
(6) 74x9ø12 L=0.90m
(10) 2x26ø12 L=0.65
5.48
1.31
1.00
587
(13c) 9ø12 L=6.00 m
4.18
35
(4c) 13ø12 L=6.45 m
587
48
(9) 2x26ø12 L=1.15m
98
(4g) 13ø12 L=12.00 m
1150
1.00
17 17 16 15 12 10
35x15=5.10
8x30=2.40
15.00
15
(3a) (3b) (10) (9) (8) (6) (5) (1) (1c) (2) (2b) (4c) (4g)
35
15.00
(4e) 1ø12 L=6.60m
598
59
(4g) 1ø12 L=11.90m
1141
45
(7a) (7) (2d) (11)
(2) 13ø12 L=5.55 m
544
(2b) 13ø12 L=10.75 m
1064
(2d) 2ø12 L=11.40 m
1129


4d 13ø12 L=12.00 m
1150
48
4b 13ø12 L=6.45 m
587
Ax rezemare
Supporting axis
8x30=2.40
35x15=5.10
1.00
10 12 15 16 17 17
3
3a
3b
4d
4b
2a
2c
8
9
10
6
35
29
4
4f 1ø12 L=12.00m
1141
59
48
4h 1ø12 L=6.45m
598
45
4f
4h
4a
4b
2d 2c 2e
2d 13ø12 L=10.75 m
1064
48
2c 13ø12 L=5.55 m
544
48
2e 2ø12 L=6.20 m
609

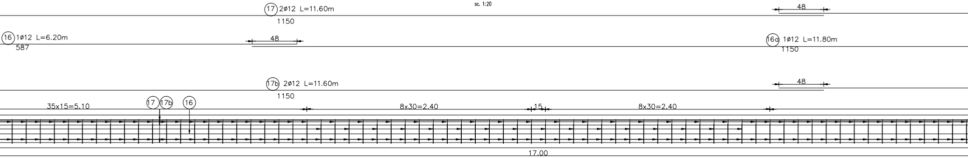

25
5
17 17 16 15 12 10
3
11
12
14
2⁵
11x16⁵=1.65
2⁵ 2 2⁵
11x16⁵=1.6
15
18
1.70
19 8x17ø12 L=1.85m
165
2
19
1.70
1.70
2
1.70
15
18
19
19

EXTRAS DE ARMATURA TABLIER
TABLE FOR REINFORCEMENTS FOR SINGLE RAIWAY DECK

Marca	Diametru	Lung./buc.[m]	Nr.buc.	S355		S345
				ø12	ø14	ø16
1	16	4.70	53			249.10
1a	16	4.70	53			249.10
2	12	5.55	13	72.15		
2a	12	10.75	13	139.75		
2b	12	10.75	13	139.75		
2c	12	5.55	13	72.15		
2d	12	11.40	2	22.80		
2e	12	6.20	2	12.40		
3	14	6.60	98		646.80	
3a	14	6.55	8		52.40	
3b	14	4.30	4		17.20	
4a	12	6.45	13	83.85		
4b	12	12.00	13	156.00		
4c	12	12.00	13	156.00		
4d	12	6.45	13	83.85		
4e	12	6.60	1	6.60		
4f	12	12.00	1	12.00		
4g	12	11.90	1	11.90		
4h	12	6.45	1	6.45		
5	12	1.75	385	673.75		
6	12	0.90	666	599.40		
7	12	1.25	92	115.00		
7a	12	2.05	92	188.60		
8	12	4.30	8	34.40		
9	12	1.15	52	59.80		
10	12	0.65	52	33.80		
11	14	2.85	16		45.60	

VEDERE F-F/VIEW F-F

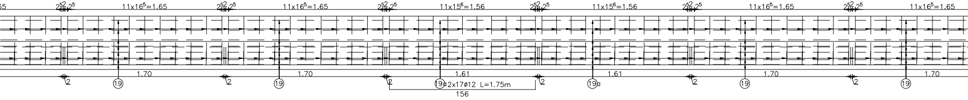
sc. 1:20



(17) 2ø12 L=11.60m
1150
48
(16) 1ø12 L=6.20m
587
48
(16a) 1ø12 L=11.80m
1150
(17b) 2ø12 L=11.60m
1150
48
35x15=5.10
(17)
(17b)
(16)
8x30=2.40
15
8x30=2.40
17.00

VEDERE G-G/VIEW G-G

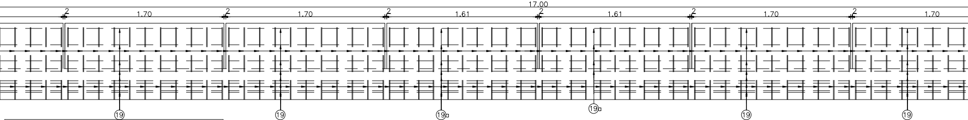
sc. 1:20



11x16⁵=1.65
11x16⁵=1.65
11x15⁶=1.56
11x15⁶=1.56
11x16⁵=1.65
11x16⁵=1.65
2⁵2 2⁵
1.70
1.70
1.61
1.61
1.70
1.70
2
(19)
(19a)
(19a) 2x17ø12 L=1.75m
156

VEDERE H-H/VIEW H-H

sc. 1:20



17.00
2
1.70
1.70
1.61
1.61
1.70
1.70
(19)
(19)
(19a)
(19a)
(19)
(19)

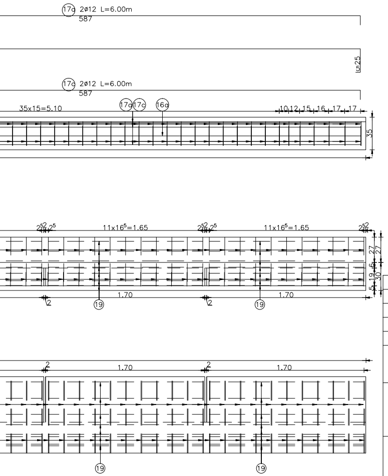
EXTRAS DE ARMATURA TABLIER TABLE FOR REINFORCEMENTS FOR SINGLE RAIWAY DECK						
Marca	Diametru	Lung./buc.[m]	Nr.buc.	S355		S345
				ø12	ø14	ø16
10	12	0.65	52	33.80		
11	14	2.85	16		45.60	
12	12	1.75	114	199.50		
13	12	6.00	9	54.00		
13a	12	11.60	9	104.40		
13b	12	11.60	9	104.40		
13c	12	6.00	9	54.00		
14	12	1.15	114	131.10		
15	12	1.95	111	216.45		
16	12	6.20	1	6.20		
16a	12	11.80	1	11.80		
17	12	11.60	2	23.20		
17a	12	6.00	2	12.00		
17b	12	11.60	2	23.20		
17c	12	6.00	2	12.00		
18	12	2.70	111	299.70		
19	12	1.85	136	251.60		
19a	12	1.75	34	59.50		
Lungimi totale pe diametre (m)				4243.45	762.00	498.20
Masa pe metru liniar (kg/ml)				0.888	1.208	1.578
Masa pe diametre (kg)				3768.20	920.90	786.40
Masa pe tip otel (kg)				4689.10		786.40
Masa totala tablier (kg)				5474.80		
Pierderi 5% (kg)				273.78		
Masa totala tablier (kg)				5750.00		

TOTAL POD (2 TABLIERE): 2 x 5750.00kg=11500.0kg
TOTAL BRIDGE (2 DECKS): 2 x 5750.00kg=11500.0kg

NOTA/NOTE

Pentru mentinerea pozitiei corecte in timpul betonarii, se vor monta distantieri minim 4buc./m^2. Distantierii trebuie legati cu sarma de carcasa de armatura.

In order to maintain the correct position during concreting, minimum 4pcs./m^2 distance pieces shall be mounted. The distance pieces shall be connected to the reinforcing framework, using wire.


17c 2ø12 L=6.00m
587
l=25
17c 2ø12 L=6.00m
587
17c 17c 16c
35x15=5.10
10 12 15 16 17 17
35
2 5 2 2 5
11x16^5=1.65
2 5 2 2 5
11x16^5=1.65
2 5 2
27
27
19
6
30
5
1.70
2
19
1.70
2
19
2
1.70
2
1.70
19
19

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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 EURO
EUROPEAN UNION FINANCED PR

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. Liuzza		
Aprobat Approved	Coordonator Secţiune 1 Section 1 Coordinator	C. Gambelli		
Verificat Checked	Expert Cheie Checking Expert	V. Kallidromitis		

SUBCONTRACTANT / SUBCONTRACTOR

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	A.Stanciu - Dinulescu	01.2012	
Întocmit Elaborated	Proiectant Designer	Dinu Andreea	01.2012	

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:
D.E. / E.D.

Denumire desen / Drawing Title :

INTERVAL / SECTION FELDIOARA – APATA
POD Km.204+898.420 L=15.00m/PLAN ARMARE SUPRASTRUCTURA
BRIDGE Km.204+898.420 D=15.00m/SUPERSTRUCTURE REINFORCEMENT PLAN

Codificare / Codification System	Scara / Scale 1:20	LOT / LOT	Nr. / No 01 / 01

EA51 01 E 08 BC PV 01 6 3 008 0