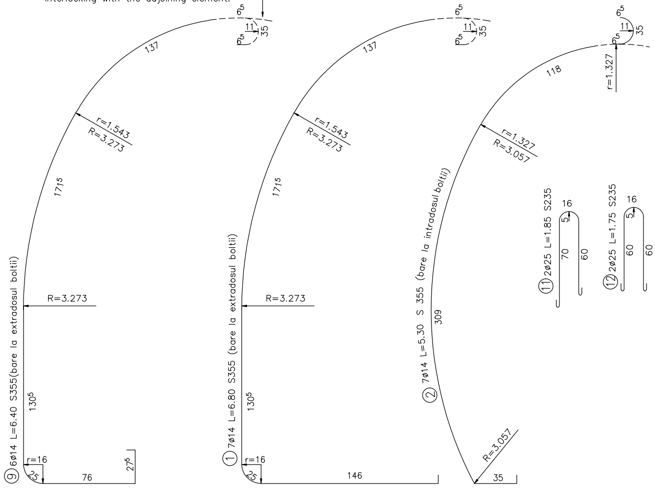
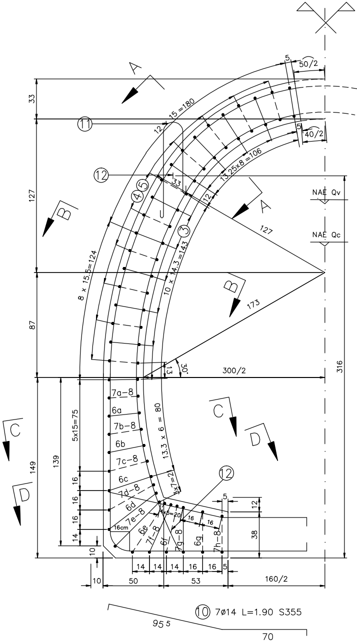
Portiunea care iese din prefabricat, se indoaie dupa montarea pe infrastructura (blocul de fundatie) in vederea solidarizarii cu elementul invecinat.

The section coming out of the prefabricated element will be bent after being mounted on the infrastructure(foundation black) in view of interlocking with the adjoining element.



⑨ 6ø14 L=6.40 S355(bare la extradosul boltii)
137
6⁵
11
35
r=1.543
R=3.273
171⁵
R=3.273
130⁵
r=16
25
76
27⁵
① 7ø14 L=6.80 S355 (bare la extradosul boltii)
137
6⁵
11
35
r=1.543
R=3.273
171⁵
R=3.273
130⁵
r=16
25
146
② 7ø14 L=5.30 S 355 (bare la intradosul boltii)
118
6⁵
11
35
r=1.327
r=1.327
R=3.057
309
R=3.057
35
⑪ 2ø25 L=1.85 S235
16
5
70
60
⑫ 2ø25 L=1.75 S235
16
5
60
60

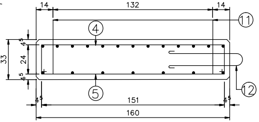


A
A
B
B
C
C
D
D
5
50/2
5
40/2
33
127
87
149
316
⑪
⑫
15 =180
12
13.25x8 =106
33
12
④⑤
③
127
NAE Qv
NAE Qc
8 x 15.5=124
10 x 14.3 =143
173
30°
13
300/2
5x15=75
139
13.3 x 6 = 80
7a–8
6a
7b–8
6b
7c–8
6c
7d–8
6d
7e–8
6e
7f–8
6f
7g–8
6g
7h–8
5x7=2
4x5=20
16cm
⑫
16
16
16
16
16
14
5
12
38
10
10
14
14
14
16
16
5
50
53
160/2
⑩ 7ø14 L=1.90 S355
95 5
70

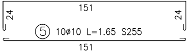
MUSTATI

EXTENS

SECTIUNE A–A
SECTION A–A

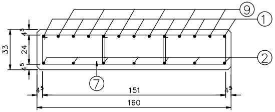

14
132
14
⑪
④
33
4^5
24
4^5
⑫
⑤
4^5
151
4^5
160

④ 10ø10 L=2.15 S255

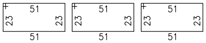

151
24
24
151

⑤ 10ø10 L=1.65 S255

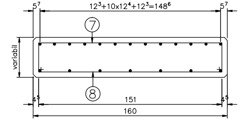
SECTIUNE B–B
SECTION B–B


⑨
①
33
4^5
24
4^5
②
⑦
4^5
151
4^5
160

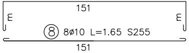
③ 3x11ø10 L=1.65 S255


51
23
23
51
51
23
23
51
51
23
23
51

SECTIUNE C–C
SECTION C–C


5^7
$12^3+10x12^4+12^3=148^6$
5^7
⑦
variabil
⑧
4^5
151
4^5
160

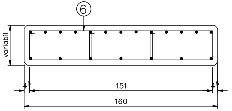
⑦ 8ø10 S255



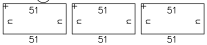
⑧ 8ø10 L=1.65 S255

Marca	7a	7b	7c	7d	7e	7f	7g	7h
m	24	27	33	42	52	43	37	30
L	2.15	2.20	2.35	2.50	2.70	2.55	2.40	2.25

SECTIUNE D–D
SECTION D–D


⑥
variabil
4^5
151
4^5
160

⑥ 3x7ø10 S255

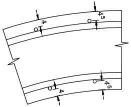

51
n
n
51
51
n
n
51
51
n
n
51

Marca	6a	6b	6c	6d	6e	6f	6g
n	25	29	37	50	48	39	34
L	1.70	1.75	1.90	2.20	2.15	1.95	1.85

EXTRAS ARMATURA PENTRU UN PREFABRICAT
STANDARD FOR REINFORCEMENT FOR THE ONE PRECAST

Marca Mark	ø	Buc. asem. Similar pices	Lung. /buc. Lght. /pcs.	Lungimi pe diametru Total lenght/diameter S255 ø10	S235 ø25	S355 ø14
1	14	7	6.80			47.60
2	14	7	5.30			37.10
3	10	33	1.65	54.45		
4	10	10	2.15	21.50		
5	10	10	1.65	16.50		
6a	10	3	1.70	5.10		
6b	10	3	1.75	5.25		
6c	10	3	1.90	5.70		
6d	10	3	2.20	6.60		
6e	10	3	2.15	6.45		
6f	10	3	1.95	5.85		
6g	10	3	1.85	5.55		
7a	10	1	2.15	2.15		
7b	10	1	2.20	2.20		
7c	10	1	2.35	2.35		
7d	10	1	2.50	2.50		
7e	10	1	2.70	2.70		
7f	10	1	2.55	2.55		
7g	10	1	2.40	2.40		
7h	10	1	2.25	2.25		
8	10	8	1.65	13.20		
9	14	6	6.40			38.40
10	14	7	1.90			13.30
11	25	2	1.85		3.70	
12	25	2	1.75		3.50	
Lungimi/ø Leght/diameter				165.25	7.20	136.40
Greutati/ml. Weight/ml				0.617	3.853	1.208
Greutati/diametre Weight/diameter				102	28	165
Total				130		165
TOTAL GENERAL GENERAL TOTAL				295 kg.		

DETALIU DE MONTARE A ARMATURILOR LONGITUDINALE SI TRANSVERSALE
MONTAING DETAIL FOR LONGITUDINAL END TRANSVERSAL REINFORCEMENT



C35/45
S235, S255, S355
Acoperire/Covering min.4cm

CLASA DE PRECIZIE/CLASS PRECISION = 7
CONFORM/ACCORDING SR EN 13369–89

NOTA

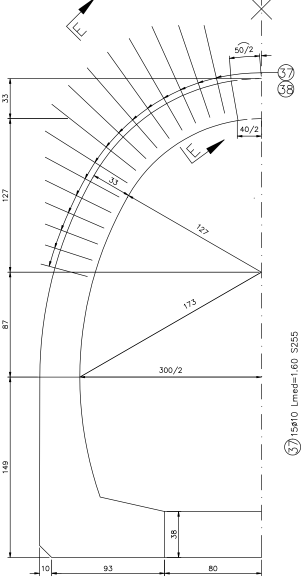
Pentru manevrarea pe santier si in uzina s–au prevazut armaturile (ancore) marca 11 si 12.

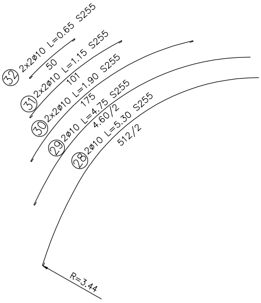
NOTE

The reinforcement (anchors) mark 11 end 12 were provided for handling en site in the plant.

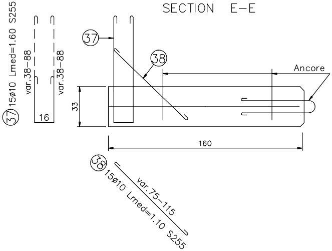
CLASA DE DURABILITATE/CLASS DURABILITY: D32/45a(XC3; XF3)
ACOPERIRE/COVERAGE: 4cm S4(XC3; XF3) pentru o durata de viata de 50 ani/for a life duration of 50 years
ARMATURA/REINFORCEMENT – S255; S235; S405
BETON/CONCRETE – C 35/45

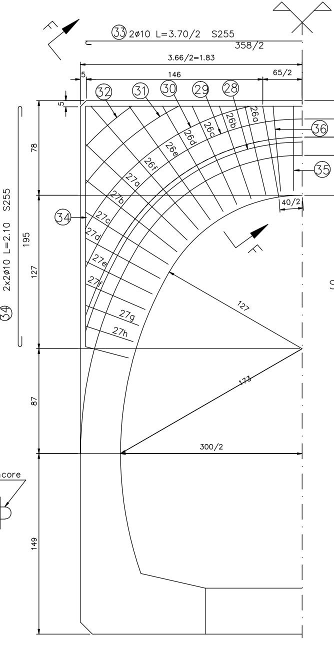
IN TRONSOANELE DE CAPAT NECESARE TIMPANELOR
MONOLITE TURNATE PE SANTIER
IONS AT THE END SECTIONS REQUIRED FOR THE
MONOLIT TYMPANA CAST EN SITE


E
50/2
37
38
33
40/2
E
33
127
127
173
87
300/2
149
38
10
93
80


32 2x2ø10 L=0.65 S255
50
31 2x2ø10 L=1.15 S255
101
30 2x2ø10 L=1.90 S255
175
29 2ø10 L=4.75 S255
4.60/2
28 2ø10 L=5.30 S255
512/2
R=3.44

SECTIUNE E–E
SECTION E–E


37 15ø10 Lmed=1.60 S255
var.38–88
var.38–88
16
37
38
Ancore
33
160
38 15ø10 Lmed=1.10 S255
var.75–115


F
33 2ø10 L=3.70/2 S255
358/2
3.66/2=1.83
5
146
65/2
5
32
31
30
29
28
26a
26b
26c
26d
26e
26f
27a
27b
27c
27d
27e
27f
27g
27h
36
35
15
15
15
33
40/2
34
34 2x2ø10 L=2.10 S255
78
195
127
127
173
87
300/2
149
F

SECTIU

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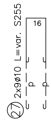
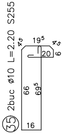
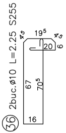
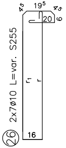
mon


27
2x9ø10 L=var. S255
16
p
p


35
2buc ø10 L=2.20 S255
4,5
19^5
4,5
20
6
66
69^5
16

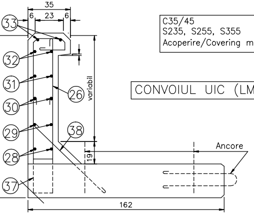

36
2buc.ø10 L=2.25 S255
4,5
19^5
4,5
20
6
67
70^5
16


26
2x7ø10 L=var. S255
4,5
19^5
4,5
20
6
r1
r
16

Marca	26a	26b	26c	26d	26e	26f
r	46	52	60	71	86	106
r_1	42^5	48^5	56^5	67^5	82^5	102^5
L	1.75	1.85	2.05	2.25	2.55	2.95

Marca	27a	27b	27c	27d	27e	27f	27g	27h
p	75	67	52	41	32	24	18	12
L	1.80	1.65	1.35	1.15	0.95	0.80	0.70	0.55

UNE F–F/SECTION F–F


35
23
6
6
33
32
31
30
29
28
37
26
38
variabil
19
Ancore
162

C35/45
S235, S255, S355
Acoperire/Covering min.4cm

CONVOIUL UIC (LM71, SW/2)

IOTA

efabricatele de capat (4 buc.) vor fi prevazute din uzina cu mustati din beton pentru legatura cu armatura din timpane ce se vor executa olit pe santier.

IOTE

e end prefabricated elements will be provided with structural steel extensions ne plant to ensure the connection whith the tympanum reinforcement to be olith cast en site.

EXTRAS ARMATURA PTR. UN TIMPAN (LA PREFABRICATELE DE CAPAT)

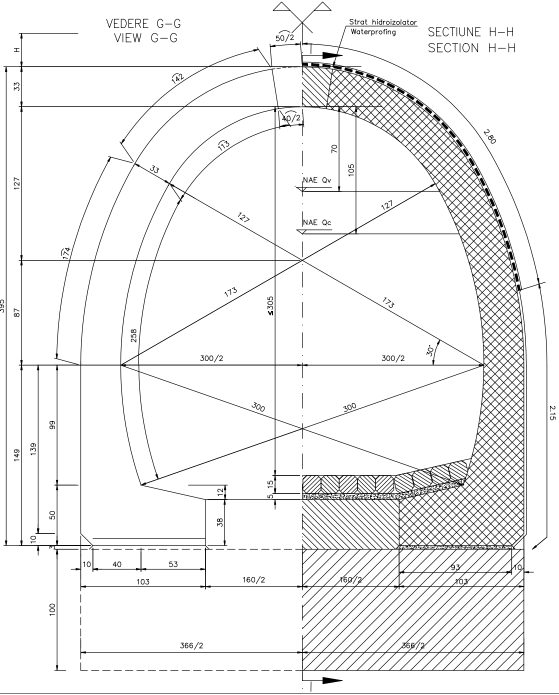
STANDARD FOR REINFORCEMENT FOR ONE TYMPANUM (FOR END PREFABRICATE ELEMENTS)

Marca Mark	ø	Buc. asem. Similar pices	Lung. /buc. Lght. /pcs.	S255
				ø10
26a	10	2	1.75	3.50
26b	10	2	1.85	3.70
26c	10	2	2.05	4.10
26d	10	2	2.25	4.50
26e	10	2	2.55	5.10
26f	10	2	2.95	5.90
27a	10	2	1.80	3.60
27b	10	2	1.65	3.30
27c	10	2	1.35	2.70
27d	10	2	1.15	2.30
27e	10	2	0.95	1.90
27f	10	2	0.80	1.60
27g	10	2	0.70	1.40
27h	10	2	0.55	1.10
28	10	2	5.30	10.60
29	10	2	4.75	9.50
30	10	4	1.90	7.60
31	10	4	1.15	4.60
32	10	2	0.65	2.60
33	10	2	3.75	7.50
34	10	4	2.10	8.40
35	10	2	2.20	4.40
36	10	2	2.25	4.50
Lungimi/diametre Leght/diameter (m)				104.40
Greutati/ml Weight/ml (kg/m)				0.617
Greutati/diameter Weight/diameter (kg)				64.42
Total (kg)				65.00

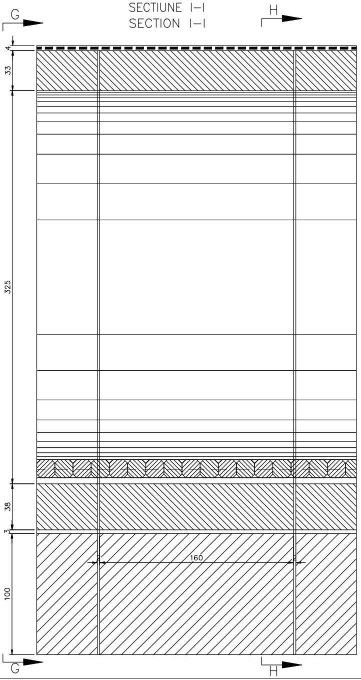
EXTRAS ARMATURA PTR. MUSTATILE DIN TRONSOANELE DE CAPAT

STANDARD FOR REINFORCEMENT FOR THE EXTENSION OF THE END SECTIONS

Marca Mark	ø	Buc. asem. Similar pices	Lung. /buc. Lght. /pcs.	Lung./ø Weight/ø
37	10	15	1.60	24.00
38	10	15	1.10	16.50
Lungimi/ø Leght/diameter (m)				40.50
Greutati/ml. Weight/ml (kg/m)				0.617
Greutati totala Total weight (kg)				25
Pentru un timpan For on tympanum (kg)				50


VEDERE G–G
VIEW G–G
SECTIUNE H–H
SECTION H–H
Strat hidroizolator
Waterprofing
50/2
40/2
H
33
127
87
395
149
99
139
50
10
142
173
33
127
127
174
173
173
258
≤305
70
105
NAE Qv
NAE Qc
2.80
300/2
300/2
30°
300
300
2.15
5
15
5
12
38
100
10
40
53
103
160/2
160/2
93
10
103
366/2
366/2

SECTIUNE I–I
SECTION I–I


G
H
4
33
325
38
3
100
160
2
2
G
H

CARACTERISTICILE UNEI SEMIBOLTI PREFABRICATE B3
THE CHARACTERISTIC FOR THE ONE HALF–ARCH PREFAB B3

1	Beton armat C35/45 Reinforcement concrete C35/45	m^3	2.95
2	Armaturi S255 Reinforcement S255	kg	102
3	Armaturi S235 Reinforcement S235	kg	28
4	Armaturi S355 Reinforcement S355	kg	165
5	Cofraje Shuttering	m^2	20.65
6	Greutate Weight	t	7.35

CANTITATI PENTRU MONOLITIZAREA PE SANTIER A UNUI TRONSON DE 1.60m B3
QUANTITES FOR THE MONO;ITH CASTING OF ONE SECTION ON SITE TO 1.60m B3

1	Beton armat C35/45 Reinforcement concrete C35/45	m^3	1.55
2	Armaturi S255 Reinforcement S255	kg	20
3	Armaturi S355 Reinforcement S355	kg	35
4	Cofraje Shuttering	m^2	4.55

NOTA

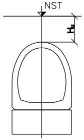
Prefabricatele se vor aseza pe blocul de fundatie monolit prin intermediul unui strat de mortar de ciment in doua straturi, unul pentru nivelare si celalalt de asezare a prefabricatelor.
Manevrarea prefabricatelor se va realiza cu ajutorul ancorelor prevazute in prefabricat.

NOTE

The prefabricated elements will be placed on the monolith foundation block by a cement mortar in two layers: one levelling layer and the second layer on wich the prefabricated elements are laid.
The prefabricated elements will be handled by help of anchors provided in the prefabricated part.

LEGENDA BETOANELOR/CONCRET LEGEND

▩	Beton armat prefabricat in bolta. Concret for prefabricated in arches. C35/45–CEM II/A–S32,5–(XC4+XF3+XA2)–A/C=0,50–Dmax22–Cl0,20.
▧	Beton pentru monolitizarea boltii Cast–in–place concrete in the arches C35/45–CEM II/A–S32,5–(XC4+XF3+XA2)–A/C=0,50–Dmax22–Cl0,20.
▨	Beton in fundatie Concret for foundation C25/30–CEMII/A–S32,5–(XF1)–A/C=0,50–Dmax32–Cl 0,20



Domeniu de aplicabilitate
Domain of application

Aliniament : H_u=(2÷17)m
Alignment
Curba : H_u=(2÷17)m
Curve

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D		
C		
B		
A	12.2011	Revizia 1
Indice Index	Data Date	Modificare Modification/Revision

GUVERNUL ROMANIEI
ROMANIAN GOVERNMENT

PROIECT
EU

CLIENT / CLIENT

ITALFERR
GRUPPO FERROVIE DELLO STATO
Joint Venture leader

Scott Wilson

CONSULTANT / CONSULTANT

Aprobat Approved	Şef proiect Project manager	
Aprobat Approved	Coordonator Secţiune 1 Section 1 Coordinator	
Verificat Checked	Expert Cheie Checking Expert	

SUBCONTRACTANT / SUBCONTRACTOR

Aprobat Approved	Responsabil Subconsultant Subconsultant Responsible	
Întocmit Elaborated	Proiectant Designer	

Reabilitarea liniei de cale ferata Braşov - Simeria,
IV Pan European, pentru circulaţia trenurilor cu
Tronsonul : Braşov - Sig
Rehabilitation of the railway line Braşov - Simeria, comp
Corridor, for the trains circulation with maximum speed
Section : Braşov - Sighi

Denumire desen / Drawing Title :

PLAN COFRAJ SI ARMARE P
ARMARE TIMPAN / SHUTTER
PREFABRICATED ELEMEN

Codificare / Codification System

E A 5 1 0 1 E 0 0 B C

Carmen Balan		
Proiectant Designer	Aprobat Consultant Approved Consultant	Aprobat CFR Approved CFR

T FINANŢAT DE UNIUNEA EUROPEANĂ
UROPEAN UNION FINANCED PROJECT

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

OBERMEYER
PLANEN + BERATEN GmbH

TECNIC
Consulting Engineers

	Data Date	Semnătură Signature
R. Liuzza		
C. Gambelli		
V.Kallidromitis		

AREX
COMPANY

A. Dinulescu Stanciu	11.2011	
Carmen Balan	11.2011	

parte componentă a coridorului
viteza maximă de 160 km/h,
hişoara
onent Part of the IV Pan-European
of 160 km/h,
işoara

Proiect/Project
2004/RO/16/P/PA/003

Faza / Phase:
P.Th. / T.D.

ENTRU ELEMENTE PREFABRICATE B3
ING AND REINFORCEMENT PLAN FOR
NTS-REINFORCEMENT TYMPANUM

Scara / Scale 1:200	LOT / LOT	Nr. / No 01 / 01

P O 0 0 0 0 0 0 9 1

297x2490