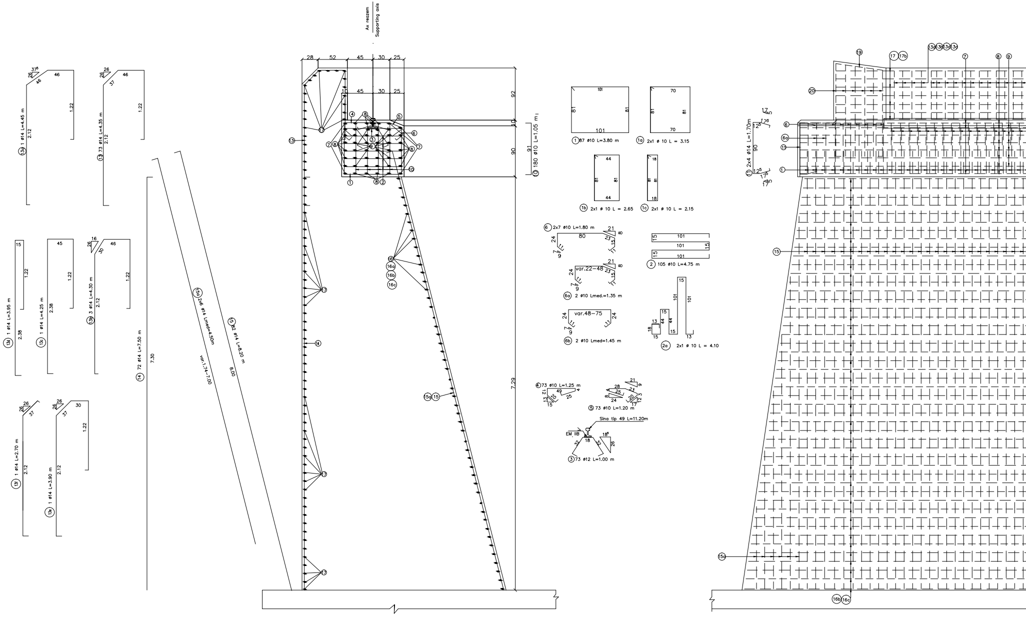
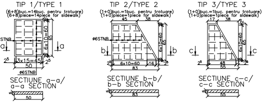
SECTIUNE TRANSVERSALA B-B
B-B CROSS SECTION


Ax reazem
Supporting axis
28 52 45 30 25
92
10
90
91
⑩ 180 ø10 L=1.05 m
7.29
7.30
(13) 1 ø14 L=4.45 m
(13) 73 ø14 L=4.35 m
(13d) 1 ø14 L=3.95 m
(13c) 1 ø14 L=4.25 m
(13b) 3 ø14 L=4.30 m
(13f) 1 ø14 L=2.70 m
(13e) 1 ø14 L=3.90 m
(14) 72 ø14 L=7.50 m
(15a) 2x6 ø14 Lmed=4.50m
var.1.74-7.00
(15) 82 ø14 L=8.20 m
8.00
① 87 ø10 L=3.80 m
(1a) 2x1 ø 10 L = 3.15
(1b) 2x1 ø 10 L = 2.65
(1c) 2x1 ø 10 L = 2.15
⑥ 2x7 ø10 L=1.80 m
(6a) 2 ø10 Lmed.=1.35 m
var.22-48
(6b) 2 ø10 Lmed=1.45 m
var.48-75
② 105 ø10 L=4.75 m
(2a) 2x1 ø 10 L = 4.10
④ 73 ø10 L=1.25 m
⑤ 73 ø10 L=1.20 m
③ 73 ø12 L=1.00 m
Sina tip 49 L=11.20m
EM IIB
(11) 2x4 ø14 L=1.70m
(16) (16a) (16b) (16c)
(17) (17b)
(19) (20)
(13a)(13b)(13c)(13d)
(15a) (15)
(16b)(16c)

DALE PREFABRICATE DIN BETON/ CONCRETE PREFAB SLABS

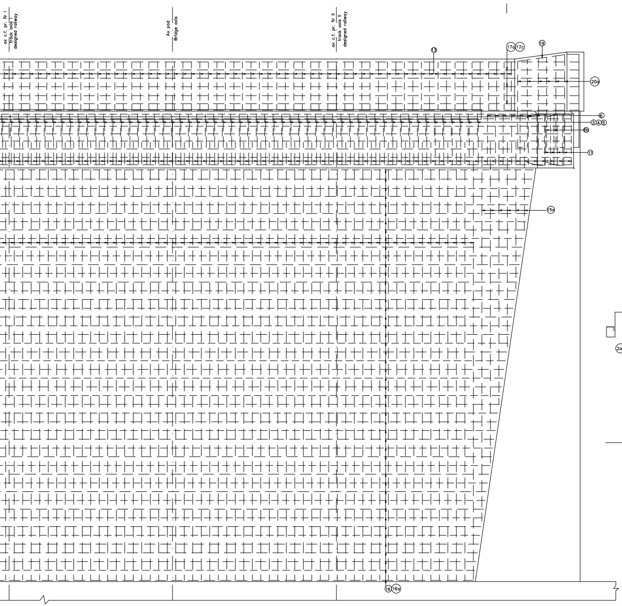
Sc. 1:20


TIP 1/TYPE 1
(6+8)buc.=14buc. pentru trotuare)
(6+8)piece=14piece for sidewalk)
ø6STNB
6x10=60
65
3x15=45
50
SECTIUNE a-a/
a-a SECTION
TIP 2/TYPE 2
(1+0)buc.=1buc. pentru trotuare)
(1+0)piece=1piece for sidewalk)
45 38
6x10=60
83
SECTIUNE b-b/
b-b SECTION
TIP 3/TYPE 3
(1+0)buc.=1buc. pentru trotuare)
(1+0)piece=1piece for sidewalk)
17 38
48
55
SECTIUNE c-c/
c-c SECTION

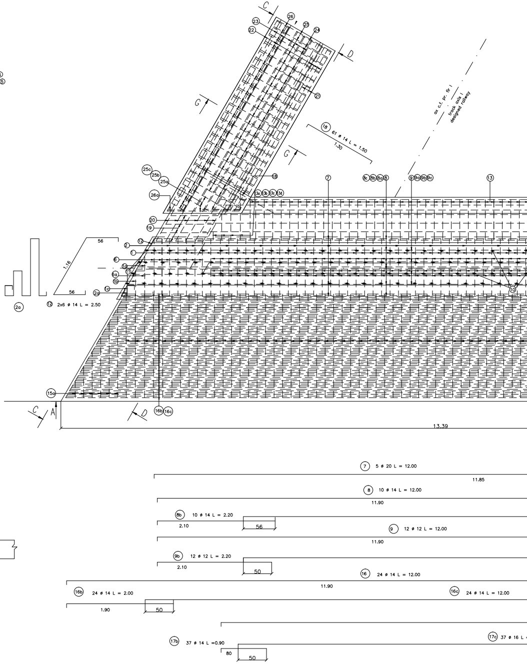
EXTRAS DE ARMATURA STNB PENTRU CULEE
TABLE FOR REINFORCEMENTS STNB FOR ABUTMENT

TIP/TYPE	TIP ARMATURA TYEPE REINFOCEMENT	Nr. BUC. No. PIECE	kg/m	m/buc. m/piece	kg
TIP 1 TYPE 1	STNB 6 G.Q.283	14	0.222	5.55	17.25
TIP 2 TYPE 2	STNB 6 G.Q.283	1	0.222	8.75	2.00
TIP 3 TYPE 3	STNB 6 G.Q.283	1	0.222	5.02	1.11
				TOTAL	21.00kg

ELEVATIE A–A / A–A ELEVATION

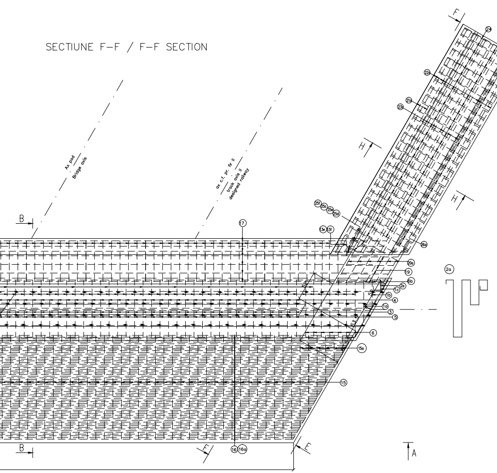


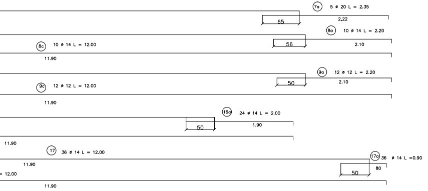
ax c.f. pr. fir I
track axis I
designed railway
Ax pod
Bridge axis
ax c.f. pr. fir II
track axis II
designed railway
13
17a 17c
19
20a
6
3 4 5
6b
11
15a
16 16a

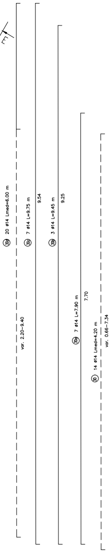


C
D
G
26
23
25
22
24
21
18 61 ø 14 L = 1.50
1.30
ax c.f. pr. fir I
track axis I
designed railway
25c
25b
25a
26a
18
3a 3b 3c 3d
7
8c 8b 8a 8
9 9a 9b 9c
13
20
19
56
1.16
56
12
2
1
6
1a
6a
11
1b
1c
2a
10
2a
12 2x6 ø 14 L = 2.50
15a
A
C
D
16b 16c
13.39
7 5 ø 20 L = 12.00
11.85
8 10 ø 14 L = 12.00
11.90
8b 10 ø 14 L = 2.20
2.10
56
9 12 ø 12 L = 12.00
11.90
9b 12 ø 12 L = 2.20
2.10
50
16 24 ø 14 L = 12.00
11.90
16b 24 ø 14 L = 2.00
1.90
50
16c 24 ø 14 L = 12.00
17b 37 ø 14 L =0.90
80
50
17c 37 ø 16 L

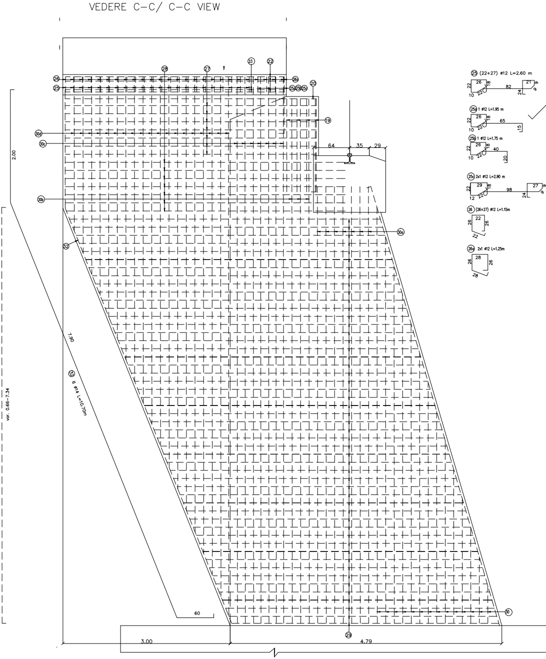
SECTIUNE F–F / F–F SECTION

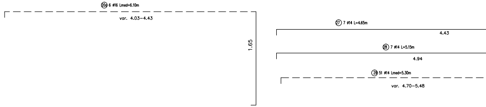

Ax pod
Bridge axis
ax c.f. pr. fir II
track axis II
designed railway
B
B
F
F
F
F
H
H
A
24
25
26
22
21
23
25f
25c
25e
25d
13e
13f
26a
20a
19
2a
8b
1c
1b
4
1a
3
5
6
15a
15
17
16
16a
2a


7a 5 ø 20 L = 2.35
65
2,22
8a 10 ø 14 L = 2.20
56
2.10
8c 10 ø 14 L = 12.00
11.90
9a 12 ø 12 L = 2.20
50
2.10
9c 12 ø 12 L = 12.00
11.90
16a 24 ø 14 L = 2.00
50
1.90
11.90
17 36 ø 14 L = 12.00
17a 36 ø 14 L =0.90
11.90
50
80
= 12.00
11.90

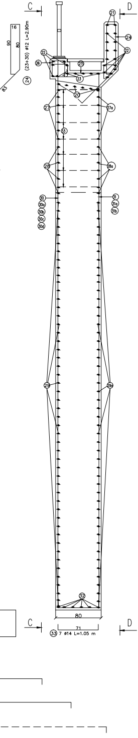

30d 20 ø14 Lmed=6.00 m
var. 2.20–9.40
30c 7 ø14 L=9.75 m
9.54
30b 3 ø14 L=9.45 m
9.25
30a 7 ø14 L=7.90 m
7.70
30 14 ø14 Lmed=4.20 m
var. 0.66–7.34

VEDERE C–C/ C–C VIEW

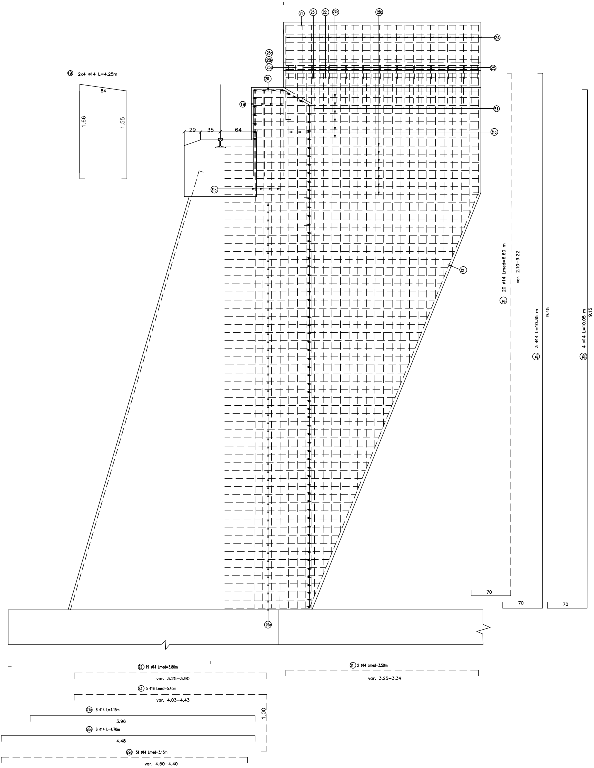

28
27
23
22
26
25
26a
25b
25c
20
19
30d
30c
30b
30a
32
29
30
64
35
29
2.00
7.90
32 6 ø14 L=10.70m
60
3.00
4.79
25 (22+27) ø12 L=2.60 m
26
22
10
22
18
82
21
24
9
9
25a 1 ø12 L=1.95 m
26
22
10
22
18
65
15
25b 1 ø12 L=1.75 m
26
22
10
22
18
40
20
25c 2x1 ø12 L=2.90 m
29
22
12
22
18
98
27
24
9
9
26 (26+27) ø12 L=1.15m
22
26
26
22
26a 2x1 ø12 L=1.25m
28
26
26
28


20a 6 ø16 Lmed=6.10m
var. 4.03–4.43
1.65
27 7 ø14 L=4.65m
4.43
28 7 ø14 L=5.15m
4.94
29 51 ø14 Lmed=5.30m
var. 4.70–5.48

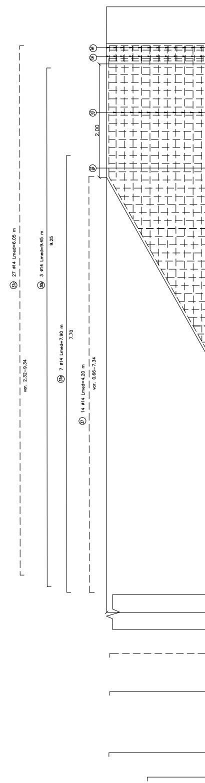
SECTIUNE G-G / G-G SECTION


C
D
16
90
80
83
(23+30) ø12 L=2.90m
(24)
(21)
(24)
(22)
(26)
(25)
(23)
(20)
(27)
(27a)
(33)
(28)
(28a)
(30)
(30a)
(30b)
(30c)
(30d)
(31)
(31a)
(31b)
(29)
(29a)
(32)
80
71
(33) 7 ø14 L=1.05 m

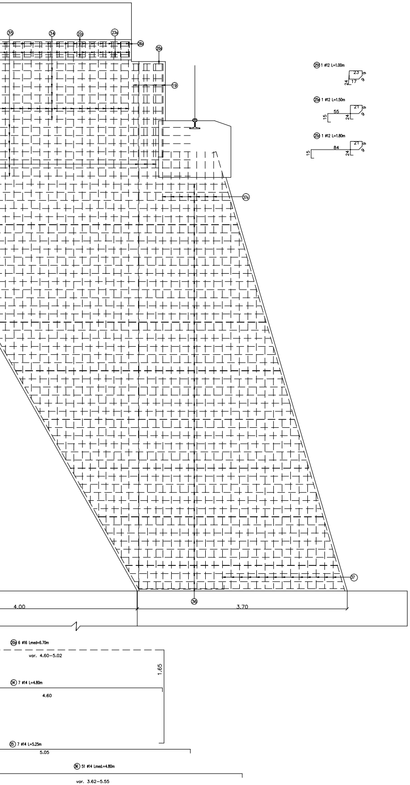
VEDERE D-D/ D-D VIEW


(19) 2x4 ø14 L=4.25m
84
1.66
1.55
(21)
(23)
(22)
(27a)
(28a)
(24)
(25c)
(25b)
(25a)
(25)
(20)
(19)
(51)
(51a)
29
35
64
(31b)
(32)
(29a)
(31) 20 ø14 Lmed=6.60 m
var. 2.10-9.22
70
(31a) 3 ø14 L=10.35 m
9.45
70
(31b) 4 ø14 L=10.05 m
9.15
70
(22) 19 ø14 Lmed=3.80m
var. 3.25-3.90
(23) 5 ø16 Lmed=5.45m
var. 4.03-4.43
(27a) 6 ø14 L=4.15m
3.96
1.00
(28a) 6 ø14 L=4.70m
4.48
(29a) 51 ø14 Lmed=3.15m
var. 4.50-4.40
(21) 2 ø14 Lmed=3.50m
var. 3.25-3.34

VEDERE E-

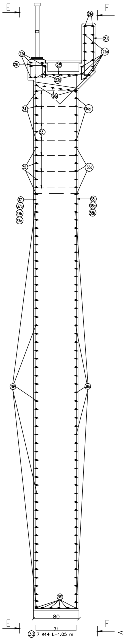

(37c) 27 ø14 Lmed=6.05 m
var. 2.32-9.34
(37b) 3 ø14 Lmed=9.45 m
9.25
(37a) 7 ø14 Lmed=7.90 m
7.70
(37) 14 ø14 Lmed=4.20 m
var. 0.66-7.34
(26)
(25)
(37c)
2.00
(37b)

-E/ E-E VIEW



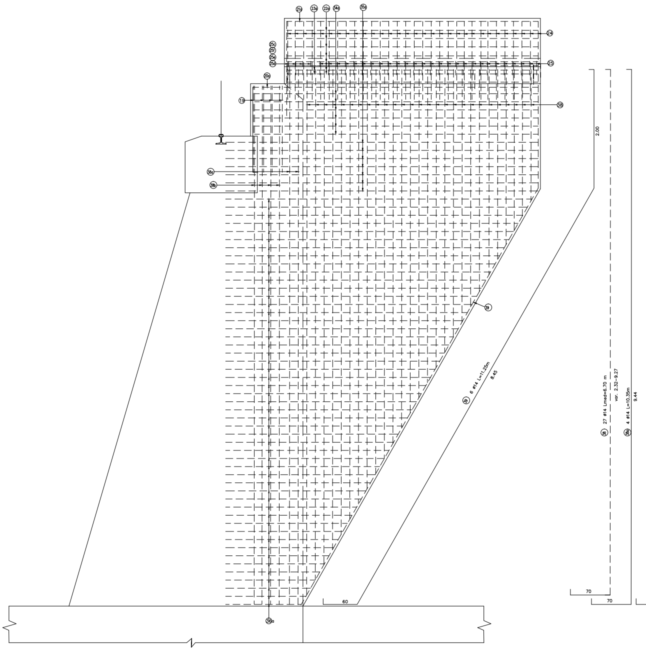
(35)
(34)
(22a)
(23a)
(26a)
(20a)
(19)
(37a)
(37)
(36)
4.00
3.70
(25b) 1 ø12 L=1.00m
23
17
24
9
9
(25d) 1 ø12 L=1.50m
55
15
24
21
9
9
(25c) 1 ø12 L=1.80m
84
15
24
21
9
9
(20a) 6 ø16 Lmed=6.70m
var. 4.60–5.02
1.65
(34) 7 ø14 L=4.80m
4.60
(35) 7 ø14 L=5.25m
5.05
(36) 51 ø14 Lmed.=4.80m
var. 3.62–5.55

SECTIUNE H-H / H-H SECTION

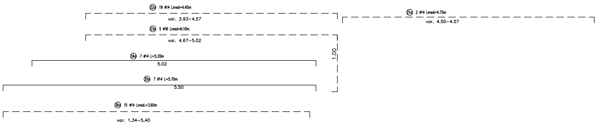


E
F
(21a)
(24)
(22a)
(22a)
(26)
(25)
(23a)
(20a)
(34)
(34a)
(33)
(35)
(35a)
(37)
(37a)
(37b)
(37c)
(38)
(38a)
(38b)
(36)
(36a)
(39)
80
71
(33) 7 ø14 L=1.05 m
E
F

VEDERE F-F/ F-F VIEW



(21a)
(23a)
(22a)
(34a)
(35a)
(24)
(25c)
(25f)
(25e)
(25d)
(25)
(20a)
(19)
(18)
(38a)
(38b)
(39)
(39) 6 ø14 L=11.25m
8.45
60
(36a)
2.00
(38) 27 ø14 Lmed=6.70 m
var. 2.32–9.27
(38a) 4 ø14 L=10.35m
9.44
70
70



(22a) 19 ø14 Lmed=4.45m
var. 3.93–4.57
(21a) 2 ø14 Lmed=4.75m
var. 4.50–4.57
(23a) 5 ø16 Lmed=6.10m
var. 4.67–5.02
1.00
(34a) 7 ø14 L=5.20m
5.02
(35a) 7 ø14 L=5.70m
5.50
(36a) 51 ø14 Lmed.=3.60m
var. 1.34–5.40

(38b) 4 ø14 L=10.05m
9.15
70

EXTRAS DE ARMATURA PENTRU O CULEE
REINFORCEMENT FOR ONE ABUTMENT

Marca	Ĭ	Buc	Lung/buc(m)	S355			S345	
				Ĭ 10	Ĭ 12	Ĭ 14	Ĭ 16	Ĭ 20
1	10	87	3,80	330,60				
1a	10	2	3,15	6,30				
1b	10	2	2,65	5,30				
1c	10	2	2,15	4,30				
2	10	105	4,75	498,75				
2a	10	2	4,10	8,20				
3	12	73	1,00		73,00			
4	10	73	1,25	91,25				
5	10	73	1,20	87,60				
6	10	14	1,80	25,20				
6a	10	2	Lmed=1,35	2,70				
6b	10	2	Lmed=1,45	2,90				
7	20	5	12,00					60,00
7a	20	5	2,35					11,75
8	14	10	12,00			120,00		
8a	14	10	2,20			22,00		
8b	14	10	2,20			22,00		
8c	14	10	12,00			120,00		
9	12	12	12,00		144,00			
9a	12	12	2,20		26,40			
9b	12	12	2,20		26,40			
9c	12	12	12,00		144,00			
10	10	180	1,05	189,00				
11	14	8	1,70			13,60		
12	14	12	2,50			30,00		
13	14	73	4,35			317,55		
13a	14	1	4,45			4,45		
13b	14	3	4,30			12,90		
13c	14	1	4,25			4,25		
13d	14	1	3,95			3,95		
13e	14	1	3,90			3,90		
13f	14	1	2,70			2,70		
14	14	72	7,50			540,00		
15	14	82	8,20			672,40		
15a	14	12	Lmed=4,50			54,00		
16	14	24	12,00			288,00		
16a	14	24	2,00			48,00		
16b	14	24	2,00			48,00		
16c	14	24	12,00			288,00		
17	14	36	12,00			432,00		
17a	14	36	0,90			32,40		
17b	14	37	0,90			33,30		
17c	14	37	12,00			444,00		
18	14	61	1,50			91,50		
19	14	8	4,25			34,00		
20	16	6	Lmed=6,10				36,60	
20a	16	6	Lmed=6,70				40,20	
21	14	2	Lmed=5,75			7,00		
21a	14	2	Lmed=6,85			9,50		
22	14	19	Lmed=3,80			72,20		
22a	14	19	Lmed=4,45			84,55		
23	16	6	Lmed=4,45				32,70	
23a	16	6	Lmed=5,05				36,60	
24	12	53	2,90		153,70			
25	12	49	2,60		127,40			
25a	12	1	1,95		1,95			
25b	12	1	1,75		1,75			
25c	12	2	2,90		5,80			
25d	12	1	1,80		1,80			
25e	12	1	1,50		1,50			
25f	12	1	1,00		1,00			
26	12	53	1,15		60,95			
26a	12	2	1,25		2,50			
27	14	7	4,65			32,55		
27a	14	6	4,15			24,90		
28	14	7	5,15			36,05		
28a	14	7	4,70			32,90		
29	14	51	Lmed=5,30			270,30		
29a	14	51	Lmed=3,15			160,65		
30	14	14	Lmed=4,20			58,80		
30a	14	7	7,90			55,30		
30b	14	3	9,45			28,35		
30c	14	7	9,75			68,25		
30d	14	19	Lmed=6,00			114,00		
31	14	19	6,60			125,40		
31a	14	3	10,35			31,05		
31b	14	4	10,05			40,20		
32	14	6	10,70			64,20		
33	14	14	1,05			14,70		
34	14	7	4,80			33,60		
34a	14	6	5,20			31,20		
35	14	7	5,25			36,75		
35a	14	7	5,70			39,90		
36	14	51	Lmed=4,80			244,80		
36a	14	51	Lmed=3,60			183,60		
37	14	14	Lmed=4,20			58,80		
37a	14	7	7,90			55,30		
37b	14	3	9,45			28,35		
37c	14	27	Lmed=6,05			163,35		
38	14	27	Lmed=6,70			180,90		
38a	14	2	10,35			20,70		
38b	14	4	10,05			40,20		
39	14	6	11,25			67,50		
LUNGIMI/ø (m)				1252,10	772,15	6198,70	146,10	71,75
GREUTATI/ML (kg)				0,617	0,888	1,208	1,578	2,465
GREUTATI/ø				773	686	7488	231	177
GREUTATI PE TIP DE OTEL (kg)				8947			408	
PIERDERI 5% (kg)				470				
GREUTATE TOTALA CULEE (kg)				9825				

TOTAL 2 CULEI /TOTAL 2 ABUTMENTS : 2 x 9825kg=19650kg

Beton armat/Reinforced concrete:	– C35/45 bancheta, zid de garda/ bench,wall guard – C25/30 elevatie, ziduri intoarse/ elevation, reverted walls
Armatura / reinforcement:	–S355 (PC 52; ø10–ø14) –S345 (PC 52; ø16–ø28)
Strat de acoperire/concrete cover	– min. 4cm expunere in aer/air exposed

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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

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

CLIENT / CLIENT

GRUPPO FERROVIE DELLO STATO
Joint Venture leader

CONSULTANT / CONSULTANT

			Data Date	SemnŁturŁ Signature
Aprobat Approved	ķef proiect Project manager	R. Liuzza		
Aprobat Approved	Coordonator Sec$une 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	02.2012	
Ŏtocmit Elaborated	Proiectant Designer	Mihai Ady Nicolae	02.2012	

Reabilitarea liniei de cale ferata Brakov - Simeria, parte componentŁ a coridorului IV Pan European, pentru circula$a trenurilor cu viteza maximŁ 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 :

STATIA / STATION: ARCHITA
POD/BRIDGE Km.257+483,30 D=18,00m
PLAN ARMARE CULEE
ABUTMENTS REINFORCEMENT PLAN

Codificare / Codification System

Scara / Scale 1:25

LOT / LOT

Nr. / No 01 / 01

E A 5 1 0 1 E 1 5 B C P V 0 3 6 2 0 0 8 0