



**Republic of Moldova  
Ministry of Transport and Road Infrastructure  
State Road Administration**

**and**

**European Bank for Reconstruction and Development**

**ROAD SECTOR PROGRAM**

**Rehabilitation of R14 Balti-Sarateni Road**

**Lot 1: km 26+600 to km 38+300**

**Lot 2: km 43+000 to km 61+000 and  
km 64+370-km 66+657**

**TENDER DOCUMENTS**

**PART 2 – REQUIREMENTS**

**LOT 2 DRAWINGS**

**Tendering No. RSP/2013/OT/W6**

**Invitation for Tenders No. RSP/2013/OT/W6/01-2**

**Chisinau, 2014**

**List of Drawings**  
**Lista desenelor**

N <sub>0</sub> Drawing	Name	Denumirea
1	2	3
<b>Road</b>		
<b>DA - Drum auto</b>		
1.	General data	Date generale
2.	Road plan PC 430+00 - PC 438+00	Plan drum PC 430+00 - PC 438+00
3.	Road plan PC 438+00 - PC 445+00	Plan drum PC 438+00 - PC 445+00
4.	Road plan PC 445+00 - PC 455+50	Plan drum PC 445+00 - PC 455+50
5.	Road plan PC 455+50 - PC 466+00	Plan drum PC 455+50 - PC 466+00
6.	Road plan PC 466+00 - PC 476+50	Plan drum PC 466+00 - PC 476+50
7.	Road plan PC 467+50 - PC 487+00	Plan drum PC 467+50 - PC 487+00
8.	Road plan PC 487+00 - PC 497+50	Plan drum PC 487+00 - PC 497+50
9.	Road plan PC 497+50 - PC 508+00	Plan drum PC 497+50 - PC 508+00
10.	Road plan PC 508+00 - PC 518+50	Plan drum PC 508+00 - PC 518+50
11.	Road plan PC 518+50 - PC 525+50	Plan drum PC 518+50 - PC 525+50
12.	Road plan PC 525+50 - PC 536+00	Plan drum PC 525+50 - PC 536+00
13.	Road plan PC 536+00 - PC 546+50	Plan drum PC 536+00 - PC 546+50
14.	Road plan PC 546+50 - PC 557+00	Plan drum PC 546+50 - PC 557+00
15.	Road plan PC 557+00 - PC 567+50	Plan drum PC 557+00 - PC 567+50
16.	Road plan PC 567+50 - PC 574+50	Plan drum PC 567+50 - PC 574+50
17.	Road plan PC 574+50 - PC 581+50	Plan drum PC 574+50 - PC 581+50
18.	Road plan PC 581+50 - PC 592+00	Plan drum PC 581+50 - PC 592+00
19.	Road plan PC 592+00 - PC 602+50	Plan drum PC 592+00 - PC 602+50
20.	Road plan PC 602+50 - PC 611+00	Plan drum PC 602+50 - PC 611+00
21.	Road plan PC 611+00 - PC 621+50	Plan drum PC 611+00 - PC 621+50
22.	Road plan PC 621+50 - PC 632+00	Plan drum PC 621+50 - PC 632+00
23.	Road plan PC 632+00 - PC 642+50	Road plan PC 632+00 - PC 642+50
24.	Road plan PC 642+50 - PC 649+50	Road plan PC 642+50 - PC 649+50
25.	Road plan PC 649+50 - PC 656+50	Road plan PC 649+50 - PC 656+50
26.	Road plan PC 656+50 - PC 666+65.7	Road plan PC 656+50 - PC 666+65.7
27.	Longitudinal Profile PC 430+00- PC 445+00	Profil Longitudinal PC 430+00- PC 445+00
28.	Longitudinal Profile PC 445+00- PC 460+00	Profil Longitudinal PC 445+00- PC 460+00
29.	Longitudinal Profile PC 460+00- PC 474+00	Profil Longitudinal PC 460+00- PC 474+00
30.	Longitudinal Profile PC 474+00- PC 488+00	Profil Longitudinal PC 474+00- PC 488+00
31.	Longitudinal Profile PC 488+00- PC 502+00	Profil Longitudinal PC 488+00- PC 502+00
32.	Longitudinal Profile PC 502+00- PC 516+00	Profil Longitudinal PC 502+00- PC 516+00
33.	Longitudinal Profile PC 516+00- PC 530+00	Profil Longitudinal PC 516+00- PC 530+00
34.	Longitudinal Profile PC 530+00- PC 544+60	Profil Longitudinal PC 530+00- PC 544+60
35.	Longitudinal Profile PC 544+60- PC 560+40	Profil Longitudinal PC 544+60- PC 560+40
36.	Longitudinal Profile PC 560+40- PC 576+20	Profil Longitudinal PC 560+40- PC 576+20
37.	Longitudinal Profile PC 576+20- PC 592+00	Profil Longitudinal PC 576+20- PC 592+00
38.	Longitudinal Profile PC 592+00- PC 607+80	Profil Longitudinal PC 592+00- PC 607+80
39.	Longitudinal Profile PC 607+80- PC 623+60	Profil Longitudinal PC 607+80- PC 623+60
40.	Longitudinal Profile PC 623+60- PC 639+40	Profil Longitudinal PC 623+60- PC 639+40
41.	Longitudinal Profile PC 639+40- PC 655+20	Profil Longitudinal PC 639+40- PC 655+20
42.	Longitudinal Profile PC 655+20- PC 666+65.7	Profil Longitudinal PC 655+20- PC 666+65.7
43.	Typical cross sections I, II	Profil transversal tip I, II

44.	Typical cross sections III, IV	Profil transversal tip III, IV
45.	Typical cross sections V, VI	Profil transversal tip V, VI
46.	Typical cross sections VII	Profil transversal tip VII
47.	Pavement construction	Construcția sistemului rutier
48.	Cross Sections of Earthwork PC 430+00 - PC 436+00	Profil Transversal Terasamente PC 430+00-PC 436+00
49.	Cross Sections of Earthwork PC 438+00 - PC 444+00	Profil Transversal Terasamente PC 438+00-PC 444+00
50.	Cross Sections of Earthwork PC 446+00 - PC 456+00	Profil Transversal Terasamente PC 446+00-PC 456+00
51.	Cross Sections of Earthwork PC 458+00 - PC 464+00	Profil Transversal Terasamente PC 458+00-PC 464+00
52.	Cross Sections of Earthwork PC 465+00 - PC 470+00	Profil Transversal Terasamente PC 465+00-PC 470+00
53.	Cross Sections of Earthwork PC 471+00 - PC 476+00	Profil Transversal Terasamente PC 471+00-PC 476+00
54.	Cross Sections of Earthwork PC 477+00 - PC 482+00	Profil Transversal Terasamente PC 477+00-PC 482+00
55.	Cross Sections of Earthwork PC 483+00 - PC 491+00	Profil Transversal Terasamente PC 483+00-PC 491+00
56.	Cross Sections of Earthwork PC 492+00 - PC 494+00	Profil Transversal Terasamente PC 492+00-PC 494+00
57.	Cross Sections of Earthwork PC 495+00 - PC 498+00	Profil Transversal Terasamente PC 495+00-PC 498+00
58.	Cross Sections of Earthwork PC 500+00 - PC 510+00	Profil Transversal Terasamente PC 500+00-PC 510+00
59.	Cross Sections of Earthwork PC 512+00 - PC 522+00	Profil Transversal Terasamente PC 512+00-PC 522+00
60.	Cross Sections of Earthwork PC 524+00 - PC 534+00	Profil Transversal Terasamente PC 524+00-PC 534+00
61.	Cross Sections of Earthwork PC 536+00 - PC 546+00	Profil Transversal Terasamente PC 536+00-PC 546+00
62.	Cross Sections of Earthwork PC 548+00 - PC 558+00	Profil Transversal Terasamente PC 548+00-PC 558+00
63.	Cross Sections of Earthwork PC 560+00 - PC 570+00	Profil Transversal Terasamente PC 560+00-PC 570+00
64.	Cross Sections of Earthwork PC 572+00 - PC 582+00	Profil Transversal Terasamente PC 572+00-PC 582+00
65.	Cross Sections of Earthwork PC 584+00 - PC 594+00	Profil Transversal Terasamente PC 584+00-PC 594+00
66.	Cross Sections of Earthwork PC 596+00 - PC 606+00	Profil Transversal Terasamente PC 596+00-PC 606+00
67.	Cross Sections of Earthwork PC 608+00 - PC 618+00	Profil Transversal Terasamente PC 608+00-PC 618+00
68.	Cross Sections of Earthwork PC 620+00 - PC 630+00	Profil Transversal Terasamente PC 620+00-PC 630+00
69.	Cross Sections of Earthwork PC 632+00 - PC 642+00	Profil Transversal Terasamente PC 632+00-PC 642+00
70.	Cross Sections of Earthwork PC 644+00 - PC 654+00	Profil Transversal Terasamente PC 644+00-PC 654+00
71.	Cross Sections of Earthwork PC 656+00 - PC 666+00	Profil Transversal Terasamente PC 656+00-PC 666+00
72.	Culvert lengthening Ø 1,0 with tubes TN100-III PC 440+46	Alungirea podețului Ø 1,0 cu tuburi TN100-III PC 440+46

73.	Culvert construction TN-16.50 PC 462+92	Construcția podețului TN-16.50 PC 462+92
74.	Culvert lengthening Ø 1,0 with tubes TN100-III PC 472+62	Alungirea podețului Ø 1,0 cu tuburi TN100-III PC 472+62
75.	Culvert lengthening Ø 1,5 with tubes Nr.16 PC 474+06	Alungirea podețului Ø 1,5 cu tuburi Nr.16 PC 474+06
76.	Culvert construction TN-16.50 PC 528+70	Construcția podețului TN-16.50 PC 528+70
77.	Culvert lengthening Ø 1,0 with tubes TN100-III PC 562+02	Alungirea podețului Ø 1,0 cu tuburi TN100-III PC 562+02
78.	Culvert lengthening Ø 1,0 with tubes Nr.12 PC 565+87	Alungirea podețului Ø 1,0 cu tuburi Nr.12 PC 565+87
79.	Culvert construction TN-160-III PC 587+35	Construcția podețului TN-160-III PC 587+35
80.	Culvert construction TN-160-III PC 592+33	Construcția podețului TN-160-III PC 592+33
81.	Existing typical culverts	Podete existente tip
82.	Typical lined side drain $i < 5\%$	Santuri laterale tip $i < 5\%$
83.	Typical lined side drain $i > 5\%$	Santuri laterale tip $i > 5\%$
84.	Typical lined side drain $i > 5\%$	Santuri laterale tip $i > 5\%$
85.	Drainage chutes	Construcția cascadelor pe acostament
86.	Construction of the dissipator chutes	Camin de disipare pentru cascaderi
87.	Typical side road	Drum lateral tip
88.	Entrance to properties type I-IV	Acces în curți tip I-IV
89.	Plan of Road traffic management PC 430+00 - PC 437+00	Planul organizării circulației rutiere PC 430+00 - PC 437+00
90.	Plan of Road traffic management PC 437+00 - PC 444+00	Planul organizării circulației rutiere PC 437+00 - PC 444+00
91.	Plan of Road traffic management PC 444+00 - PC 453+50	Planul organizării circulației rutiere PC 444+00 - PC 453+50
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100.	Plan of Road traffic management PC 526+00 - PC 533+00	Planul organizării circulației rutiere PC 526+00 - PC 533+00
101.	Plan of Road traffic management PC 533+00 - PC 543+50	Planul organizării circulației rutiere PC 533+00 - PC 543+50
102.	Plan of Road traffic management PC 543+50 - PC 550+50	Planul organizării circulației rutiere PC 543+50 - PC 550+50
103.	Plan of Road traffic management PC 550+50 - PC 561+00	Planul organizării circulației rutiere PC 550+50 - PC 561+00



104.	Plan of Road traffic management PC 561+00 - PC 571+50	Planul organizarii circulatiei rutiere PC 561+00 - PC 571+50
105.	Plan of Road traffic management PC 571+50 - PC 578+50	Planul organizarii circulatiei rutiere PC 571+50 - PC 578+50
106.	Plan of Road traffic management PC 578+50 - PC 589+00	Planul organizarii circulatiei rutiere PC 578+50 - PC 589+00
107.	Plan of Road traffic management PC 589+00 - PC 599+50	Planul organizarii circulatiei rutiere PC 589+00 - PC 599+50
108.	Plan of Road traffic management PC 599+50 - PC 606+00	Planul organizarii circulatiei rutiere PC 599+50 - PC 606+00
109.	Plan of Road traffic management PC 606+00- PC 613+00	Planul organizarii circulatiei rutiere PC 606+00- PC 613+00
110.	Plan of Road traffic management PC 613+00 - PC 623+50	Planul organizarii circulatiei rutiere PC 613+00 - PC 623+50
111.	Plan of Road traffic management PC 623+50 - PC 634+00	Planul organizarii circulatiei rutiere PC 623+50 - PC 634+00
112.	Plan of Road traffic management PC 634+00 - PC 641+00	Planul organizarii circulatiei rutiere PC 634+00 - PC 641+00
113.	Plan of Road traffic management PC 641+00 - PC 646+00	Planul organizarii circulatiei rutiere PC 641+00 - PC 646+00
114.	Plan of Road traffic management PC 646+00 - PC 653+50	Planul organizarii circulatiei rutiere PC 646+00 - PC 653+50
115.	Plan of Road traffic management PC 653+50 - PC 660+50	Planul organizarii circulatiei rutiere PC 653+50 - PC 660+50
116.	Plan of Road traffic management PC 660+50 - PC 666+67	Planul organizarii circulatiei rutiere PC 660+50 - PC 666+67
117.	Safety barrier for gantries	Parapet metalic
118.	Nonstandard road signs 5.63.1; 5.64	Nonstandard road signs 5.63.1; 5.64
119.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
120.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
121.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
122.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
123.	Nonstandard road signs 5.63.1; 5.64	Nonstandard road signs 5.63.1; 5.64
124.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
125.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
126.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
127.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
128.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
129.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
130.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
131.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
132.	Nonstandard road signs 5.63.1; 5.64	Nonstandard road signs 5.63.1; 5.64
133.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
134.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
135.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
136.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
137.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
138.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
139.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
140.	Nonstandard road signs 5.63.1; 5.64	Nonstandard road signs 5.63.1; 5.64
141.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
142.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2
143.	Nonstandard road signs 5.61.2	Indicator rutier individual 5.61.2

LIST OF BASIC SETS OF DRAWINGS FOR ROADS  
BORDEROUL SETURLOR DE BAZA A DESENELOR

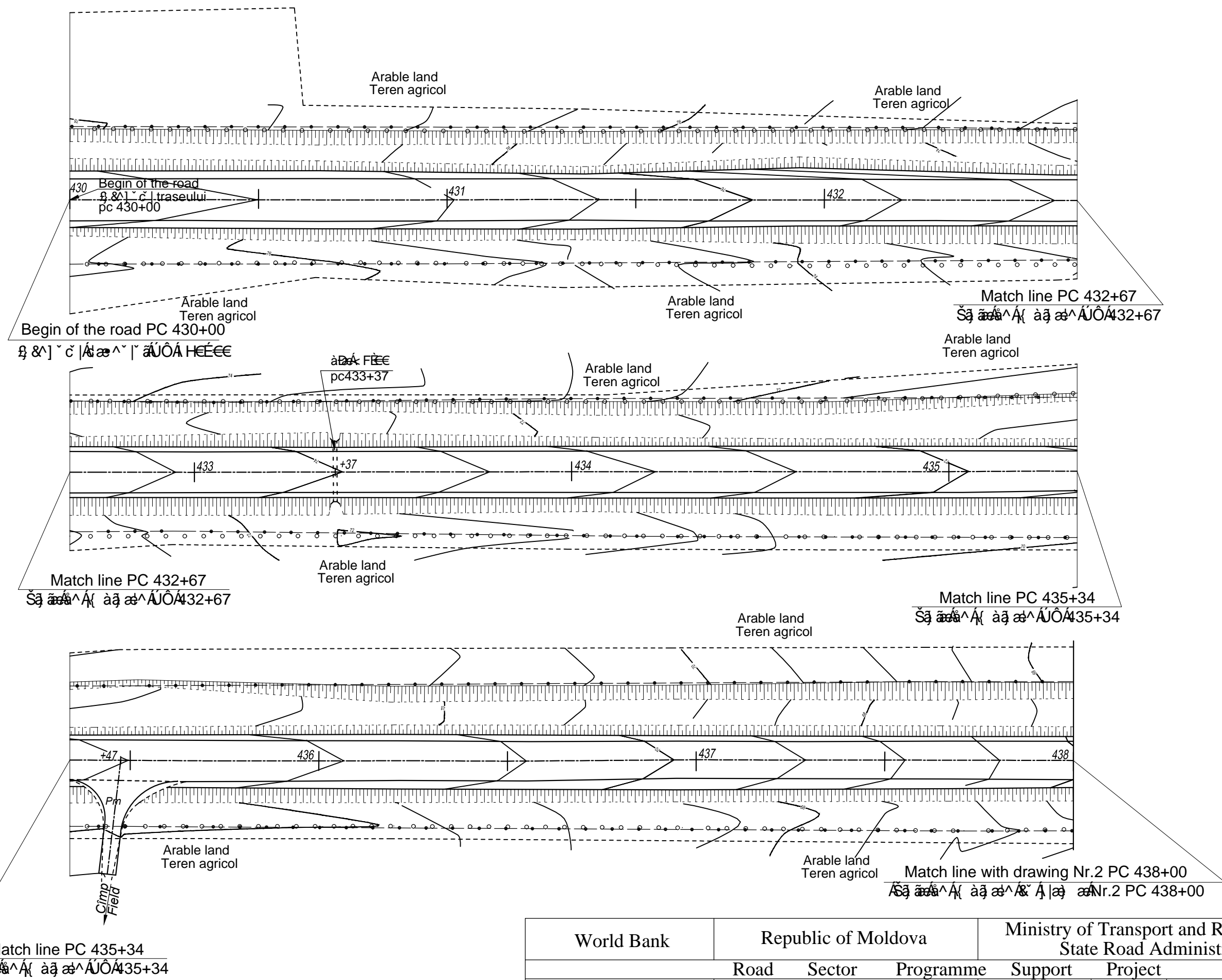
<i>Index Marcarea</i>	<i>Title Denumirea</i>	<i>Note Nota</i>
-DA	Road. Drumuri Auto	
-P	Bridges. Poduri	

LIST OF BASIC SETS OF DRAWINGS FOR ROADS  
BORDEROUL DESENELOR SETULUI -DA

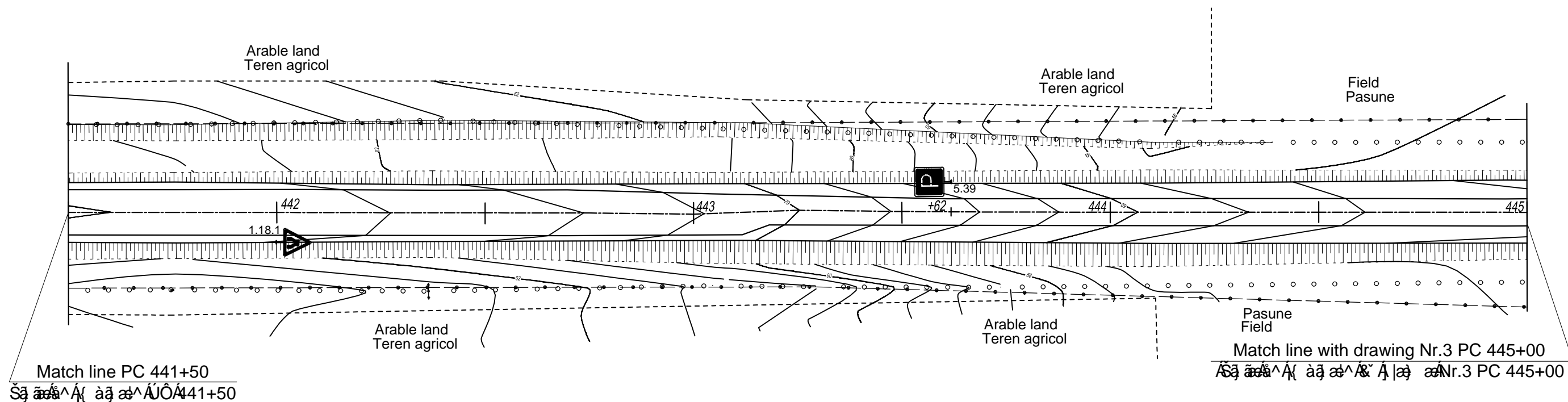
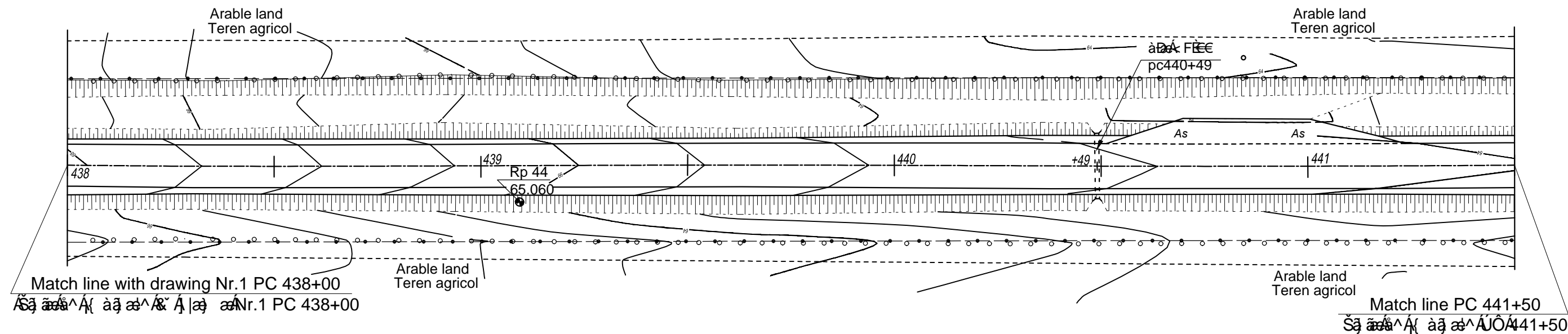
<i>Item No Nr.d/o</i>	<i>Name Denumirea</i>	<i>Index Marcarea</i>	<i>Drawings Planse</i>	<i>Note Nota</i>
1	General data Date generale	DG-DA	1	
2	Road plan Plan drum	PD-DA	1-25	
3	Longitudinal profile Profil longitudinal	PL-DA	1-16	
4	Typical cross sections Profile transversale tip	PTT-DA	1-4	
5	Pavement construction Constructia sistemului rutier	CSR-DA	1	
6	Cross sections of earthwork Profile transversale terasamente	PT-DA	1-24	
7	Culvert c.c. Ø1.0m, PC 440+46 Podet b.a. Ø1.0m, PC 440+46	P-DA	1	
8	Culvert c.c. TN-16.50, PC 462+92 Podet b.a. TN-16.50, PC 462+92	P-DA	1	
9	Culvert c.c. Ø1.0m, PC472+62 Podet b.a. Ø1.0m, PC472+62	P-DA	1	
10	Culvert c.c. Ø1.5m, PC474+06 Podet b.a. Ø1.5m, PC474+06	P-DA	1	
11	Culvert c.c. TN-16.50, PC528+70 Podet b.a. TN-16.50, PC528+70	P-DA	1	
12	Culvert c.c. Ø1.0m, PC562+02 Podet b.a. Ø1.m, PC562+02	P-DA	1	
13	Culvert c.c. Ø1.0m, PC565+87 Podet b.a. Ø1.0m, PC565+87	P-DA	1	
14	Culvert c.c. TN-160-III, PC587+35 Podet b.a. TN-160-III, PC587+35	P-DA	1	
15	Culvert c.c. TN-160-III, PC592+33 Podet b.a. TN-160-III, PC592+33	P-DA	1	
17	Existing typical culverts Podete existente tip	PET-DA	1	
18	Typical lined side drain i<5% Santuri laterale i<5%	SLT-DA	1	
19	Typical lined side drain i>5% Santuri laterale tip i>5%	SLT-DA	1-2	
20	Drainage chutes Constructia casiului pe acostament	CCA-DA	1	
21	Construction of the dissipator chute Camin de disipare pentru casiuri	CDC-DA	1	
22	Typical side road Drum lateral tip	DLT-DA	1	

23	Entrance to properties Acces in curti	AC-DA	1	
24	Plan of road traffic management Planul organizarii circulatiei rutiere	POCR-DA	1-29	
25	Safety barrier for gantries Parapet metalic	PM-DA	1	
26	Nonstandart road signs Indicator rutier individual	IRI-DA	1-26	

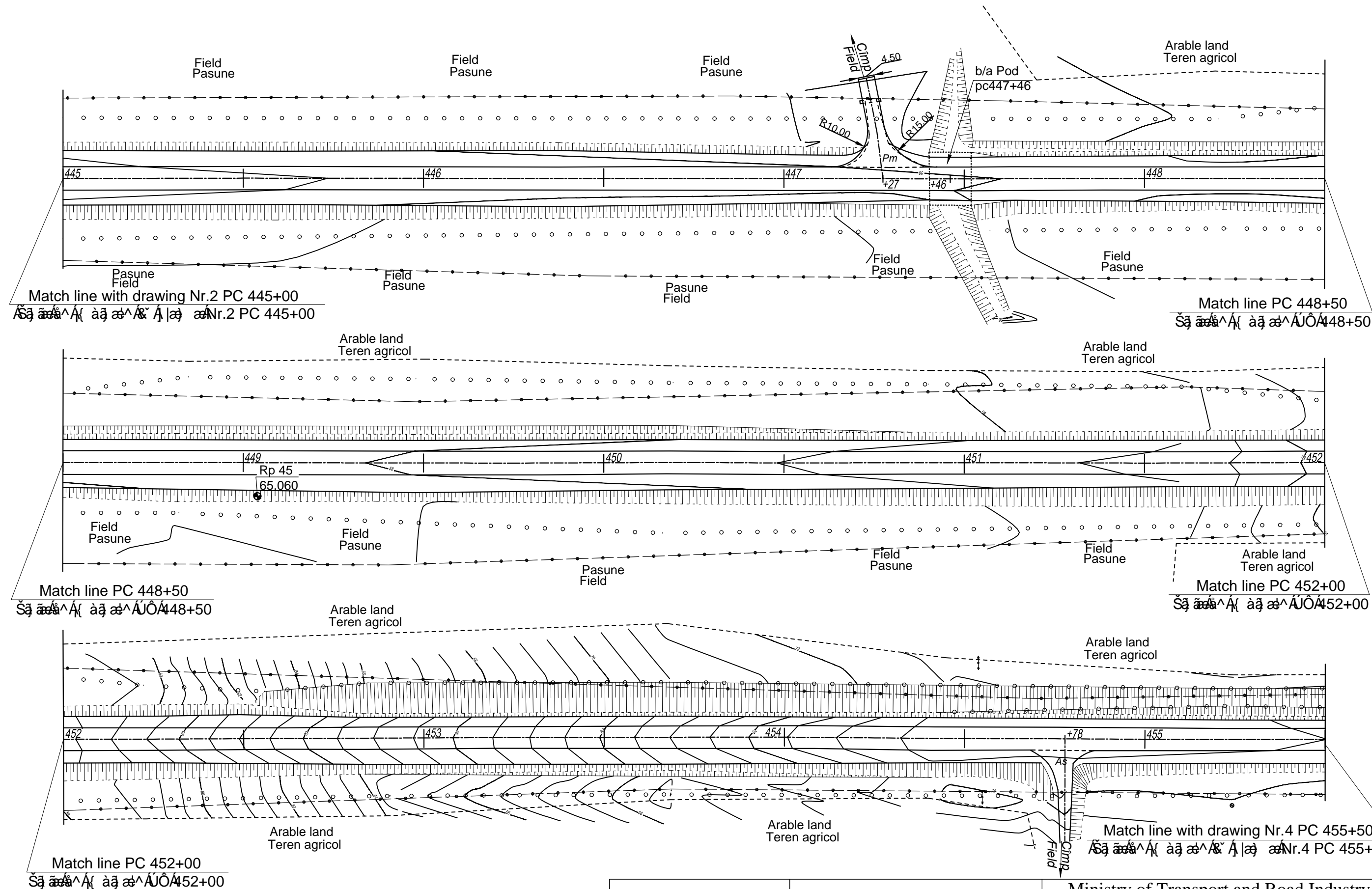
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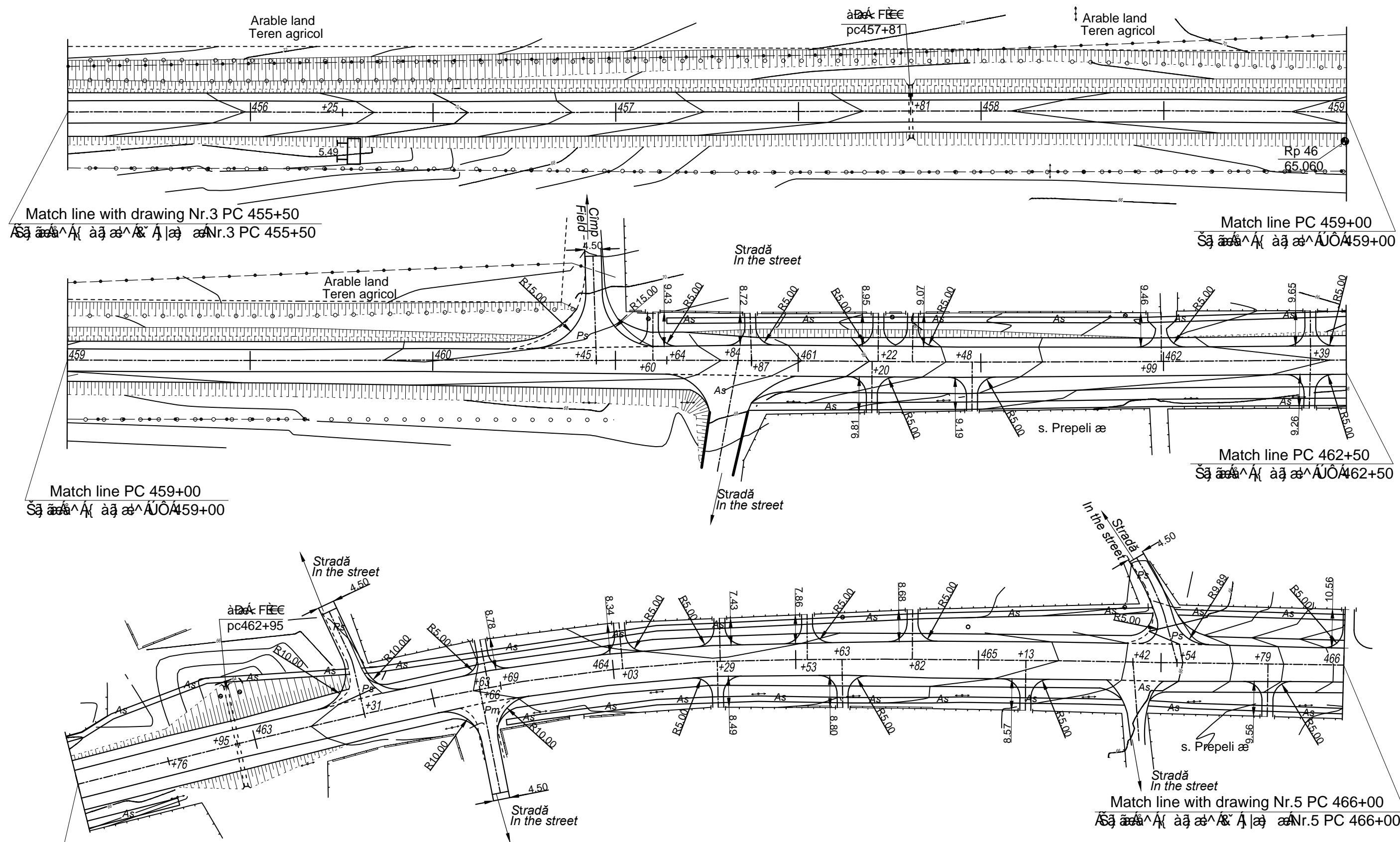
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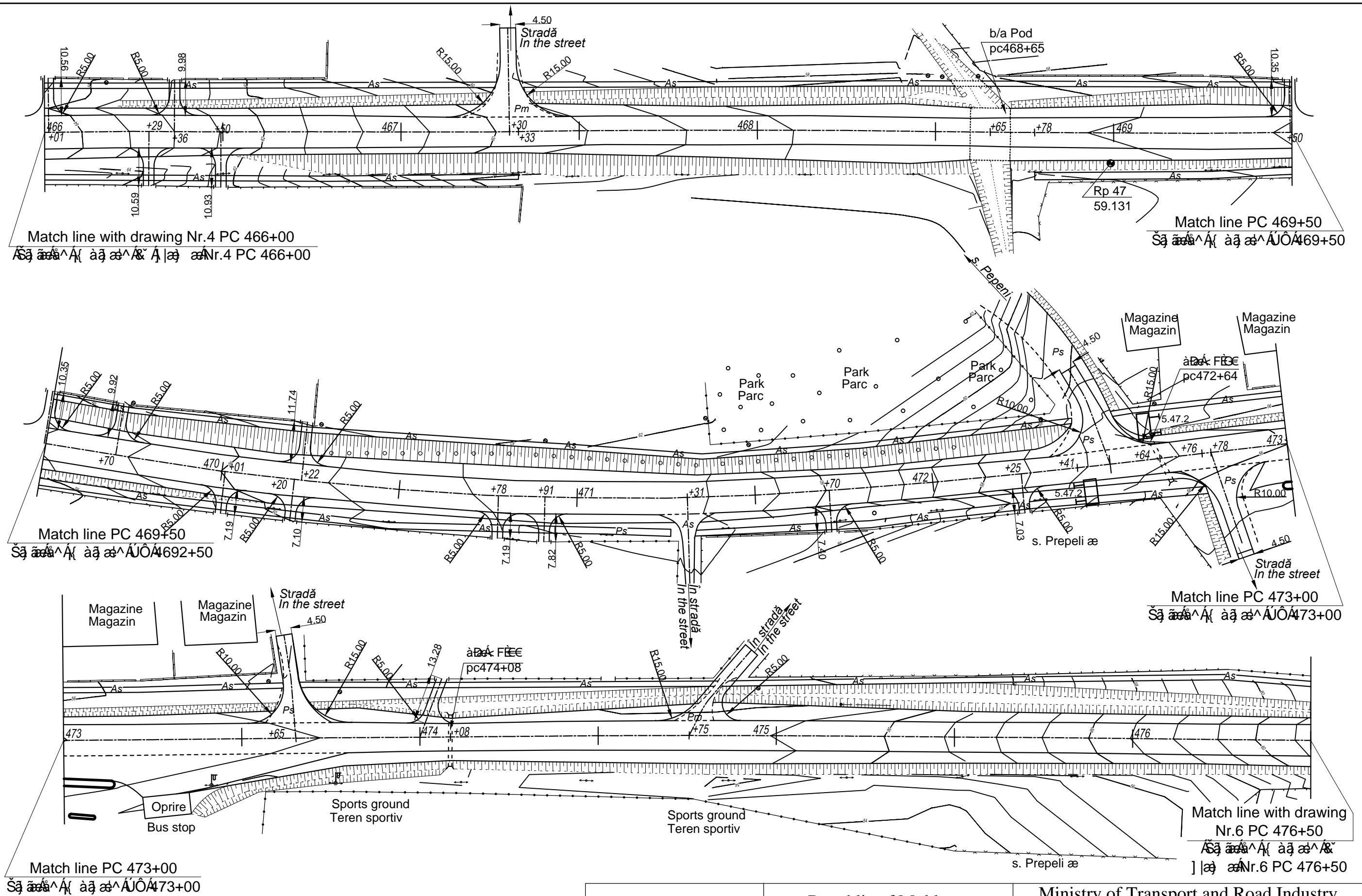
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		Control STAS	L.Pozdirca		PD-DA 2	



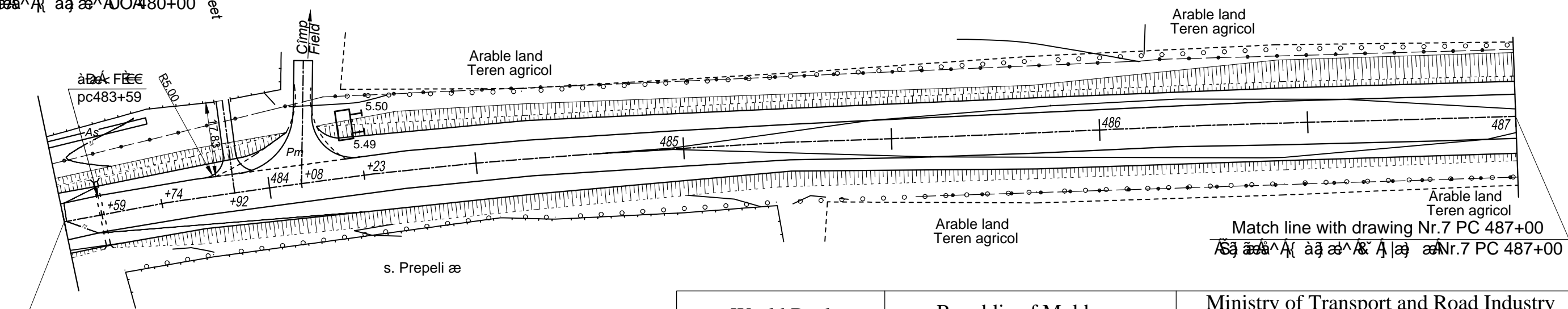
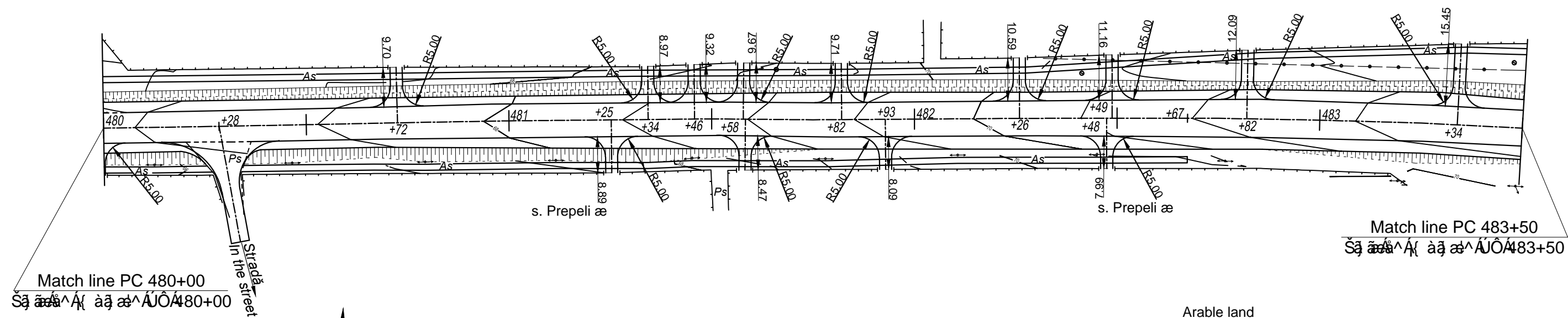
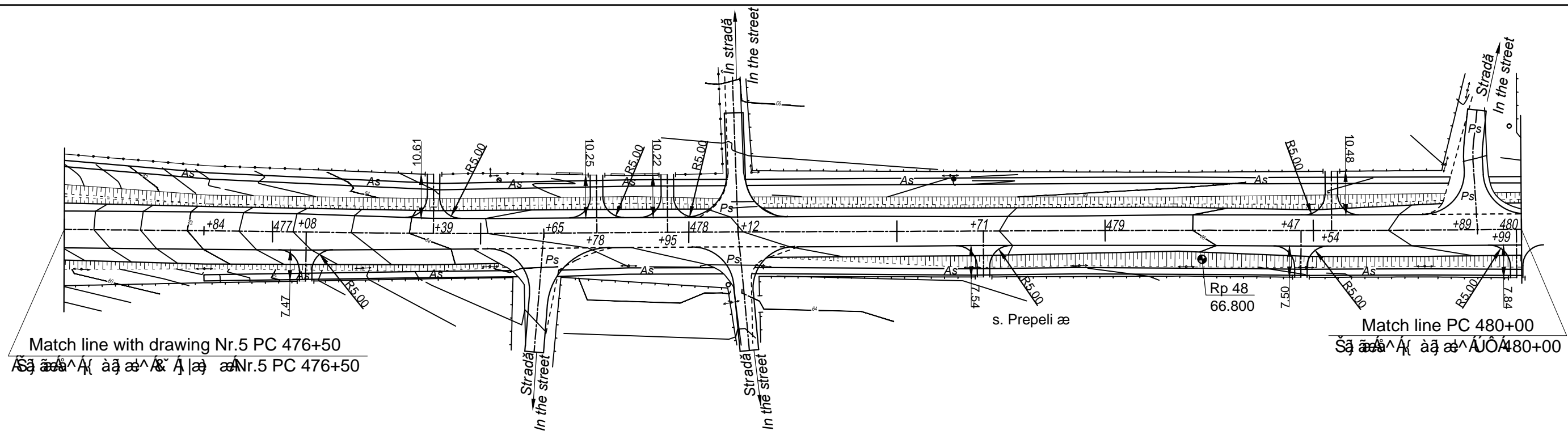
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World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
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World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme	Support	Project		
Roughton International Universcons	Rehabilitation of R14 Road B nkU t vpk		ISP	S.Bogza	Date	03.2012
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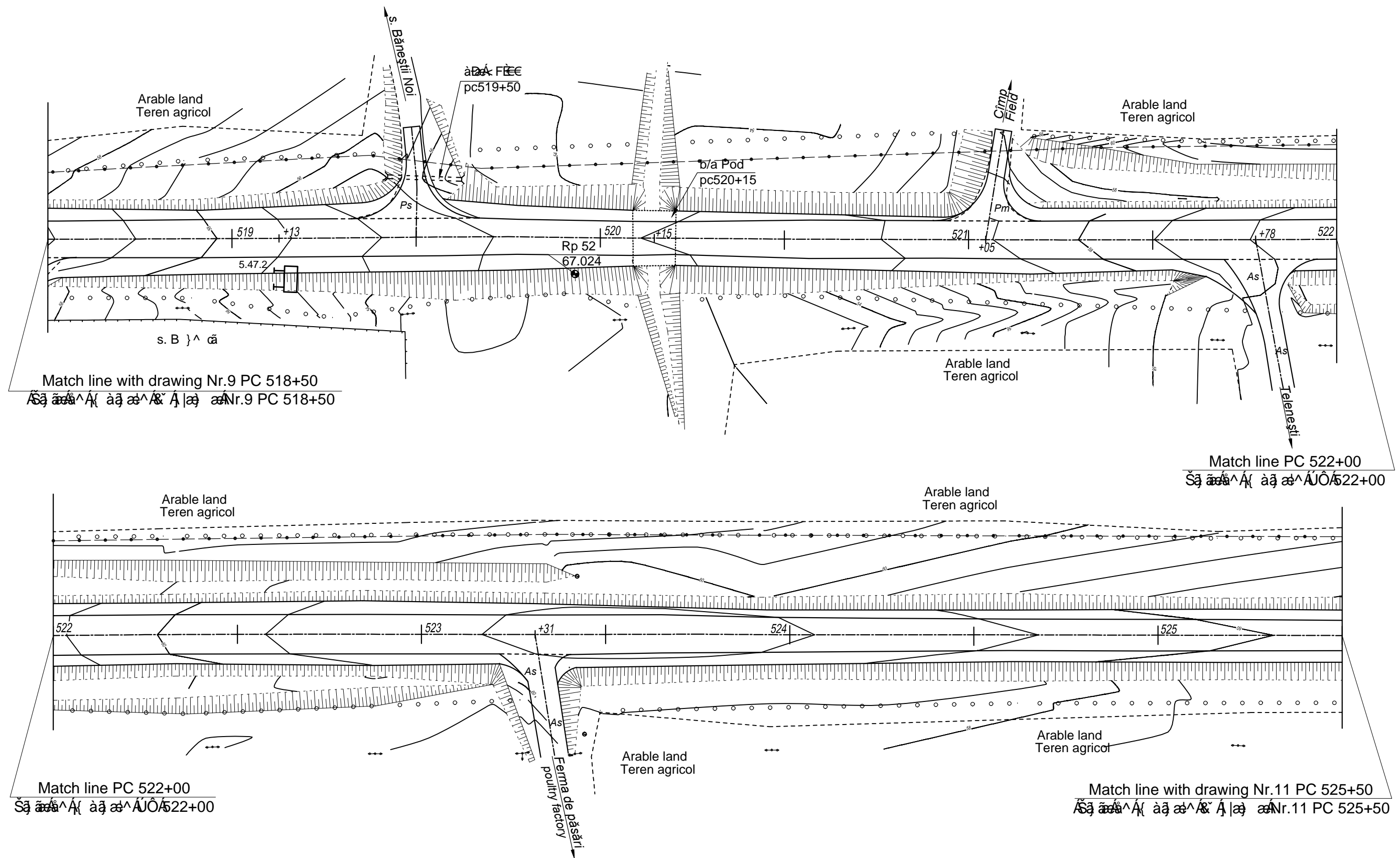
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International	Rehabilitation of R14 Road B nkU t vpk	ISP	S.Bogza		Date	03.2012
Universcons	Road plan PC 476+50-487+00 Plan drum PC 476+50-487+00	Designed	A.Gonciaruc		Scale	1:1000
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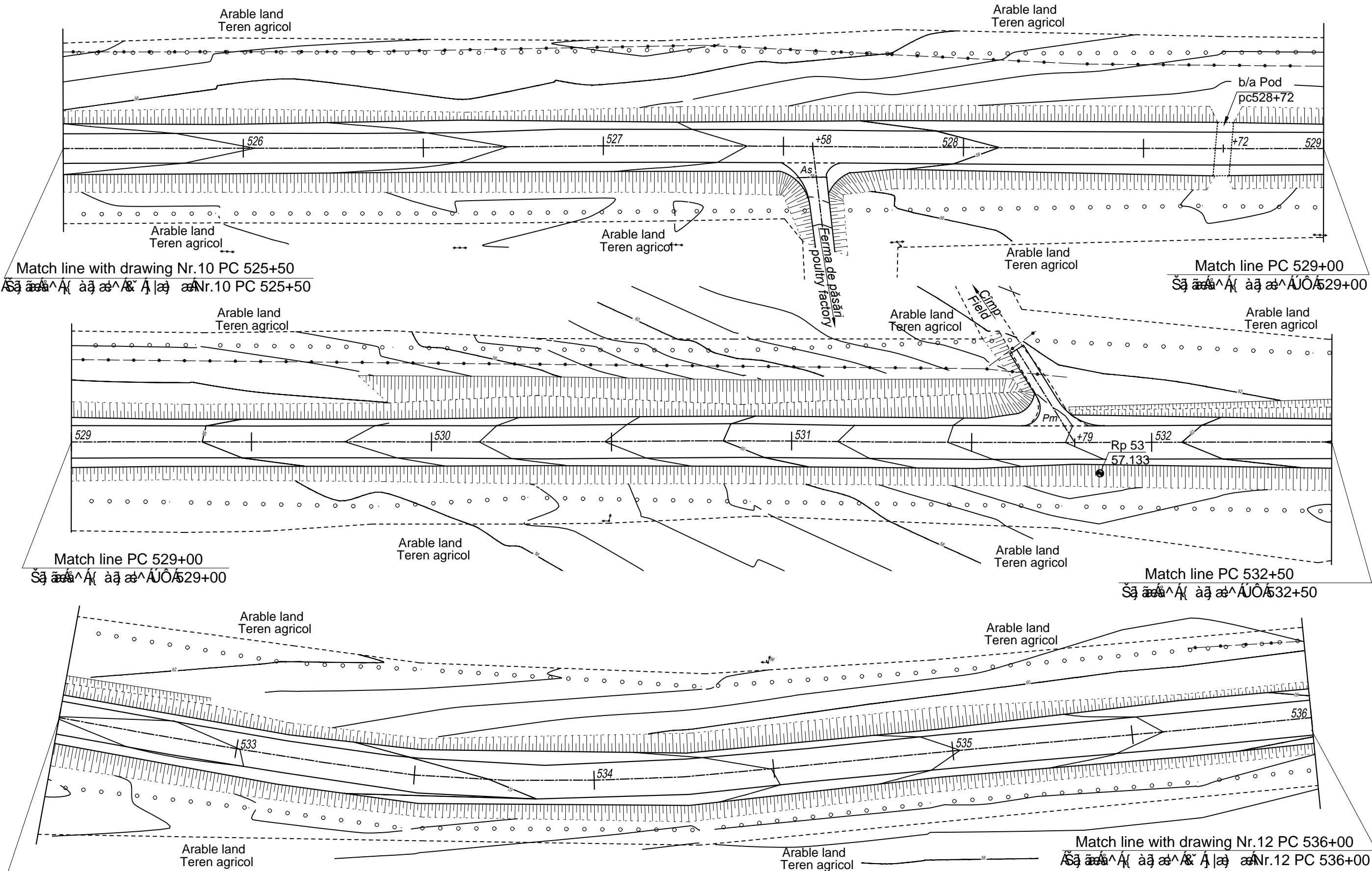






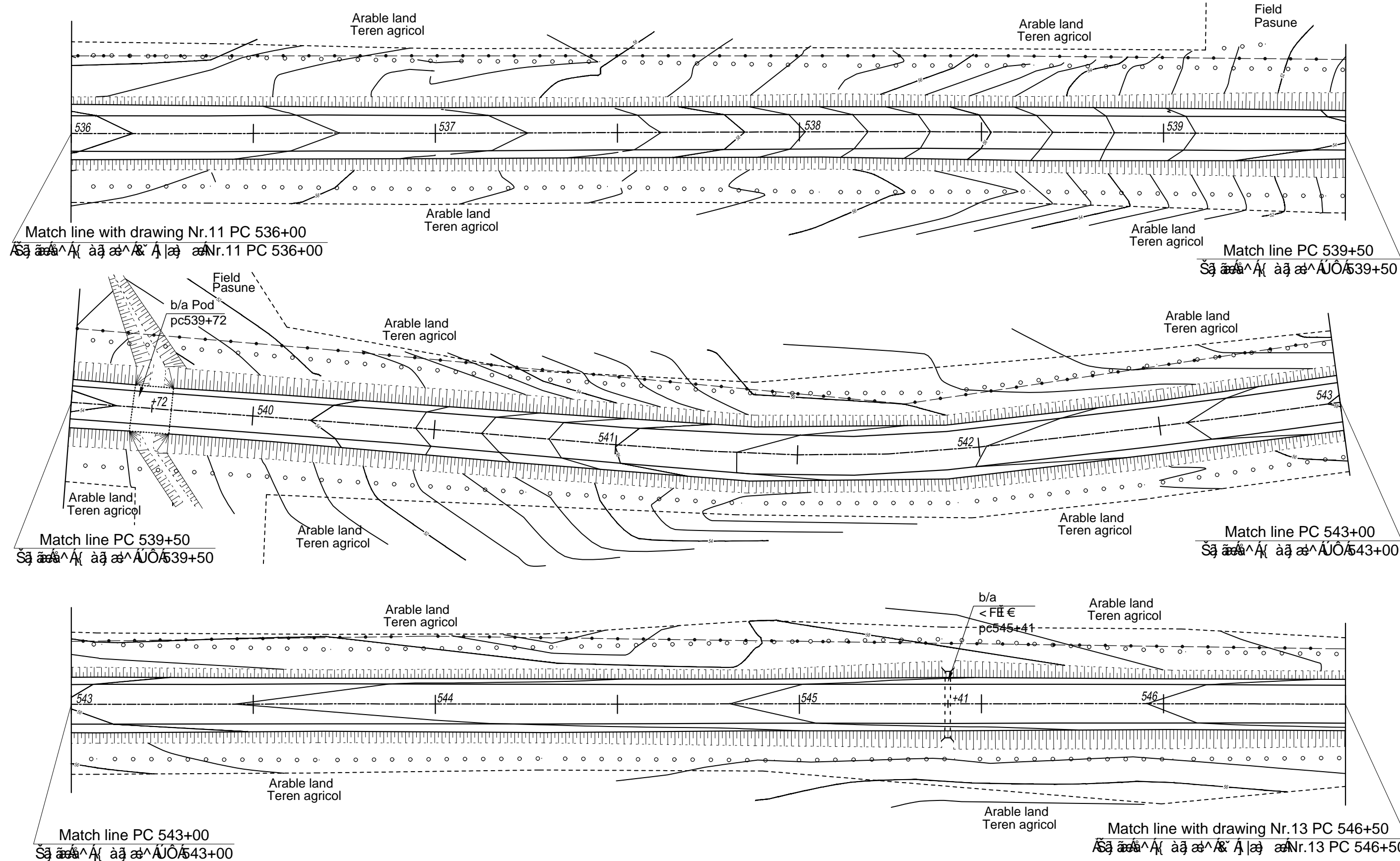


World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
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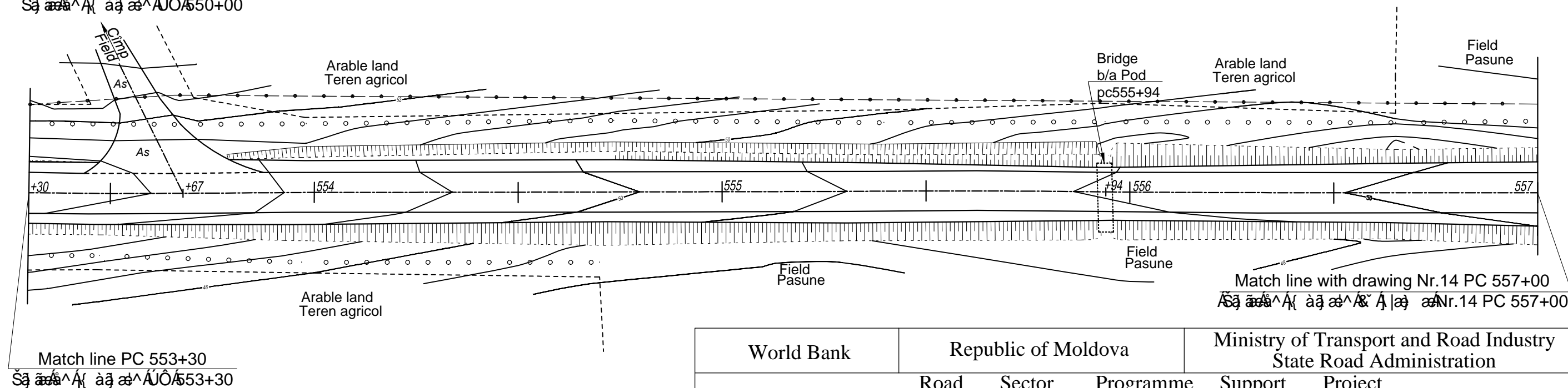
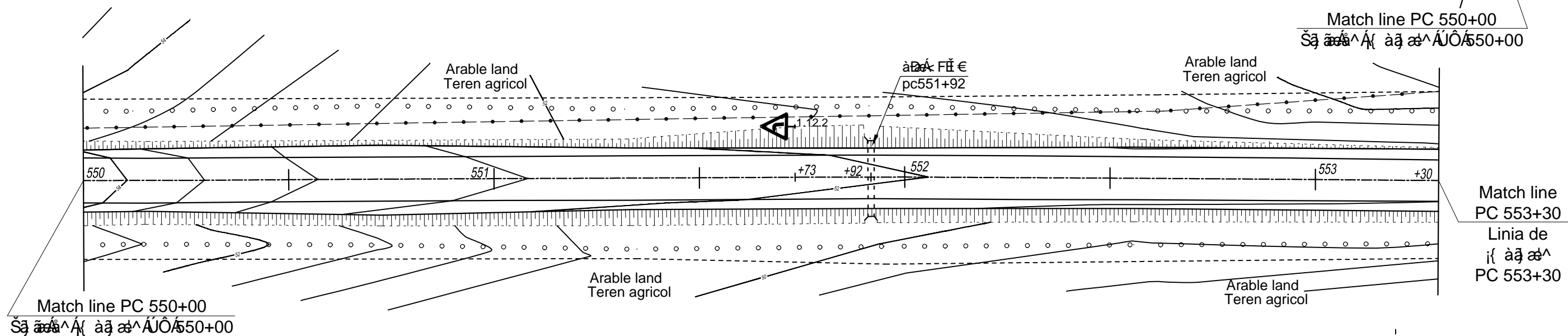
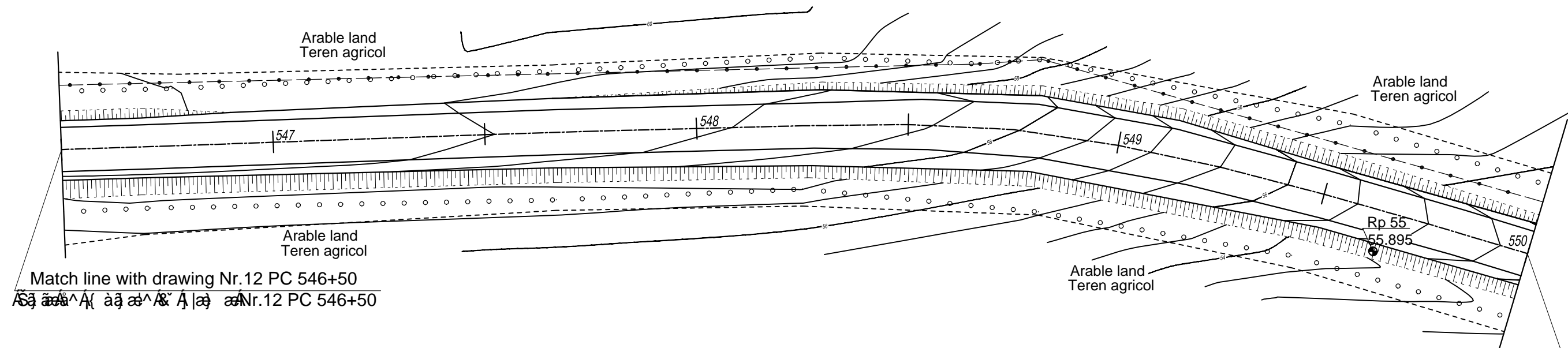


Match line PC 532+50  
Să se încheie cu desenul Nr.12 PC 536+00

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road B n k U t v g p k	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:1000	
Universcons	Drawing title Road plan PC 525+50-536+00 Plan drum PC 525+50-536+00	Checked	N.Tcaci		Drawing PD-DA 11		
		Control STAS	L.Pozdirca				

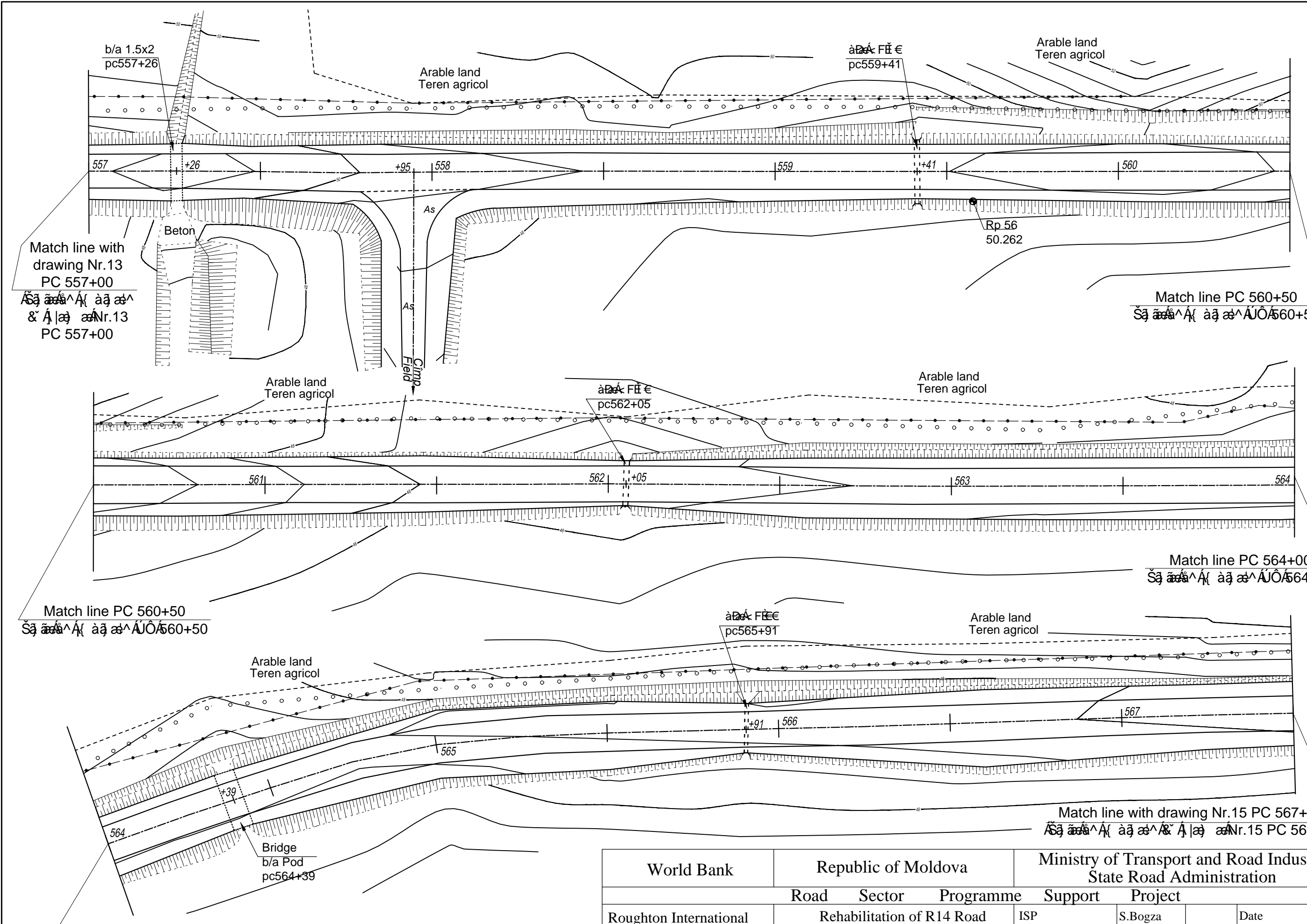


World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road B nkU t vpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:1000	
Universcons	Drawing title Road plan PC 536+00-546+50 Plan drum PC 536+00-546+50	Checked	N.Tcaci		Drawing PD-DA 12		
		Control STAS	L.Pozdirca				



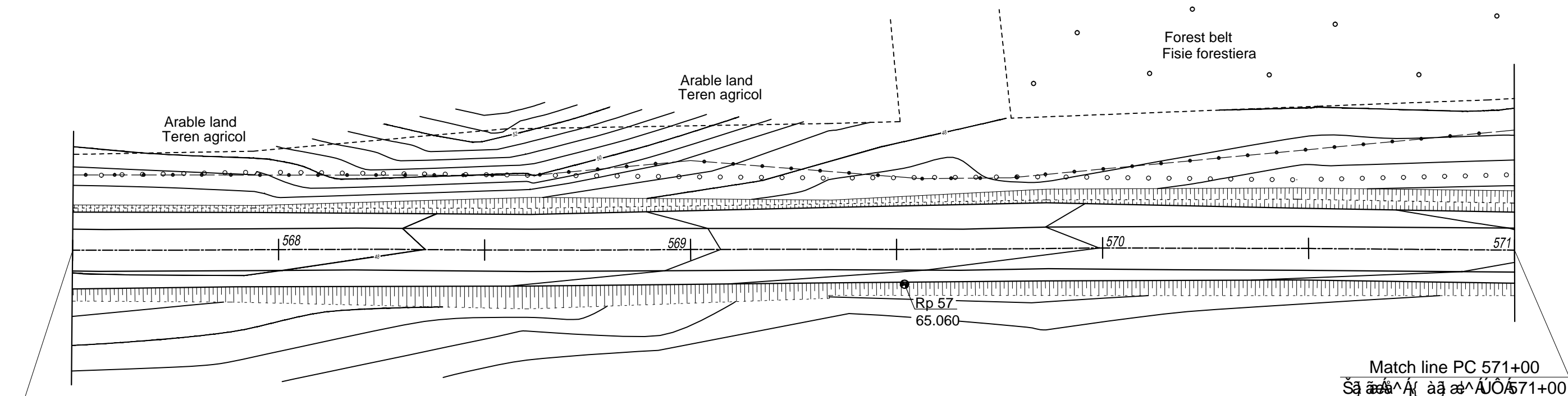
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International	Rehabilitation of R14 Road	ISP	S.Bogza		Date	03.2012
Universcons	B nkU t vpk	Designed	A.Gonciaruc		Scale	1:1000
	Drawing title	Checked	N.Tcaci		Drawing PD-DA 13	
	Road plan PC 546+50-557+00 Plan drum PC 546+50-557+00	Control STAS	L.Pozdirca			





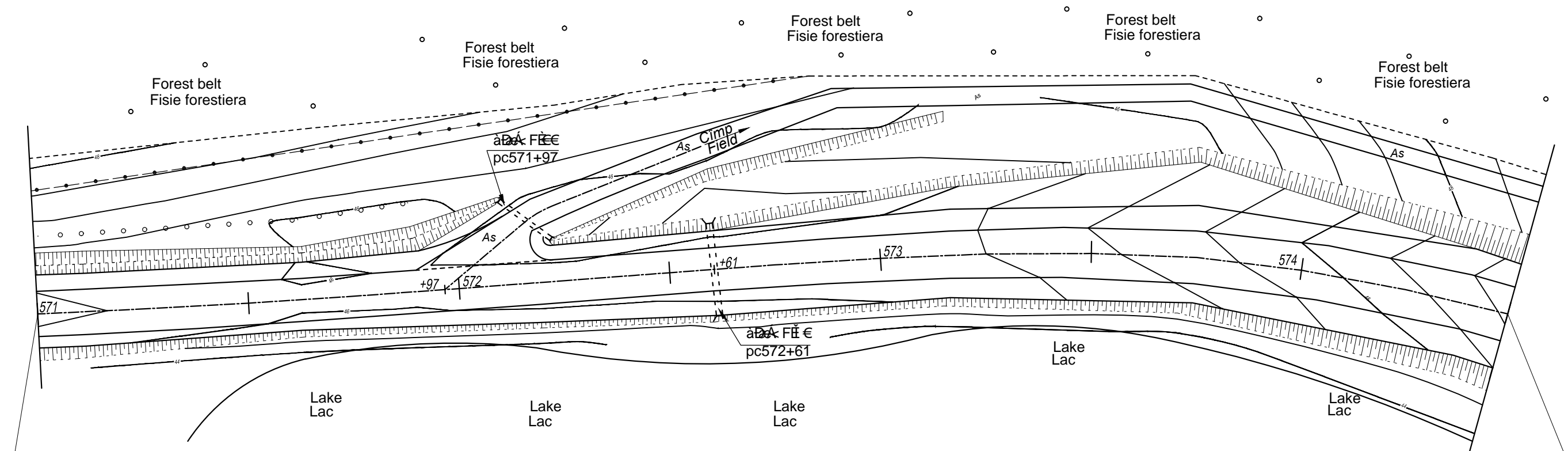
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road B nkU t vpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:1000	
Universcons	Drawing title Road plan PC 557+00-567+50 Plan drum PC 557+00-567+50	Checked	N.Tcaci		Drawing PD-DA 14		
		Control STAS	L.Pozdirca				





Match line with drawing Nr.14 PC 567+50  
Să se încheie cu desenul Nr.14 PC 567+50

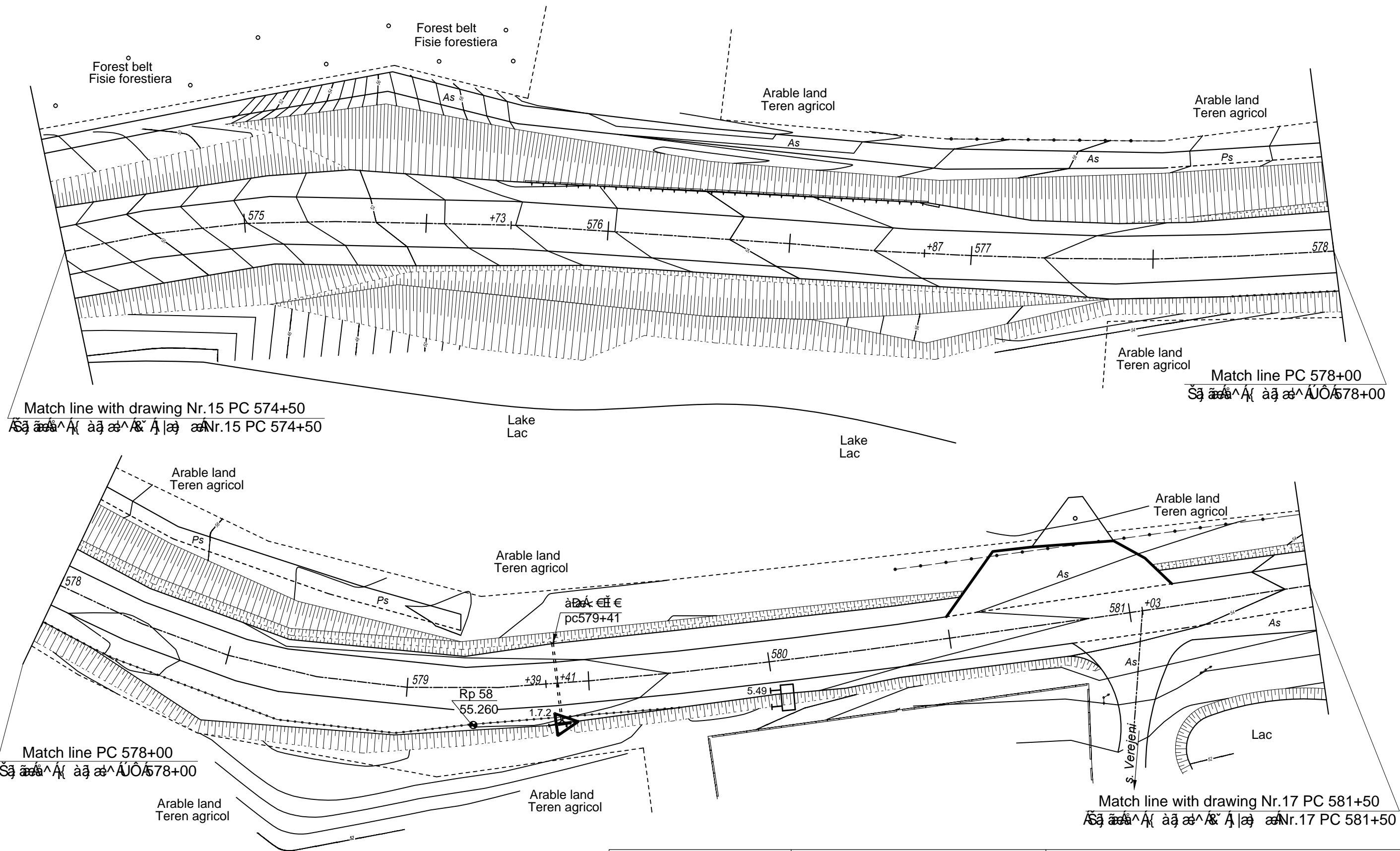
Match line PC 571+00  
Să se încheie cu desenul PC 571+00



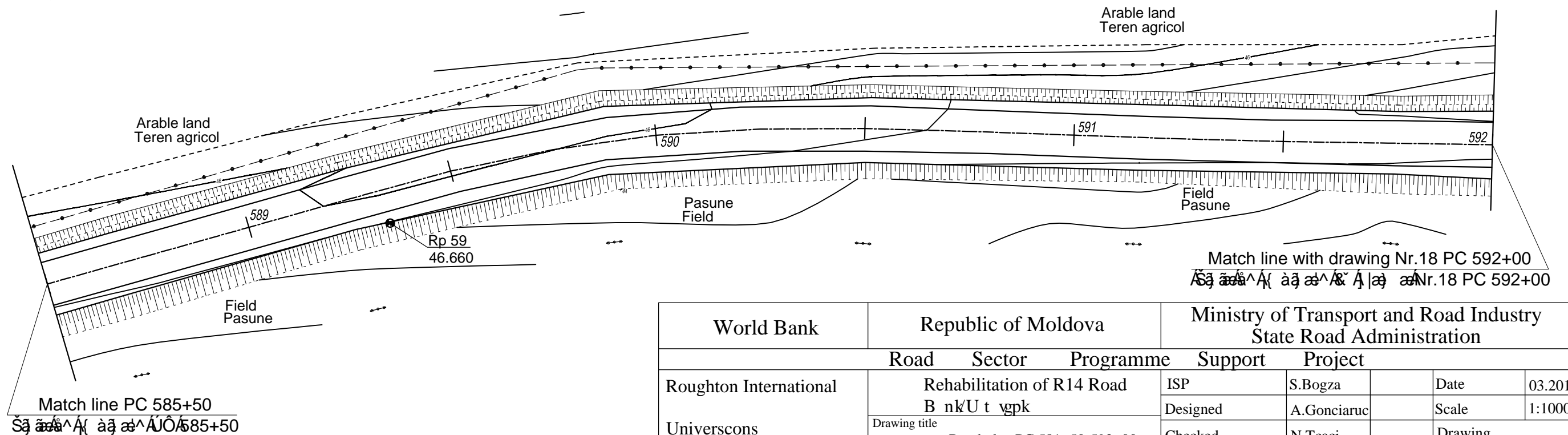
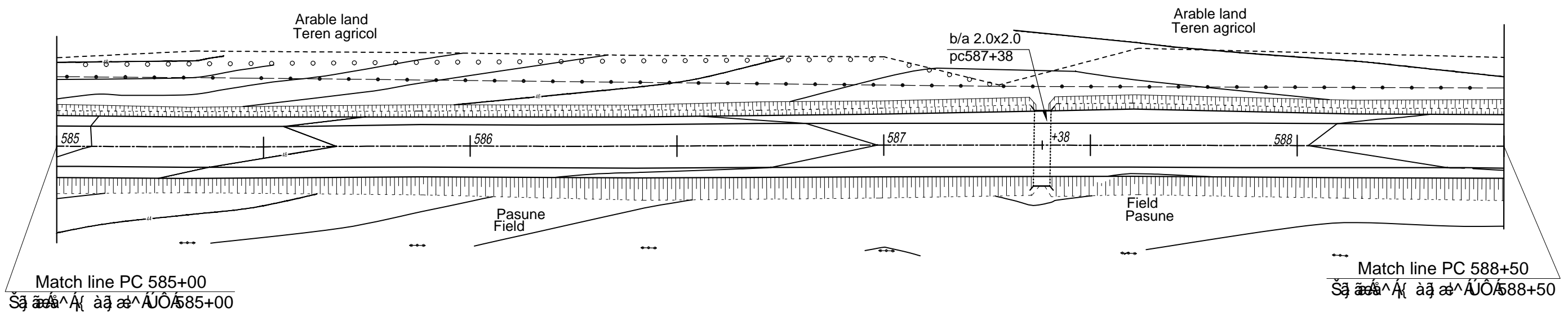
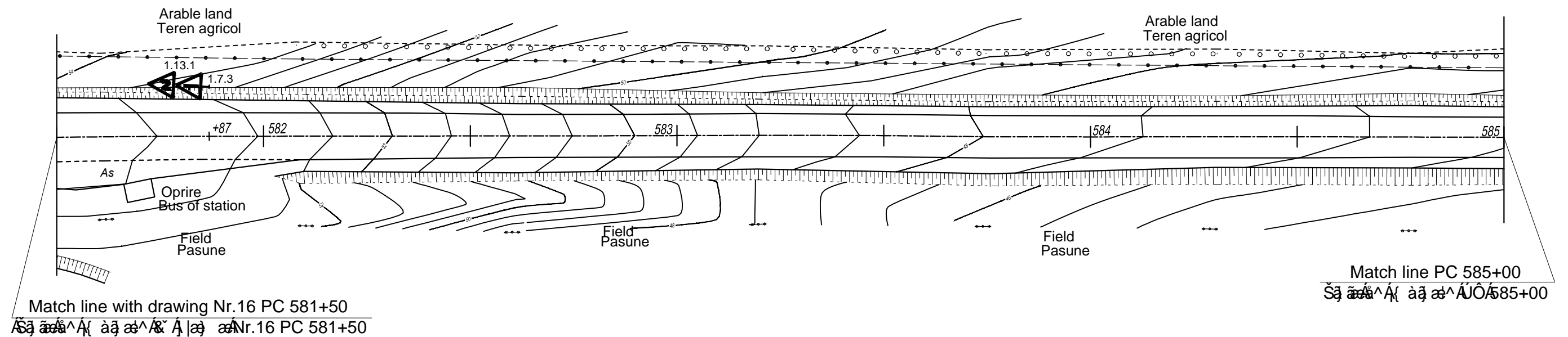
Match line PC 571+00  
Să se încheie cu desenul PC 571+00

Match line with drawing Nr.16 PC 574+50  
Să se încheie cu desenul Nr.16 PC 574+50

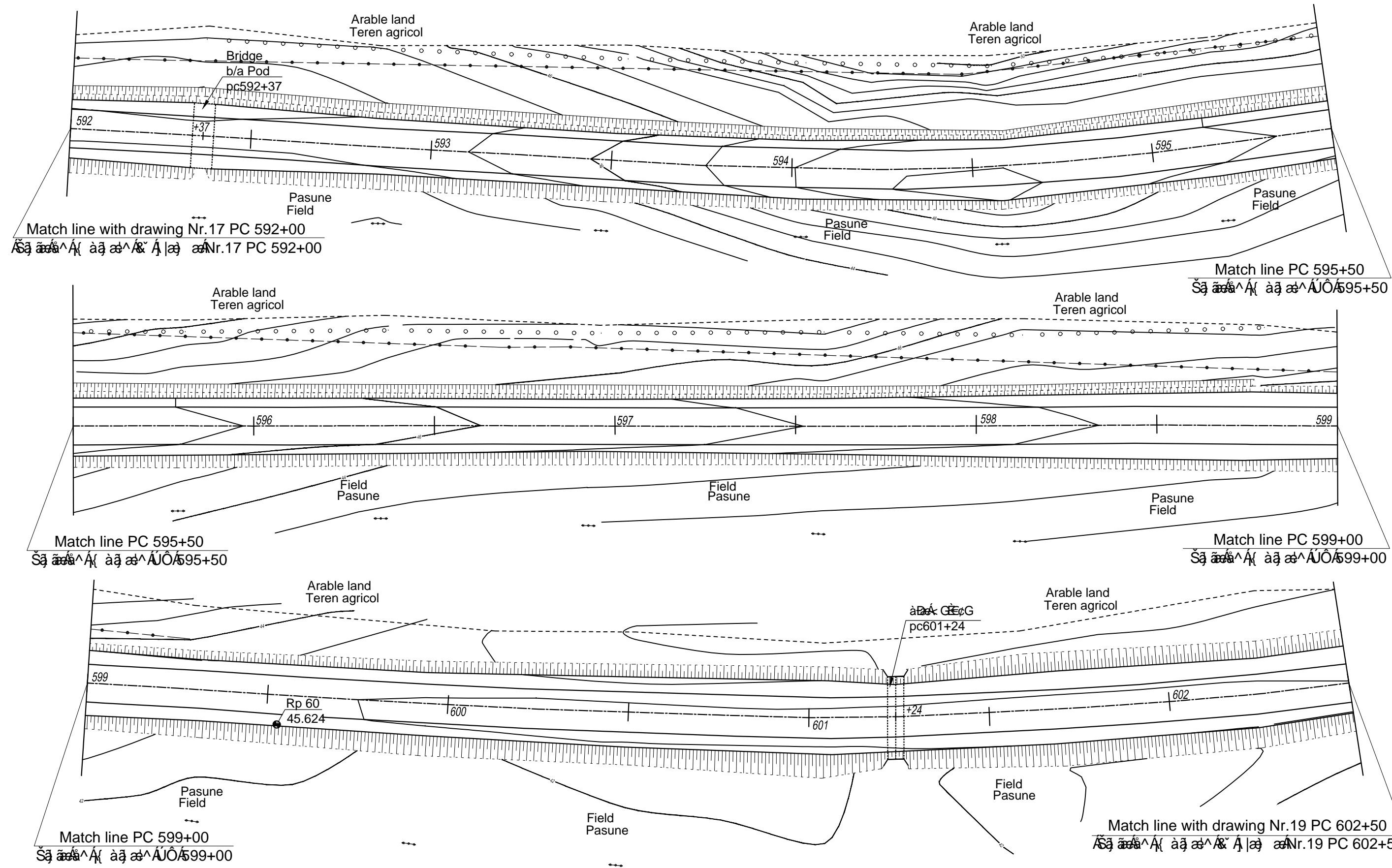
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road B nk/U t vpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:1000	
Universcons	Drawing title Road plan PC 567+50-574+50 Plan drum PC 567+50-574+50	Checked	N.Tcaci		Drawing PD-DA 15		
		Control STAS	L.Pozdirca				



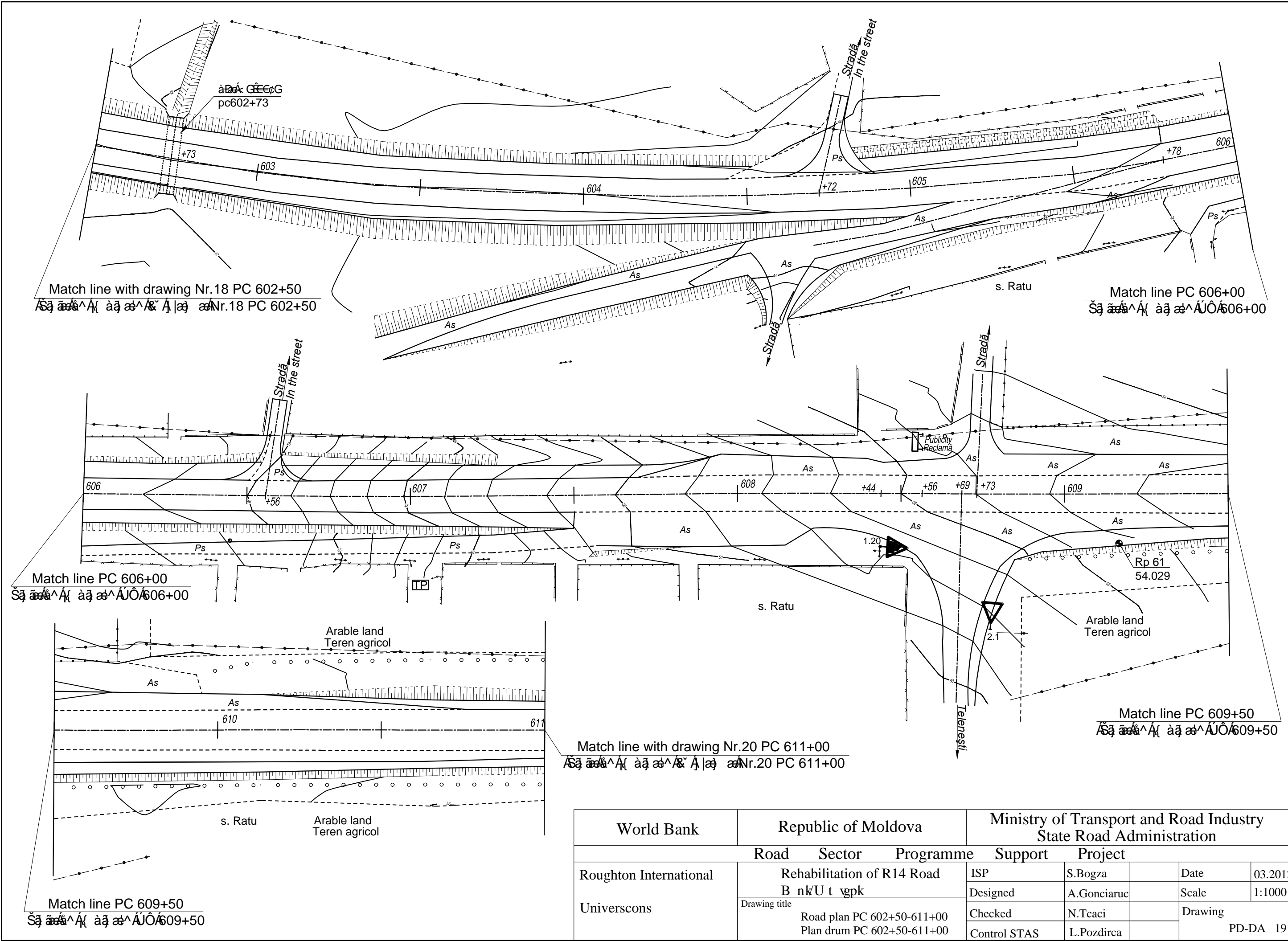
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road B nk/U t vpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:1000	
Universcons	Drawing title Road plan PC 574+50-581+50 Plan drum PC 574+50-581+50	Checked	N.Tcaci		Drawing PD-DA 16		
		Control STAS	L.Pozdirca				

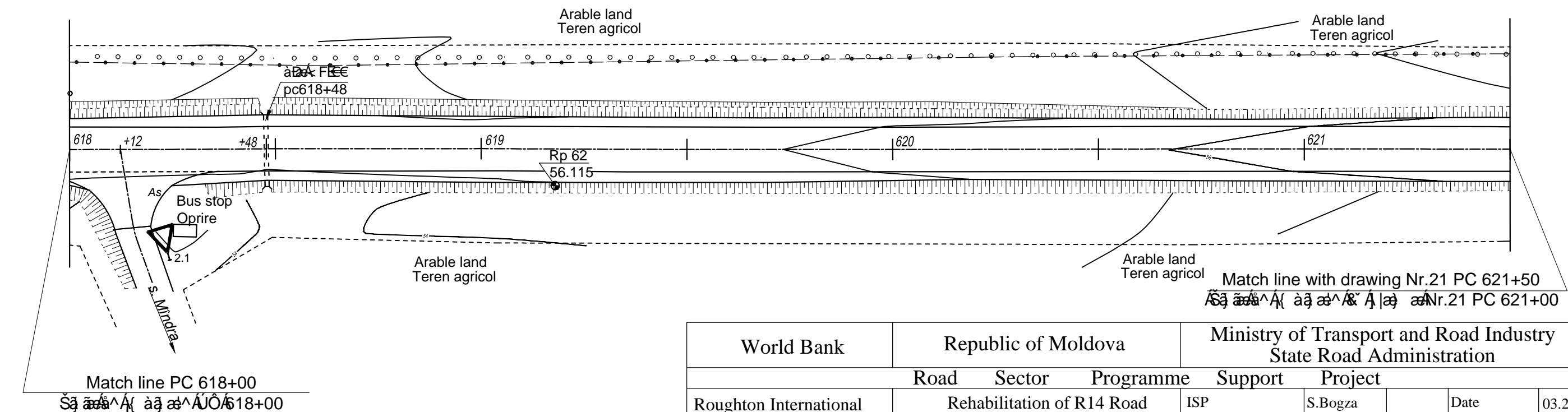
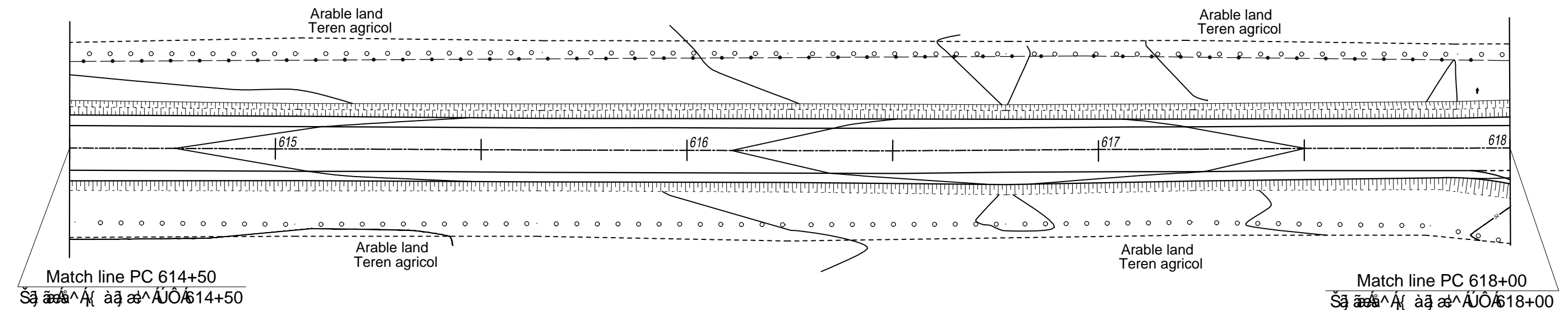
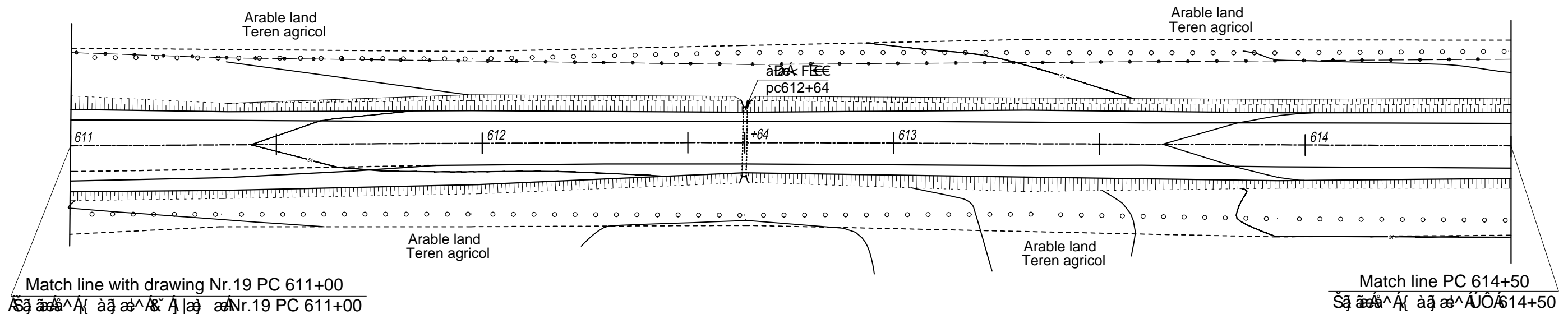


World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International  Universcons	Rehabilitation of R14 Road B nkU t vpk Road plan PC 581+50-592+00 Plan drum PC 581+50-592+00	ISP	S.Bogza		Date	03.2012
		Designed	A.Gonciaruc		Scale	1:1000
		Checked	N.Tcaci		Drawing PD-DA 17	
		Control STAS	L.Pozdirca			

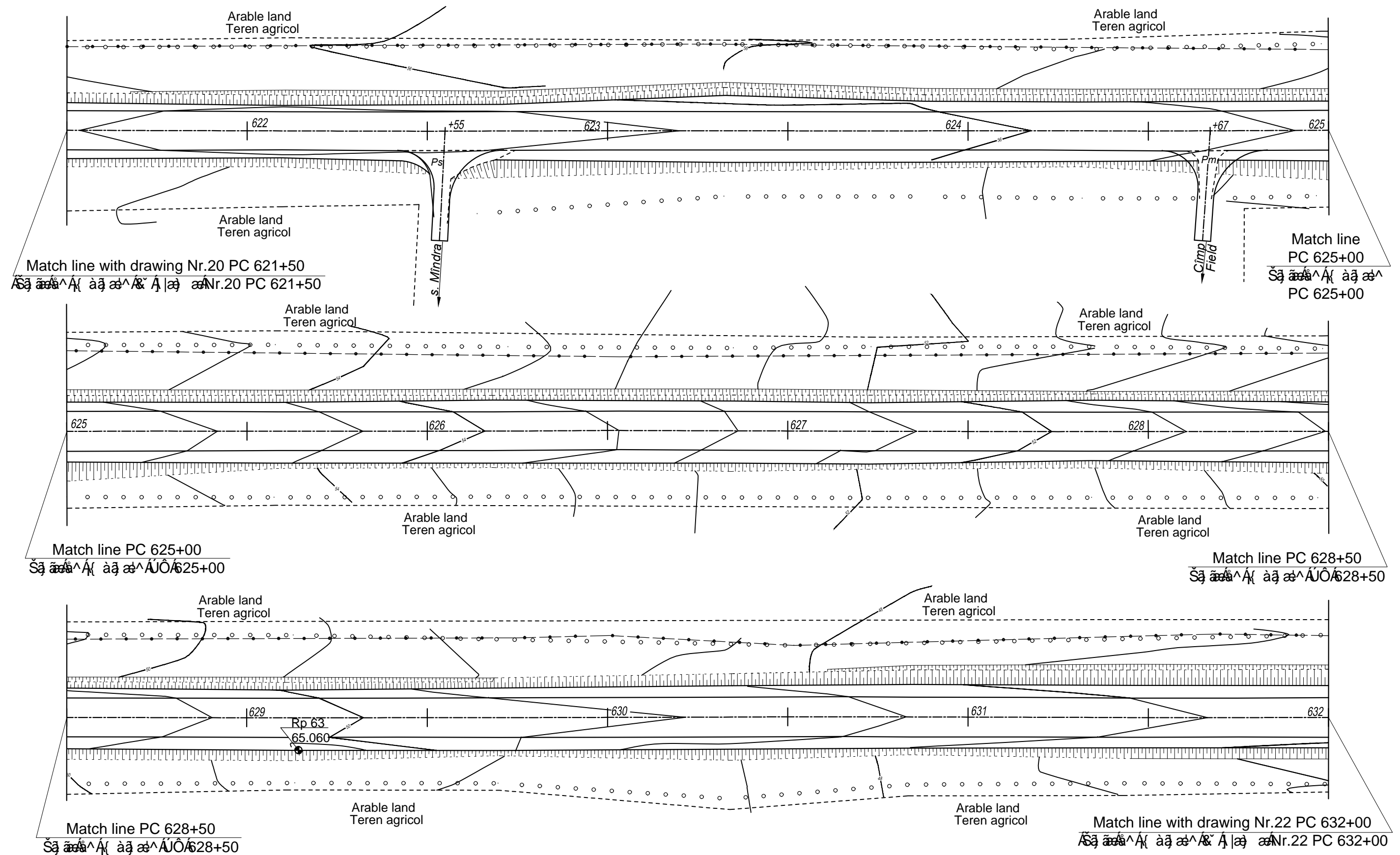


World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road B nkU t vpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:1000	
Universcons	Drawing title Road plan PC 592+00-602+50 Plan drum PC 592+00-602+50	Checked	N.Tcaci		Drawing PD-DA 18		
		Control STAS	L.Pozdirca				

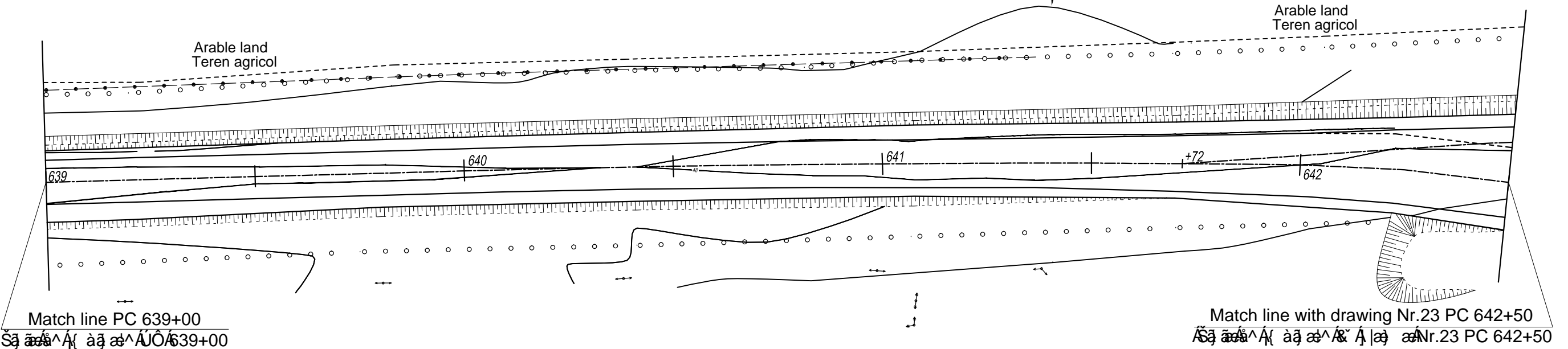
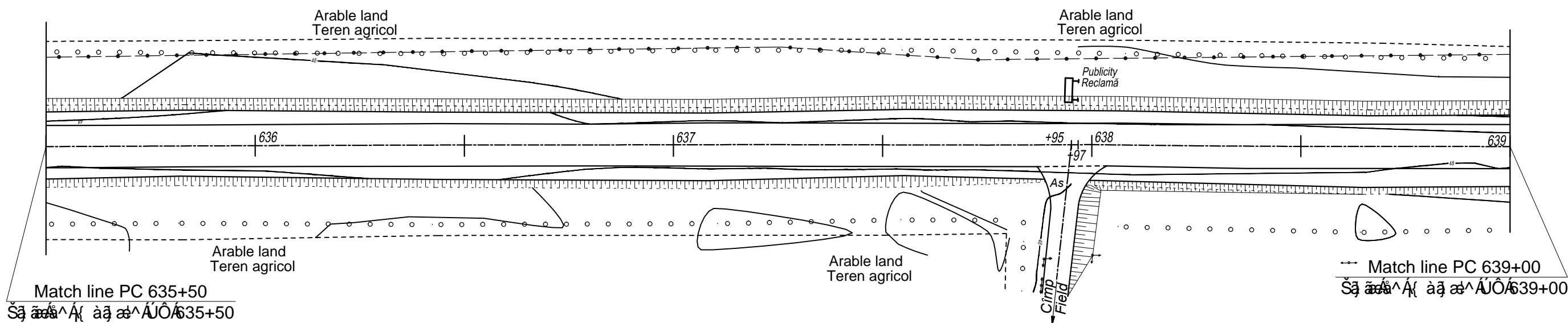
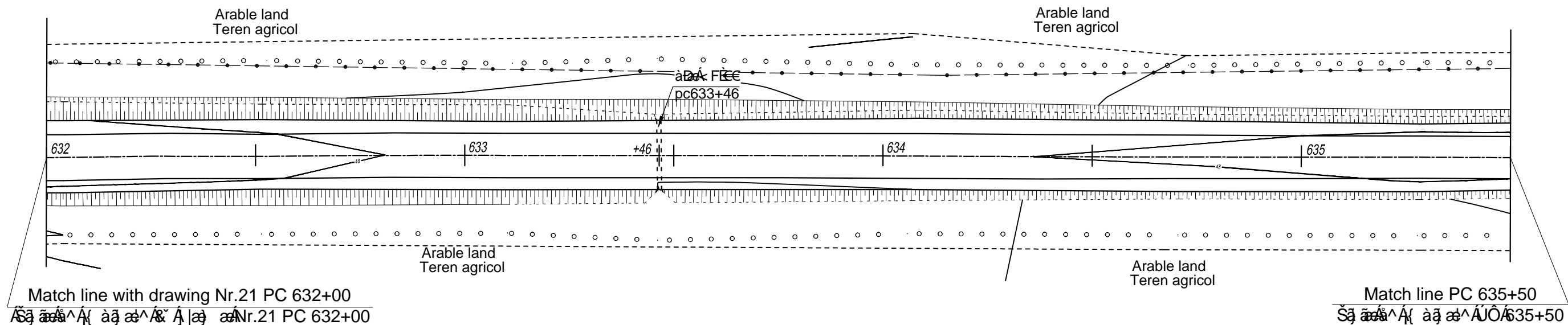




World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road B nkU t vpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:1000	
	Drawing title  Road plan PC 611+00-621+50 Plan drum PC 611+00-621+50	Checked	N.Tcaci		Drawing  PD-DA 20		
		Control STAS	L.Pozdirca				



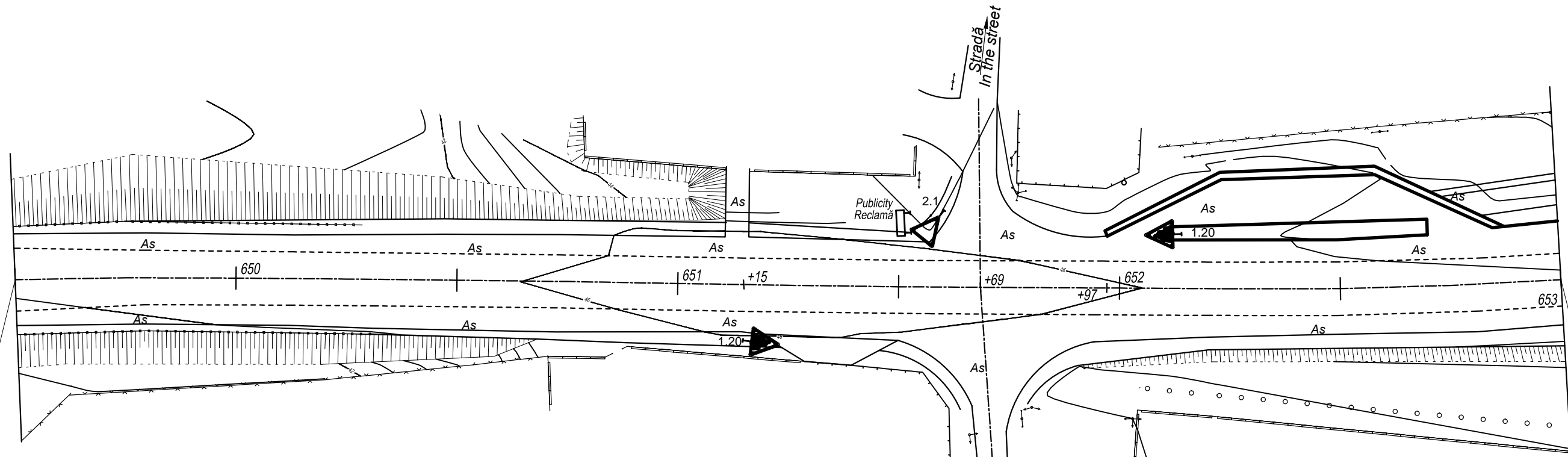
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road B nk/U t vpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:1000	
Universcons	Drawing title Road plan PC 621+50-632+00 Plan drum PC 621+50-632+00	Checked	N.Tcaci		Drawing PD-DA 21		
		Control STAS	L.Pozdirca				



World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International  Universcons	Rehabilitation of R14 Road B nkU t vpk		ISP	S.Bogza		Date	03.2012
			Designed	A.Gonciaruc		Scale	1:1000
	Drawing title Road plan PC 632+00-642+50 Plan drum PC 632+00-642+50		Checked	N.Tcaci		Drawing PD-DA 22	
			Control STAS	L.Pozdirca			

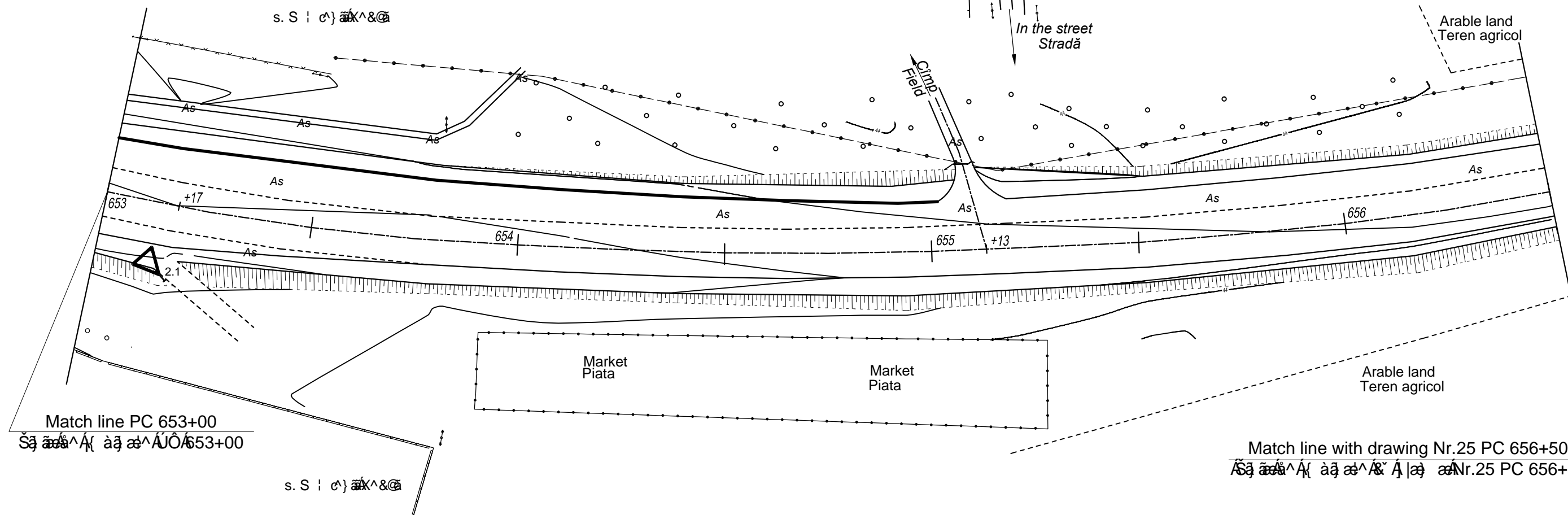






Match line with drawing Nr.23 PC 649+50  
 Să se încheie cu desenul Nr.23 PC 649+50

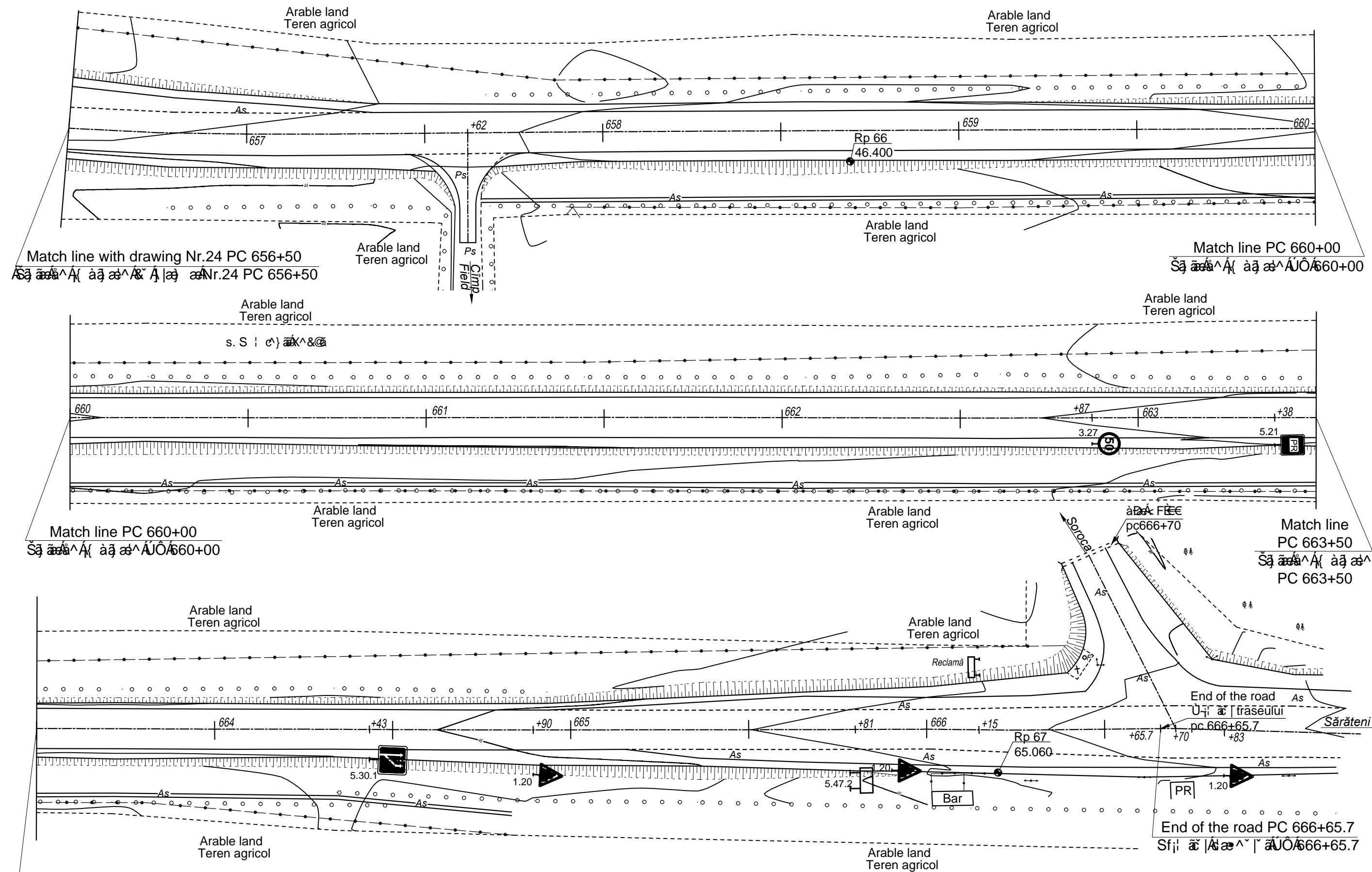
Match line PC 653+00  
 Să se încheie cu desenul PC 653+00



Match line PC 653+00  
 Să se încheie cu desenul PC 653+00

Match line with drawing Nr.25 PC 656+50  
 Să se încheie cu desenul Nr.25 PC 656+50

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road B nkU t vpk  Road plan PC 649+50-656+50 Plan drum PC 649+50-656+50	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:1000	
		Checked	N.Tcaci		Drawing PD-DA 24		
		Control STAS	L.Pozdirca				



Match line with drawing Nr.24 PC 656+50  
Să se aștepte la următorul desen

Match line PC 660+00  
Să se aștepte la următorul desen

Match line PC 660+00  
Să se aștepte la următorul desen

Match line PC 663+50  
Să se aștepte la următorul desen

Match line PC 663+50  
Să se aștepte la următorul desen

End of the road PC 666+65.7  
Sfârșitul drumului

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road B nkU t v g p k		ISP	S.Bogza		Date	03.2012
			Designed	A.Gonciaruc		Scale	1:1000
Universcons	Drawing title Road plan PC 656+50-666+65.7 Plan drum PC 656+50-666+65.7		Checked	N.Tcaci		Drawing PD-DA 25	
			Control STAS	L.Pozdirca			









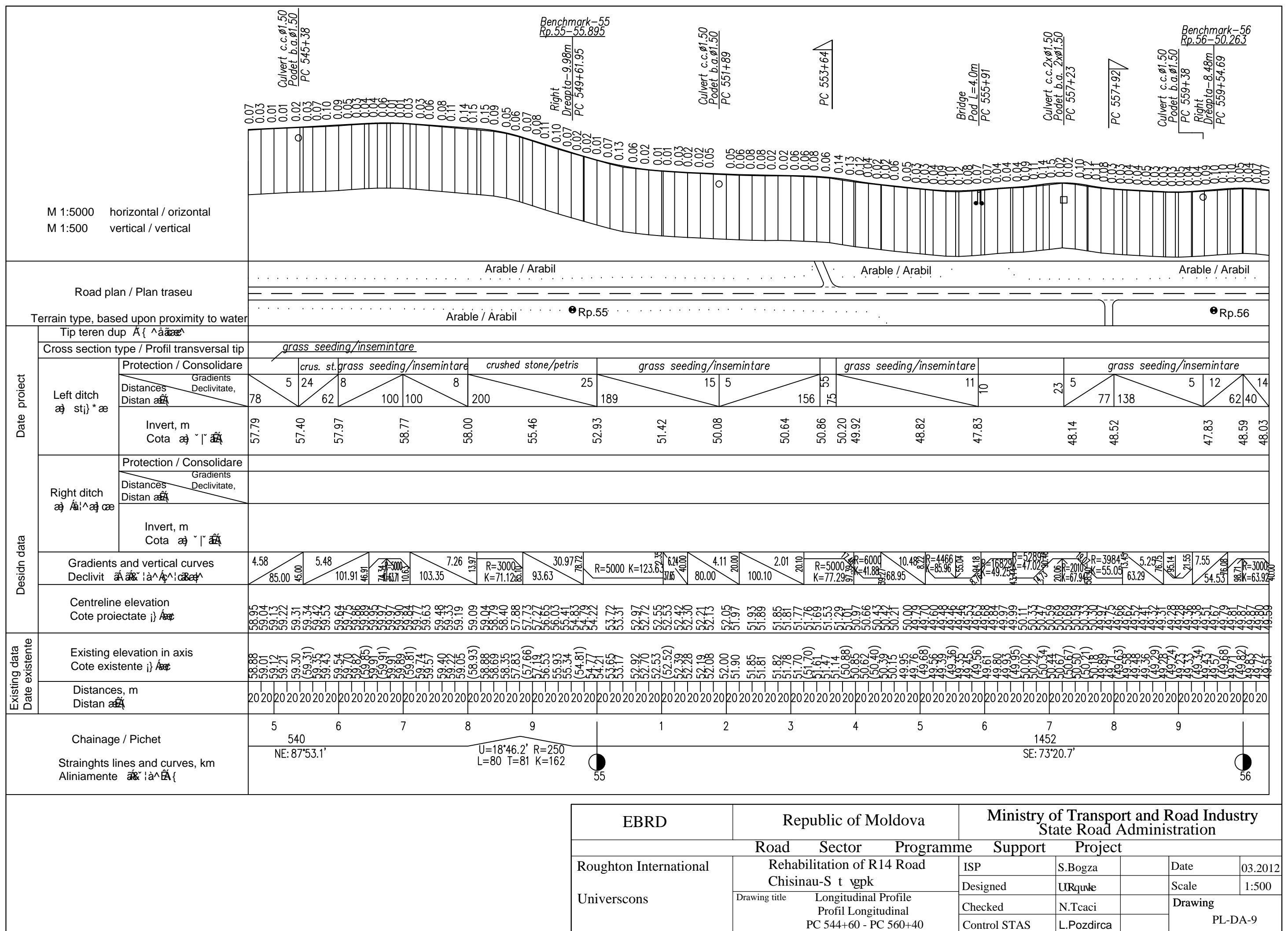






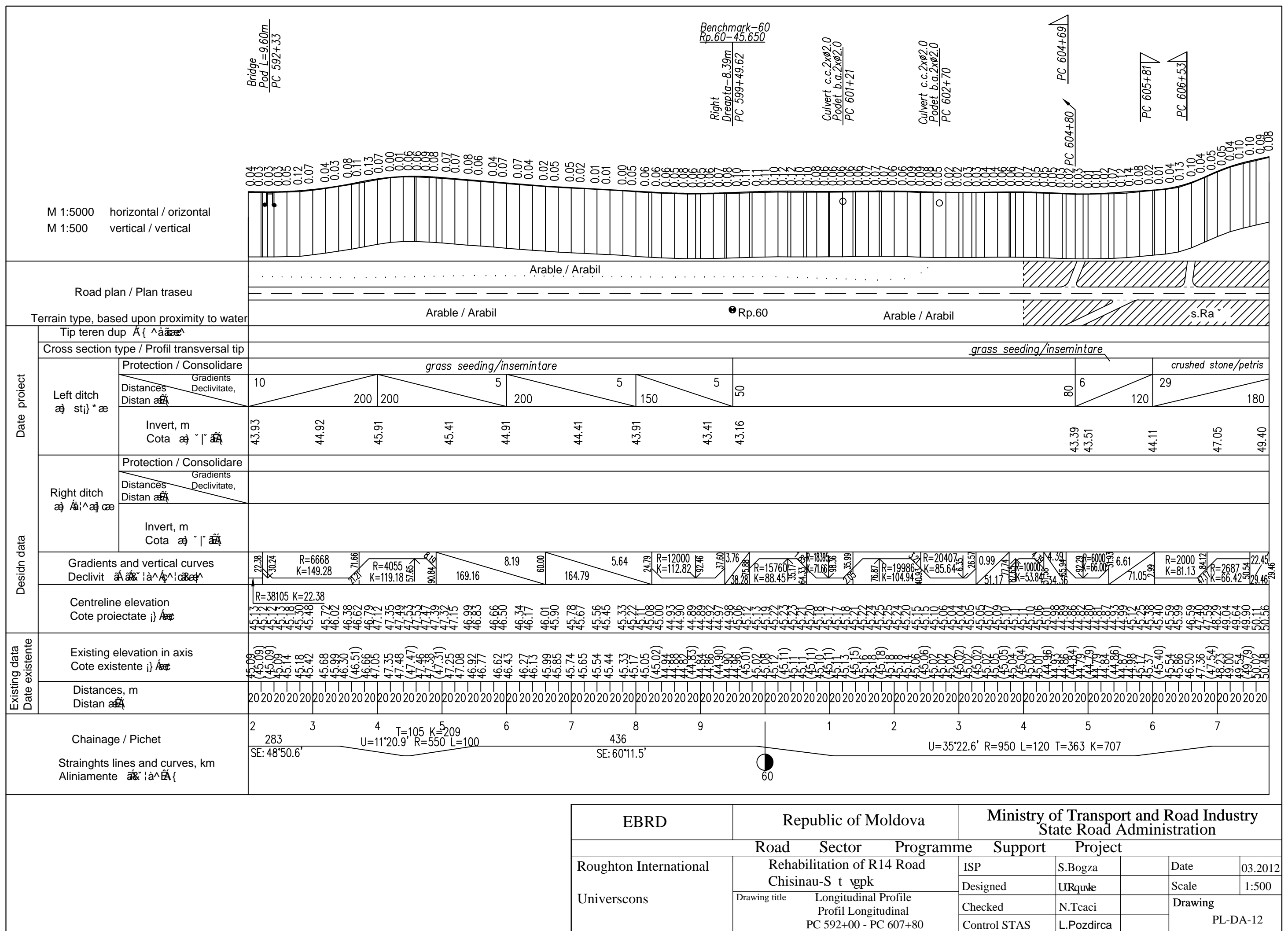






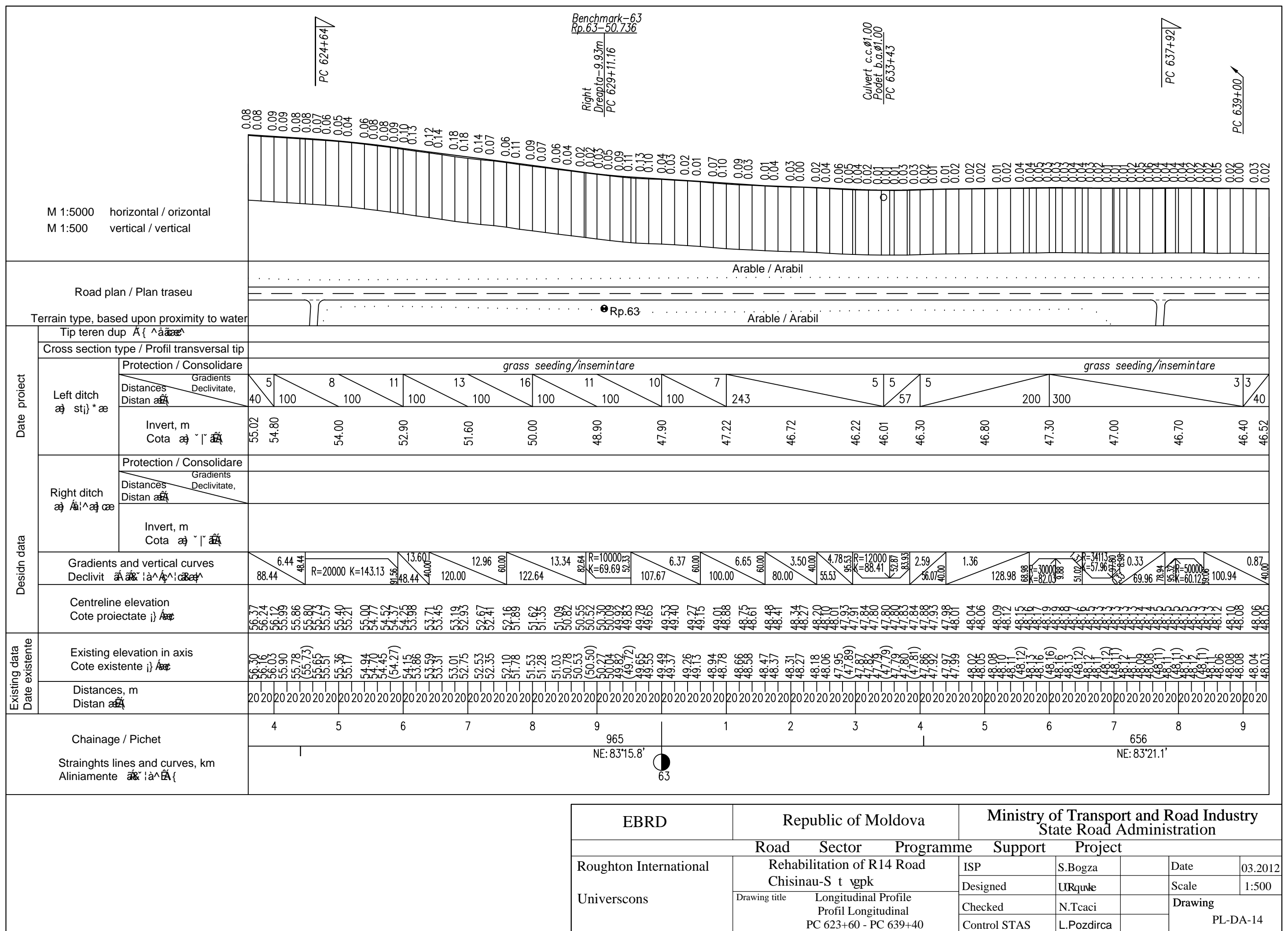




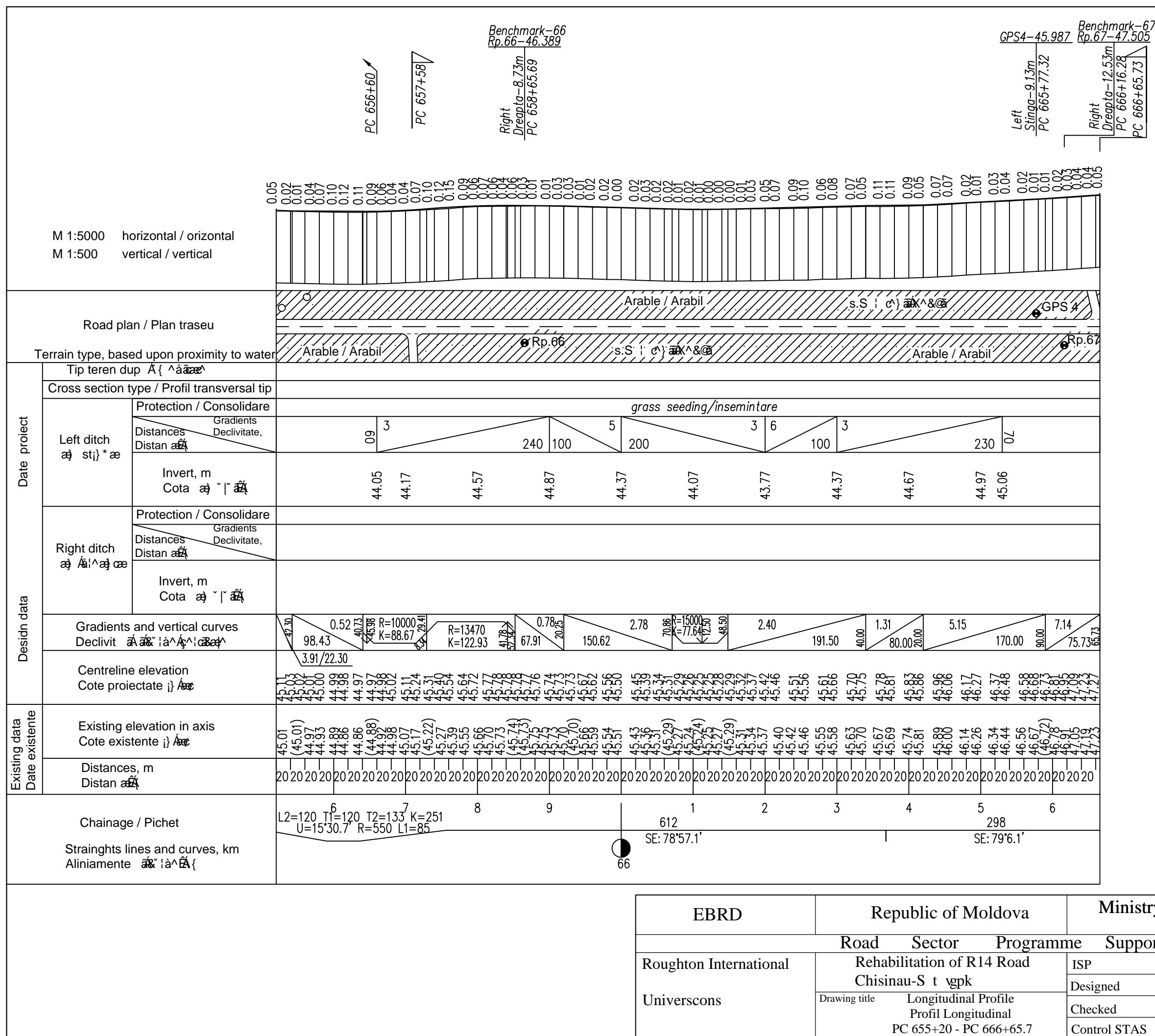




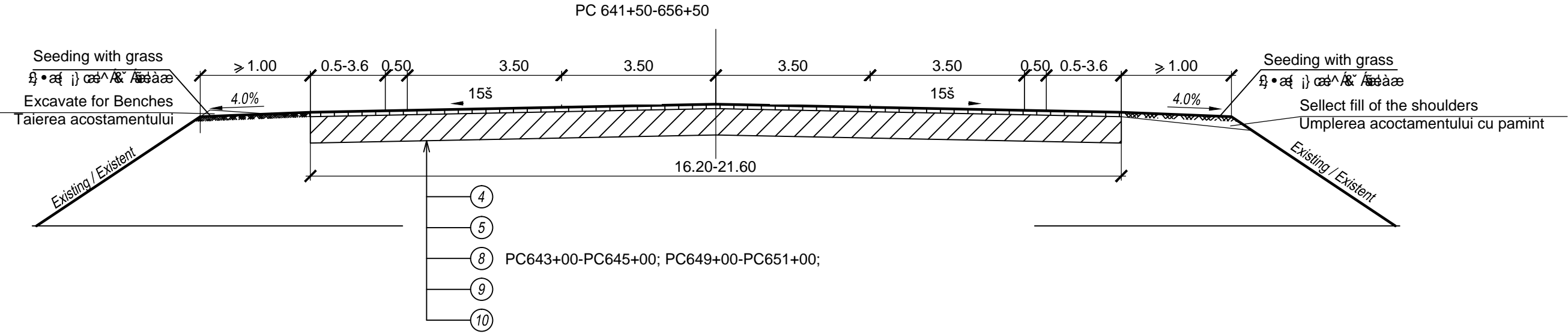






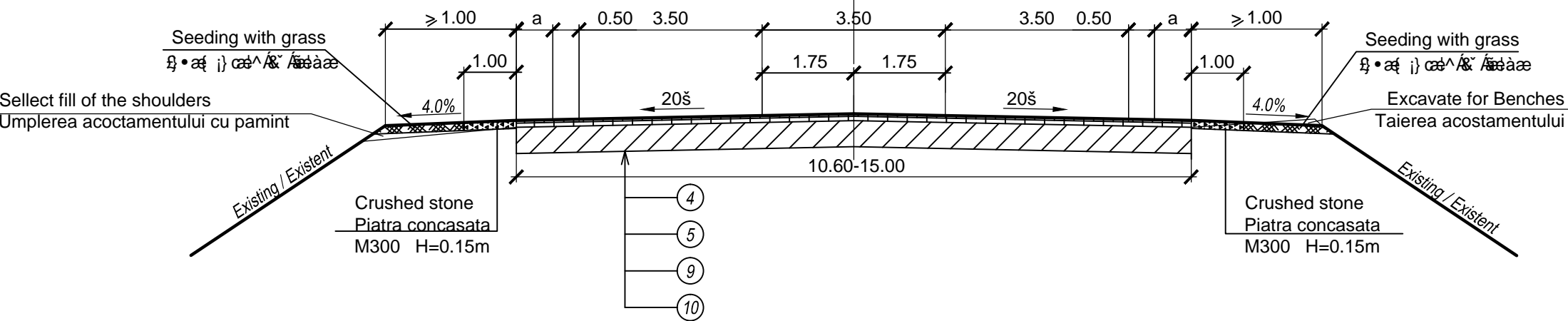


TYPICAL CROSS SECTION  
PROFIL TRANSVERSAL TIP I



TYPICAL CROSS SECTION  
PROFIL TRANSVERSAL TIP II

PC573+80-PC577+70; PC607+72-PC611+75; PC656+50-PC660+00;

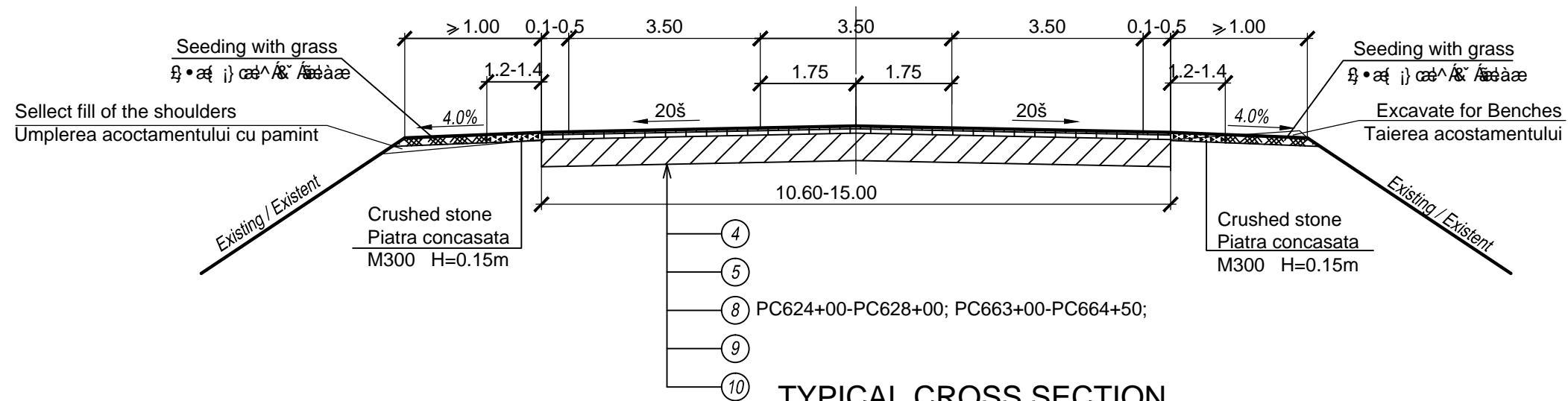


④ Sistem rutier existent	-0.40-0.88cm	Existing pavement
⑤ Egalizare cu beton asfaltic cu granulatie fina (mare) poros M1	- 3-13.5cm	Coarse grained porous asphalt concrete M1
⑧ Beton asfaltic cu granulatie fina poros M1	- 4cm	Fine grained porous asphalt concrete M1
⑨ Geocompozit PGM-G 50/50		Geocomposite PGM-G 50/50
⑩ Asfalt dens granulat fin tip A M1	- 4cm	Fine grained dense asphalt type A M1

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector		Programme	Support	Project			
Roughton International	Rehabilitation of R14 Road Balti-Sarateni	ISP	S.Bogza		Date	03.2012	
		Designed	V.Savciuc		Scale	1:100	
Universcons	Drawing title  Typical cross sections I, II Profile transversale tip I, II	Checked	N.Tcaci		Drawing  PTT-DA-1		
		Control STAS	L.Pozdirca				

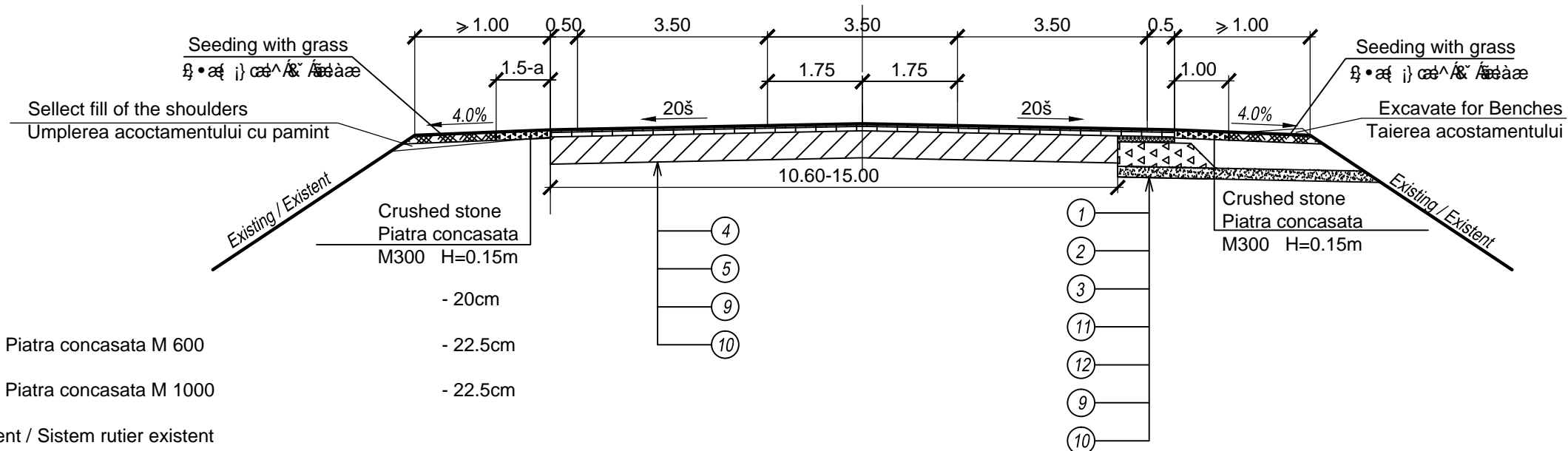
## TYPICAL CROSS SECTION PROFIL TRANSVERSAL TIP III

PC430+00-PC436+80; PC549+70-PC552+90;  
PC566+00-PC567+00; PC617+00-PC634+70;  
PC660+00-PC666+65.7;



## TYPICAL CROSS SECTION PROFIL TRANSVERSAL TIP IV

PC474+00-PC475+60; PC486+25-PC487+50; PC521+50-PC524+00;  
PC543+00-PC546+00; PC556+50-PC562+30; PC564+10-PC565+50;  
PC570+00-PC570+90; PC573+00-PC573+80; PC577+70-PC579+70;  
PC582+00-PC583+50; PC586+50-PC587+20; PC587+50-PC588+70;  
PC591+70-PC593+50; PC600+00-PC605+10; PC611+75-PC614+40;

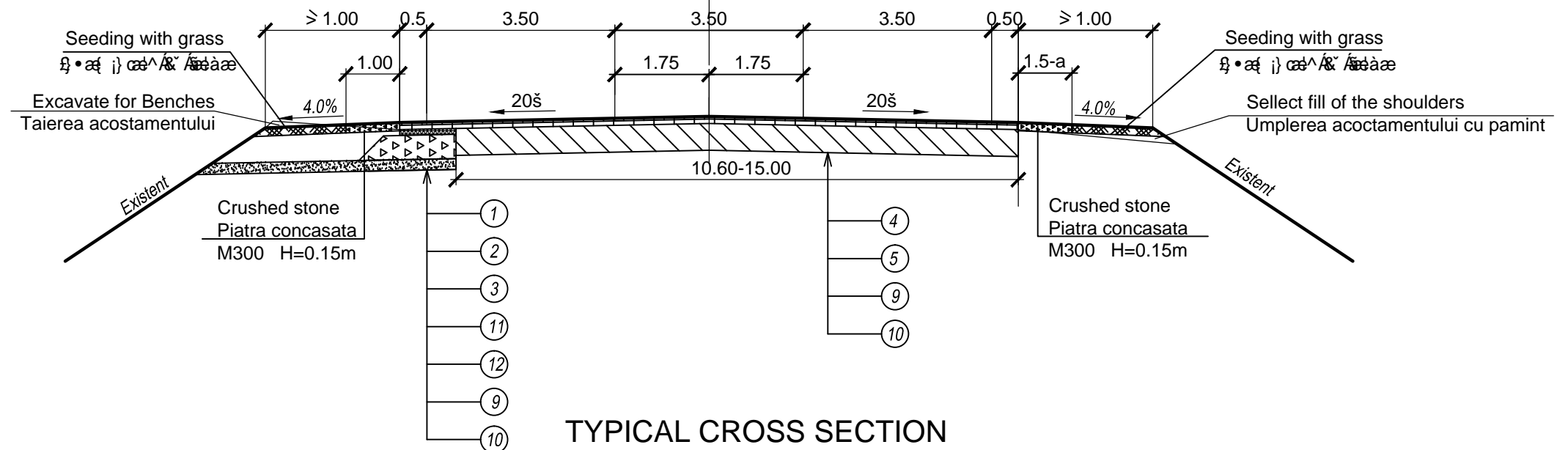


- ① Sand / Nisip - 20cm
- ② Crushed stone / Piatra concasata M 600 - 22.5cm
- ③ Crushed stone / Piatra concasata M 1000 - 22.5cm
- ④ Existing pavement / Sistem rutier existent
- ⑤ Coarse grained porous asphalt concrete M1 - 3 - 13.5cm  
Egalizare cu beton asfaltic cu granulatie fina (mare) poros M1
- ⑧ Coarse grained porous asphalt concrete M1 - 4cm  
Beton asfaltic cu granulatie mare poros M1
- ⑨ Geocompozit PGM-G 50/50
- ⑩ Fine grained asphalt concrete M1 - 4cm  
Beton asfaltic cu granulatie fina Tip A M1
- ⑪ Coarse grained porous asphalt concrete M1 - 8.5cm  
Beton asfaltic cu granulatie mare poros M1
- ⑫ Fine grained porous asphalt concrete M1 - 6cm  
Beton asfaltic cu granulatie fina poros M1

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road Balti-Sarateni	ISP	S.Bogza		Date	03.2012	
		Designed	V.Savciuc		Scale	1:100	
Universcons	Drawing title Typical cross sections III, IV Profile transversale tip III, IV	Checked	N.Tcaci		Drawing PTT-DA-2		
		Control STAS	L.Pozdirca				

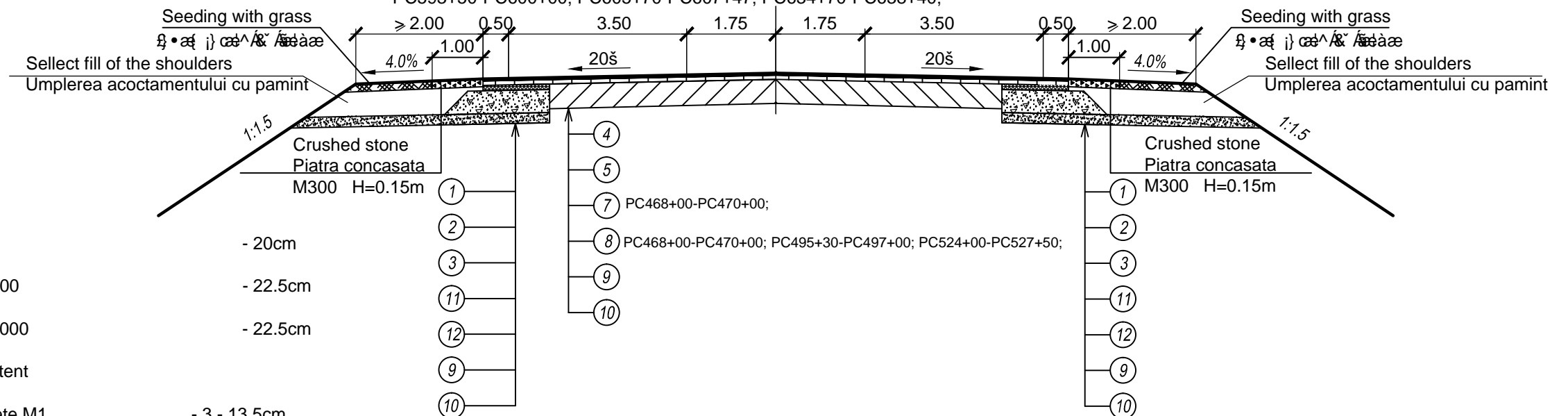
## TYPICAL CROSS SECTION PROFIL TRANSVERSAL TIP V

PC440+40-PC443+09; PC464+70-PC465+30; PC498+10-PC506+30;  
PC515+00-PC516+50; PC547+70-PC549+70; PC552+90-PC553+90;  
PC605+10-PC605+70; PC607+47-PC607+72; PC614+40-PC617+00;  
PC638+40-PC641+50;



## TYPICAL CROSS SECTION PROFIL TRANSVERSAL TIP VI

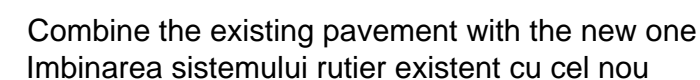
PC436+80-PC440+40; PC443+09-PC462+80; PC463+05-PC464+70; PC465+30-PC474+00;  
PC475+60-PC486+25; PC487+50-PC491+60; PC495+30-PC498+10; PC506+30-PC515+00;  
PC516+50-PC521+50; PC524+00-PC528+55; PC528+85-PC543+00; PC546+00-PC547+70;  
PC553+90-PC556+50; PC562+30-PC564+10; PC565+50-PC566+00; PC567+00-PC570+00;  
PC570+90-PC573+00; PC579+70-PC582+00; PC583+50-PC586+50; PC588+70-PC591+70;  
PC593+50-PC600+00; PC605+70-PC607+47; PC634+70-PC638+40;



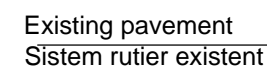
- |   |              |
|---|--------------|
| ① Sand / Nisip  | - 20cm       |
| ② Crushed stone / Piatra concasata M 600  | - 22.5cm     |
| ③ Crushed stone / Piatra concasata M 1000   | - 22.5cm     |
| ④ Existing pavement / Sistem rutier existent  |              |
| ⑤ Coarse grained porous asphalt concrete M1<br>Egalizare cu beton asfaltic cu granulatie fina (mare) poros M1 | - 3 - 13.5cm |
| ⑦ Coarse grained porous asphalt concrete M1<br>Beton asfaltic cu granulatie mare poros M1                     | - 7cm        |
| ⑧ Coarse grained porous asphalt concrete M1<br>Beton asfaltic cu granulatie mare poros M1                     | - 4cm        |
| ⑨ Geocompozit PGM-G 50/50   |              |
| ⑩ Fine grained porous asphalt concrete M1<br>Beton asfaltic cu granulatie fina Tip A M1                       | - 4cm        |
| ⑪ Coarse grained porous asphalt concrete M1<br>Beton asfaltic cu granulatie mare poros M1                     | - 8.5cm      |
| ⑫ Fine grained porous asphalt concrete M1<br>Beton asfaltic cu granulatie fina poros M1                       | - 6cm        |

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
		Road	Sector	Programme	Support	Project	
Roughton International		Rehabilitation of R14 Road Balti-Sarateni		ISP	S.Bogza	Date	03.2012
Universcons		Drawing title Typical cross sections V, VI Profile transversale tip V, VI		Designed	V.Savciuc	Scale	1:100
				Checked	N.Tcaci	Drawing PTT-DA-3	
				Control STAS	L.Pozdirca		

PC418+80-PC425+40; PC462+80-PC463+05; PC491+60-PC495+30;  
PC528+55-PC528+85; PC587+20-PC587+50;

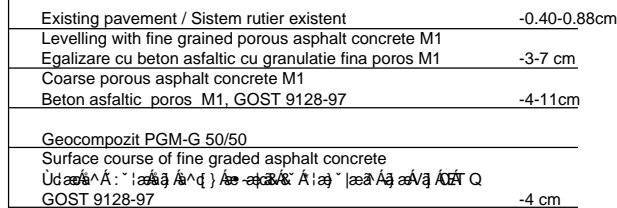
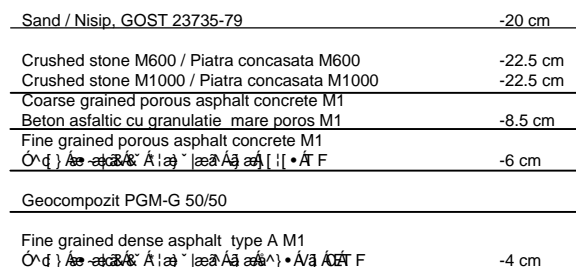


Geocomposit PGM-G 50/50



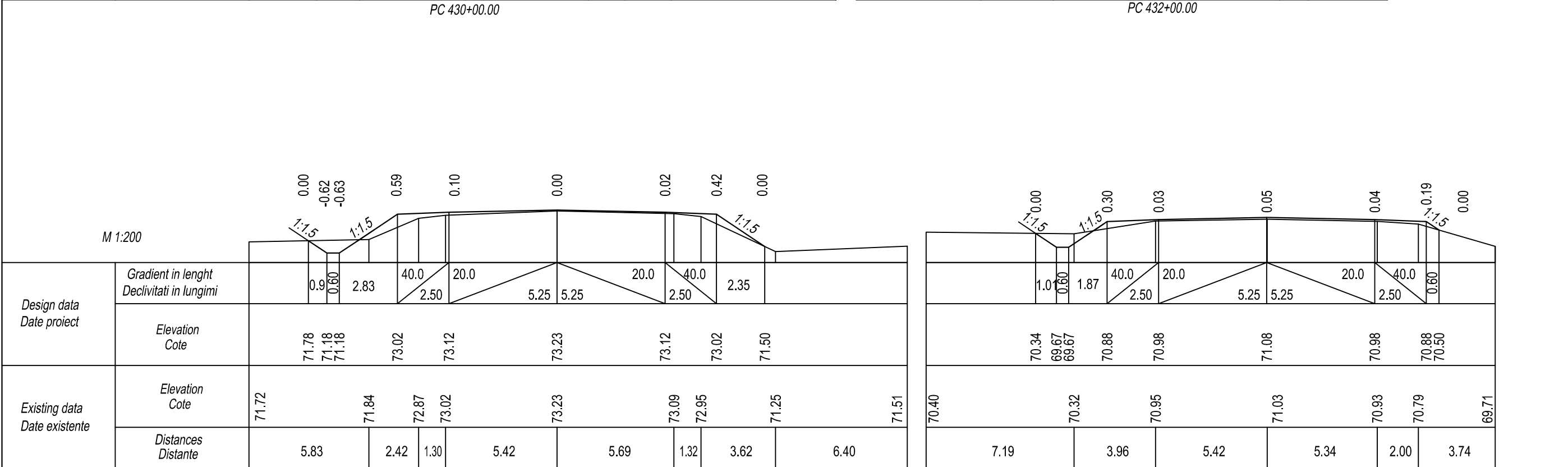
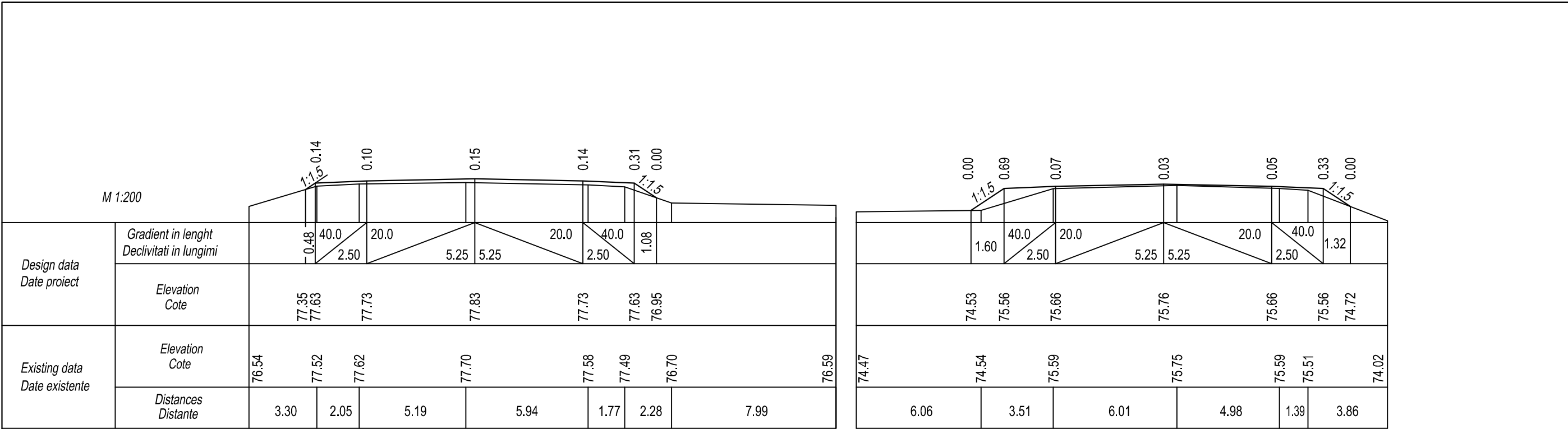
- |   |                   |
|---|-------------------|
| Sand                                      | Existing pavement |
| Crushed stone M 600                       | System rutier e   |
| Crushed stone M 1000                      |                   |
| Coarse grained porous asphalt concrete M1 |                   |
| Fine grained porous asphalt concrete M1   |                   |
| Geocomposite PGM-G 50/50                  |                   |
| Fine grained dense asphalt type A M1      |                   |

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road Balti-Sarateni	ISP	S.Bogza		Date	03.2012	
		Designed	V.Savciuc		Scale	1:100	
Universcons	Drawing title Typical cross sections VII Profile transversale tip VII	Checked	N.Tcaci		Drawing PTT-DA-4		
		Control STAS	L.Pozdirca				

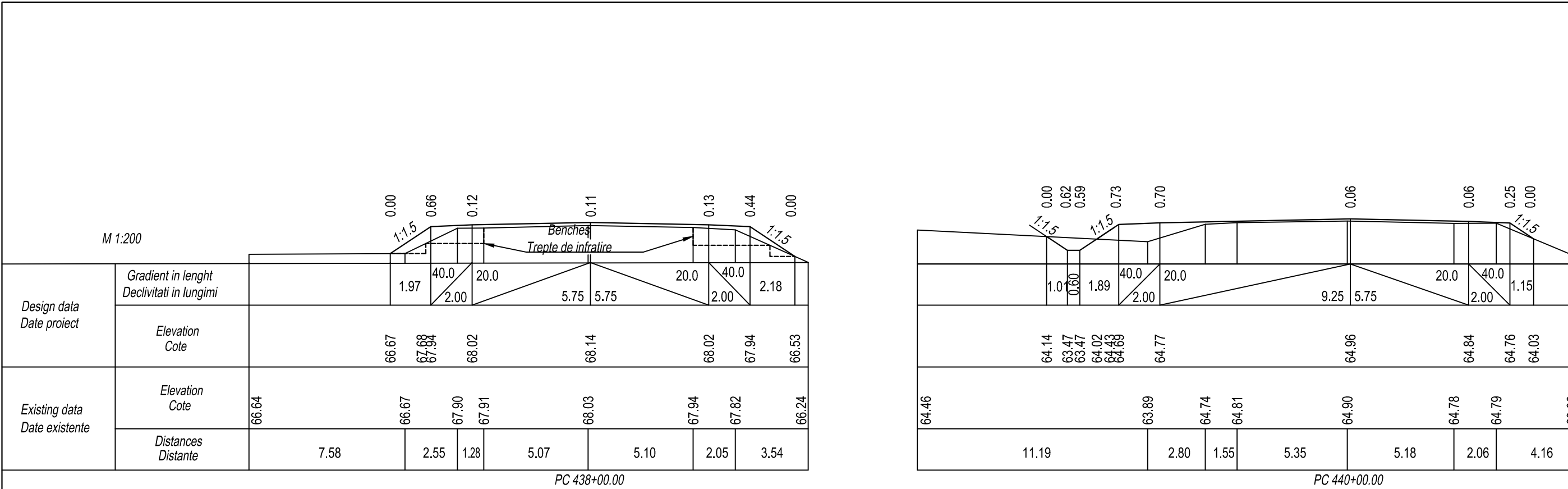


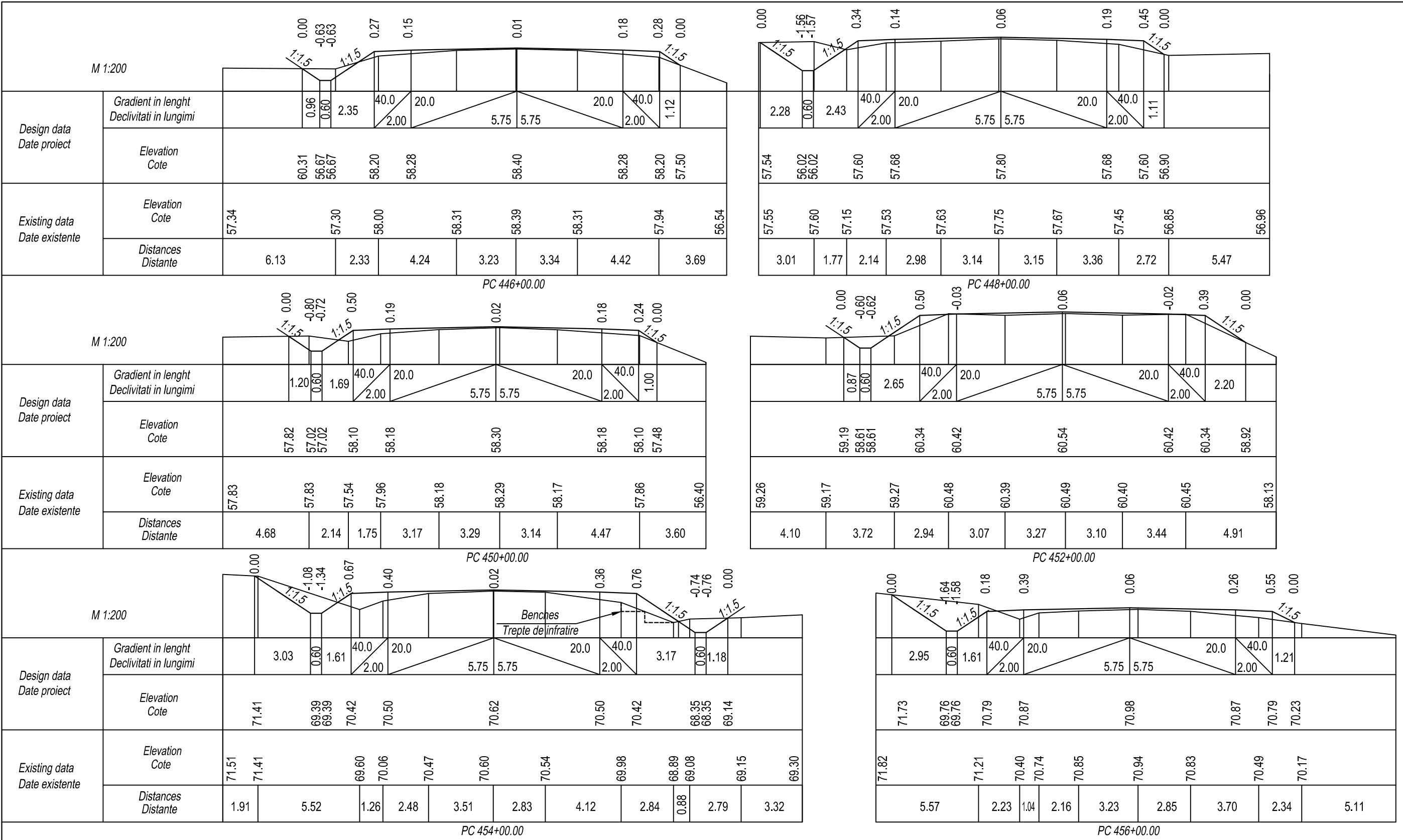
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector		Programme	Support Project				
Roughton International	Rehabilitation of R14 Road Balti-Sarateni	ISP	S.Bogza		Date	03.2012	
Universcons	Drawing title Pavement construction Echipare la sistemului rutier	Designed	A.Goncariuc		Scale		
		Checked	N.Teaci		Drawing		
		Control STAS	L.Pozdirca			CSR-DA-1	





		PC 434+00.00						PC 436+00.00			

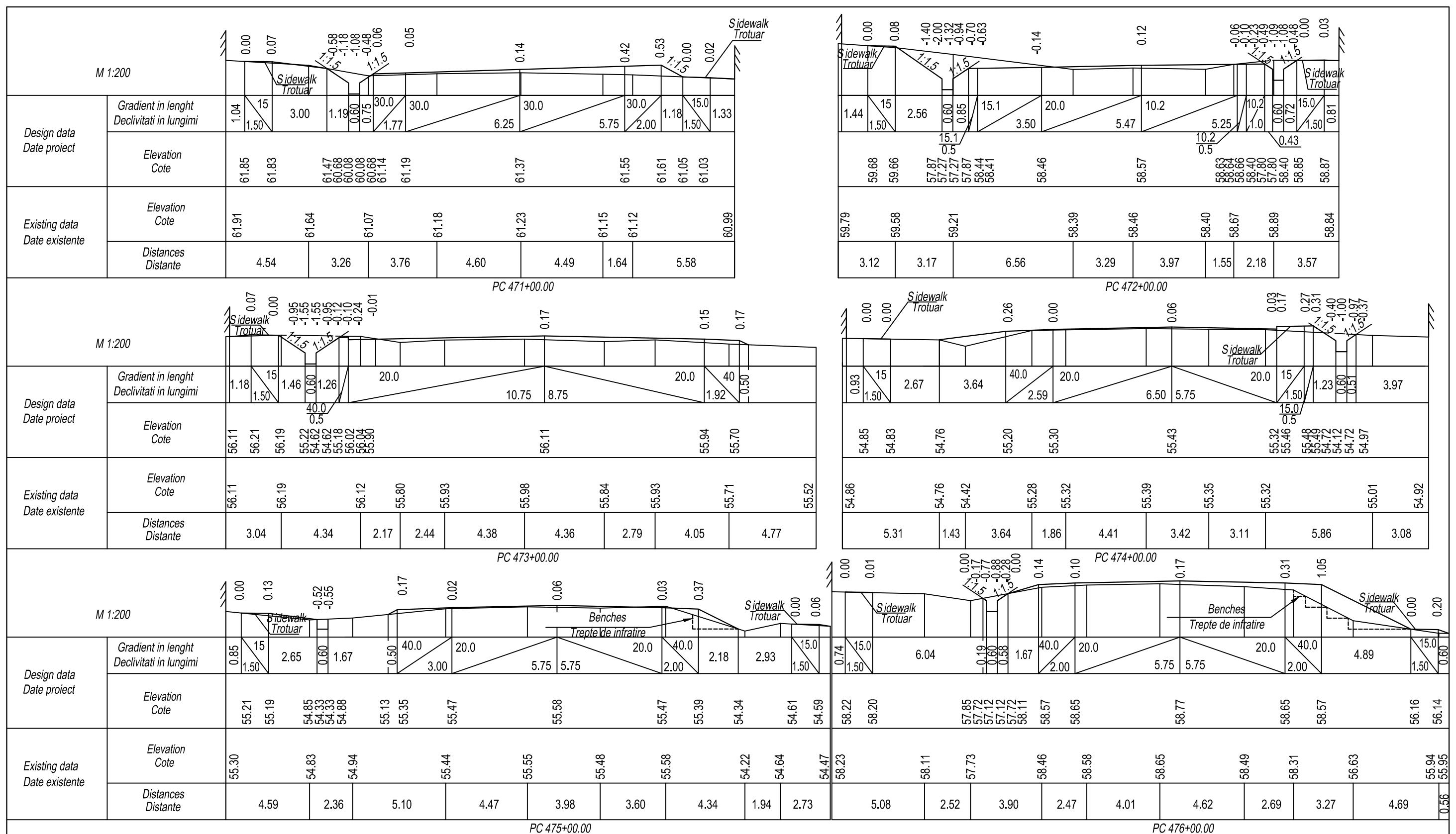




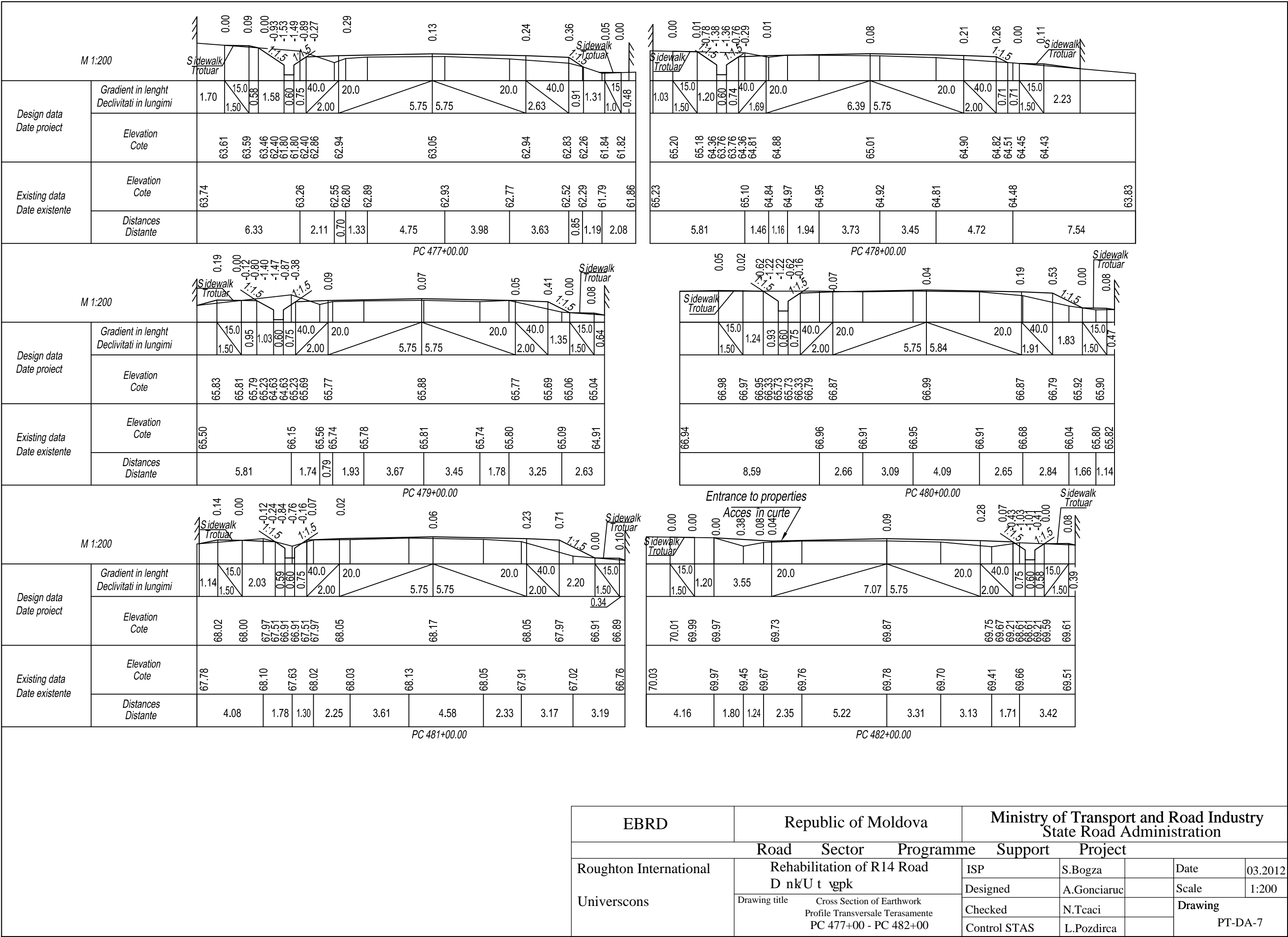
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road D n k U t v g p k  Drawing title Cross Section of Earthwork Profile Transversale Terasamente PC 446+00 - PC 456+00	ISP	S.Bogza		Date	03.2012	
Universcons		Designed	A.Gonciaruc		Scale	1:200	
		Checked	N.Tcaci		Drawing PT-DA-3		
		Control STAS	L.Pozdirca				







EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:200	
	Drawing title Cross Section of Earthwork Profile Transversale Terasamente PC 471+00 - PC 476+00	Checked	N.Tcaci		Drawing PT-DA-6		
		Control STAS	L.Pozdirca				



M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	0.70 15.0 1.50 4.70 1.27 0.60 1.61 2.00 19.1 5.75 19.2 6.04 20.0 2.00 40.0 2.02 0.60 15.0 0.59 1.52 15.0 1.50 7.66 0.90 0.60 1.67 2.00 40 6.83 40.0 6.25 40.0 2.20 0.46 3.64 15.0
	Elevation Cote	71.65 71.63 71.44 70.60 70.60 71.63 71.59 71.48 71.36 71.28 70.31 69.71 69.71 70.31 70.33 72.45 72.43 72.30 71.70 71.70 72.80 72.72 72.45 72.20 72.11 71.92 70.75 70.73
Existing data Date existente	Elevation Cote	71.67 71.40 71.20 71.32 71.40 71.44 71.27 70.96 70.31 70.30 72.47 72.28 72.36 72.38 72.17 71.92 71.10 70.75 70.72
	Distances Distanțe	8.07 1.15 1.21 2.86 4.96 4.10 2.92 2.24 2.86 7.35 6.76 3.95 4.91 3.77 2.55 1.09 2.00

M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.58 0.60 2.19 40.0 2.00 20.0 5.75 5.75 20.0 40.0 0.50
	Elevation Cote	71.10 71.10 72.55 72.63 72.75 72.63 72.55 71.75
Existing data Date existente	Elevation Cote	72.48 72.14 71.93 72.37 72.62 72.72 72.64 72.38 71.71
	Distances Distanțe	3.87 2.69 1.53 3.55 5.18 4.43 4.01 2.30 5.86

M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.52 0.60 2.22 40.0 2.00 20.0 5.75 5.75 20.0 40.0 0.75
	Elevation Cote	70.50 70.50 71.96 72.04 72.16 72.043 71.96 71.09
Existing data Date existente	Elevation Cote	71.83 71.39 71.70 71.90 72.08 71.97 71.80 71.09
	Distances Distanțe	9.05 2.02 3.30 4.99 4.51 3.50 3.20

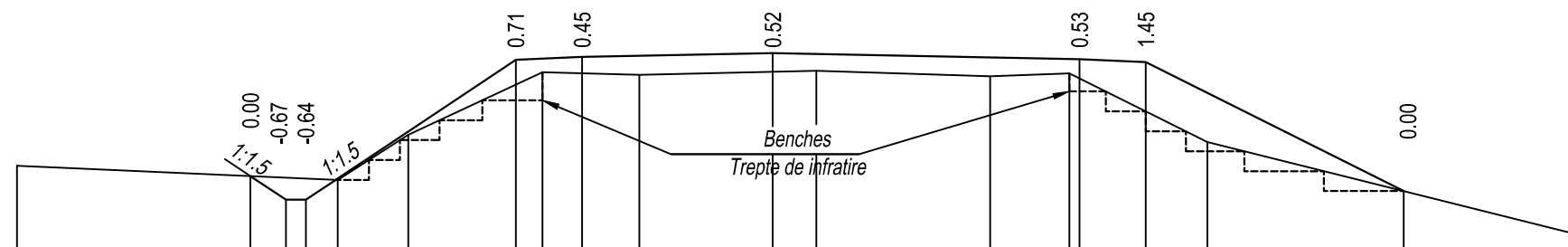
M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	0.69 0.60 1.91 40.0 2.00 20.0 5.75 5.75 20.0 40.0 2.76
	Elevation Cote	68.16 68.16 69.39 69.47 69.59 69.47 69.39 68.05
Existing data Date existente	Elevation Cote	68.74 68.62 69.08 69.35 69.46 69.39 68.98 68.05 68.06
	Distances Distanțe	4.96 3.11 3.25 4.37 4.38 3.48 2.80 3.09

M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	0.56 0.60 2.91 40.0 2.30 20.0 5.75 5.75 20.0 40.0 0.40
	Elevation Cote	64.84 64.84 66.74 66.83 66.95 66.83 66.75 65.23
Existing data Date existente	Elevation Cote	65.80 66.06 65.21 66.49 66.75 66.90 66.79 66.50 65.23
	Distances Distanțe	8.42 2.47 4.11 3.46 4.77 4.18 4.12 3.22

PC 490+00.00		PC 491+00.00					

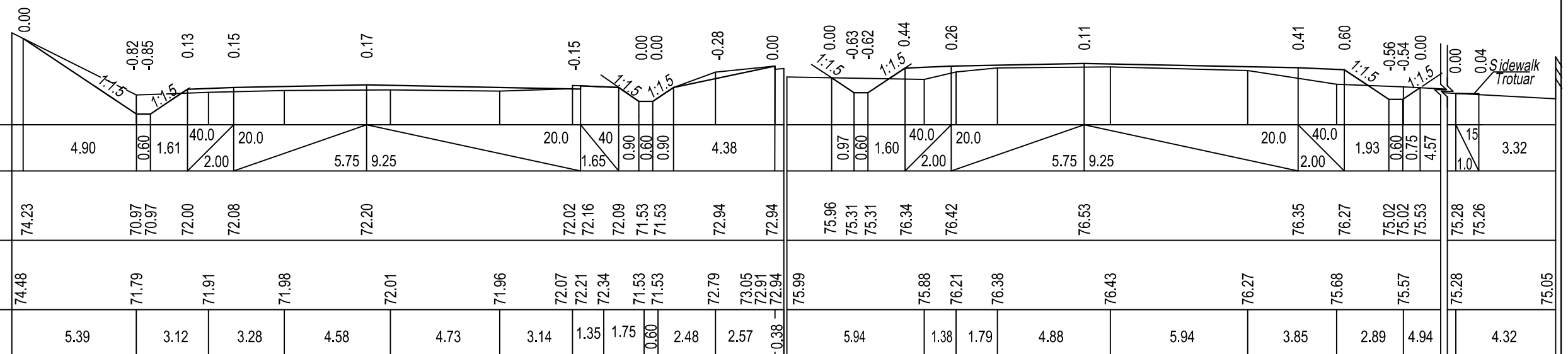






Design data Date project	Gradient in lenght Declivitati in lungimi		1.07	0.60	6.33	40.0 2.00	20.0	5.75	9.25	20.0	40.0 2.00	7.78	
	Elevation Cote		63.49	62.78 62.78		66.96	67.04		67.15		66.97 66.89		63.04
Existing data Date existente	Elevation Cote	63.81		63.38	64.74	66.62	66.54		66.66	66.50	66.59	64.52	61.69
	Distances Distanțe		9.68		2.13	4.05	2.92	5.33	5.24	2.39	4.16	11.32	

PC 495+00.00



Design data Date proiect	Gradient in lenght Declivitati in lungimi	4.90	0.60	1.61	40.0 2.00	20.0	5.75				9.25	20.0	40	1.65	0.90	0.60	0.90	4.38		0.97	0.60	1.60	40.0 2.00	20.0	5.75				9.25	20.0	40.0	1.93	0.60	0.75	4.57	15 1.0	3.32
	Elevation Cote	74.23	70.97	70.97	72.00	72.08	72.20				72.02	72.16	72.09	71.53	71.53	72.94	72.94	75.96	75.31	75.31	76.34	76.42	76.53				76.35	76.27	75.02	75.02	75.53	75.28	75.26				
Existing data Date existente	Elevation Cote	74.48	71.79		71.91	71.98	72.01				71.96	72.07	72.21	72.34	71.53	71.53	72.79	73.05	72.91	72.94	75.99		75.88	76.21	76.38	76.43				76.27	75.88	75.57	75.28	75.05			
	Distances Distanțe	5.39	3.12		3.28	4.58	4.73		3.14	1.35	1.75	0.60	2.48	2.57	0.38	5.94	1.38	1.79	4.88	5.94		3.85	2.89	4.94	4.32												

PC 496+00.00

PC 498+00.00

EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpK	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:200	
	Drawing title Cross Section of Earthwork Profile Transversale Terasamente PC 495+00 - PC 498+00	Checked	N.Tcaci		Drawing PT-DA-10		
		Control STAS	L.Pozdirca				

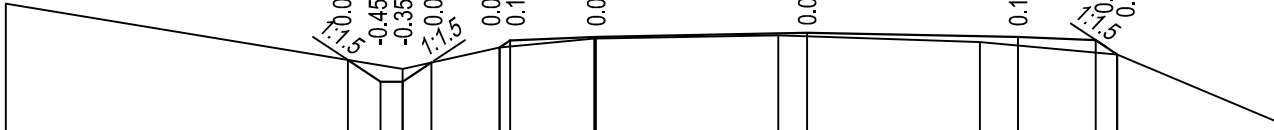



M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.40 0.60 1.54 40.0 3.16 20.0 5.75 5.75 20.0 40.0 2.00 0.70 8.80 15.0 2.30
	Elevation Cote	65.40 65.40 66.42 66.51 66.63 66.51 66.43 65.57 65.55
Existing data Date existente	Elevation Cote	66.27 66.47 66.51 66.58 66.49 66.08 65.58 65.72 65.45
	Distances Distanțe	5.85 2.47 4.43 5.57 3.13 1.51 4.03 8.18
M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.19 0.60 1.55 40.0 2.80 20.0 5.75 5.75 20.0 40.0 3.40 8.70 15.0 1.25
	Elevation Cote	64.50 64.50 65.49 65.61 65.73 65.61 65.47 65.31 64.71 64.73
Existing data Date existente	Elevation Cote	65.39 65.26 65.62 65.62 65.70 65.54 65.46 64.50 64.73
	Distances Distanțe	5.13 1.69 3.99 4.84 5.02 3.83 2.82 8.55
M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	0.89 0.60 1.92 40.0 2.40 20.0 5.75 6.11 20.0 40.0 3.00 0.77 8.25 15.0 1.58
	Elevation Cote	62.10 62.10 63.34 63.44 63.55 63.43 63.31 62.74 62.76
Existing data Date existente	Elevation Cote	62.78 62.64 63.26 63.40 63.53 63.40 62.84 62.73 62.75
	Distances Distanțe	4.01 1.59 3.68 4.95 5.53 4.07 3.46 7.87
M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	0.11 0.06 0.04 0.04 0.03 3.30 3.30 3.86 15.0 1.42
	Elevation Cote	60.03 60.11 60.22 60.11 59.96 57.80 57.80 58.63 58.89 58.91
Existing data Date existente	Elevation Cote	59.13 59.89 60.12 60.19 60.09 59.93 58.57 58.72 59.02
	Distances Distanțe	1.87 3.71 5.04 4.54 4.35 2.80 4.93 4.13
M 1:200		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	40.0 2.35 20.0 5.75 5.75 20.0 40.0 2.40
	Elevation Cote	56.40 56.40 56.45 56.56 56.45 56.35
Existing data Date existente	Elevation Cote	53.75 56.39 56.43 56.48 56.48 56.47 54.06
	Distances Distanțe	7.54 3.14 4.75 4.32 3.16 5.15
PC 520+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 522+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 524+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 526+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 528+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 530+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 532+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 534+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 536+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 538+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 540+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 542+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.64 57.64 58.28
Existing data Date existente	Elevation Cote	59.64 58.46 58.58 59.29 59.47 59.49 59.41 59.33 58.25 58.37
	Distances Distanțe	3.02 2.59 2.16 3.14 5.56 5.21 3.07 3.84 5.40
PC 544+00.00		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.05 0.60 2.42 40.0 3.00 20.0 5.75 5.75 20.0 40.0 2.10 2.26 1.58 0.60 0.97
	Elevation Cote	57.80 57.80 59.37 59.49 59.61 59.49 59.41 58.69 57.6




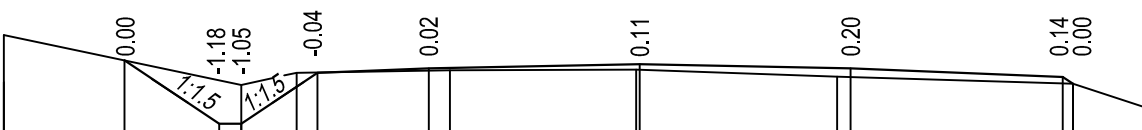


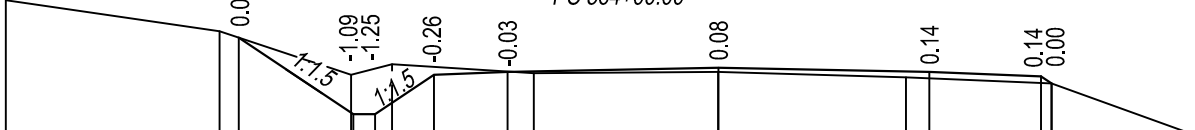


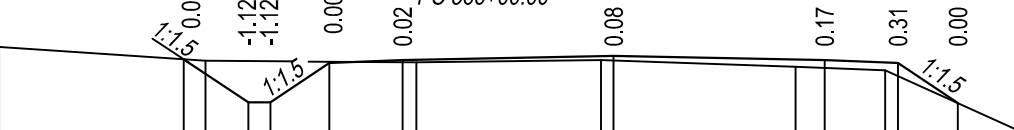
M 1:200																																				
Design data Date proiect	Gradient in lenght Declivitati in lungimi	<table><tr><td>0.89</td><td>0.60</td><td>0.78</td><td>1.85</td><td>-0.29</td><td>40.0</td><td>20.0</td><td>5.75</td><td>5.75</td><td>20.0</td><td>40.0</td><td>0.59</td></tr><tr><td>2.30</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2.10</td><td></td><td></td></tr></table>											0.89	0.60	0.78	1.85	-0.29	40.0	20.0	5.75	5.75	20.0	40.0	0.59	2.30									2.10		
	0.89	0.60	0.78	1.85	-0.29	40.0	20.0	5.75	5.75	20.0	40.0	0.59																								
2.30									2.10																											
Existing data Date existente	Elevation Cote	<table><tr><td>49.19</td><td>48.59</td><td>48.59</td><td>49.11</td><td>49.51</td><td>49.67</td><td>49.76</td><td>49.87</td><td>49.87</td><td>49.76</td><td>49.68</td><td>49.32</td></tr></table>											49.19	48.59	48.59	49.11	49.51	49.67	49.76	49.87	49.87	49.76	49.68	49.32												
	49.19	48.59	48.59	49.11	49.51	49.67	49.76	49.87	49.87	49.76	49.68	49.32																								
Distances Distanta	<table><tr><td>10.82</td><td></td><td></td><td>2.64</td><td>2.58</td><td></td><td>5.02</td><td></td><td>5.49</td><td></td><td>3.75</td><td>4.48</td></tr></table>											10.82			2.64	2.58		5.02		5.49		3.75	4.48													
10.82			2.64	2.58		5.02		5.49		3.75	4.48																									

M 1:200																																		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	<table><tr><td>0.76</td><td>0.60</td><td>2.58</td><td>40.0</td><td>20.0</td><td>5.75</td><td>5.75</td><td>20.0</td><td>40.0</td><td>0.22</td></tr><tr><td>2.00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>2.51</td><td></td><td></td></tr></table>											0.76	0.60	2.58	40.0	20.0	5.75	5.75	20.0	40.0	0.22	2.00									2.51		
	0.76	0.60	2.58	40.0	20.0	5.75	5.75	20.0	40.0	0.22																								
2.00									2.51																									
Existing data Date existente	Elevation Cote	<table><tr><td>46.40</td><td>45.89</td><td>45.89</td><td>47.57</td><td>47.65</td><td>47.77</td><td>47.77</td><td>47.65</td><td>47.57</td><td>47.45</td></tr></table>											46.40	45.89	45.89	47.57	47.65	47.77	47.77	47.65	47.57	47.45												
	46.40	45.89	45.89	47.57	47.65	47.77	47.77	47.65	47.57	47.45																								
Distances Distanta	<table><tr><td>8.18</td><td>1.22</td><td>2.58</td><td></td><td>5.12</td><td>4.76</td><td></td><td>4.49</td><td></td><td>3.60</td><td></td><td></td></tr></table>											8.18	1.22	2.58		5.12	4.76		4.49		3.60													
8.18	1.22	2.58		5.12	4.76		4.49		3.60																									

M 1:200																																		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	<table><tr><td>1.67</td><td>0.60</td><td>1.72</td><td>40.0</td><td>20.0</td><td>5.75</td><td>5.75</td><td>20.0</td><td>40.0</td><td>0.39</td></tr><tr><td>3.40</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.39</td><td></td><td></td></tr></table>											1.67	0.60	1.72	40.0	20.0	5.75	5.75	20.0	40.0	0.39	3.40									0.39		
	1.67	0.60	1.72	40.0	20.0	5.75	5.75	20.0	40.0	0.39																								
3.40									0.39																									
Existing data Date existente	Elevation Cote	<table><tr><td>46.99</td><td>45.88</td><td>45.88</td><td>46.98</td><td>47.12</td><td>47.24</td><td>47.12</td><td>46.98</td><td>46.76</td></tr></table>											46.99	45.88	45.88	46.98	47.12	47.24	47.12	46.98	46.76													
	46.99	45.88	45.88	46.98	47.12	47.24	47.12	46.98	46.76																									
Distances Distanta	<table><tr><td>5.48</td><td>2.42</td><td>2.95</td><td>5.29</td><td>4.93</td><td>4.85</td><td>1.85</td></tr></table>											5.48	2.42	2.95	5.29	4.93	4.85	1.85																
5.48	2.42	2.95	5.29	4.93	4.85	1.85																												

M 1:200																																		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	<table><tr><td>2.58</td><td>0.60</td><td>2.07</td><td>40.0</td><td>20.0</td><td>5.75</td><td>5.75</td><td>20.0</td><td>40.0</td><td>0.28</td></tr><tr><td>3.00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.28</td><td></td><td></td></tr></table>											2.58	0.60	2.07	40.0	20.0	5.75	5.75	20.0	40.0	0.28	3.00									0.28		
	2.58	0.60	2.07	40.0	20.0	5.75	5.75	20.0	40.0	0.28																								
3.00									0.28																									
Existing data Date existente	Elevation Cote	<table><tr><td>47.91</td><td>46.19</td><td>46.19</td><td>47.53</td><td>47.65</td><td>47.77</td><td>47.65</td><td>47.06</td><td>47.28</td></tr></table>											47.91	46.19	46.19	47.53	47.65	47.77	47.65	47.06	47.28													
	47.91	46.19	46.19	47.53	47.65	47.77	47.65	47.06	47.28																									
Distances Distanta	<table><tr><td>6.47</td><td>1.51</td><td>4.18</td><td></td><td>5.08</td><td>5.47</td><td>6.42</td><td>2.00</td></tr></table>											6.47	1.51	4.18		5.08	5.47	6.42	2.00															
6.47	1.51	4.18		5.08	5.47	6.42	2.00																											

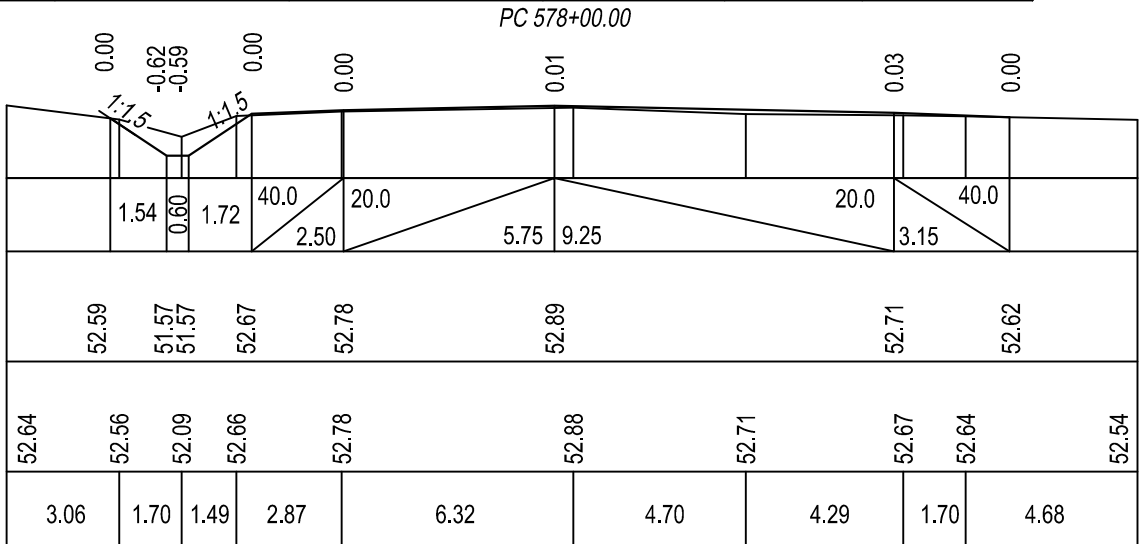
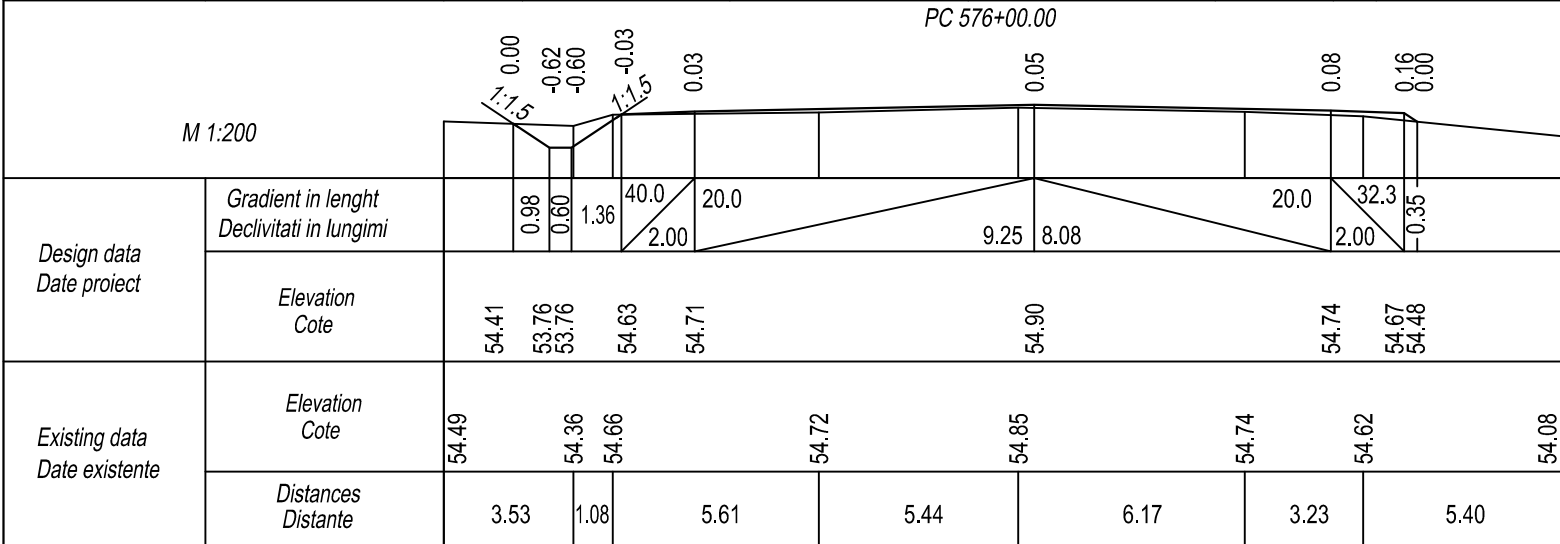
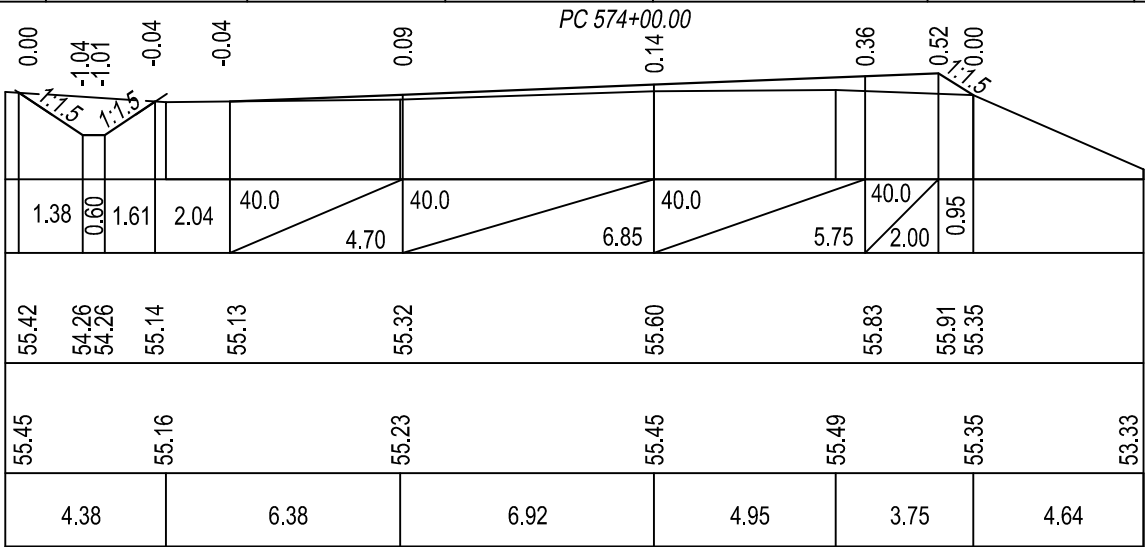
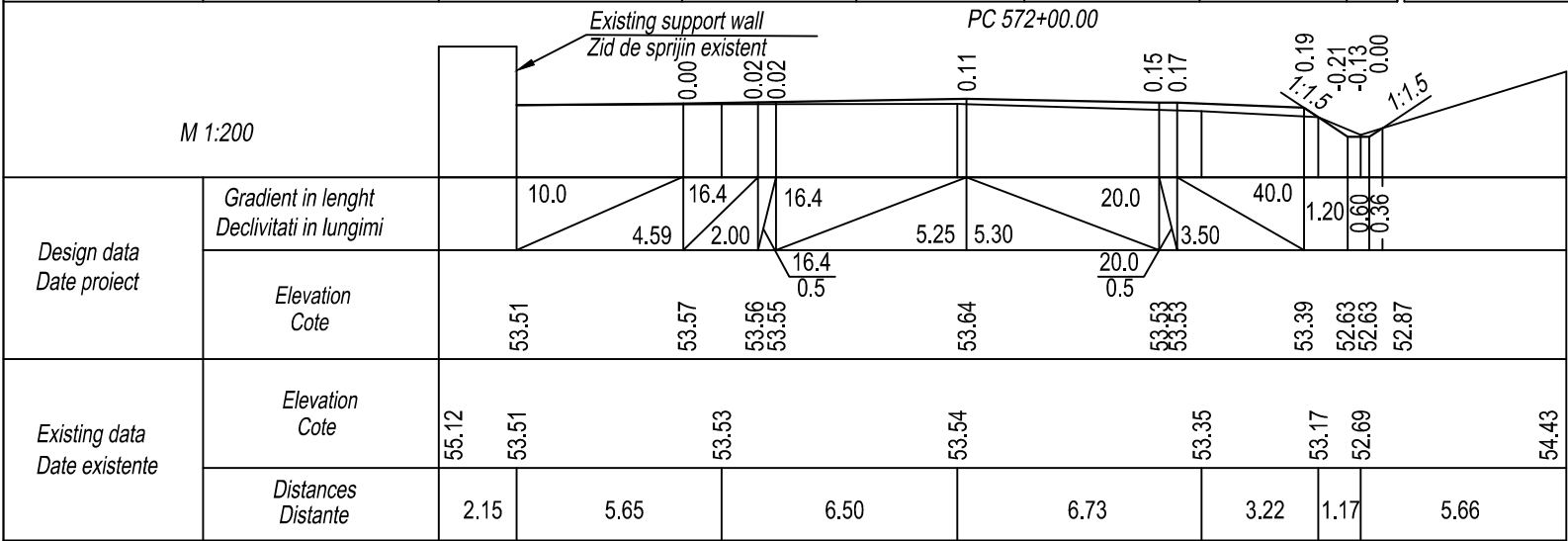
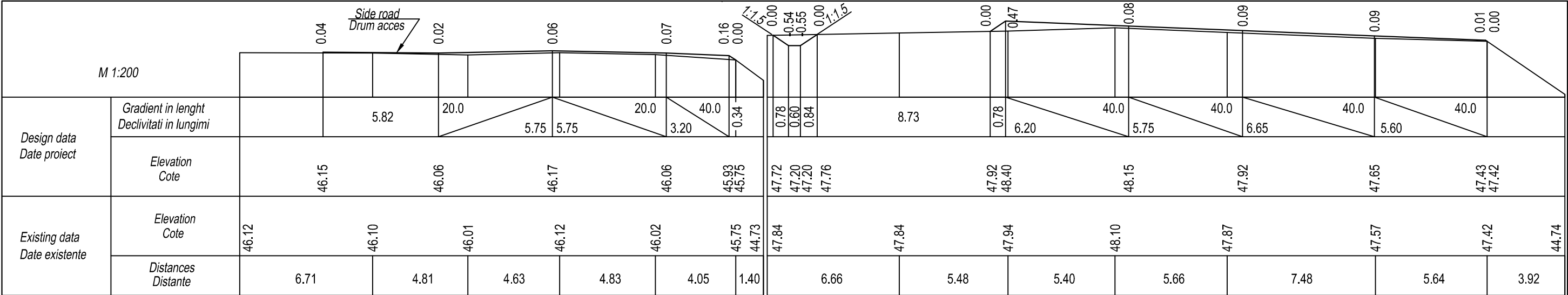
M 1:200																																		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	<table><tr><td>3.12</td><td>0.60</td><td>1.61</td><td>40.0</td><td>20.0</td><td>5.75</td><td>5.75</td><td>20.0</td><td>40.0</td><td>0.29</td></tr><tr><td>2.00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>0.29</td><td></td><td></td></tr></table>											3.12	0.60	1.61	40.0	20.0	5.75	5.75	20.0	40.0	0.29	2.00									0.29		
	3.12	0.60	1.61	40.0	20.0	5.75	5.75	20.0	40.0	0.29																								
2.00									0.29																									
Existing data Date existente	Elevation Cote	<table><tr><td>49.07</td><td>46.99</td><td>46.99</td><td>48.02</td><td>48.10</td><td>48.21</td><td>48.10</td><td>47.98</td><td>47.82</td></tr></table>											49.07	46.99	46.99	48.02	48.10	48.21	48.10	47.98	47.82													
	49.07	46.99	46.99	48.02	48.10	48.21	48.10	47.98	47.82																									
Distances Distanta	<table><tr><td>5.82</td><td>3.59</td><td>1.12</td><td>3.86</td><td>5.02</td><td>5.13</td><td>3.97</td><td>4.08</td></tr></table>											5.82	3.59	1.12	3.86	5.02	5.13	3.97	4.08															
5.82	3.59	1.12	3.86	5.02	5.13	3.97	4.08																											

M 1:200																																		
Design data Date proiect	Gradient in lenght Declivitati in lungimi	<table><tr><td>1.76</td><td>0.60</td><td>1.61</td><td>40.0</td><td>20.0</td><td>5.75</td><td>5.75</td><td>20.0</td><td>40.0</td><td>1.63</td></tr><tr><td>2.00</td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td></td><td>1.63</td><td></td><td></td></tr></table>											1.76	0.60	1.61	40.0	20.0	5.75	5.75	20.0	40.0	1.63	2.00									1.63		
	1.76	0.60	1.61	40.0	20.0	5.75	5.75	20.0	40.0	1.63																								
2.00									1.63																									
Existing data Date existente	Elevation Cote	<table><tr><td>46.98</td><td>45.81</td><td>45.81</td><td>46.84</td><td>46.92</td><td>47.04</td><td>46.92</td><td>46.84</td><td>45.79</td></tr></table>											46.98	45.81	45.81	46.84	46.92	47.04	46.92	46.84	45.79													
	46.98	45.81	45.81	46.84	46.92	47.04	46.92	46.84	45.79																									
Distances Distanta	<table><tr><td>5.62</td><td>5.75</td><td>5.03</td><td>5.30</td><td>2.45</td><td>3.62</td></tr></table>											5.62	5.75	5.03	5.30	2.45	3.62																	
5.62	5.75	5.03	5.30	2.45	3.62																													

PC 568+00.00		PC 570+00.00	
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EBRD		Republic of Moldova		Ministry of Transport and Road Industry State Road Administration							
Road		Sector		Programme		Support		Project			
Roughton International		Rehabilitation of R14 Road D n k U t v g p k		ISP		S.Bogza		Date		03.2012	
Universcons		Drawing title		Designed		A.Gonciaruc		Scale		1:200	
		Cross Section of Earthwork Profile Transversale Terasamente PC 560+00 - PC 570+00		Checked		N.Tcaci		Drawing PT-DA-16			
				Control STAS		L.Pozdirca					

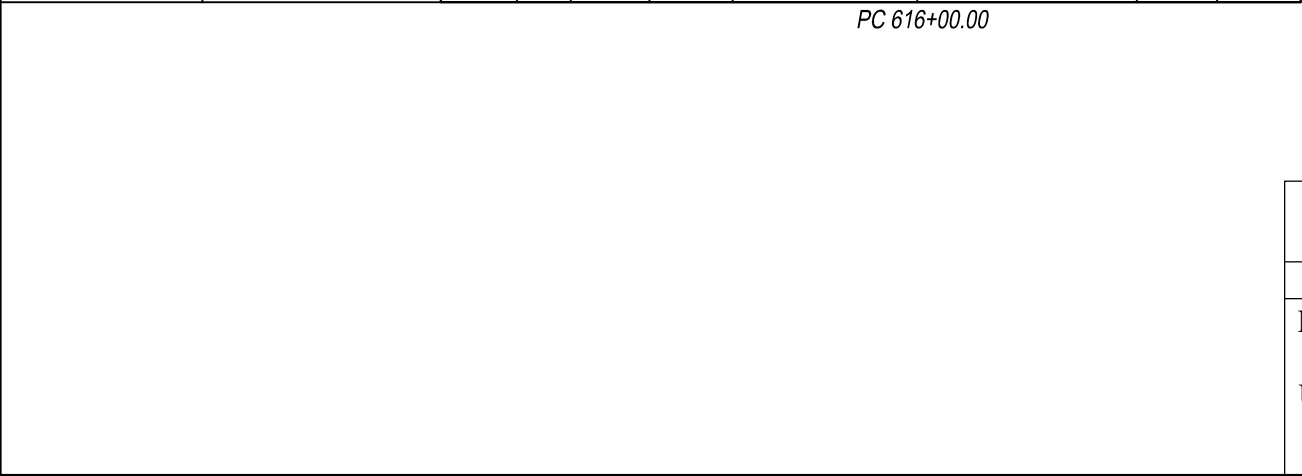
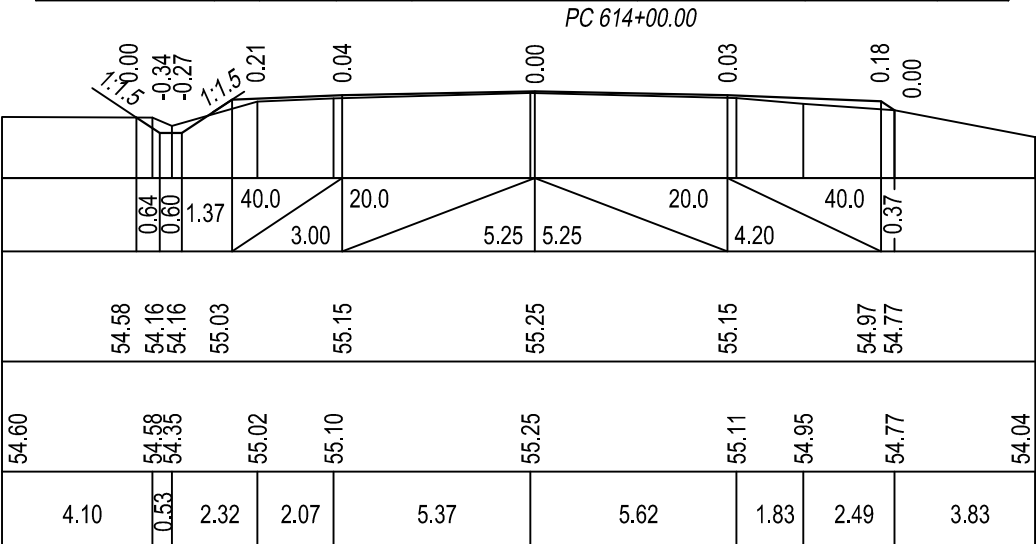
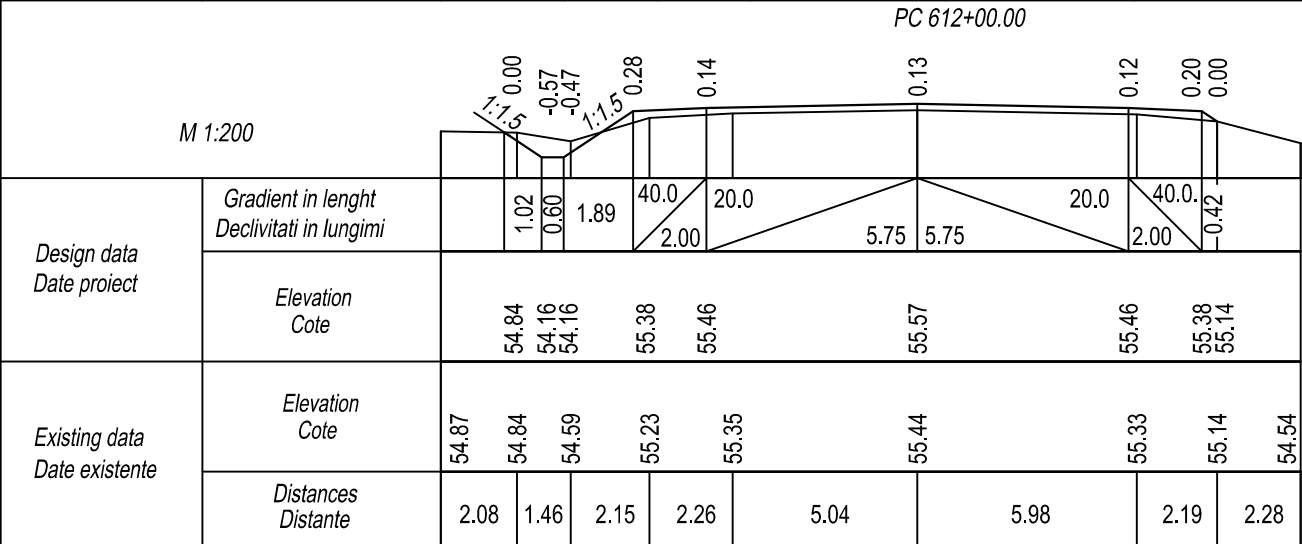
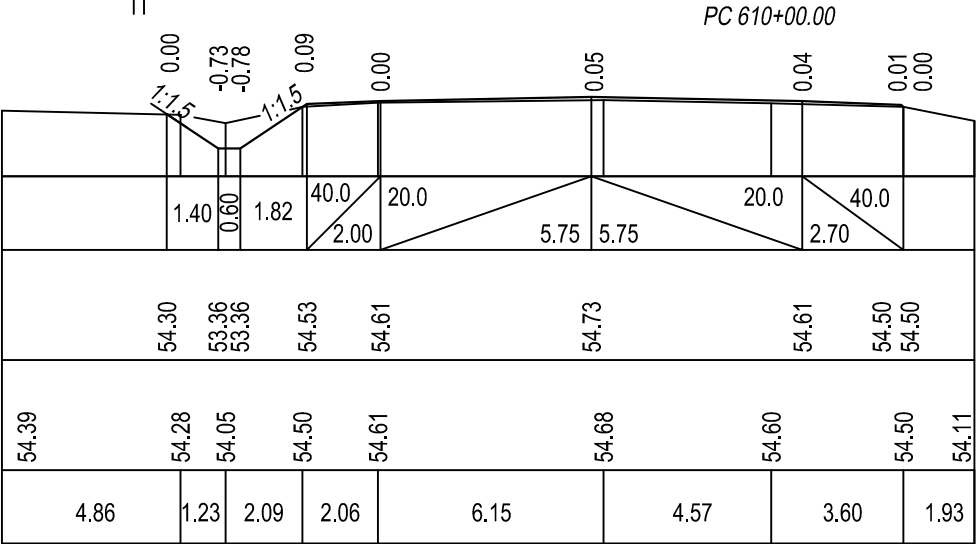
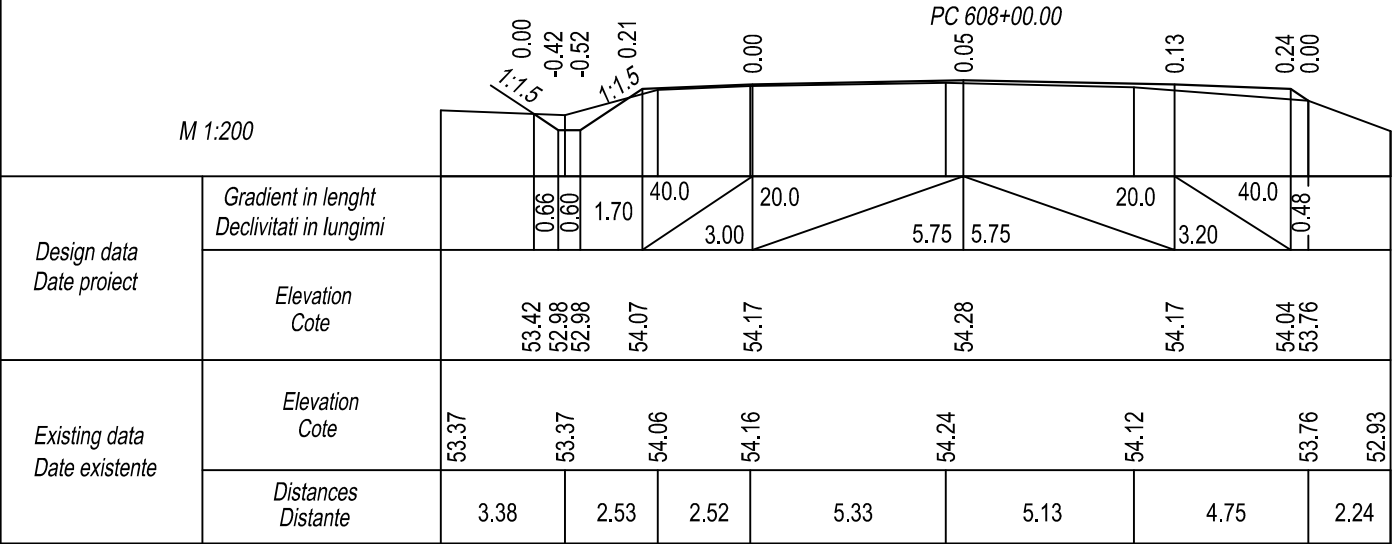
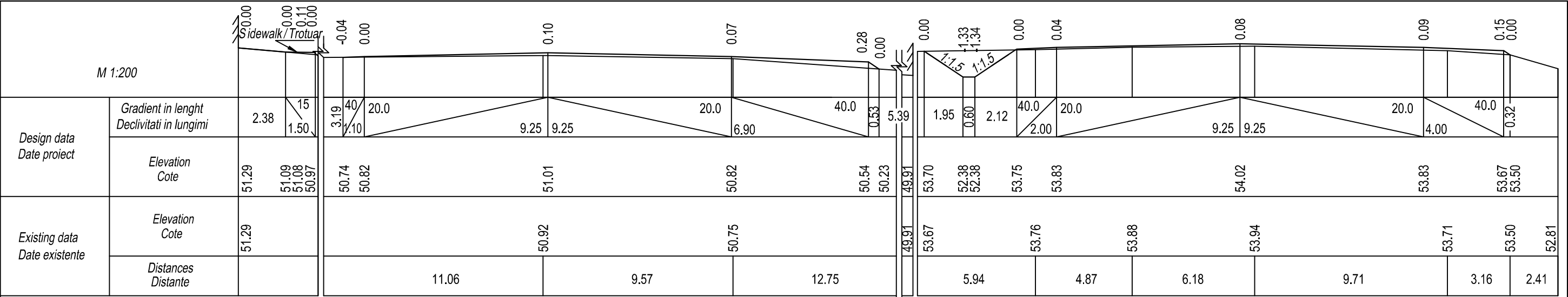




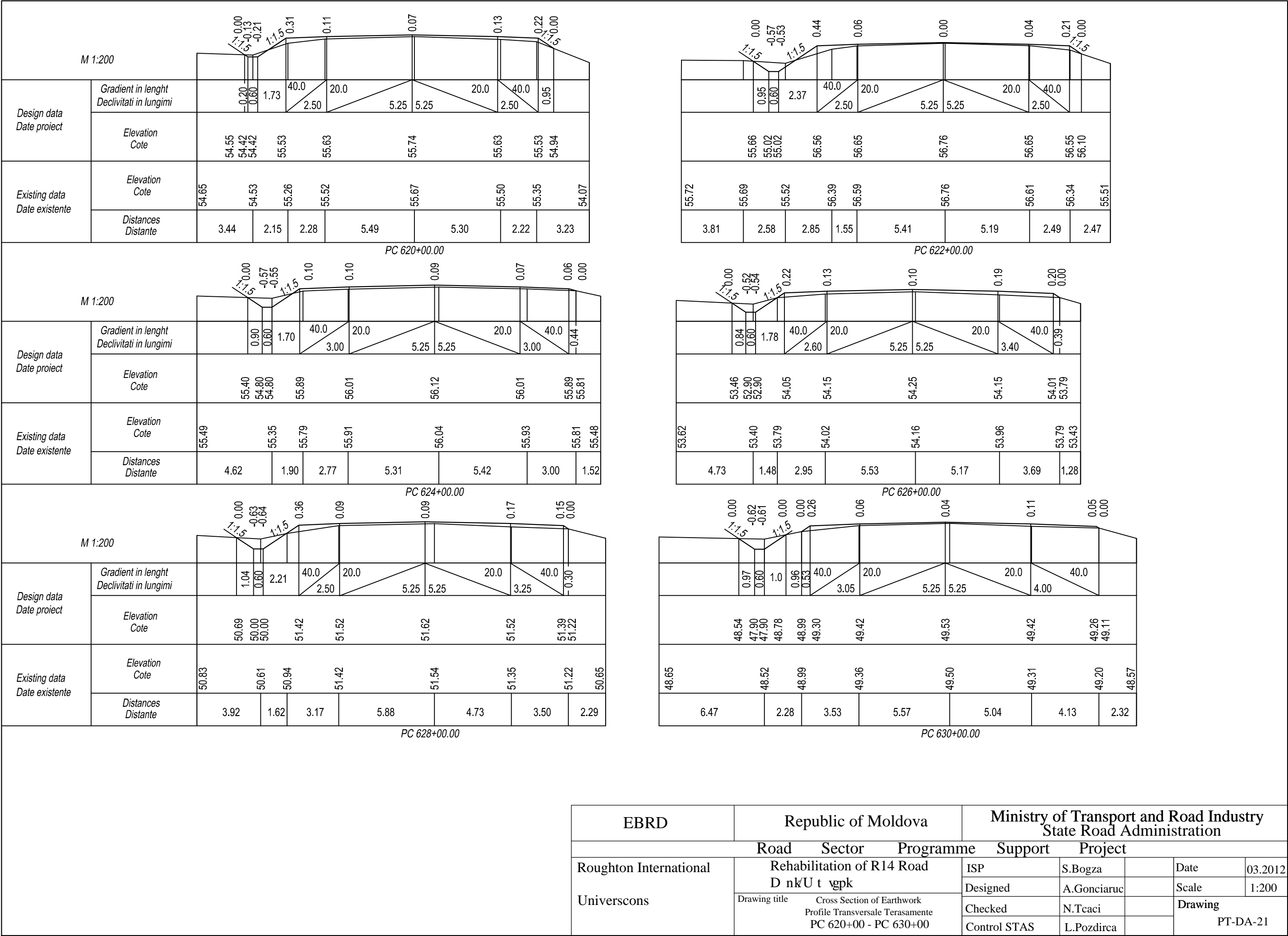
PC 580+00.00		PC 582+00.00					



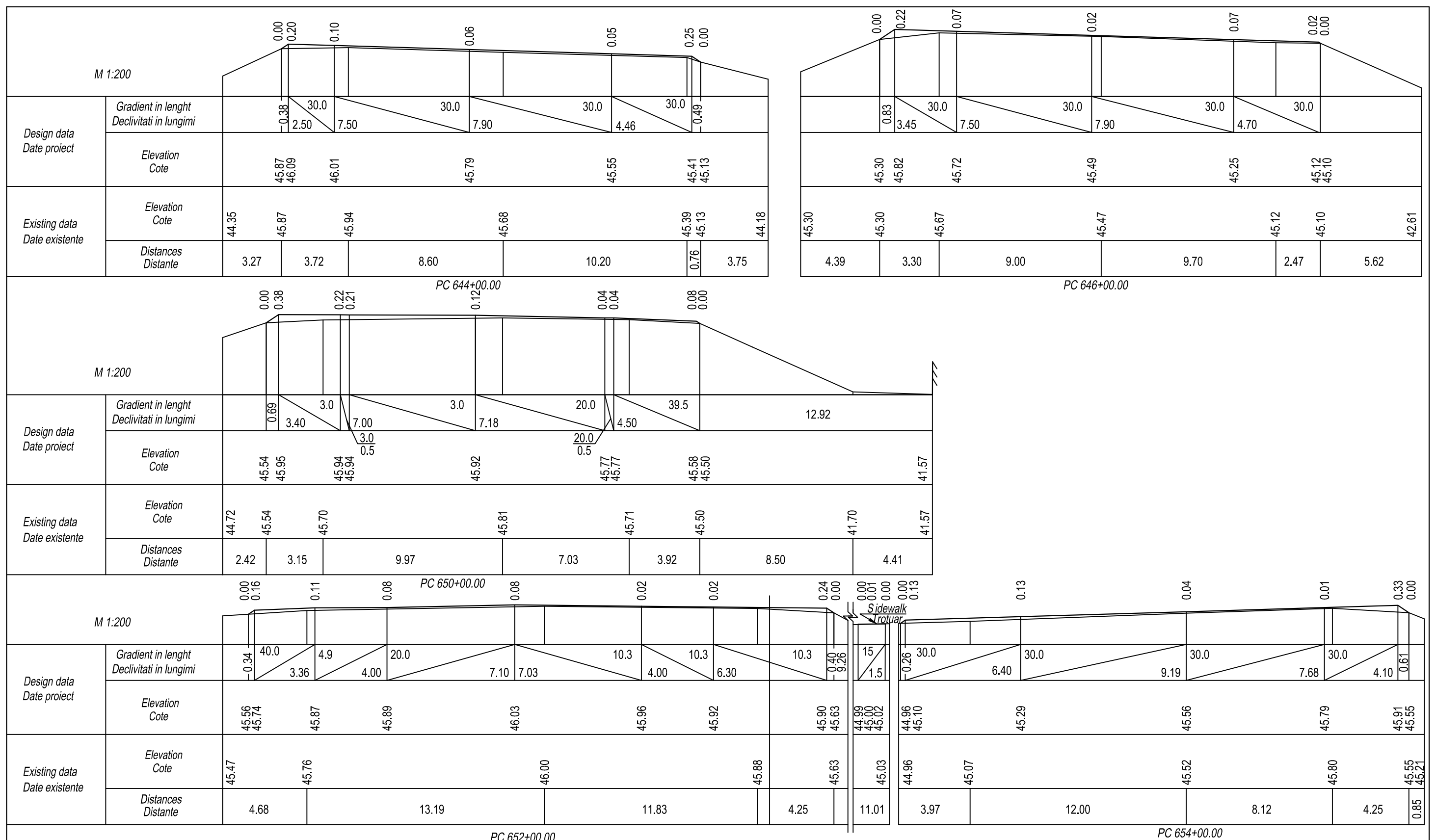




EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support	Project			
Roughton International  Universcons	Rehabilitation of R14 Road D nk/U t gpk	ISP	S.Bogza		Date	03.2012
		Designed	A.Gonciaruc		Scale	1:200
	Drawing title Cross Section of Earthwork Profile Transversale Terasamente PC 608+00 - PC 618+00	Checked	N.Tcaci		Drawing PT-DA-20	
		Control STAS	L.Pozdirca			



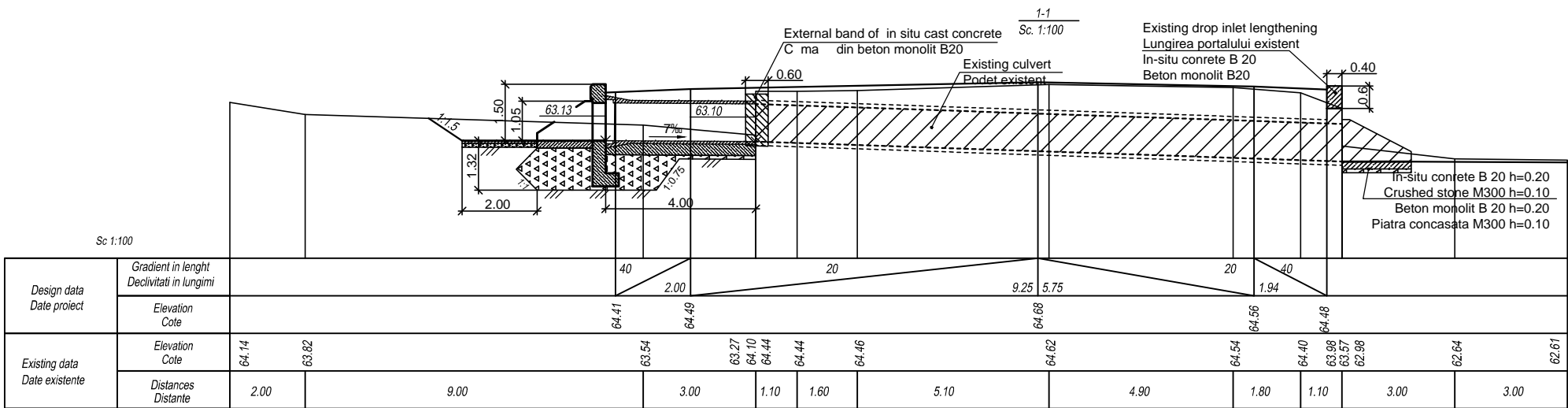




EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:200	
	Drawing title Cross Section of Earthwork Profile Transversale Terasamente PC 644+00 - PC 654+00	Checked	N.Tcaci		Drawing PT-DA-23		
		Control STAS	L.Pozdirca				

M 1:200								
Design data Date proiect	Gradient in lenght Declivitati in lungimi	40 40.0 8.10 40.0 7.70 2.00 1.01						
	Elevation Cote	44.60 44.67 44.99 45.30 45.22 44.81						
Existing data Date existente	Elevation Cote	44.57 44.64 44.72 44.93 45.11 44.81 43.90						
	Distances Distanțe	4.58 4.65 6.12 6.47 2.90 3.82						
M 1:200								
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.60 0.60 1.49 40.0 20.0 5.75 5.75 20.0 2.30 10.27 15 1.01						
	Elevation Cote	45.63 44.57 44.57 45.52 45.60 45.72 45.60 45.51 45.49 45.14 45.16 45.13						
Existing data Date existente	Elevation Cote	45.75 45.66 45.40 45.44 45.52 45.66 45.57 45.49 45.15 45.14						
	Distances Distanțe	2.11 1.85 1.81 2.14 5.72 5.91 2.36 1.97 12.54						
M 1:200								
Design data Date proiect	Gradient in lenght Declivitati in lungimi	-0.33 0.60 1.51 40 20.0 5.75 5.75 20.0 40.0 0.72 15 1.0 0.86						
	Elevation Cote	45.59 44.37 44.37 45.34 45.39 45.50 45.39 45.31 44.87 44.39 44.45 44.51						
Existing data Date existente	Elevation Cote	44.88 44.89 44.45 45.19 45.38 45.50 45.36 45.21 44.20 44.51						
	Distances Distanțe	1.95 2.92 1.90 0.85 5.89 5.72 1.59 3.18 9.91						
M 1:200								
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.31 0.60 2.22 40.0 20.0 5.25 5.25 20.0 40.0 0.27 9.53 15 1.0						
	Elevation Cote	44.64 43.77 43.77 45.21 45.31 45.42 45.31 45.17 45.06 44.67 44.67 44.69						
Existing data Date existente	Elevation Cote	44.64 44.61 45.13 45.30 45.37 45.23 45.06 44.45 44.70						
	Distances Distanțe	3.30 1.78 1.49 5.69 5.54 2.77 2.13 9.22						
M 1:200								
Design data Date proiect	Gradient in lenght Declivitati in lungimi	1.04 0.60 1.50 40.0 20.0 5.25 5.25 20.0 40.0 0.33 10.42 15 1.0 0.50						
	Elevation Cote	45.37 44.67 44.67 45.63 45.73 45.83 45.73 45.62 45.44 45.16 45.17 45.18 45.19						
Existing data Date existente	Elevation Cote	45.34 45.41 45.05 45.51 45.58 45.75 45.58 45.44 44.96 45.19						
	Distances Distanțe	2.69 2.45 1.70 1.54 5.97 5.35 2.37 2.40 9.60						
M 1:200								
Design data Date proiect	Gradient in lenght Declivitati in lungimi	-0.38 40.0 20.0 3.50 20.0 5.75 5.75 20.0 3.50 3.30 40.0 0.22						
	Elevation Cote	46.34 46.55 46.63 46.70 46.81 46.70 46.63 46.54 46.52 46.38						
Existing data Date existente	Elevation Cote	46.10 46.27 46.51 46.79 46.48 46.53 46.38						
	Distances Distanțe	2.89 3.70 9.07 10.09 2.28 2.65						
PC 664+00.00		PC 666+00.00						
EBRD		Republic of Moldova		Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme Support		Project				
Roughton International		Rehabilitation of R14 Road D n k U t v p k		ISP	S.Bogza		Date	03.2012
Universcons		Drawing title		Designed	A.Gonciaruc		Scale	1:200
		Cross Section of Earthwork Profile Transversale Terasamente PC 656+00 - PC 666+00		Checked	N.Tcaci		Drawing PT-DA-24	
				Control STAS	L.Pozdirca			

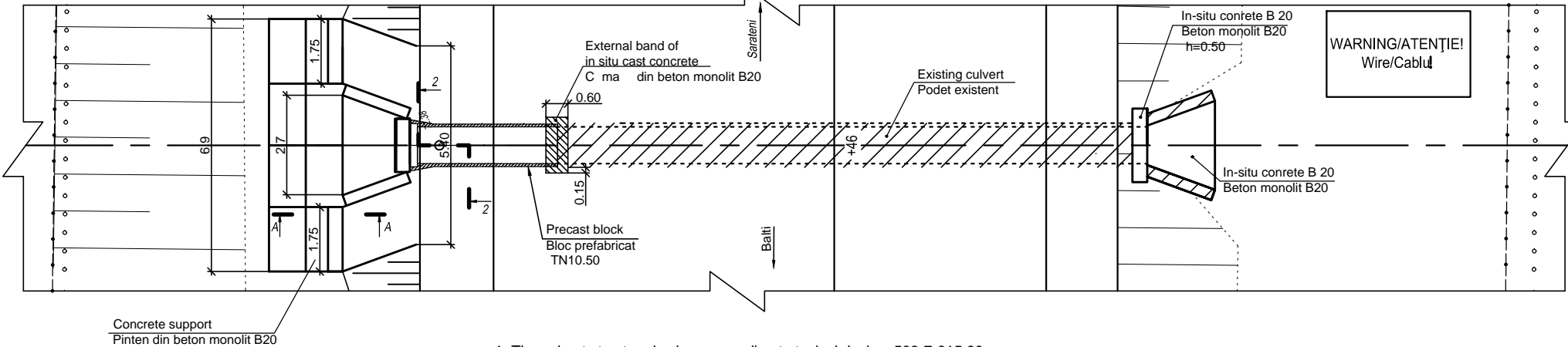




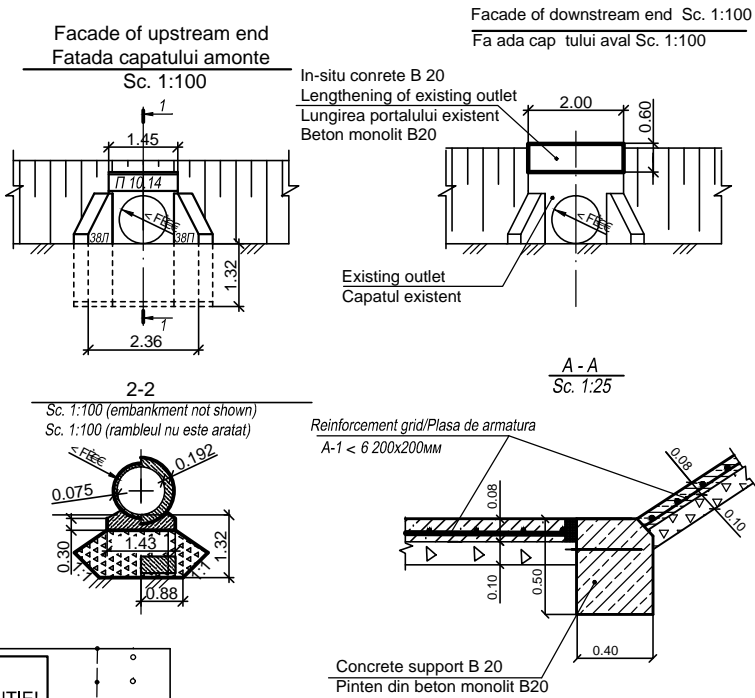
PC 440+46

LAYOUT / PLAN

WARNING/ATENȚIE!  
Wire/Cablu

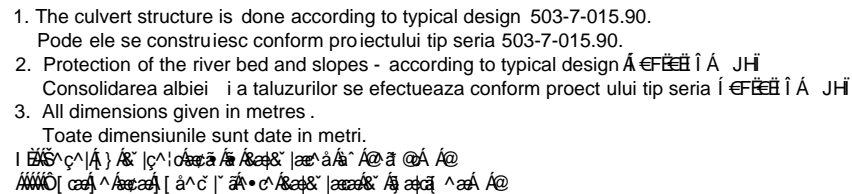
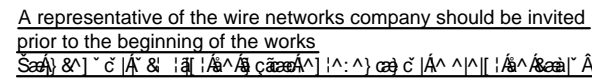


1. The culvert structure is done according to typical design 503-7-015.90.  
Pode ele se construiesc conform proiectului tip seria 503-7-015.90.
2. Protection of the river bed and slopes - according to typical design 503-7-015.90.  
Consolidarea albiei i a taluzurilor se efectueaza conform proiect ului tip seria 503-7-015.90
3. All dimensions given in metres .  
Toate dimensiunile sunt date in metri.

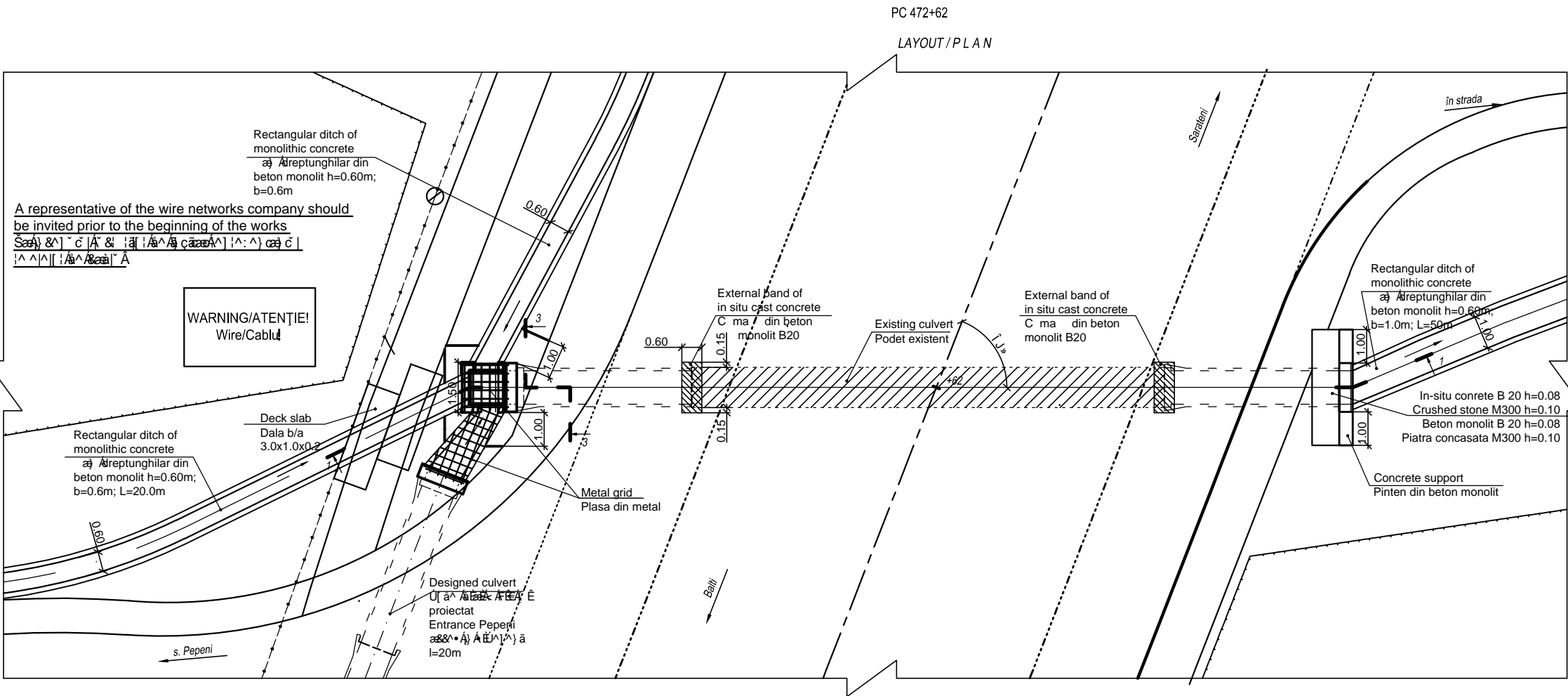
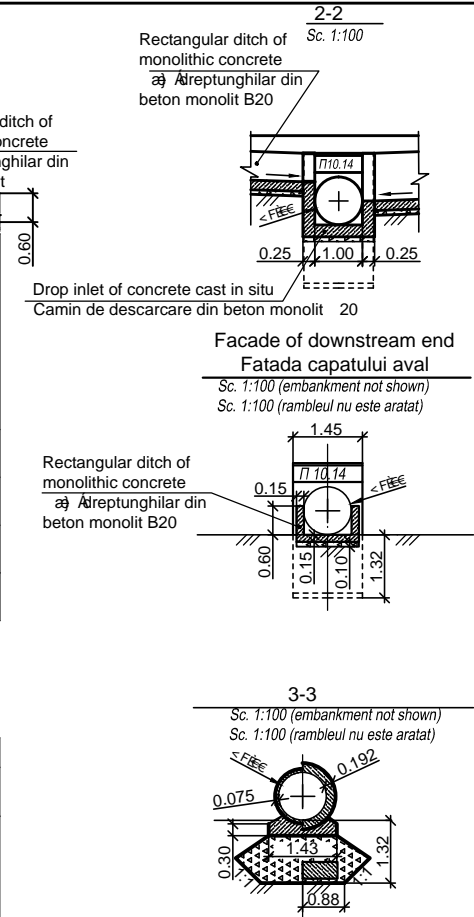
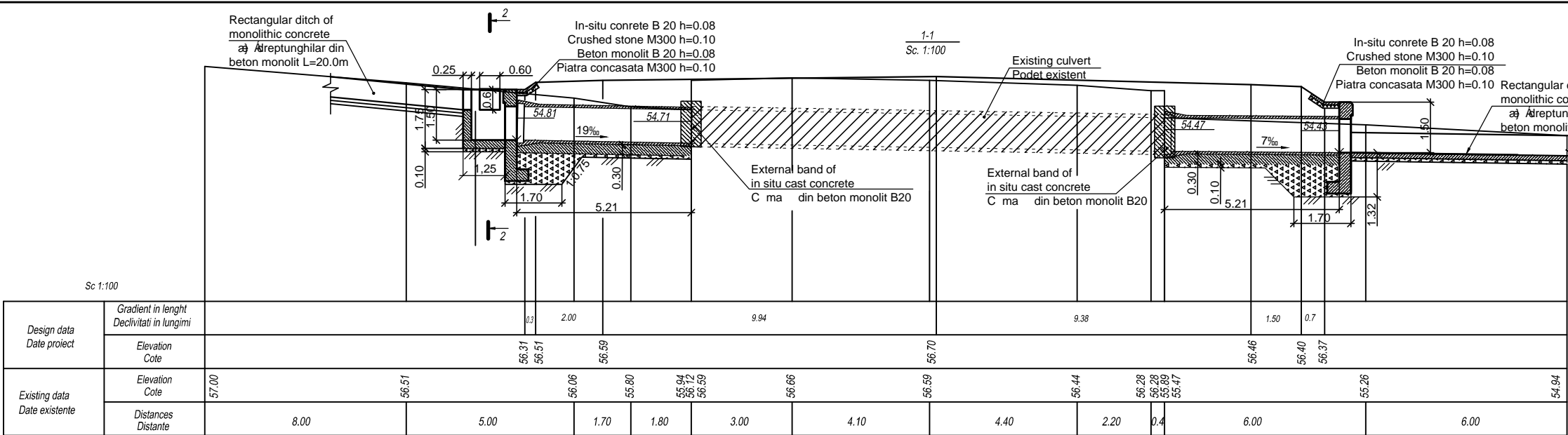


A representative of the wire networks company should be invited  
prior to the beginning of the works

EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme	Support	Project		
Roughton International	Rehabilitation of R14 Road		ISP	S.Bogza	Date	03.2012
Universcons	D nk'U t vpgk		Designed	A.Gonciaruc	Scale	
	Drawing title Culvert lengthening		Checked	N.Tcaci	Drawing AP-DA-1	
	Alungirea podețului Ö"1.0 cu tuburi TN100-III		Control STAS	L.Pozdirca		
PC 440+46						

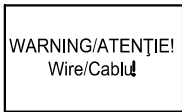
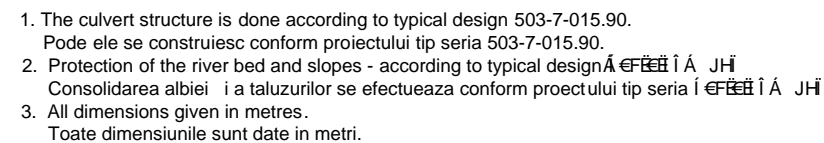
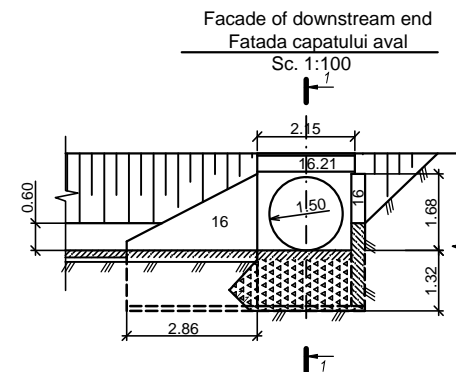


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector		Programme	Support	Project			
Roughton International	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
Universcons	Drawing title "Eaputve le'r qf g vaxk" N 16.50 PC 462+92	Designed	A.Gonciaruc		Scale		
		Checked	N.Teaci		Drawing CP-DA-1		
		Control STAS	L.Pozdirca				



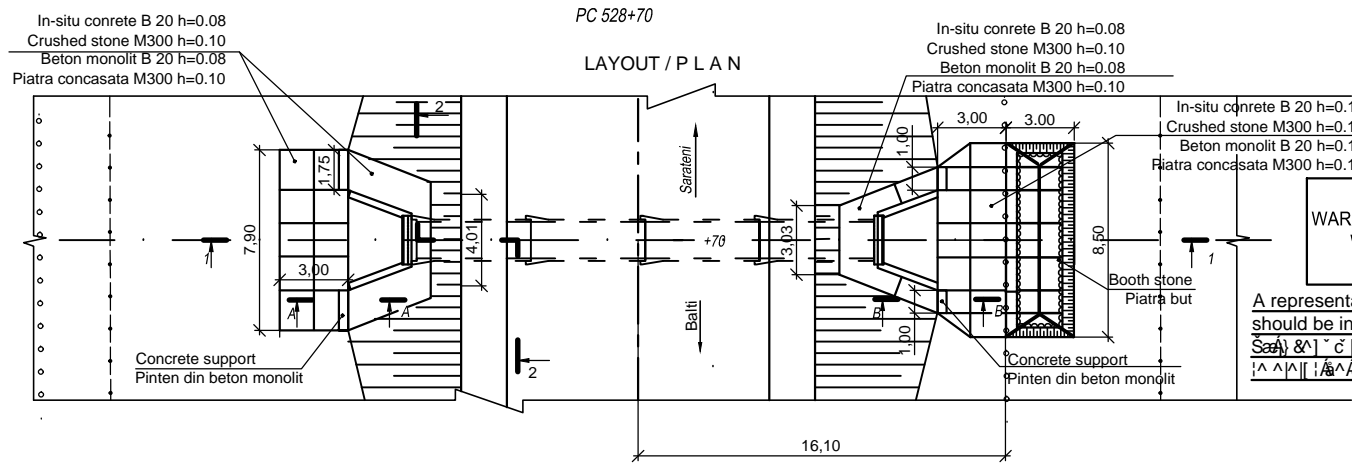
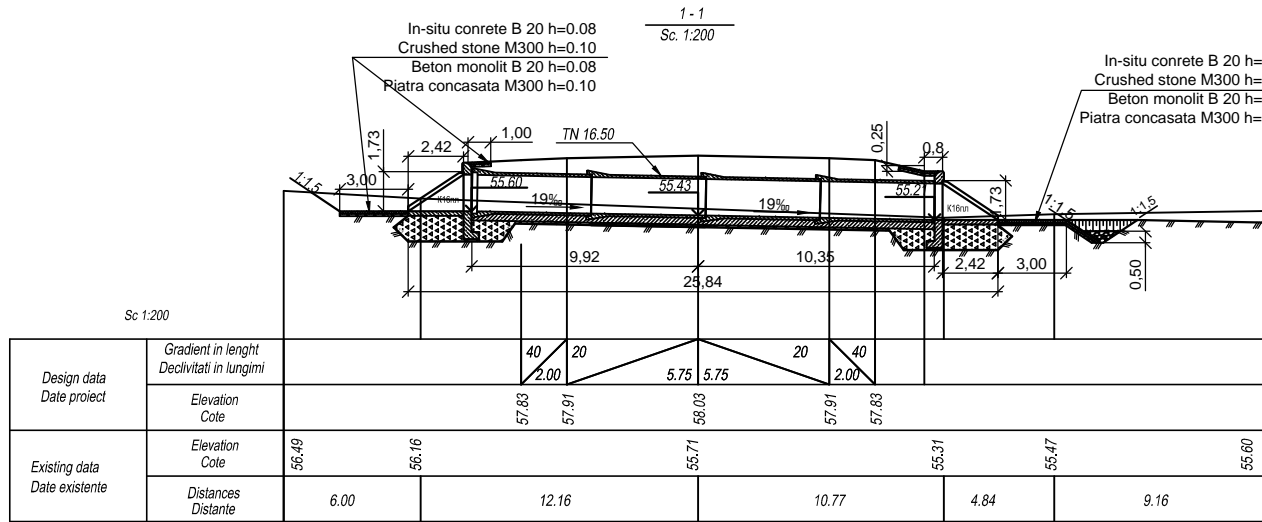
- The culvert structure is done according to typical design 503-7-015.90.  
Podetele se construiesc conform proiectului tip seria 503-7-015.90.
- Protection of the river bed and slopes - according to typical design 503-7-015.90.  
Consolidarea albiei și a taluzurilor se efectuează conform proiectului tip seria 503-7-015.90.
- All dimensions given in metres.  
Toate dimensiunile sunt date în metri.

EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector		Programme	Support	Project	
Roughton International	Rehabilitation of R14 Road Dnku t vpk	ISP	S.Bogza	Date	03.2012
		Designed	A.Goncariuc	Scale	
Universcons	Drawing title Culvert lengthening Alungirea podetului 0"1,0 cu tuburi TN100-III PC 472+62	Checked	N.Tcaci	Drawing AP-DA-1	
		Control STAS	L.Pozdirca		



A representative of the wire networks company should be invited prior to the beginning of the works

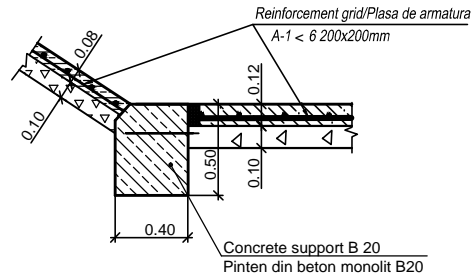
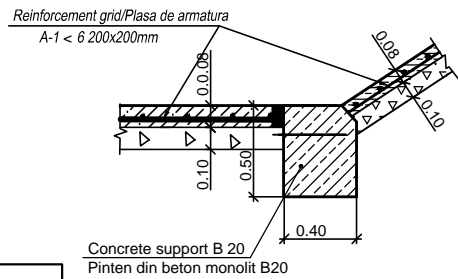
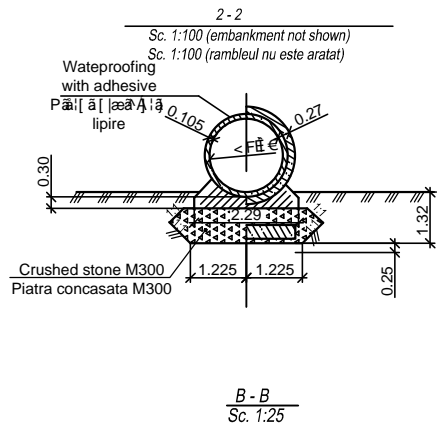
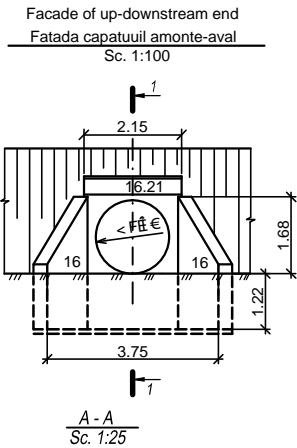
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International	Rehabilitation of R14 Road D nku t wpgk	ISP	S.Bogza		Date	03.2012	
Universcons	Drawing title Culvert lengthening Alungirea podetului Ő1.5 cu tuburi Nr16 PC 474+06	Designed	A.Gonciaruc		Scale		
		Checked	N.Tcaci		Drawing		
		Control STAS	L.Pozdirca		AP-DA-1		



WARNING/ATENȚIE!  
Wire/Cablu


WARNING/ATENȚIE!  
Wire/Cablu

A representative of the wire networks company  
should be invited prior to the beginning of the works

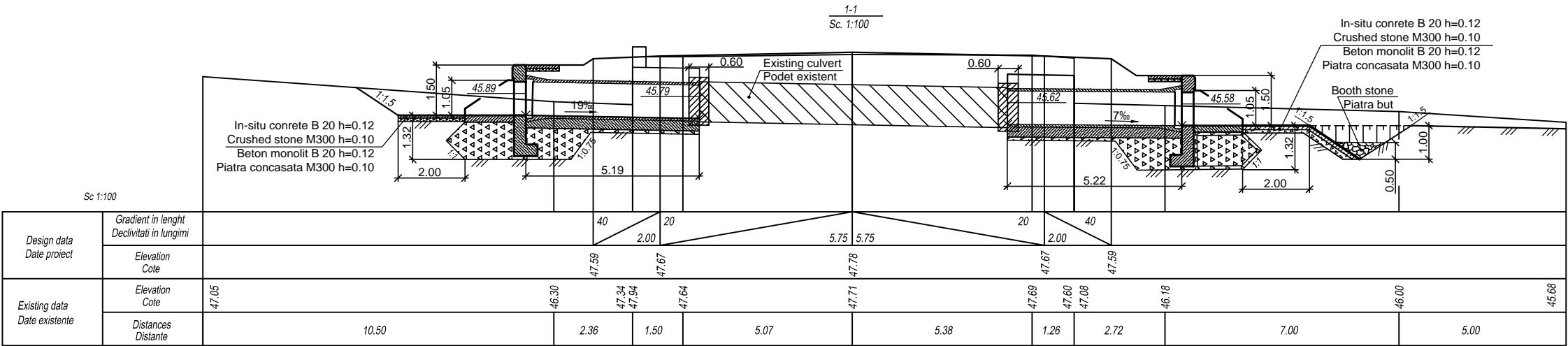


- The culvert structure is done according to typical design 503-7-015.90.  
Pode ele se construiesc conform proiectului tip seria 503-7-015.90.
- Protection of the river bed and slopes - according to typical design 503-7-015.90.  
Consolidarea albiei și a taluzurilor se efectueaza conform proiectului tip seria 503-7-015.90.
- All dimensions given in metres.  
Toate dimensiunile sunt date in metri.

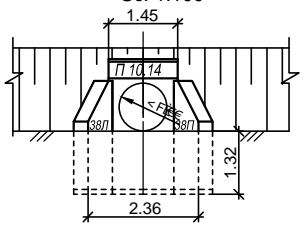
Main indices  
Indici fundamentali

Location of culvert PC+ Amplasarea podetului PC+	Water course  Directia curgerii	Levels.Remarca			Culvert lenght.Lungime podet m.			Intersection angle. Intersectare unghi a B	Gradient. Declivitatea A/D	Deepening of river-bed. Adincimea albiei m.	Aver. up. sm Aver. down. sm	Hydrologic features.Caract.hidrolog.			Flow bahavout. Regim scurgere	Soils. Soluri
		Culvert boat.Rigola			Inlet. Amonte L 1	Outlet. Aval L 2	Total an the bed. Totala a rigolei. L					Esti fared flow. Q Volumul calculat. Q	HL water NMA	Outlet velocite. Viteza la esire		
		Inleet. La intrare A/A	Axle. Pe axa A/A	Outlet. La esire A/A												
528+70		55.60	55.43	55.21	9.92	10.35	25.84	90	19		2	4.63	57.45	3.3	free-flow. Fara presiune	Heavy sandy loam. Argila nisipoasa grea.

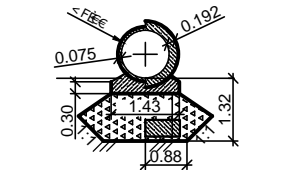
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector		Programme	Support	Project	
Roughton International	Rehabilitation of R14 Road D n k U t v p k	ISP	S.Bogza	Date	03.2012
		Designed	A.Gonciaruc	Scale	
		Checked	N.Tcaci	Drawing	
Universons	Drawing title "Equipate le'raf g wnk" N 16.50 PC 528+70	Control STAS	L.Pozdirca	CP-DA-1	



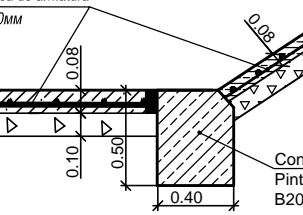
Facade of up-downstream end  
Fatada capatului amonte-aval  
Sc. 1:100



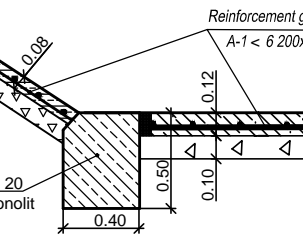
2-2  
Sc. 1:100 (embankment not shown)  
Sc. 1:100 (rambleul nu este aratat)



A-A  
Sc. 1:25

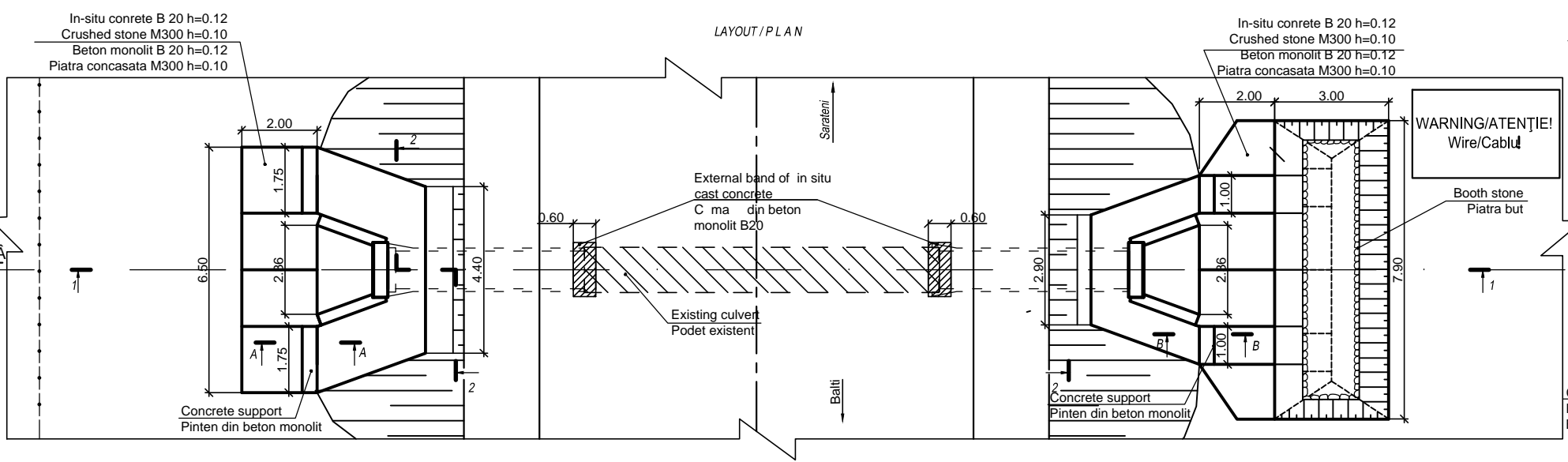


B-B  
Sc. 1:25



WARNING/ATENȚIE!  
Wire/Cablul

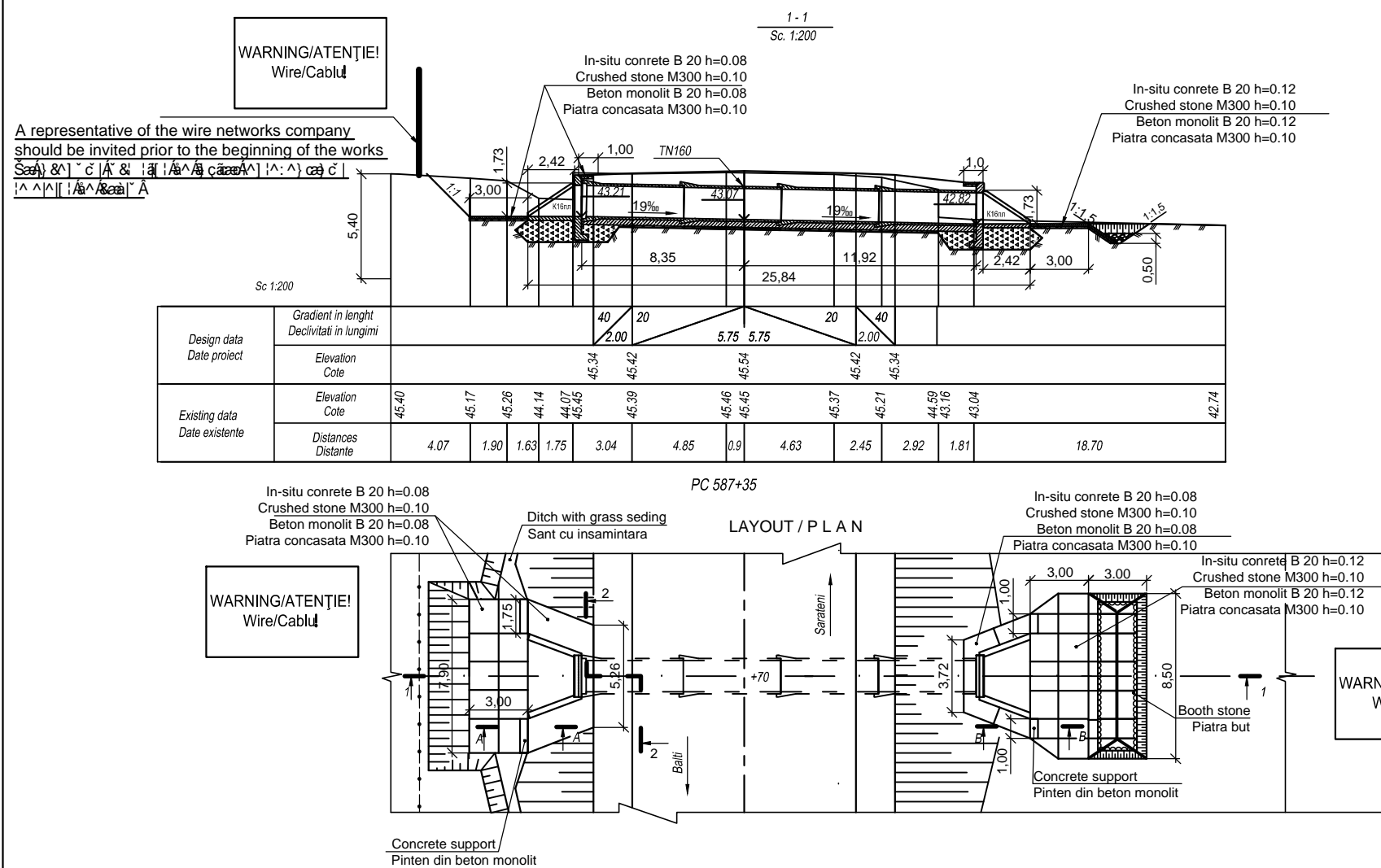
A representative of the wire networks company should be invited prior to the beginning of the works  
Un reprezentant al companiei de rețea de cabluri trebuie să fie invitat înainte de începerea lucrărilor




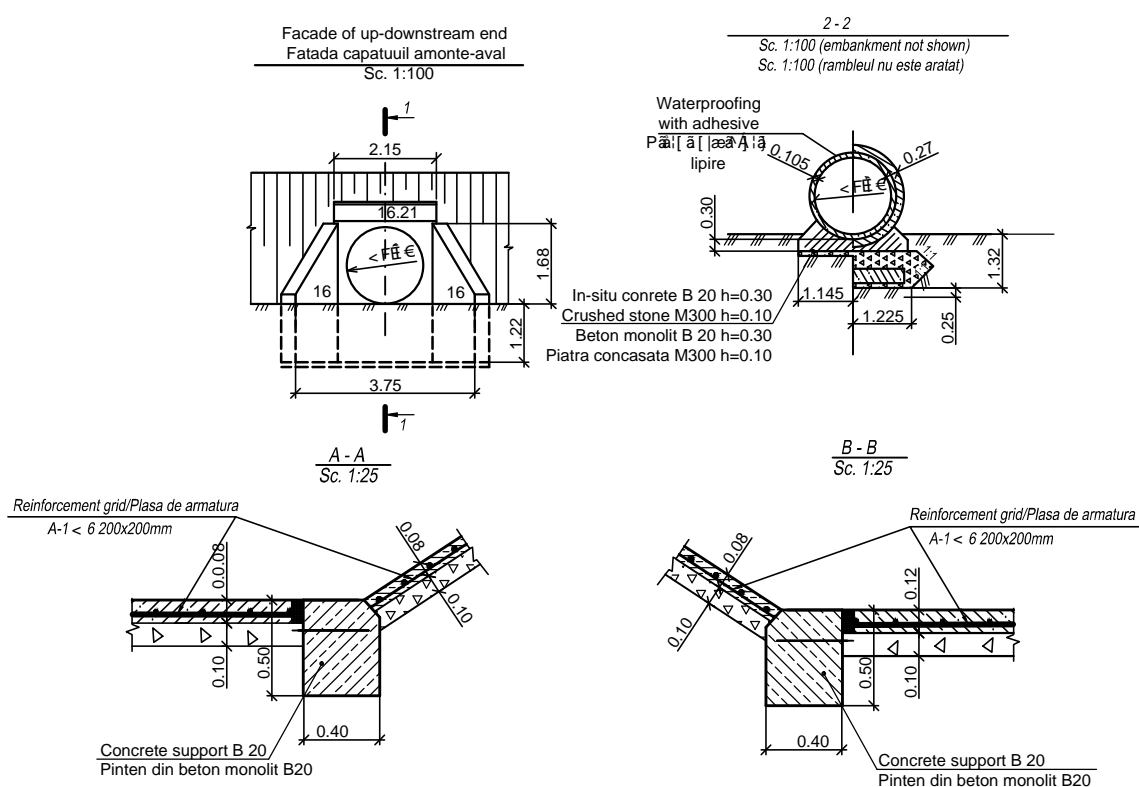
- The culvert structure is done according to typical design 503-7-015.90.  
Podetele se construiesc conform proiectului tip seria 503-7-015.90.
- Protection of the river bed and slopes - according to typical design 503-7-015.90.  
Consolidarea albiei și a taluzurilor se efectuează conform proiectului tip seria 503-7-015.90.
- All dimensions given in metres.  
Toate dimensiunile sunt date în metri.

EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road	Sector	Programme	Support	Project	
Roughton International	Rehabilitation of R14 Road		ISP	S.Bogza	Date	03.2012
Universcons	Drawing title		Designed	A.Gonciaruc	Scale	
	Culvert lengthening		Checked	N.Tcaci	Drawing AP-DA-1	
	Alungirea podetului Ø1.0 cu tuburi TN100-III PC 562+02		Control STAS	L.Pozdirca		





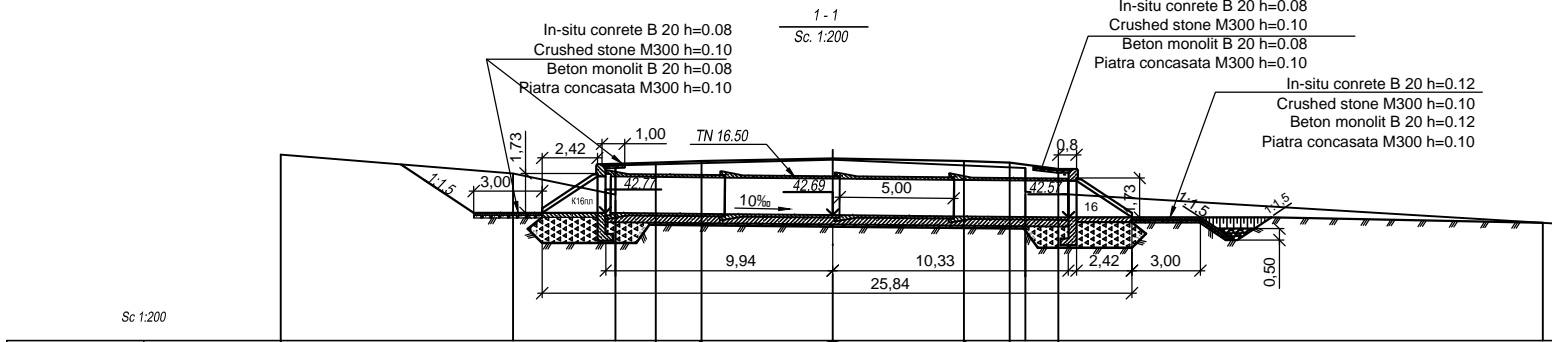
Main indices Indici fundamentali															
Location of culvert PC+ Amplasarea podetului PC+	Water course Directia curgerii	Levels.Remarca			Culvert lenght.Lungime podet m.			Intersection angle. unghi a la intersectare	Gradient. Declivitatea	Deepening of river-bed. Adincimea albiei m.	Esti fared flow. Q Volumul calculat. Q	HL water NMA	Outlet velocite. Viteza la esire	Flow bahavout. Regim scurgere	Soils. Soluri
		Culvert boat.Rigola			Inlet. Amonte L 1	Outlet. Aval L 2	Total an the bed. Totala a rigolei. L								
		Inleet. La intrare A A	Axle. Pe axa A A	Outlet. La esire A A											
578+35		43.21	43.07	42.82	8.35	11.92	25.84	90	19		3.31	44.85	3.8	free-flow. Fara presiune	Heavy sandy loam. Argila nisipoasa grea.



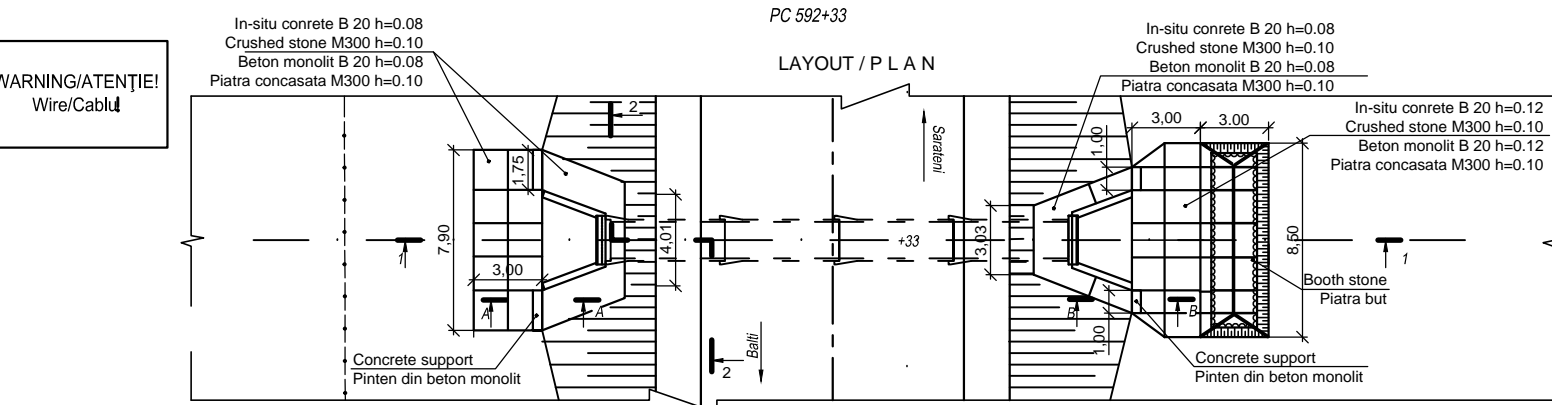
- The culvert structure is done according to typical design 503-7-015.90.  
Podelele se construiesc conform proiectului tip seria 503-7-015.90.
- Protection of the river bed and slopes - according to typical design 503-7-015.90.  
Consolidarea albiei și a taluzurilor se efectuează conform proiectului tip seria 503-7-015.90.
- All dimensions given in metres.  
Toate dimensiunile sunt date în metri.

EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector		Programme	Support	Project	
Roughton International	Rehabilitation of R14 Road D n k U t w p k	ISP	S.Bogza	Date	03.2012
		Designed	A.Gonciaruc	Scale	
Universcons	Drawing title Culvert construction "Egputve k'r q f g w n k" VP 382/ KK PC 587+35	Checked	N.Tcaci	Drawing CP-DA-1	
		Control STAS	L.Pozdirca		

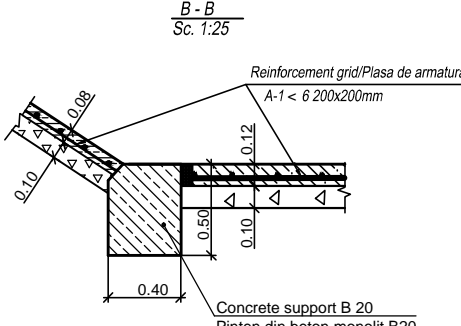
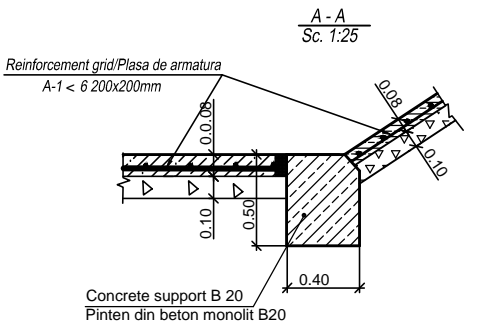
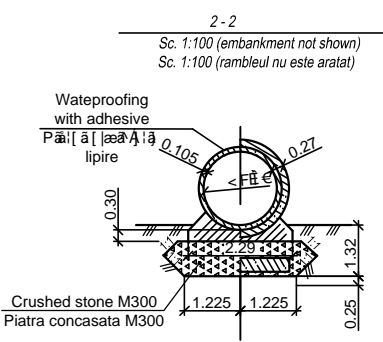
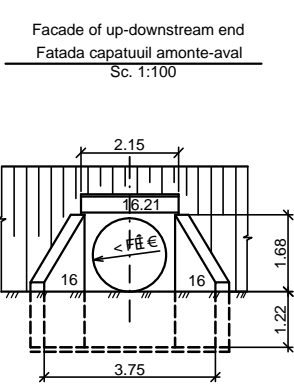




Design data Date proiect	Gradient in lenght Declivitati in lungimi	40/20 5.75/5.75 20/2.14					
	Elevation Cote	44.96	45.04	45.16	45.04	44.96	44.70
Existing data Date existente	Elevation Cote	45.32	44.49	43.32	44.85	45.10	44.73
	Distances Distanțe	10.19	4.48	9.52	8.44	16.30	



A representative of the wire networks company should be invited prior to the beginning of the works

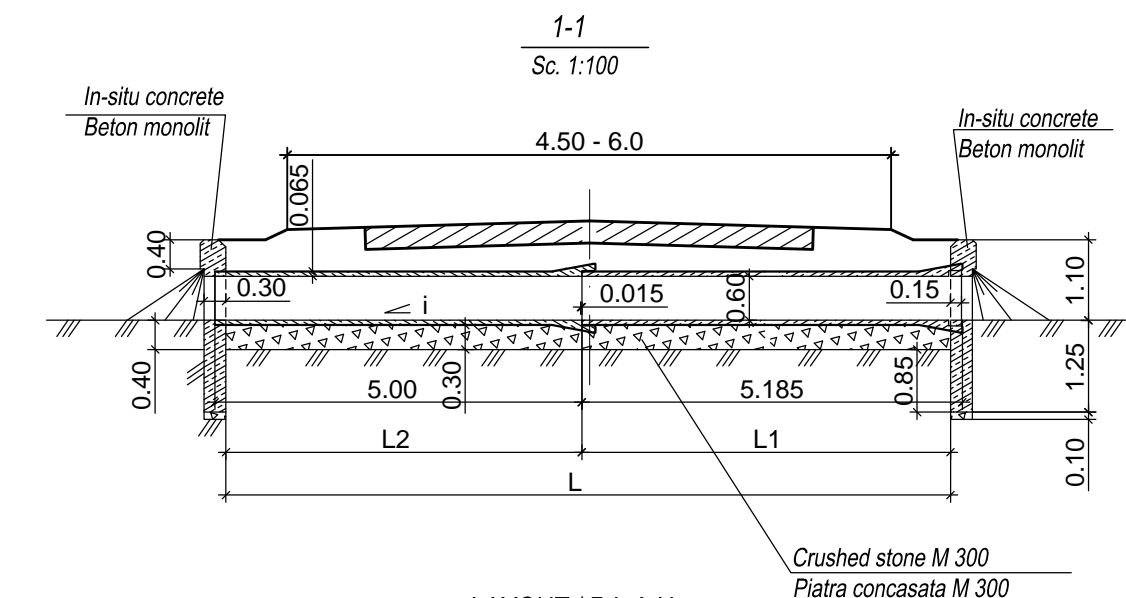


- The culvert structure is done according to typical design 503-7-015.90. Pote ele se construiesc conform proiectului tip seria 503-7-015.90.
- Protection of the river bed and slopes - according to typical design 503-7-015.90. Consolidarea albiei i a taluzurilor se efectueaza conform proiectului tip seria 503-7-015.90.
- All dimensions given in metres. Toate dimensiunile sunt date in metri.

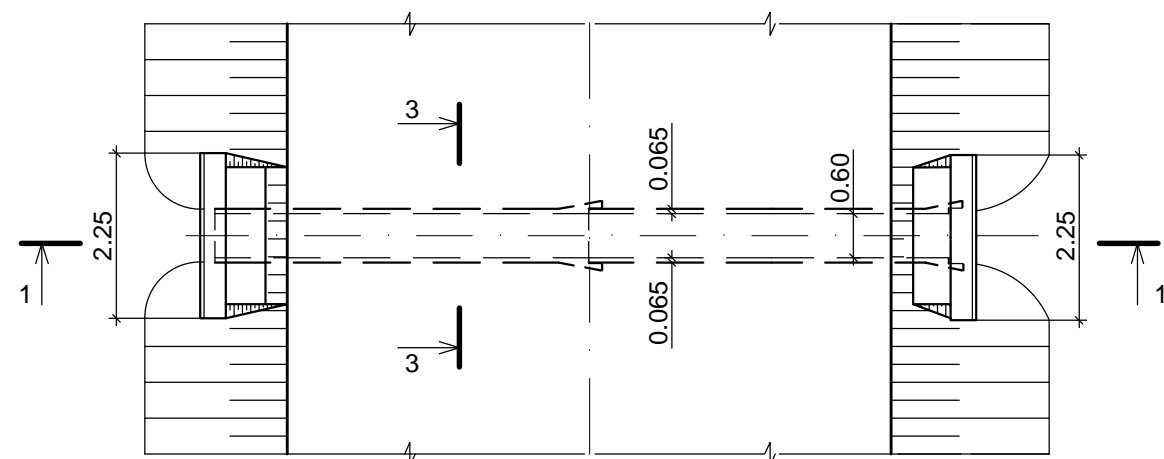
Main indices Indici fundamentali															
Location of culvert PC+ Amplasarea podetului PC+	Water course Directia curgerii	Levels.Remarca			Culvert lenght.Lungime podet m.			Intersection angle. intersectare unghi a	Gradient. Declivitatea m	Deepening of river-bed. Adincimea albiei m	Area of cross-section. A sm	Hydrologic features.Caract.hidrolog.	Flow bahavout. Regim scurgere	Soils. Soluri	
		Inlet. La intrare m	Axle. Pe axa m	Outlet. La esire m	Inlet. Amonte L 1	Outlet. Aval L 2	Total an the bed. Totala a rigolei. L								
592+33	→	42.77	42.69	42.57	9.94	10.33	25.84	90	10		2	3.31	44.32	3.1	free-flow. Fara presiune

EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration			
Road Sector		Programme	Support	Project	
Roughton International	Rehabilitation of R14 Road D n k U t v p k	ISP	S.Bogza	Date	03.2012
		Designed	A.Gonciaruc	Scale	
		Checked	N.Tcaci	Drawing	
Universcons	Culvert construction Egputve k t q f g v n k VP 382/ KK PC 592+33	Control STAS	L.Pozdirca	CP-DA-1	

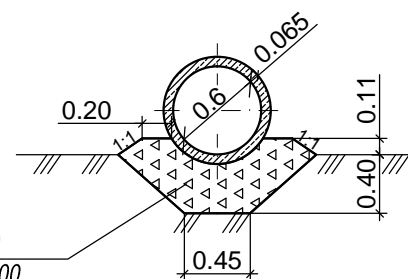
Culvert r.c. TH 60-III f/f side roads  
Pode b/a 60-III f/f drumuri laterale



LAYOUT / PLAN  
Sc. 1:100



3 - 3  
Sc 1:50



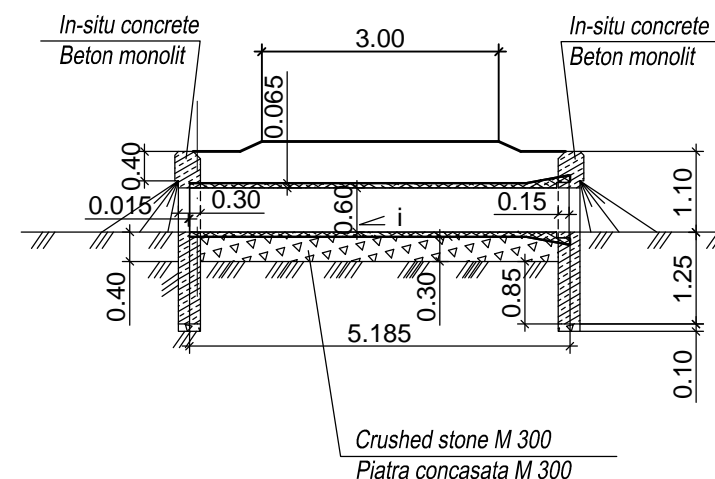
Quantities for pipe blocks  
Cantitatile blocurilor podetelor

Block type Bloc prefabricat	Block dimensions Dimensiunile blocului	Block material Materialele blocului	Block volume, cu. m Volumul blocului, mc	Block weight, t Masa blocului, t
60-III	L -5.0 60-III	Reinforced concrete B30 Beton armat B30	0.76	1.87

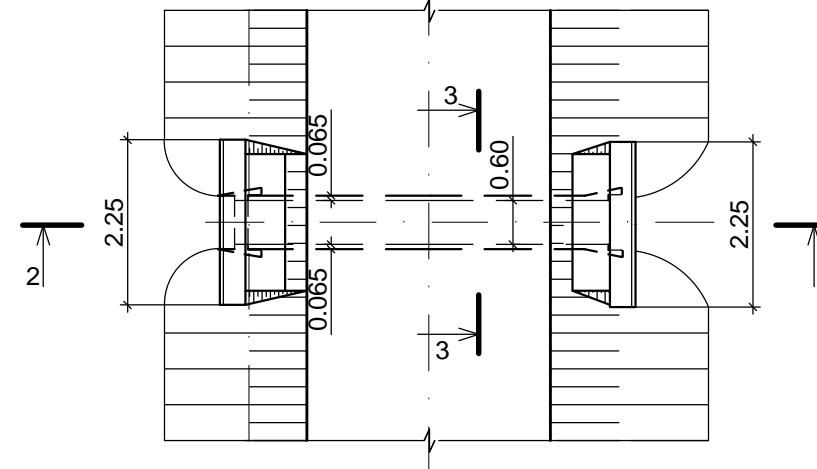
\* b.a. (beton armat) - r.c. (reinforced concrete)

Culvert r.c. TH 60-III f/f entrances to properties  
U[ a^ A dA 60-III f/f intr i a^ i a

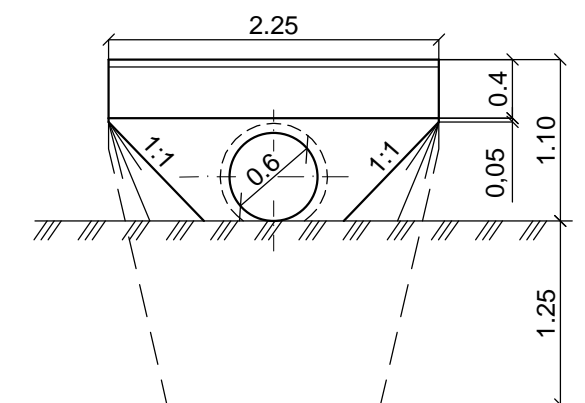
2-2  
Sc. 1:100



LAYOUT / PLAN  
Sc. 1:100

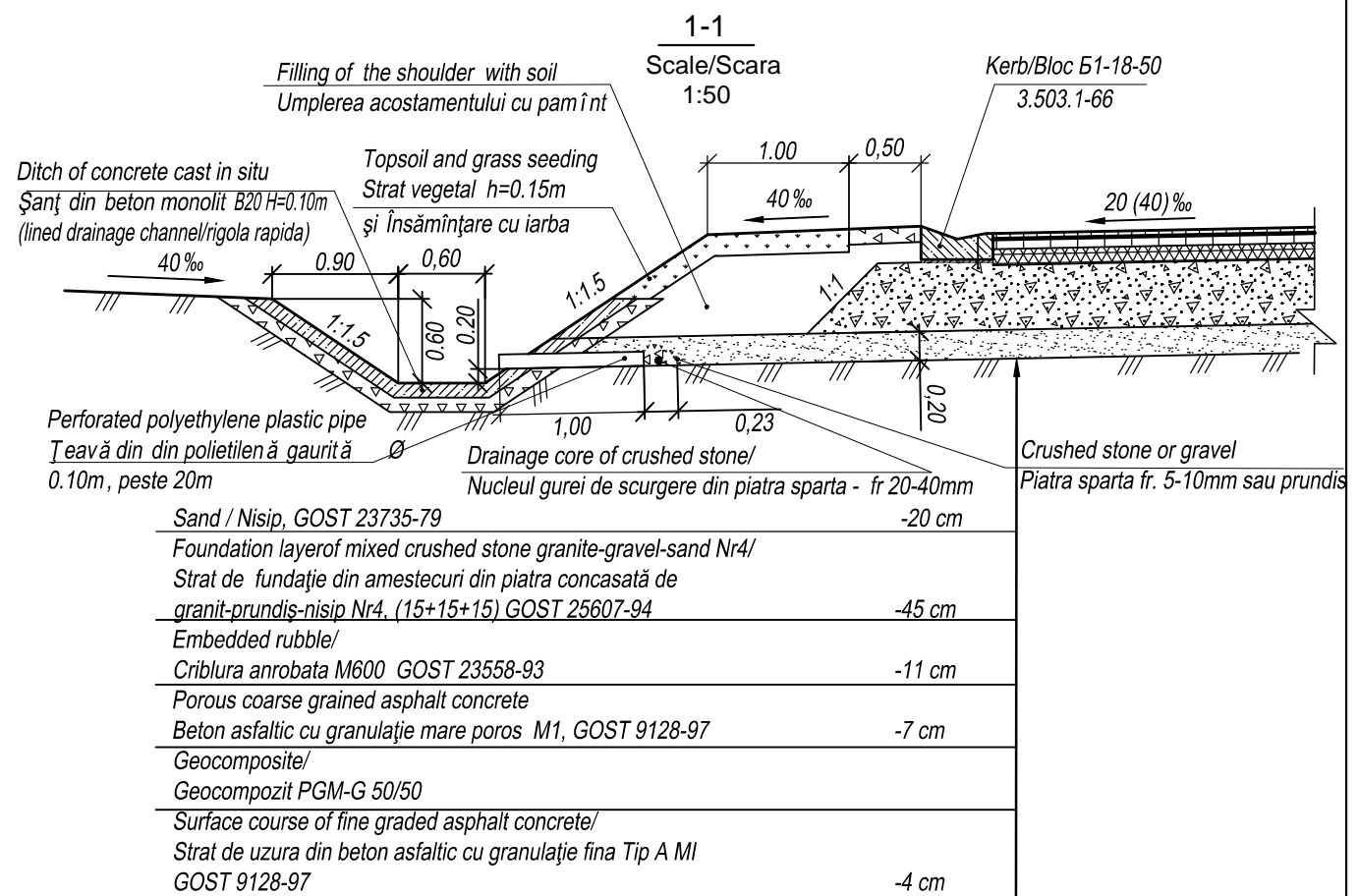


Facade of the outlet upstream-downstream Sc. 1:50  
Fatada capatului amonte-aval Sc. 1:50

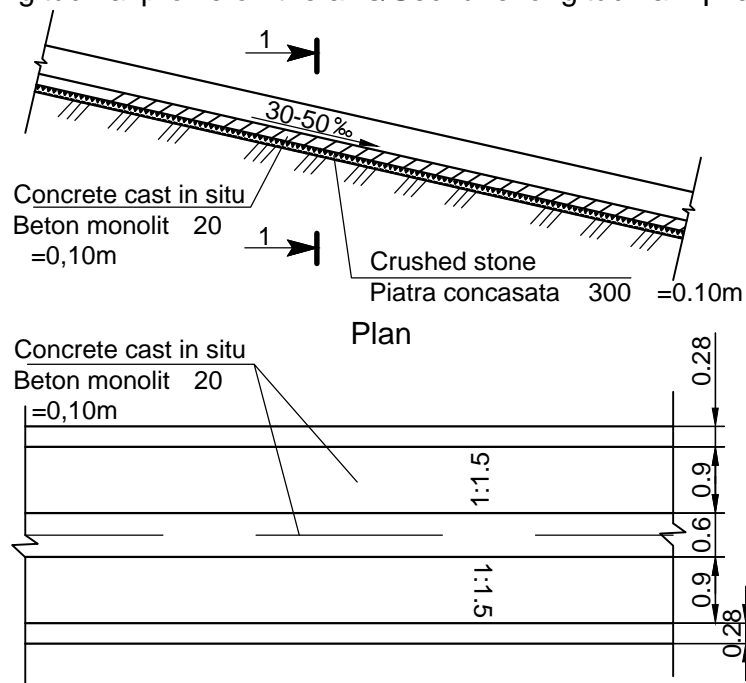


- The culvert structure is according to typical design 503-7-015.90.  
Podetile se construiesc conform proiect tip seria 503-7-015.90.
- Protection of the river bed and slopes - according to typical design 503-7-015.90.  
Consolidarea albiei si a taluzurilor se efectueaza conform proiect tip seria 503-7-015.90.
- Dimensions are given in metres.  
Toata dimensiunile sunt date in metri.

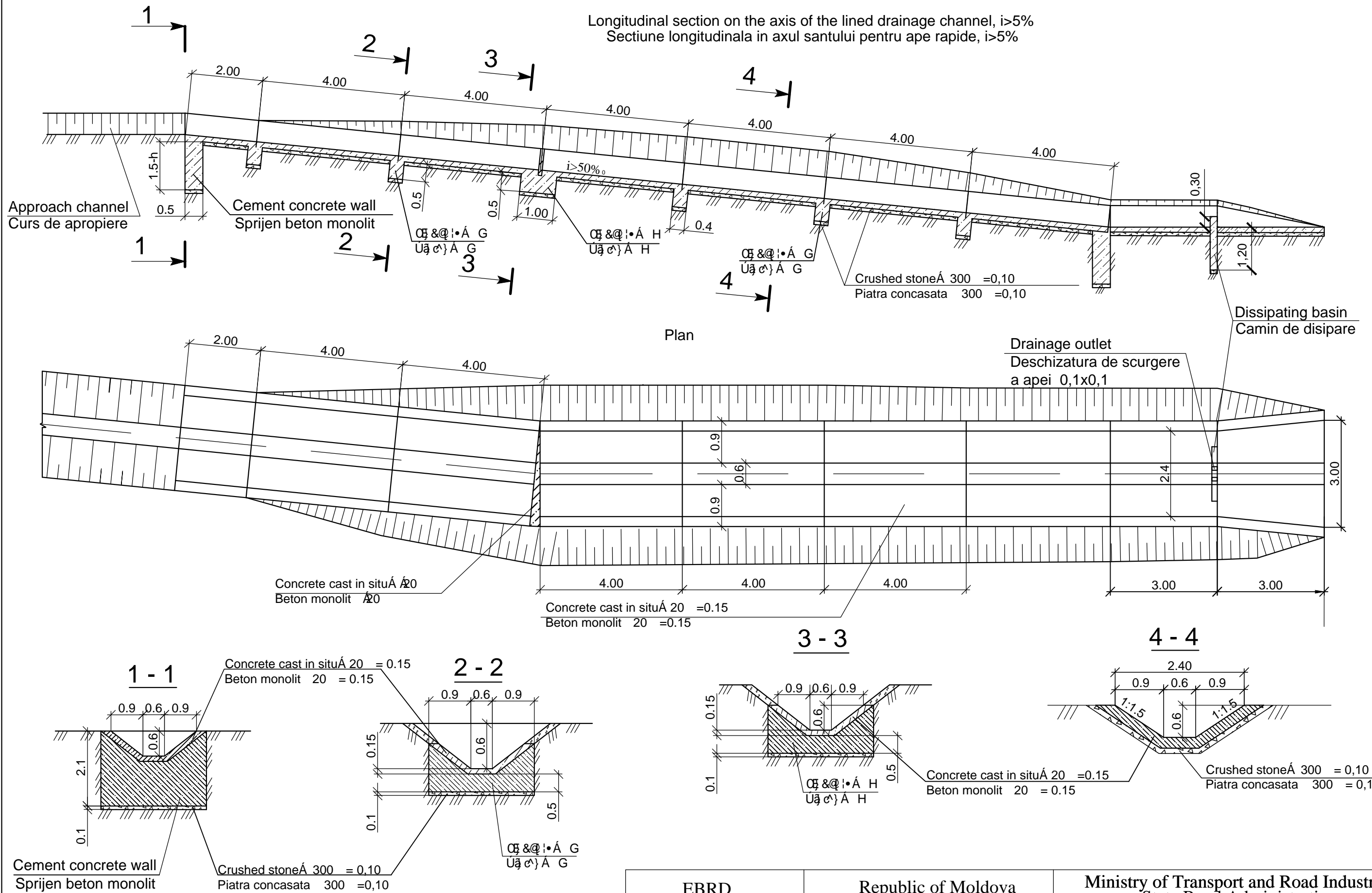
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road D n/U t v/gpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:100	
	Drawing title Culvert r.c. TH 60-III f/f side roads and entrances to the properties Ref g 'd.a. "60-III f/f two wk'tvetcnr" k'intr tk'p'ewt k	Checked	N.Tcaci		Drawing PET-DA-1		
		Control STAS	L.Pozdirca				



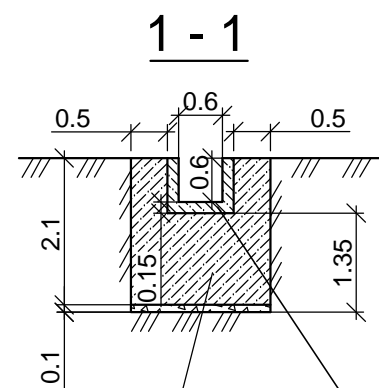
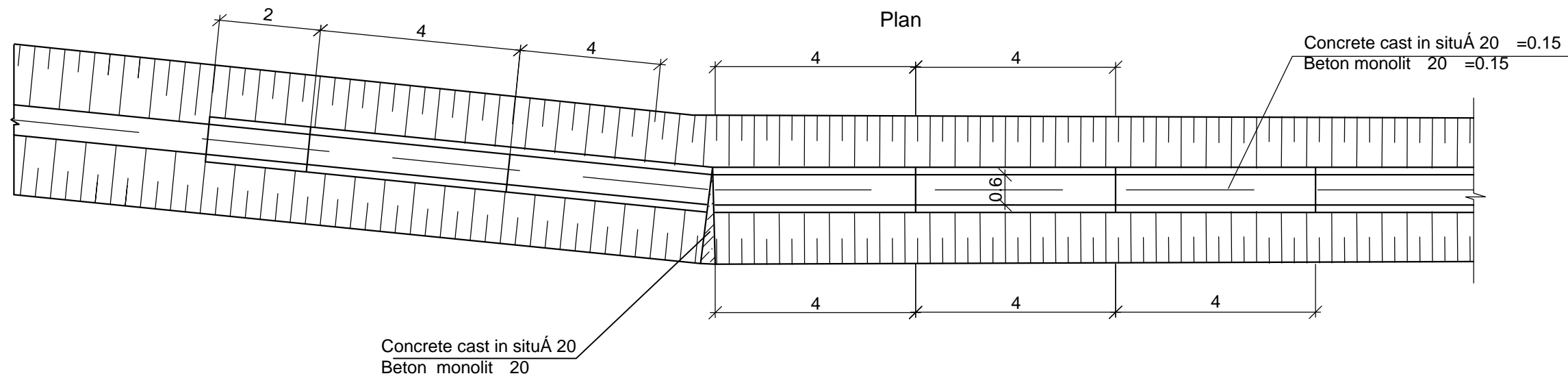
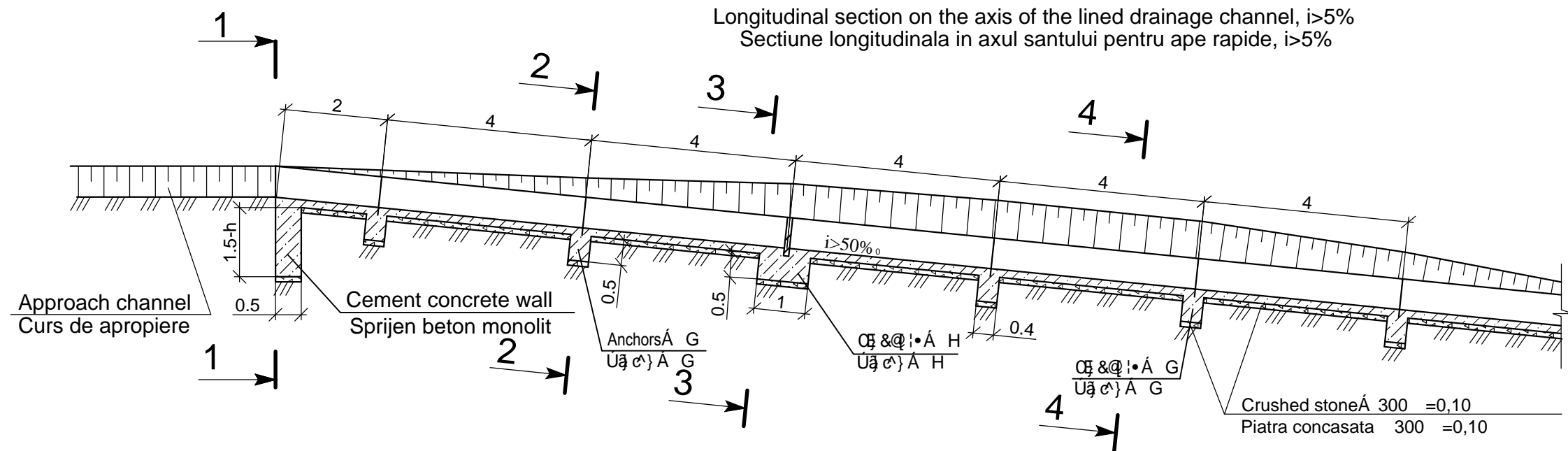
Tip 1. Trapezoidal ditch/ an trapezoidal  
Longitudinal profile on the axis/Sec iune longitudinal în ax



EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
Universcons		Designed	A.Gonciaruc		Scale		
	Drawing title Side drains reinforced with monolithic concrete B20 i < 5% Șanțuri laterale consolidate cu beton monolit B20 i < 5%	Checked	N.Tcaci		Drawing SLT-DA-1		
	Control STAS	L.Pozdirca					

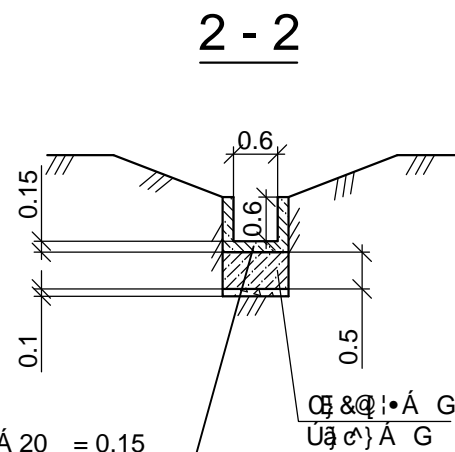


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	Rehabilitation of R14 Road D n k U t v g p k	ISP	S.Bogza		Date	03.2012
Universcons	Drawing title Typical lined side drain i>5% Santuri laterale tip i>5%	Designed	A.Gonciaruc		Scale	
		Checked	N.Tcaci		Drawing	
		Control STAS	L.Pozdirca		SLT-DA-1	

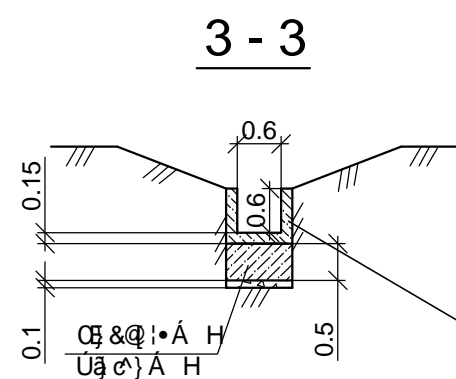


Cement concrete wall  
Sprijen beton monolit

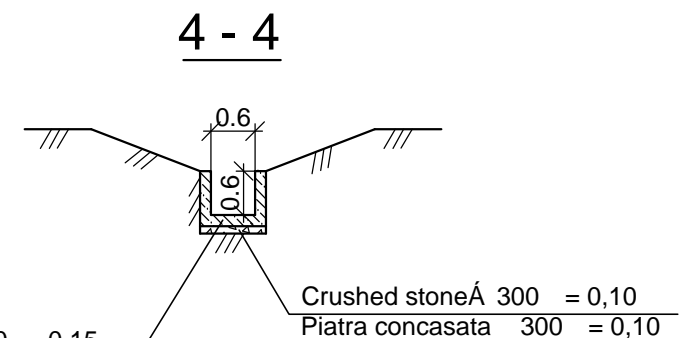
Concrete cast in situ  $\text{Å } 20 = 0,15$   
 Beton monolit 20 = 0,15



Ușă } A G



Concrete cast in situ  $\text{Å } 20 = 0,15$   
 Beton monolit 20 = 0,15



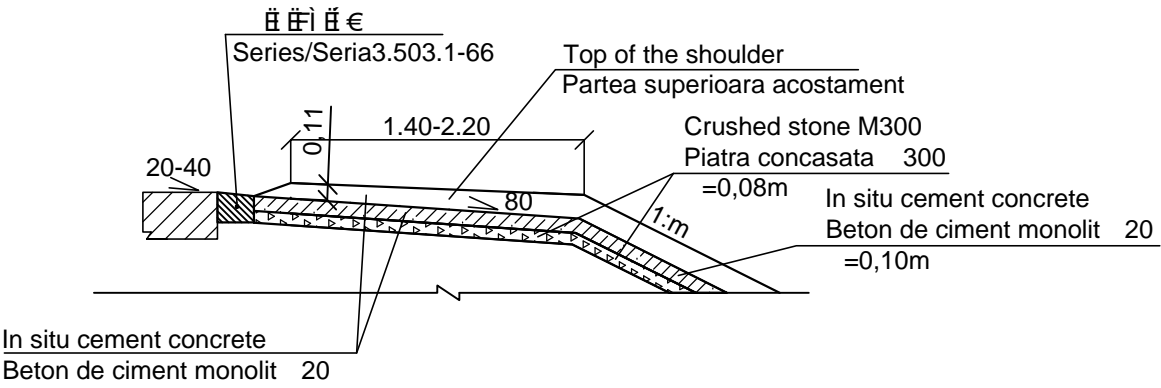
Crushed stone  $\text{Å } 300 = 0,10$   
 Piatra concasată 300 = 0,10

EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road D n k U t v g p k	ISP	S.Bogza		Date	03.2012	
Universcons	Drawing title Typical lined side drain i>5% Santuri laterale tip i>5%	Designed	A.Gonciaruc		Scale		
		Checked	N.Tcaci		Drawing SLT-DA-2		
		Control STAS	L.Pozdirca				

DRAINAGE CHUTES  
CONSTRUCTIA CASIULUI

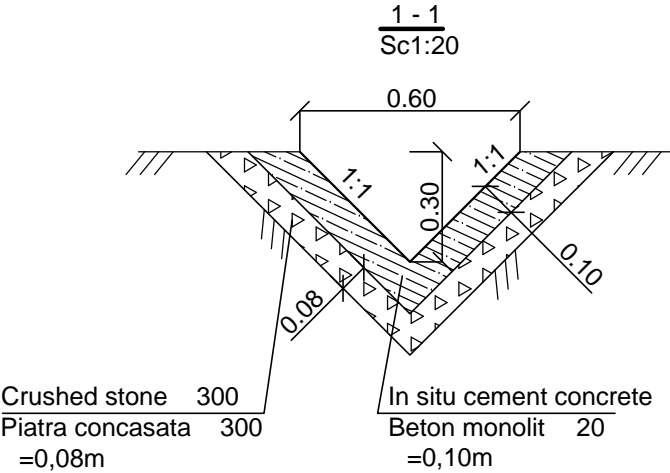
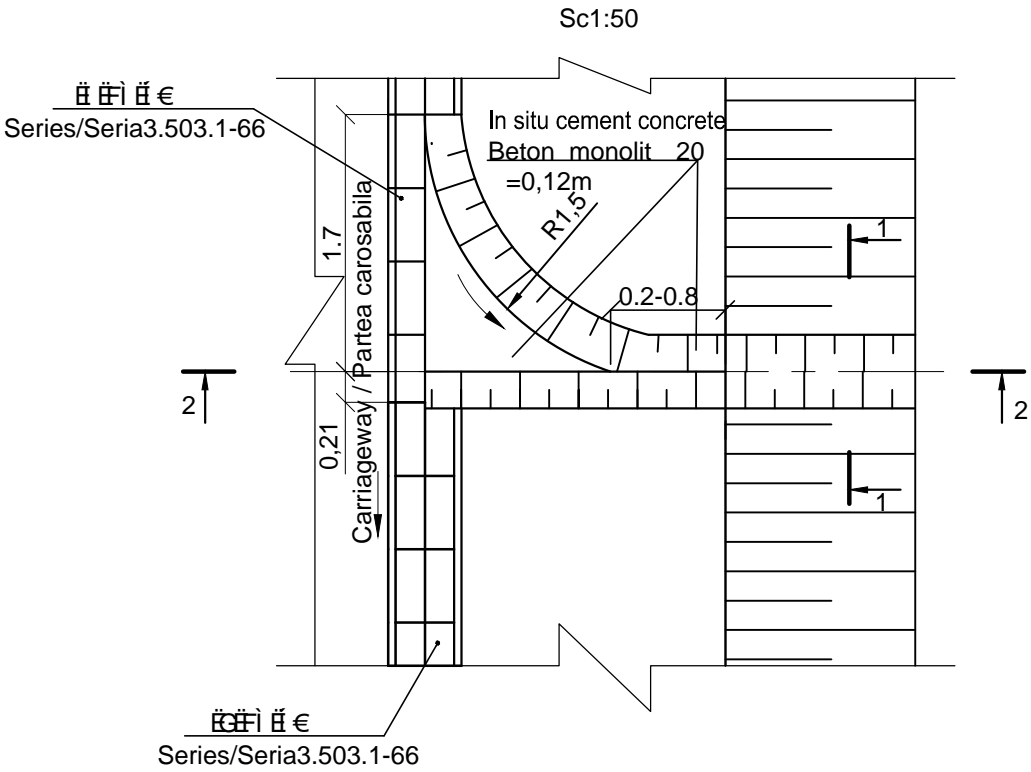
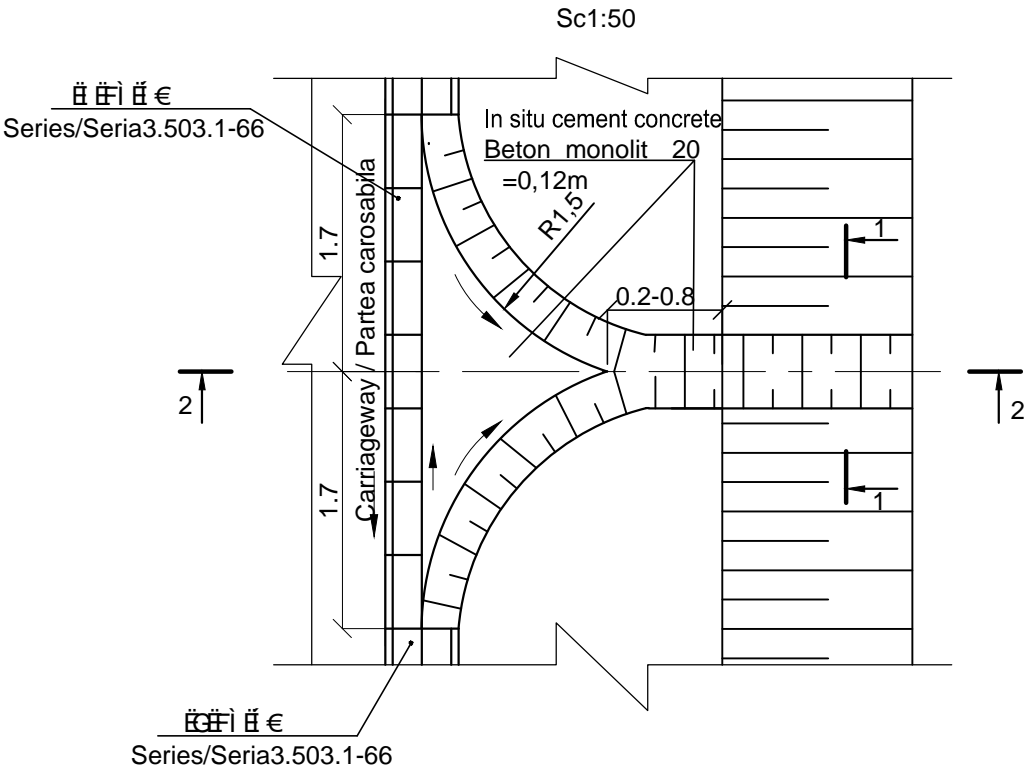
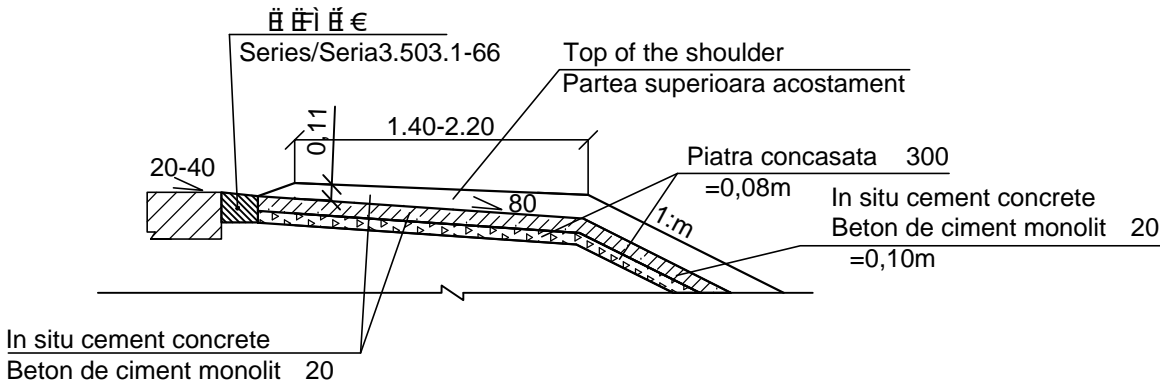
type A. In low places / tip . In locurile joase

2-2  
Sc1:50



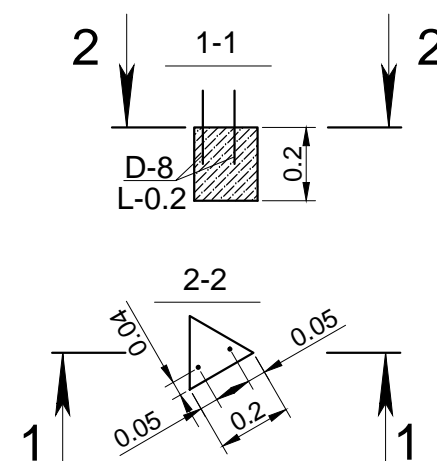
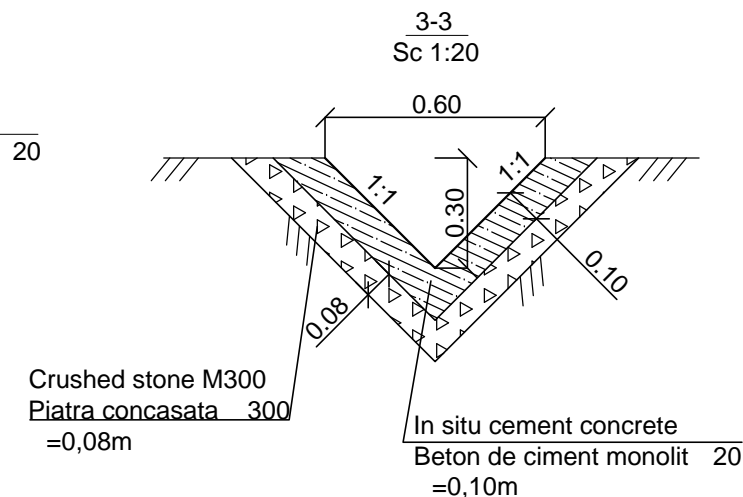
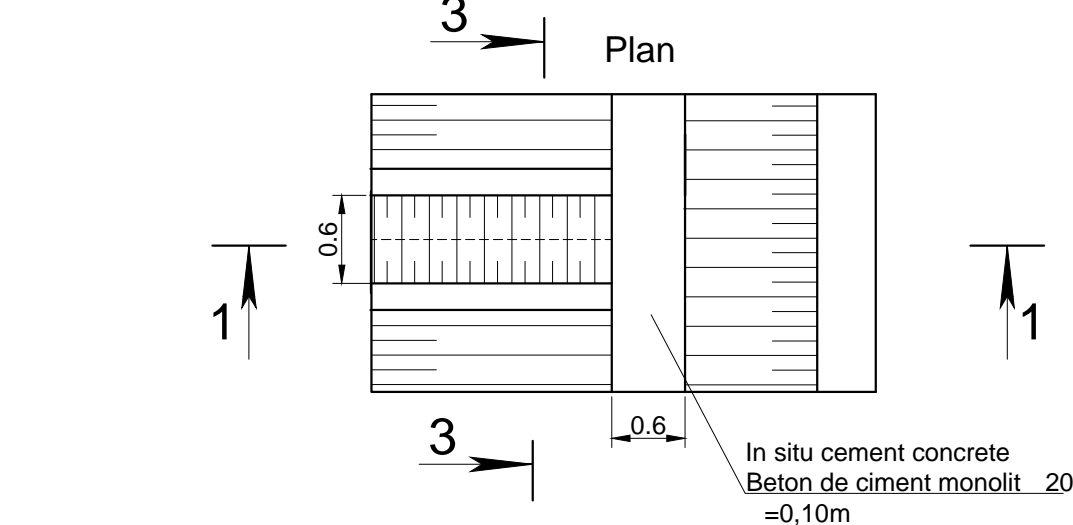
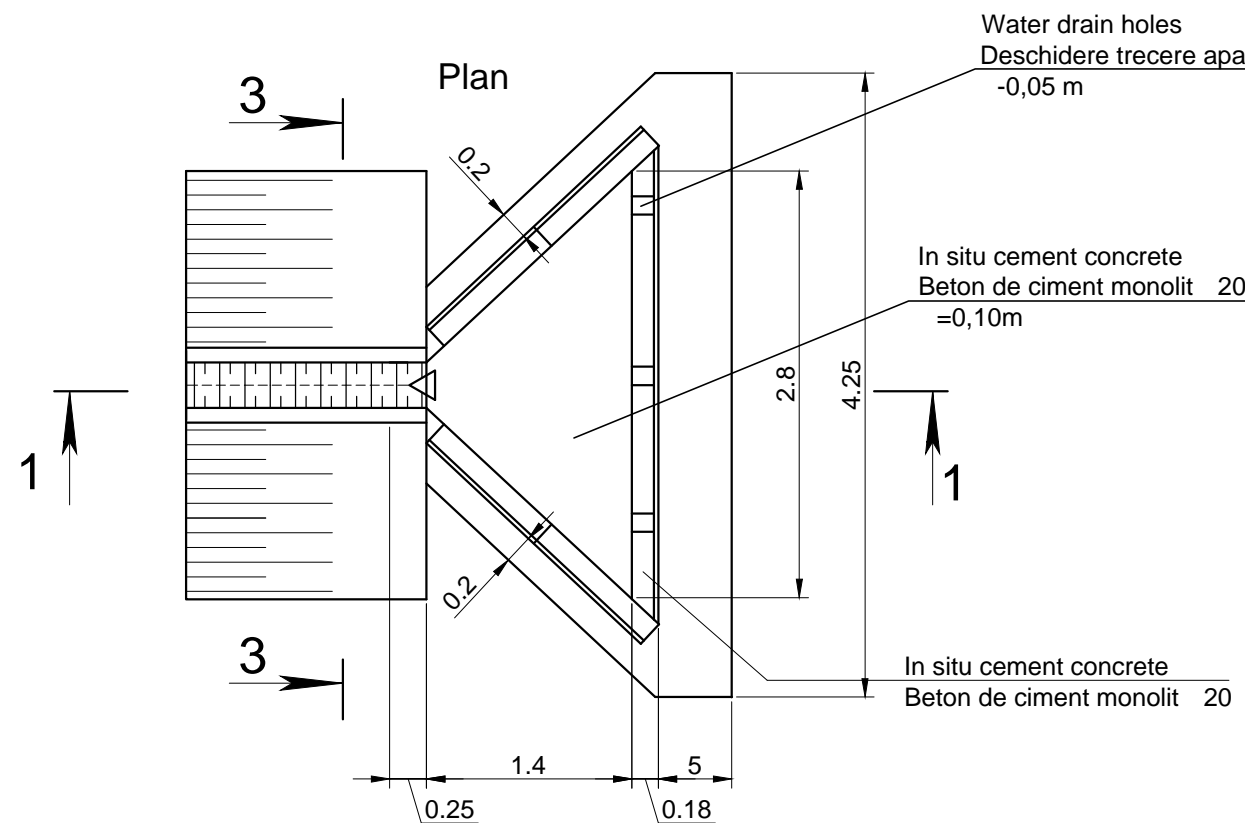
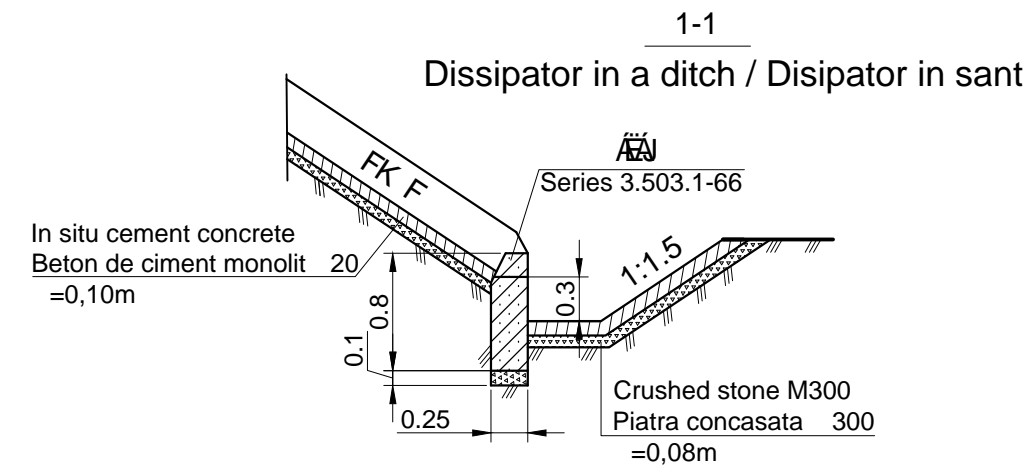
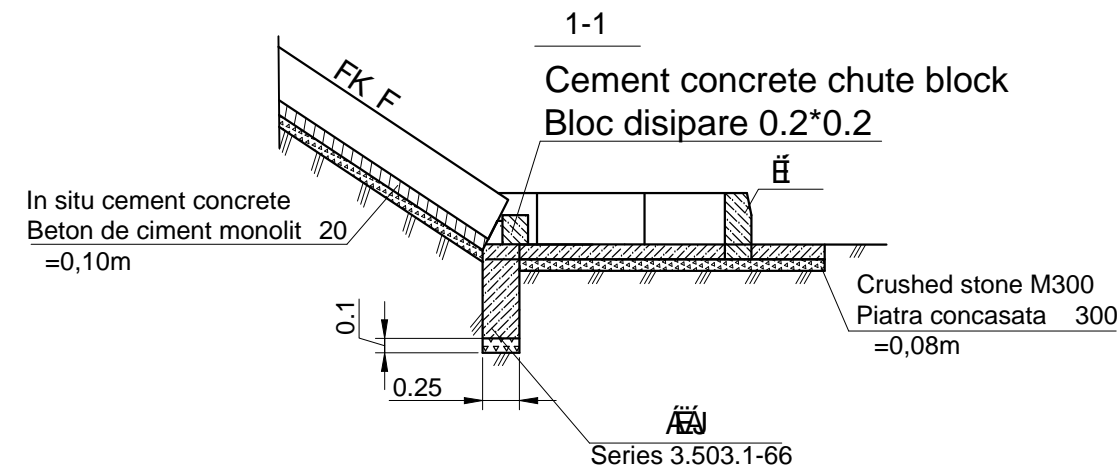
type B. In declivities / tip B. In declivitati

2-2  
Sc1:50

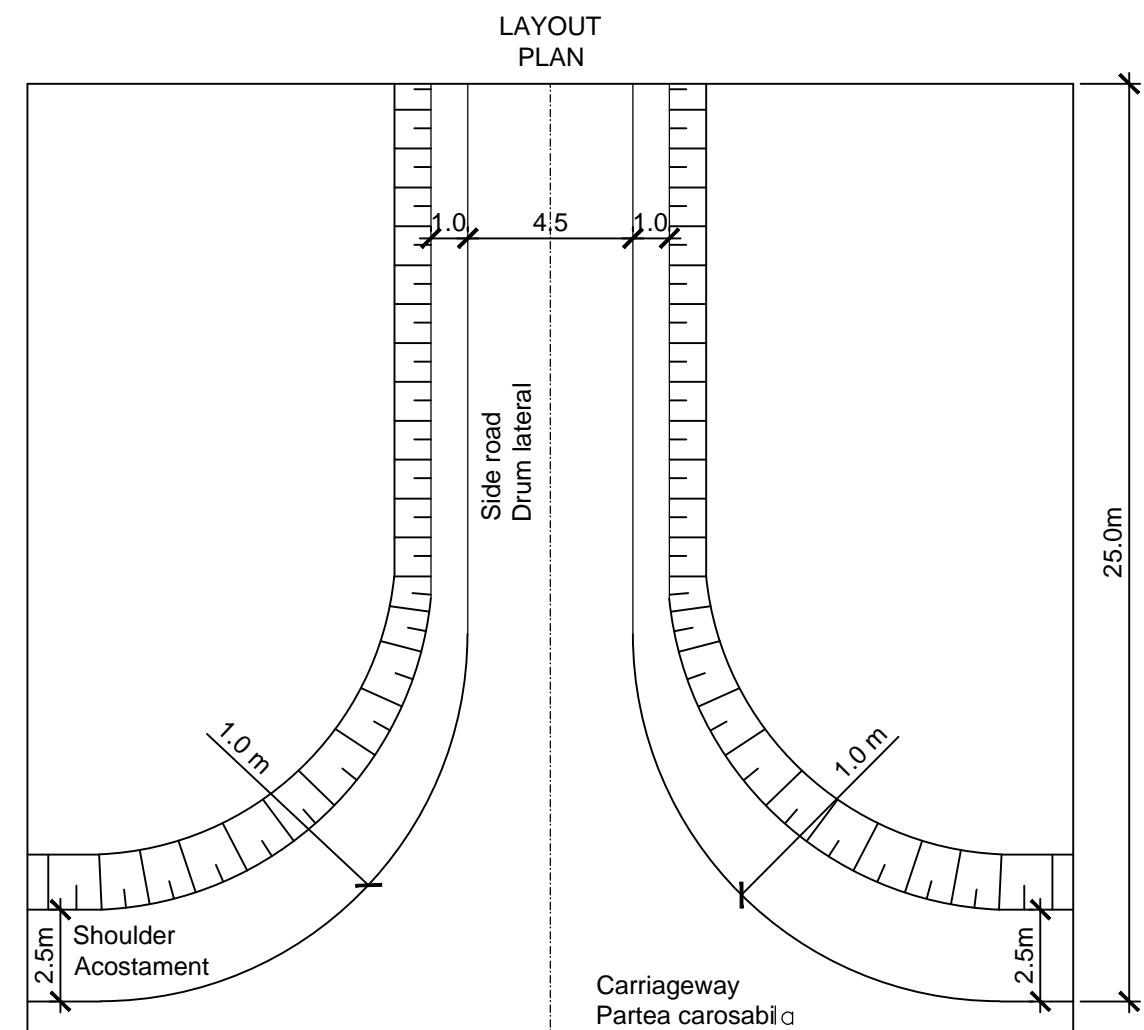
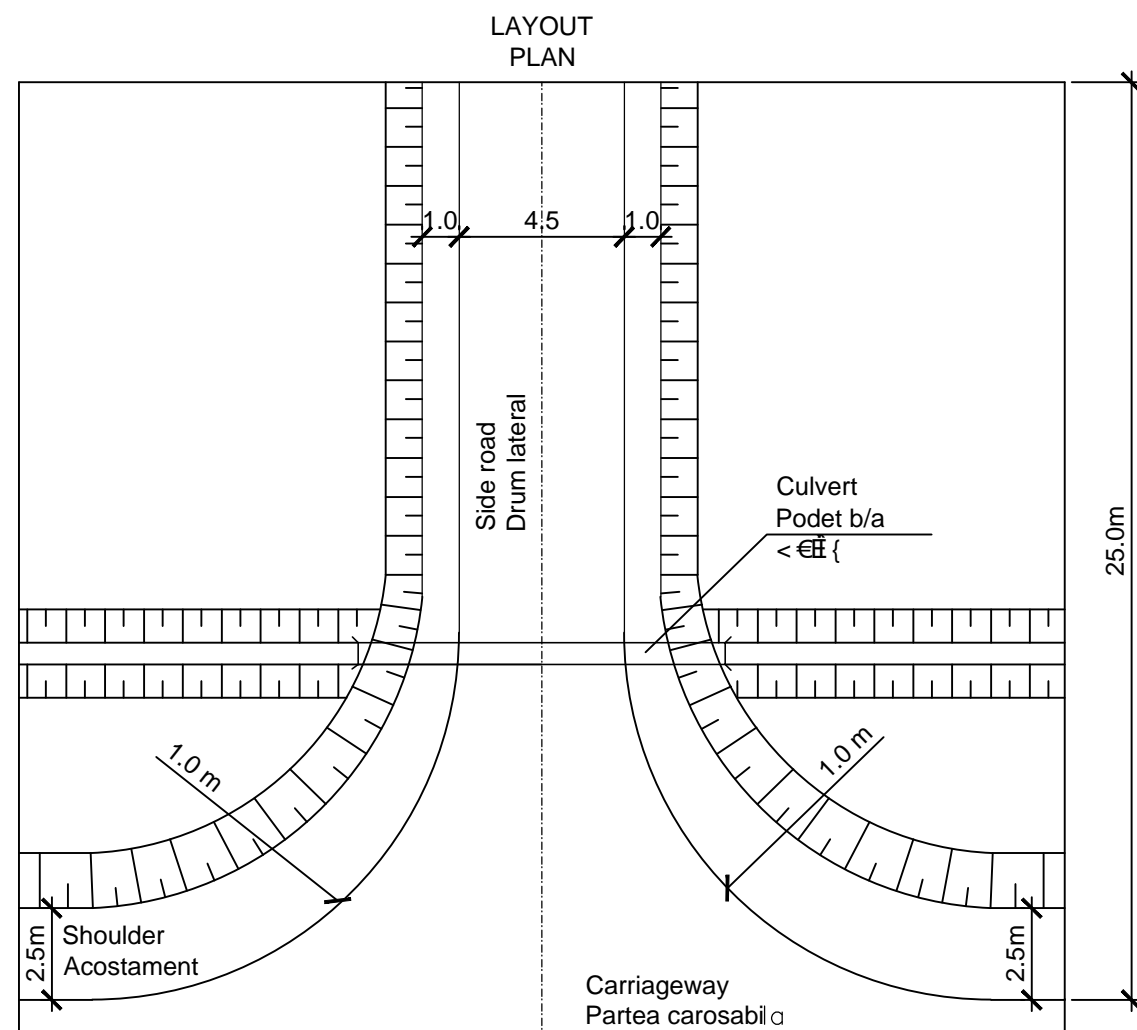


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t v gpk	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:50	
	Drawing title Drainage chutes construction on shoulder Construc ia casilui pe acostament	Checked	N.Tcaci		Drawing CCA-DA-1		
		Control STAS	L.Pozdirca				

DISSIPATOR CHUTE  
C MIN DE DISIPARE PENTRU CASIU

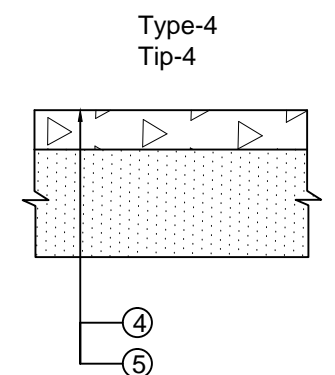
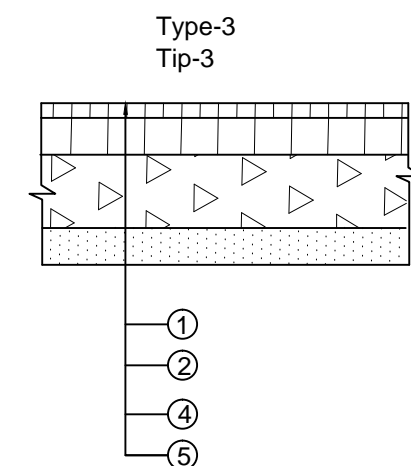
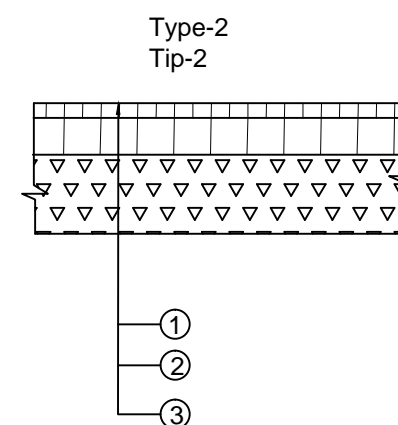
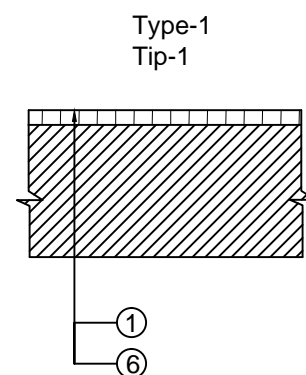


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road D n k U t v g p k  Drawing title Dissipator chute Camin de disipare pentru casiuri	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale		
		Checked	N.Tcaci		Drawing CDC-DA-1		
		Control STAS	L.Pozdirca				



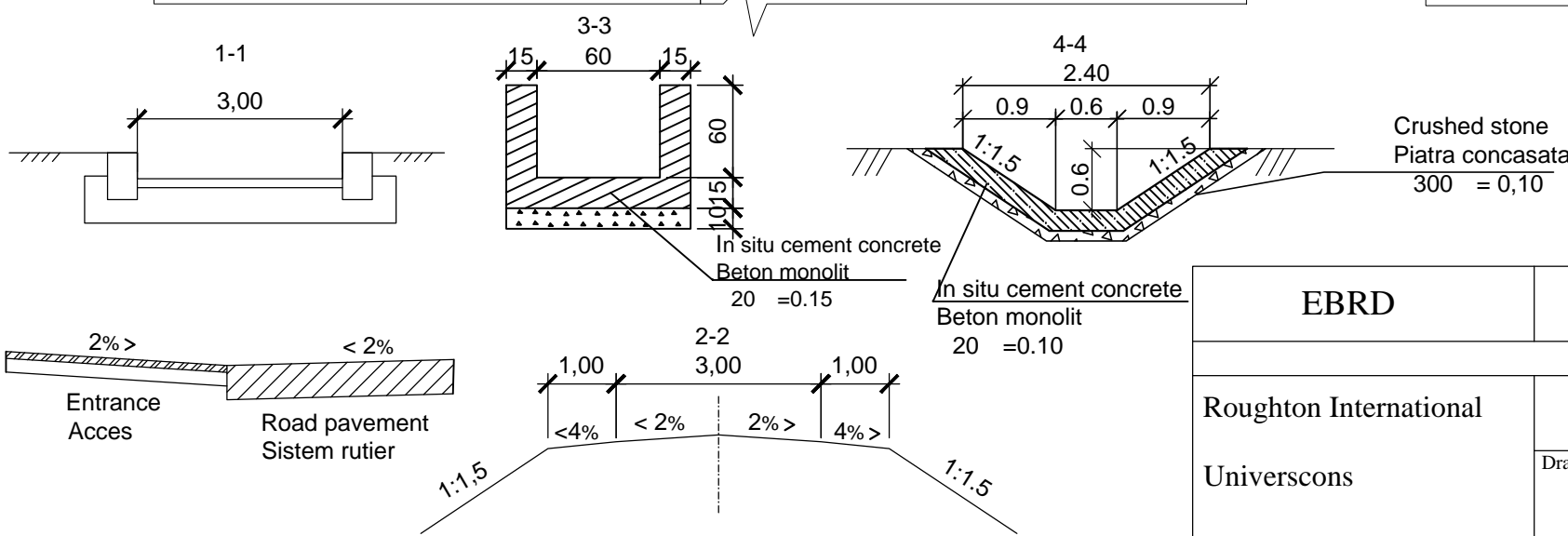
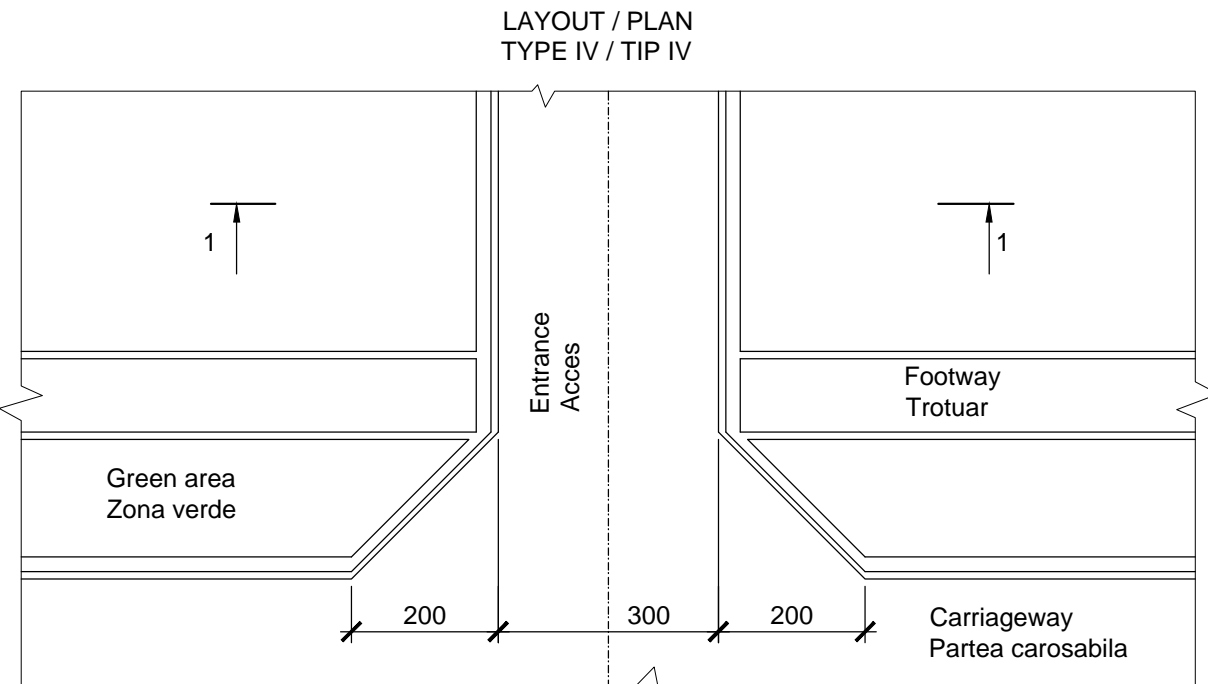
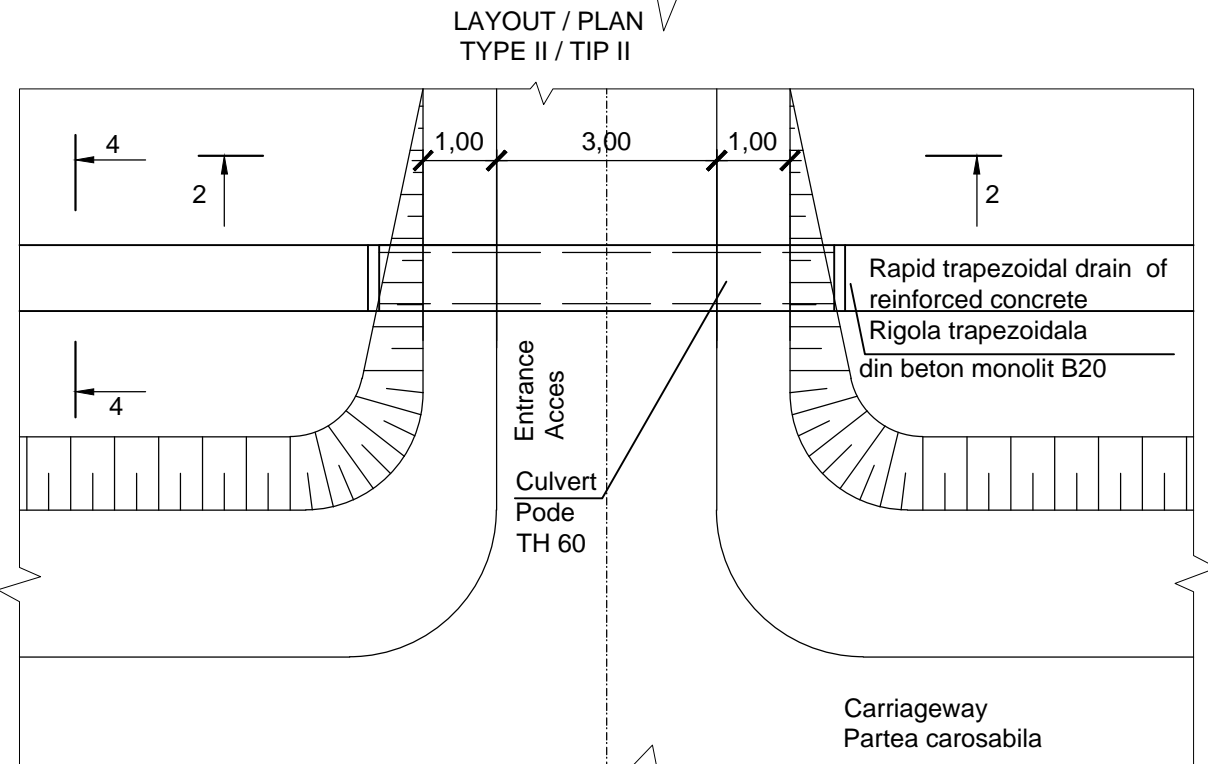
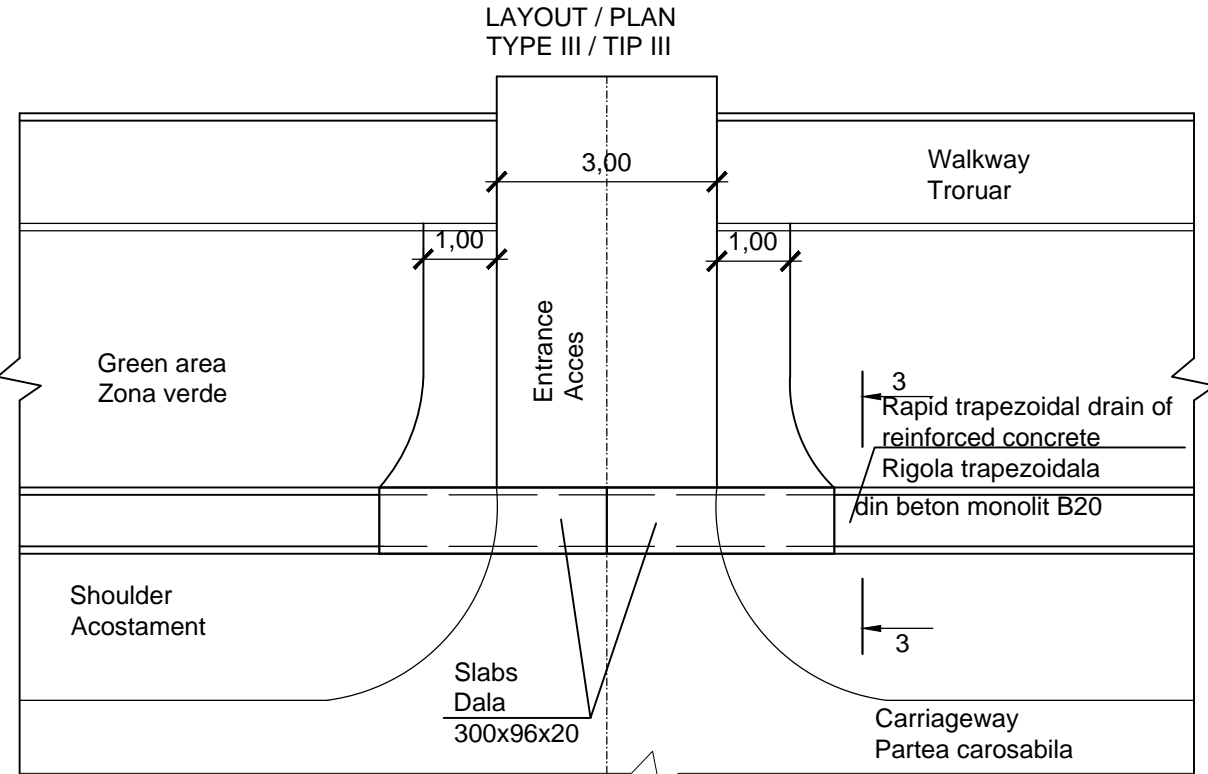
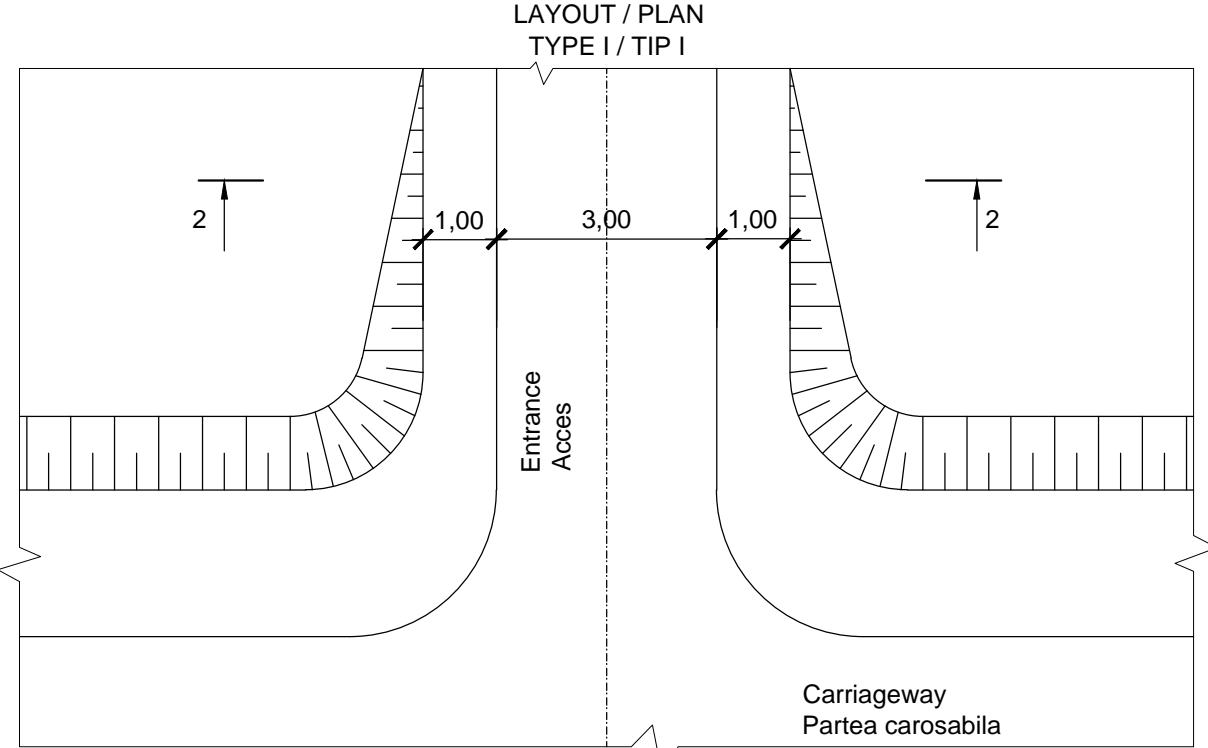
*Structure of pavement*  
*Constructia sistemului rutier*

- ① -Fine grained dense asphalt type A M1  
Beton asfaltic cu granulatie fina dens tip A M1 h-4cm
- ② -Coarse grained porous asphalt type M1  
Beton asfaltic cu granulatie mare poros M1 h-8cm
- ③ -Crushed stone M300  
Piatra concasata M300 h-15cm
- ④ -Crushed stone M300  
Piatra concasata M300 h-25cm
- ⑤ -Sand  
Nisip h-10cm
- ⑥ -Existing road structure  
Imbracaminte existenta



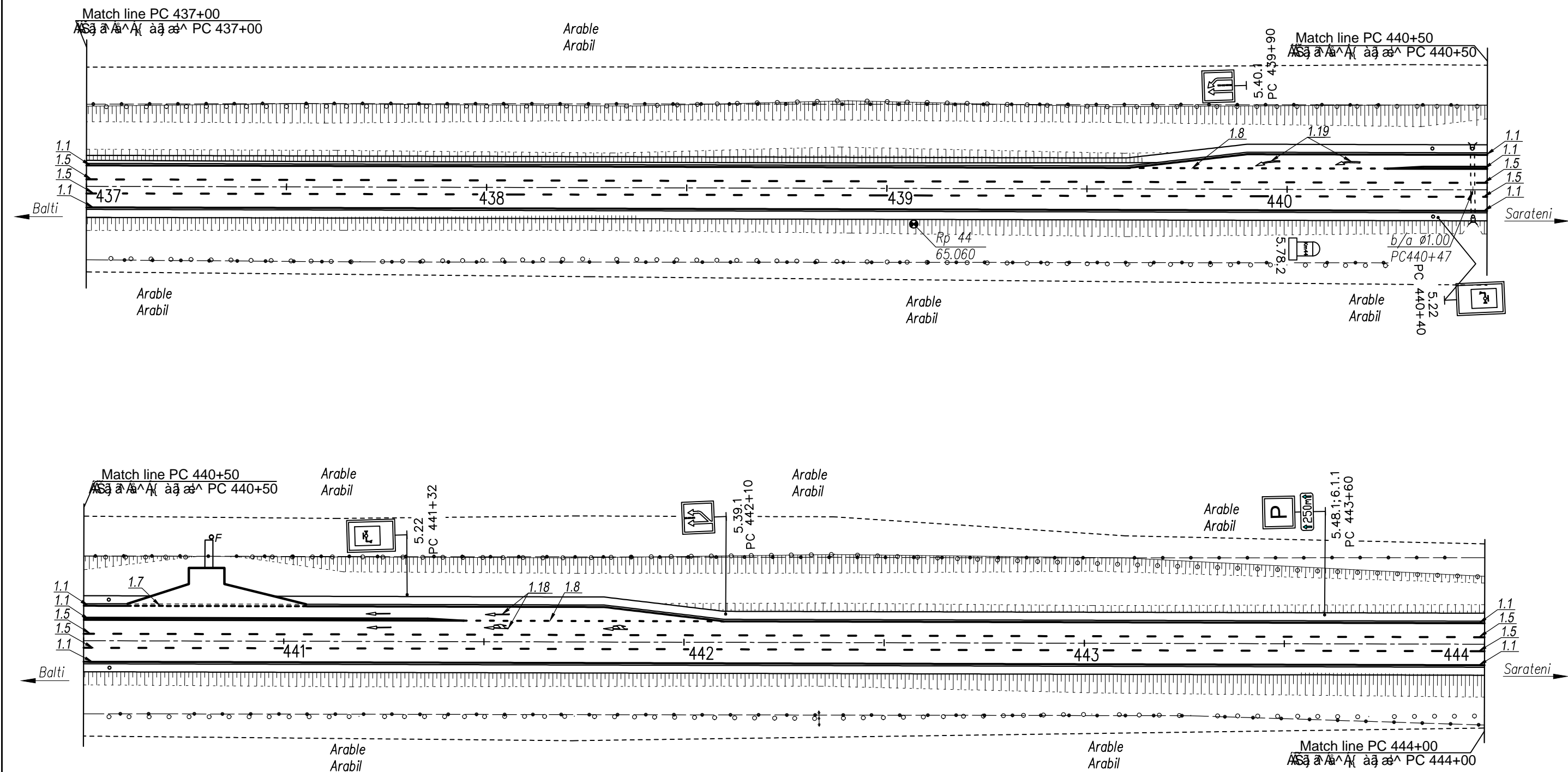
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road Balti-Sarateni  Drawing title Typical side road Drum lateral tip	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:200	
		Checked	N.Tcaci		Drawing DLT-DA-1		
		Control STAS	L.Pozdirca				



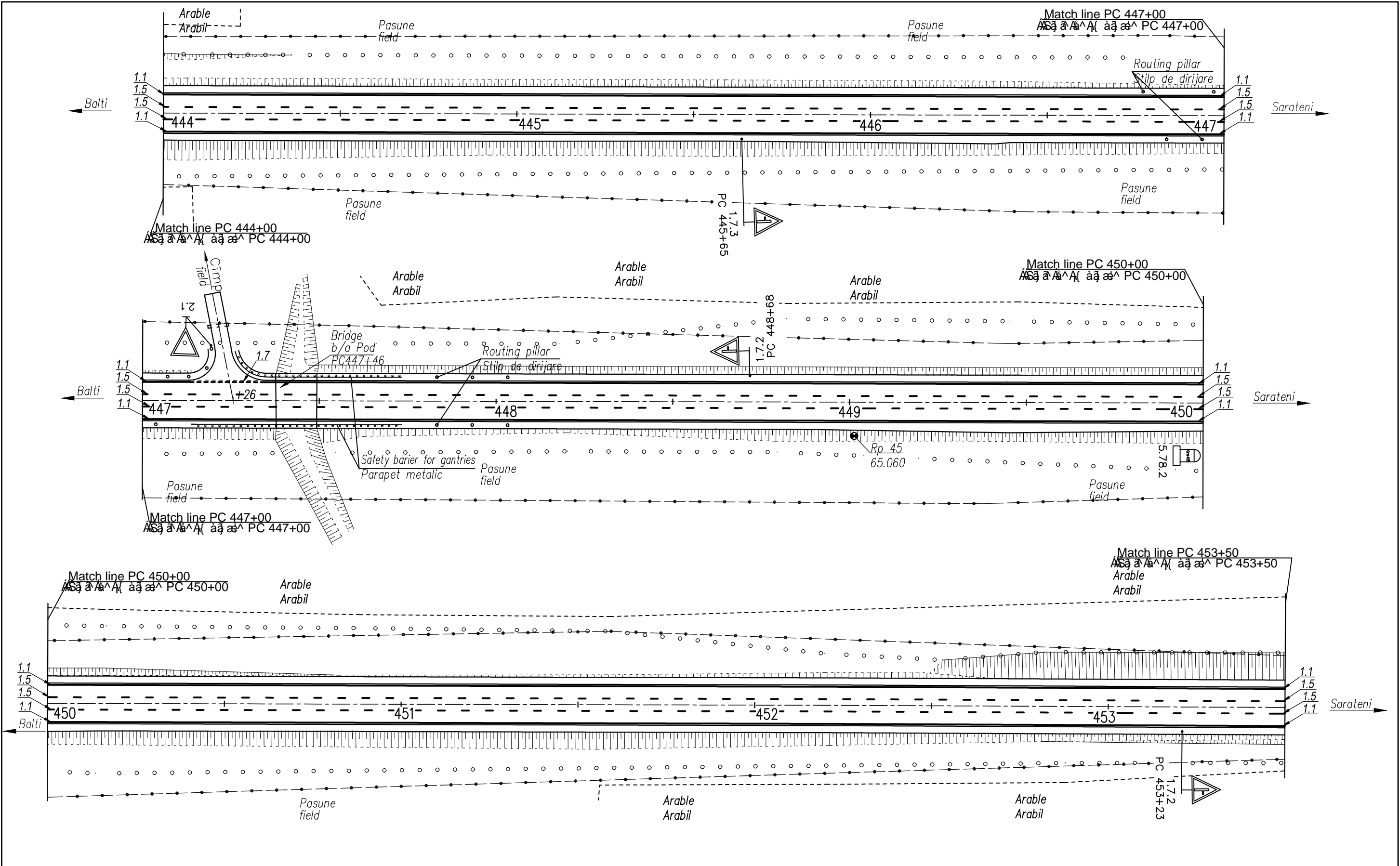


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road D nkU t v g p k	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:100	
Universcons	Drawing title Entrance to properties, typical Acces in curti, Tip	Checked	N.Tcaci		Drawing AC-DA-1		
		Control STAS	L.Pozdirca				

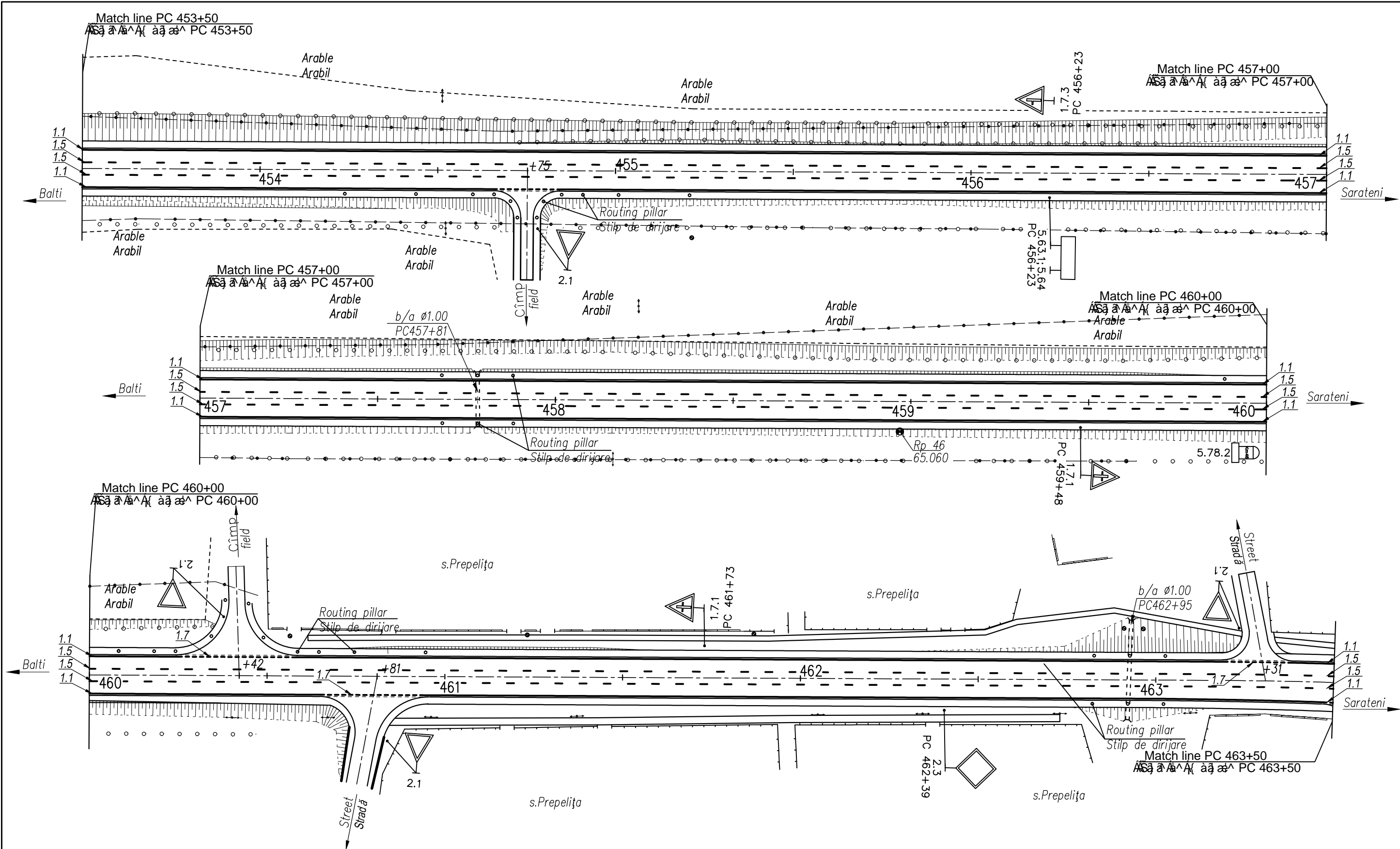




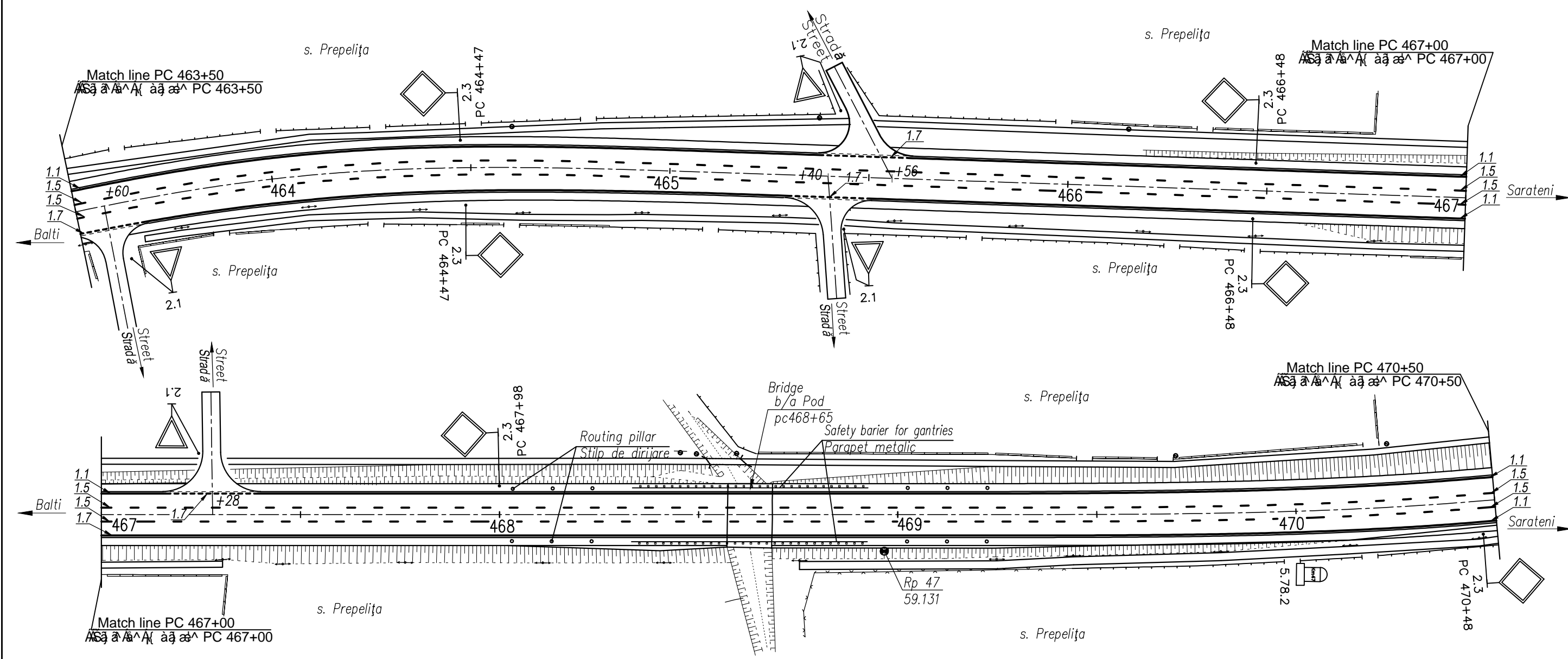
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 437+00 - PC 444+00	ISP	S.Bogza		Date	03.2012	
		Designed	URquke		Scale	1:1000	
		Checked	N.Tcaci		Drawing POCR-DA-2		
		Control STAS	L.Pozdirca				



EBRD	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration			
	Road Sector		Programme	Support	Project	
Universcons	Roughton International Rehabilitation of R14 Road Chisinau-S t ypk		ISP	S.Bogza	Date	03.2012
			Designed	URquke	Scale	1:1000
	Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 444+00 - PC 453+50		Checked	N.Tcaci	Drawing POCR-DA-3	
			Control STAS	L.Pozdirca		

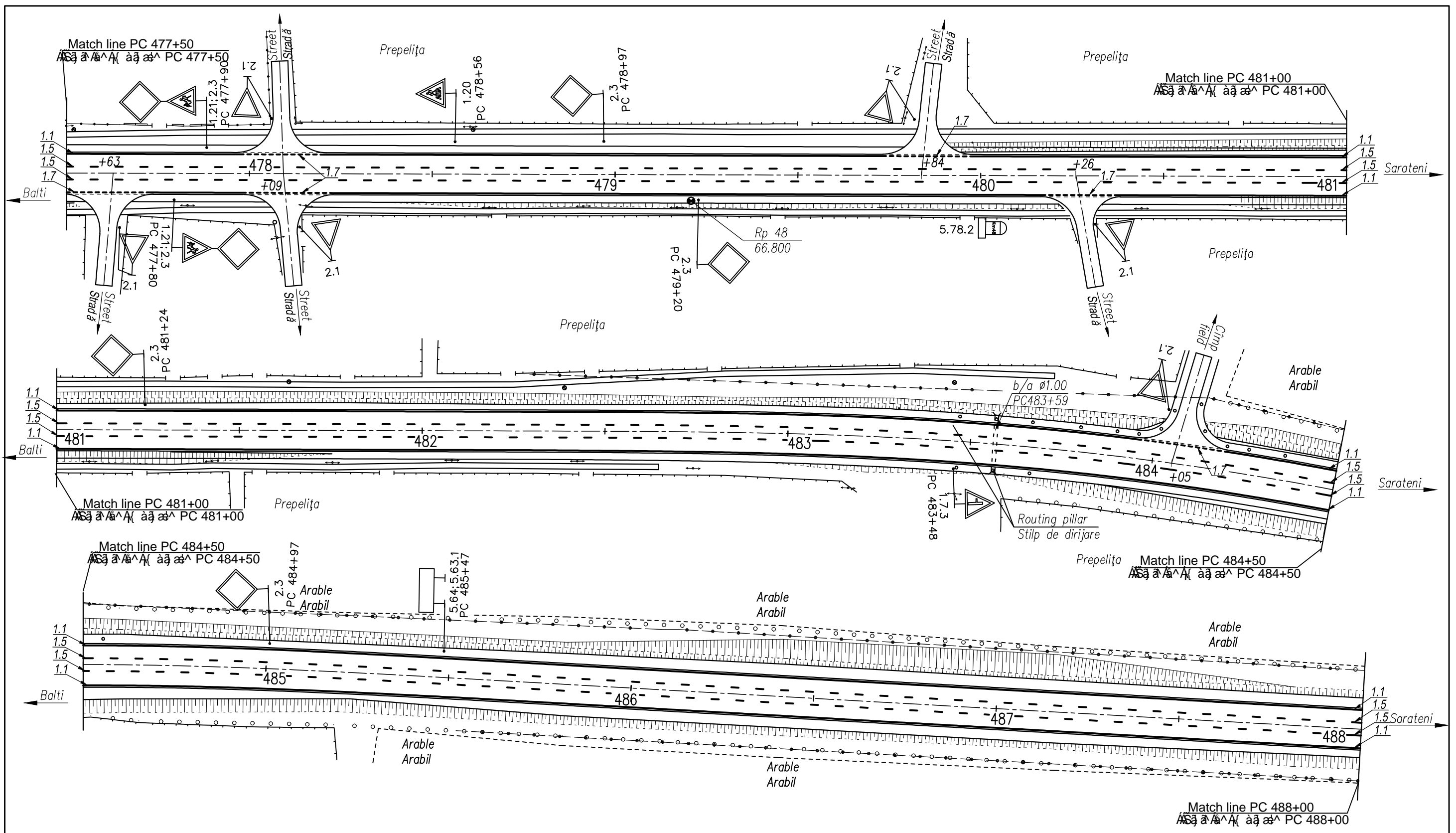


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t ygpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 453+50 - PC 463+50	ISP	S.Bogza		Date	03.2012	
		Designed	URquke		Scale	1:1000	
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		Control STAS	L.Pozdirca				



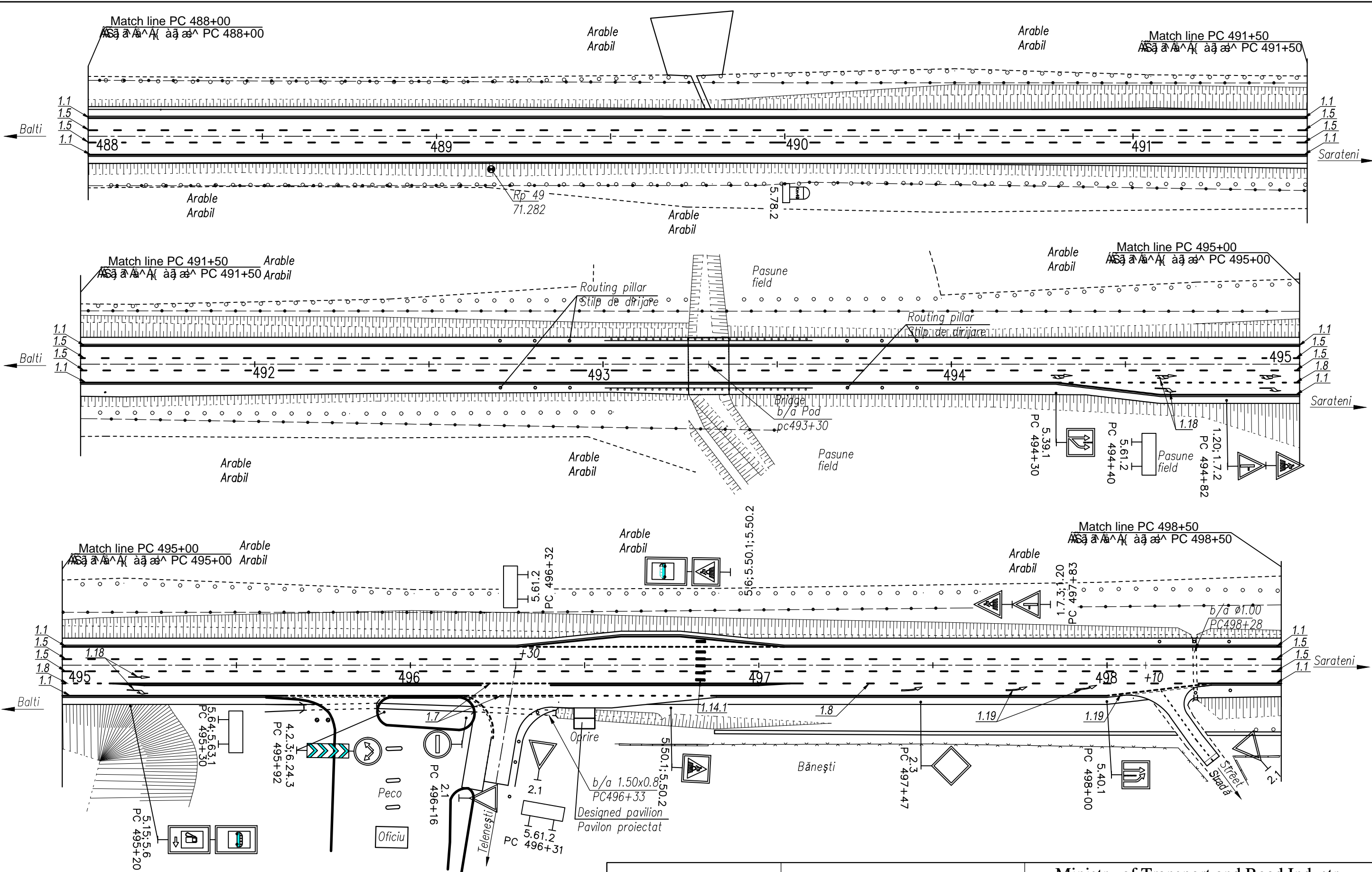
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 463+50 - PC 470+50	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale	1:1000	
		Checked	N.Tcaci		Drawing POCR-DA-5		
		Control STAS	L.Pozdirca				





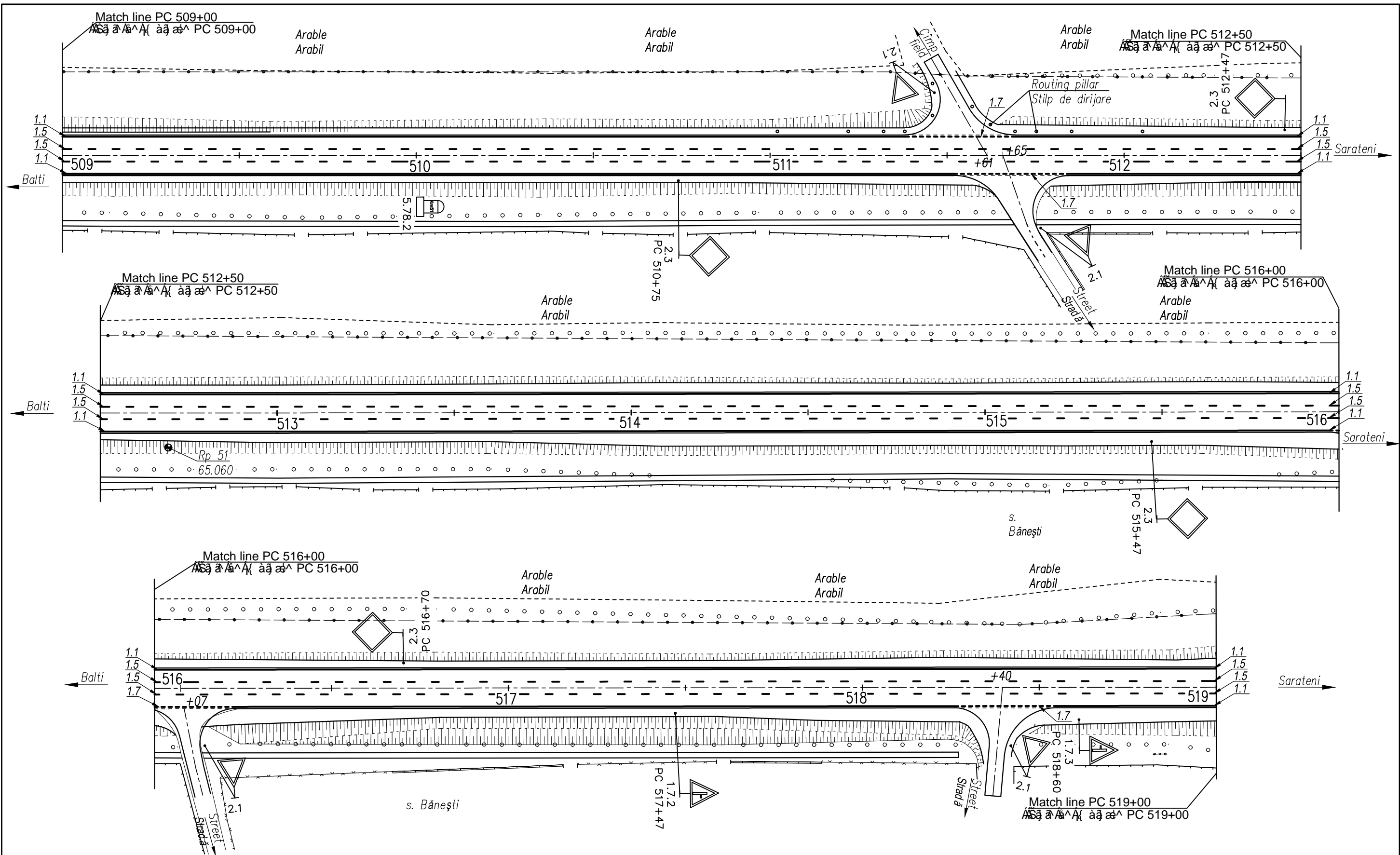
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	Rehabilitation of R14 Road Chisinau-S t vpk	ISP	S.Bogza		Date	03.2012
		Designed	URquke		Scale	1:1000
Universcons	Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 477+50 - PC 488+00	Checked	N.Tcaci		Drawing POCR-DA-7	
		Control STAS	L.Pozdirca			



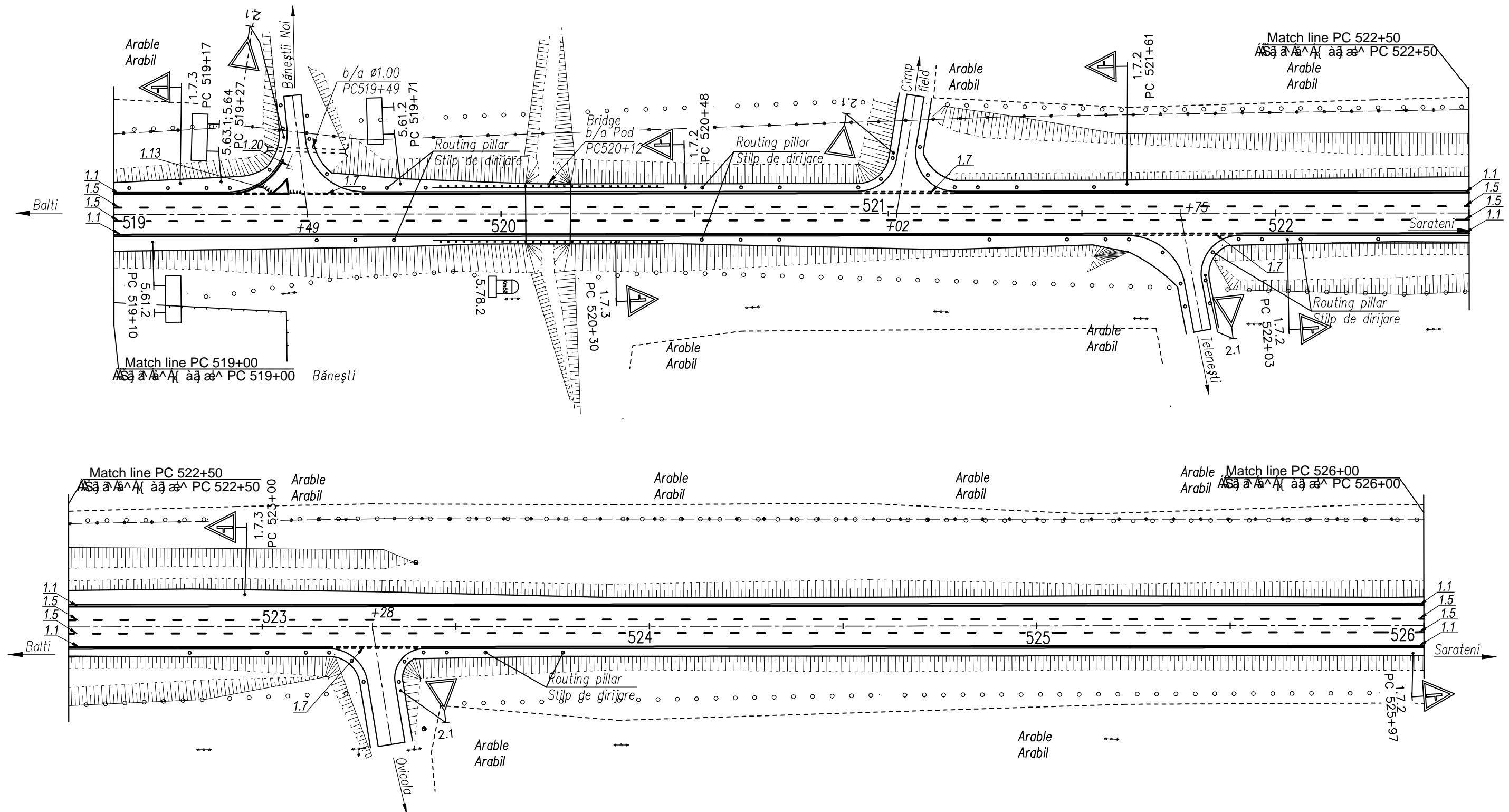


EBRD	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration				
Road		Sector	Programme	Support	Project		
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk		ISP	S.Bogza		Date	03.2012
			Designed	URquke		Scale	1:1000
	Drawing title	Plan of road traffic managment Planul organizarii circulatiei rutiere PC 488+00 - PC 498+50	Checked	N.Tcaci		Drawing POCR-DA-8	
			Control STAS	L.Pozdirca			



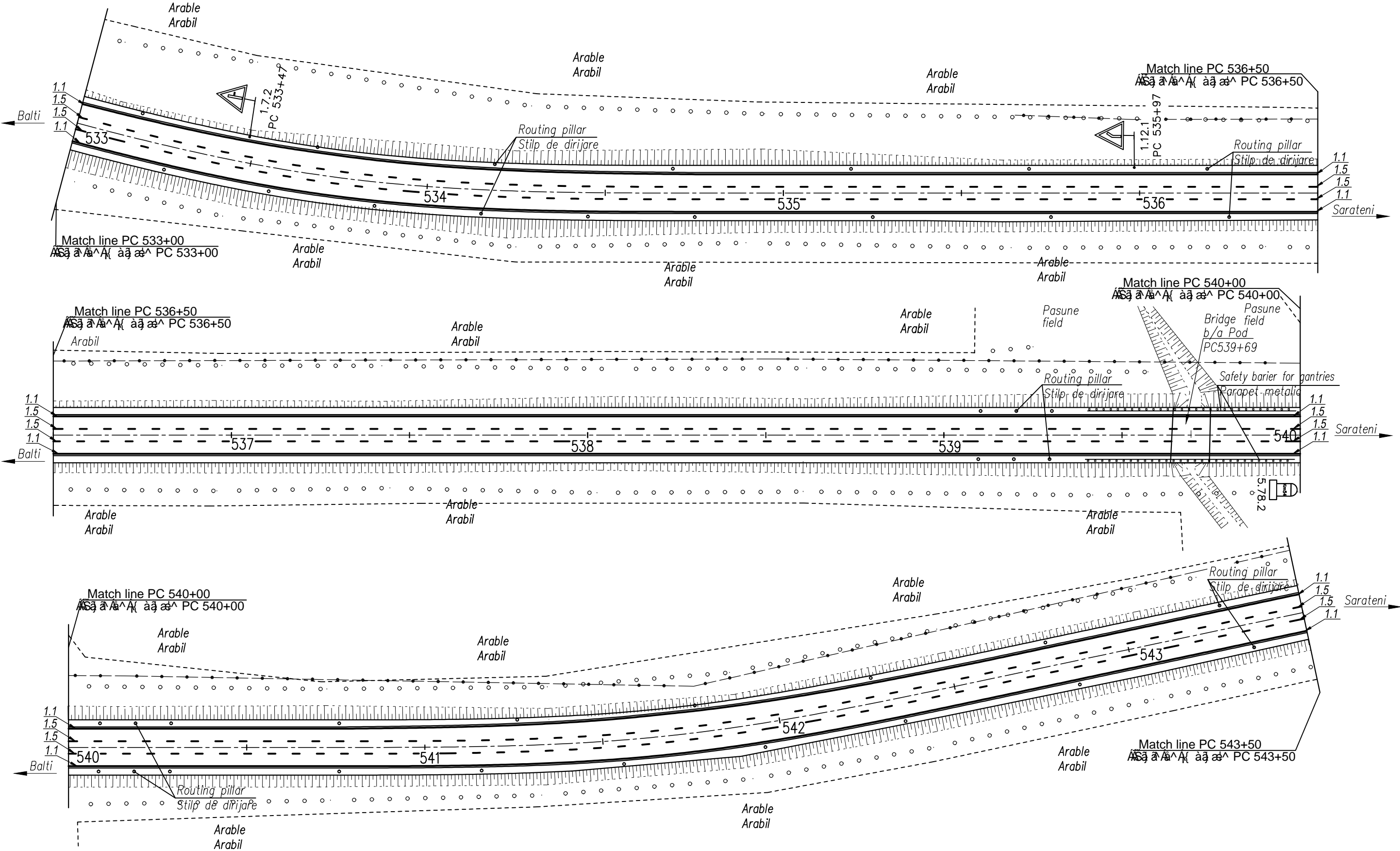


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 509+00 - PC 519+00	ISP	S.Bogza		Date	03.2012	
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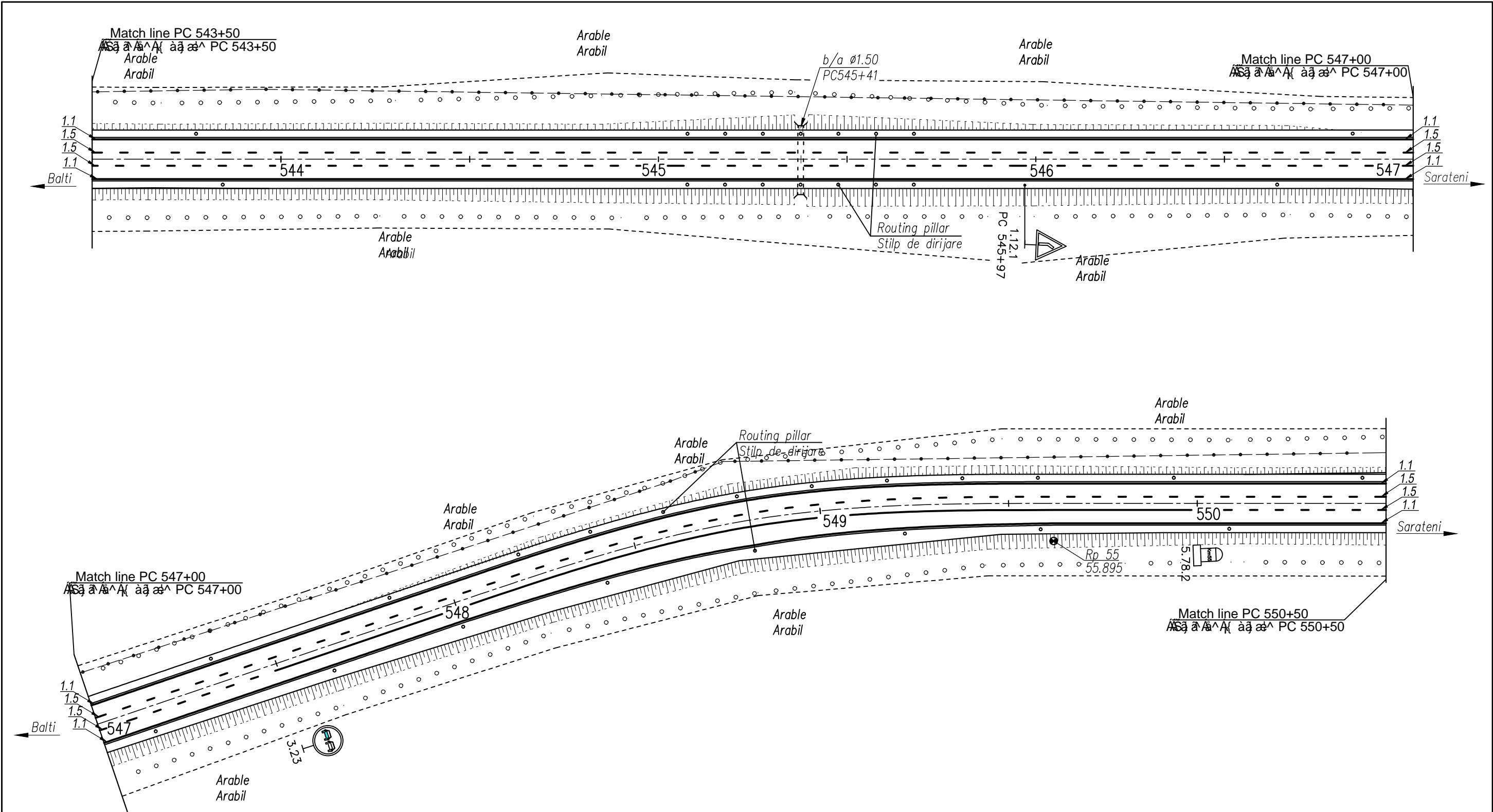


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 519+00 - PC 526+00	ISP	S.Bogza		Date	03.2012	
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		Checked	N.Tcaci		Drawing POCR-DA-11		
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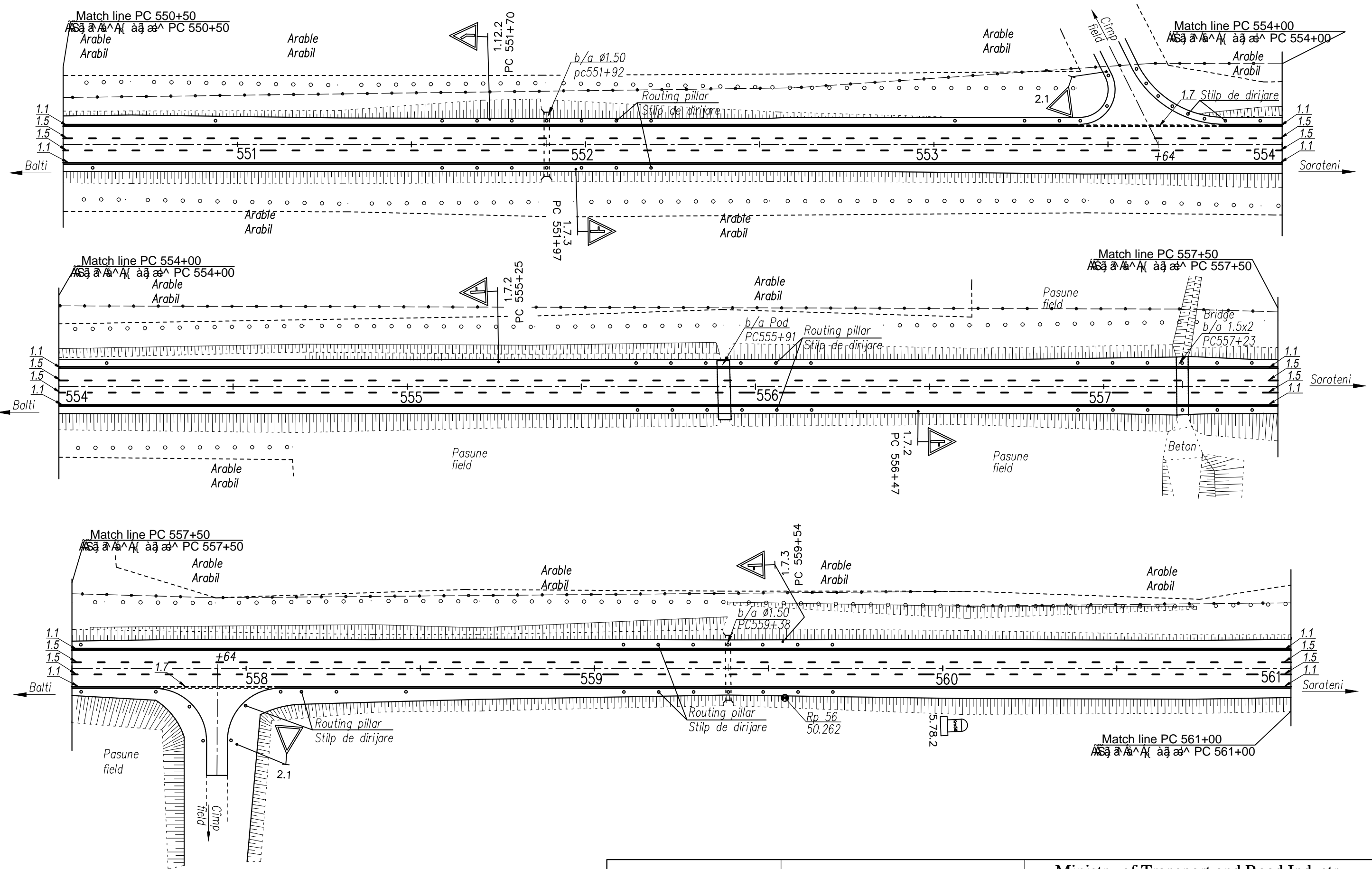


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support	Project			
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vgpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 533+00 - PC 543+50	ISP	S.Bogza		Date	03.2012
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		Checked	N.Tcaci		Drawing POCR-DA-13	
		Control STAS	L.Pozdirca			



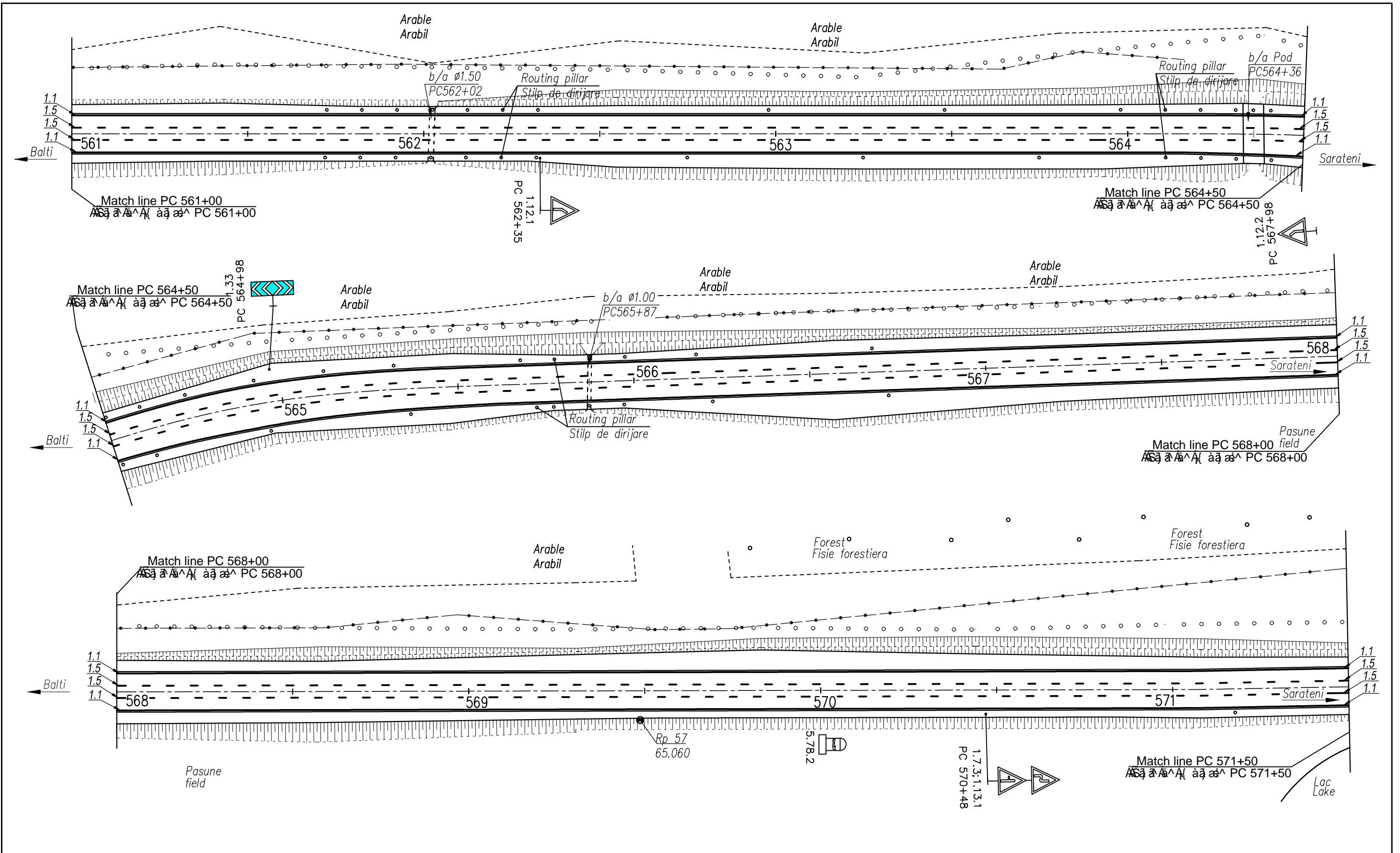
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 543+50 - PC 550+50	ISP	S.Bogza		Date	03.2012	
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		Checked	N.Tcaci		Drawing POCR-DA-14		
		Control STAS	L.Pozdirca				



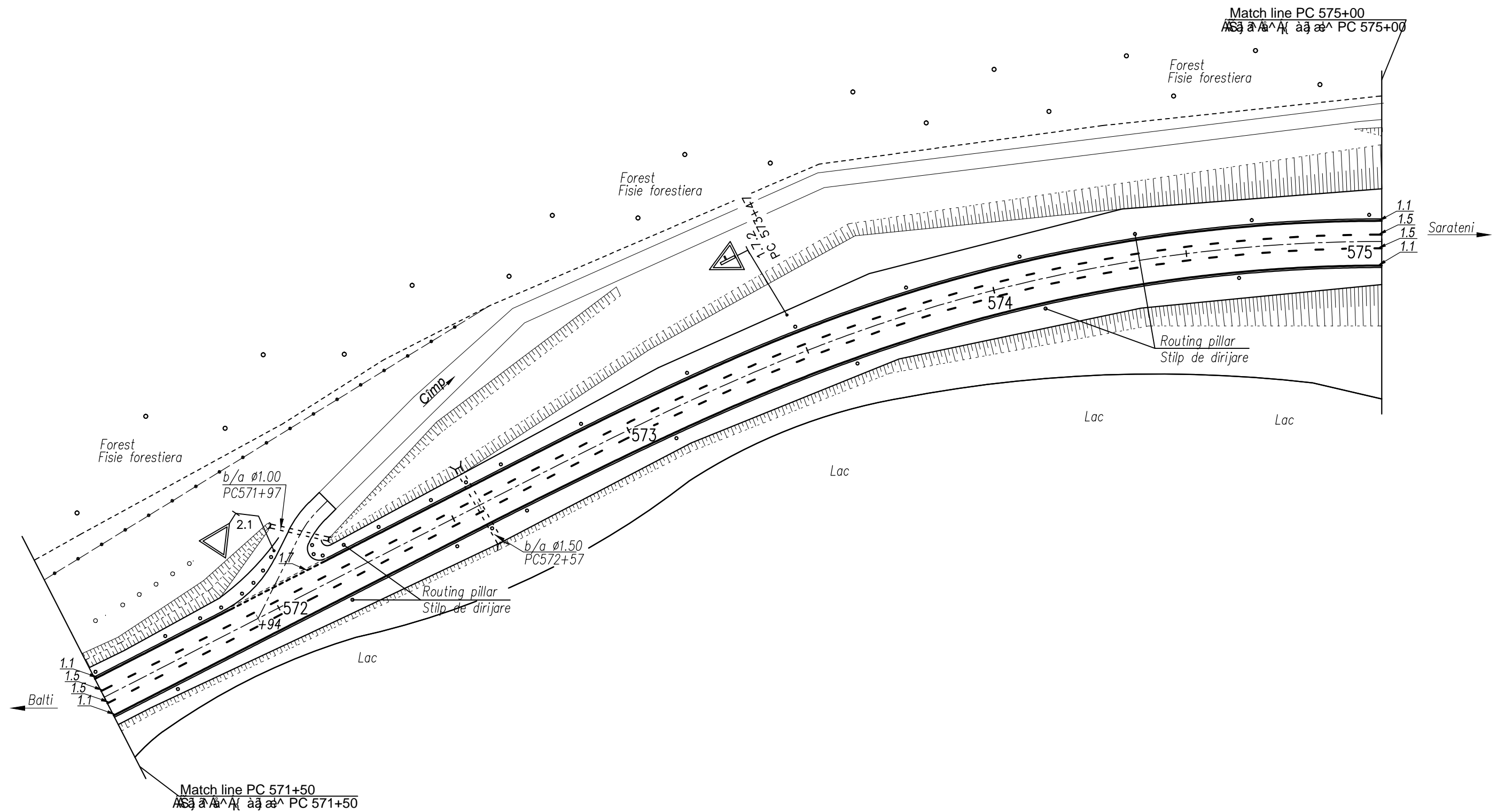


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 550+50 - PC 561+00	ISP	S.Bogza		Date	03.2012
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		Checked	N.Tcaci		Drawing POCR-DA-15	
		Control STAS	L.Pozdirca			

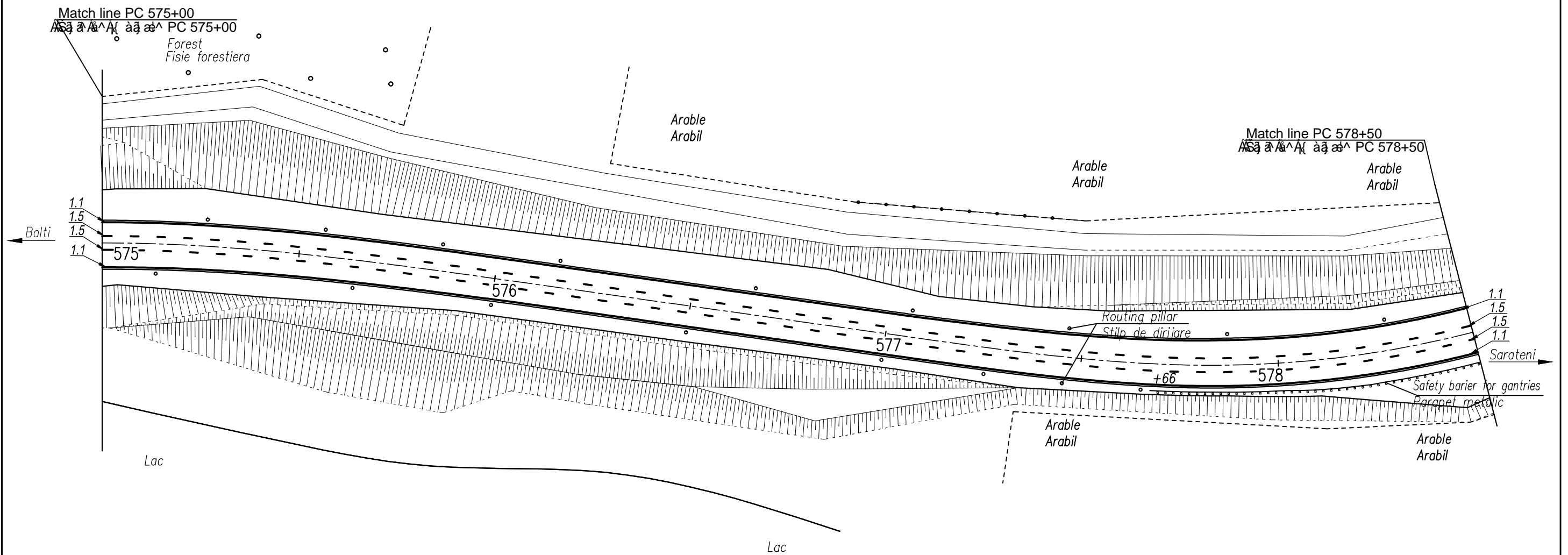




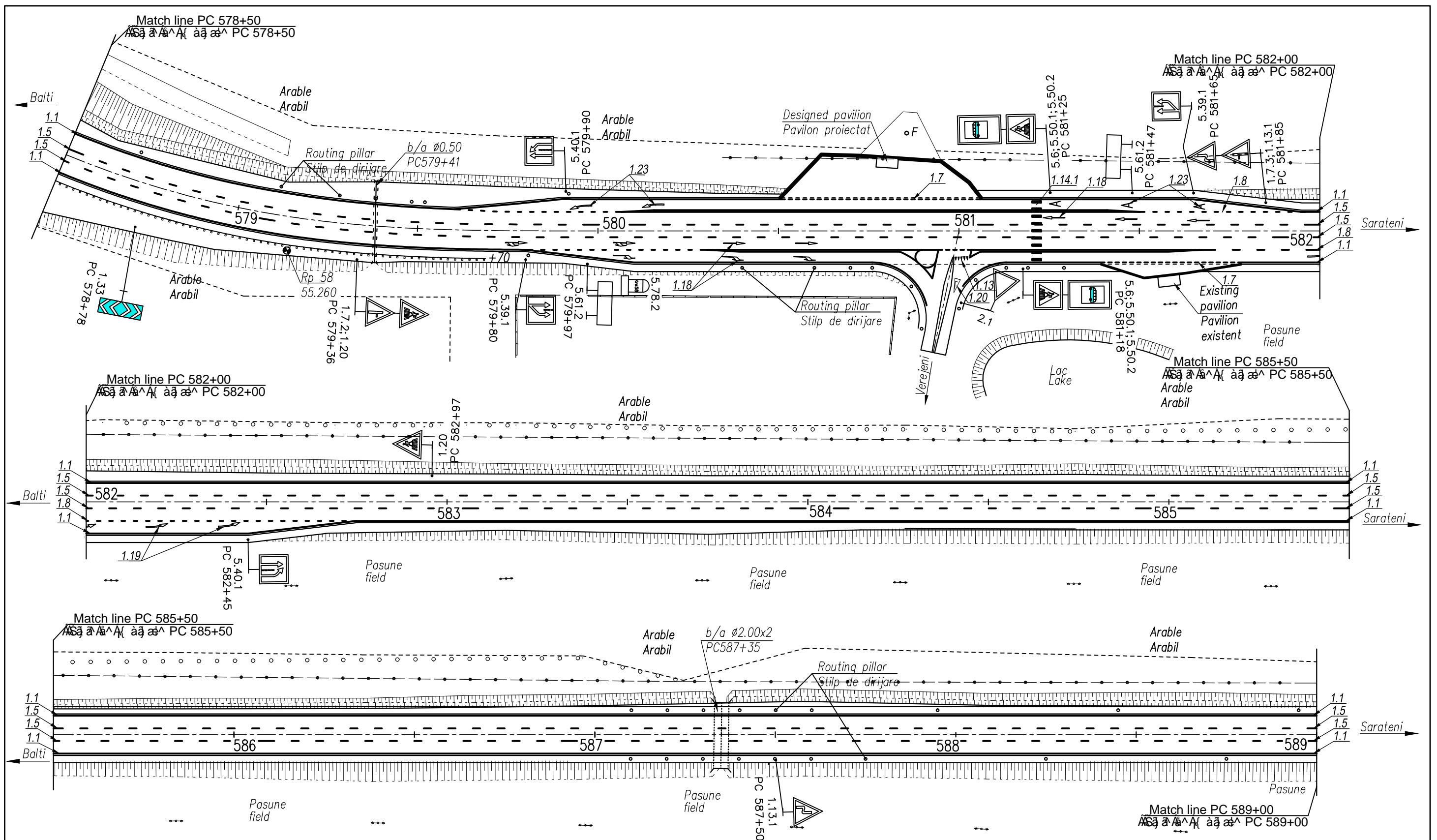
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road Chisinau-S t vpk	ISP	S.Bogza		Date	03.2012	
Universcons		Designed	URquke		Scale	1:1000	
	Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 561+00 - PC 571+50	Checked	N.Tcaci		Drawing POCR-DA-16		
		Control STAS	L.Pozdirca				



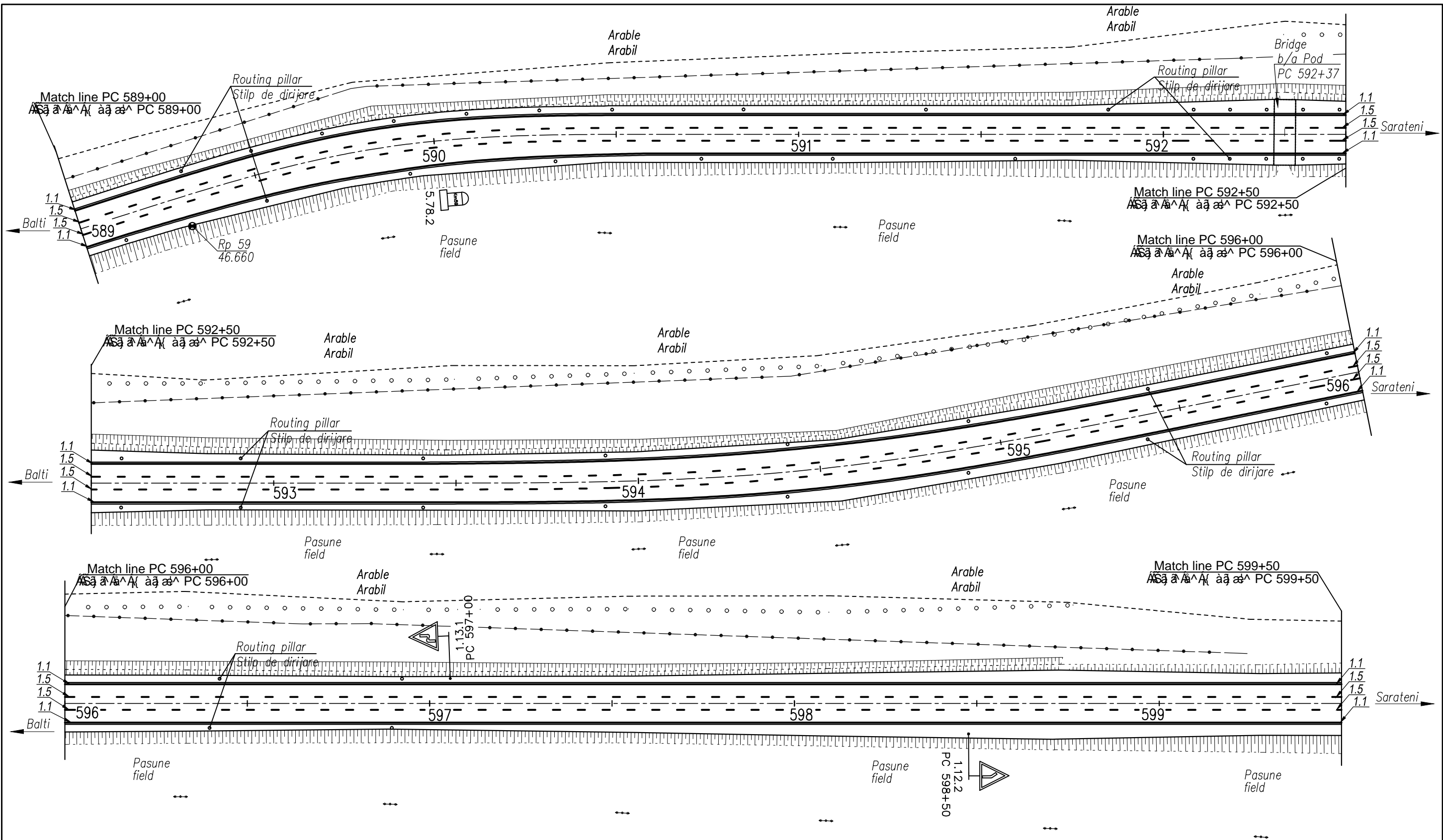
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk	ISP	S.Bogza		Date	03.2012	
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		Control STAS	L.Pozdirca				



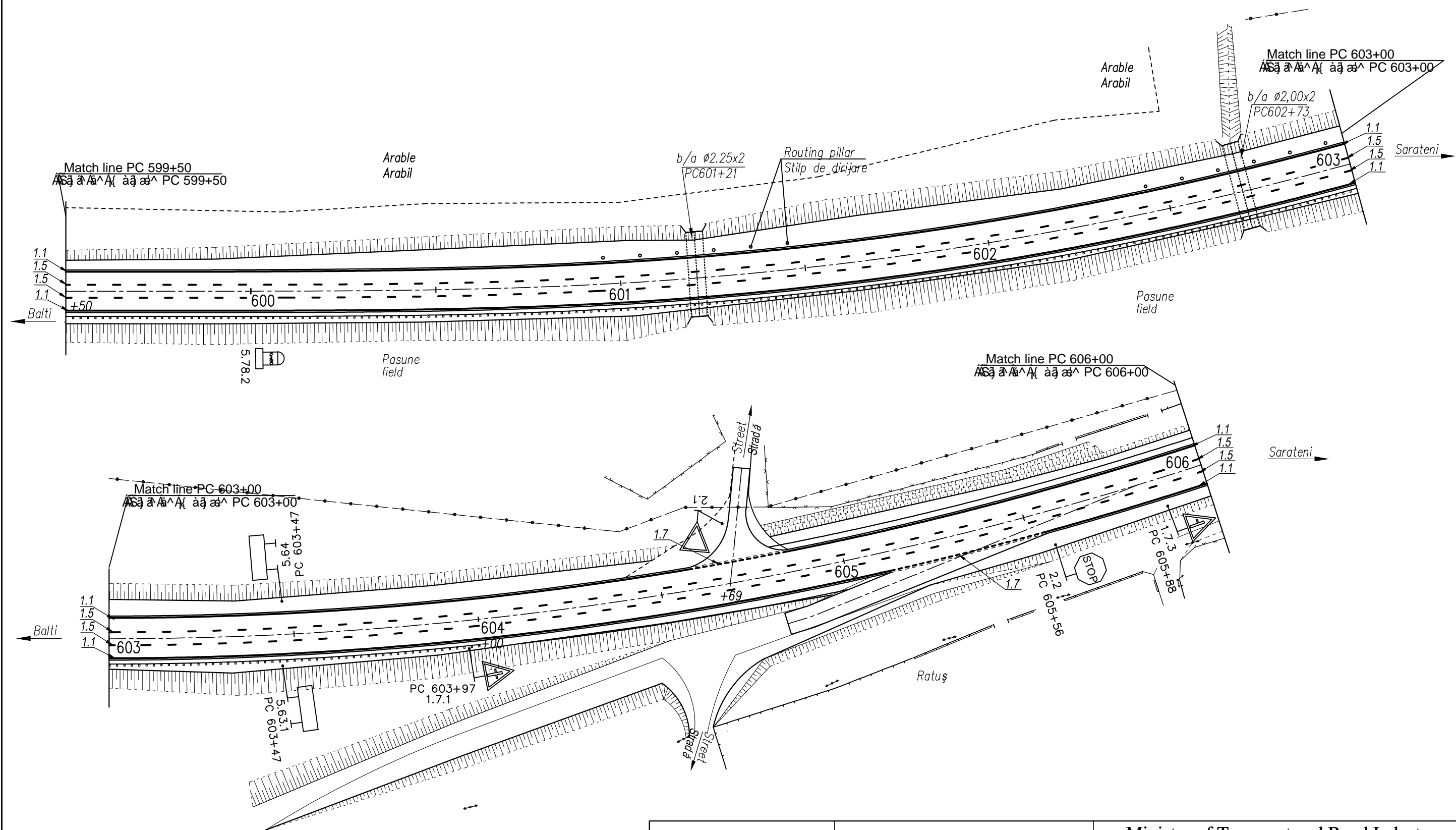
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 575+00 - PC 578+50	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale	1:1000	
		Checked	N.Tcaci		Drawing POCR-DA-18		
		Control STAS	L.Pozdirca				



EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	Rehabilitation of R14 Road Chisinau-S t vpk	ISP	S.Bogza		Date	03.2012
Universcons	Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 578+50 - PC 589+00	Designed	URquke		Scale	1:1000
		Checked	N.Tcaci		Drawing POCR-DA-19	
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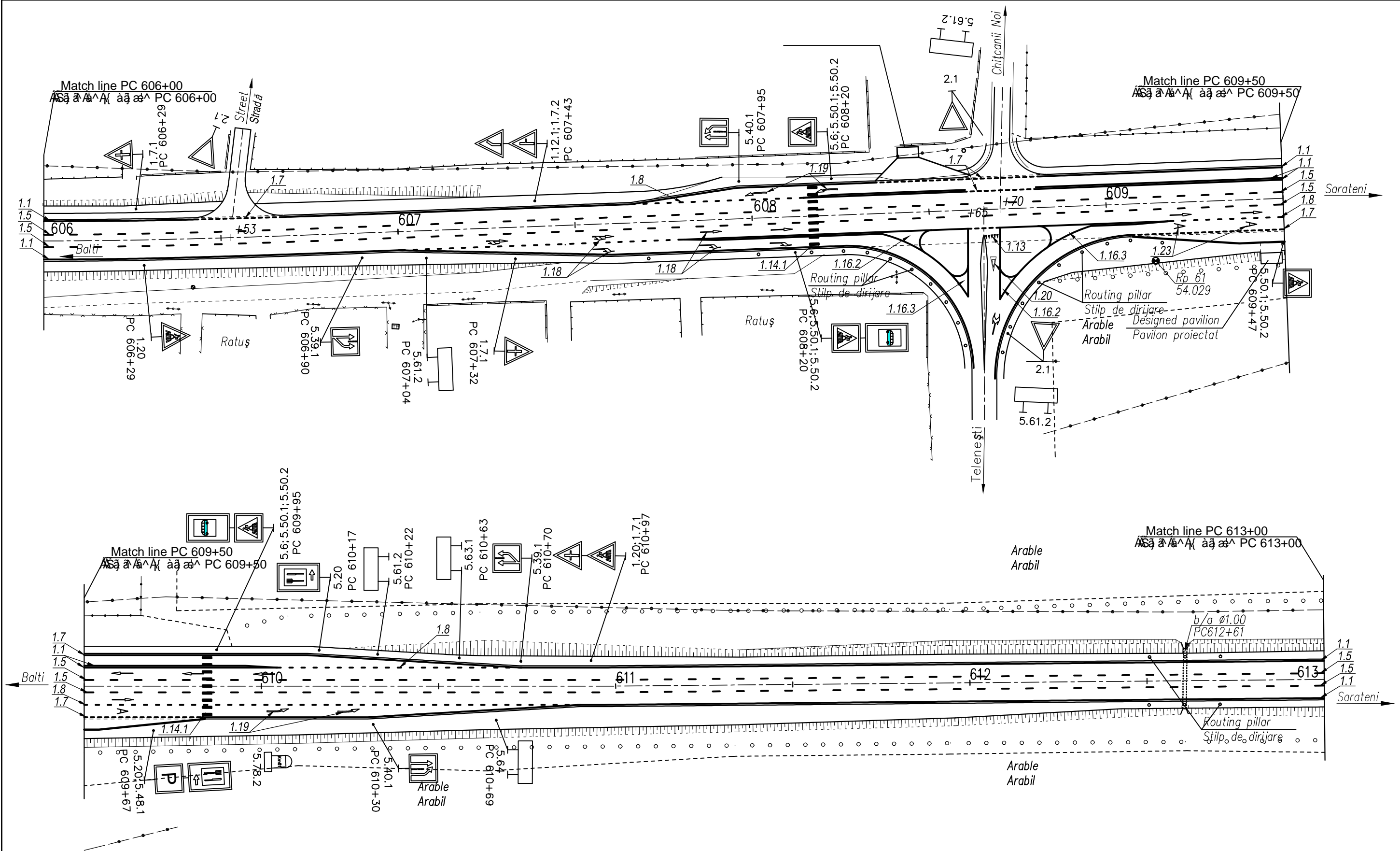


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support	Project			
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t ygpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 589+00 - PC 599+50	ISP	S.Bogza		Date	03.2012
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		Checked	N.Tcaci		Drawing POCR-DA-20	
		Control STAS	L.Pozdirca			

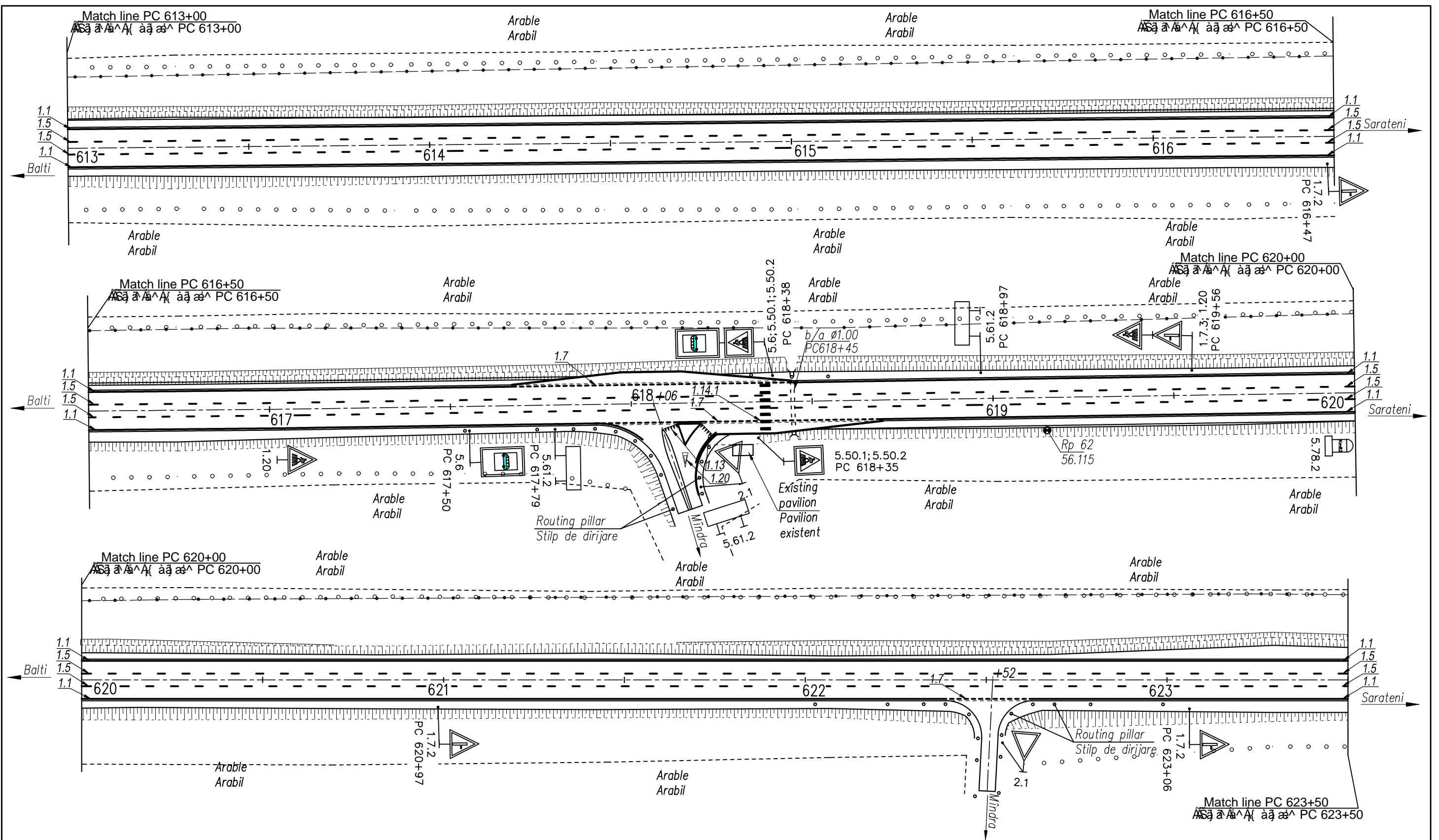


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 599+50 - PC 606+00	ISP	S.Bogza		Date	03.2012	
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		Control STAS	L.Pozdirca				



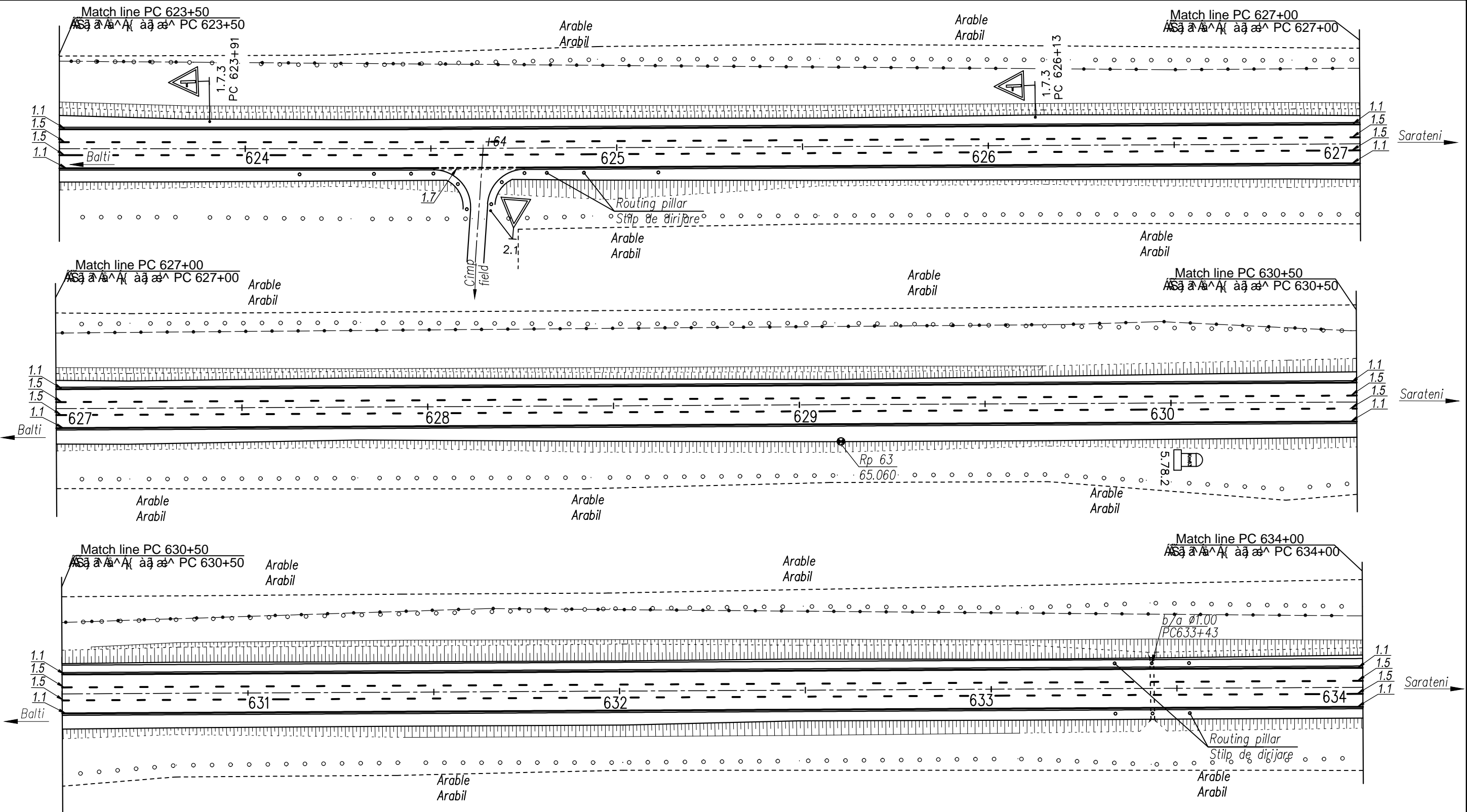


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support		Project			
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk		ISP	S.Bogza		Date	03.2012
			Designed	URqule		Scale	1:1000
	Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 606+00 - PC 613+00		Checked	N.Tcaci		Drawing POCR-DA-22	
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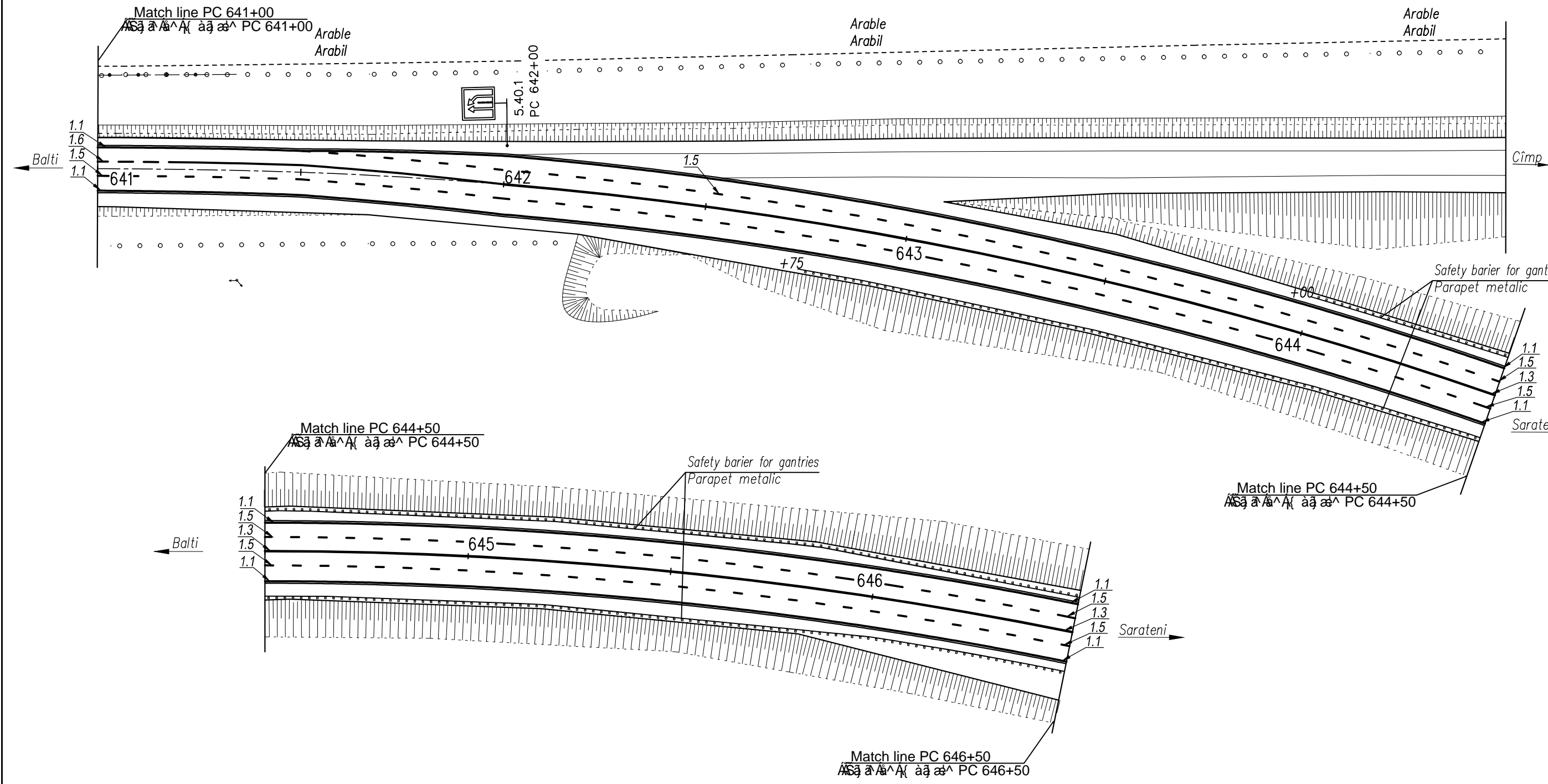
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 613+00 - PC 623+50	ISP	S.Bogza		Date	03.2012	
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		Control STAS	L.Pozdirca				



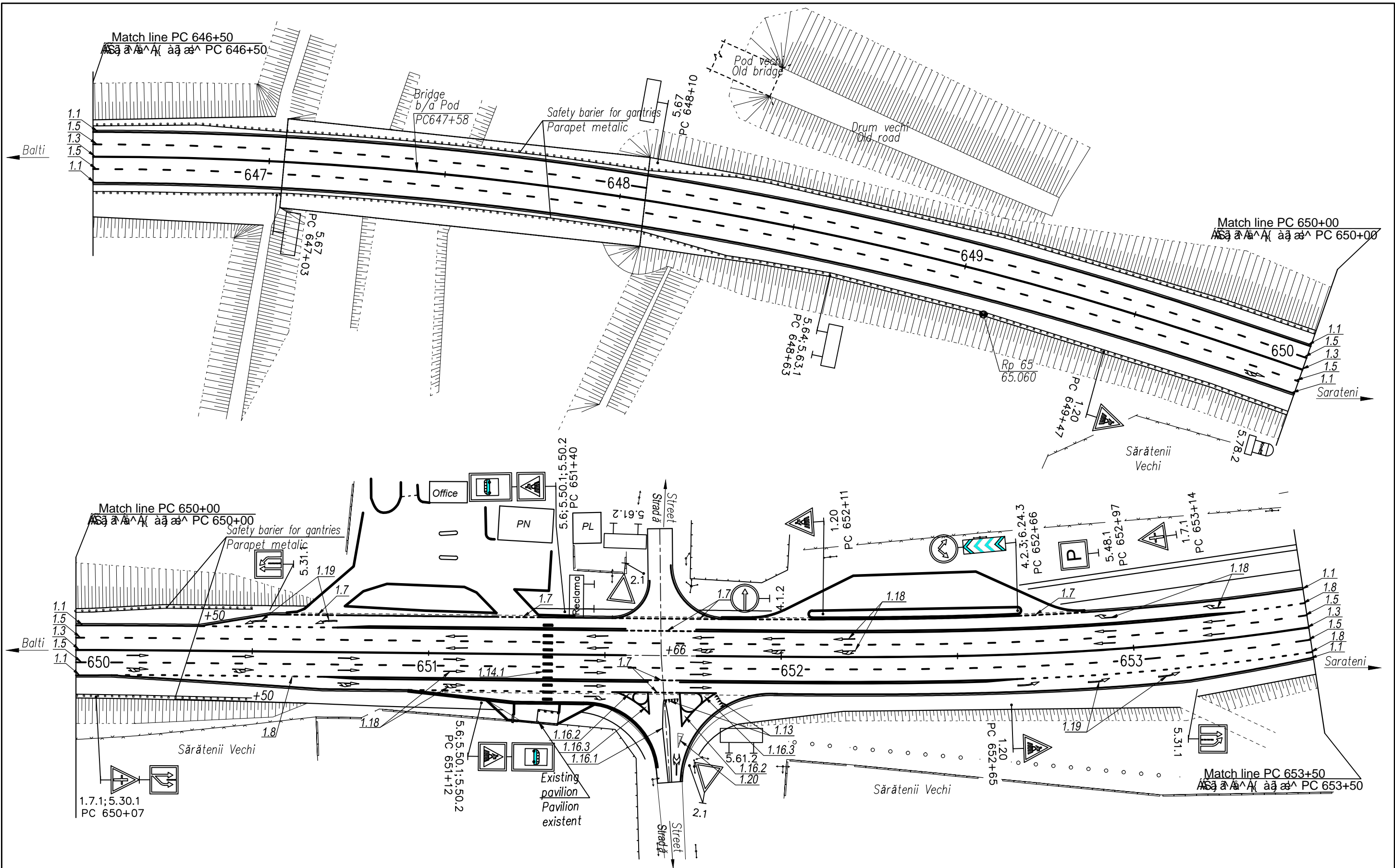


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support	Project			
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t ygpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 623+50 - PC 634+00	ISP	S.Bogza		Date	03.2012
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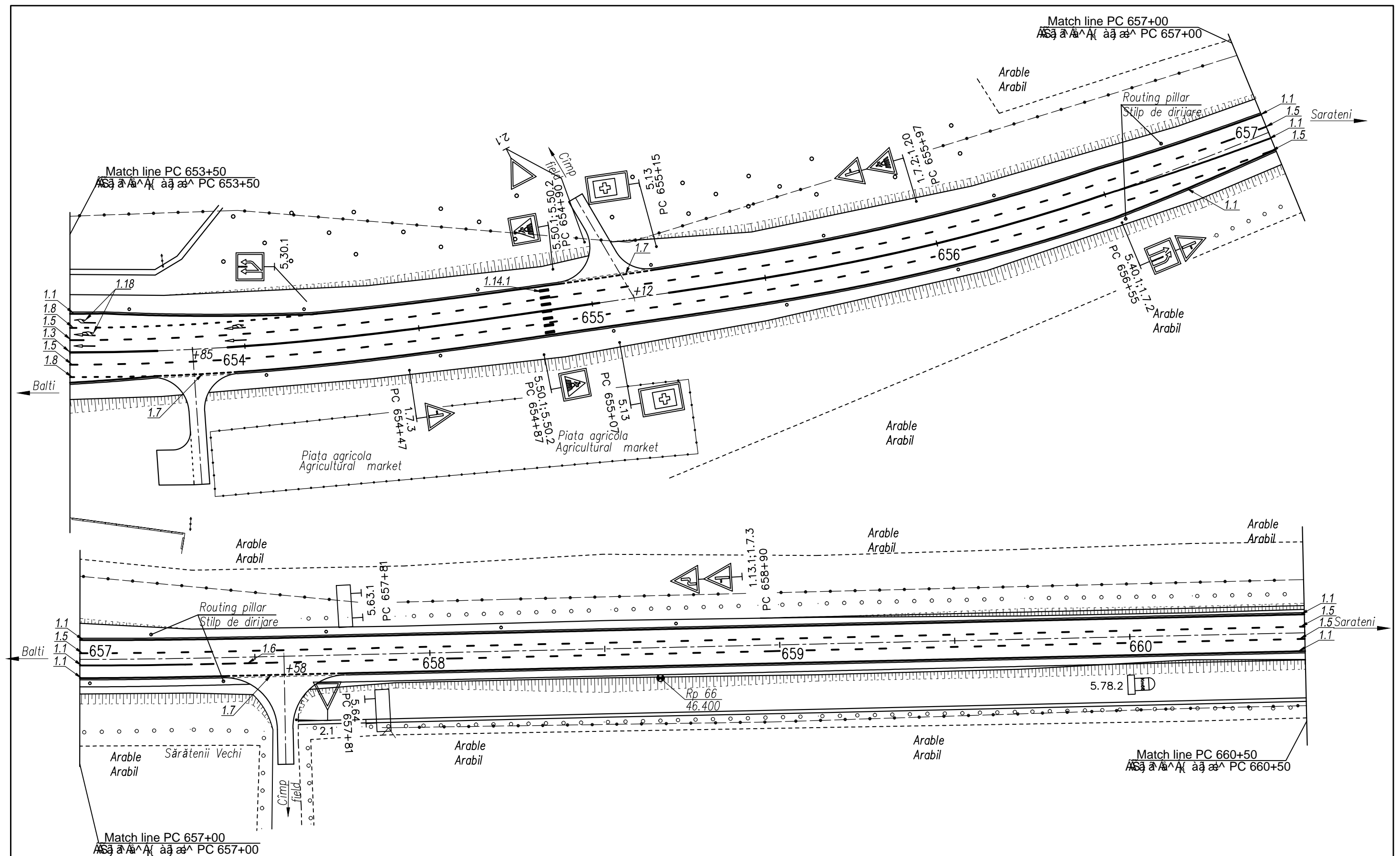




EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale	1:1000	
	Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 641+00 - PC 646+00	Checked	N.Tcaci		Drawing POCR-DA-26		
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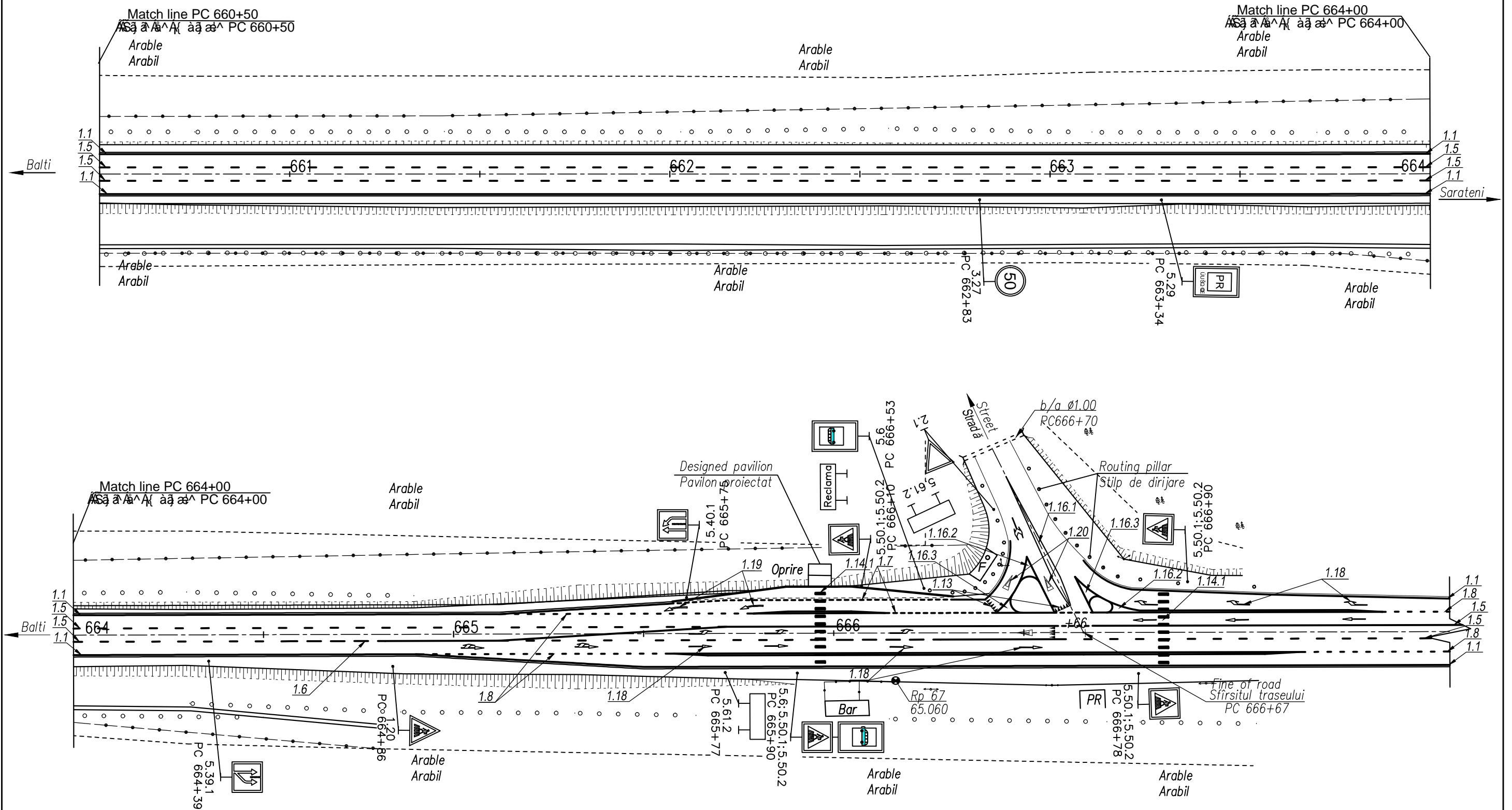


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t vpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 646+00 - PC 653+50	ISP	S.Bogza		Date	03.2012	
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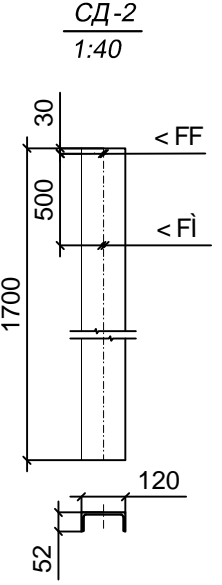
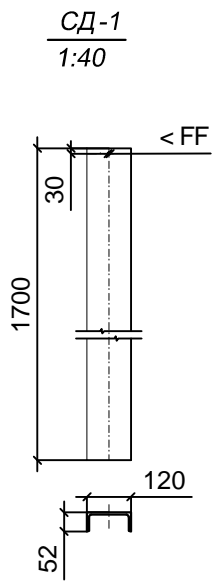
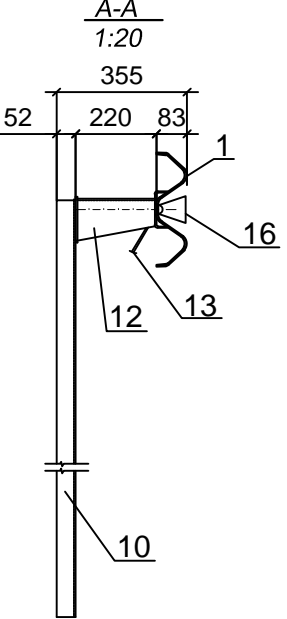
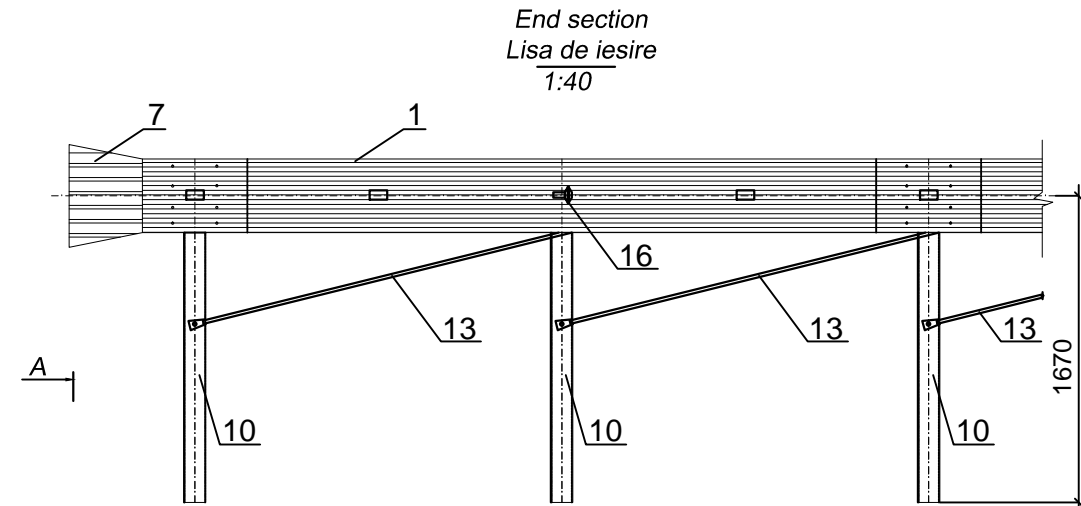
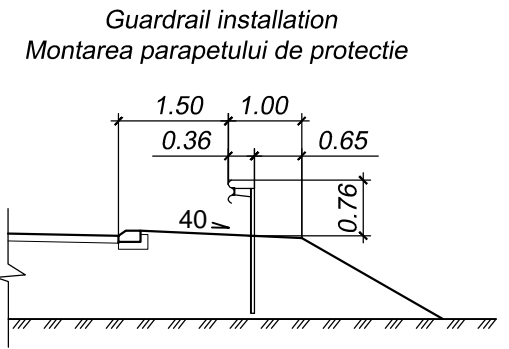
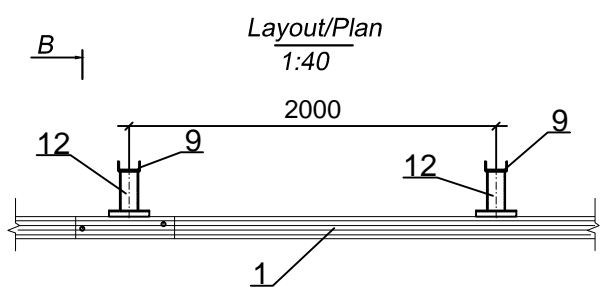
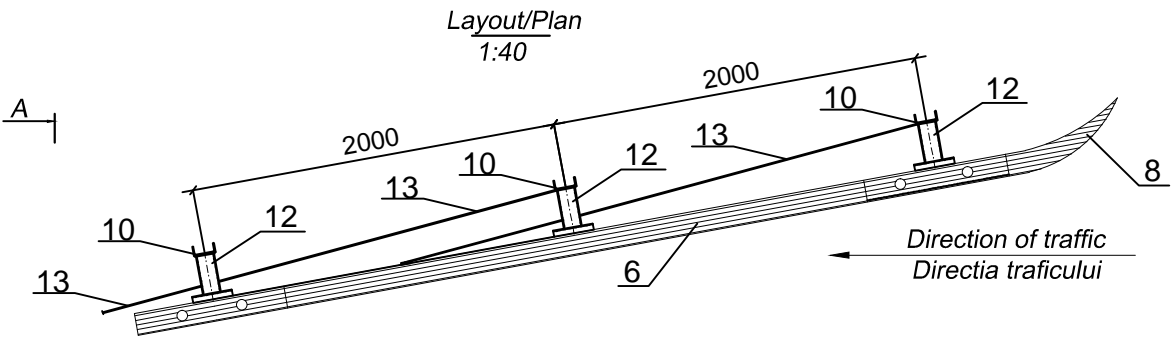
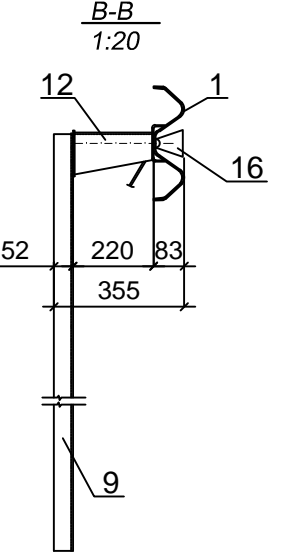
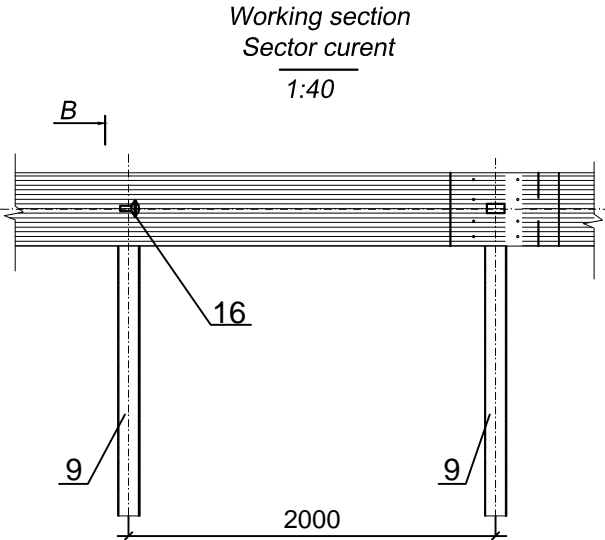
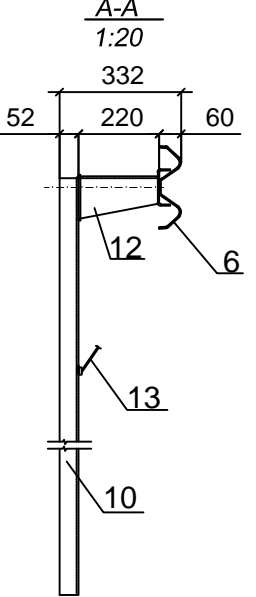
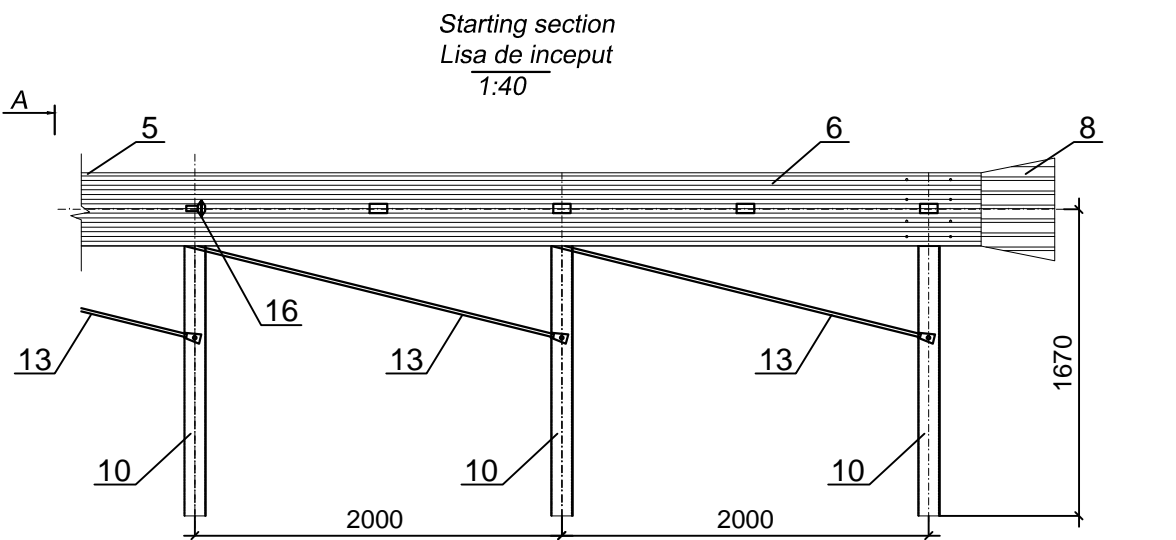
EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support	Project			
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t ypk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 653+50 - PC 660+50	ISP	S.Bogza		Date	03.2012
		Designed	URquke		Scale	1:1000
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		Control STAS	L.Pozdirca			



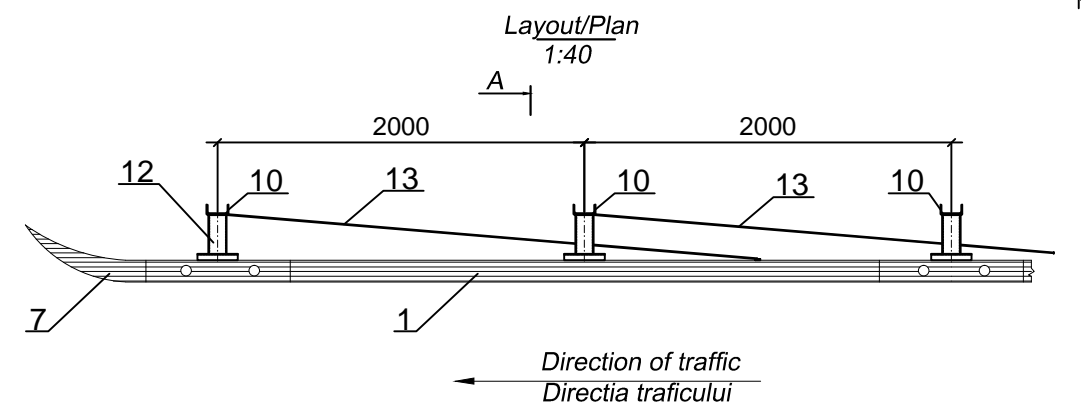


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Chisinau-S t ygpk  Drawing title Plan of road traffic managment Planul organizarii circulatiei rutiere PC 660+50 - PC 666+67	ISP	S.Bogza		Date	03.2012	
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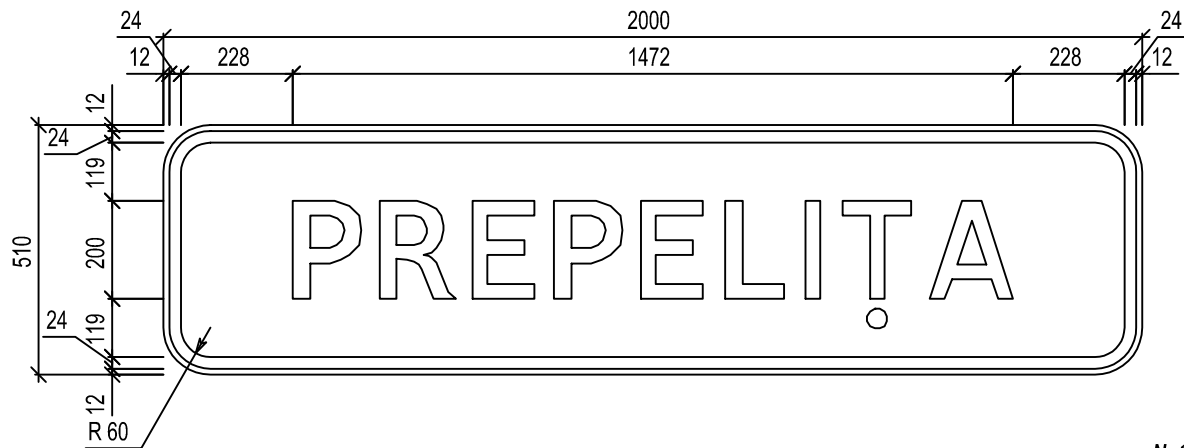
W - BEAM GUARDRAIL  
GLISIERA DE PROTECTIE



- 1 - W-beam section / Țeavă de protecție
- 5 - W-beam section / Țeavă de protecție
- 6 - W-beam section / Țeavă de protecție
- 7 - End element / Element final
- 8 - End element / Element final
- 9 - Post / Țeavă de protecție
- 10 - Post / Țeavă de protecție - 2
- 12 - Rigid offset block / Consolă rigidă
- 13 - Diagonal connection / Țeavă de protecție
- 16 - Reflection element / Element reflector

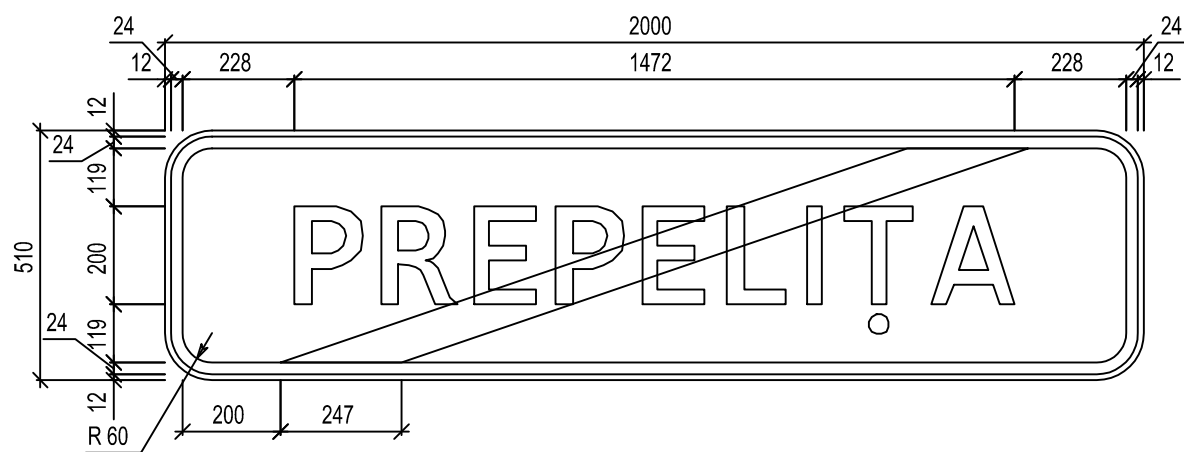


EBRD	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t v g p k	ISP	S.Bogza		Date	03.2012	
		Designed	A.Gonciaruc		Scale	1:40	
	Drawing title Safety barrier for gantries Parapet metalic tip 11 / 02	Checked	N.Tcaci		Drawing PM-DA-1		
		Control STAS	L.Pozdirca				



**Note / Nota:**

Numar dupa GOST: 5.63.1 De orientare  
Panel/Panou: 2000 x 510 mm  
Fon: White/Alb  
Area/Aria: 1.02 m<sup>2</sup>  
Weight/Greutatea: 12.7 kg  
Scale/Scara: 1 : 15  
Quantity/Cantitate: 2



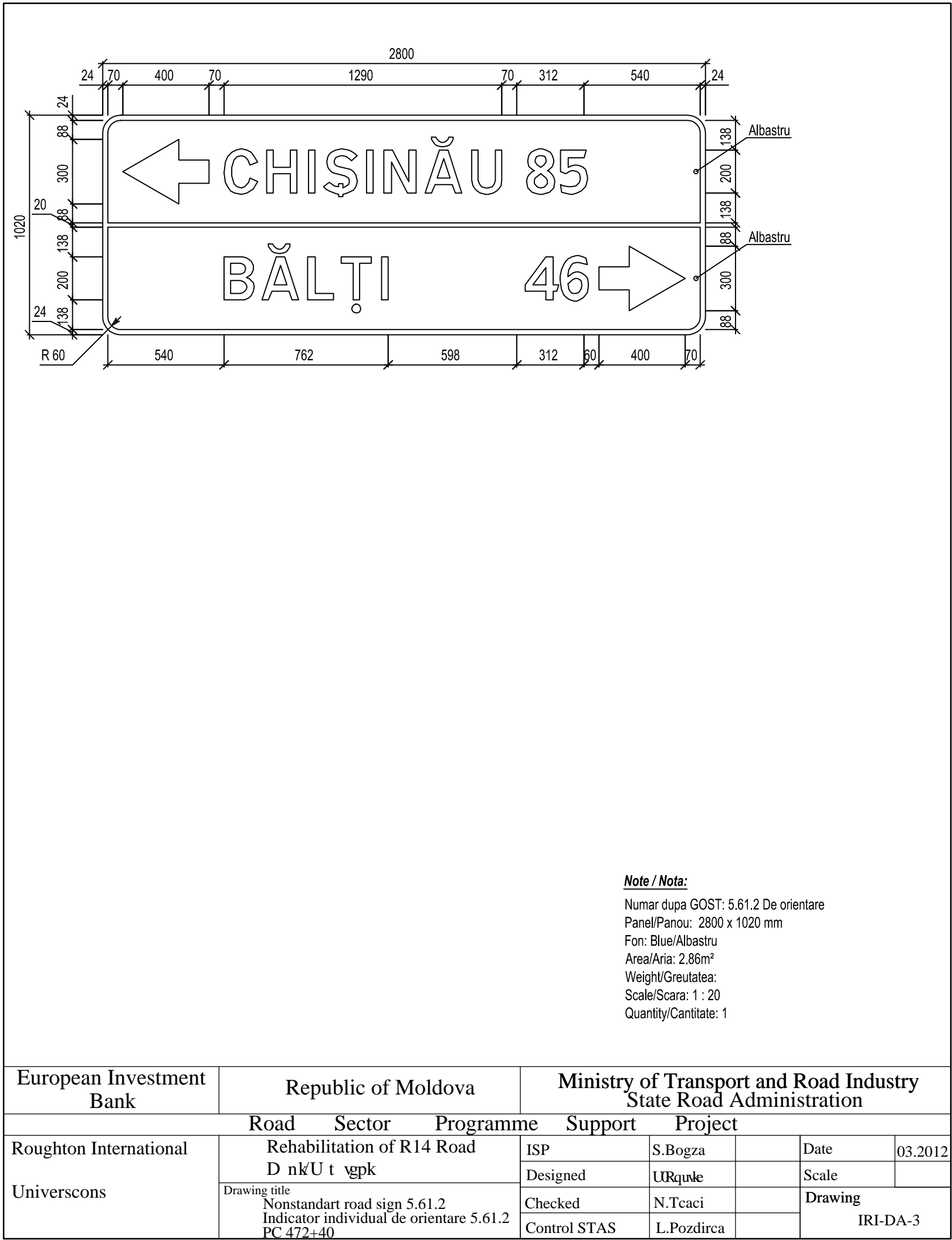
**Note / Nota:**

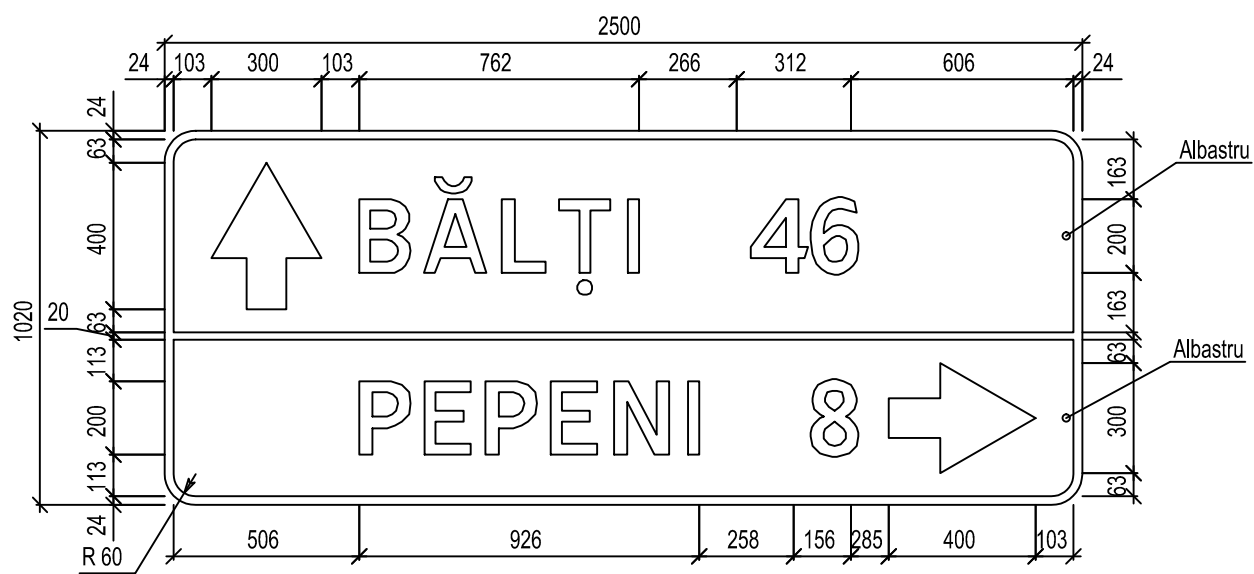
Numar dupa GOST: 5.64 De orientare  
Panel/Panou: 2000 x 510 mm  
Fon: White/Alb  
Area/Aria: 1.02 m<sup>2</sup>  
Weight/Greutatea:  
Scale/Scara: 1 : 15  
Quantity/Cantitate: 2

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International  Universcons	Rehabilitation of R14 Road D nk/U t vgpk  Drawing title Nonstandart road sign 5.63.1;5.64 Indicator individual de orientare 5.63.1;5.64 PC 456+23;PC 485+47	ISP	S.Bogza		Date	03.2012
		Designed	S.Postic		Scale	
		Checked	N.Tcaci		Drawing IRI-DA-1	
		Control STAS	L.Pozdirca			



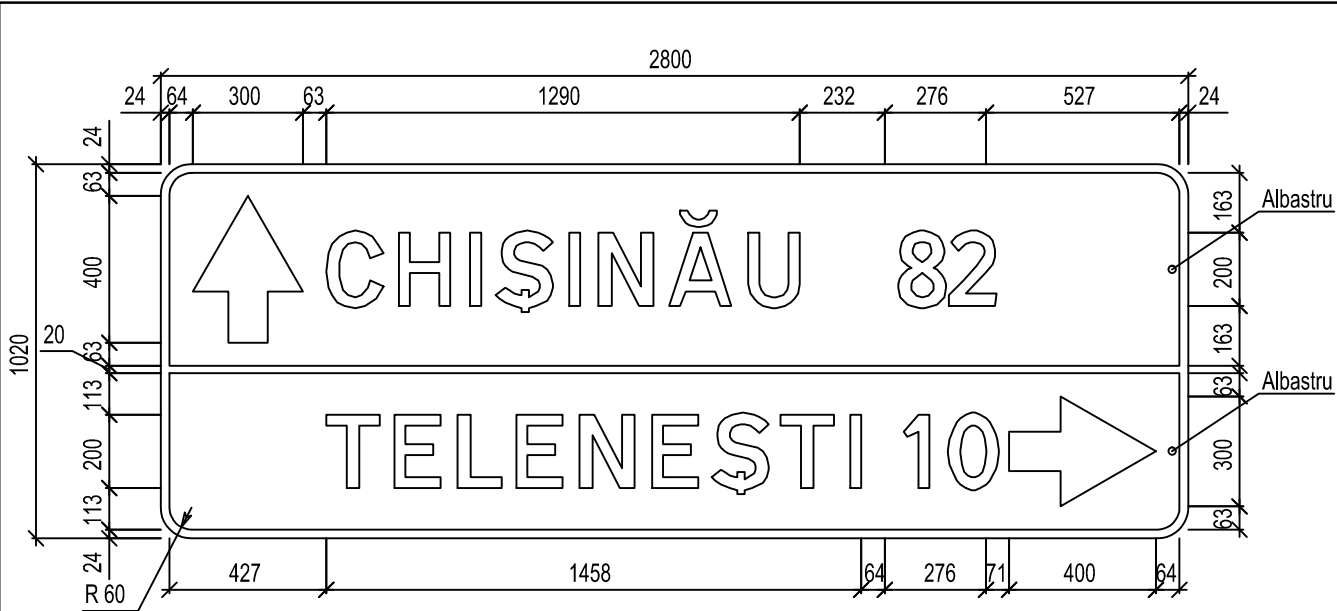






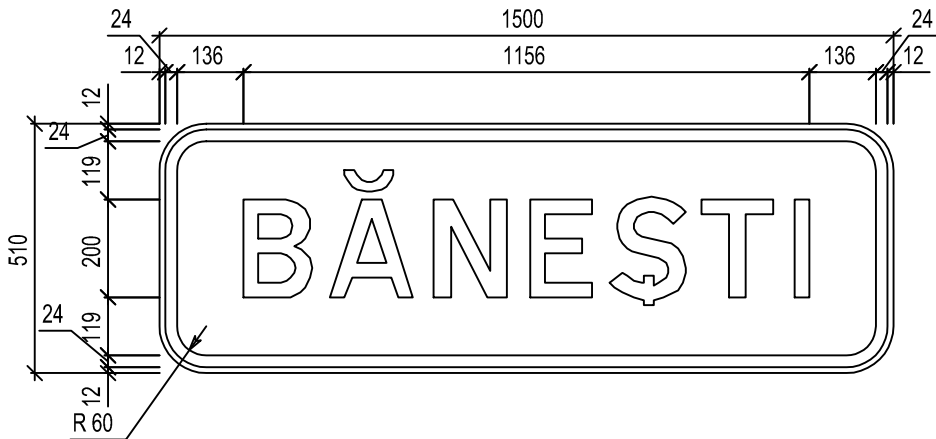
**Note / Nota:**  
Numar dupa GOST: 5.61.2 De orientare  
Panel/Panou: 2500 x 1020 mm  
Fon: Blue/Albastru  
Area/Aria: 2.55m<sup>2</sup>  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 472+62	Checked	N.Tcaci		Drawing IRI-DA-4		
		Control STAS	L.Pozdirca				

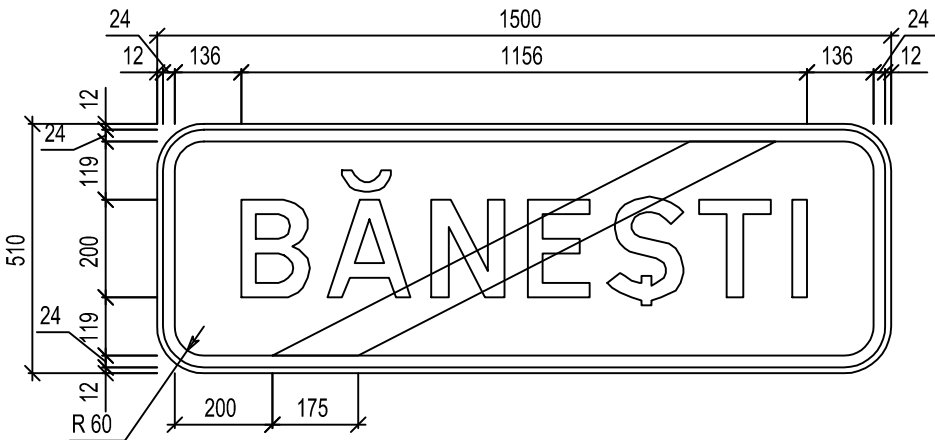


**Note / Nota:**  
 Numar dupa GOST: 5.61.2 De orientare  
 Panel/Panou: 2800 x 1020 mm  
 Fon: Blue/Albastru  
 Area/Aria: 2.86m<sup>2</sup>  
 Weight/Greutatea:  
 Scale/Scara: 1 : 20  
 Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support	Project			
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012
		Designed	URqule		Scale	
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 494+40	Checked	N.Tcaci		Drawing IRI-DA-5	
		Control STAS	L.Pozdirca			

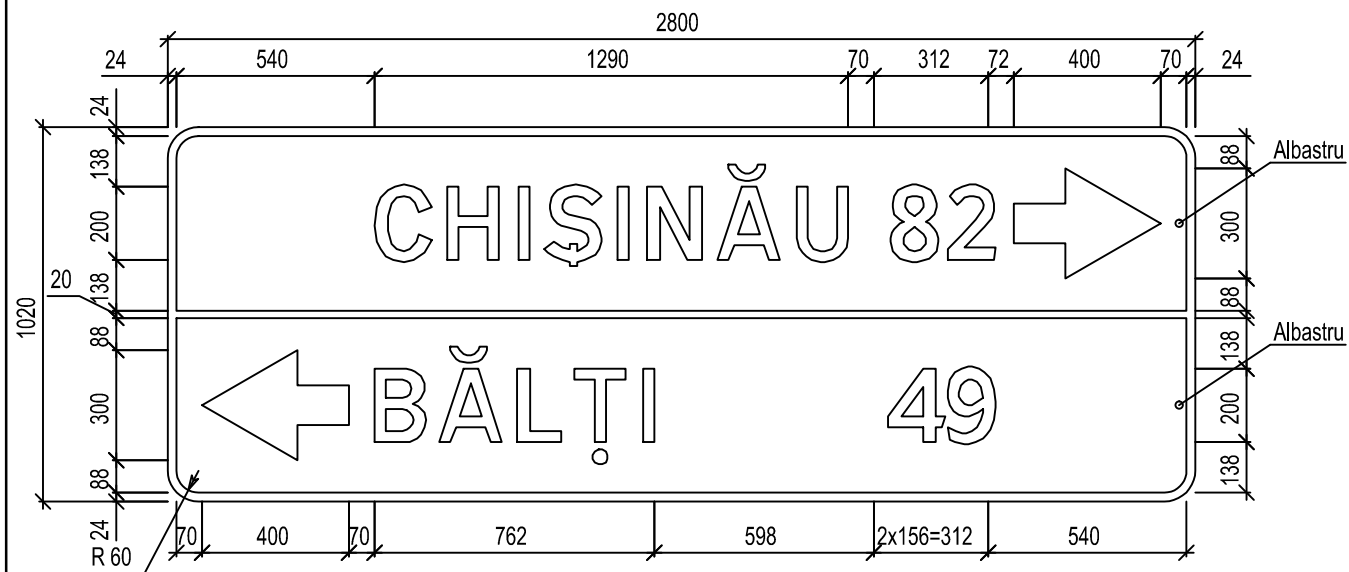


**Note / Nota:**  
Numar dupa GOST: 5.63.1 De orientare  
Panel/Panou: 1500 x 510 mm  
Fon: White/Alb  
Area/Aria: 0.77m²  
Weight/Greutatea: 5.7 kg  
Scale/Scara: 1 : 15  
Quantity/Cantitate: 2



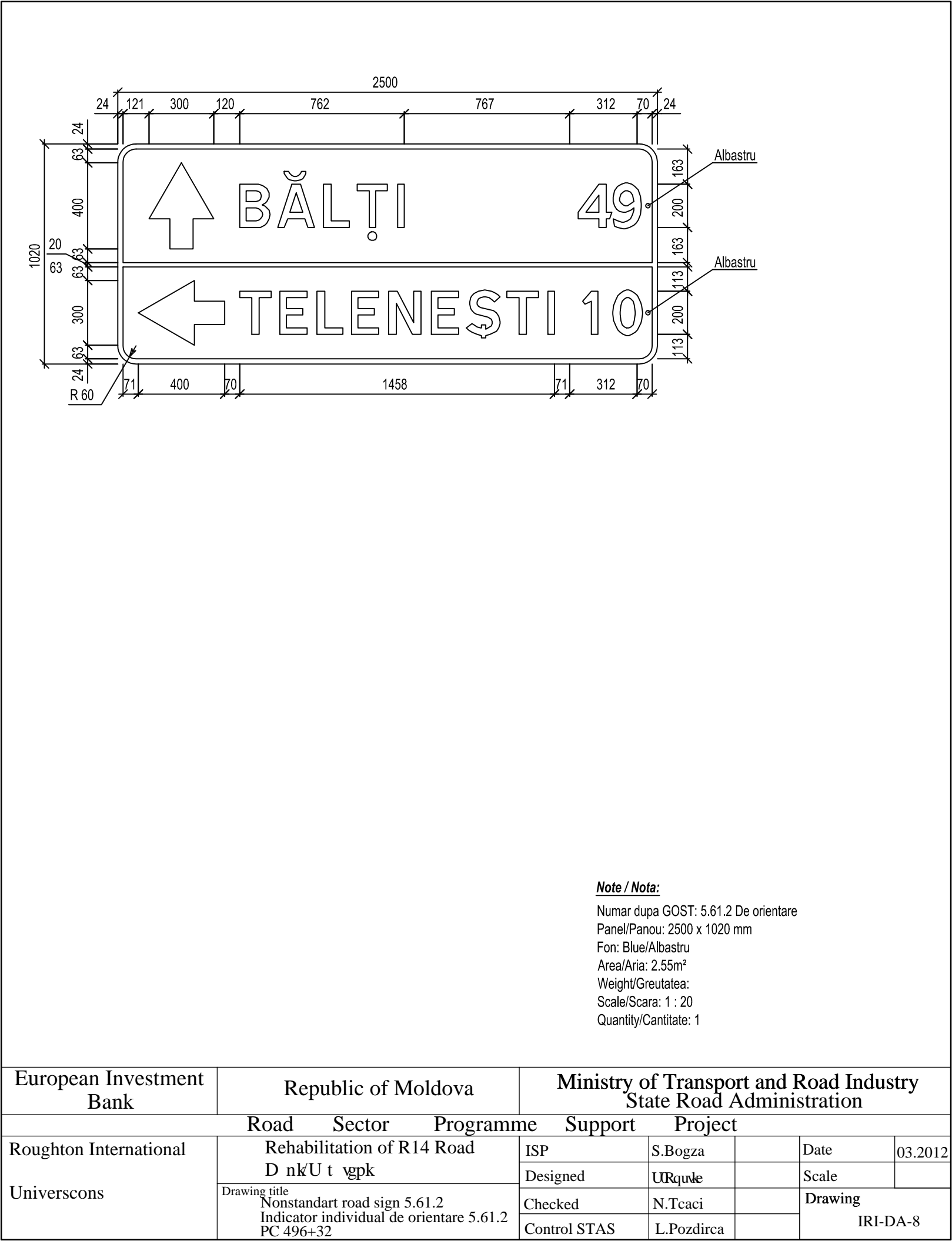
**Note / Nota:**  
Numar dupa GOST: 5.64 De orientare  
Panel/Panou: 2000 x 510 mm  
Fon: White/Alb  
Area/Aria: 0.77m²  
Weight/Greutatea: 5.7 kg  
Scale/Scara: 1 : 15  
Quantity/Cantitate: 2

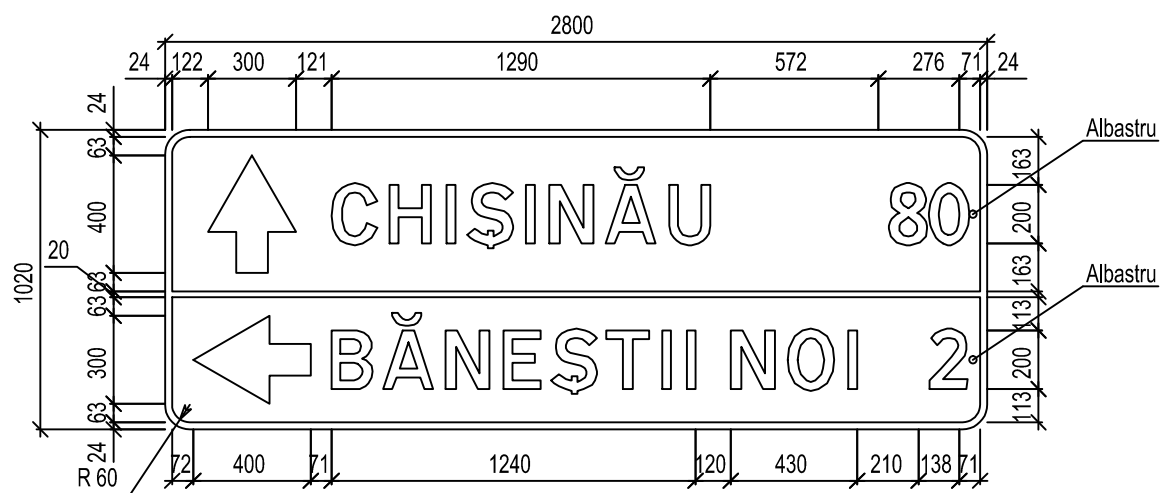
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.63.1;5.64 Indicator individual de orientare 5.63.1;5.64 PC 495+30 ;PC 519+27	Checked	N.Tcaci		Drawing IRI-DA-6		
		Control STAS	L.Pozdirca				



**Note / Nota:**  
 Numar dupa GOST: 5.61.2 De orientare  
 Panel/Panou: 2800 x 1020 mm  
 Fon: Blue/Albastru  
 Area/Aria: 2.86m<sup>2</sup>  
 Weight/Greutatea:  
 Scale/Scara: 1 : 20  
 Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 496+31	Checked	N.Tcaci		Drawing IRI-DA-7		
		Control STAS	L.Pozdirca				



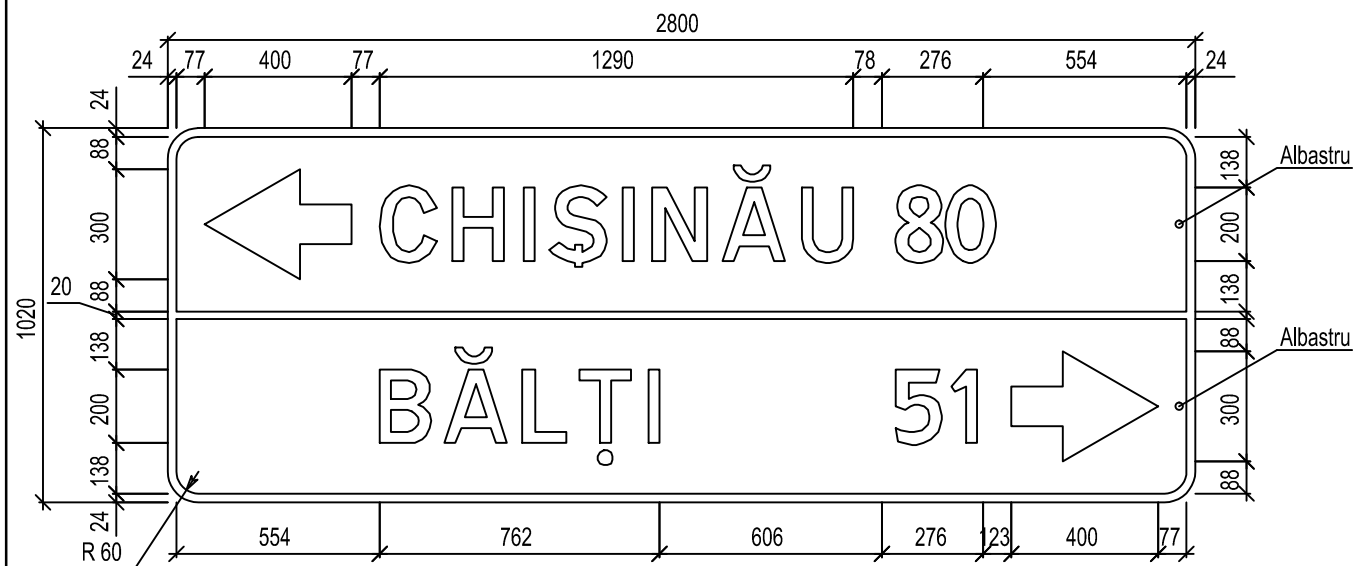


**Note / Nota:**

Numar dupa GOST: 5.61.2 De orientare  
Panel/Panou: 2800 x 1020 mm  
Fon: Blue/Albastru  
Area/Aria: 2.86m<sup>2</sup>  
Weight/Greutatea:  
Scale/Scara: 1 : 25  
Quantity/Cantitate: 1

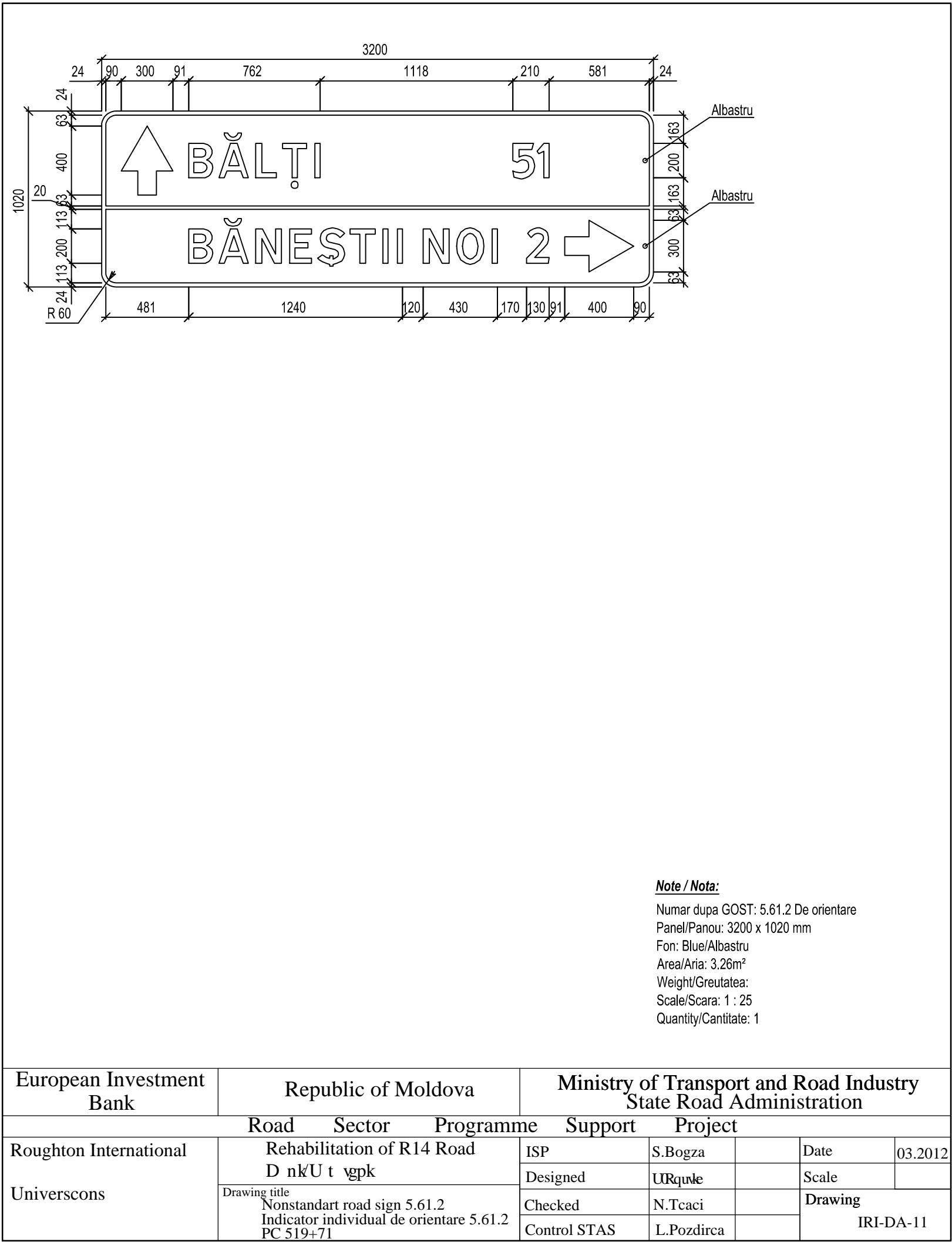
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 519+10	Checked	N.Tcaci		Drawing IRI-DA-9		
		Control STAS	L.Pozdirca				

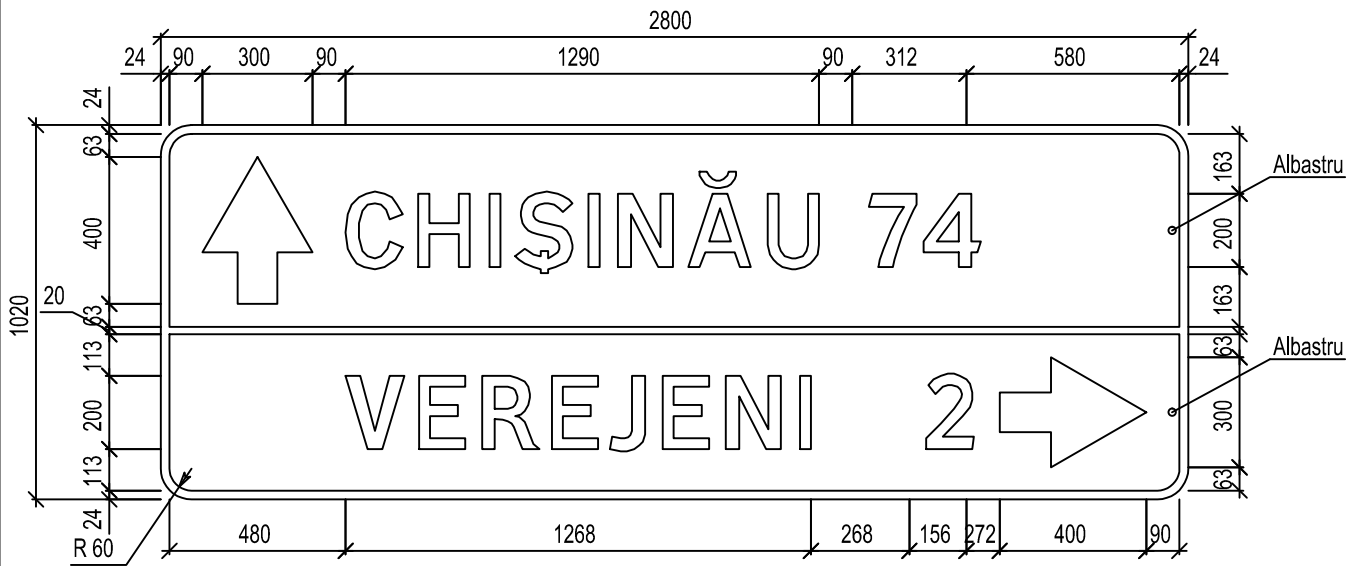




**Note / Nota:**  
Numar dupa GOST: 5.61.2 Intrare în localitate  
Panel/Panou: 2800 x 1020 mm  
Fon: Blue/Albastru  
Area/Aria: 2.86m²  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 1

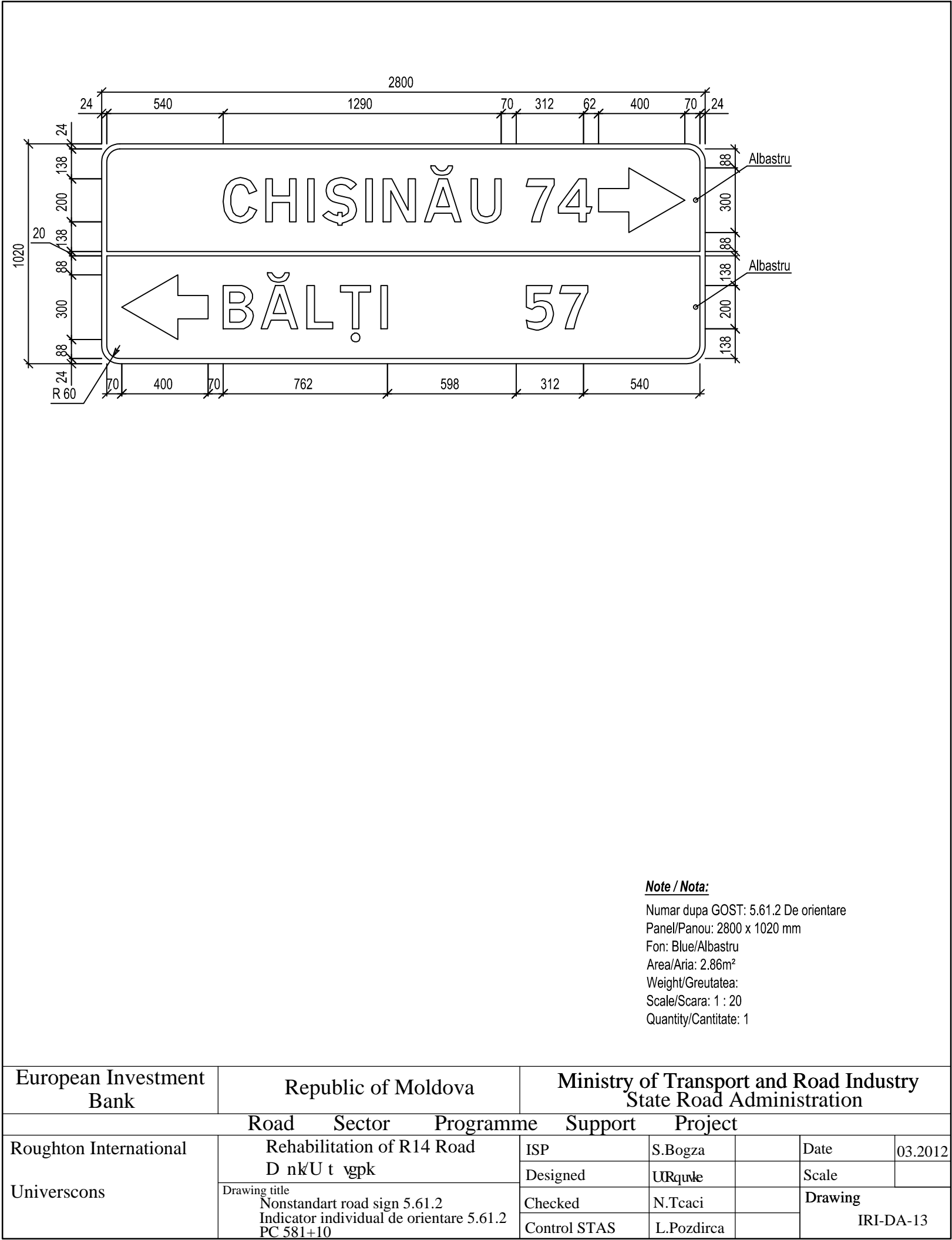
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 519+45	Checked	N.Tcaci		Drawing IRI-DA-10		
		Control STAS	L.Pozdirca				

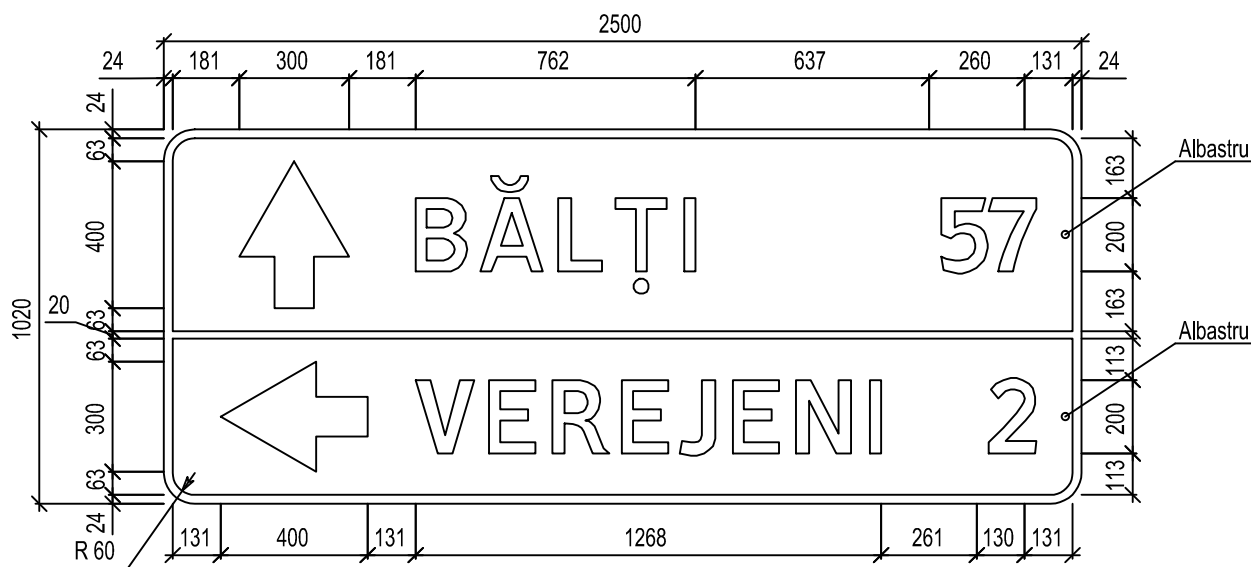




**Note / Nota:**  
Numar dupa GOST: 5.61.2 leşire din localitate  
Panel/Panou: 2800 x 1020 mm  
Fon: Blue/Albastru  
Area/Aria: 2.86m²  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 1

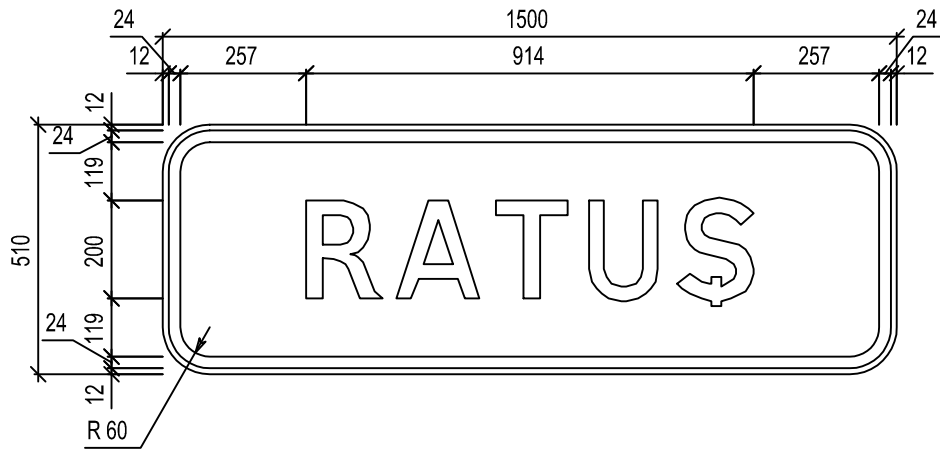
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 579+97	Checked	N.Tcaci		Drawing IRI-DA-12		
		Control STAS	L.Pozdirca				





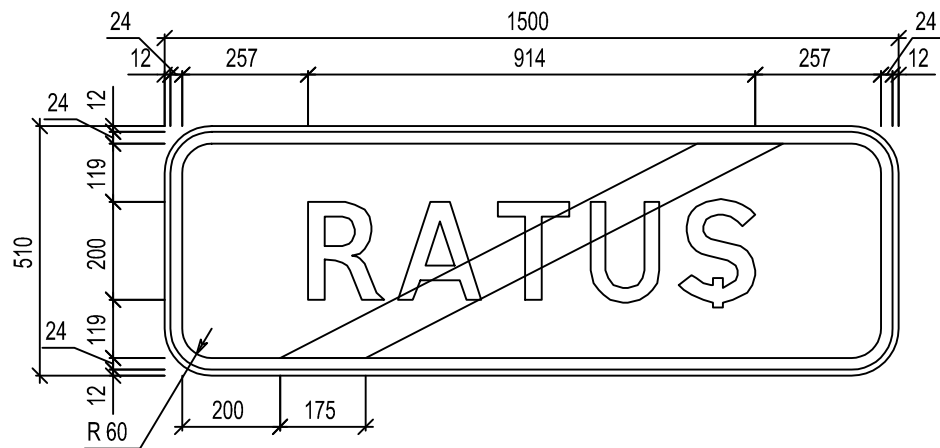
**Note / Nota:**  
Numar dupa GOST: 5.61.2 De orientare  
Panel/Panou: 2500 x 1020 mm  
Fon: Blue/Albastru  
Area/Aria: 2.55m²  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 581+47	Checked	N.Tcaci		Drawing IRI-DA-14		
		Control STAS	L.Pozdirca				



**Note / Nota:**

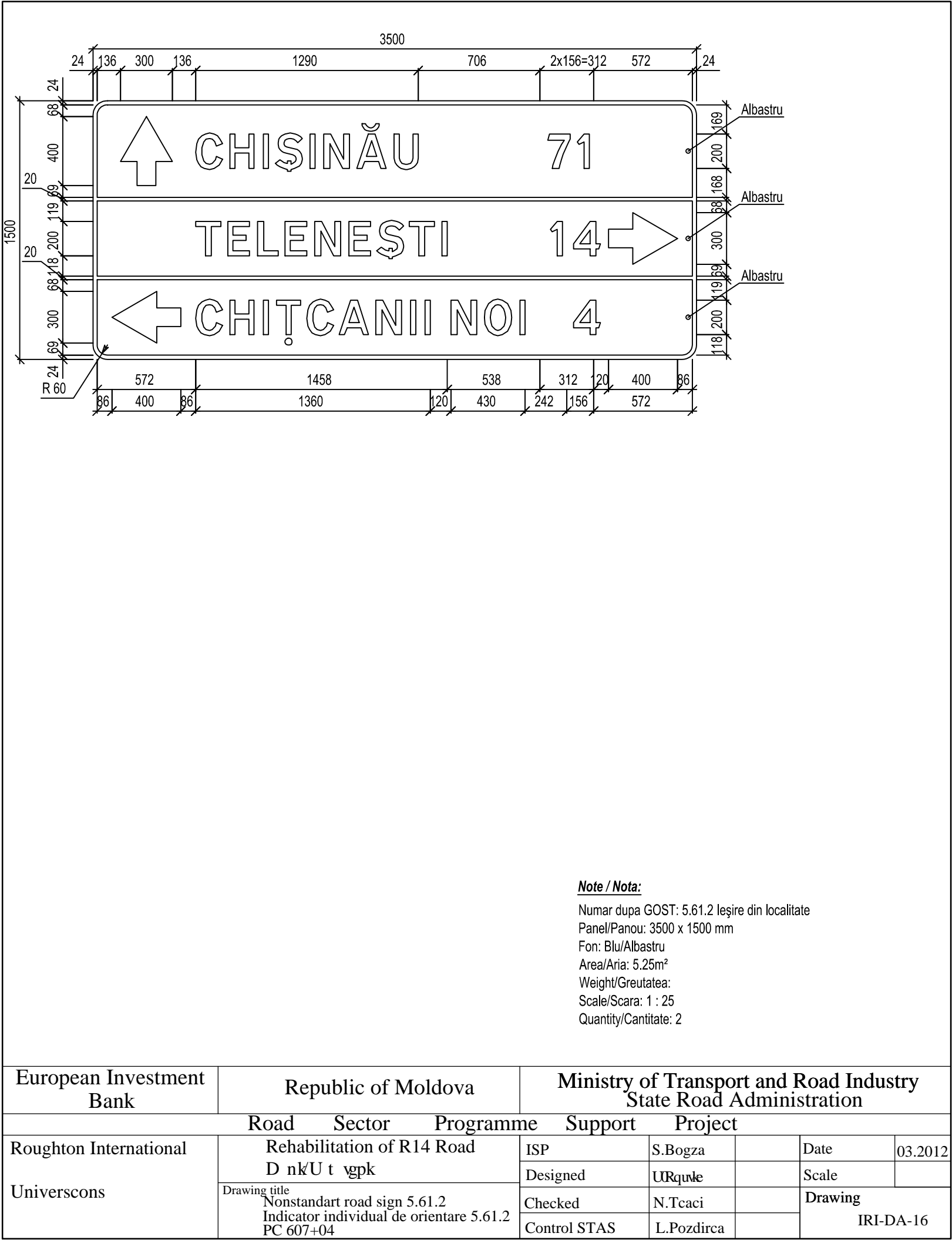
Numar dupa GOST: 5.63.1 De orientare  
Panel/Panou: 1500 x 510 mm  
Fon: White/Alb  
Area/Aria: 0.77m<sup>2</sup>  
Weight/Greutatea:5.7 kg  
Scale/Scara: 1 : 15  
Quantity/Cantitate: 2

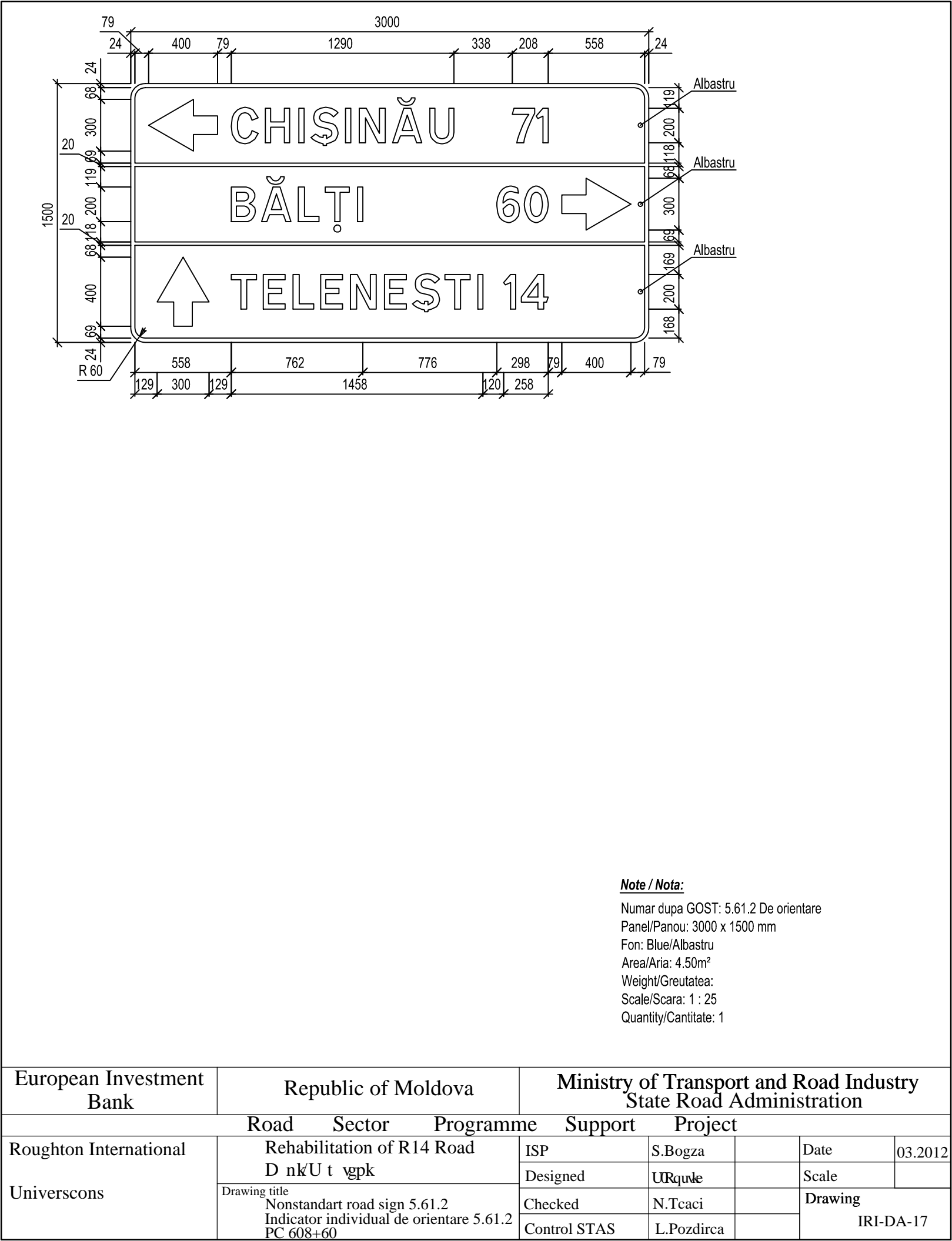


**Note / Nota:**

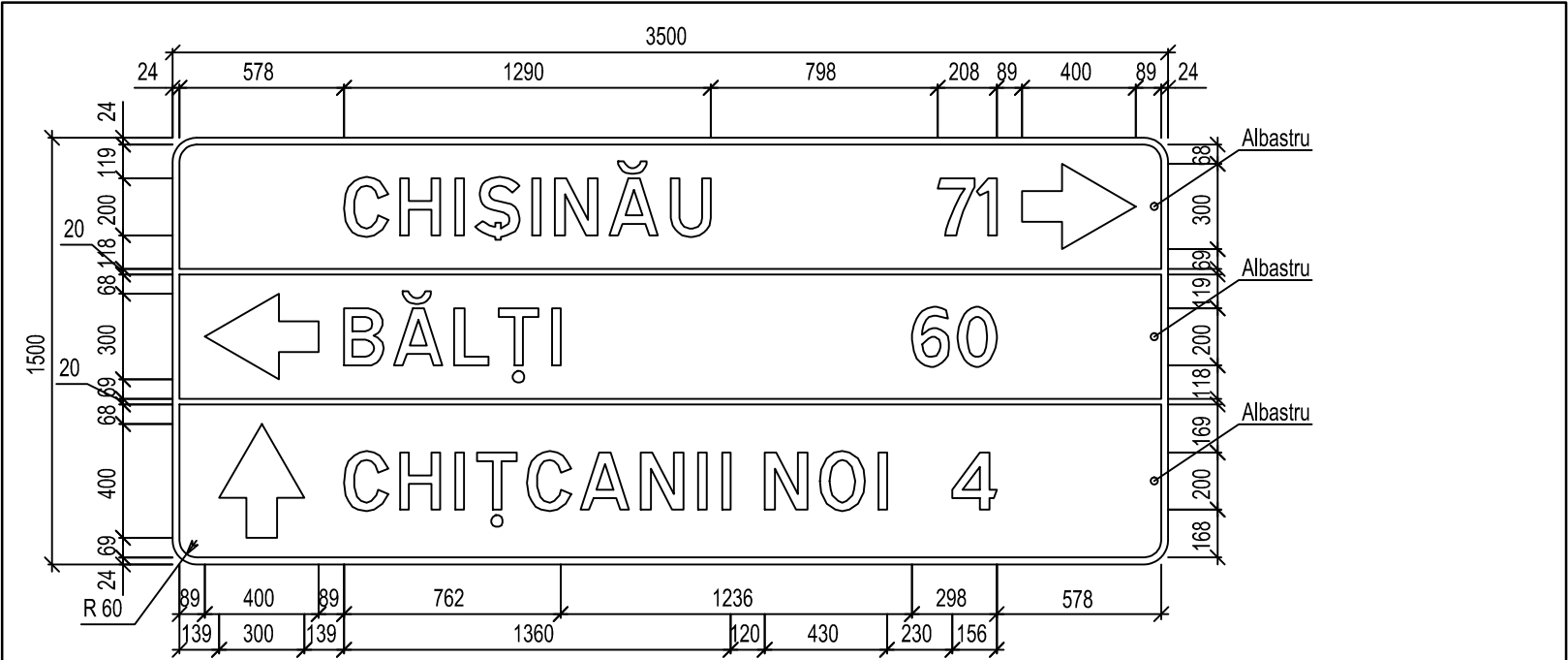
Numar dupa GOST: 5.64 Intrare în localitate  
Panel/Panou: 1500 x 510 mm  
Fon: White/Alb  
Area/Aria: 0.77m<sup>2</sup>  
Weight/Greutatea: 5.7 kg  
Scale/Scara: 1 : 15  
Quantity/Cantitate: 2

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.63.1;5.64 Indicator individual de orientare 5.61.2;5.64 PC 603+47 ;PC 610+63	Checked	N.Tcaci		Drawing IRI-DA-15		
		Control STAS	L.Pozdirca				



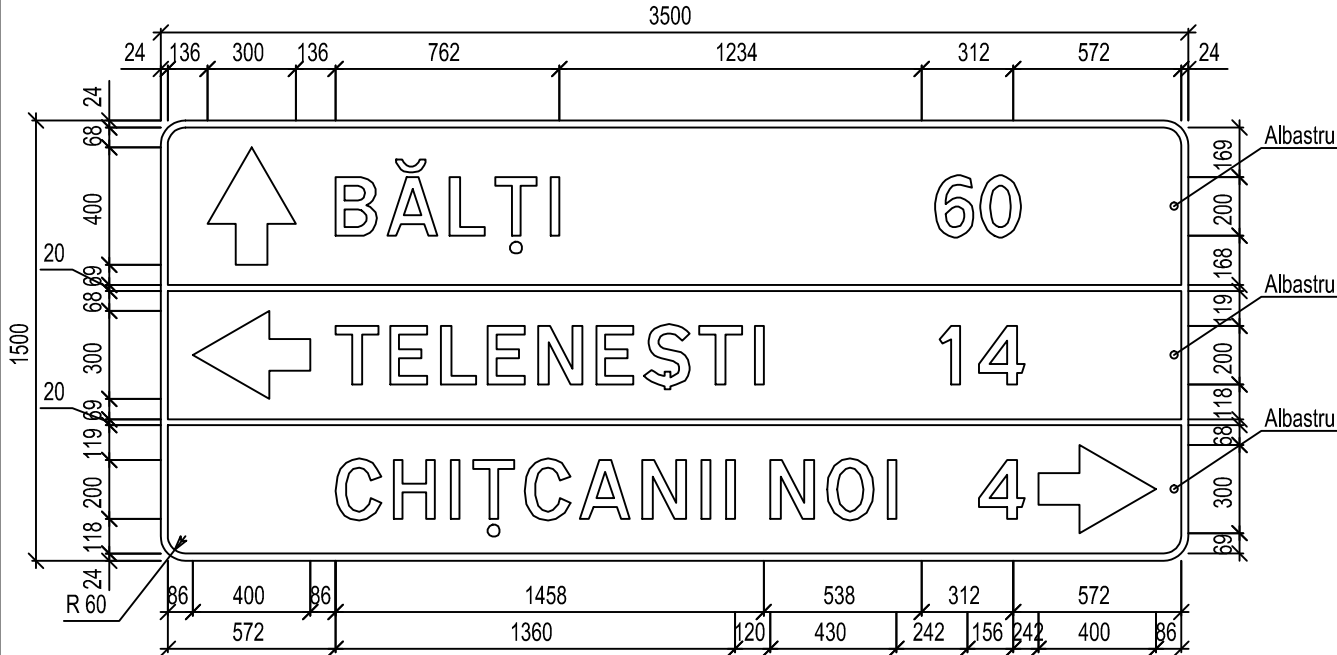






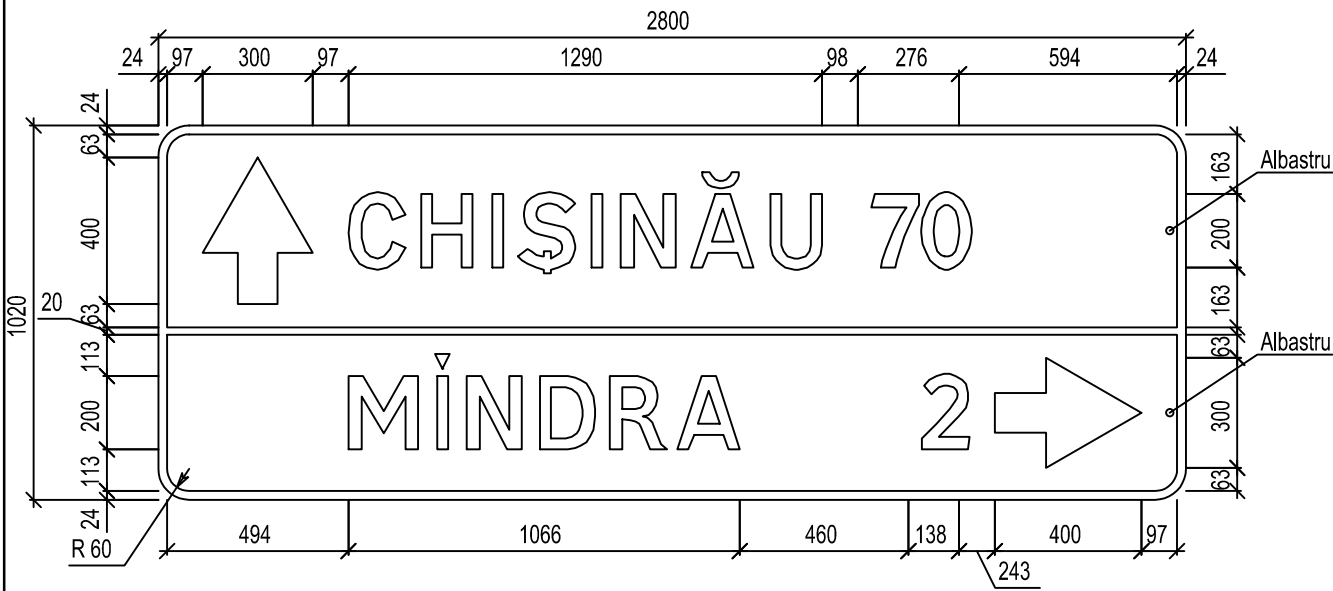
**Note / Nota:**  
 Numar dupa GOST: 5.61.2 De orientare  
 Panel/Panou: 3500 x 1500 mm  
 Fon: Blue/Albastru  
 Area/Aria: 5.25m²  
 Weight/Greutatea:  
 Scale/Scara: 1 : 25  
 Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012
		Designed	URqule		Scale	
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 608+70	Checked	N.Tcaci		Drawing IRI-DA-18	
		Control STAS	L.Pozdirca			



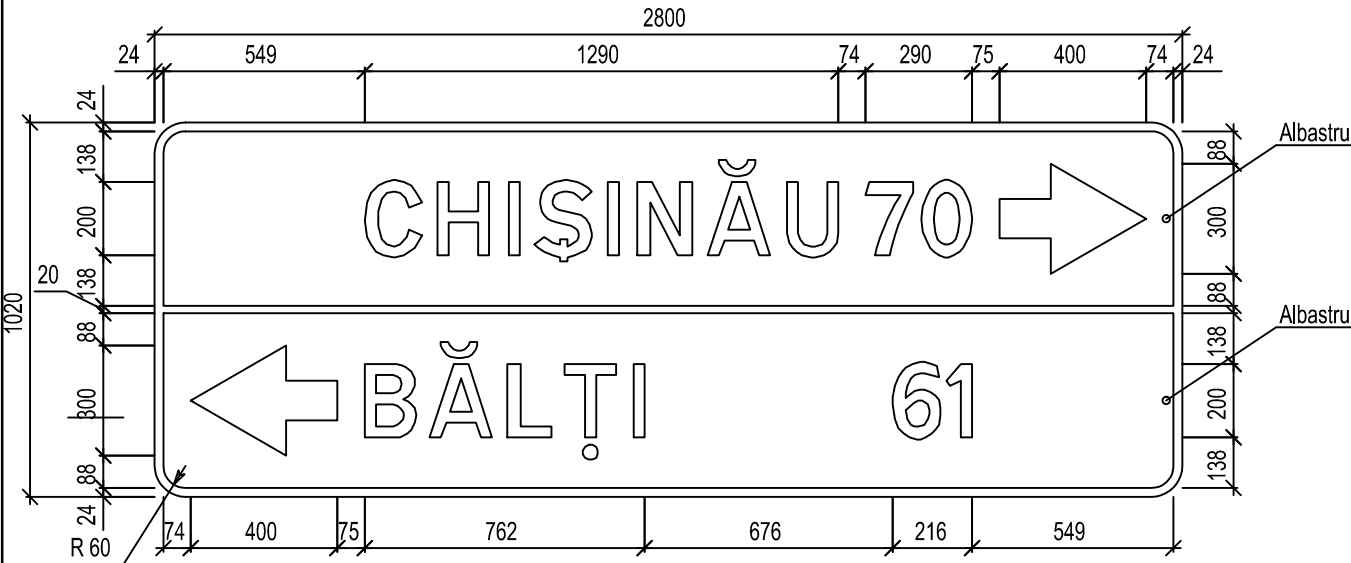
**Note / Nota:**  
 Numar dupa GOST: 5.61.2 De orientare  
 Panel/Panou: 3500 x 1500 mm  
 Fon: Blue/Albastru  
 Area/Aria: 5.25m<sup>2</sup>  
 Weight/Greutatea:  
 Scale/Scara: 1 : 25  
 Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012
		Designed	URqule		Scale	
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 610+22	Checked	N.Tcaci		Drawing IRI-DA-19	
		Control STAS	L.Pozdirca			



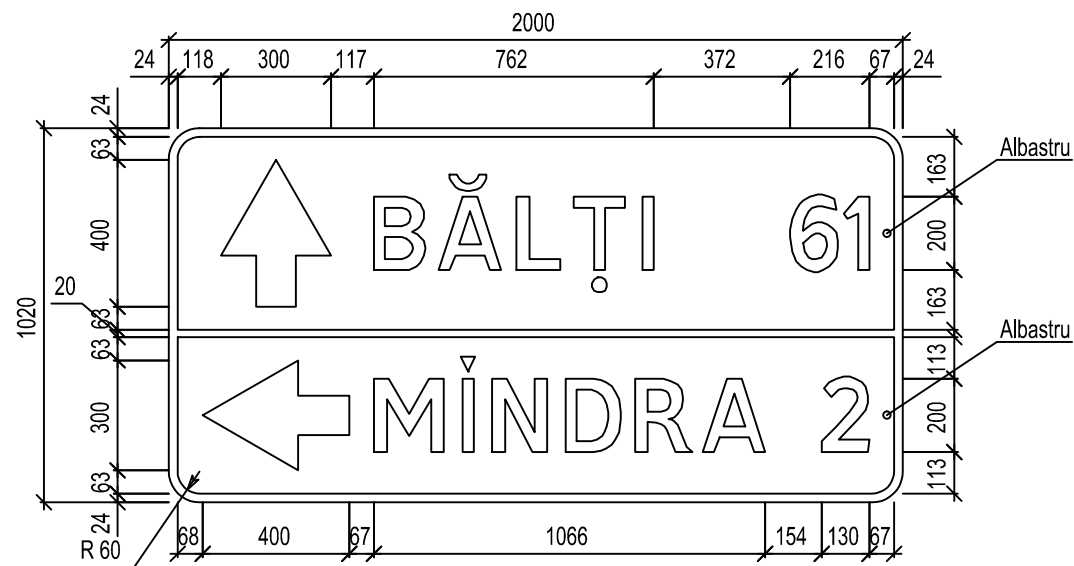
**Note / Nota:**  
Numar dupa GOST: 5.61.2 De orientare  
Panel/Panou: 2800 x 1020 mm  
Fon: Blue/Albastru  
Area/Aria: 2.86m<sup>2</sup>  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 617+79	Checked	N.Tcaci		Drawing IRI-DA-20		
		Control STAS	L.Pozdirca				



**Note / Nota:**  
 Numar dupa GOST: 5.61.2 De orientare  
 Panel/Panou: 2800 x 1020 mm  
 Fon: Blue/Albastru  
 Area/Aria: 2.86m<sup>2</sup>  
 Weight/Greutatea:  
 Scale/Scara: 1 : 20  
 Quantity/Cantitate: 1

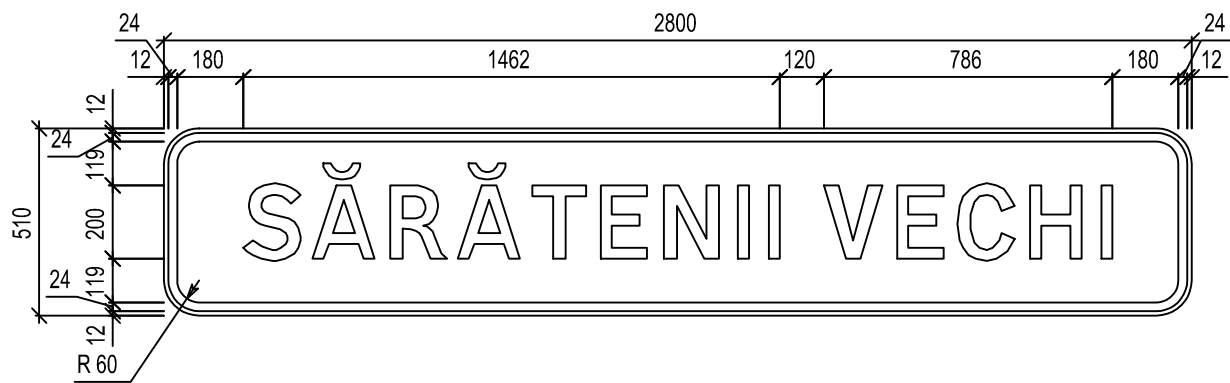
European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 618+15	Checked	N.Tcaci		Drawing IRI-DA-21		
		Control STAS	L.Pozdirca				



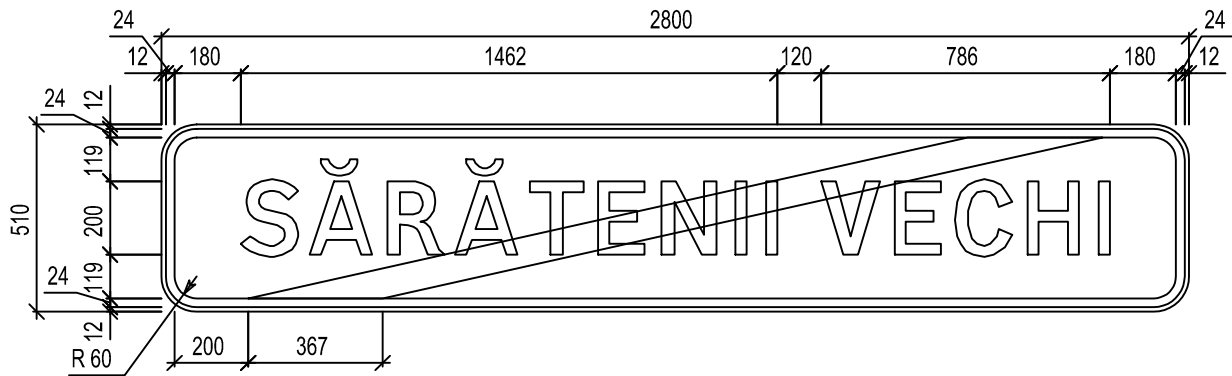
**Note / Nota:**

Numar dupa GOST: 5.61.2 De orientare  
Panel/Panou: 2000 x 1020 mm  
Fon: Blue/Albastru  
Area/Aria: 2.04m<sup>2</sup>  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 618+97	Checked	N.Tcaci		Drawing IRI-DA-22		
		Control STAS	L.Pozdirca				

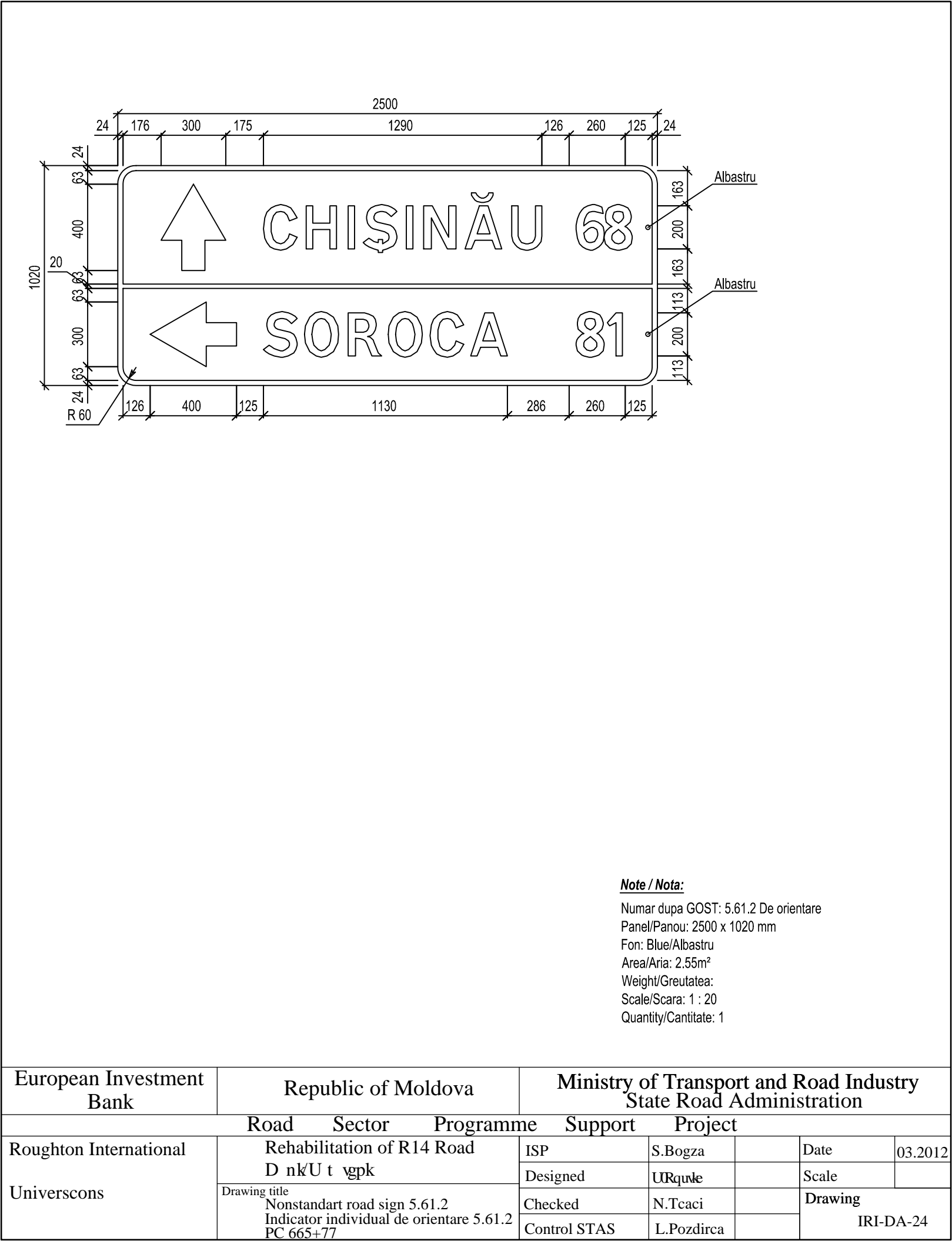


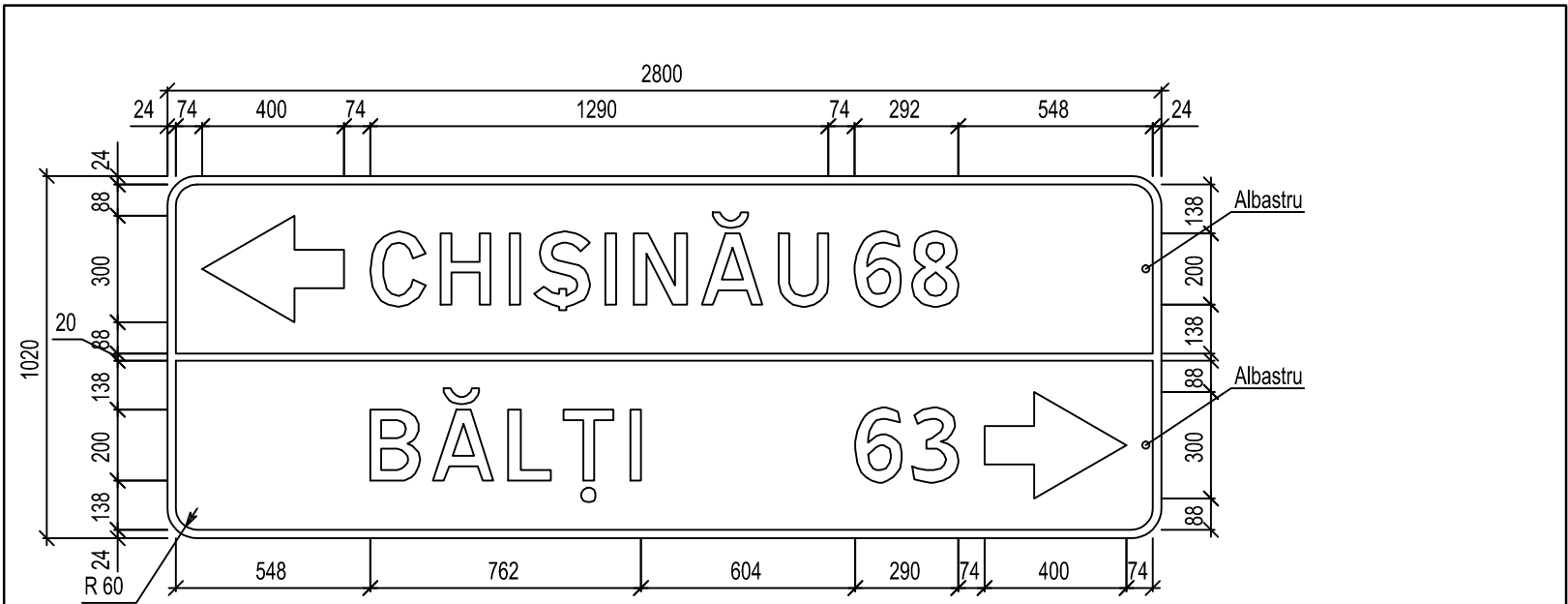
**Note / Nota:**  
Numar dupa GOST: 5.63.1 De orientare  
Panel/Panou: 2800 x 510 mm  
Fon: White/Alb  
Area/Aria: 1.43m<sup>2</sup>  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 2



**Note / Nota:**  
Numar dupa GOST: 5.64 De orientare  
Panel/Panou: 2800 x 510 mm  
Fon: White/Alb  
Area/Aria: 1.43m<sup>2</sup>  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 2

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk  Drawing title Nonstandart road sign 5.63.1;5.64 Indicator individual de orientare 5.63.1;5.64 PC 648+63; PC 657+81	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
		Checked	N.Tcaci		Drawing IRI-DA-23		
		Control STAS	L.Pozdirca				

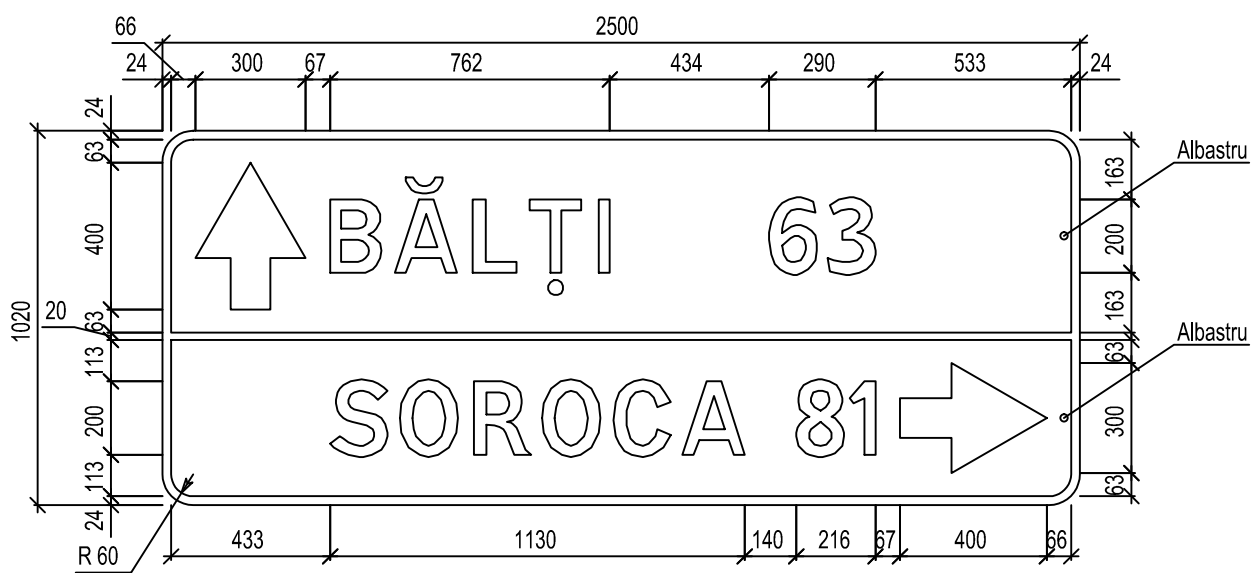




**Note / Nota:**  
Numar dupa GOST: 5.61.2 De orientare  
Panel/Panou: 2800 x 1020 mm  
Fon: Blue/Albastru  
Area/Aria: 2.86m<sup>2</sup>  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 666+40	Checked	N.Tcaci		Drawing IRI-DA-25		
		Control STAS	L.Pozdirca				





**Note / Nota:**  
Numar dupa GOST: 5.61.2 De orientare  
Panel/Panou: 2500 x 1020 mm  
Fon: Blue/Albastru  
Area/Aria: 2.55m<sup>2</sup>  
Weight/Greutatea:  
Scale/Scara: 1 : 20  
Quantity/Cantitate: 1

European Investment Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International  Universcons	Rehabilitation of R14 Road D nkU t vgpk	ISP	S.Bogza		Date	03.2012	
		Designed	URqule		Scale		
	Drawing title Nonstandart road sign 5.61.2 Indicator individual de orientare 5.61.2 PC 666+67	Checked	N.Tcaci		Drawing IRI-DA-26		
		Control STAS	L.Pozdirca				

List of executive drawings of the main set/Lista seturilor de bază a planșelor de execuție

Number Indicativ	Item / Denumirea	Note Notă
2012/045D	Bridge /Lucrări de artă	

List of executive drawings of the main set/Lista planșelor de execuție a setului de bază 2012/045D

Drawing Planșa	Item / Denumirea	Note Notă
1	General data / Date generale	
2	Bridge general view. Front view / Dispoziție generală a podului. Fațada.	
3	Bridge general view. Layout / Dispoziția generală a podului. Planul	
4	Bridge general view. Section / Dispoziția generală a podului. Secțiunea	
5	General view of abutment / Dispoziția generală a culeei	
6	Approach to bridge at abutment / Racordarea podului cu drumul la culee	
7	Consolidation of cones / Consolidarea semiconurilor	
8	Monolithic joint MJ-1 / Nodul monolit NM-1	
9	Monolithic joint MJ-2 / Nodul monolit NM-2	
10	Collar beam CB-1 / Rigla R-1	
11	Collar beam CB-1. Reinforcement scheme. Rigla R-1. Schema de armare.	
12	Protection wall PW-1 / Zid de gardă ZG-1	
13	Protection wall PW-1. Reinforcement scheme / Zid de gardă ZG-1. Schema de armare	
14	The drawings RD-P, PSCV-P, PSP-P, NIPR-P, SS-P, CC-P are common for all bridges Desenele RD-P, PSCV-P, PSP-P, NIPR-P, SS-P, CC-P se refera la toate podurile	See bridge km 64+756 Vezi podul km 64+756

List of reference documents / Lista documentelor de referință și anexate

Document Number Indicativ	Item / Denumirea	Note Notă
	Reference documents / Documente de referință	
Серия 3.500.1-1.93	Сваи забивные железобетонные цельные сплошного квадратного сечения для опор мостов .	Piles /Piloți
Серия 3.503.1-81 Выпуски 1-1, 3-1	Пролетные строения сборные ж. б. длиной 12, 15, 18, 21, 24 и 33м из балок таврового сечения с предварительно напрягаемой арматурой для мостов и путепроводов	Pedestrian guardrail /Parapet de siguranță și pietonal
Серия 3.503.1-101 Выпуск 0, 1	Изоляция проезжей части, перекрытие деформационных швов ж. б. строений длиной до 33м автодорожных мостов и путепроводов	Bridgeway parts /Elementele căii podului
ALGA Bearing s and Expansion Joints	Expansion joints ALGAFLEX T instalation Procedure, 10.10.2005	Joint filling elements / Elemente de acoperire a rosturilor
Серия 3.501-156 Выпуски 0, 1	Укрепление русел, конусов и откосов насыпи у малых и средних мостов и водопропускных труб.	Surface protection / Protecția suprafețelor
BCH 24-88	Технические правила ремонта и содержания автомобильных дорог	Reinforced concrete repair /Reparația betonului armat
BCH 32-81	Инструкция по устройству гидроизоляции конструкций мостов и труб на железных, автомобильных и городских дорогах	Waterproofing of concrete surfaces / Izolarea suprafețelor de beton
СНУП 3.06.04-91	Мосты и трубы	Bridge, culvert works / Executarea lucrărilor

Note / Notă:

1. Design norms / Normele de proiectare: СНУП 2.05.03-84 "Мосты и Трубы", СНУП 2.05.02-85\* "Автомобильные дороги".

2. Road category /Categoria drumului auto - III. Bridge width / Gabaritul podului G-14,40+2x0,75 m.

3. Reference loading / Sarcina de calcul: A11 și HK-80.

4. Reference seismicity of construction / Seismicitatea de calcul a construcției - 7 grade.

5. Baltic Sea reference level system. As base is taken Rp26 - 89.738 at PC261+585, (kilometer stone- placed on right side shoulder, direction after stakes) / Sistem de cote Baltic. Drept bază servesc reperul Rp26 - 89.738 la PC261+585, (borna de marcare a kilometrajului, amplasată pe acostament din partea dreaptă, direcție după pichetare).

6. Decisive phases for checking and acceptance of repair works / Fazele determinante de verificare și recepție a lucrărilor de reparație:

Transmission of center line references, location and bench marks /Predarea trasării, amplasamentului și a bornelor de reper;

Infrastructure repair / Reparația infrastructurii (abutment /culeea 1, pile / pila 2, pile / pila 3, abutment / culeea 4);

Superstructure and bridge way works / Execuția suprastructurii și căii podului;

Approach to bridge works / Execuția racordării podului cu terasamentul.

7. Type of works, determined as hidden works shall be checked and accepted with the record of verification results in Reports of quality check / Genul de lucrări determinate ca lucrări ascunse ce urmează a fi verificate și recepționate cu consemnarea rezultatelor verificării în procese verbale de verificare a calității:

Determination and positioning of road center lines and elements / Trasarea și poziționarea axelor și elementelor;

Bases and footings / Temeliile și fundațiile;

Inspection of materials, semifabricates and parts at entrances / Examinarea materialelor, semifabricatelor și elementelor la intrare;

Reinforcement and concrete of parts, formworks / Armarea și betonarea elementelor, cofrajele;

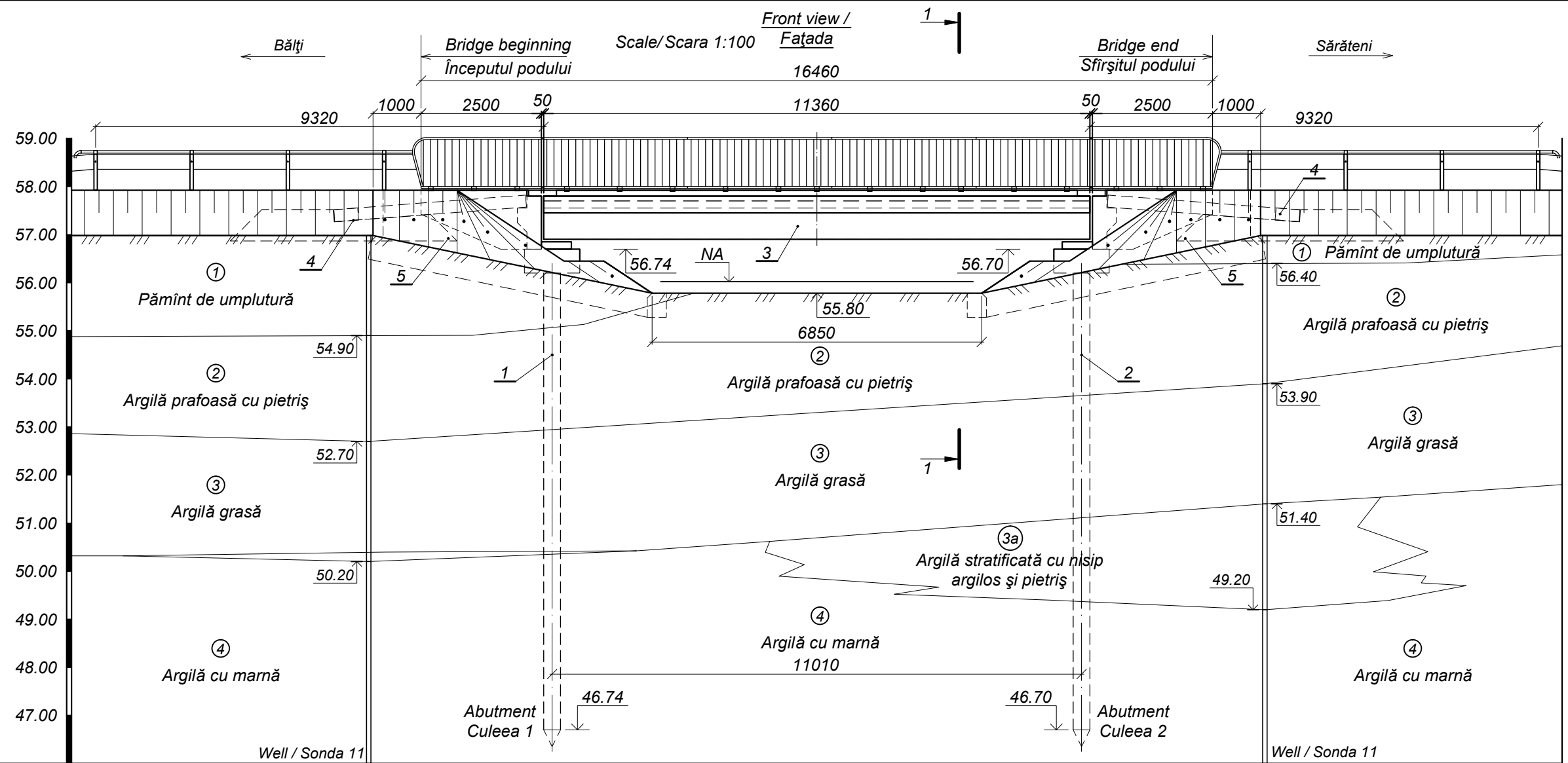
Welding of metal parts / Sudarea elementelor metalice.

The design is elaborated in accordance with the standards and requirements existing design rules / Proiectul este elaborat în conformitate cu cerințele normelor și regulilor în construcții în vigoare

Chief engineer / Inginer șef proiect compartiment

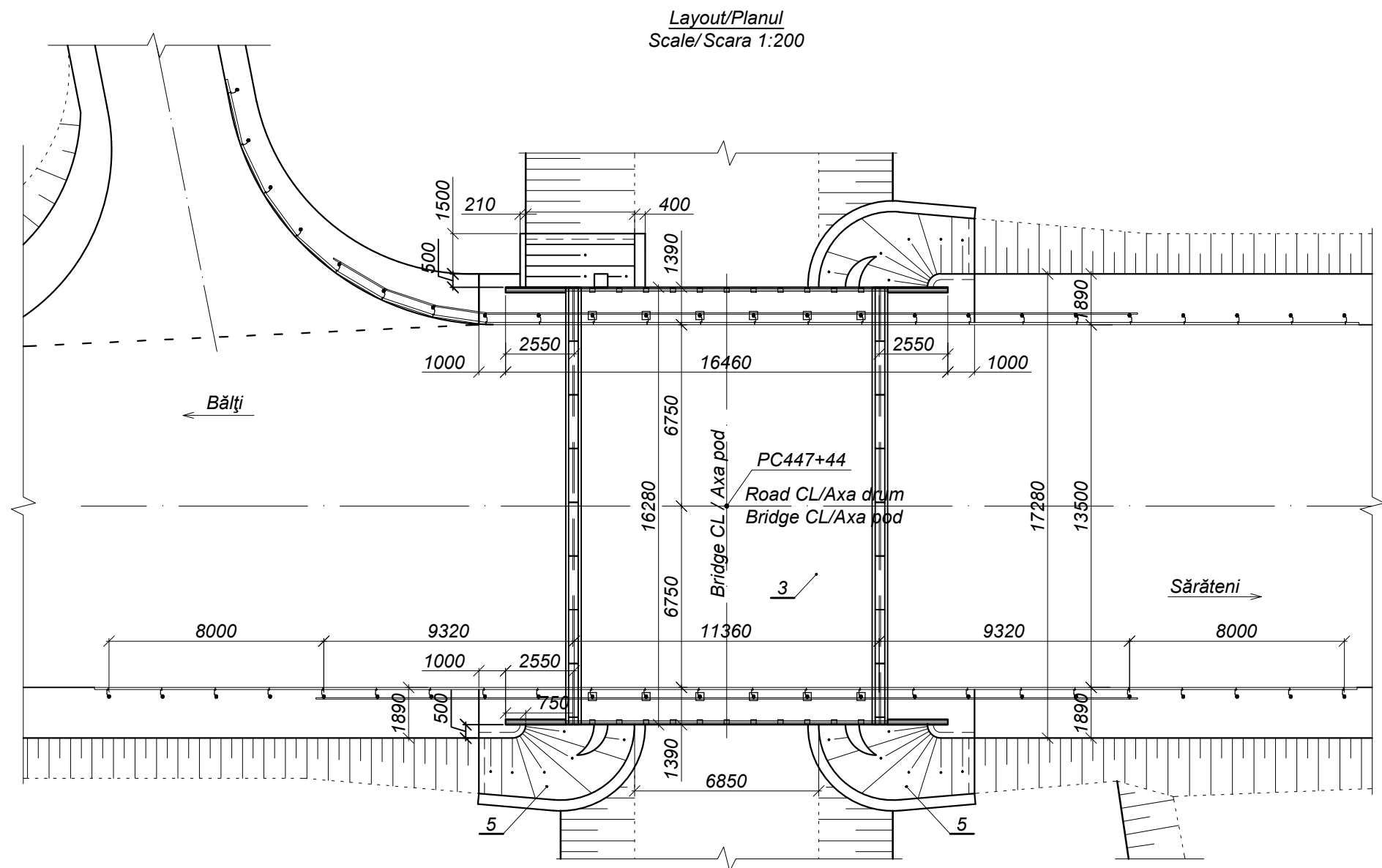
A. Cekan

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support		Project			
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title Bridge.Pod, Km 44 + 744 General data / Date generale	Checked	N.Tcaci		Drawing DG-P-1		
		Control STAS	L.Pozdirca				



- 1 *Abutment 1 / Culeea 1*
- 2 *Abutment 2 / Culeea 2*
- 3 *Superstructure and bridge way / Suprastructura și calea podului*
- 4 *Bridge approach slabs / Racordarea podului cu drumul*
- 5 *Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor*

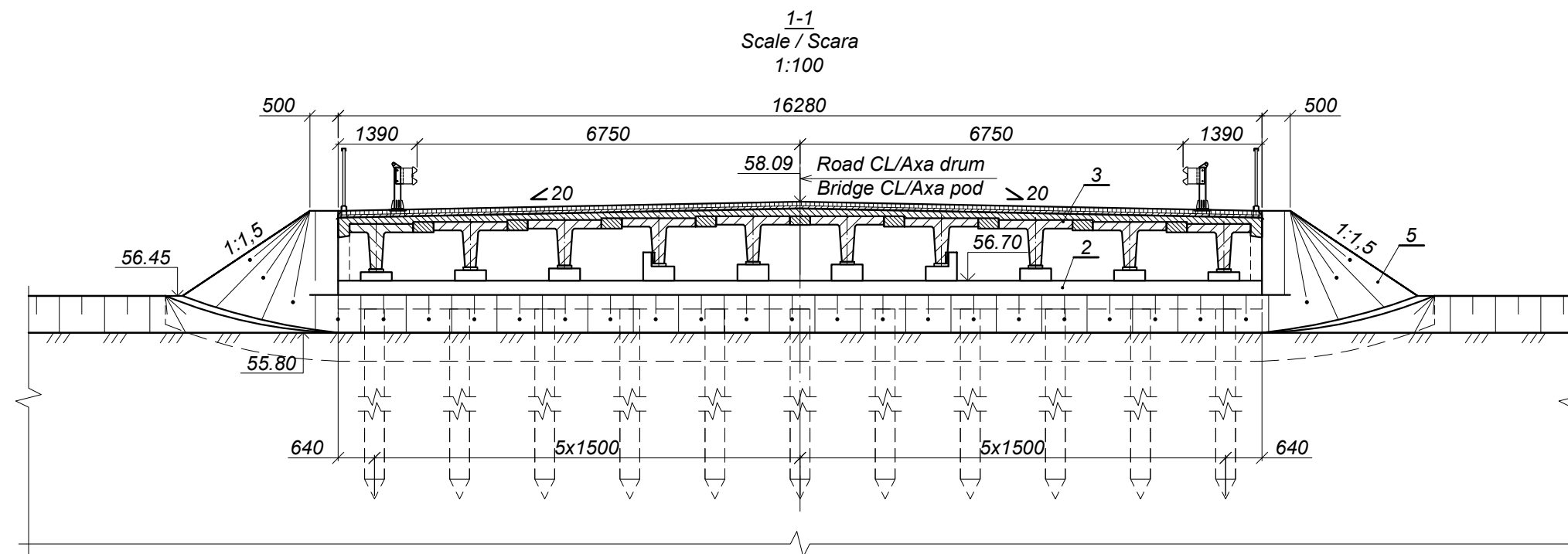
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
Universcons	Drawing title <i>Bridge.Pod, Km 44 + 744</i> <i>Bridge general view. Front view /</i> <i>Dispoziție generală a podului. Fațada.</i>	Designed	A.Cecan		Scale		
		Checked	N.Tcaci		Drawing  F-P-1		
		Control STAS	L.Pozdirca				



Specification / Specificația

Pozition Poziția	Name / Denumirea
1	Abutment / Culeea 1
2	Abutment / Culeea 2
3	Superstructure and bridge way Suprastructura și calea podului
4	Bridge approach slabs Racordarea podului cu drumul la culeea
5	Consolidation of cones Consolidarea semiconurilor

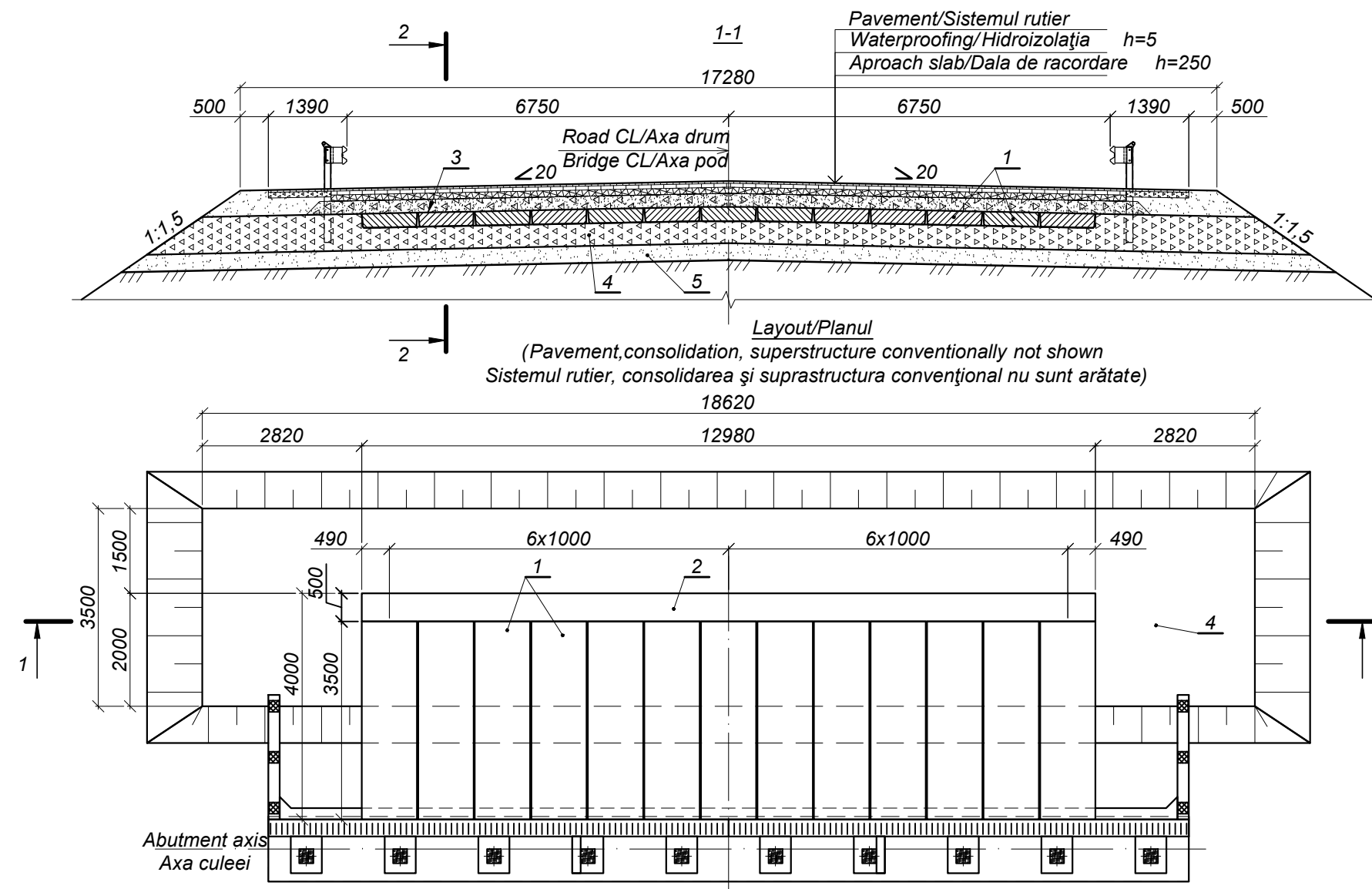
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 44 + 744</i> <i>Bridge general view. Layout /</i> <i>Dispoziția generală a podului. Planul</i>	Checked	N.Tcaci		Drawing  P-P-1		
		Control STAS	L.Pozdirca				



- 2 Abutment 2 / Culeea 2
- 3 Superstructure and bridge way / Suprastructura și calea podului
- 5 Consolidation of cones / Consolidarea semiconurilor

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 44 + 744</i> <i>Bridge general view. Section</i> <i>Dispoziția generală a podului. Secțiunea</i>	Checked	N.Tcaci		Drawing  S-P-1		
		Control STAS	L.Pozdirca				





Asphalt wearing course /  
Uzură din beton asfaltic h=40

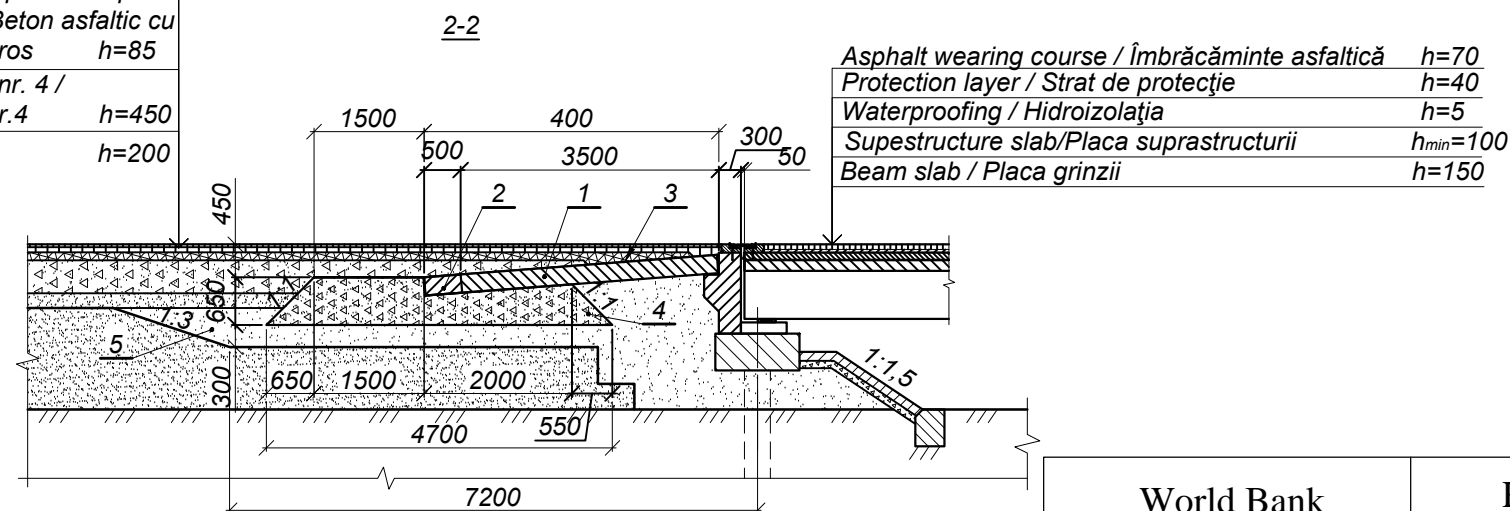
Geocomposite / Geocompozit  
PGM-G 50/50

Fine grained porous asphalt  
concrete M1 / Beton asfaltic cu  
granulație fină poros M1 h=60

Coarse grained porous asphalt  
concrete M1 / Beton asfaltic cu  
granul mare poros h=85

Crushed stone nr. 4 /  
Piatră spartă Nr.4 h=450

Sand / Nisip h=200

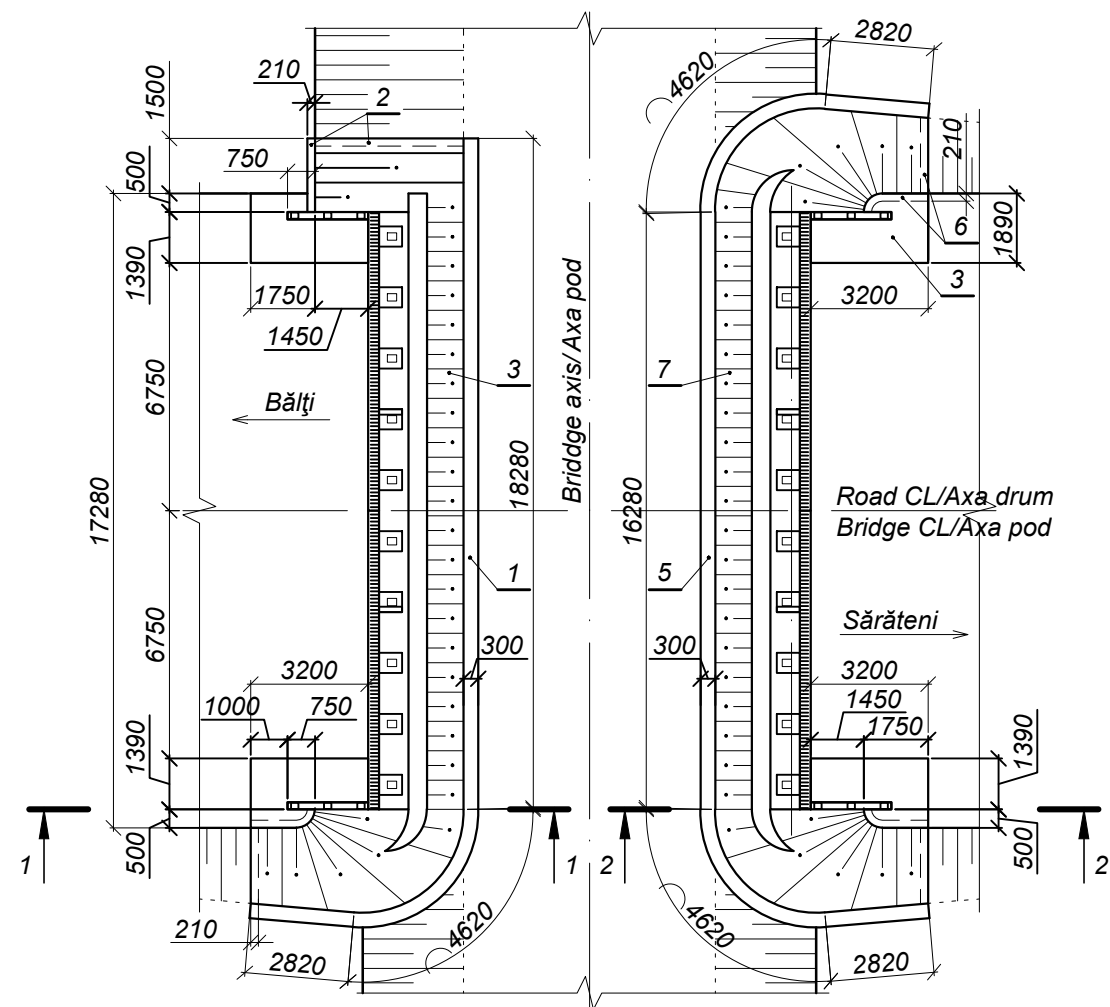


Asphalt wearing course / Îmbrăcămintă asfaltică h=70  
Protection layer / Strat de protecție h=40  
Waterproofing / Hidroizolația h=5  
Superstructure slab/Placa suprastructurii h<sub>min</sub>=100  
Beam slab / Placa grinzii h=150

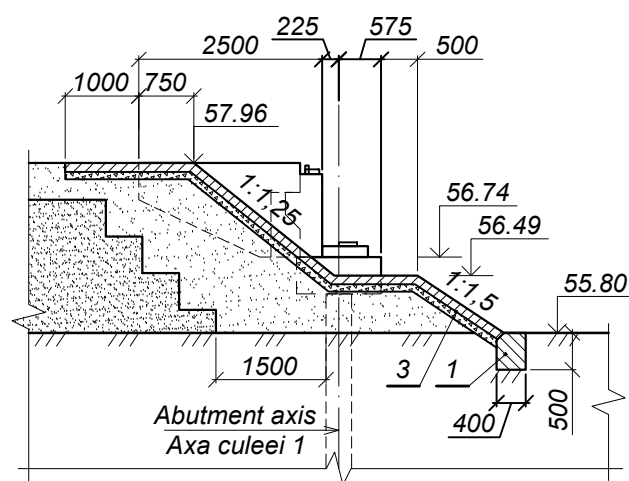
- 1 Approach slab / Dala de racordare П400.98.25-TAIII
- 2 Connection joint of approaching slabs / Nodul de îmbinare a plăcilor de racordare
- 3 Waterproofing of approaching parts / Hidroizolarea elementelor de racordare
- 4 Crushed stone bed / Pat din piatră spartă M400
- 5 Sand with gravel mix / Amestec de nisip cu pietriș

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title Bridge.Pod, Km 44 + 744 Approach to bridge at abutment Racordarea podului cu drumul la culeea	Checked	N.Tcaci		Drawing RP-P-1	
		Control STAS	L.Pozdirca			

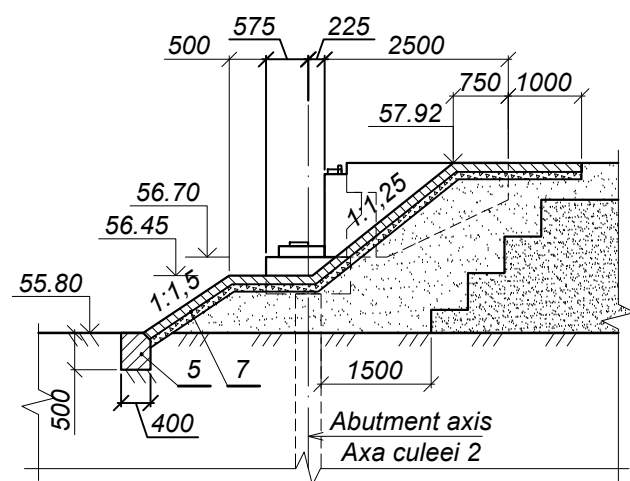
Layout / Planul  
(Bridge way and superstructure conventionally not shown) /  
(Calea podului și suprastructura convențional nu sunt arătate)  
Scale / Scara 1:200



1-1  
Scale/Scara 1:100



2-2  
Scale/Scara 1:100



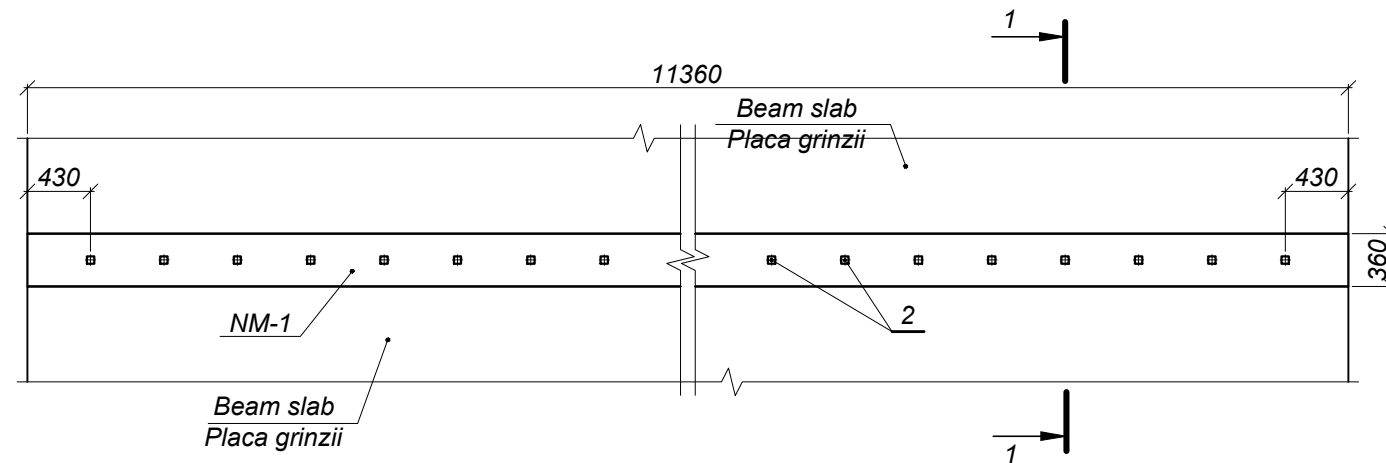
Specificația

Pozition Poziția	Item / Denumirea
<u>Cone / Semiconul 1</u>	
1	Concrete spur/Pinten din beton cl. B20 F200, W6, sec. 40x50cm, L=25,75 m
2	Concrete spur/Pinten din beton cl. B20 F200, W6, sec. 21x50cm, L=10,00 m
3	Consolidation of cones/Consolidare con din b.a.cl.B20,F200,W6,h=12cm, pe pat de granit h=10cm
<u>Cone / Semiconul 2</u>	
5	Concrete spur/Pinten din beton cl.B20, F200, W6, sec. 40x50cm, L=31,20 m
6	Concrete spur/Pinten din beton cl.B20, F200, W6, sec. 21x50cm, L=9,20 m
7	Consolidation of cones/Consolidare con din b.a.cl.B20,F200,W6,h=12cm, pe pat de granit h=10cm

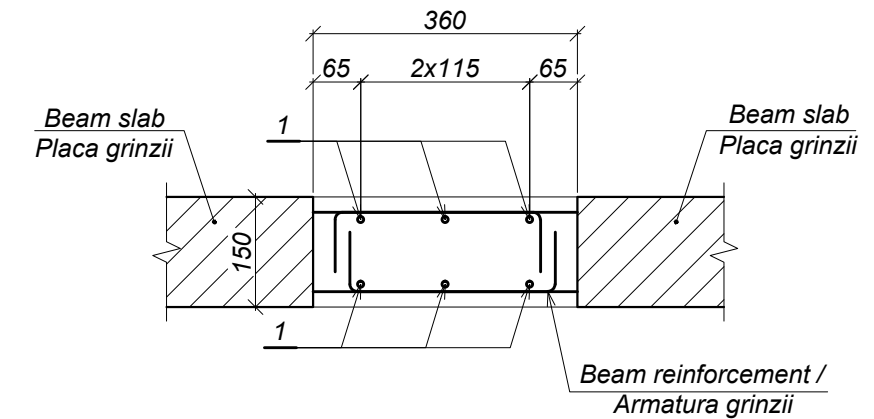
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
Universcons	Drawing title Bridge.Pod, Km 44 + 744 Consolidation of cones / Consolidarea semiconurilor		Designed	A.Cecan		Scale	
			Checked	N.Tcaci		Drawing CS-P-1	
			Control STAS	L.Pozdirca			



Formwork/Schema de cofraj  
Layout/Plan  
Scale/Scara 1:50

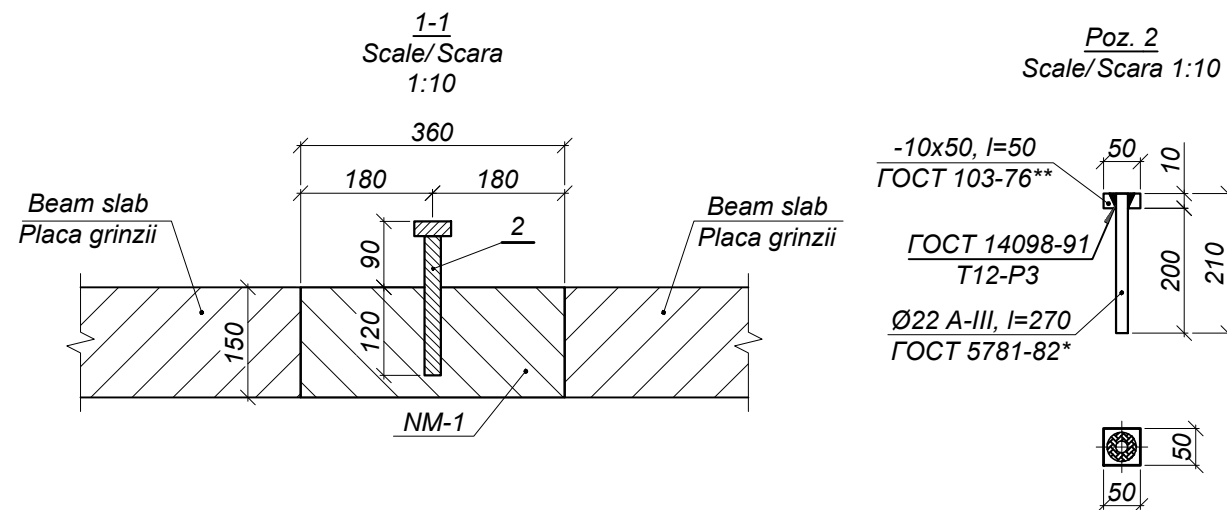


Reinforcement scheme/Schema de armare  
Scale/Scara 1:10



Specification / Specificația

Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				<u>Parts / Piese</u>		
				<u>A-I-8 GOCT 5781-82*</u> <u>См3пс3 GOCT 380-94</u>		
FP		1		Reinforcement rod l=11300	6	4,5 kg
FP		2		Connector/Conectorul 1	22	0,8 kg
				<u>Materials / Materiale</u>		
			GOCT 26633-91*	Concrete/Beton cl.B30, F200, W6		0,62 m³

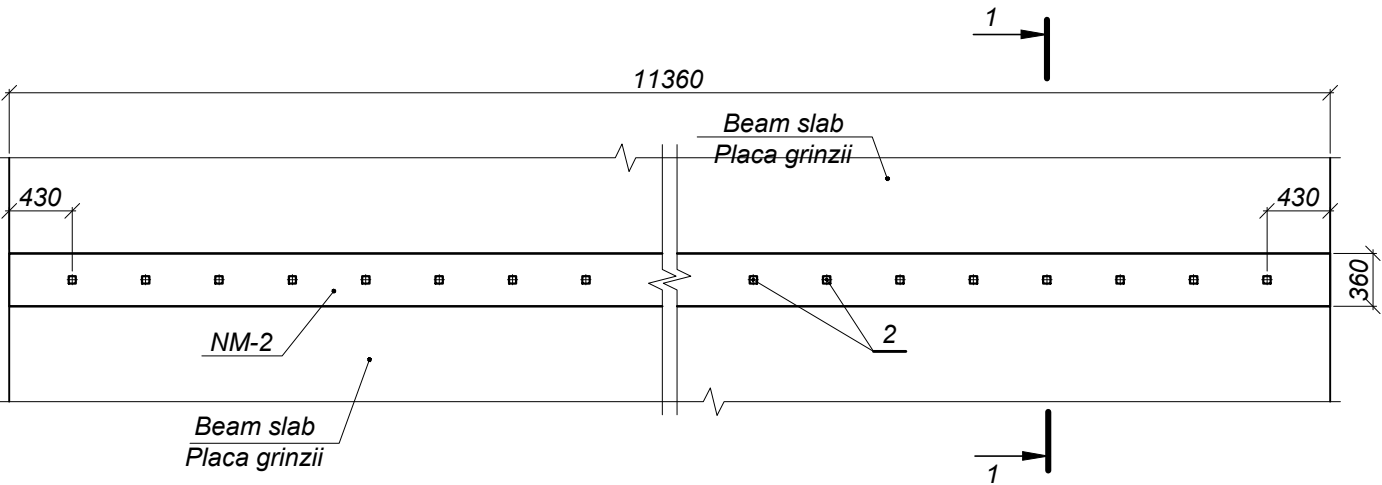


Quantity of steel per one element  
Consumul de metal pentru un element, kg

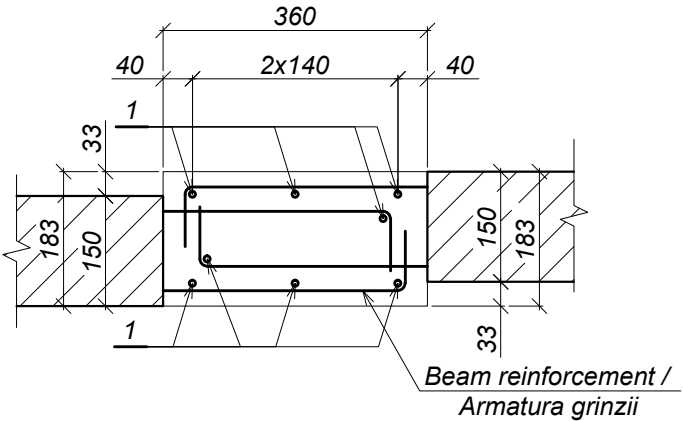
Element name Marca elementului	Reinforcement parts Piese de armare			Embedded base plate Piese înglobate					Total weight Greutate totală
	Reinforcement type Clasa armaturii			Reinforcement type Clasa armaturii		Steel type Marca metalului			
	A-I			A-III		16Д			
	ГОСТ 5781-82*			ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø8	Total		Total	Ø16	Total	-10		
NM-1	27,0	27,0	27,0	13,2	13,2	4,4	4,4	17,6	44,6

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 44 + 744</i> <i>Monolithic joint MJ-1 / Nodul monolit NM-1</i>		Checked	N.Tcaci		Drawing NM-P-1	
			Control STAS	L.Pozdirca			

Formwork/Schema de cofraj  
Layout/Plan  
Scale/Scara 1:50

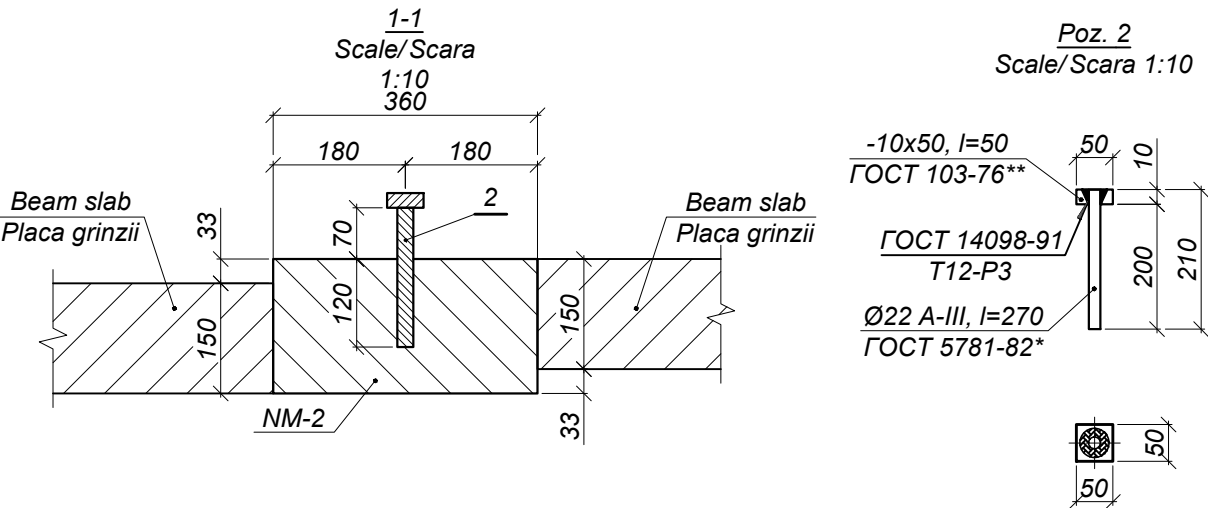


Reinforcement scheme/ Schema de armare  
Scale/Scara 1:10



Specification / Specificația

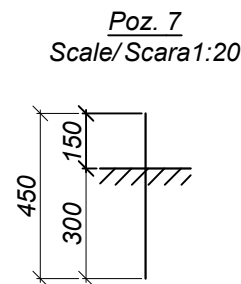
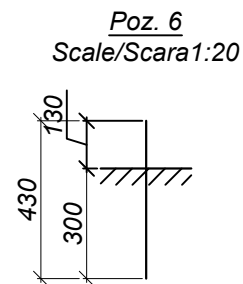
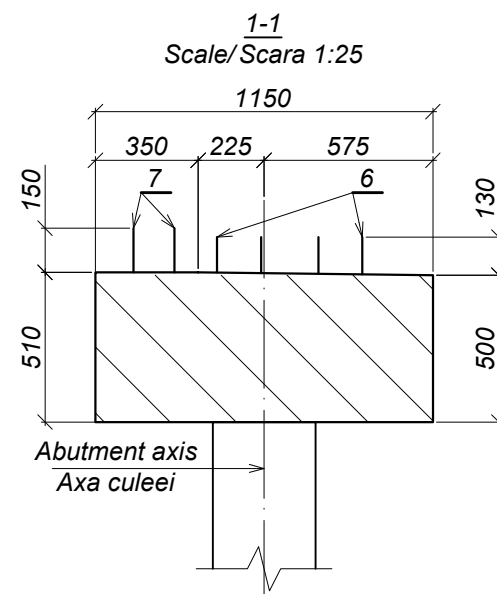
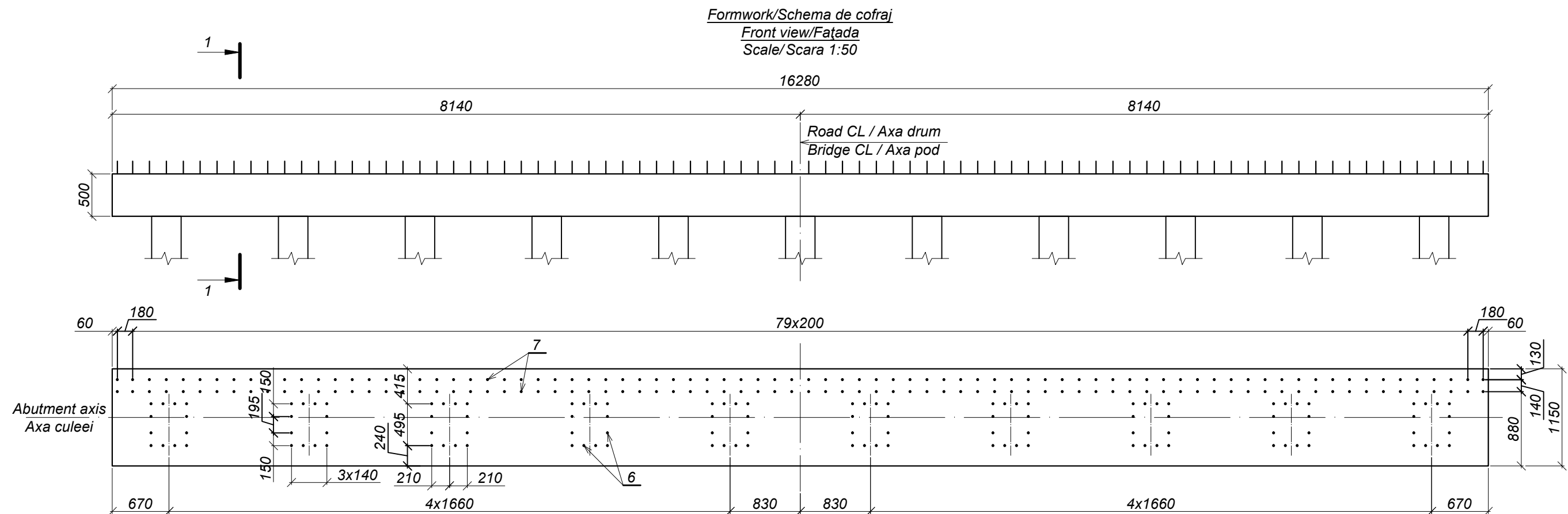
Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				Parts / Piese		
				A-I-8 GOCT 5781-82* Cm3nc3 GOCT 380-94		
FP		1		Reinforcement rod l=11300	8	4,5 kg
FP		2		Connector/Conectorul 1	22	0,8 kg
				Materials / Materiale		
			GOCT 26633-91*	Concrete/Beton cl.B30, F200, W6		0,75 m³



Quantity of steel per one element  
Consumul de metal pentru un element, kg

Element name Marca elementului	Reinforcement parts Piese de armare			Embedded base plate Piese înglobate					Total weight Greutate totală
	Reinforcement type Clasa armaturii		Total	Reinforcement type Clasa armaturii		Steel type Marca metalului		Total	
	A-I			A-III		16Д			
	ГОСТ 5781-82*			ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø8	Total		Ø16	Total	-10	Total		
NM-2	36,0	36,0	36,0	13,2	13,2	4,4	4,4	17,6	53,6

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 44 + 744</i> <i>Monolithic joint MJ-2 / Nodul monolit NM-2</i>	Checked	N.Tcaci		Drawing NM-P-2		
		Control STAS	L.Pozdirca				

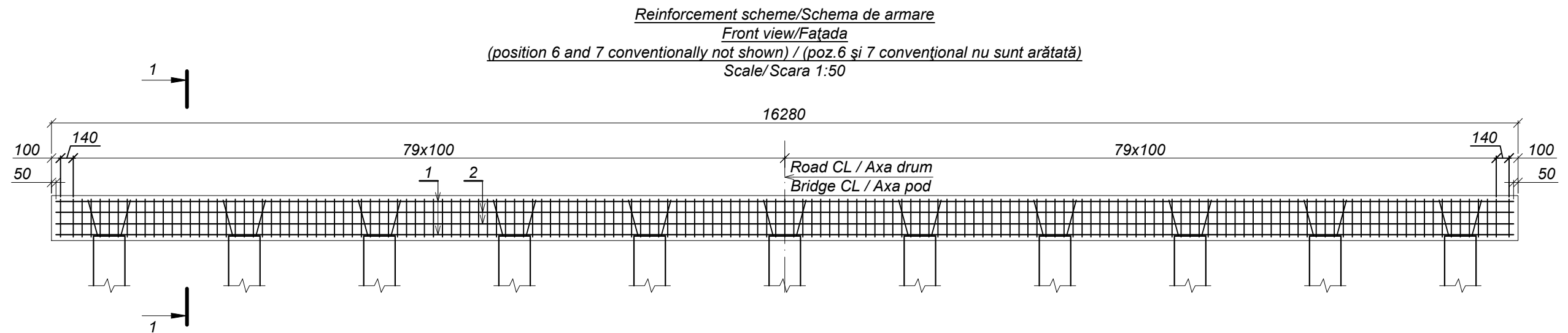


- 1 *A-III-20* *ГОСТ 5781-82\**, *l=16580*  
*25Г2С* *ГОСТ 5781-82\**
- 2 *A-I-10* *ГОСТ 5781-82\**, *l=16180*  
*См3пс3* *ГОСТ 380-94*
- 3 *Reinforcement rod l=1720*
- 4 *Reinforcement rod l=3080*
- 5 *A-I-6* *ГОСТ 5781-82\**, *l=27500*  
*См3пс3* *ГОСТ 380-94*
- 6 *Reinforcement rod l=430*
- 7 *Reinforcement rod l=450*

*Quantity of steel per one element / Consumul de metal pentru un element, kg*

Element name Marca elementului	Reinforcement parts / Piese de armare							Total weight / Greutate totală
	Reinforcement type / Clasa armaturii							
	A-I				A-III			
	ГОСТ 5781-82*							
	Ø6	Ø8	Ø10	Total	Ø14	Ø20	Total	
R-1	6,1	612,7	40,0	658,8	142,0	574,0	716,0	1374,8

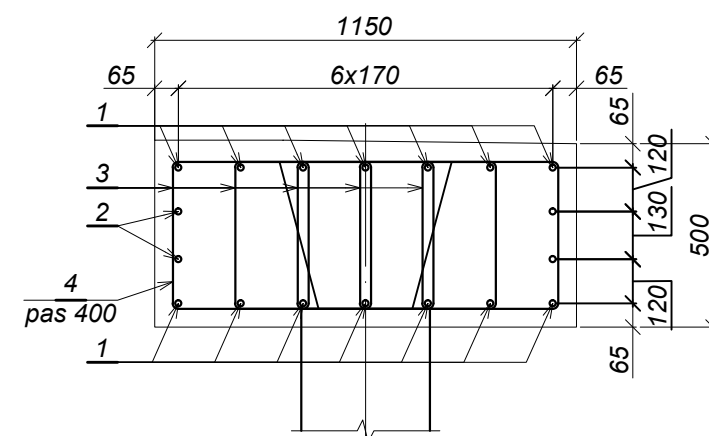
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International    Universcons	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
	Drawing title <i>Bridge.Pod, Km 44 + 744</i> <i>Collar beam CB-1 /</i> <i>Rigla R-1</i>		Checked	N.Tcaci		Drawing  R-P-1	
			Control STAS	L.Pozdirca			



Specification / Specificația

Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				<u>Parts/Piese</u>		
FP		1		A-III-20 GOCT 5781-82*, l=16580 25Г2С GOCT 5781-82*	14	41,0 kg
FP		2		A-I-10 GOCT 5781-82*, l=16180 Cm3пс3 GOCT 380-94	4	10,0 kg
				A-I-8 GOCT 5781-82* Cm3пс3 GOCT 380-94		
FP		3		Reinforcement rod l=1720	805	0,7 kg
FP		4		Reinforcement rod l=3080	41	1,2 kg
FP		5		A-I-6 GOCT 5781-82*, l=27500 Cm3пс3 GOCT 380-94	1	6,1 kg
				A-III-14 GOCT 5781-82* 25Г2С GOCT 5781-82*		
FP		6		Reinforcement rod l=430	120	0,5 kg
FP		7		Reinforcement rod l=450	164	0,5 kg
				<u>Materials/Materiale</u>		
			GOCT 26633-91*	Concrete/Beton cl.B25, F200, W6		9,42 m³

1-1  
Scale/Scara 1:20



Collar beam and pile connection joint /  
Nod de îmbinare a riglei cu pilotul  
Scale/Scara 1:20

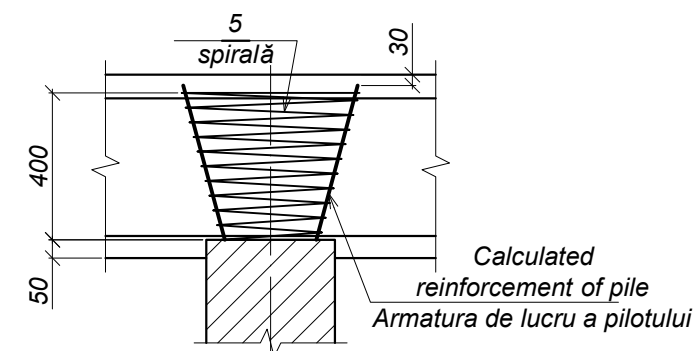


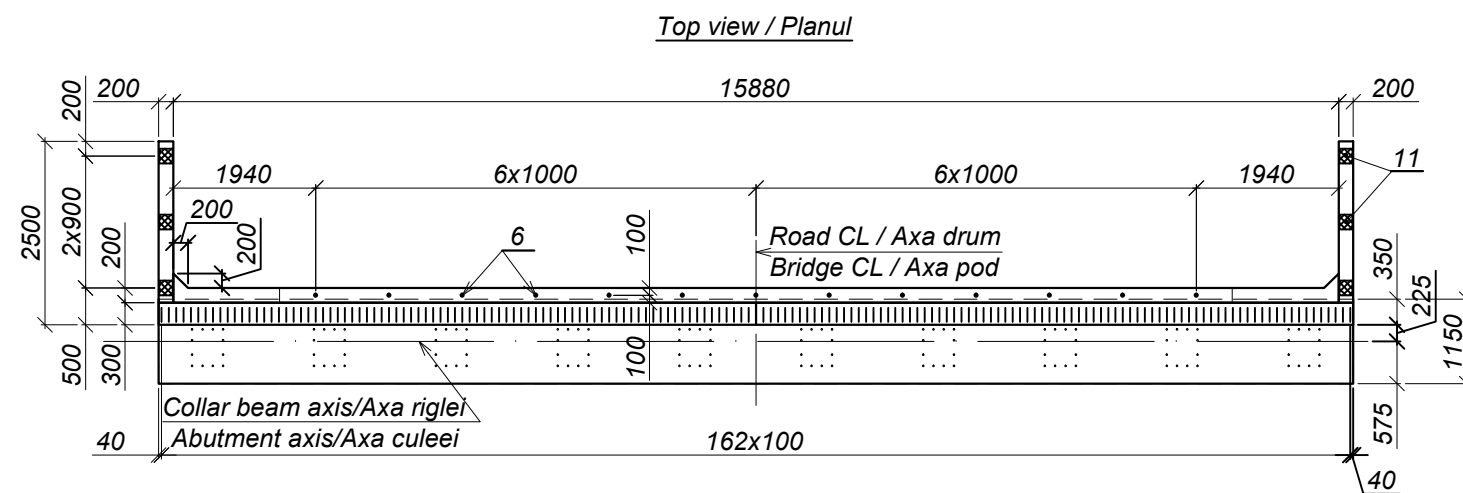
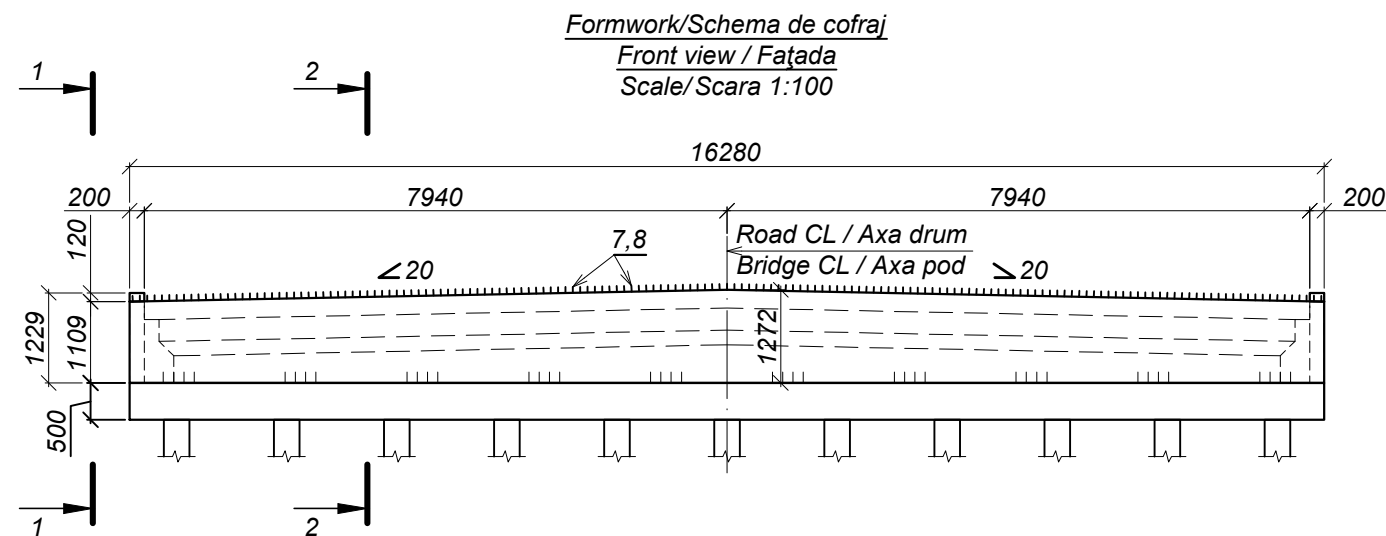
Table of parts. Tabela pieselor

Poz.	Draft. Schita
3	
4	

Note/Notă:

- Protection layer / Stratul de protecție - 50 mm.
- Leangth of position 1 implies the need to splice reinforcement bars by welding according to the type of splicing / Lungimea poziției 1 include necesitatea îmbinării barelor de armatură prin sudare conform tipului de îmbinare C23-P3 GOCT 14098-91.
- For position 6 and 7 see formwork scheme / Amplasarea poziției 6 și 7 vezi schema de cofraj.

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 44 + 744</i> <i>Collar beam CB-1. Reinforcement scheme.</i> <i>Rigla R-1. Schema de armare.</i>	Checked	N.Tcaci		Drawing R-P-1		
		Control STAS	L.Pozdirca				



Quantity of steel per one element / Consumul de metal pentru un element, kg

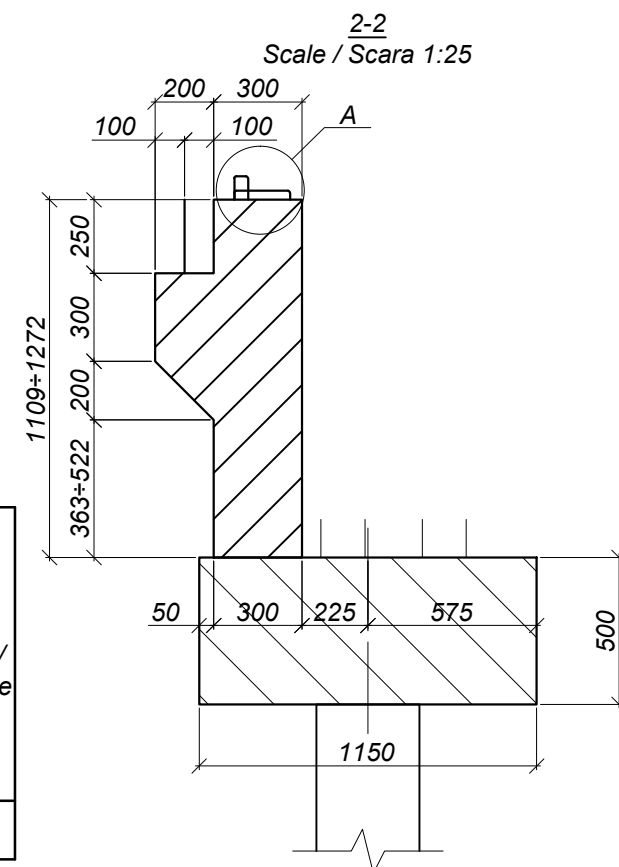
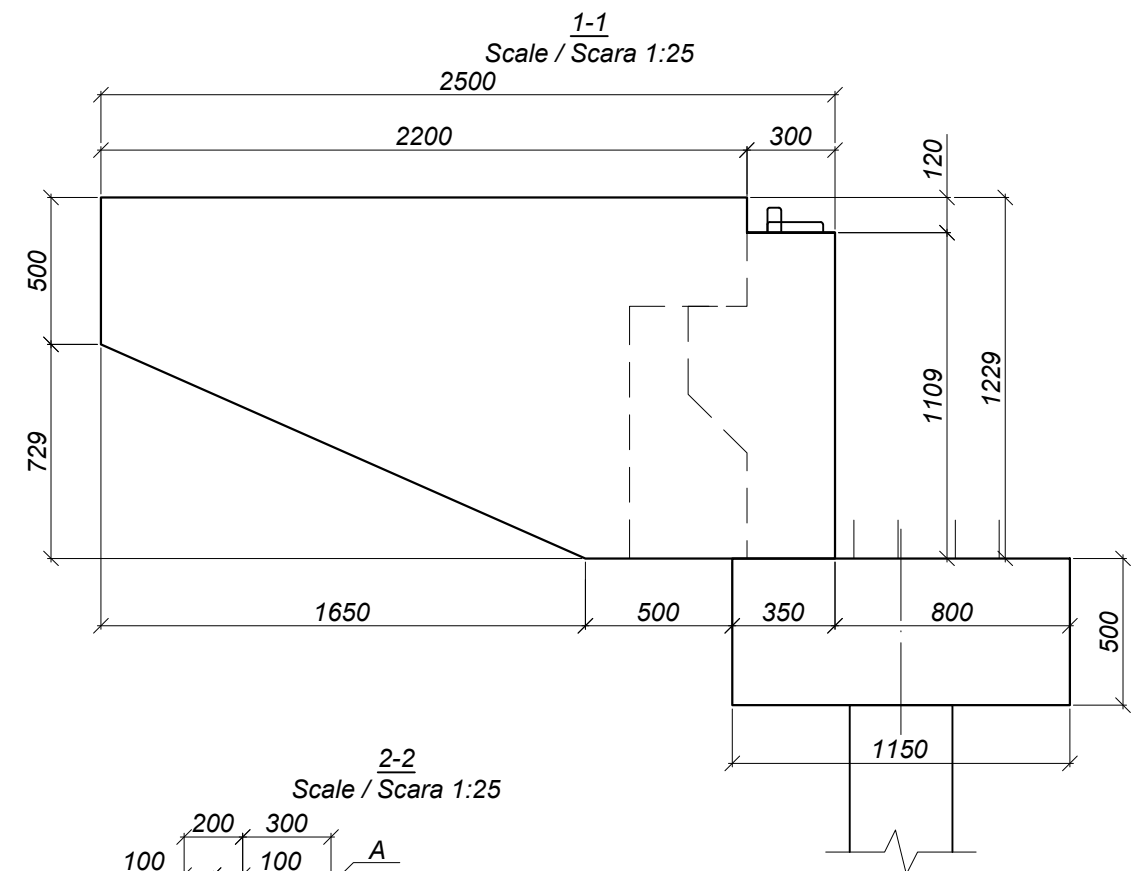
Element name Marca elementului	Reinforcement parts / Piese de armare									Embedded base plate Piese înglobate					Total weight / Greutate totală
	Reinforcement type / Clasa armaturii								Total	Reinforcement type Clasa armaturii		Steel type Marca metalului		Total	
	A-I				A-III					A-III		16Д			
	ГОСТ 5781-82*									ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø6	Ø10	Ø25	Total	Ø10	Ø12	Ø14	Total		Ø16	Total	-20	Total		
ZG-1	29,6	97,8	23,4	150,8	192,4	80,0	218,0	490,4	641,2	7,2	7,2	37,8	37,8	45,0	686,2

6 A-I-25 ГОСТ 5781-82\*, l=450  
Cm3nc3 ГОСТ 380-94

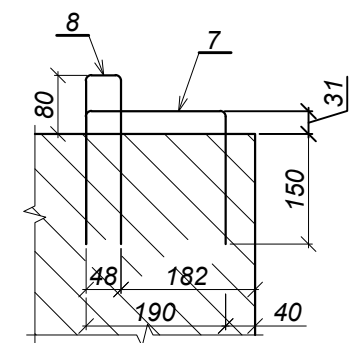
7 Reinforcement rod l=550

8 Reinforcement rod l=510

11 Embedded base plate PÎ-2  
Piesă înglobată PÎ-2



**Joint A / Nodul A**  
Scale / Scara 1:10



World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme Support		Project		
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title Bridge.Pod, Km 44 + 744 Protection wall PW-1 / Zid de gardă ZG-1	Checked	N.Tcaci		Drawing ZG-P-1	
		Control STAS	L.Pozdirca			

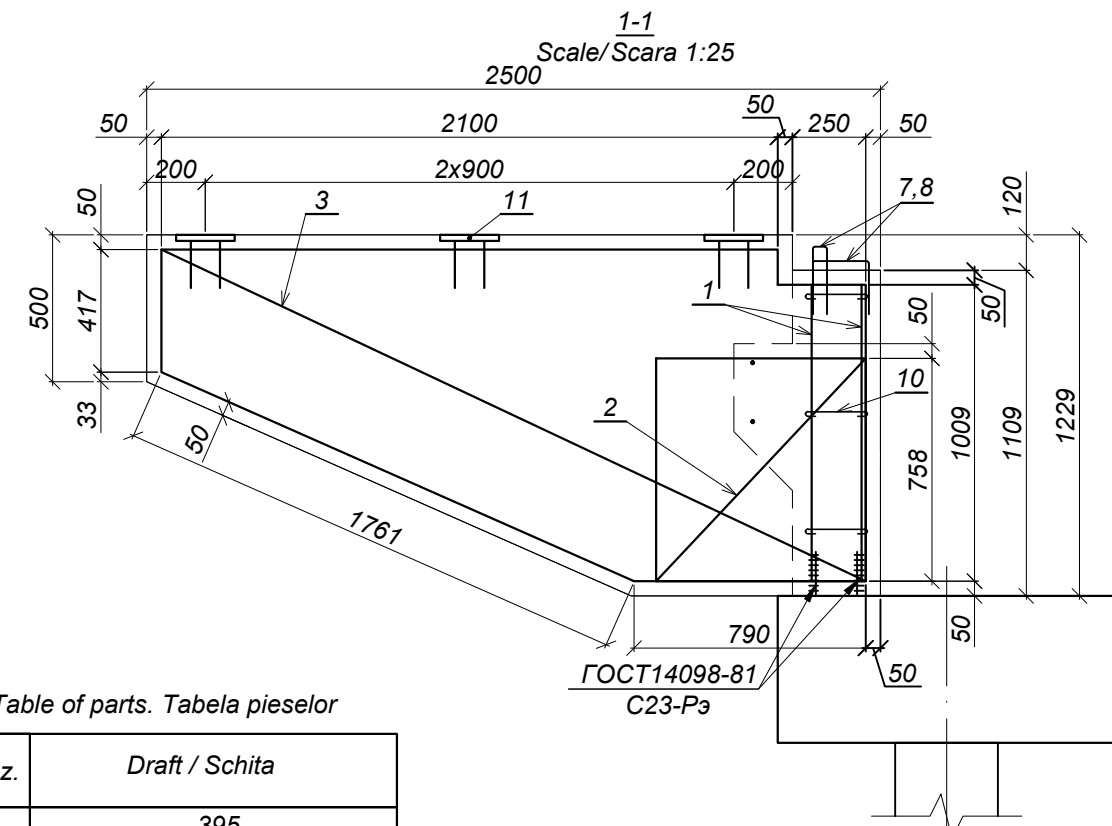
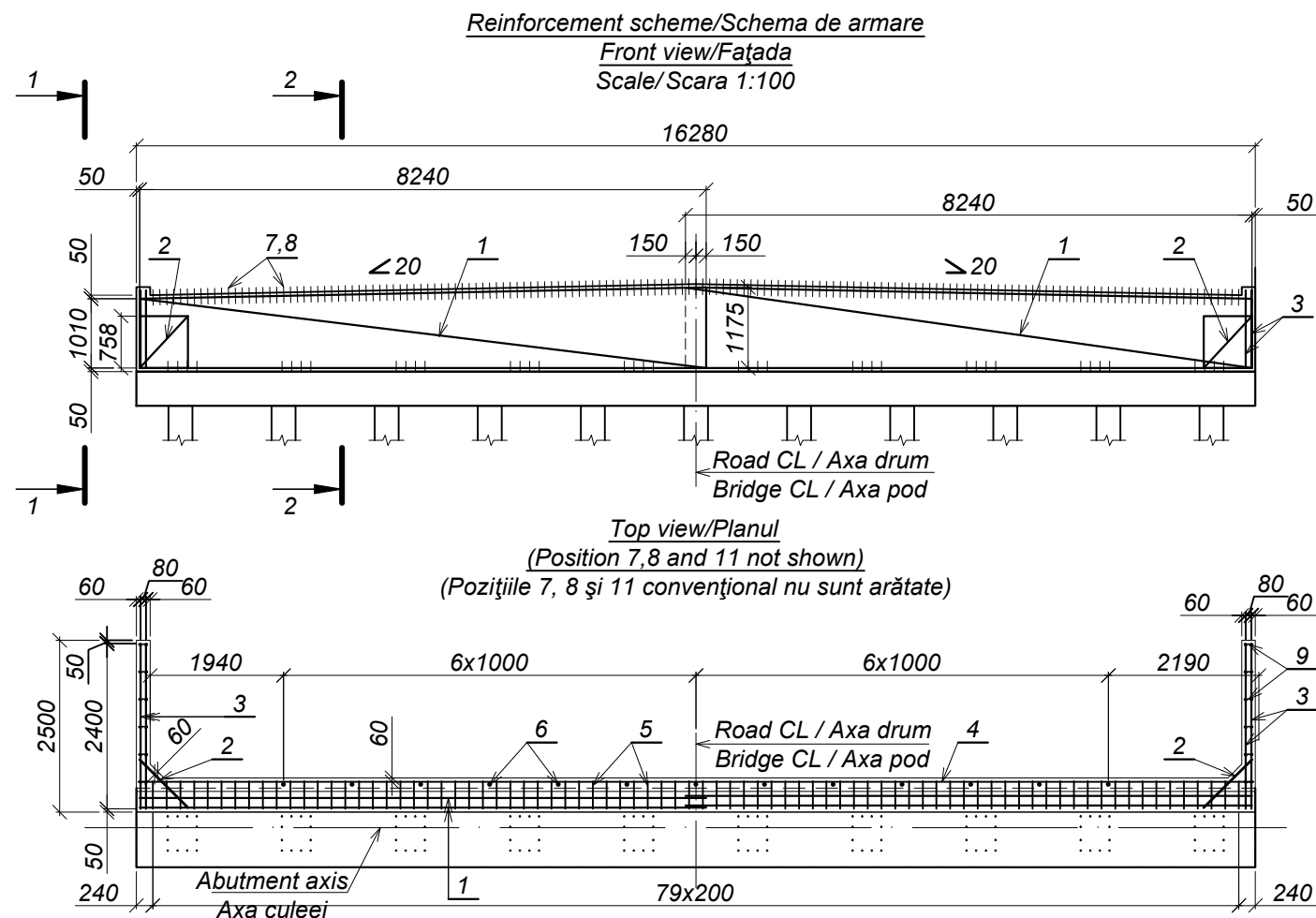


Table of parts. Tabela pieselor

Poz.	Draft / Schita
5	
7	
8	
9	
10	

Note/Notă:  
Protection layer/Stratul de protecție - 50 mm.

Format	Zona	Position / Poziția	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
<b>Assembly elements</b> <b>Elemente de asamblare</b>						
FP		1	ГОСТ23279-85	Steel grid 4C 14 A-III-200 Plasă de oțel 4C 10 A-III-200 117,5x824	4	9,00 m <sup>2</sup> 82,3 kg
		2	ГОСТ23279-85	Steel grid 4C 10 A-III-200 Plasă de oțel 4C 10 A-III-200 75,8x99	2	0,75 m <sup>2</sup> 4,6 kg
		3	ГОСТ23279-85	Steel grid 4C 10 A-III-200 Plasă de oțel 4C 10 A-III-200 240x112,9	4	2,10 m <sup>2</sup> 13,0 kg
<b>Parts/Piese</b>						
		4		A-III-10 ГОСТ 5781-82*, l=16220 25Г2С ГОСТ 5781-82*	2	10,0 kg
		5		A-III-12 ГОСТ 5781-82*, l=1170 25Г2С ГОСТ 5781-82*	80	1,0 kg
		6		A-I-25 ГОСТ 5781-82*, l=450 Cm3nc3 ГОСТ 380-94	13	1,8 kg
				A-I-10 ГОСТ 5781-82* Cm3nc3 ГОСТ 380-94		
		7		Reinforcement rod l=550	163	0,3 kg
		8		Reinforcement rod l=510	163	0,3 kg
		9		A-I-6 ГОСТ 5781-82*, l=200 Cm3nc3 ГОСТ 380-94	62	0,05 kg
		10		A-I-6 ГОСТ 5781-82*, l=350 Cm3nc3 ГОСТ 380-94	265	0,1 kg
		11	2009/032D - 00.05.00	Embedded base plate ПІ-2 Piesă înglobată ПІ-2	6	7,5 kg
<b>Materials/Materiale</b>						
			ГОСТ 26633-91*	Concrete/Beton cl.B25, F200, W6		8,02 m <sup>3</sup>

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International  Universcons	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
	Drawing title <i>Bridge.Pod, Km 44 + 744</i> <i>Protection wall PW-1. Reinforcement scheme</i> <i>Zid de gardă ZG-1. Schema de armare</i>		Checked	N.Tcaci		Drawing ZG-P-1	
			Control STAS	L.Pozdirca			

List of executive drawings of the main set/Lista seturilor de bază a planșelor de execuție		
Number Indicativ	Item / Denumirea	Note Notă
2012/045D	Bridge /Lucrări de artă	
List of executive drawings of the main set/Lista planșelor de execuție a setului de bază 2012/045D		
Drawing Planșa	Item / Denumirea	Note Notă
1	General data / Date generale	
2	Bridge general view. Front view / Dispoziție generală a podului. Fațada.	
3	Bridge general view. Layout / Dispoziția generală a podului. Planul	
4	Bridge general view. Section 1-1 / Dispoziția generală a podului. Secțiunea 1-1	
5	General view of abutment / Dispoziția generală a culeei	
6	Approach to bridge at abutment 1and 2 / Racordarea podului cu drumul la culeea 1 si 2	
7	Consolidation of cones / Consolidarea semiconurilor	
8	Monolithic joint MJ-1 / Nodul monolit NM-1	
9	Monolithic joint MJ-2 / Nodul monolit NM-2	
10	Collar beam CB-1 / Rigla R-1	
11	Collar beam CB-1. Reinforcement scheme / Rigla R-1. Schema de armare.	
12	Protection wall PW-1 / Zid de gardă ZG-1	
13	Protection wall PW-1. Reinforcement scheme / Zid de gardă ZG-1. Schema de armare	
14	The drawings RD-P, PSCV-P, PSP-P, NIPR-P, SS-P, CC-P are common for all bridges Desenele RD-P, PSCV-P, PSP-P, NIPR-P, SS-P, CC-P se refera la toate podurile	See bridge km 64+756 Vezi podul km 64+756

List of reference documents / Lista documentelor de referință și anexate		
Document Number Indicativ	Item / Denumirea	Note Notă
	Reference documents / Documente de referință	
Серия 3.500.1-1.93	Сваи забивные железобетонные цельные сплошного квадратного сечения для опор мостов .	Piles /Piloți
Серия 3.503.1-81 Выпуски 1-1, 3-1	Пролетные строения сборные ж. б. длиной 12, 15, 18, 21, 24 и 33м из балок таврого сечения с предварительно напрягаемой арматурой для мостов и путепроводов	Pedestrian guardrail /Parapet de siguranță și pietonal
Серия 3.503.1-101 Выпуск 0, 1	Изоляция проезжей части, перекрытие деформационных швов ж. б. строений длиной до 33м автодорожных мостов и путепроводов	Bridgeway parts /Elementele căii podului
ALGA Bearing s and Expansion Joints	Expansion joints ALGAFLEX T instalation Procedure, 10.10.2005	Joint filling elements / Elemente de acoperire a rosturilor
Серия 3.501-156 Выпуски 0, 1	Укрепление русел, конусов и откосов насыпи у малых и средних мостов и водопропускных труб.	Surface protection / Protecția suprafețelor
BCH 24-88	Технические правила ремонта и содержания автомобильных дорог	Reinforced concrete repair /Reparația betonului armat
BCH 32-81	Инструкция по устройству гидроизоляции конструкций мостов и труб на железных, автомобильных и городских дорогах	Waterproofing of concrete surfaces / Izolarea suprafețelor de beton
СНУП 3.06.04-91	Мосты и трубы	Bridge, culvert works / Executarea lucrărilor

Note / Notă:

1. Design norms / Normele de proiectare: СНУП 2.05.03-84 "Мосты и Трубы", СНУП 2.05.02-85\* "Автомобильные дороги".

2. Road category /Categoria drumului auto - III. Bridge width / Gabaritul podului G-14,40+2x0,75 m.

3. Reference loading / Sarcina de calcul: A11 și HK-80.

4. Reference seismicity of construction / Seismicitatea de calcul a construcției - 7 grade.

5. Baltic Sea reference level system. As base is taken Rp26 - 89.738 at PC261+585, (kilometer stone- placed on right side shoulder, direction after stakes) / Sistem de cote Baltic. Drept bază servesc reperul Rp26 - 89.738 la PC261+585, (borna de marcare a kilometrajului, amplasată pe acostament din partea dreaptă, direcție după pichetare).

6. Decisive phases for checking and acceptance of repair works / Fazele determinante de verificare și recepție a lucrărilor de reparație:

• Transmission of center line references, location and bench marks /Predarea trasării, amplasamentului și a bornelor de reper;

• Infrastructure repair / Reparația infrastructurii (abutment /culeea 1, pile / pila 2, pile / pila 3, abutment / culeea 4);

• Superstructure and bridge way works /Execuția suprastructurii și căii podului;

• Approach to bridge works / Execuția racordării podului cu terasamentul.

7. Type of works, determed as hidden works shall be checked and accepted with the record of verification results in Reports of quality check / Genul de lucrări determinate ca lucrări ascunse ce urmează a fi verificate și recepționate cu consemnarea rezultatelor verificării în procese verbale de verificare a calității:

• Determination and positioning of road center lines and elements / Trasarea și poziționarea axelor și elementelor;

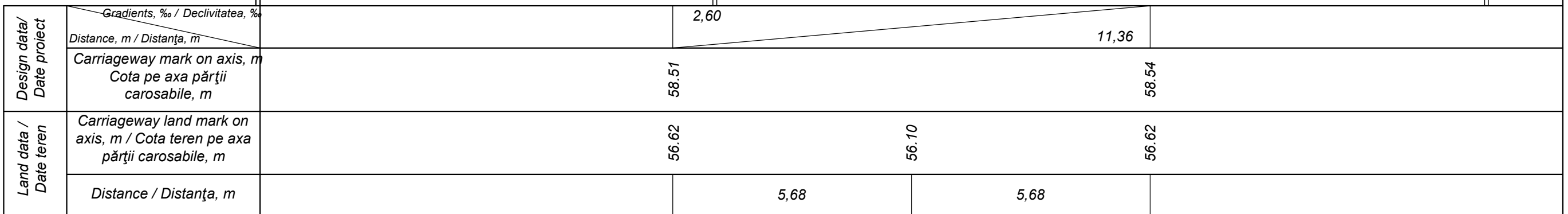
• Bases and footings / Temeliile și fundațiile;

• Inspection of materials, semifabricates and parts at entrances / Examinarea materialelor, semifabricatelor și elementelor la intrare;

• Reinforcement and concrete of parts, formworks / Armarea și betonarea elementelor, cofrajele;

• Welding of metal parts / Sudarea elementelor metalice.

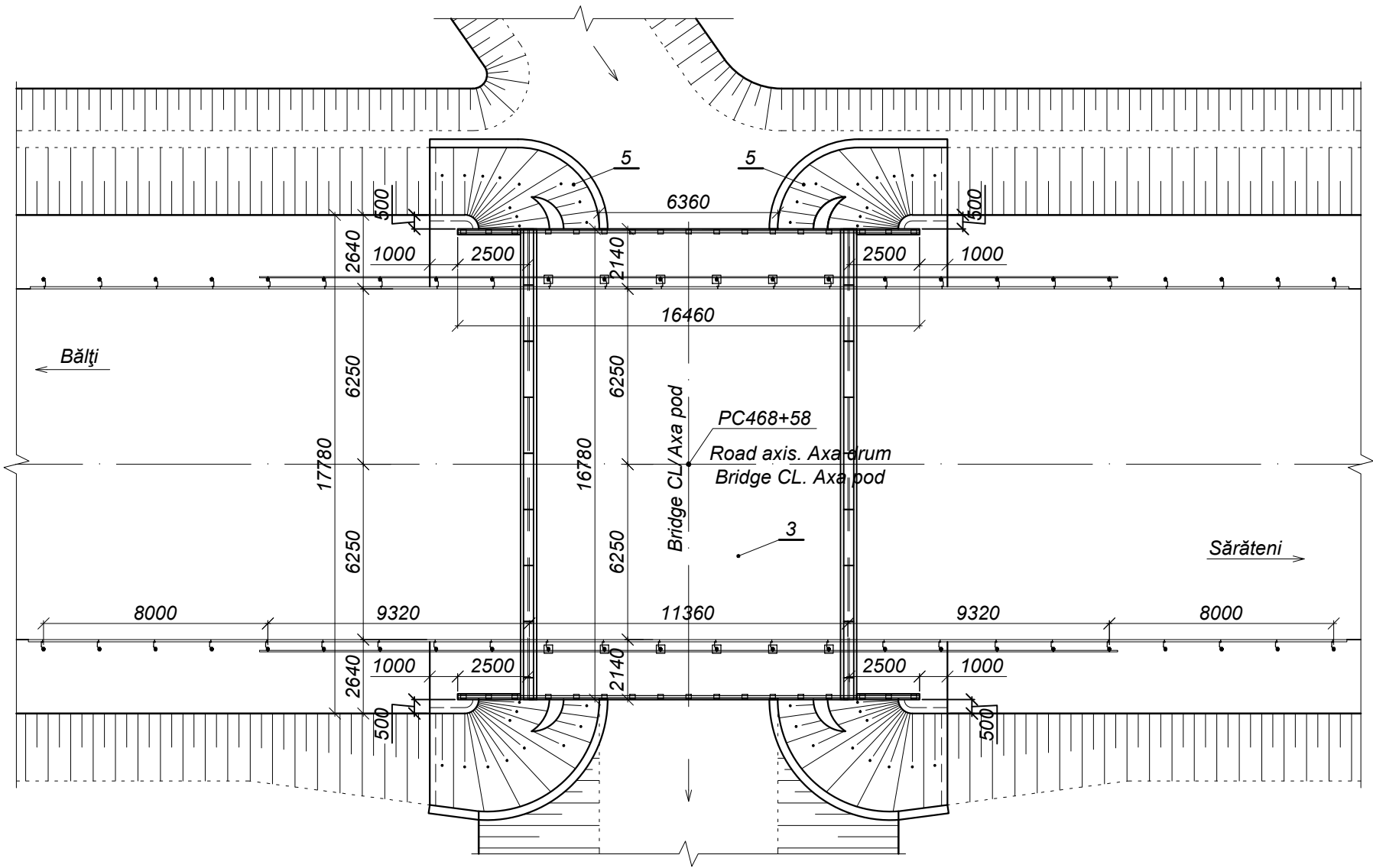
<div>The design is elaborated in accordance with the standards and requirements existing design rules / Proiectul este elaborat în conformitate cu cerințele normelor și regulelor în construcții în vigoare</div> <div>Chief engineer / Inginer șef proiect compartiment</div> <div>A. Cekan</div>	World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road Sector Programme Support Project						
	Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
	Universcons	Drawing title Bridge.Pod, Km 46 + 863 General data / Date generale	Checked	N.Tcaci		Drawing DG-P-1	
Control STAS			L.Pozdirca				



- |                        |   |  |            |  |                  |         |  |
|------------------------|---|--|------------|--|------------------|---------|--|
| World Bank             | Republic of Moldova   | Ministry of Transport and Road Industry<br>State Road Administration |            |  |                  |         |  |
|                        | Road Sector Programme   | Support  | Project    |  |                  |         |  |
| Roughton International | Rehabilitation of R14 Road<br>Balti-Saratenii   | ISP  | S.Bogza    |  | Date             | 04.2012 |  |
|                        |   | Designed   | A.Cecan    |  | Scale            |         |  |
| Universcons            | Drawing title <i>Bridge.Pod, Km 46 + 863</i><br><i>Bridge general view. Front view /</i><br><i>Dispoziție generală a podului. Fațada.</i> | Checked  | N.Tcaci    |  | Drawing<br>F-P-1 |         |  |
|                        |   | Control STAS   | L.Pozdirca |  |                  |         |  |



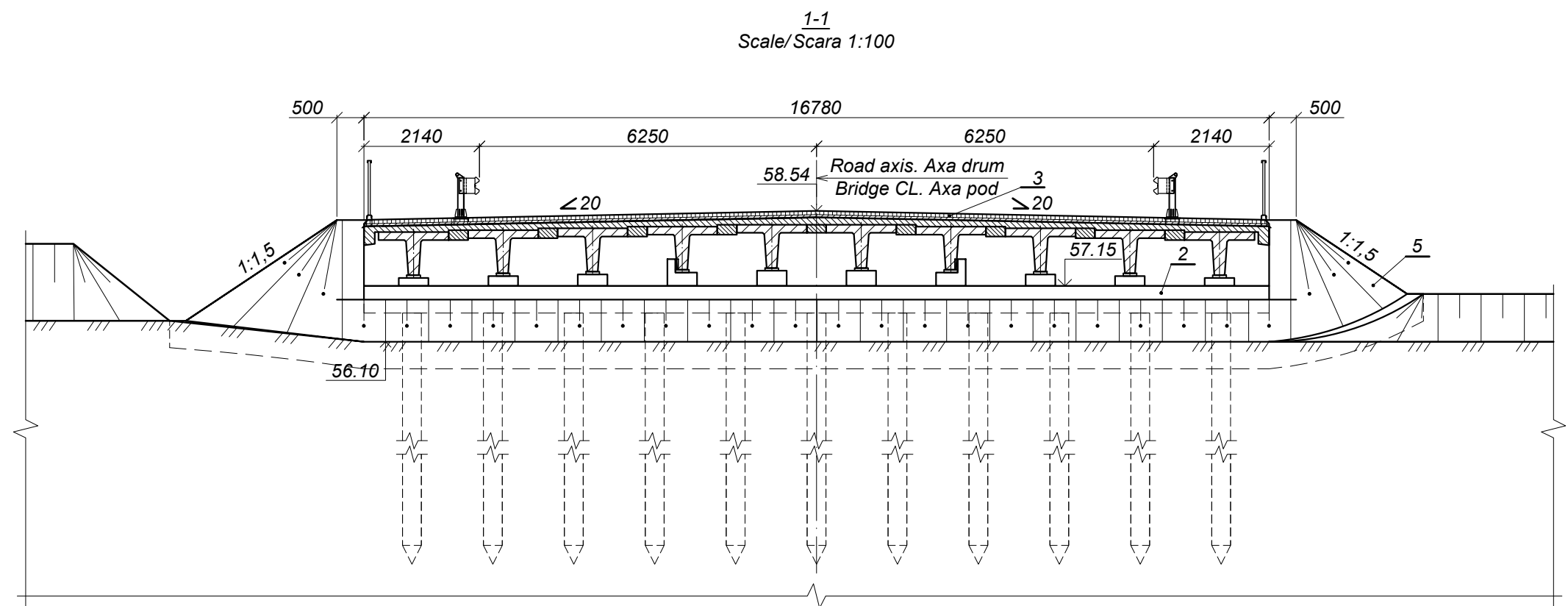
Top view/Planul  
Scale/Scara 1:200



Specification / Specificația

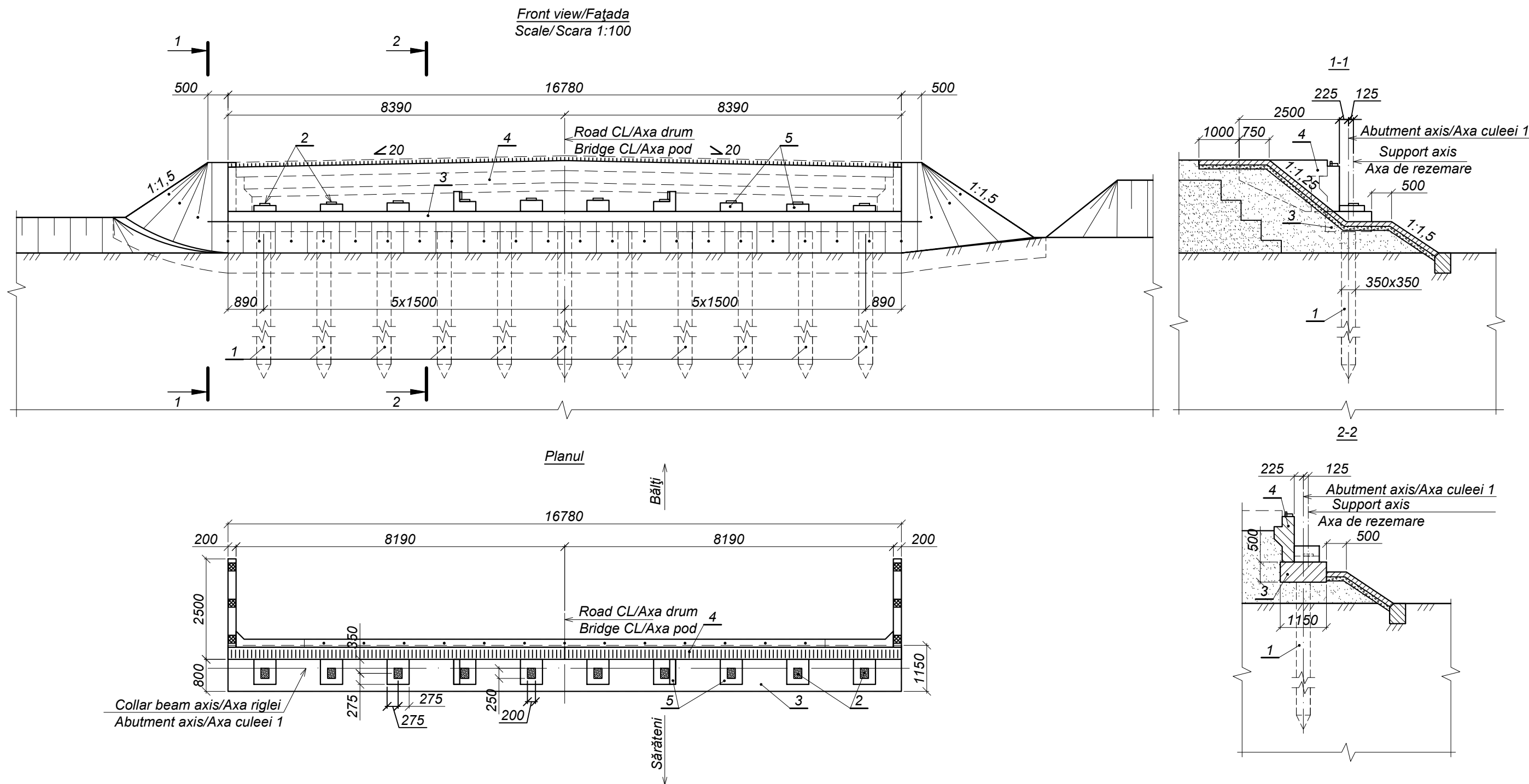
Pozition Poziția	Name / Denumirea
1	Abutment / Culeea 1
2	Abutment / Culeea 2
3	Superstructure and bridge way Suprastructura și calea podului
4	Bridge approach slabs Racordarea podului cu drumul la culeea
5	Consolidation of cones Consolidarea semiconurilor

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 46 + 863</i> <i>Bridge general view. Layout /</i> <i>Dispoziția generală a podului. Planul</i>	Checked	N.Tcaci		Drawing P-P-1		
		Control STAS	L.Pozdirca				



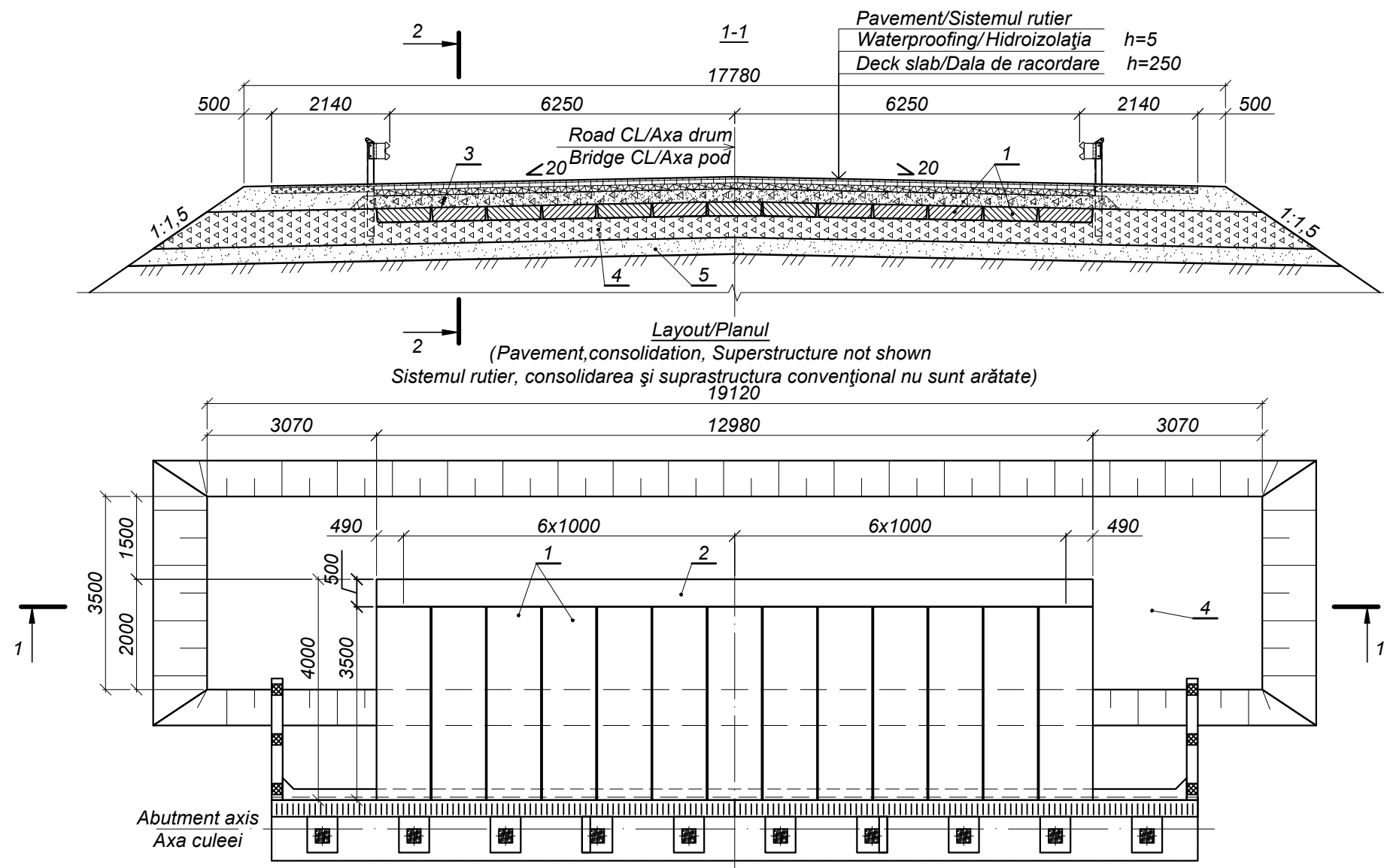
- 2 Abutment 2 / Culeea 2
- 3 Superstructure and bridge's carriageway / Suprastructura și calea podului
- 5 Consolidation of cones / Consolidarea semiconurilor

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road      Sector      Programme      Support      Project						
Roughton International	Rehabilitation of R14 Road Balti-Saratenii  Drawing title <i>Bridge.Pod, Km 46 + 863</i> <i>Bridge general view. Layout /</i> <i>Dispoziția generală a podului. Planul</i>	ISP	S.Bogza		Date	04.2012
Universcons		Designed	A.Cecan		Scale	
		Checked	N.Tcaci		Drawing  P-P-1	
		Control STAS	L.Pozdirca			



- 1 Pile / Pilot C10-35T4  
 2 Reinforced rubber bearing pads /  
 Aparat de reazem din cauciuc PO4  
 3 Coller beam / Rigla R-1  
 4 Protection wall / Zid de gardă ZG-1  
 5 Seating bearing parts of abutment / Cuzineții culeei

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support	Project			
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
Universcons	Drawing title <i>Bridge.Pod, Km 46 + 863</i> <i>General view of abutment</i> <i>Dispoziția generală a culeei</i>	Designed	A.Cecan		Scale	
		Checked	N.Tcaci		Drawing C-P-1	
		Control STAS	L.Pozdirca			



Asphalt wearing course /  
 Uzură din beton asfaltic h=40

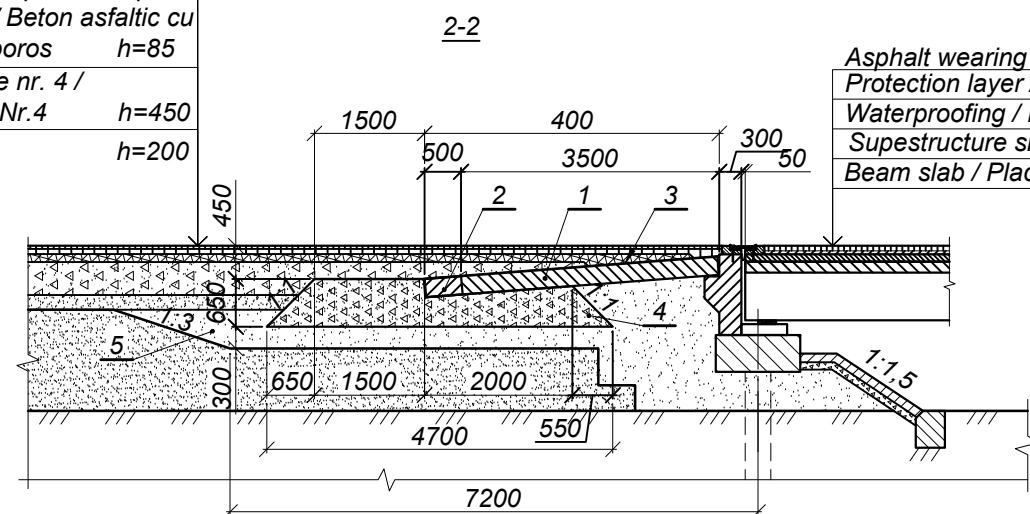
Geocomposite / Geocompozit  
 PGM-G 50/50

Fine grained porous asphalt  
 concrete M1 / Beton asfaltic cu  
 granulatie fina poros M1 h=60

Coarse grained porous asphalt  
 concrete M1 / Beton asfaltic cu  
 granul mare poros h=85

Crushed stone nr. 4 /  
 Piatră spartă Nr.4 h=450

Sand / Nisip h=200



1 Deck slab / Dala de racordare П400.98.25-TAIII

2 Connection joint between approach slabs / Nodul de îmbinare a plăcilor de racordare

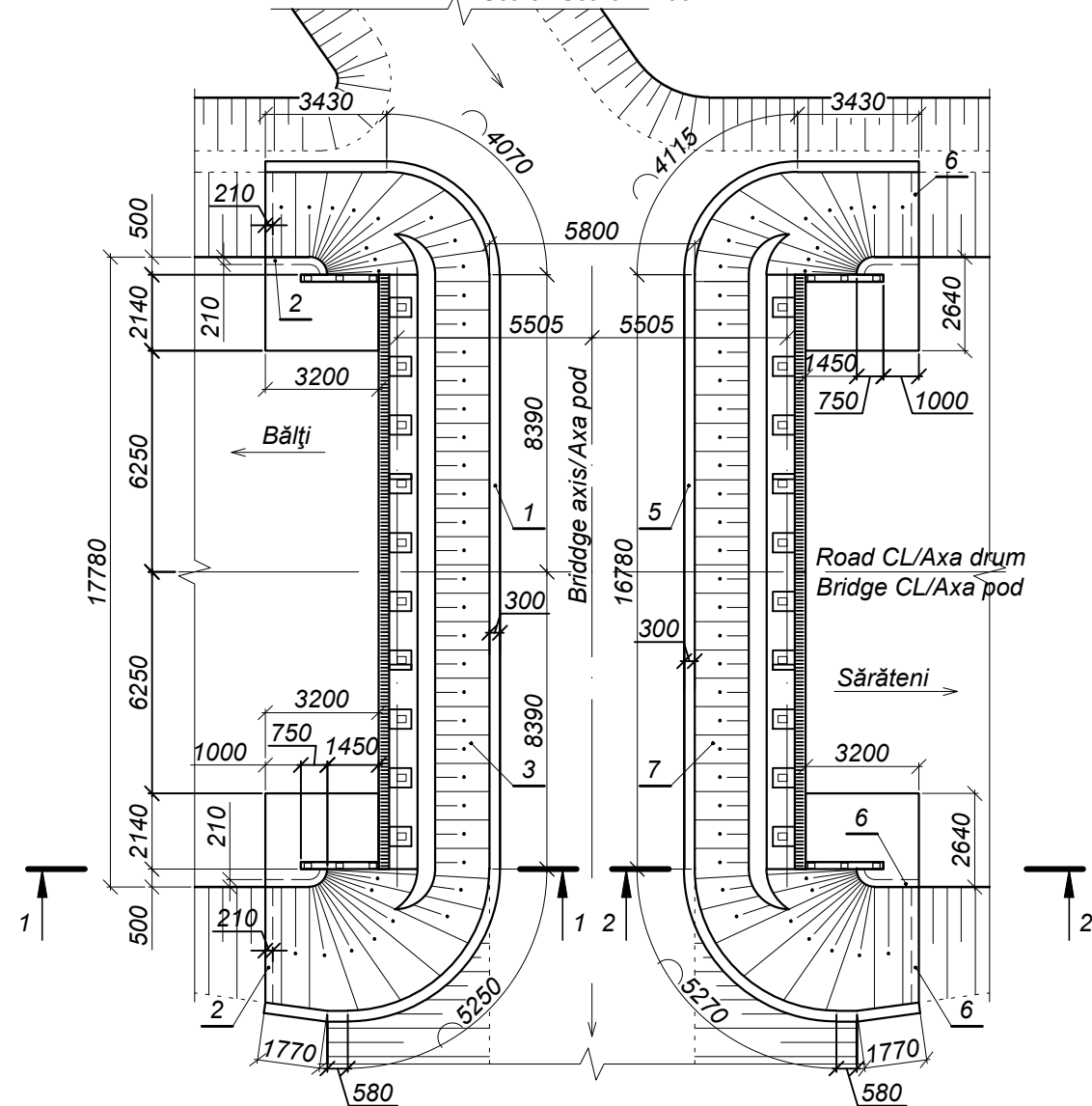
3 Waterproofing of approach elements / Hidroizolarea elementelor de racordare

4 Pat din peatră spartă M400

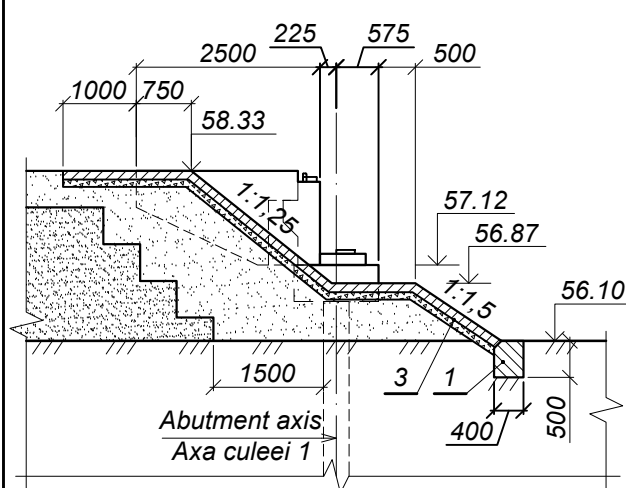
5 Sand with crushed stone / Amestec de nisip cu pietriș

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title Bridge.Pod, Km 46 + 863 Approach to bridge at abutment Racordarea podului cu drumul la culeea	Checked	N.Tcaci		Drawing RP-P-1	
		Control STAS	L.Pozdirca			

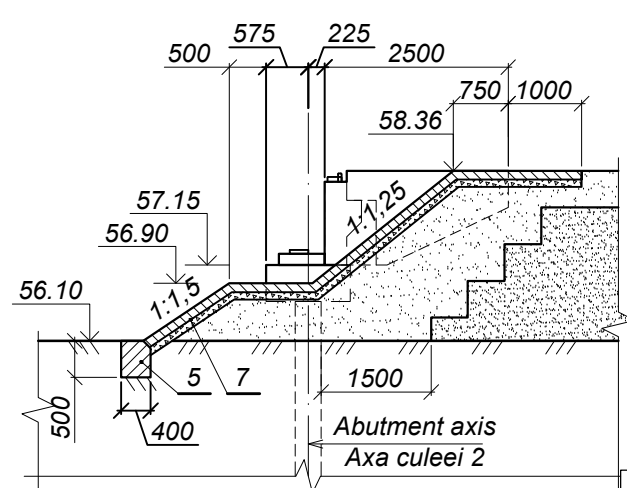
Layout / Planul  
(Bridge way and superstructure conventionally not shown) /  
(Calea podului și suprastructura convențional nu sunt arătate)  
Scale / Scara 1:200



1-1  
Scale/Scara 1:100



2-2  
Scale/Scara 1:100



Specification / Specificația

Position / Pozitia	Name / Denumirea
	<u>Cone / Semiconul 1</u>
1	Concrete spur/Pinten din beton cl. B20, F200, W6, sec. 40x50cm, L=25,75 m
2	Concrete spur/Pinten din beton cl. B20, F200, W6, sec. 21x50cm, L=10,00 m
3	Consolidation of cones/Consolidare con din b.a.cl.B20,F200,W6,h=12cm, pe pat de granit h=10cm
	<u>Cone / Semiconul 2</u>
5	Concrete spur/Pinten din beton cl.B20, F200, W6, sec. 40x50cm, L=31,20 m
6	Concrete spur/Pinten din beton cl.B20, F200, W6, sec. 21x50cm, L=9,20 m
7	Consolidation of cones/Consolidare con din b.a.cl.B20,F200,W6,h=12cm, pe pat de granit h=10cm

World Bank

Republic of Moldova

Ministry of Transport and Road Industry  
State Road Administration

Road Sector Programme Support Project

Roughton International

Rehabilitation of R14 Road  
Balti-Saratenii

ISP S.Bogza Date 04.2012

Designed A.Cecan Scale

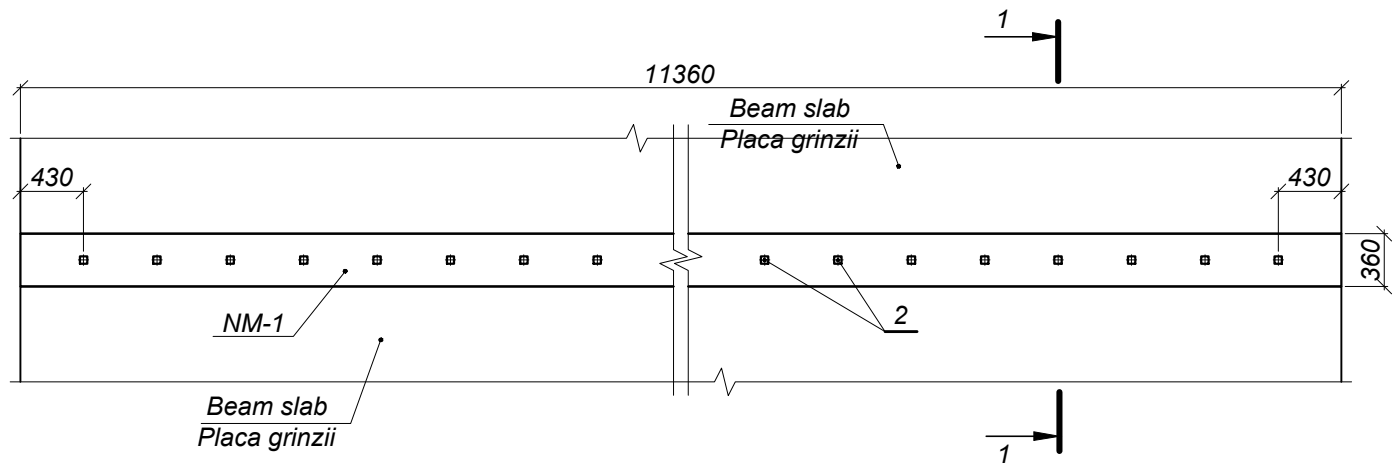
Universcons

Drawing title Bridge.Pod, Km 46 + 863  
Consolidation of cones /  
Consolidarea semiconurilor

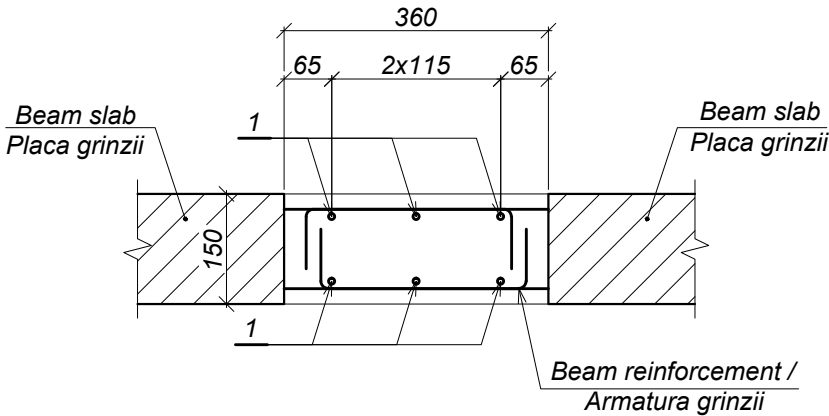
Checked N.Tcaci Drawing CS-P-1

Control STAS L.Pozdirca

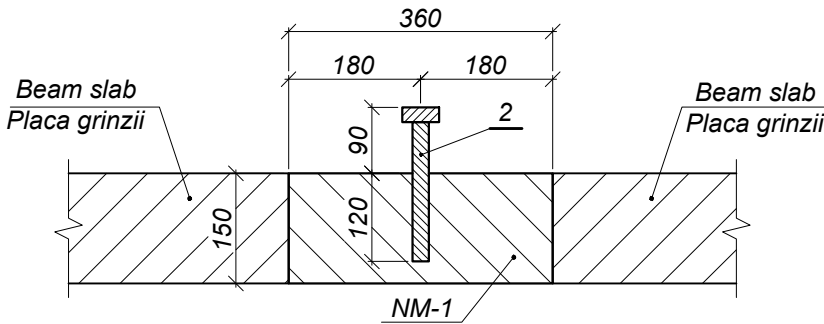
Formwork/Schema de cofraj  
Layout/Plan  
Scale/Scara 1:50



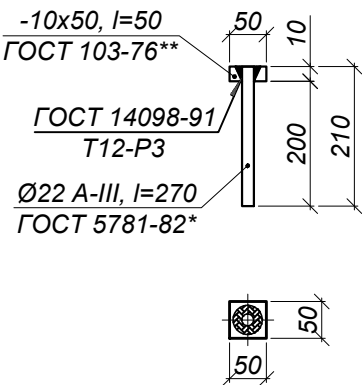
Reinforcement scheme/Schema de armare  
Scale/Scara 1:10



1-1  
Scale/Scara 1:10



Poz. 2  
Scale/Scara 1:10



Specification / Specificația

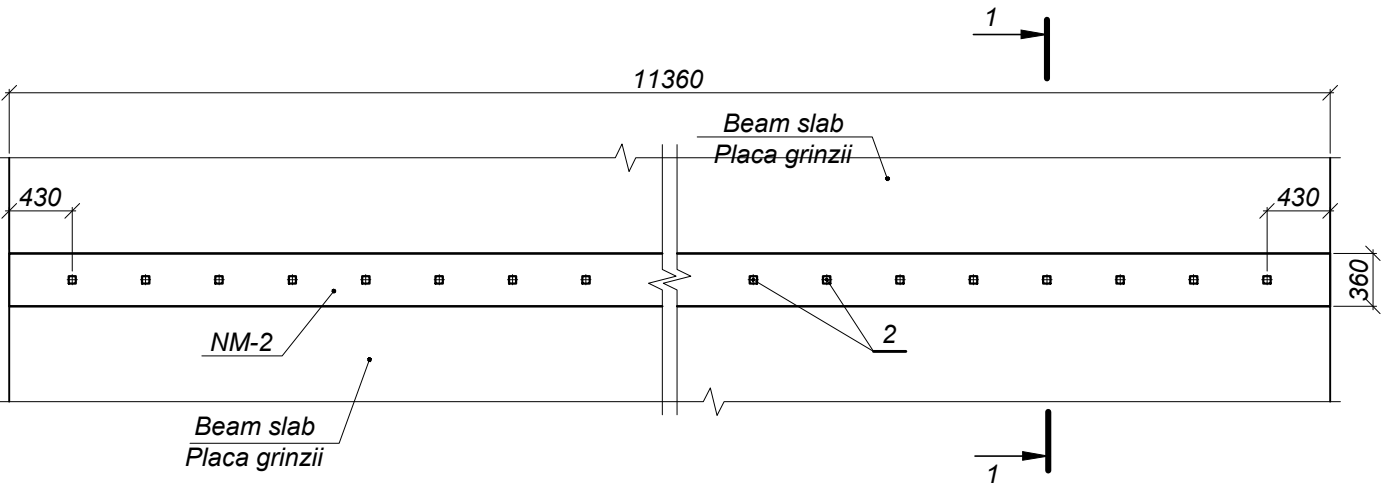
Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				<u>Parts / Piese</u>		
				<u>A-I-8 ГОСТ 5781-82*</u> <u>См3пс3 ГОСТ 380-94</u>		
FP		1		Reinforcement rod l=11300	6	4,5 kg
FP		2		Connector/Conectorul 1	22	0,8 kg
				<u>Materials / Materiale</u>		
			ГОСТ 26633-91*	Concrete/Beton cl.B30, F200, W6		0,62 m³

Quantity of steel per one element  
Consumul de metal pentru un element, kg

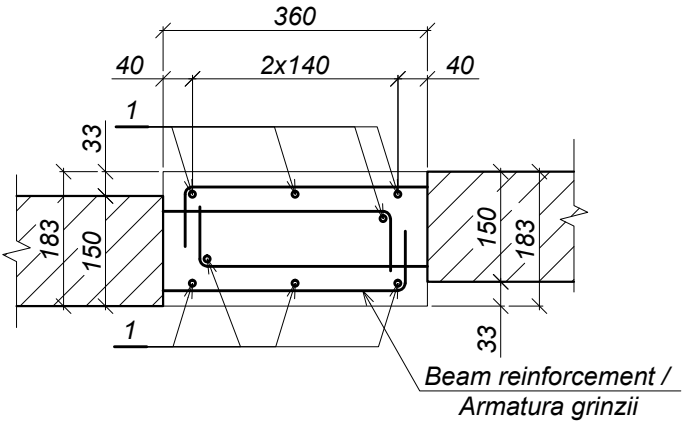
Element name Marca elementului	Reinforcement parts Piese de armare			Embedded base plate Piese înglobate					Total weight Greutate totală
	Reinforcement type Clasa armaturii		Total	Reinforcement type Clasa armaturii		Steel type Marca metalului		Total	
	A-I			A-III		16Д			
	ГОСТ 5781-82*			ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø8	Total		Ø16	Total	-10	Total		
NM-1	27,0	27,0	27,0	13,2	13,2	4,4	4,4	17,6	44,6

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 46 + 863</i> <i>Monolithic joint MJ-1 / Nodul monolit NM-1</i>		Checked	N.Tcaci		Drawing NM-P-1	
			Control STAS	L.Pozdirca			

Formwork/Schema de cofraj  
Layout/Plan  
Scale/Scara 1:50

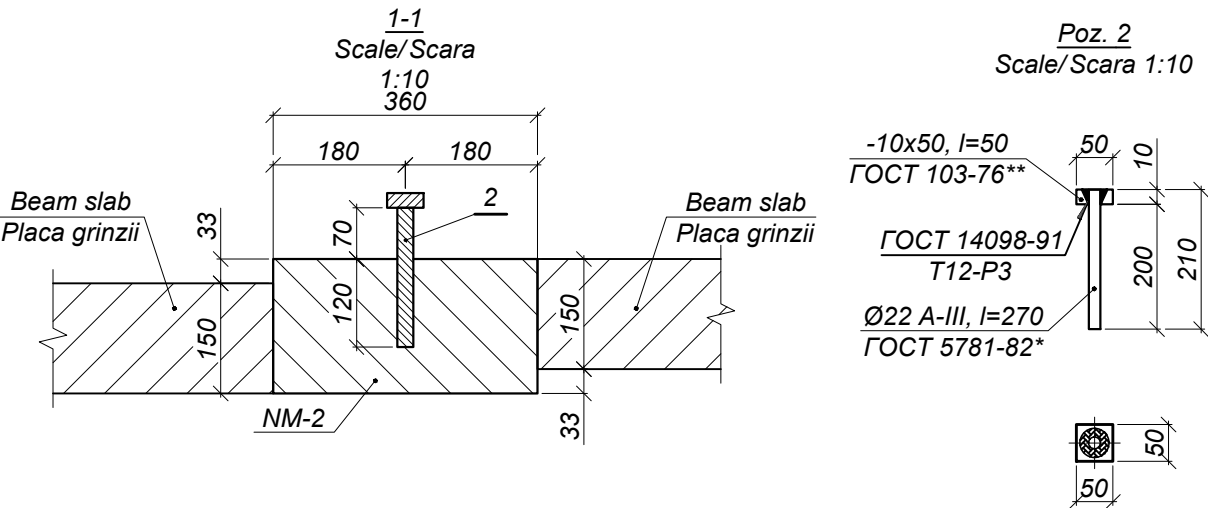


Reinforcement scheme/ Schema de armare  
Scale/Scara 1:10



Specification / Specificația

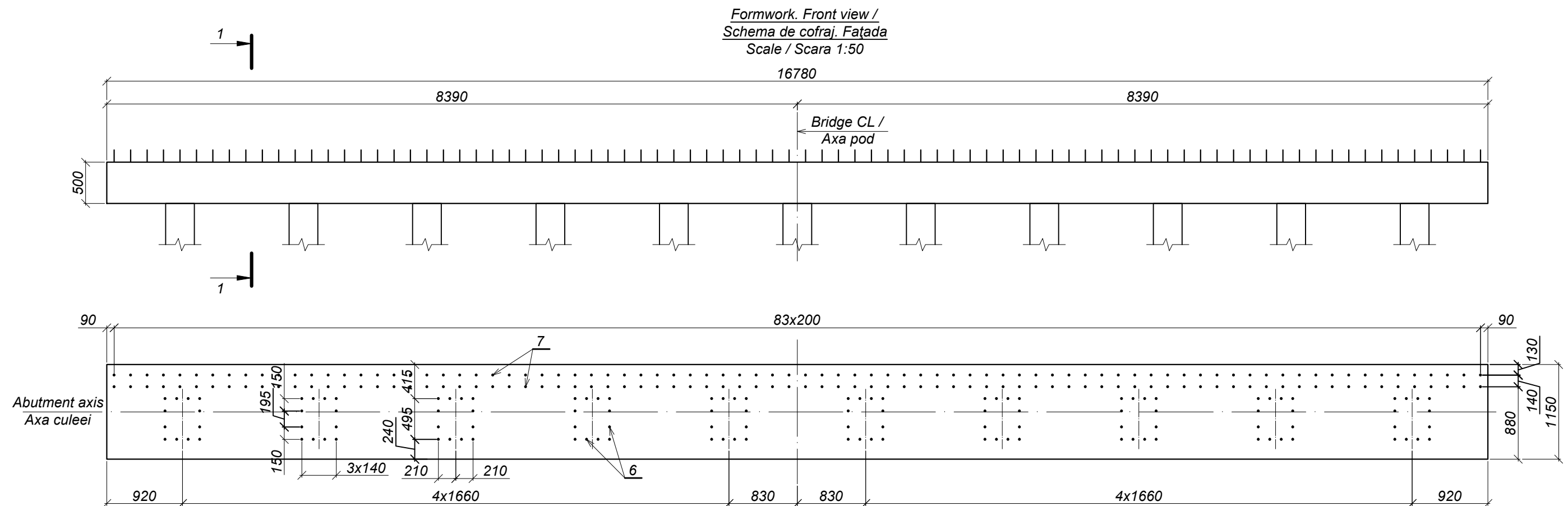
Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				Parts / Piese		
				A-I-8 GOCT 5781-82* Cm3nc3 GOCT 380-94		
FP		1		Reinforcement rod l=11300	8	4,5 kg
FP		2		Connector/Conectorul 1	22	0,8 kg
				Materials / Materiale		
			GOCT 26633-91*	Concrete/Beton cl.B30, F200, W6		0,75 m³



Quantity of steel per one element  
Consumul de metal pentru un element, kg

Element name Marca elementului	Reinforcement parts Piese de armare			Embedded base plate Piese înglobate					Total weight Greutate totală
	Reinforcement type Clasa armaturii		Total	Reinforcement type Clasa armaturii		Steel type Marca metalului		Total	
	A-I			A-III		16Д			
	ГОСТ 5781-82*			ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø8	Total		Ø16	Total	-10	Total		
NM-2	36,0	36,0	36,0	13,2	13,2	4,4	4,4	17,6	53,6

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 46 + 863</i> <i>Monolithic joint MJ-2 / Nodul monolit NM-2</i>	Checked	N.Tcaci		Drawing NM-P-2		
		Control STAS	L.Pozdirca				



Quantity of steel per one element / Consumul de metal pentru un element, kg

Element name / Marca elementului	Reinforcement parts / Piese de armare							Total weight / Greutate totală
	Reinforcement type / Clasa armaturii							
	A-I				A-III			
	ГОСТ 5781-82*							
	Ø6	Ø8	Ø10	Total	Ø14	Ø20	Total	
R-1	6,1	634,9	41,2	682,2	144,0	590,8	734,8	1417,0

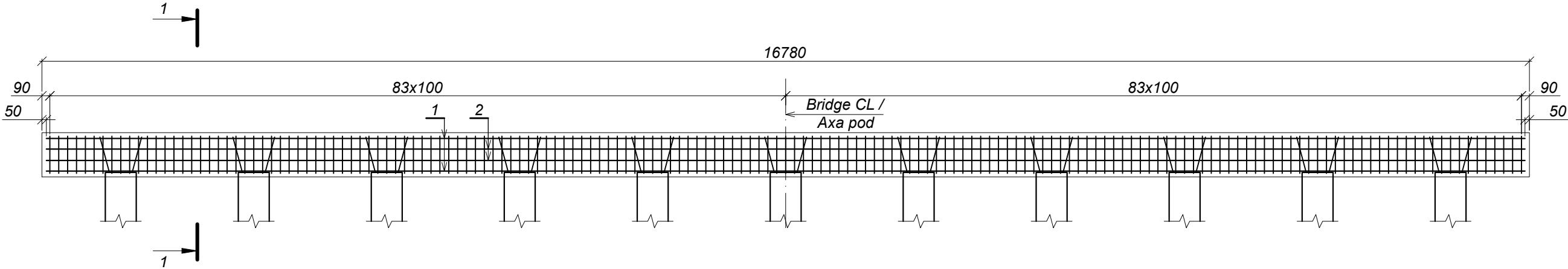
6 Reinforcement rod l=430

7 Reinforcement rod l=450

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road		Sector	Programme	Support	Project	
Roughton International		Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza	Date 04.2012
Universcons		Drawing title Bridge.Pod, Km 46 + 863 Collar beam CB-1 / Rigla R-1		Designed	A.Cecan	Scale
				Checked	N.Tcaci	Drawing
				Control STAS	L.Pozdirca	R-P-1



Reinforcement scheme / Schema de armare Front view / Fațada  
(pos. 6 and 7 conventionally not shown / poz.6 și 7 convențional nu sunt arătate)  
Scale / Scara 1:50



Specification / Specificația

Format	Zona	Position / Poziția	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				<u>Parts / Piese</u>		
FP		1		A-III-20 GOCT 5781-82*, l=17080 25Г2С GOCT 5781-82*	14	42,2 kg
FP		2		A-I-10 GOCT 5781-82*, l=16680 Cm3пc3 GOCT 380-94	4	10,3 kg
				A-I-8 GOCT 5781-82* Cm3пc3 GOCT 380-94		
FP		3		Reinforcement rod l=1720	835	0,7 kg
FP		4		Reinforcement rod l=3080	42	1,2 kg
FP		5		A-I-6 GOCT 5781-82*, l=27500 Cm3пc3 GOCT 380-94	1	6,1 kg
				A-III-14 GOCT 5781-82* 25Г2С GOCT 5781-82*		
FP		6		Reinforcement rod l=430	120	0,5 kg
FP		7		Reinforcement rod l=450	168	0,5 kg
				<u>Materials / Materiale</u>		
			GOCT 26633-91*	Concrete cl.B25, F200, W6 / Beton cl.B25, F200, W6		9,71 m³

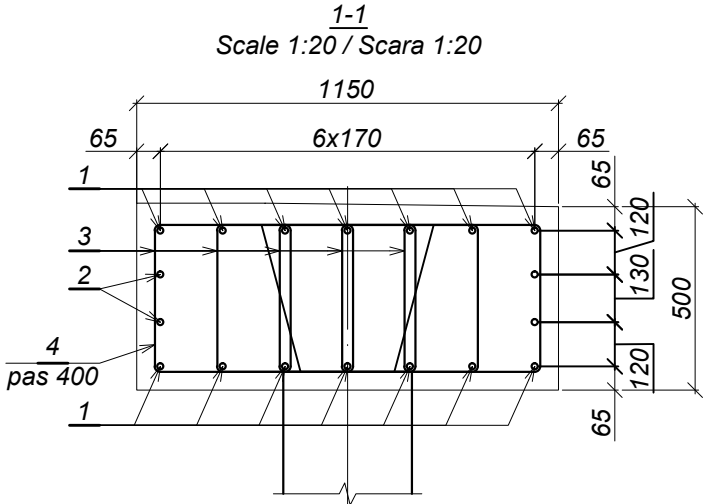
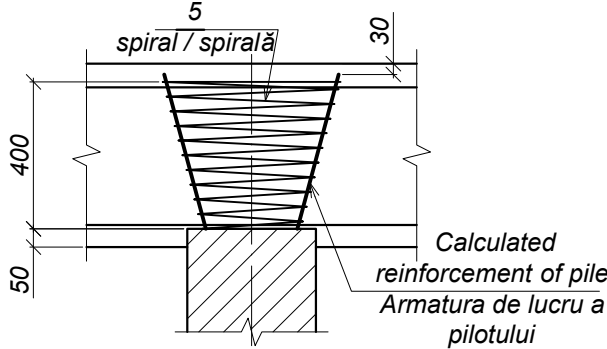


Table of parts / Tabela pieselor

Pos./ Poz.	Draft / Schiță
3	
4	

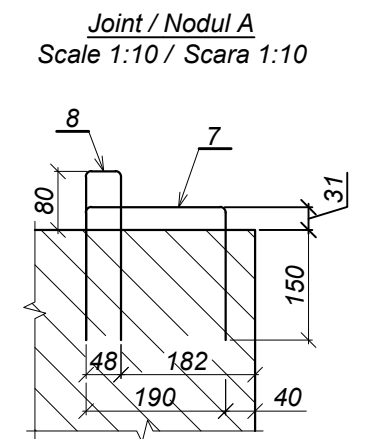
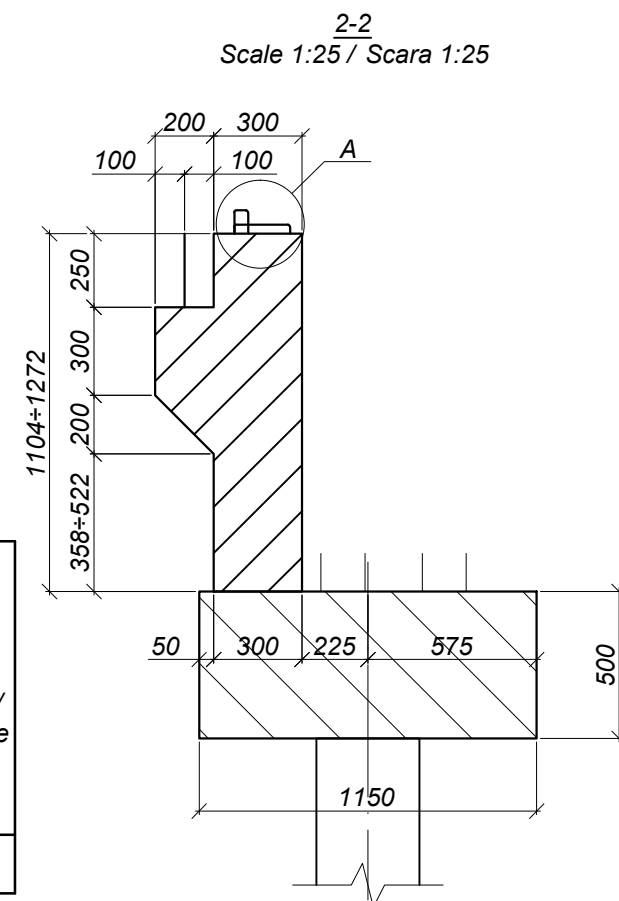
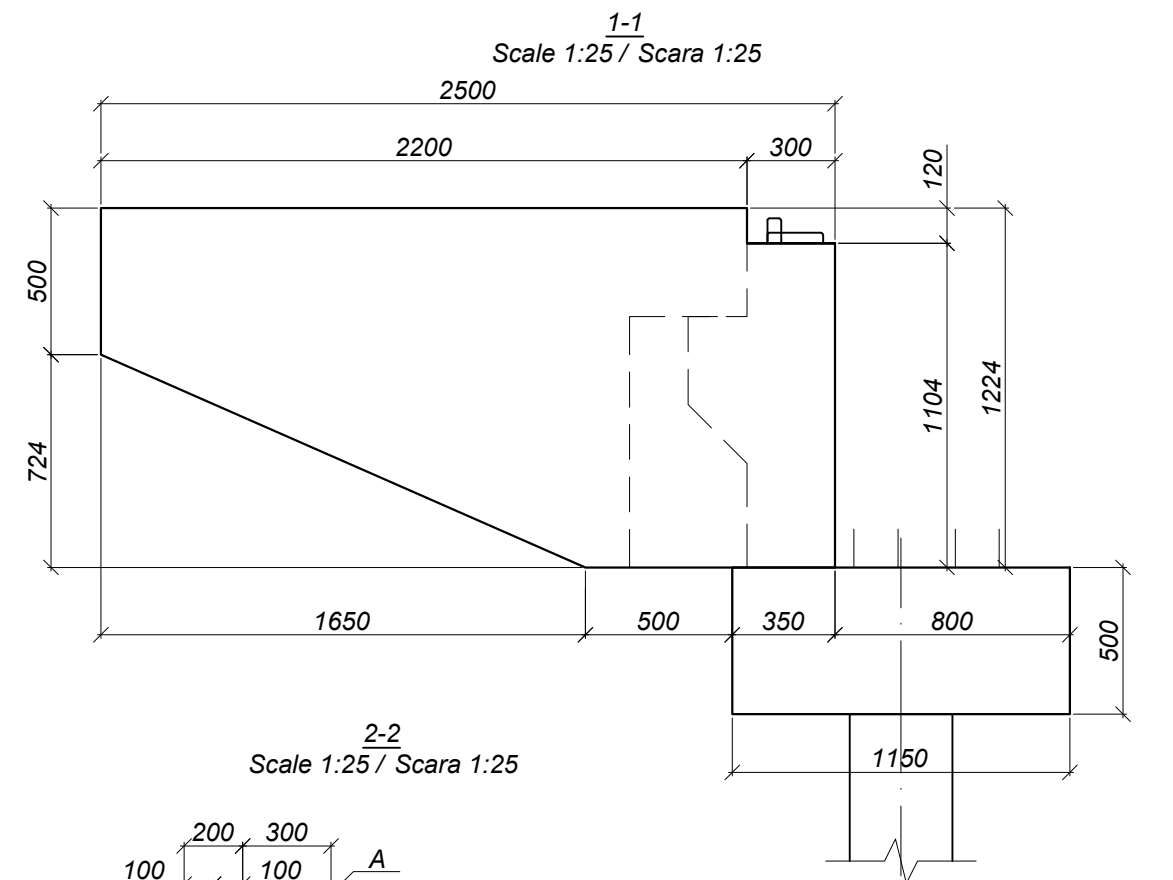
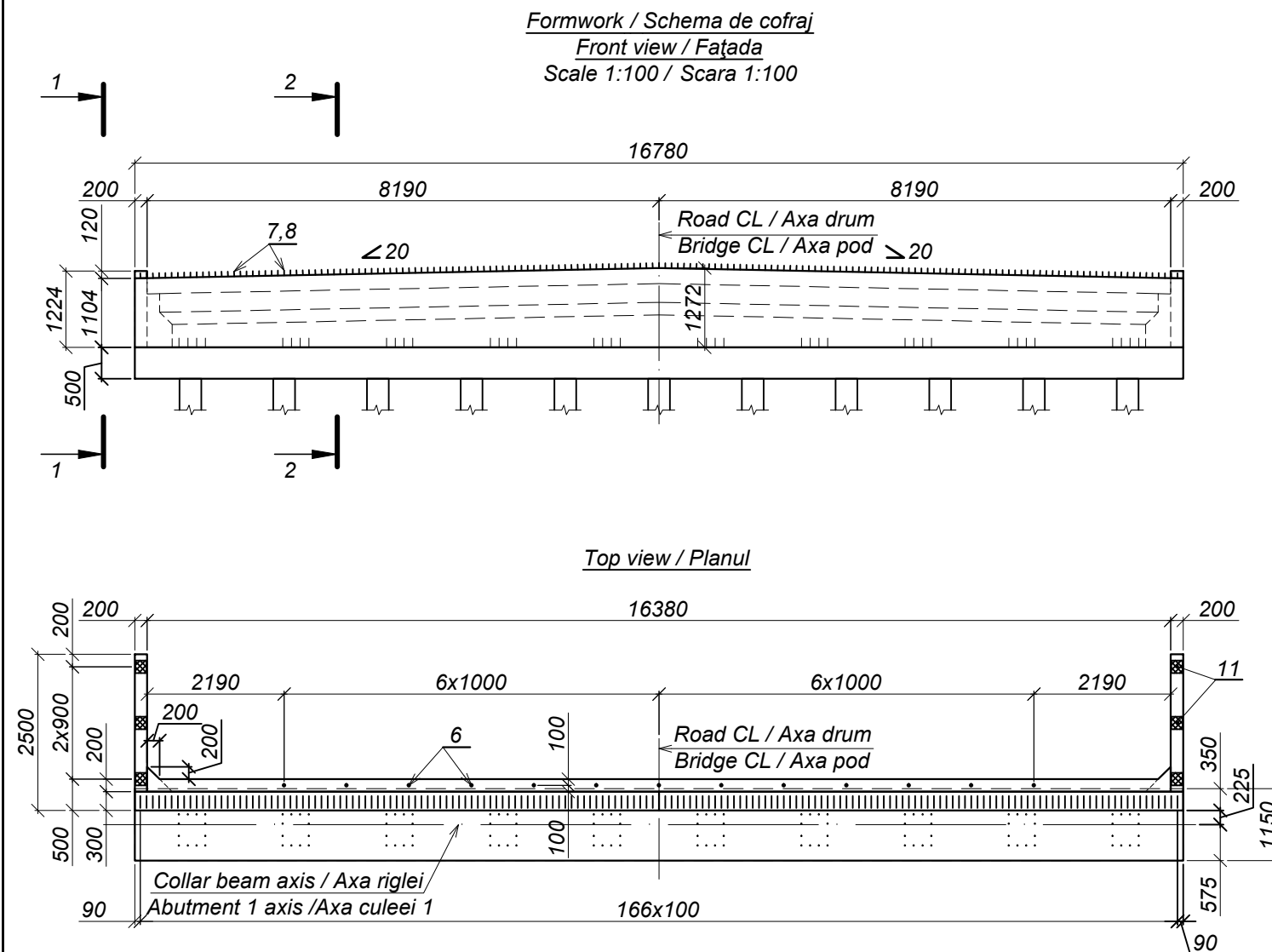
Collar beam and pile connection joint /  
Nod de îmbinare a riglei cu pilotul  
Scale 1:20 / Scara 1:20



Note / Notă:

- Protection layer / Stratul de protecție - 50 mm.
- Leangth of position 1 implies the need to splice reinforcement bars by welding according to the type of splicing C23-P3 GOCT 14098-91 /Lungimea poziției 1 include necesitatea îmbinării barelor de armatură prin sudare comform tipului de îmbinare C23-P3 GOCT 14098-91
- For position 6, 7 see formwork scheme / Pentru poziția 6, 7 vezi schema de cofraj

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 46 + 863 Collar beam CB-1. Reinforcement scheme. Rigla R-1. Schema de armare.</i>	Checked	N.Tcaci		Drawing R-P-2		
		Control STAS	L.Pozdirca				



Quantity of steel per one element / Consumul de metal pentru un element, kg

Element type / Marca elementulu	Reinforcement parts / Piese de armare									Embedded parts / Piese înglobate					Total weight / Greutate totală
	Reinforcement type / Clasa armaturii								Total	Reinforcement type / Clasa armaturii		Steel type		Total	
	A-I				A-III					A-III		16Д			
	ГОСТ 5781-82*									ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø6	Ø10	Ø25	Total	Ø10	Ø12	Ø14	Total		Ø16	Total	-20	Total		
ZG-1	30,3	100,2	23,4	153,9	195,8	82,0	224,0	501,8	655,7	7,2	7,2	37,8	37,8	45,0	700,7

6 A-I-25 ГОСТ 5781-82\*, l=450  
 Cm3nc3 ГОСТ 380-94

7 Reinforcement rod l=550

8 Reinforcement rod l=510

11 Embedded base plate EBP-2 /  
 Piesă înglobată PÎ-2

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
Universcons	Drawing title <i>Bridge.Pod, Km 46 + 863</i> <i>Protection wall PW-1 / Zid de gardă ZG-1</i>	Designed	A.Cecan		Scale	
		Checked	N.Tcaci		Drawing  ZG-P-1	
		Control STAS	L.Pozdirca			

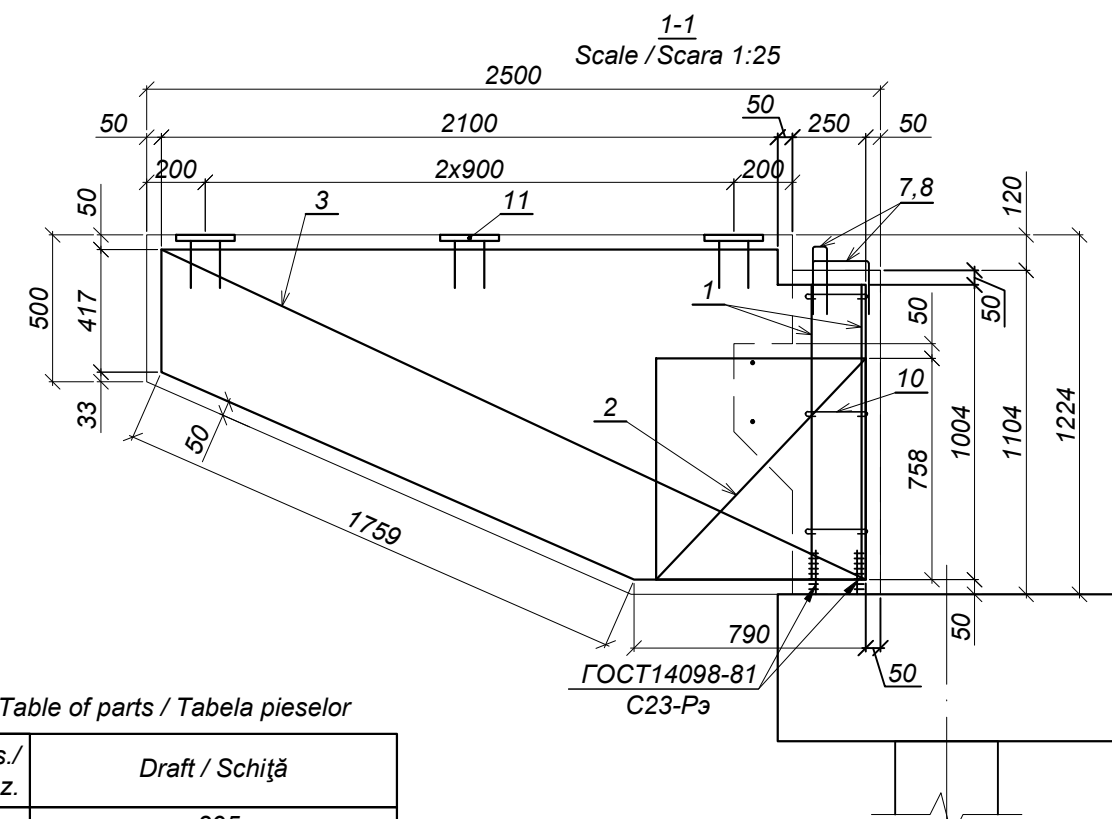
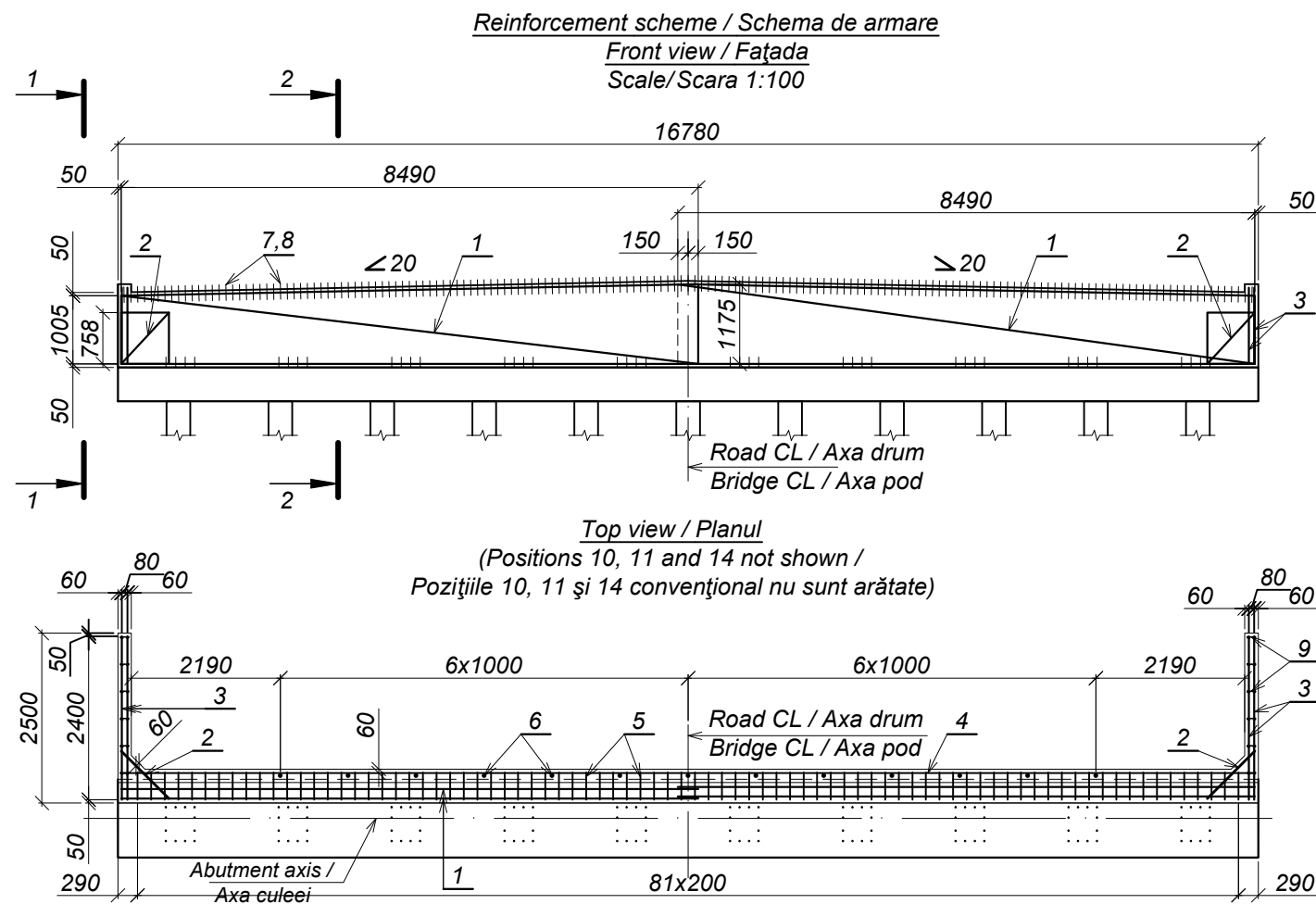
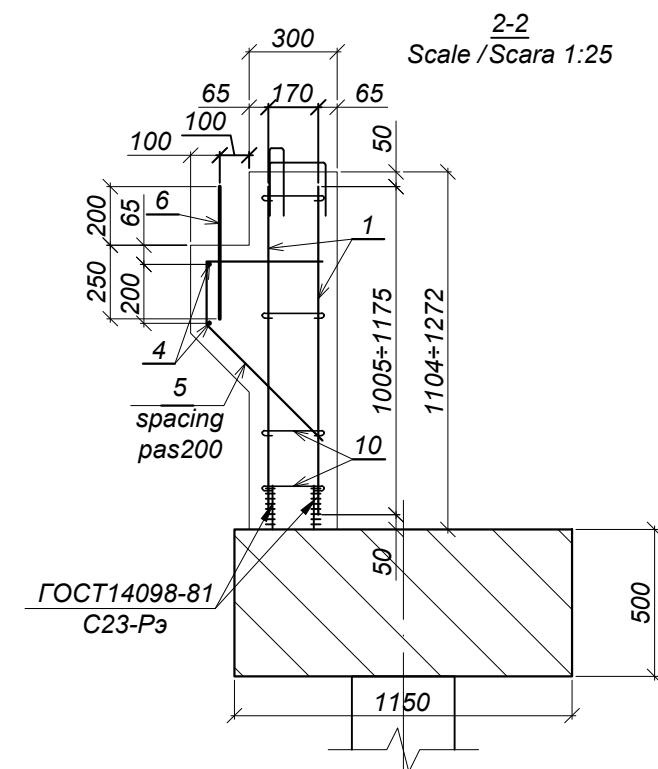


Table of parts / Tabela pieselor

Pos./ Poz.	Draft / Schiță
5	
7	
8	
9	
10	

Note / Notă:

1. Protection layer / Strat de protecție - 50 mm



Format	Zona	Position / Poziția	Document Number / Indicativ	Name / Denumirea	Cant.	Note / Notă
<b>Assembly elements / Elemente de asamblare</b>						
FP		1	ГОСТ23279-85	Steel grid 4C 14 A-III-200 Plasă de oțel 4C 10 A-III-200 117,5x849	4	9,26 m <sup>2</sup> 84,6 kg
		2	ГОСТ23279-85	Steel grid 4C 10 A-III-200 Plasă de oțel 4C 10 A-III-200 75,8x99	2	0,75 m <sup>2</sup> 4,6 kg
		3	ГОСТ23279-85	Steel grid 4C 10 A-III-200 Plasă de oțel 4C 10 A-III-200 240x112,4	4	2,09 m <sup>2</sup> 12,9 kg
<b>Parts / Piese</b>						
		4		A-III-10 ГОСТ 5781-82*, l=16720 25Г2С ГОСТ 5781-82*	2	10,3 kg
		5		A-III-12 ГОСТ 5781-82*, l=1170 25Г2С ГОСТ 5781-82*	82	1,0 kg
		6		A-I-25 ГОСТ 5781-82*, l=450 Cm3nc3 ГОСТ 380-94	13	1,8 kg
				A-I-10 ГОСТ 5781-82* Cm3nc3 ГОСТ 380-94		
		7		Reinforcement rod l=550	167	0,3 kg
		8		Reinforcement rod l=510	167	0,3 kg
		9		A-I-6 ГОСТ 5781-82*, l=200 Cm3nc3 ГОСТ 380-94	62	0,05 kg
		10		A-I-6 ГОСТ 5781-82*, l=350 Cm3nc3 ГОСТ 380-94	272	0,1 kg
		11	2009/032D - 00.05.00	Embedded base plate EBP-2 / Piesă înglobată PÎ-2	6	7,5 kg
<b>Materials / Materiale</b>						
			ГОСТ 26633-91*	Concrete cl.B25, F200, W6 / Beton cl.B25, F200, W6		8,22 m <sup>3</sup>

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date 04.2012
Universcons	Drawing title <i>Bridge.Pod, Km 46 + 863</i> <i>Protection wall PW-1. Reinforcement scheme</i> <i>Zid de gardă ZG-1. Schema de armare</i>		Designed	A.Cecan		Scale
			Checked	N.Tcaci		Drawing ZG-P-2
			Control STAS	L.Pozdirca		

*List of reference documents / Lista documentelor de referință și anexate*

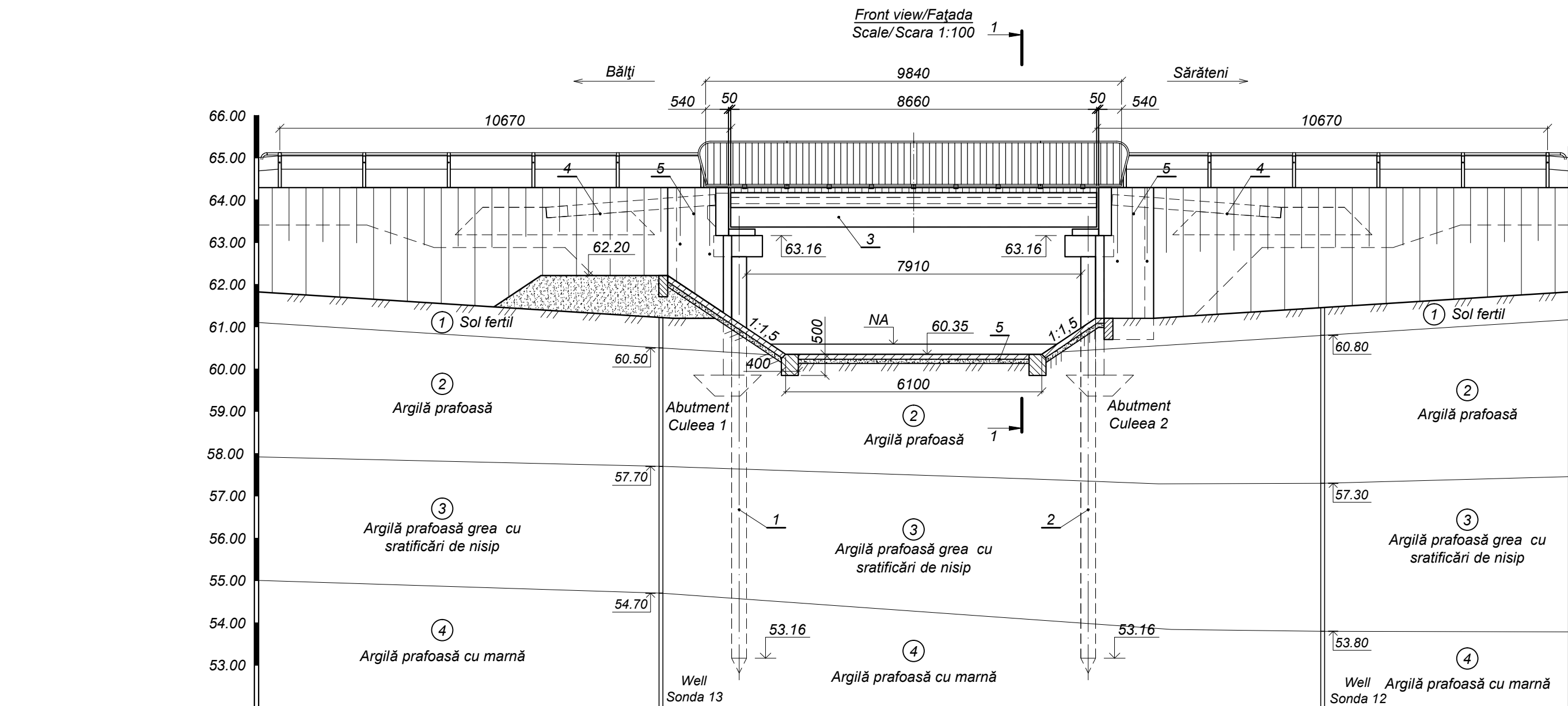
Document Number Indicativ	Item / Denumirea	Note Notă
	<u>Reference documents / Documente de referință</u>	
Серия 3.500.1-1.93	Сваи забивные железобетонные цельные сплошного квадратного сечения для опор мостов .	Piles /Piloți
Серия 3.503.1-81 Выпуски 1-1, 3-1	Пролетные строения сборные ж. б. длиной 12, 15, 18, 21, 24 и 33м из балок таверого сечения с предварительно напрягаемой арматурой для мостов и путепроводов	Pedestrian guardrail /Parapet de siguranță și pietonal
Серия 3.503.1-101 Выпуск 0, 1	Изоляция проезжей части, перекрытие деформационных швов ж. б. строений длиной до 33м автодорожных мостов и путепроводов	Bridgeway parts /Elementele căii podului
ALGA Bearing s and Expansion Joints	Expansion joints ALGAFLEX T instalation Procedure, 10.10.2005	Joint filling elements / Elemente de acoperire a rosturilor
Серия 3.501-156 Выпуски 0, 1	Укрепление русел, конусов и откосов насыпи у малых и средних мостов и водопропускных труб.	Surface protection /Protecția suprafețelor
BCH 24-88	Технические правила ремонта и содержания автомобильных дорог	Reinforced concrete repair /Reparația betonului armat
BCH 32-81	Инструкция по устройству гидроизоляции конструкций мостов и труб на железных, автомобильных и городских дорогах	Waterproofing of concrete surfaces / Izolarea suprafețelor de beton
СНП 3.06.04-91	Мосты и трубы	Bridge, culvert works / Executarea lucrărilor

**Note / Notă:**

1. Design norms / Normele de proiectare: СНУП 2.05.03-84 "Мосты и Трубы", СНУП 2.05.02-85\* "Автомобильные дороги".
2. Road category / Categoria drumului auto - III. Bridge width / Gabaritul podului G-14,40+2x0,75 m.
3. Reference loading / Sarcina de calcul: A11 și HK-80.
4. Reference seismicity of construction / Seismicitatea de calcul a construcției - 7 grade.
5. Baltic Sea reference level system. As base is taken Rp26 - 89.738 at PC261+585, (kilometer stone- placed on right side shoulder, direction after stakes) / Sistem de cote Baltic. Drept bază servesc reperul Rp26 - 89.738 la PC261+585, (borna de marcare a kilometrajului, amplasată pe acostament din partea dreaptă, direcție după pichetare).
6. Decisive phases for checking and acceptance of repair works / Fazele determinante de verificare și recepție a lucrărilor de reparație:
  - Transmission of center line references, location and bench marks / Predarea trasării, amplasamentului și a bornelor de reper;
  - Infrastructure repair / Reparația infrastructurii (abutment / culeea 1, pile / pila 2, pile / pila 3, abutment / culeea 4);
  - Superstructure and bridge way works / Execuția suprastructurii și căii podului;
  - Approach to bridge works / Execuția racordării podului cu terasamentul.
7. Type of works, determined as hidden works shall be checked and accepted with the record of verification results in Reports of quality check / Genul de lucrări determinate ca lucrări ascunse ce urmează a fi verificate și recepționate cu consemnarea rezultatelor verificării în procese verbale de verificare a calității:
  - Determination and positioning of road center lines and elements / Trasarea și poziționarea axelor și elementelor;
  - Bases and footings / Temeliile și fundațiile;
  - Inspection of materials, semifabricates and parts at entrances / Examinarea materialelor, semifabricatelor și elementelor la intrare;
  - Reinforcement and concrete of parts, formworks / Armarea și betonarea elementelor, cofrajele;
  - Welding of metal parts / Sudarea elementelor metalice.

A. Cecan

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road      Sector      Programme      Support      Project						
Roughton International  Universcons	Rehabilitation of R14 Road Balti-Saratenii  Drawing title <i>Bridge.Pod, Km 49 + 330</i> <i>General data / Date generale</i>	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
		Checked	N.Tcaci		Drawing  DG-P-1	
		Control STAS	L.Pozdirca			

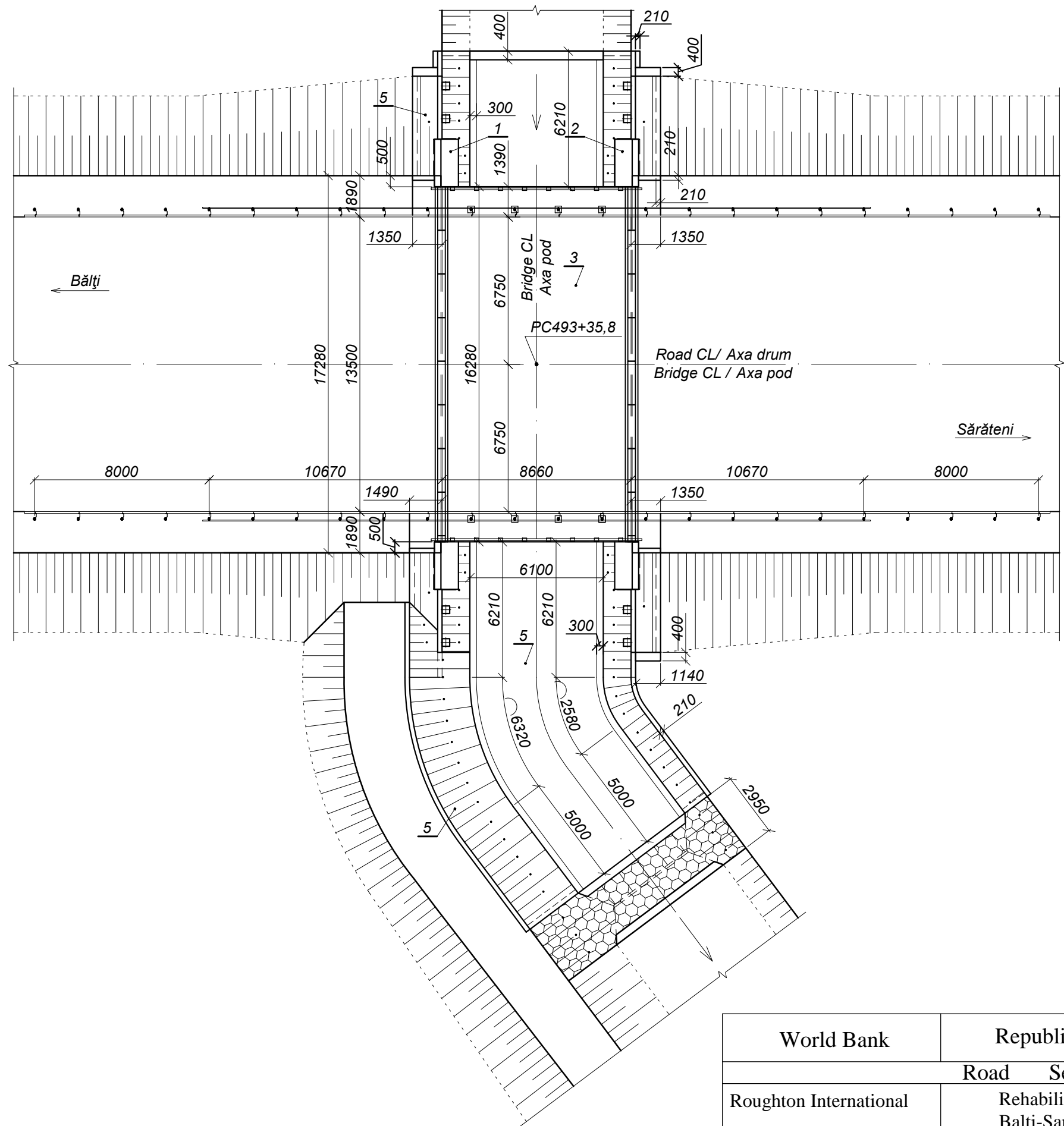


Design data/ Date proiect	Gradients, ‰ / Declivitatea, ‰		0,0	
	Distance, m / Distanța, m		8,66	
Land data / Date teren	Carriageway mark on axis, m / Cota pe axa părții carosabile, m	64.45	64.45	
	Carriageway land mark on axis, m / Cota teren pe axa părții carosabile, m	61.20	60.35	61.20
	Distance / Distanța, m		4,33	4,33

- 1 Abutment 1 / Culeea 1
- 2 Abutment 2 / Culeea 2
- 3 Superstructure and bridge way / Suprastructura și calea podului
- 4 Approach to bridge / Racordarea podului cu drumul
- 5 Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 49 + 330 Bridge general view. Front view / Dispoziție generală a podului. Fațada.</i>	Checked	N.Tcaci		Drawing F-P-1		
		Control STAS	L.Pozdirca				

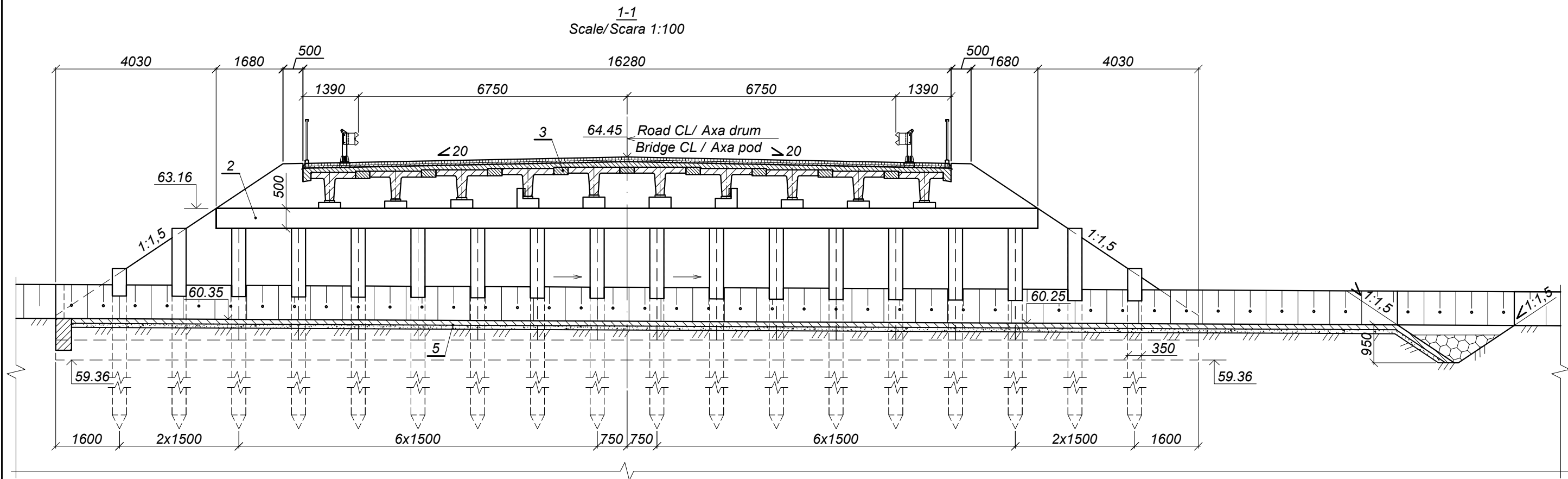
Top view/Planul  
Scale/Scara 1:200



Specification / Specificația

Pozition Poziția	Name / Denumirea
1	Abutment / Culeea 1
2	Abutment / Culeea 2
3	Superstructure and bridge way Suprastructura și calea podului
4	Bridge approach slabs Racordarea podului cu drumul la culeea
5	Consolidation of cones Consolidarea semiconurilor

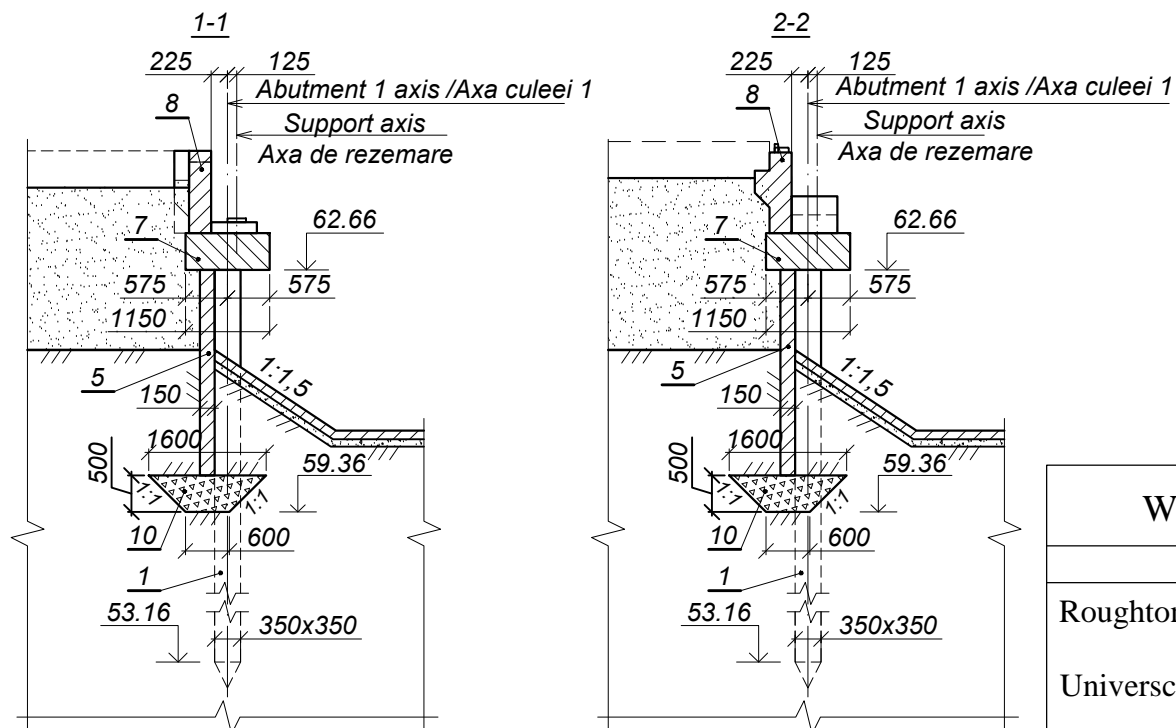
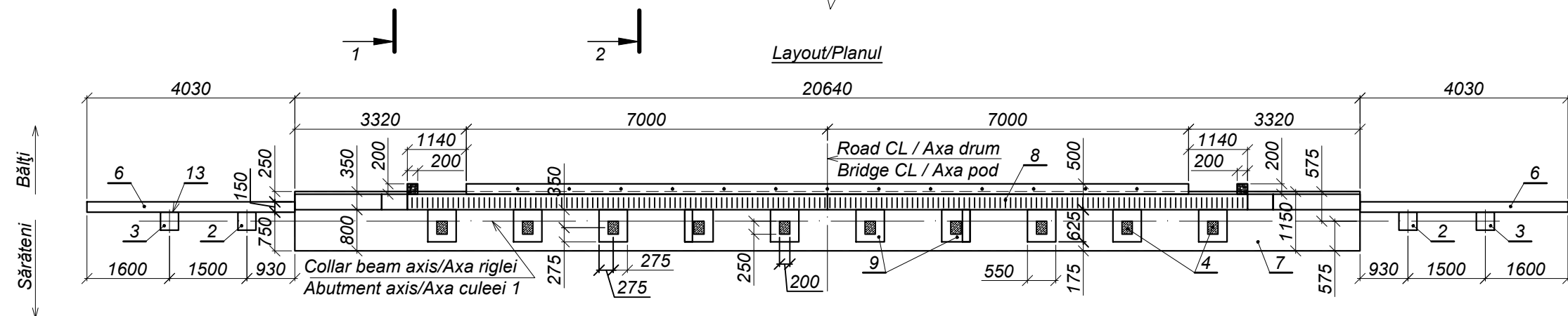
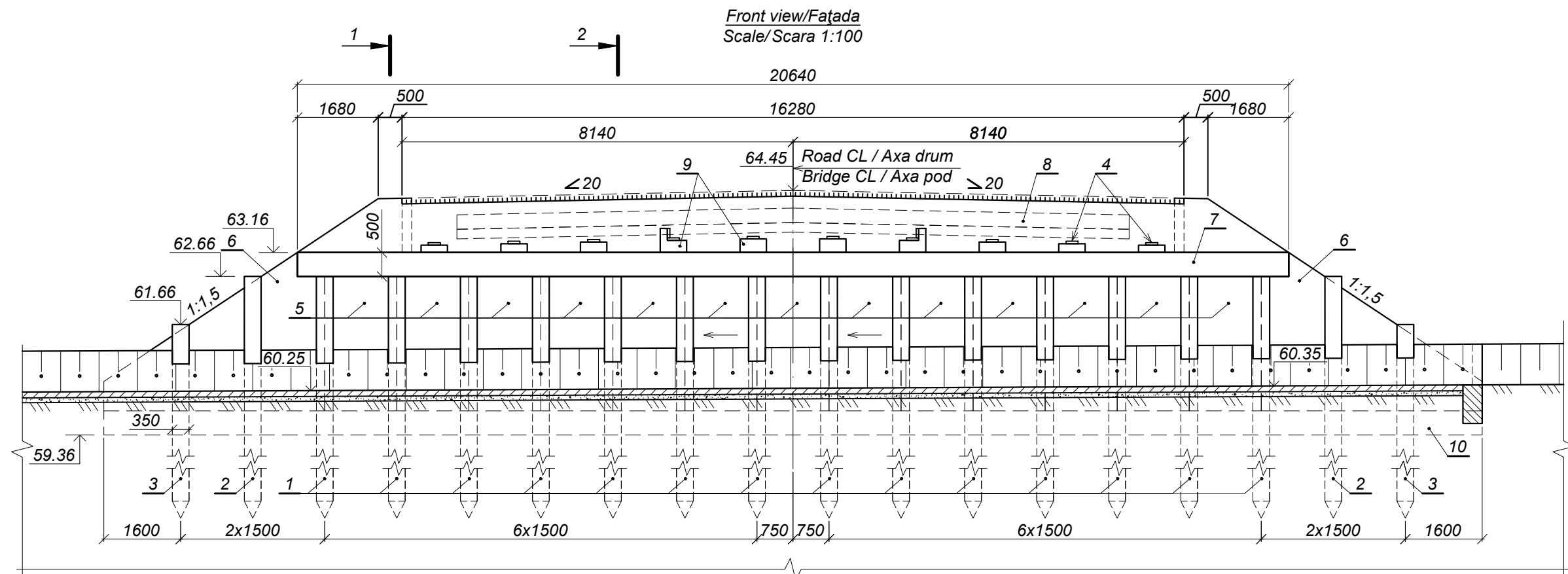
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road		Sector	Programme	Support	Project	
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza	Date	04.2012
			Designed	A.Cecan	Scale	
Universcons	Drawing title Bridge.Pod, Km 49 + 330 Bridge general view. Layout / Dispoziția generală a podului. Planul		Checked	N.Tcaci	Drawing P-P-1	
			Control STAS	L.Pozdirca		



2 Abutment 2 / Culeea 2

3 Superstructure and bridge's carriageway / Suprastructura și calea podului

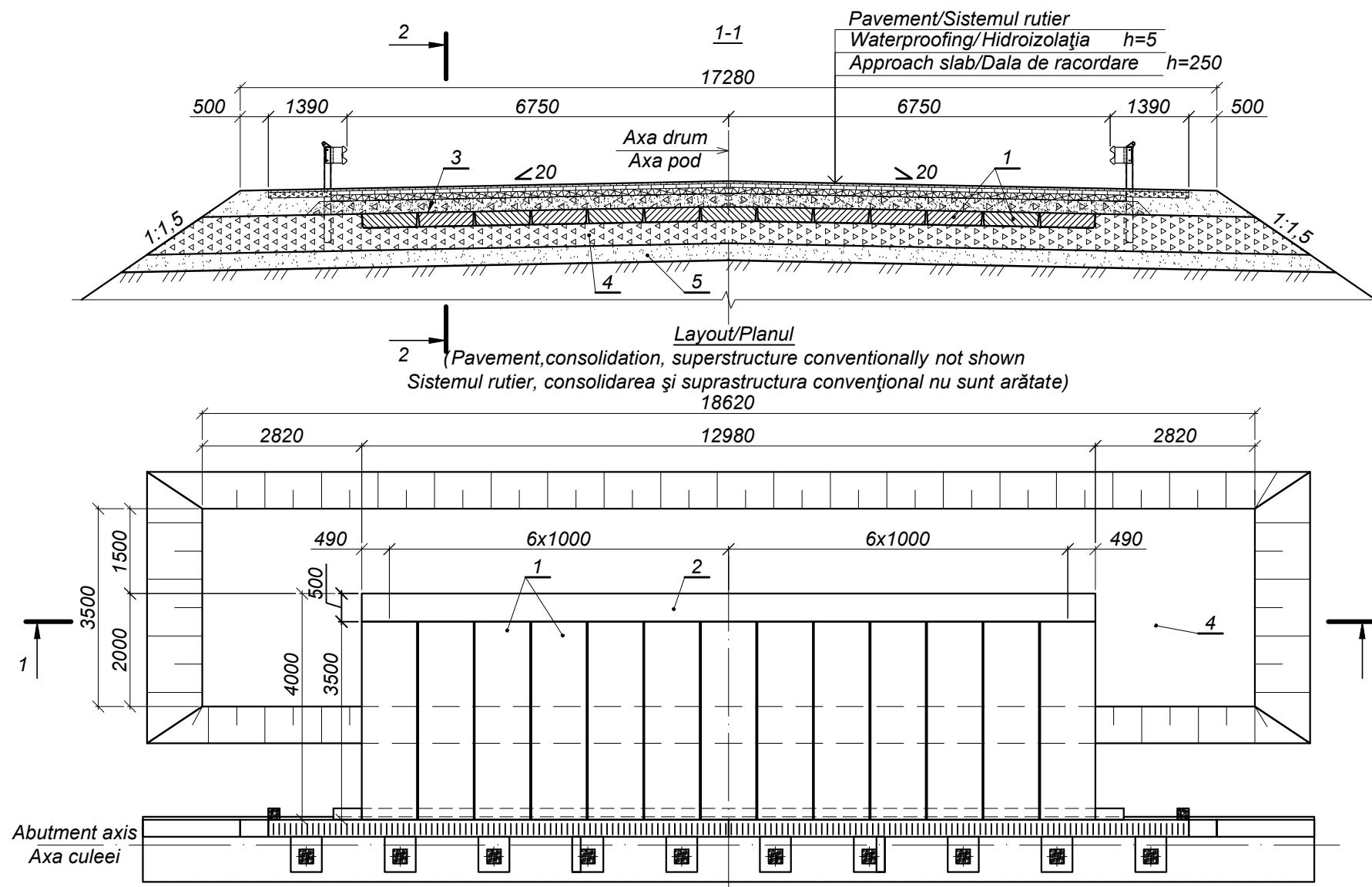
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
Universcons		Drawing title <i>Bridge.Pod, Km 49 + 330</i> <i>Bridge general view. Section</i> <i>Dispoziția generală a podului. Secțiunea</i>	Designed	A.Cecan		Scale
		Checked	N.Tcaci		Drawing P-P-1	
		Control STAS	L.Pozdirca			



- |   |   |
|---|---|
| 1 Pile / Pilot C10-35T4   | 8 Protection woll / Zid de gardă ZG-1                                       |
| 2 Pile / Pilot C7-35T4  | 9 Seating bearing parts of abutment / Cuzineții culeei                      |
| 3 Pile / Pilot C6-35T4  | 10 Base courses of crushed granite / Pat de piatră spartă din granit, h=500 |
| 4 Reinforced rubber bearing pads / Aparat de reazem din cauciuc PO4 |   |
| 5 Slab / Placa PM-1   |   |
| 6 Slab / Placa PM-2   |   |
| 7 Coller beam / Rigla R-1   |   |

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme Support		Project		
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title Bridge.Pod, Km 49 + 330 General view of abutment Dispoziția generală a culeei	Checked	N.Tcaci		Drawing C-P-1	
		Control STAS	L.Pozdirca			





Asphalt wearing course /  
Uzură din beton asfaltic h=40

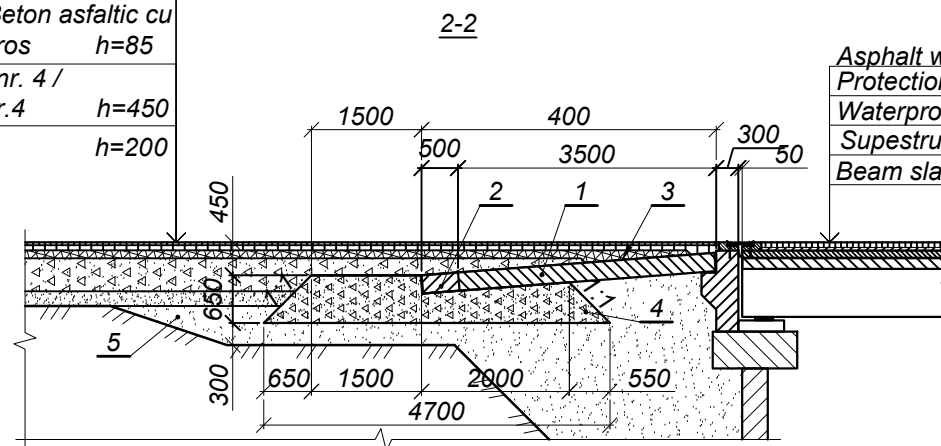
Geocomposite / Geocompozit  
PGM-G 50/50

Fine grained porous asphalt  
concrete M1 / Beton asfaltic cu  
granulație fină poros M1 h=60

Coarse grained porous asphalt  
concrete M1 / Beton asfaltic cu  
granul mare poros h=85

Crushed stone nr. 4 /  
Piatră spartă Nr.4 h=450

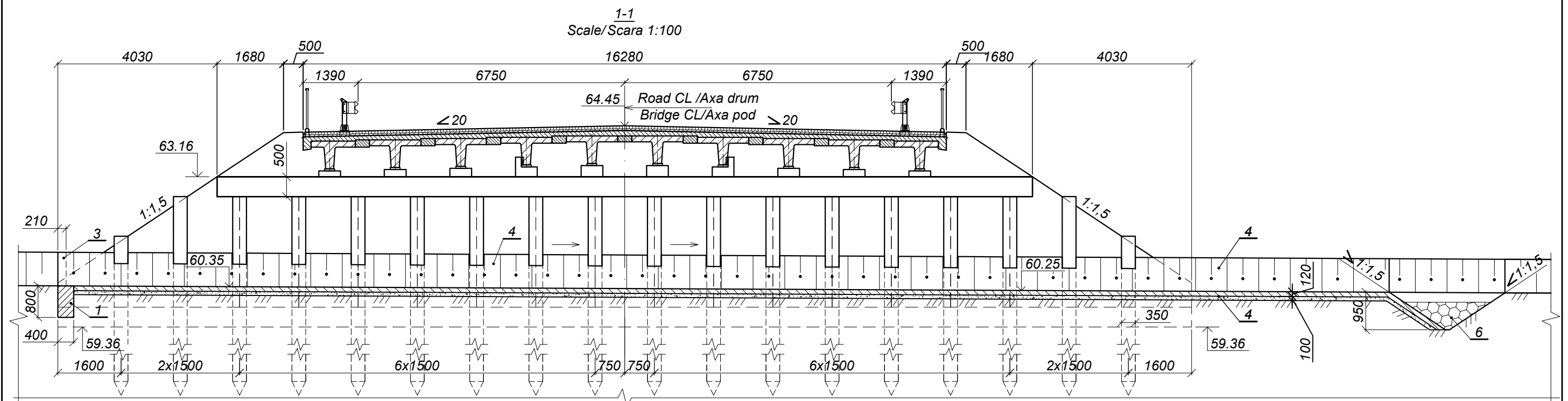
Sand / Nisip h=200



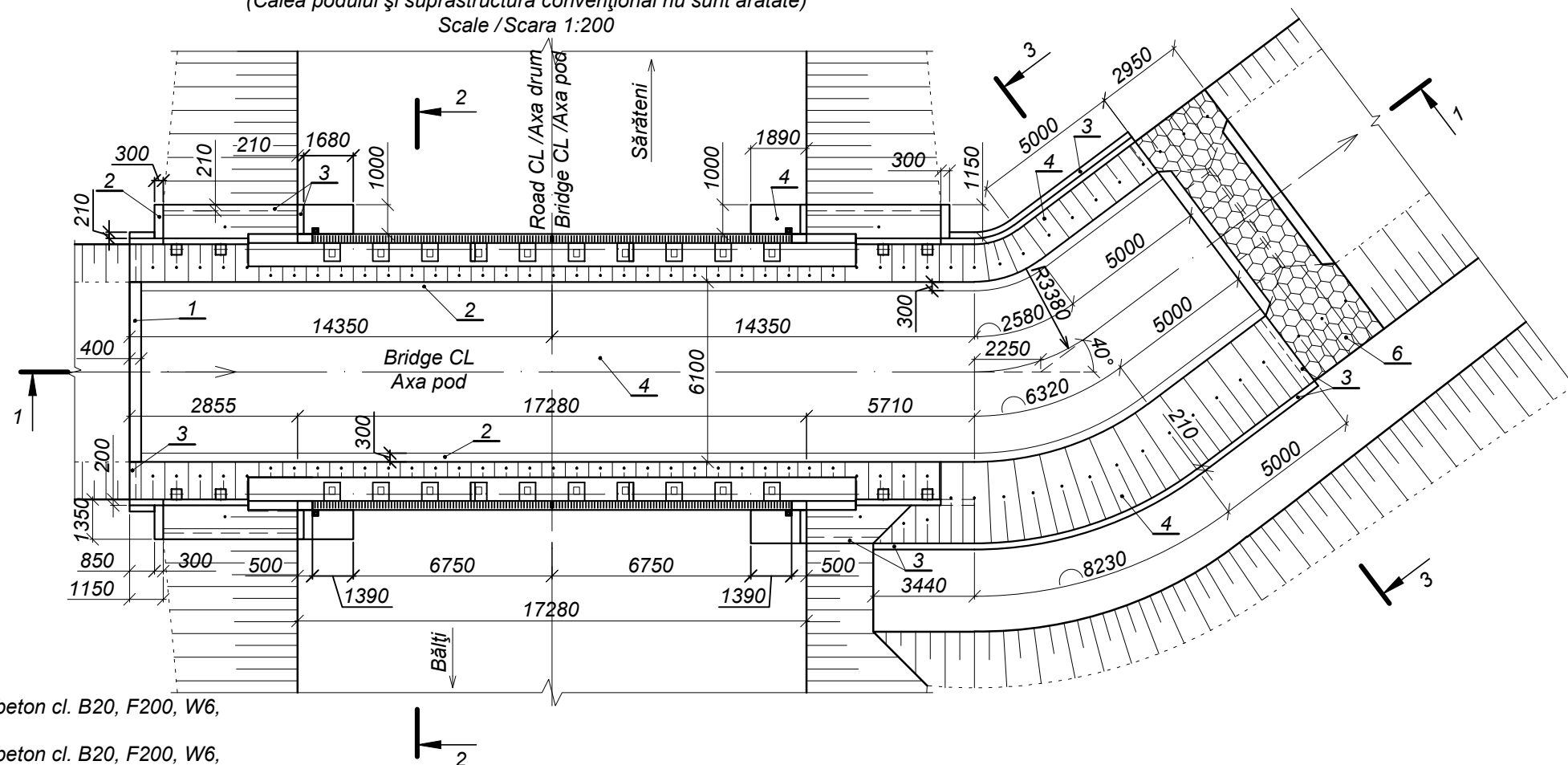
Asphalt wearing course / Îmbrăcămintă asfaltică h=70  
Protection layer / Strat de protecție h=40  
Waterproofing / Hidroizolația h=5  
Superstructure slab/Placa suprastructurii h<sub>min</sub>=100  
Beam slab / Placa grinzii h=150

- 1 Approach slab / Dala de racordare П400.98.25-TAIII
- 2 Connecting joint approaching slabs / Nodul de îmbinare a plăcilor de racordare
- 3 Waterproofing of approaching parts / Hidroizolarea elementelor de racordare
- 4 Crushed stone / Piatră spartă
- 5 Sand / Nisip

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International	Rehabilitation of R14 Road Balti-Sarateni		ISP	S.Bogza	Date	04.2012
Universcons	Drawing title Bridge.Pod, Km 49 + 330 Approach to bridge at abutment Racordarea podului cu drumul la culeea		Designed	A.Cecan	Scale	
			Checked	N.Tcaci	Drawing RP-P-1	
			Control STAS	L.Pozdirca		

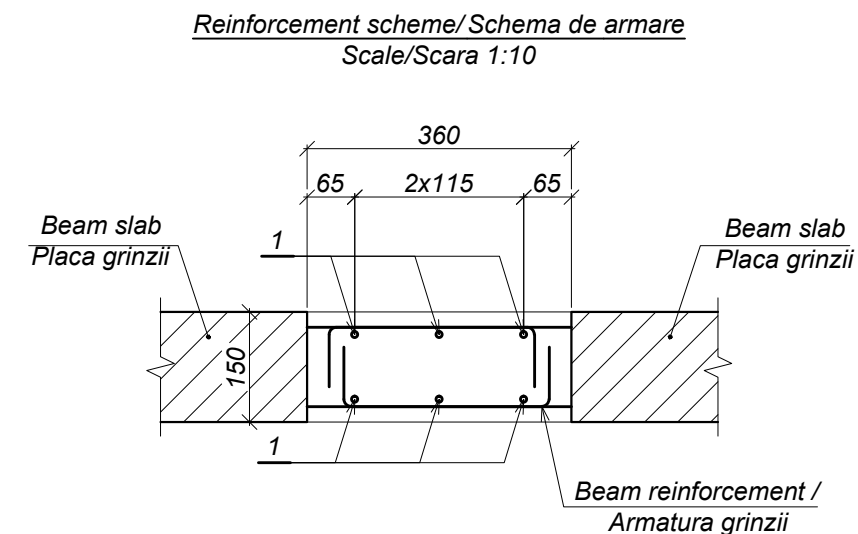
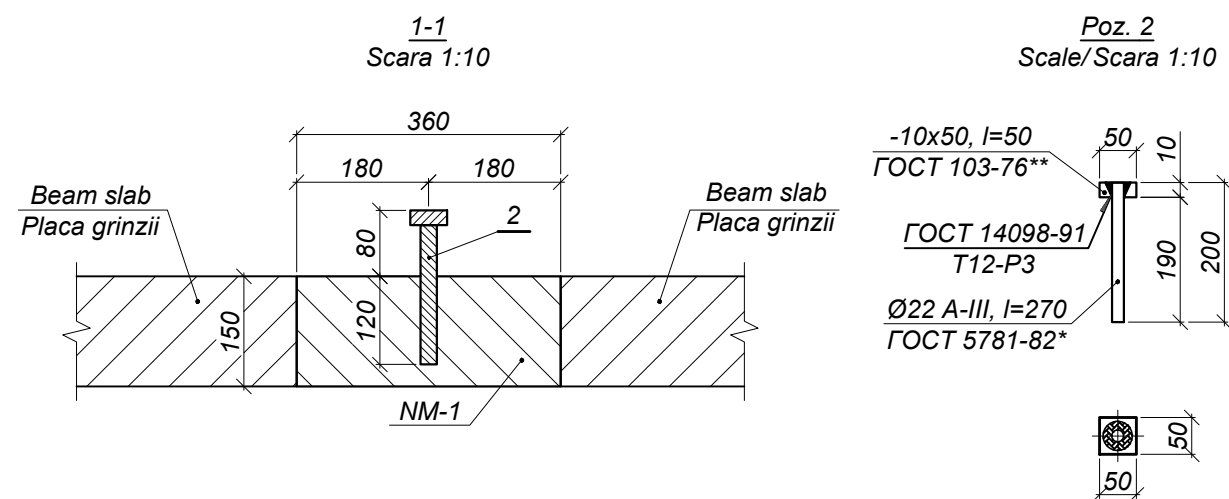
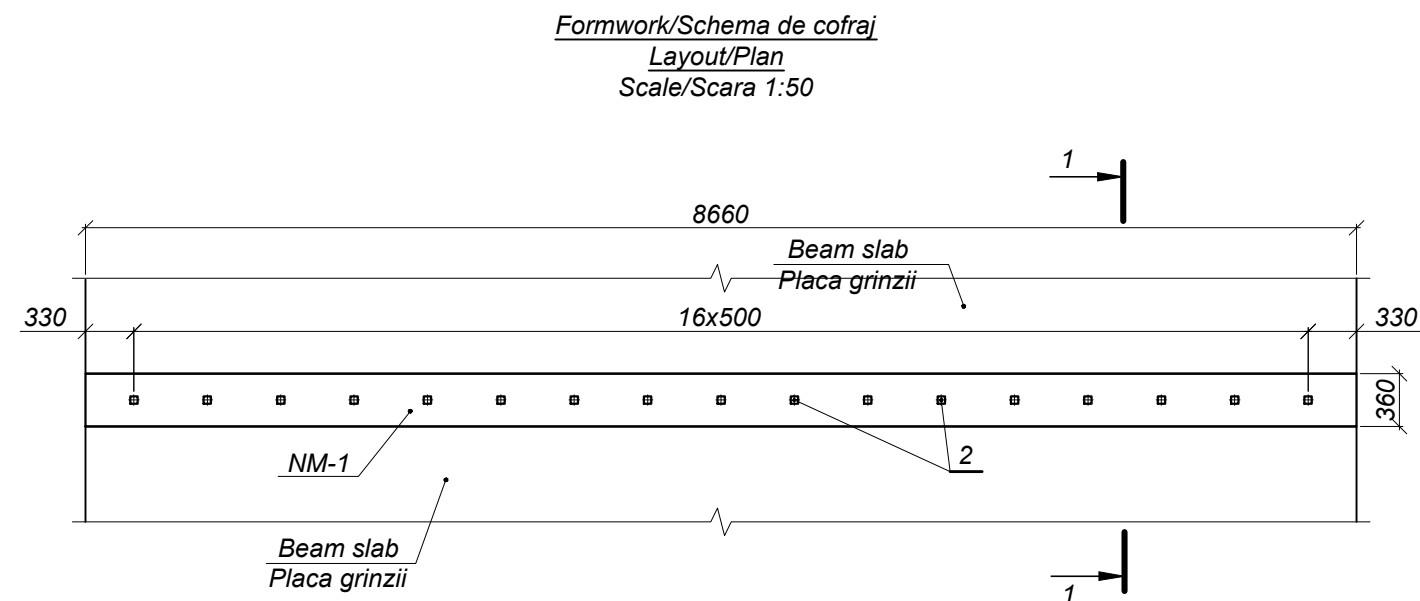


Layout / Planul  
(Bridge way and superstructure conventionally not shown) /  
(Calea podului și suprastructura convențional nu sunt arătate)  
Scale / Scara 1:200



- 1 Concrete spur / Pinten din beton cl. B20, F200, W6, sec. 40x80cm, L=6,10 m
- 2 Concrete spur / Pinten din beton cl. B20, F200, W6, sec. 40x50cm, L=76,10 m
- 3 Concrete spur / Pinten din beton cl. B20, F200, W6, sec. 21x50cm, L=50,50 m
- 4 Consolidation of the riverbeds, shoulders and slopes / Consolidarea albiei, taluzurilor și acostamentelor dincu beton armat cl.B20, F200, W6, h=12cm, pe pat de granit h=10cm
- 6 Enforcement with booth stone / Risberma din piatră brută

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector		Programme Support		Project			
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
Universcons		Designed	A.Cecan		Scale		
		Drawing title <i>Bridge.Pod, Km 49 + 330</i> <i>Consolidation of riverbed, slopes and shoulders</i> <i>Consolidarea albiei, taluzurilor și acostamentelor</i>	Checked	N.Tcaci		Drawing  CATA-P-1	
		Control STAS	L.Pozdirca				



Specification / Specificația

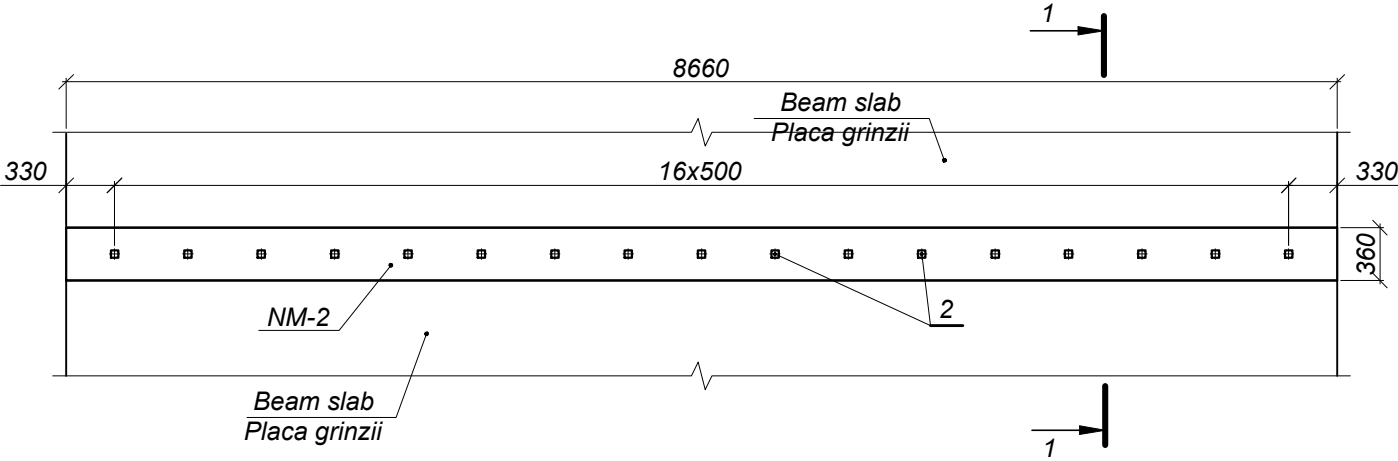
Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				<u>Parts/Piese</u>		
				<u>A-I-8 GOCT 5781-82*</u> <u>См3пс3 GOCT 380-94</u>		
FP		1		Reinforcement rod l=8600	6	3,4 kg
FP		2		Connector/Conectorul 1	17	0,8 kg
				<u>Materials/Materiale</u>		
			GOCT 26633-91*	Concrete/Beton cl.B30, F200, W6		0,47 m³

Quantity of steel per one element  
Consumul de metal pentru un element, kg

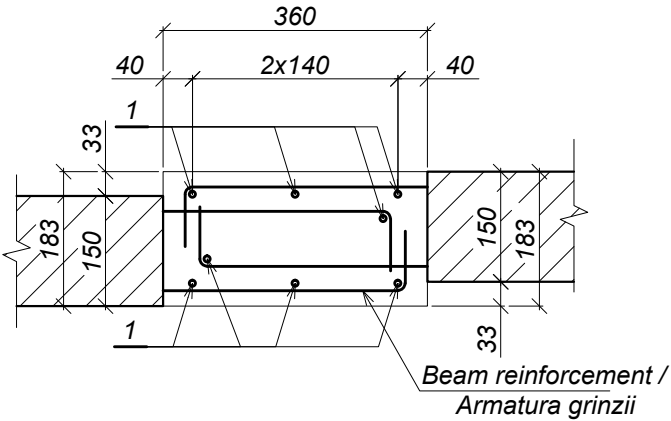
Element name Marca elementului	Reinforcement parts Piese de armare			Embedded base plate Piese înglobate					Total weight Greutate totală
	Reinforcement type Clasa armaturii			Reinforcement type Clasa armaturii		Steel type Marca metalului			
	A-I			A-III		16Д			
	ГОСТ 5781-82*			ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø8	Total		Total	Ø16	Total	-10		
NM-1	20,4	20,4	20,4	10,2	10,2	3,4	3,4	13,6	34,0

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 49 + 330</i> <i>Monolithic joint MJ-1 / Nodul monolit NM-1</i>		Checked	N.Tcaci		Drawing NM-P-1	
			Control STAS	L.Pozdirca			

Formwork/Schema de cofraj  
Layout/Plan  
Scale/Scara 1:50

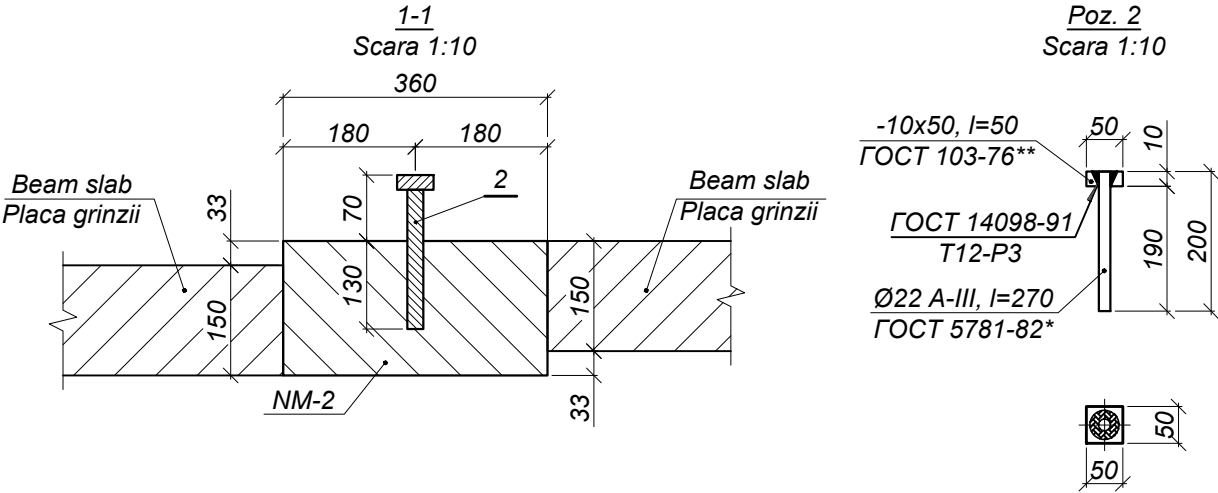


Reinforcement scheme/ Schema de armare  
Scale/Scara 1:10



Specification / Specificația

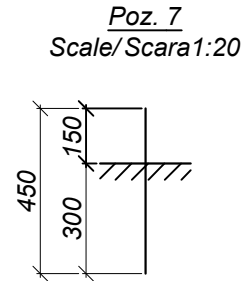
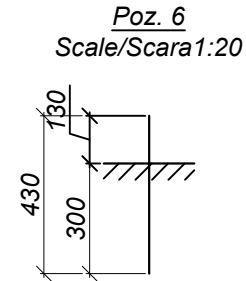
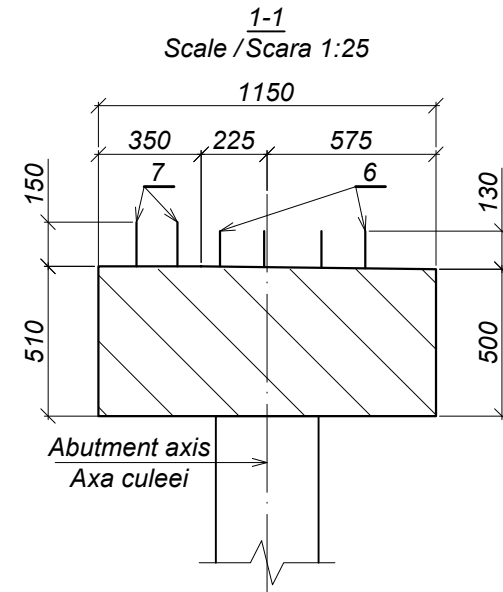
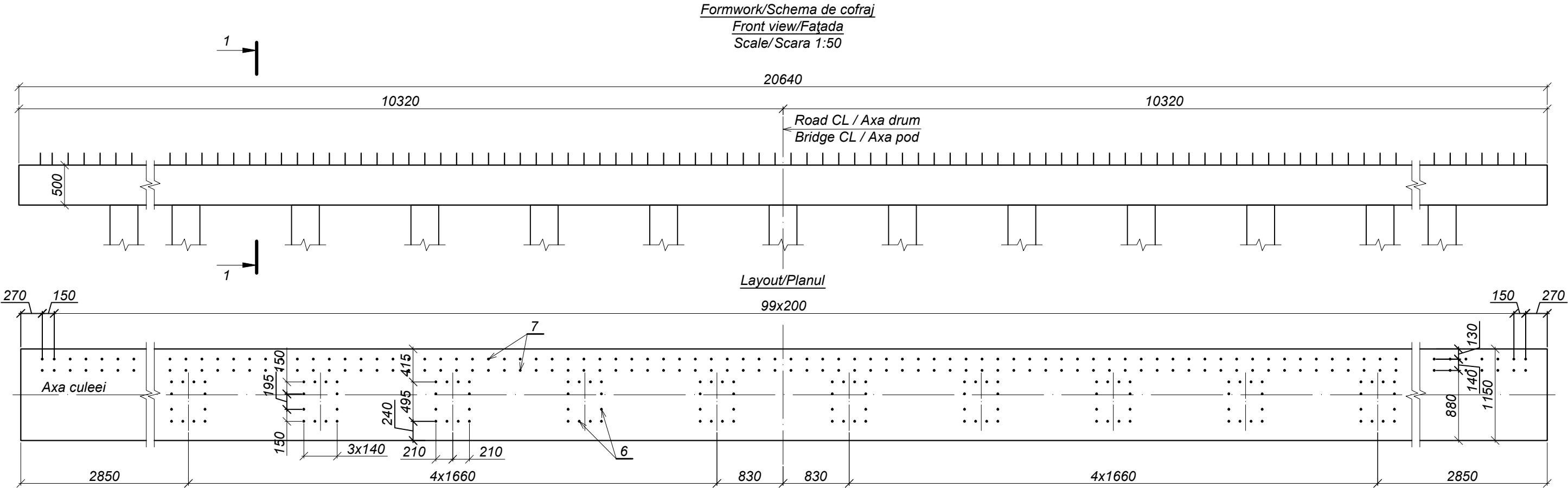
Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				<u>Parts/Piese</u>		
				<u>A-I-8 GOCT 5781-82*</u> <u>См3пс3 GOCT 380-94</u>		
FP		1		Reinforcement rod l=8600	8	3,4 kg
FP		2		Connectro/Conectorul 1	17	0,8 kg
				<u>Materials/Materiale</u>		
			GOCT 26633-91*	Concrete/Beton cl.B30, F200, W6		0,57 m³



Quantity of steel per one element  
Consumul de metal pentru un element, kg

Element name Marca elementului	Reinforcement parts Piese de armare			Embedded base plate Piese înglobate					Total weight Greutate totală
	Reinforcement type Clasa armaturii		Total	Reinforcement type Clasa armaturii		Steel type Marca metalului		Total	
	A-I			A-III		16Д			
	ГОСТ 5781-82*			ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø8	Total		Ø16	Total	-10	Total		
NM-2	27,2	27,2	27,2	10,2	10,2	3,4	3,4	13,6	40,8

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 49 + 330</i> <i>Monolithic joint MJ-2 / Nodul monolit NM-2</i>		Checked	N.Tcaci		Drawing NM-P-2	
			Control STAS	L.Pozdirca			



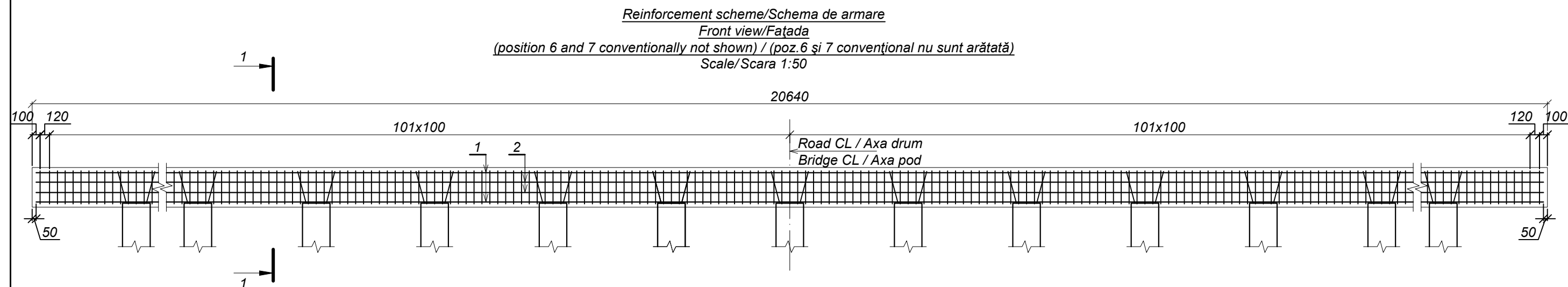
Specification/Specificația

Position / Pozitia	Name / Denumirea
	Parts/Piese
1	A-III-20 GOCT 5781-82*, l=21140 25Г2С GOCT 5781-82*
2	A-I-10 GOCT 5781-82*, l=20540 См3пс3 GOCT 380-94
	A-I-8 GOCT 5781-82* См3пс3 GOCT 380-94
3	Reinforcement rod l=1720
4	Reinforcement rod l=3080
5	A-I-6 GOCT 5781-82*, l=35000 См3пс3 GOCT 380-94
	A-III-14 GOCT 5781-82* 25Г2С GOCT 5781-82*
6	Reinforcement rod l=430
7	Reinforcement rod l=450

Quantity of steel per one element / Consumul de metal pentru un element, kg

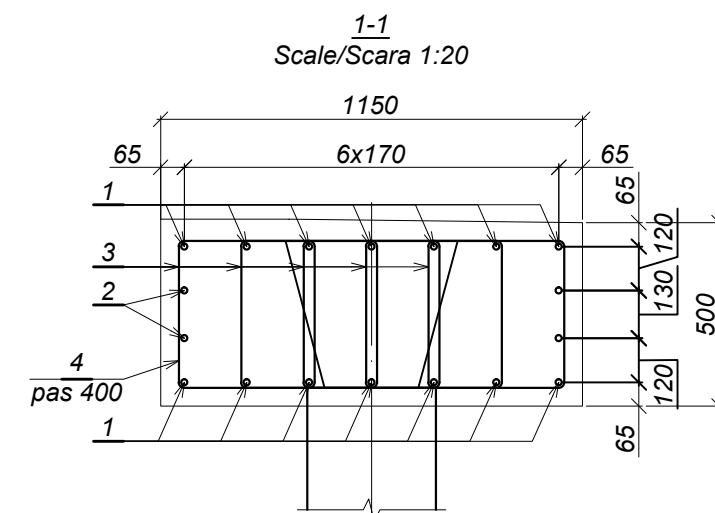
Element name Marca elementului	Reinforcement parts / Piese de armare							Total weight / Greutate totală
	Reinforcement type / Clasa armaturii							
	A-I				A-III			
	ГОСТ 5781-82*							
	Ø6	Ø8	Ø10	Total	Ø14	Ø20	Total	
R-1	7,8	779,9	50,8	838,5	162,0	730,8	892,8	1731,3

World Bank	Republic of Moldova		Ministry of Transport and Road Industry State Road Administration				
Road		Sector	Programme	Support	Project		
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
Universcons	Drawing title	Bridge.Pod, Km 49 + 330 Collar beam CB-1 / Rigla R-1	Designed	A.Cecan		Scale	
			Checked	N.Tcaci		Drawing R-P-1	
			Control STAS	L.Pozdirca			



Specification / Specificația

Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				<u>Parts/Piese</u>		
FP		1		A-III-20 GOCT 5781-82*, l=21140 25Г2С GOCT 5781-82*	14	52,2 kg
FP		2		A-I-10 GOCT 5781-82*, l=20540 Cm3пс3 GOCT 380-94	4	12,7 kg
				A-I-8 GOCT 5781-82* Cm3пс3 GOCT 380-94		
FP		3		Reinforcement rod l=1720	1025	0,7 kg
FP		4		Reinforcement rod l=3080	52	1,2 kg
FP		5		A-I-6 GOCT 5781-82*, l=35000 Cm3пс3 GOCT 380-94	1	7,8 kg
				A-III-14 GOCT 5781-82* 25Г2С GOCT 5781-82*		
FP		6		Reinforcement rod l=430	120	0,5 kg
FP		7		Reinforcement rod l=450	204	0,5 kg
				<u>Materials/Materiale</u>		
			GOCT 26633-91*	Concrete/Beton cl.B25, F200, W6		11,94 m³



Collar beam and pile connection joint /  
Nod de îmbinare a riglei cu pilotul

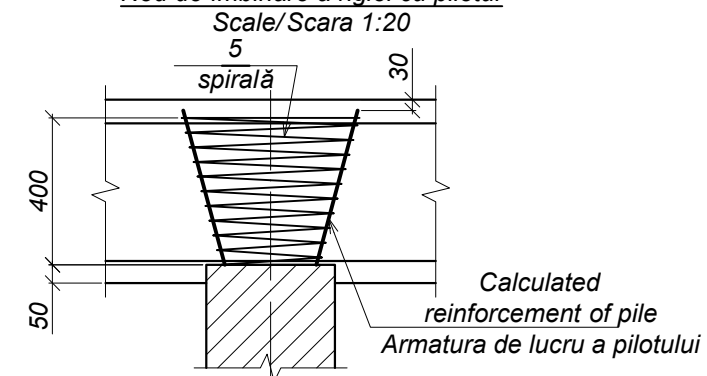


Table of parts. Tabela pieselor

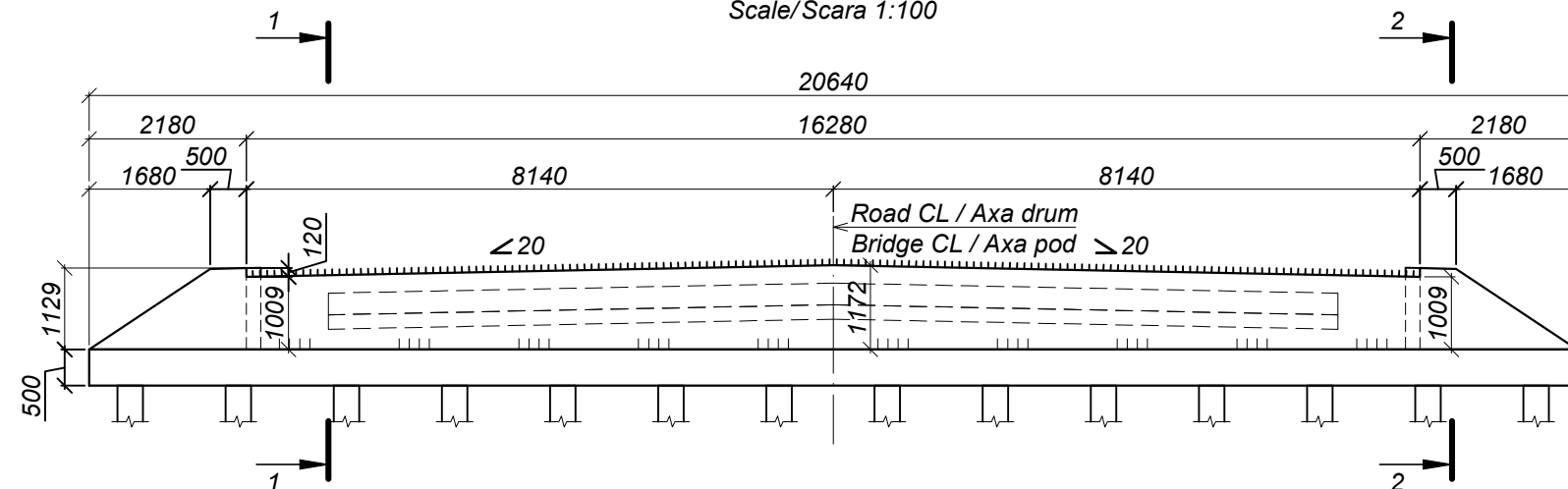
Poz.	Draft / Schita
3	
4	

Note/Notă:

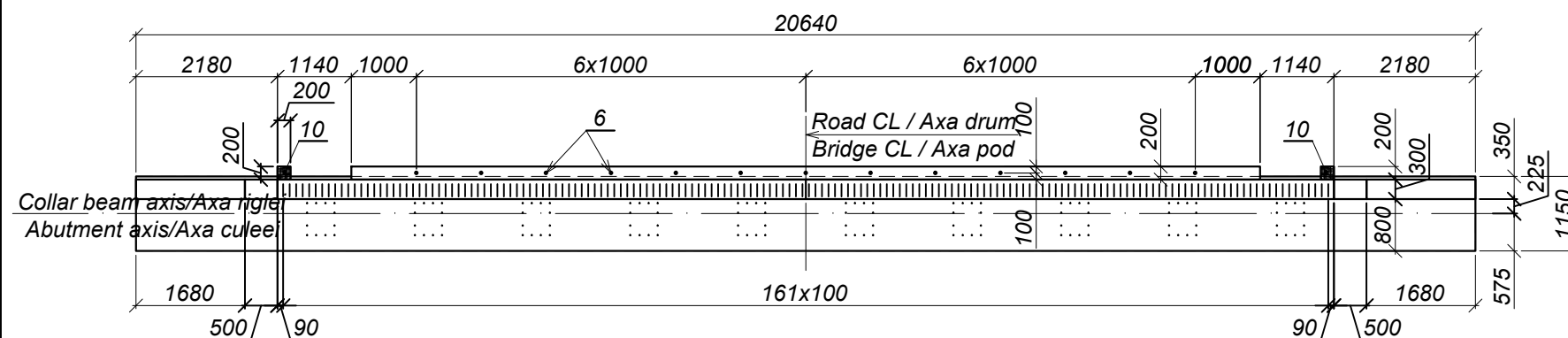
- Protection layer / Stratul de protecție - 50 mm.
- Length of position 1 implies the need to splice reinforcement bars by welding according to the type of splicing / Lungimea poziției 1 include necesitatea îmbinării barelor de armatură prin sudare conform tipului de îmbinare C23-P3 GOCT 14098-91.
- For position 6 and 7 see formwork scheme / Amplasarea poziției 6 și 7 vezi schema de cofraj.

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International  Universcons	Rehabilitation of R14 Road Balti-Saratenii  Drawing title <i>Bridge.Pod, Km 49 + 330</i> <i>Collar beam CB-1. Reinforcement scheme.</i> <i>Rigla R-1. Schema de armare.</i>	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
		Checked	N.Tcaci		Drawing  R-P-2	
		Control STAS	L.Pozdirca			

Formwork/Schema de cofraj  
Front view/Fațada  
Scale/Scara 1:100



Layout/Planul

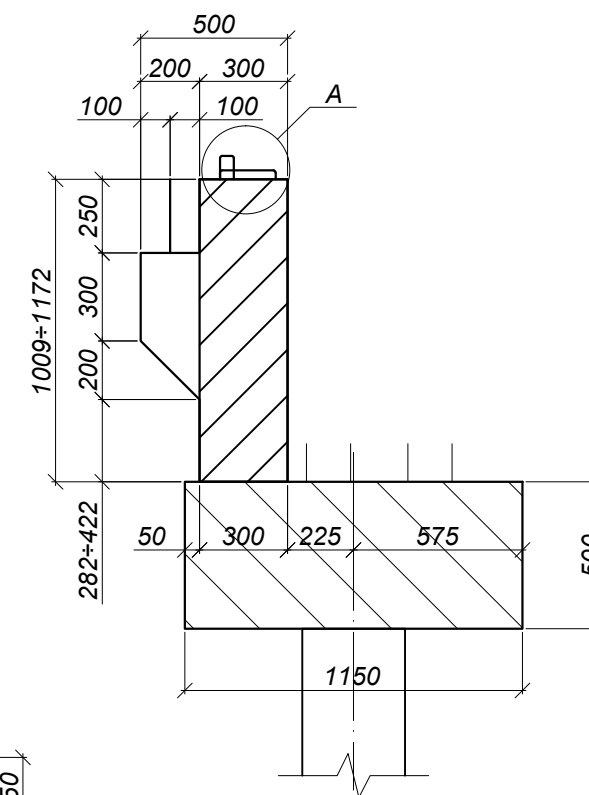


Quantity of steel per one element / Consumul de metal pentru un element, kg

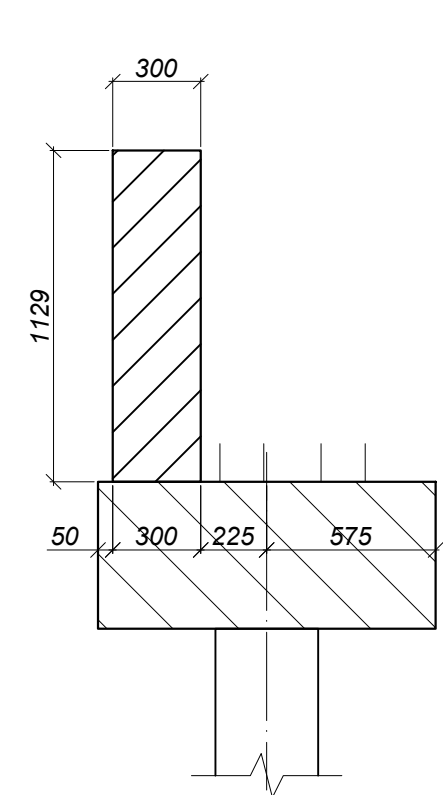
Element name Marca elementului	Reinforcement parts / Piese de armare									Embedded base plate Piese înglobate					Total weight / Greutate totală
	Reinforcement type / Clasa armaturii								Total	Reinforcement type Clasa armaturii	Steel type Marca metalului		Total		
	A-I				A-III					A-III	16Д				
	ГОСТ 5781-82*									ГОСТ 5781-82*	ГОСТ 103-76**				
	Ø6	Ø10	Ø25	Total	Ø10	Ø12	Ø14	Total		Ø16	Total	-20		Total	
ZG-1	28,0	97,2	23,4	148,6	154,4	70,0	236,4	460,8	609,4	2,4	2,4	12,6	12,6	15,0	607,2

- 6 A-I-25 ГОСТ 5781-82\*, l=450  
Cm3nc3 ГОСТ 380-94
- 7 Reinforcement rod l=550
- 8 Reinforcement rod l=510
- 10 Embedded base plate PĬ-2  
Piesă înglobată PĬ-2

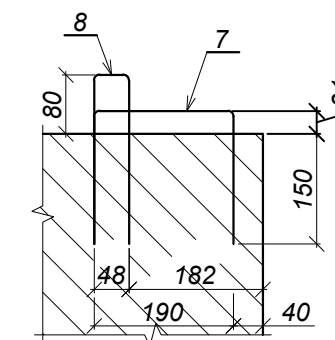
1-1  
Scale/Scara 1:25



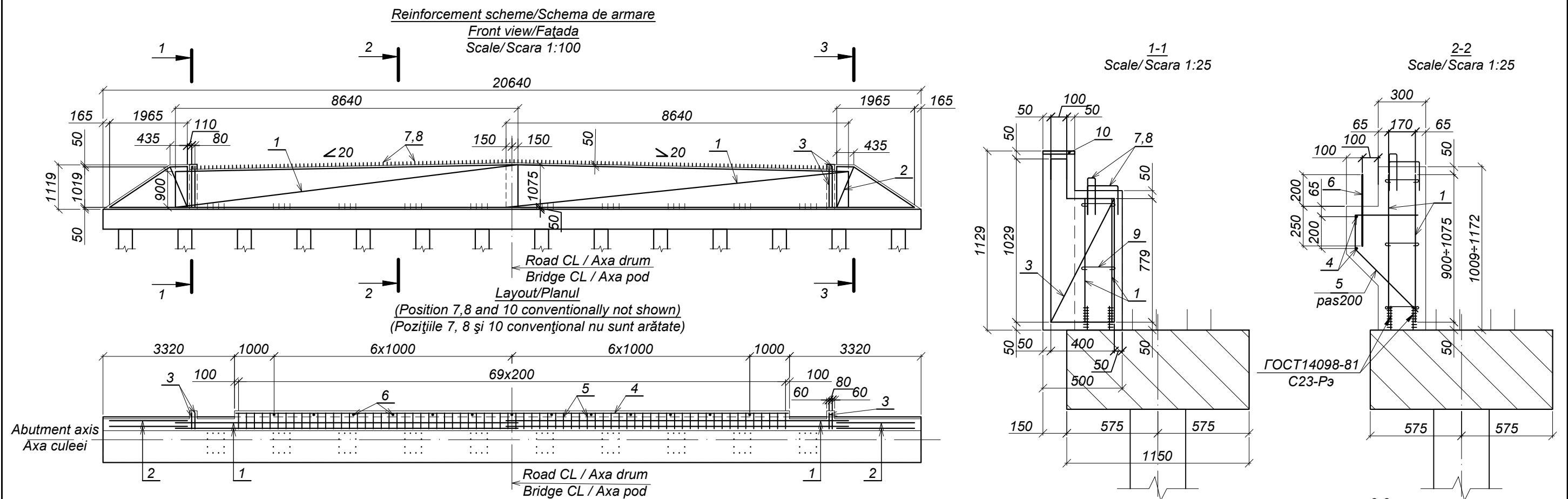
2-2  
Scale/Scara 1:25



Joint A/Nodul A  
Scale/Scara 1:10



World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector		Programme Support		Project			
Roughton International	Rehabilitation of R14 Road Balti-Sarateni		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title Bridge.Pod, Km 49 + 330 Protection wall PW-1 / Zid de gardă ZG-1		Checked	N.Tcaci		Drawing ZG-P-1	
			Control STAS	L.Pozdirca			



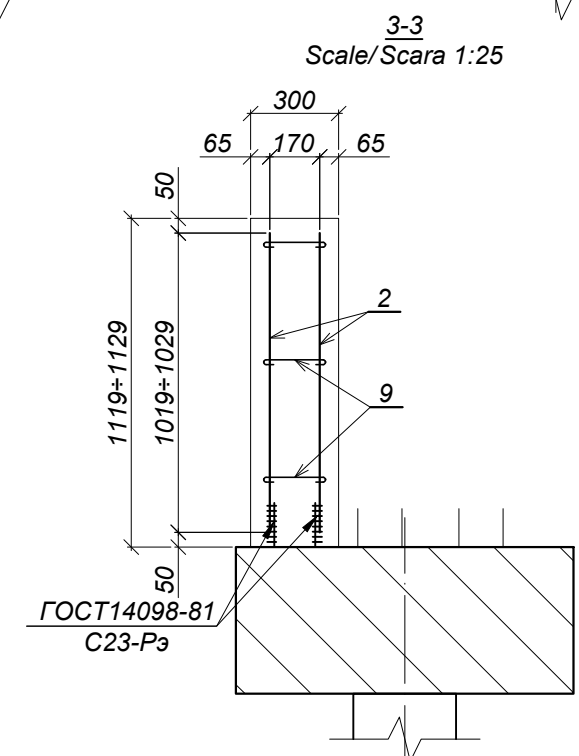
**Specification / Specificația**

Format	Zona / Position / Pозиția	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
<b>Assembly elements</b> <b>Elemente de asamblare</b>					
FP	1	ГОСТ23279-85	Steel grid 4C Plasă de oțel 4C 14 A-III-200 10 A-III-200 90÷107,5x864	4	8,53 m <sup>2</sup> 77,9 kg
	2	ГОСТ23279-85	Steel grid 4C Plasă de oțel 4C 14 A-III-200 10 A-III-200 102,8x196,5	4	1,23 m <sup>2</sup> 11,3 kg
	3	ГОСТ23279-85	Steel grid 4C Plasă de oțel 4C 10 A-III-100 10 A-III-100 102,8x40	4	0,34 m <sup>2</sup> 4,2 kg
<b>Parts/Piese</b>					
	4		A-III-10 ГОСТ 5781-82*, l=13900 25Г2С ГОСТ 5781-82*	2	8,6 kg
	5		A-III-12 ГОСТ 5781-82*, l=1170 25Г2С ГОСТ 5781-82*	70	1,0 kg
	6		A-I-25 ГОСТ 5781-82*, l=450 Cm3пс3 ГОСТ 380-94	13	1,8 kg
			A-I-10 ГОСТ 5781-82* Cm3пс3 ГОСТ 380-94		
	7		Reinforcement rod l=550	162	0,3 kg
	8		Reinforcement rod l=510	162	0,3 kg
	9		A-I-6 ГОСТ 5781-82*, l=350 Cm3пс3 ГОСТ 380-94	280	0,1 kg
	10	2009/032D - 00.05.00	Embedded base plate ПІ-2 Piesă înglobată ПІ-2	2	7,5 kg
<b>Materials/Materiale</b>					
		ГОСТ 26633-91*	Concrete/Beton cl.B25, F200, W6		7,45 m <sup>3</sup>

**Note/Notă:**  
 Protection layer/Stratul de protecție - 50 mm.

**Table of parts. Tabela pieselor**

Poz.	Draft / Schita
5	
7	
8	
9	



World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
Universcons	Drawing title <i>Bridge.Pod, Km 49 + 330</i>		Designed	A.Cecan		Scale	
	<i>Protection wall PW-1. Reinforcement scheme</i>		Checked	N.Tcaci		Drawing ZG-P-2	
	<i>Zid de gardă ZG-1. Schema de armare</i>		Control STAS	L.Pozdirca			



*List of executive drawings of the main set / Lista seturilor de bază a planșelor de execuție*

<i>Number Indicativ</i>	<i>Item / Denumirea</i>	<i>Note Notă</i>
2012/045D	Bridge / Lucrări de artă	

*List of executive drawings of the main set. Lista planșelor de execuție a setului de bază 2012/045D*

Drawing Planșa	Item / Denumirea	Note Notă
1	General data / Date generale	
2	General View. Front view / Dispoziție generală a podului. Fațada.	
3	General View. Top view / Dispoziția generală a podului. Planul	
4	General View. Section 1-1 / Dispoziția generală a podului. Secțiunea 1-1	
5	General View of abutment / Dispoziția generală a culeei	
6	Approach to the bridge / Racordarea podului cu drumul	
7	Consolidation of slopes and shoulders / Consolidarea taluzilor și acostamentelor	
8	Monolithic joint NM - 1 and NM - 2 /Nodul monolit NM-1 și NM-2	
9	Collar beam R - 1 / Rigla R-1	
10	Collar beam R - 1. Reinforcement scheme / Rigla R-1. Schema de armare	
11	Protection wall / Zid de gardă ZG-1	
12	Protection wall . Reinforcement scheme / Zid de gardă ZG-1. Schema de armare	
13	The drawings RD-P, PSCV-P, PSP-P, NIPR-P, SS-P, CC-P are common for all bridges Desenele RD-P, PSCV-P, PSP-P, NIPR-P, SS-P, CC-P se refera la toate podurile	See bridge km 64+756 Vezi podul km 64+756

The design is elaborated in accordance with the standards and requirements existing design rules /  
Proiectul este elaborat în conformitate cu cerințele normelor și  
regulelor în construcții în vigoare

Chief engineer /  
Inginer şef proiect compartiment

A. Cecan

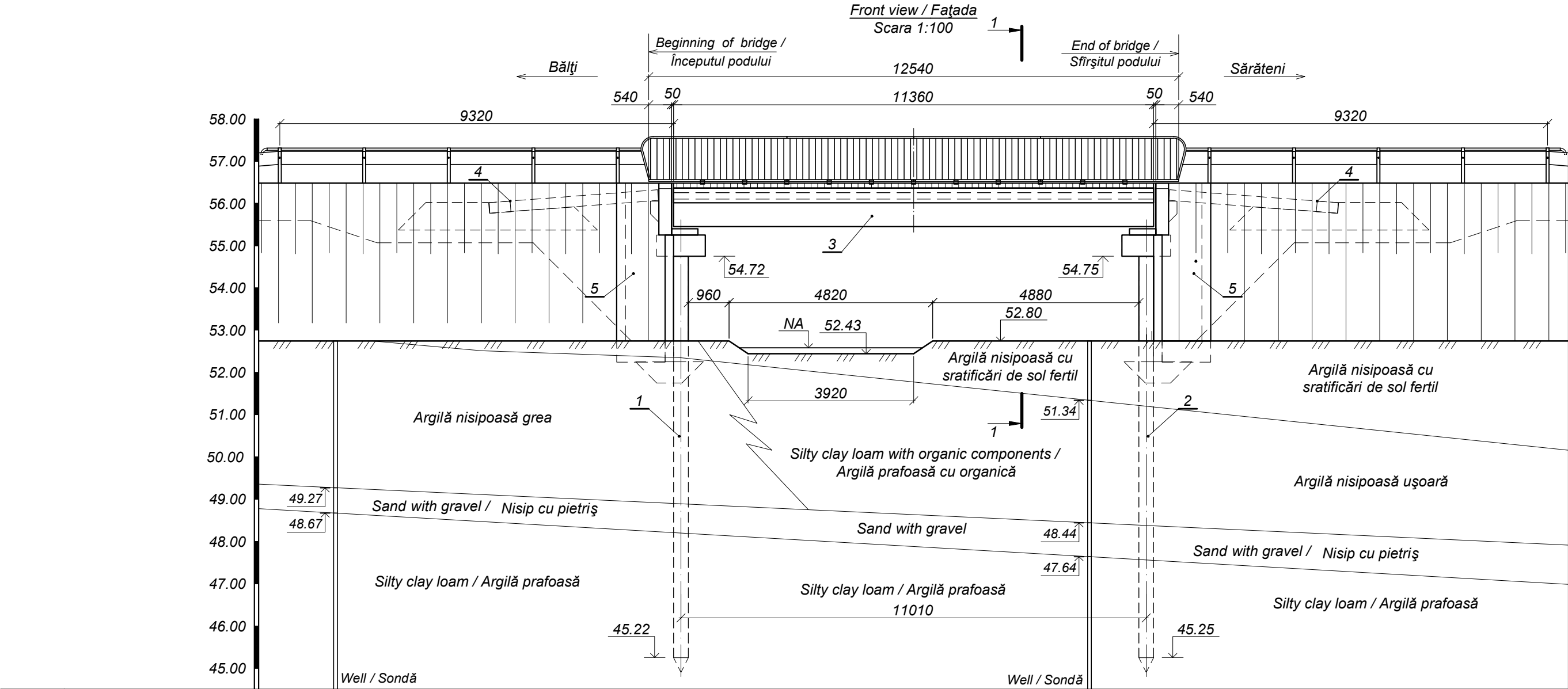
*List of reference documents / Lista documentelor de referință și anexate*

Document Number Indicativ	Item / Denumirea	Note Notă
	<u>Documente de referință</u>	
Серия 3.500.1-1.93	Сваи забивные железобетонные цельные сплошного квадратного сечения для опор мостов .	Piloți
Серия 3.503.1-81 Выпуски 1-1, 3-1	Пролетные строения сборные ж. б. длиной 12, 15, 18, 21, 24 и 33м из балок таврового сечения с предварительно напрягаемой арматурой для мостов и путепроводов	Parapet de siguranță și pietonal
Серия 3.503.1-101 Выпуск 0, 1	Изоляция проезжей части, перекрытие деформационных швов ж. б. строений длиной до 33м автодорожных мостов и путепроводов	Elementele căii podului
ALGA Bearing s and Expansion Joints	Expansion joints ALGAFLEX T instalation Procedure, 10.10.2005	Elemente de acoperire a rosturilor
Серия 3.501-156 Выпуски 0, 1	Укрепление русел, конусов и откосов насыпи у малых и средних мостов и водопропускных труб.	Protecția suprafețelor
BCH 24-88	Технические правила ремонта и содержания автомобильных дорог	Reparația betonului armat
BCH 32-81	Инструкция по устройству гидроизоляции конструкций мостов и труб на железных, автомобильных и городских дорогах	Izolarea suprafețelor de beton
СНиП 3.06.04-91	Мосты и трубы	Executarea lucrărilor

**Note / Notă:**

1. Design norms / Normele de proiectare: СНиП 2.05.03-84 "Мосты и Трубы", СНиП 2.05.02-85\* "Автомобильные дороги".
2. Road category / Categoria drumului auto - III. Bridge width / Gabaritul podului G-14,40+2x0,75 m.
3. Reference loading / Sarcina de calcul: A11 și HK-80.
4. Reference seismicity of construction / Seismicitatea de calcul a construcției - 7 grade.
5. Baltic Sea reference level system. As base is taken Rp26 - 89.738 at PC261+585, (kilometer stone- placed on right side shoulder, direction after stakes) / Sistem de cote Baltic. Drept bază servesc reperul Rp26 - 89.738 la PC261+585, (borna de marcare a kilometrajului, amplasată pe acostament din partea dreaptă, direcție după pichetare).
6. Decisive phases for checking and acceptance of repair works / Fazele determinante de verificare și recepție a lucrărilor de reparație:
  - Transmission of center line references, location and bench marks / Predarea trasării, amplasamentului și a bornelor de reper;
  - Infrastructure repair / Reparația infrastructurii (abutment / culeea 1, pile / pila 2, pile / pila 3, abutment / culeea 4);
  - Superstructure and bridge way works / Execuția suprastructurii și căii podului;
  - Approach to bridge works / Execuția racordării podului cu terasamentul.
7. Type of works, determined as hidden works shall be checked and accepted with the record of verification results in Reports of quality check / Genul de lucrări determinate ca lucrări ascunse ce urmează a fi verificate și recepționate cu consemnarea rezultatelor verificării în procese verbale de verificare a calității:
  - Determination and positioning of road center lines and elements / Trasarea și poziționarea axelor și elementelor;
  - Bases and footings / Temeliile și fundațiile;
  - Inspection of materials, semifabricates and parts at entrances / Examinarea materialelor, semifabricatelor și elementelor la intrare;
  - Reinforcement and concrete of parts, formworks / Armarea și betonarea elementelor, cofrajele;
  - Welding of metal parts / Sudarea elementelor metalice.

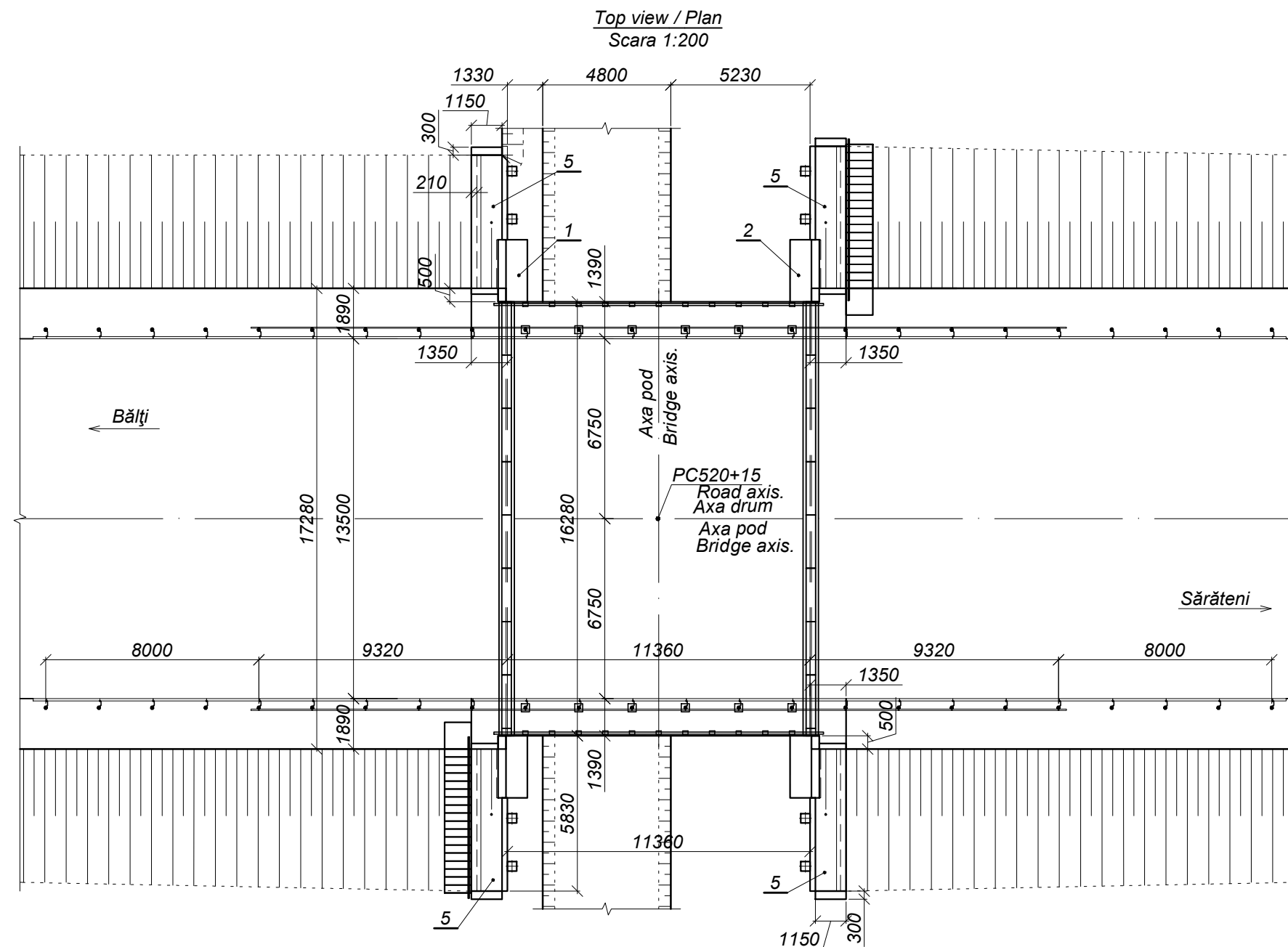
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 52 + 015</i> <i>General data / Date generale</i>	Checked	N.Tcaci		Drawing DG-P-1	
		Control STAS	L.Pozdirca			



Design data / Date proiect	Declivity, % Declivitatea, %	2,6		11,36	
	Distance, m / Distanța, m				
Land data / Date teren	Carriageway mark on axis, m Cota pe axa părții carosabile, m	56.61		56.64	
	Carriageway land mark on axis, m / Cota teren pe axa părții carosabile, m	53.00		53.00	
	Distance / Distanța, m	5,68		5,68	

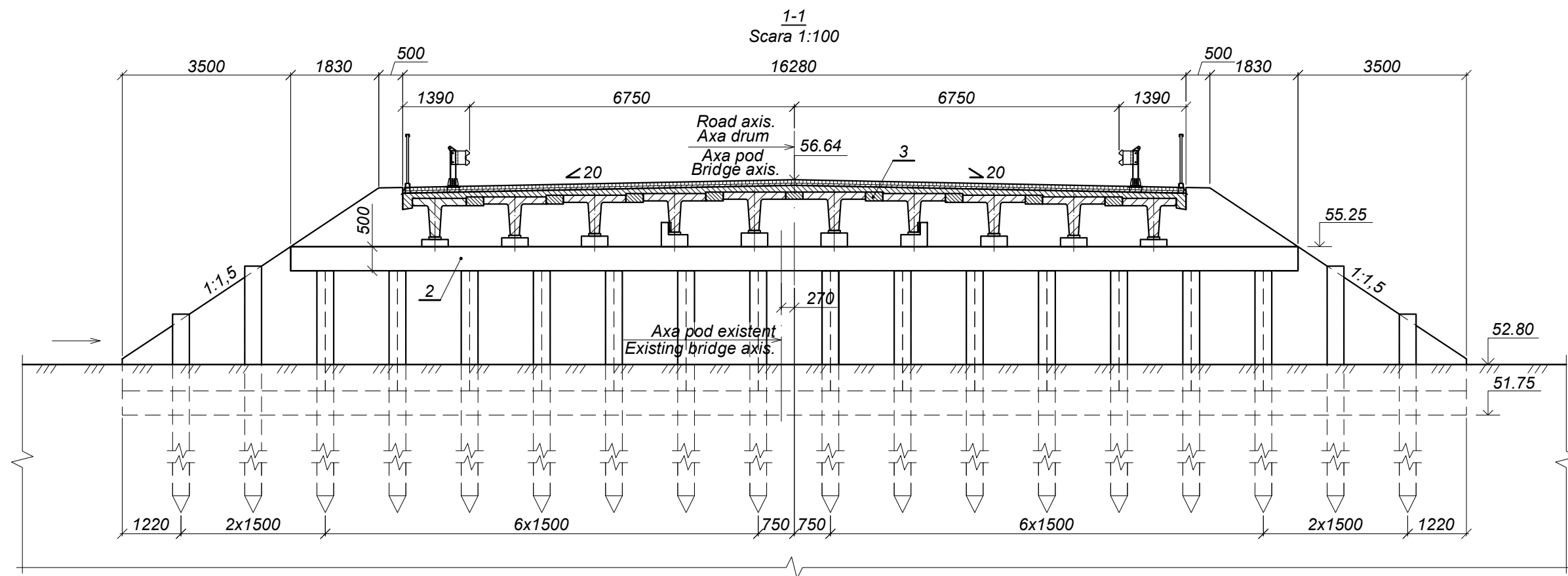
- 1 Abutment 1 / Culeea 1
- 2 Abutment 2 / Culeea 2
- 3 Superstructure and bridge way / Suprastructura și calea podului
- 4 Bridge approach slabs / Racordarea podului cu drumul
- 5 Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
		Road	Sector	Programme	Support	Project	
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title Bridge.Pod, Km 52 + 015 General View / Dispoziție generală Front view / Fațada	Checked	N.Tcaci		Drawing	F-P-1	
		Control STAS	L.Pozdirca				



- 1 Abutment 1 / Culeea 1
- 2 Abutment 2 / Culeea 2
- 5 Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor

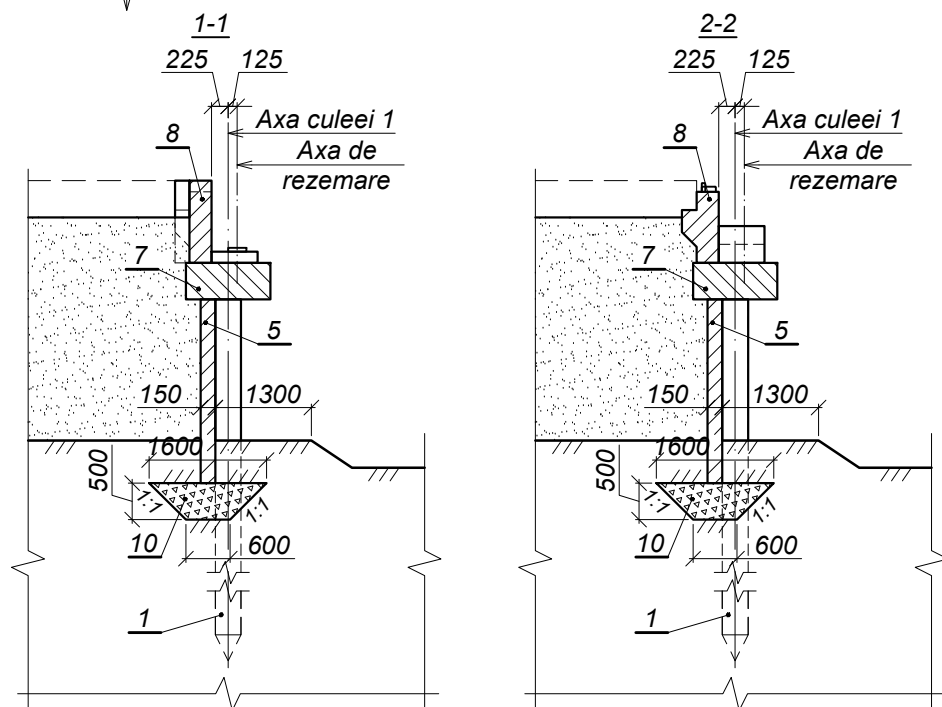
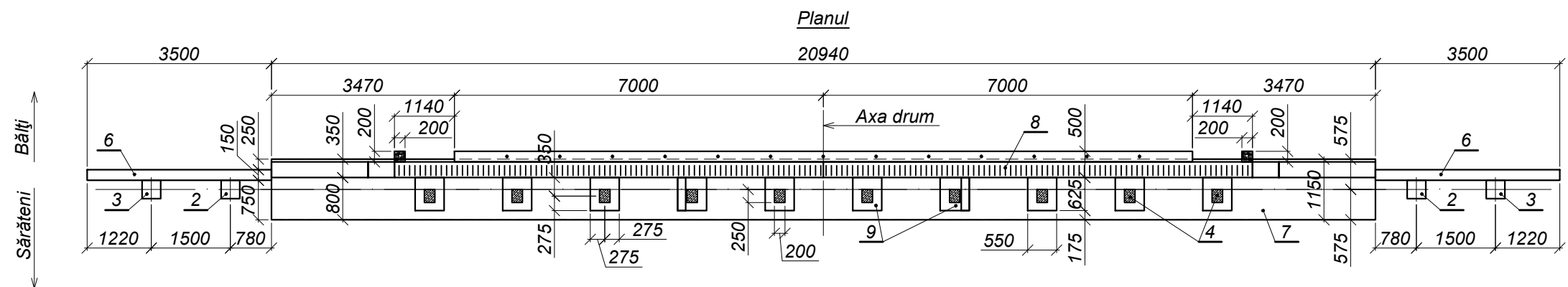
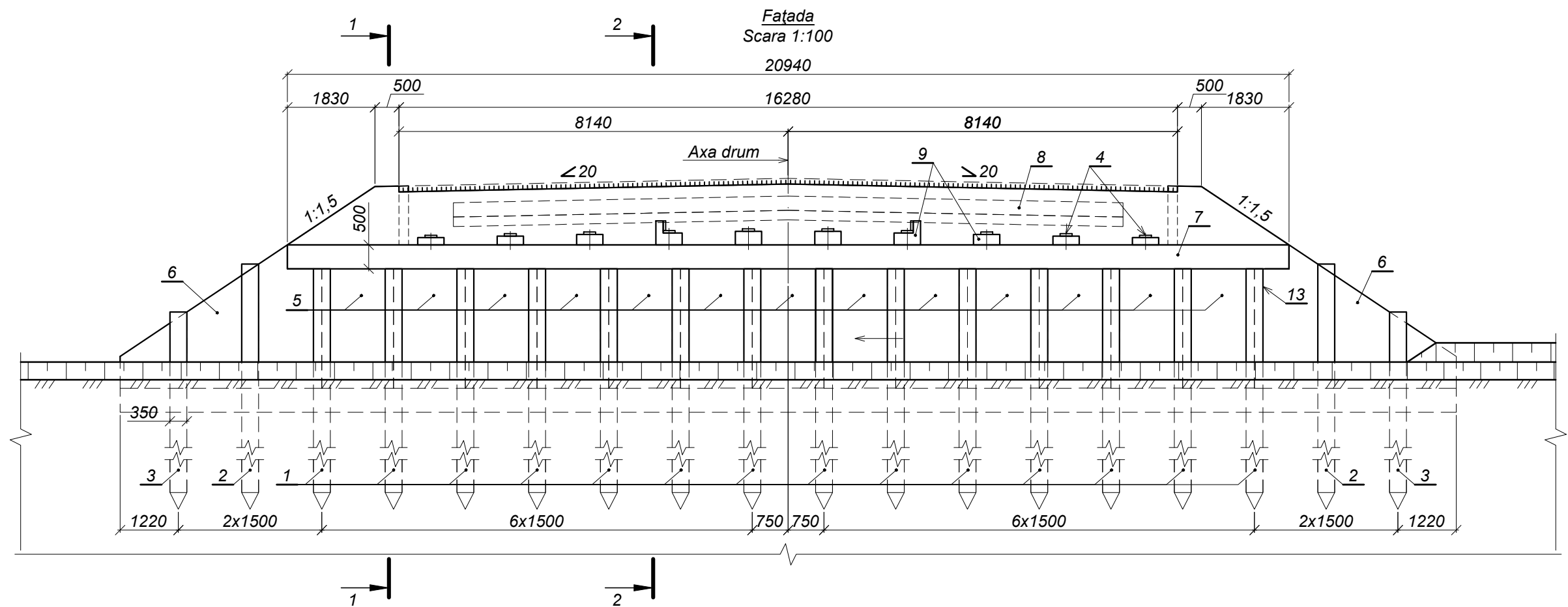
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 52 + 015</i> <i>General View / Dispoziție generală</i> <i>Top view / Plan</i>	Checked	N.Tcaci		Drawing P-P-1		
		Control STAS	L.Pozdirca				



2 Abutment 2 / Culeea 2

3 Superstructure and bridge way / Suprastructura și calea podului

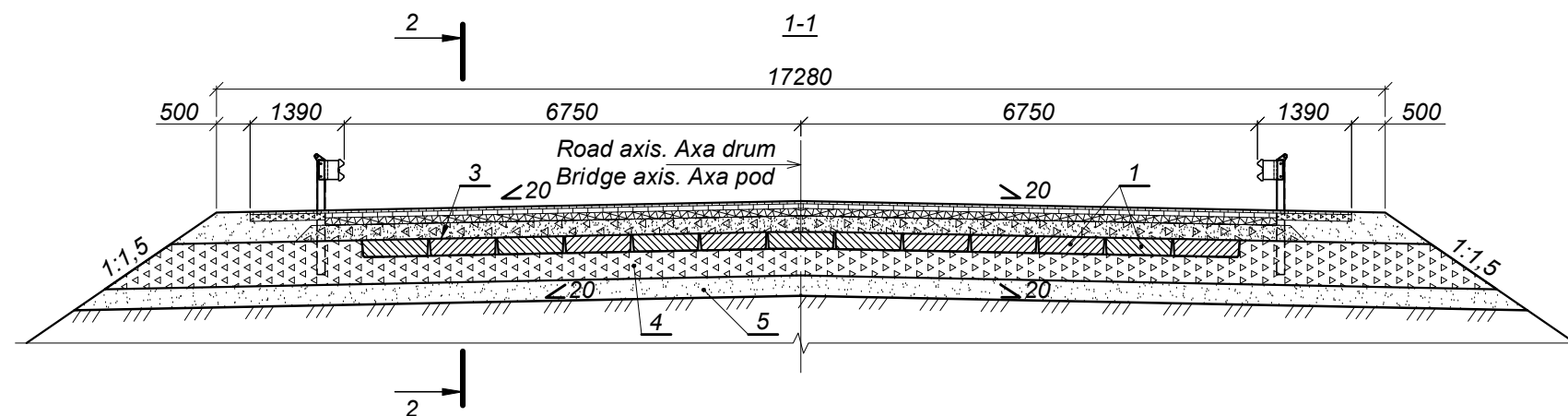
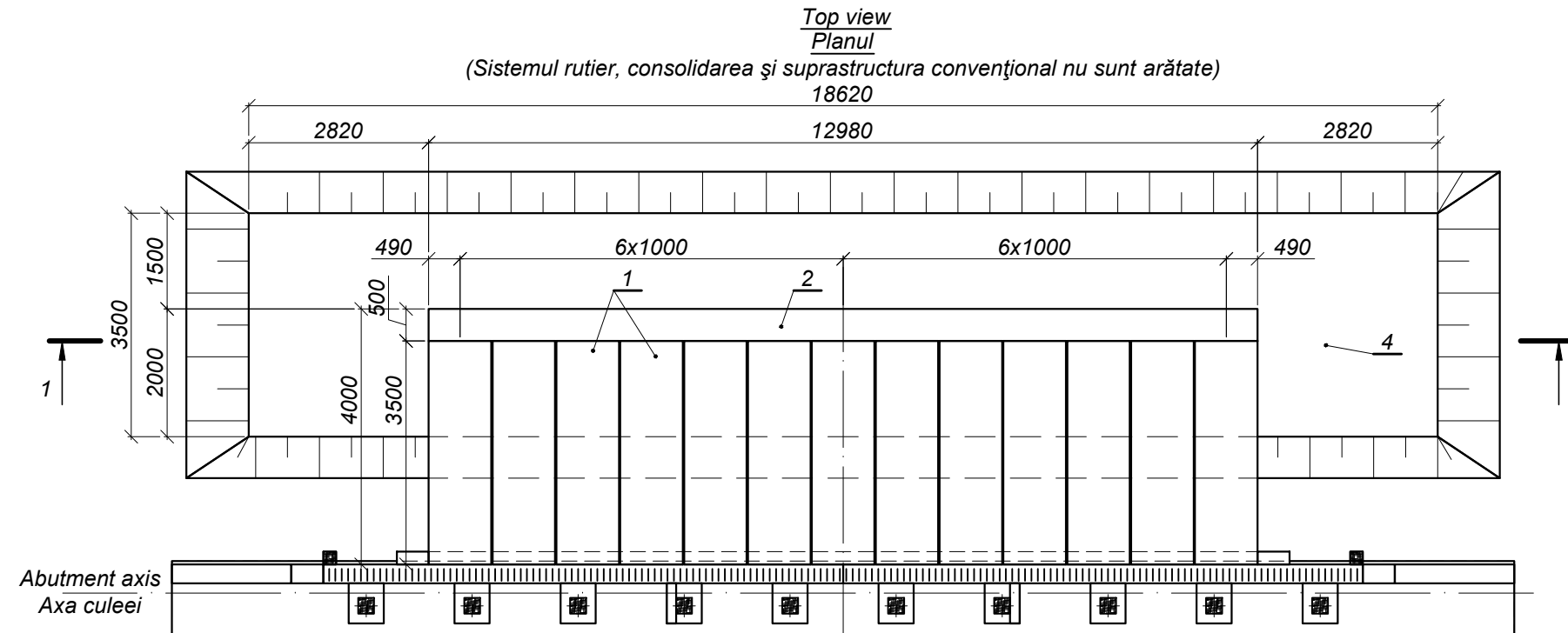
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 52 + 015 General View / Dispoziție generală Section 1-1 / Secțiunea 1-1</i>		Checked	N.Tcaci		Drawing S-P-1	
			Control STAS	L.Pozdirca			



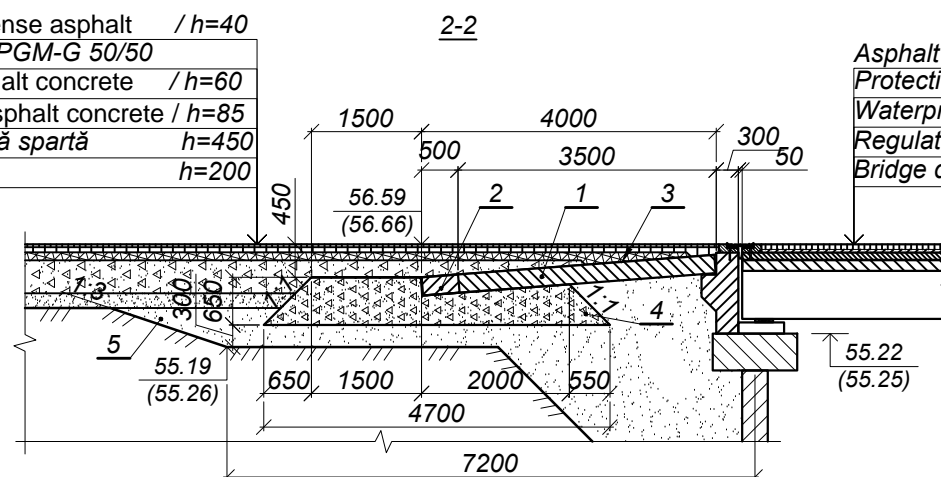
- 1 Pile / Pilot C10-35T4
- 2 Pile / Pilot C7-35T4
- 3 Pile / Pilot C6-35T4
- 4 Reinforced rubber bearing pads / Aparat de reazem din cauciuc PO4
- 5 Slab / Placa PM-1
- 6 Slab / Placa PM-2
- 7 Coller beam / Rigla R-1

- 8 Protection woll / Zid de gardă ZG-1
- 9 Seating bearing parts of abutment / Cuzineții culeei
- 10 Base courses of crushed granite / Pat de piatră spartă din granit, h=500

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme Support		Project		
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza	Date	04.2012
			Designed	A.Cecan	Scale	
Universcons	Drawing title Bridge.Pod, Km 52 + 015 General View of abutment Dispoziție generală a culeei		Checked	N.Tcaci	Drawing C-P-1	
			Control STAS	L.Pozdirca		



Fine grained dense asphalt	/ h=40
Geocomposite PGM-G 50/50	
Fine grained porous asphalt concrete	/ h=60
Coarse grained porous asphalt concrete	/ h=85
Crushed stone / Piatră spartă	h=450
Sand / Nisip	h=200

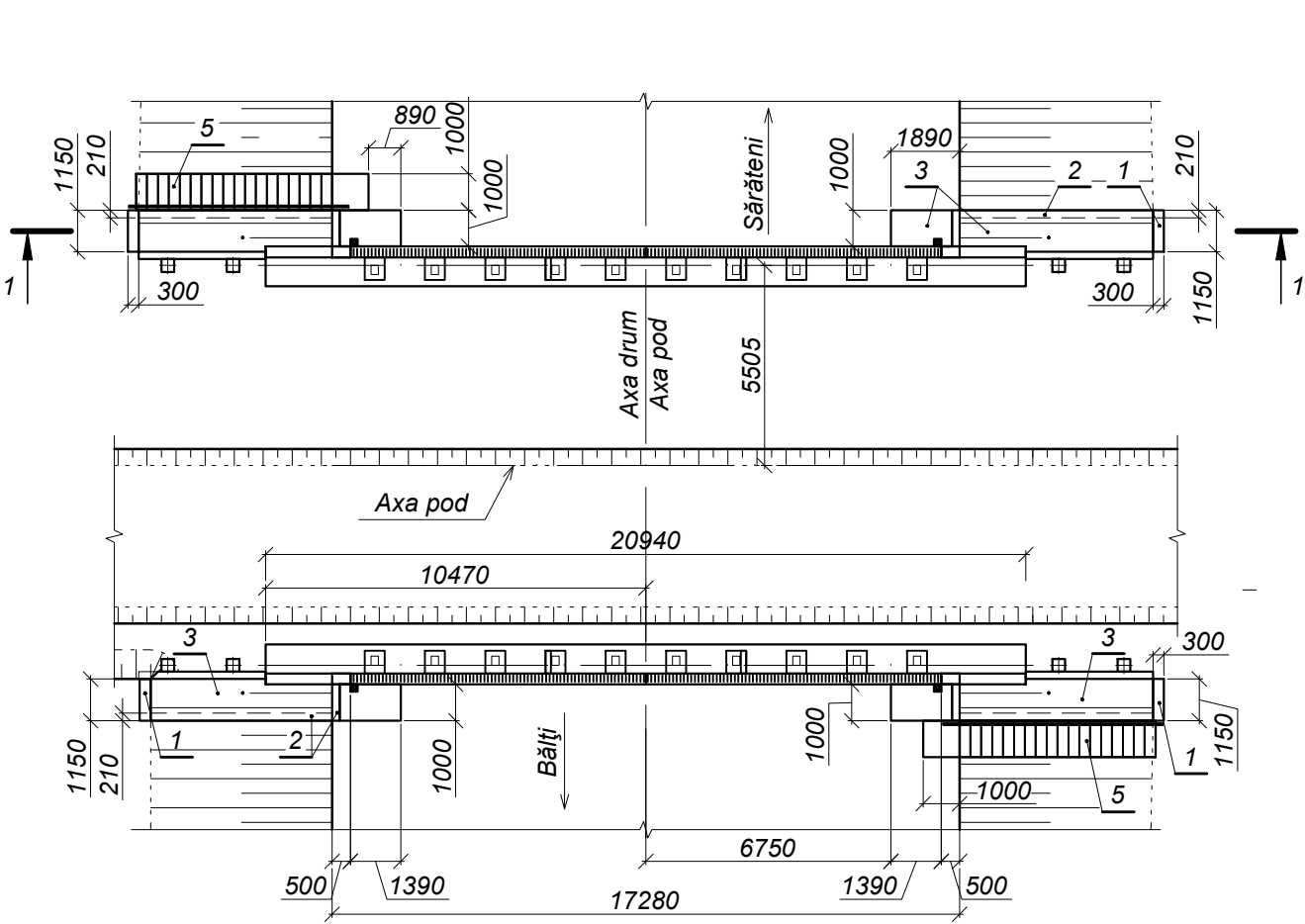


Asphalt pavement / Îmbrăcămintă asfaltică	h=70
Protective layer / Strat de protecție	h=40
Waterproofing / Hidroizolația	h=5
Regulating concrete / Strat de egalizare	> 30
Bridge deck / Placa grinzii	h=150

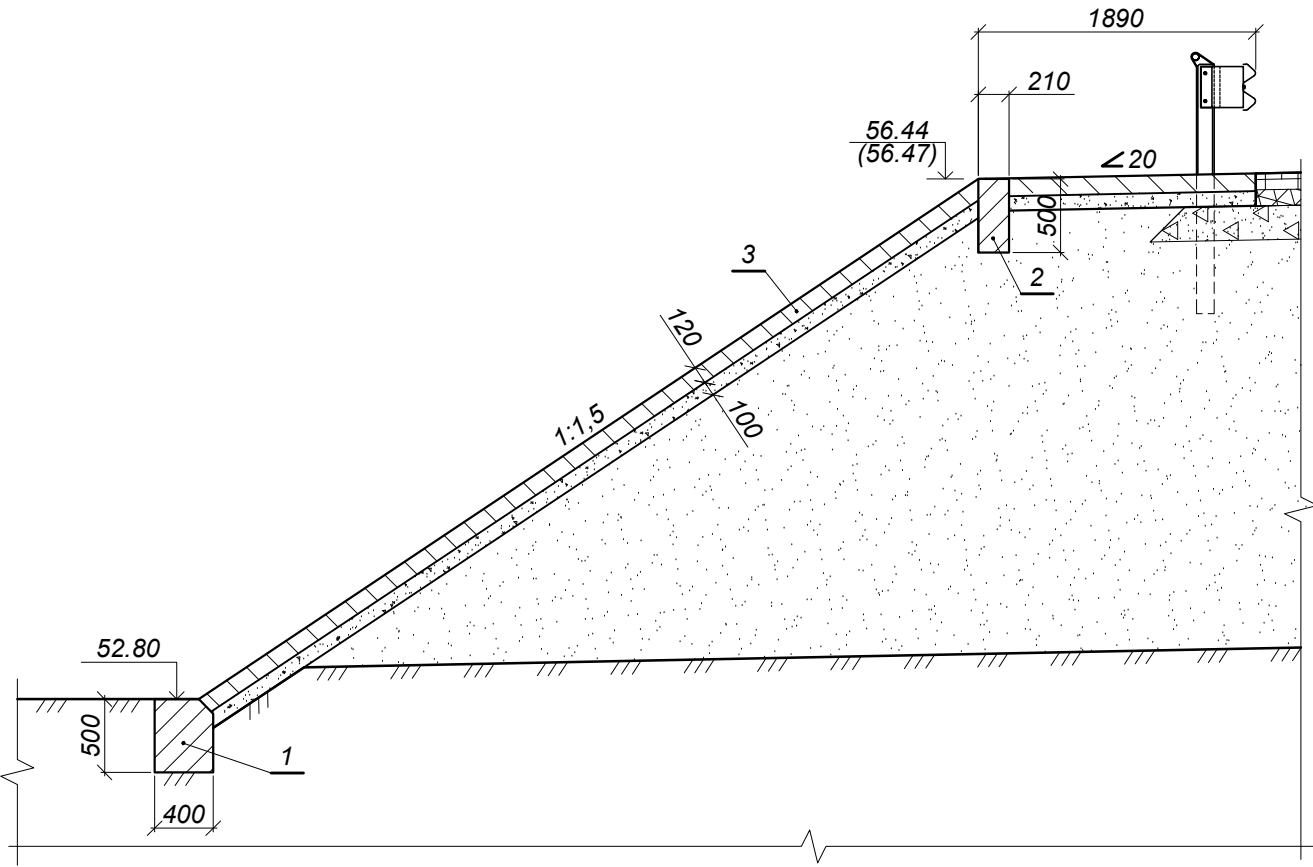
- 1 Approach slab / Dala de racordare П400.98.25-TAIII
- 2 Connecting joint of approaching slabs / Nodul de îmbinare a plăcilor de racordare
- 3 Waterproofing of approaching parts / Hidroizolarea elementelor de racordare
- 4 Crushed stone bed / Pat din piatră spartă
- 5 Sand with gravel mix / Amestec de nisip cu pietris

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme Support		Project		
Roughton International	Rehabilitation of R14 Road Balti-Sarateni	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title Bridge.Pod, Km 52 + 015 Approach to the bridge Racordarea podului cu drumul	Checked	N.Tcaci		Drawing RP-P-1	
		Control STAS	L.Pozdirca			

Top view  
Planul  
(Calea podului și suprastructura convențional nu sunt arătate)  
Scara 1:200



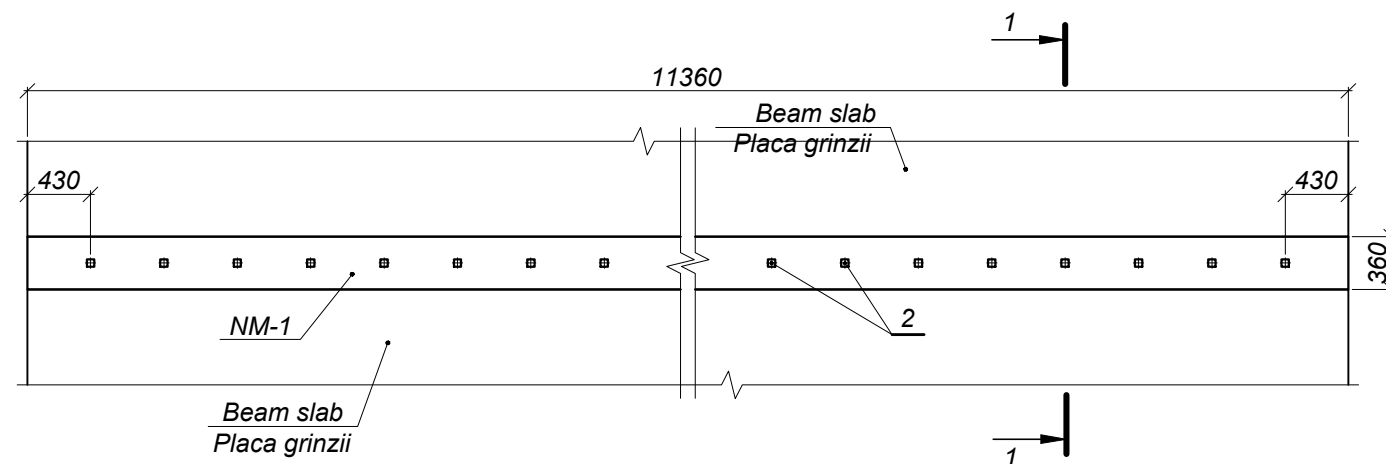
1-1  
Scara 1:50



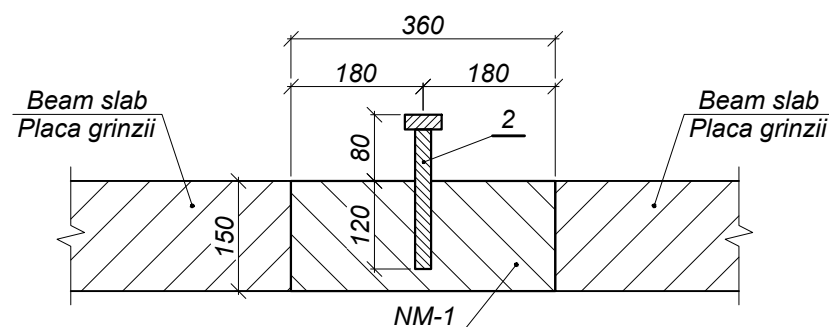
- 1 Concrete spur / Pinten din beton cl. B20, F200, W6, sec. 40x50cm, L=4,60 m
- 2 Concrete spur / Pinten din beton cl. B20, F200, W6, sec. 21x50cm, L=28,90 m
- 3 Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor cu beton armat cl.B20,F200, W6,h=12cm pe pat de granit h=10cm
- 5 Acces stairs on the slope / Scară de serviciu S-1

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road		Sector	Programme	Support	Project	
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza	Date	04.2012
			Designed	A.Cecan	Scale	
Universcons	Drawing title Bridge.Pod, Km 52 + 015 Consolidation of slopes and shoulders Consolidarea taluzilor și acostamentilor		Checked	N.Tcaci	Drawing CTA-P-1	
			Control STAS	L.Pozdirca		

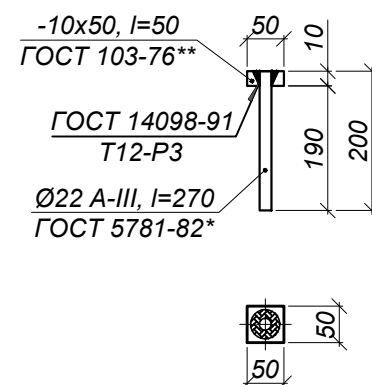
Formwork. Monolithic joint  
Nodul monolit NM - 1  
Schema de cofraj  
Plan  
Scara 1:50



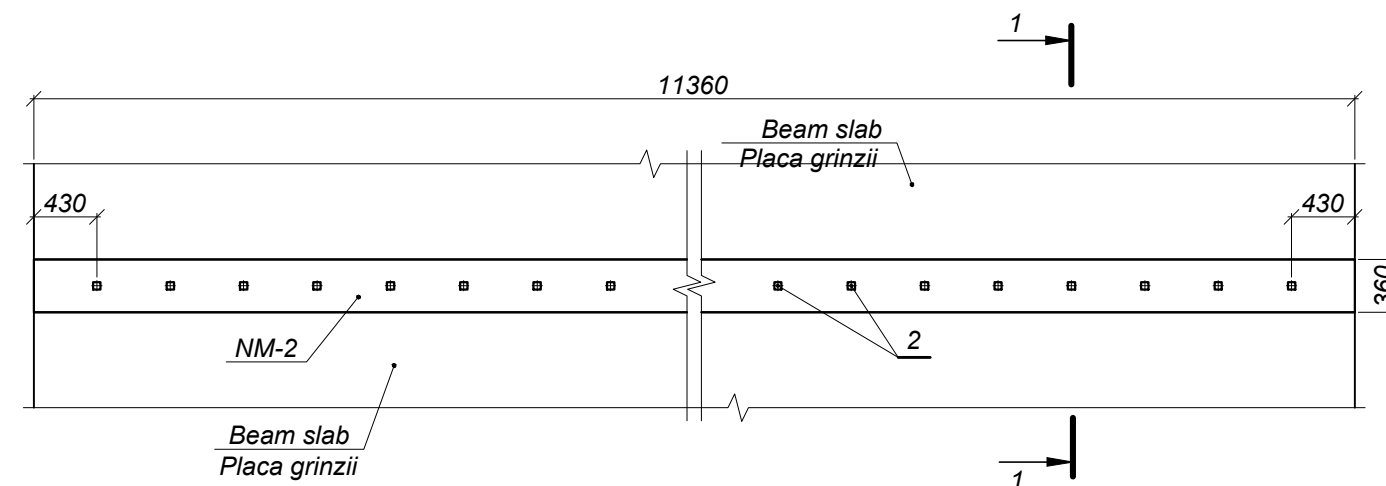
1-1  
Scara 1:10



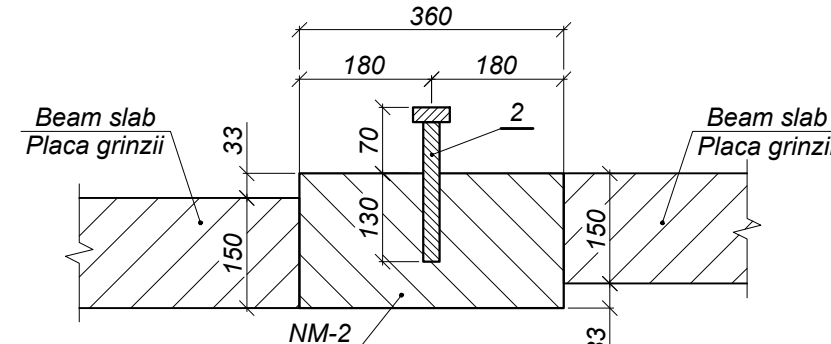
Poz. 2  
Scara 1:10



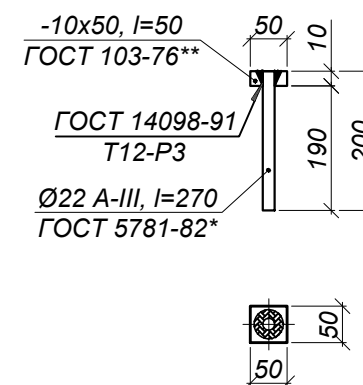
Formwork. Monolithic joint  
Nodul monolit NM - 2  
Schema de cofraj  
Plan  
Scara 1:50



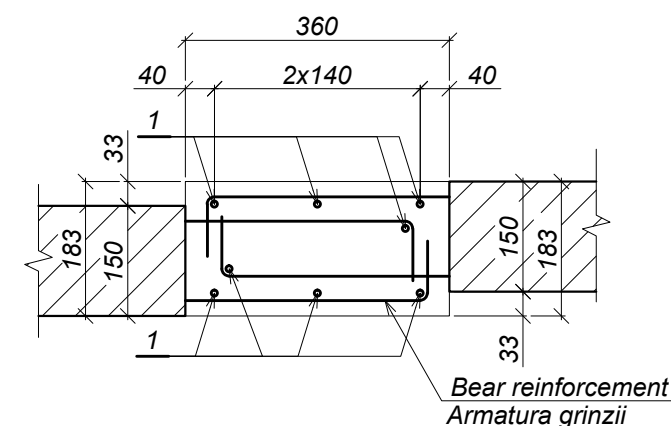
1-1  
Scara 1:10



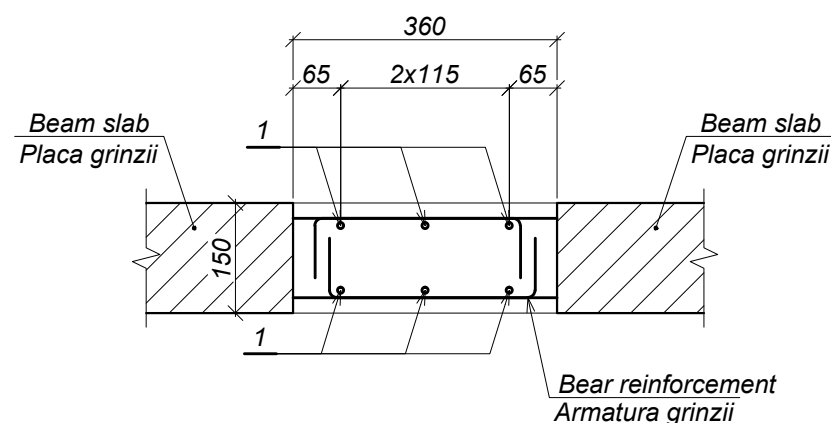
Poz. 2  
Scara 1:10



Reinforcement scheme  
Schema de armare  
Scara 1:10



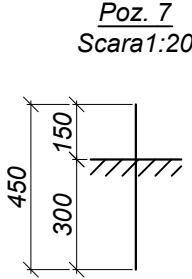
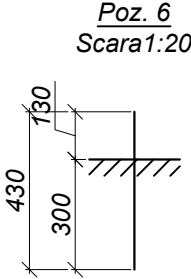
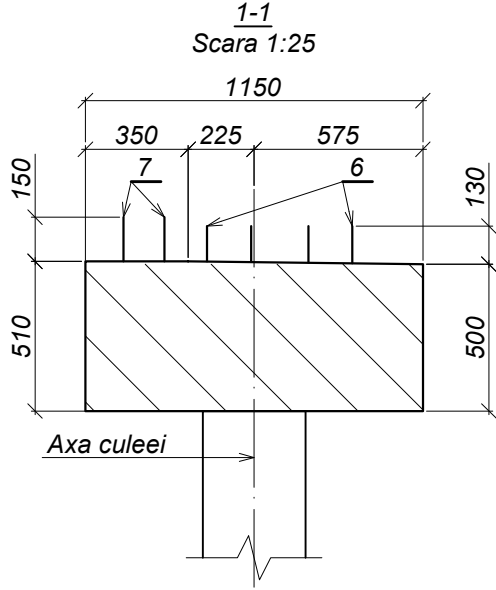
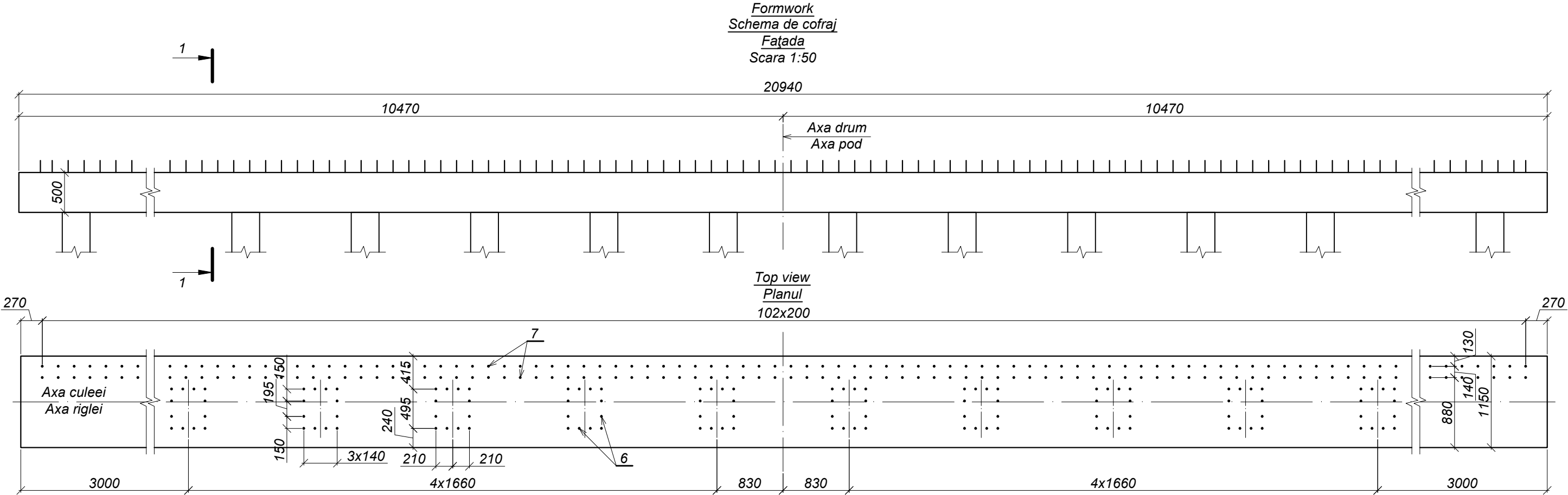
Reinforcement scheme  
Schema de armare  
Scara 1:10



- 1 Reinforcement rod l=11300  
2 Connector / Conectorul 1

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 52 + 015 Monolithic joint NM - 1 and NM - 2 Nodul monolit NM - 1 si NM - 2</i>		Checked	N.Tcaci		Drawing NM-P-1	
			Control STAS	L.Pozdirca			





- 6 Reinforcement rod l=430
- 7 Reinforcement rod l=450

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 52 + 015</i> <i>Collar beam R - 1</i> <i>Rigla R - 1</i>	Checked	N.Tcaci		Drawing R-P-1		
		Control STAS	L.Pozdirca				

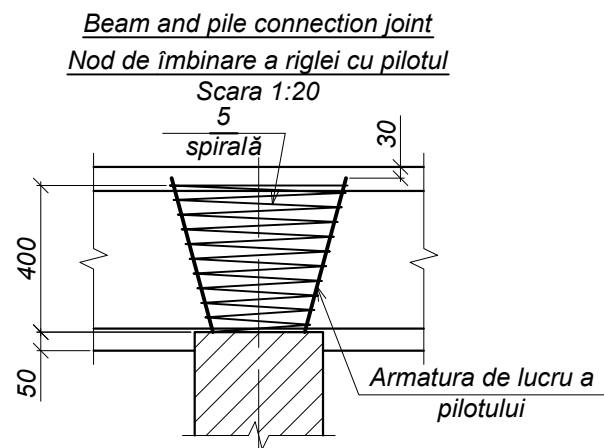
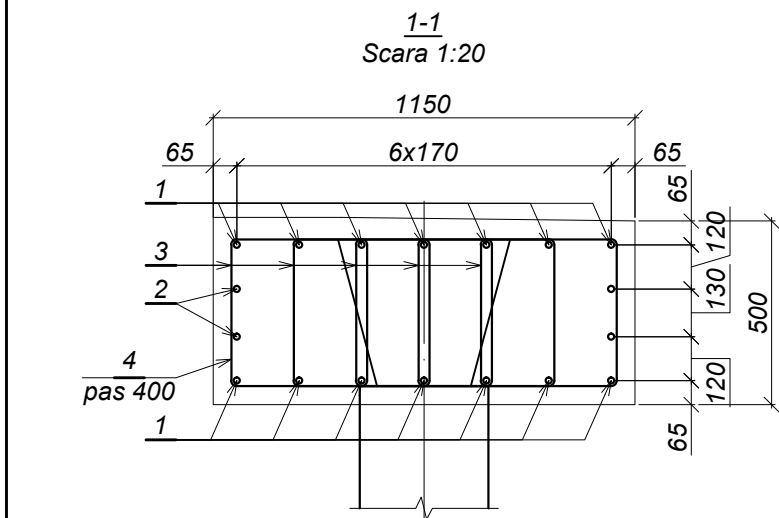
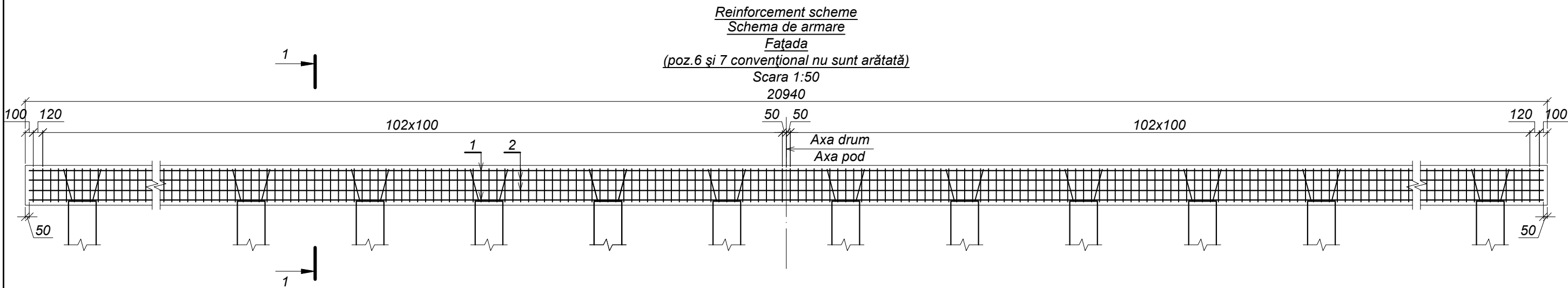


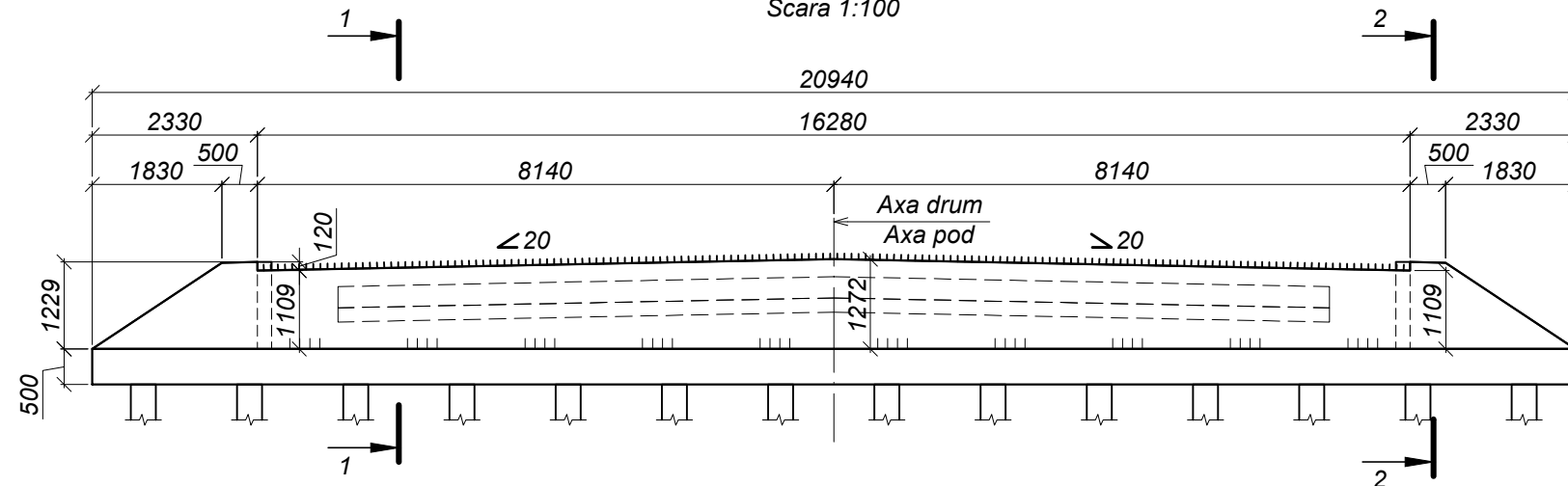
Table of elements. Tabela pieselor

Poz.	Eschiz
3	
4	

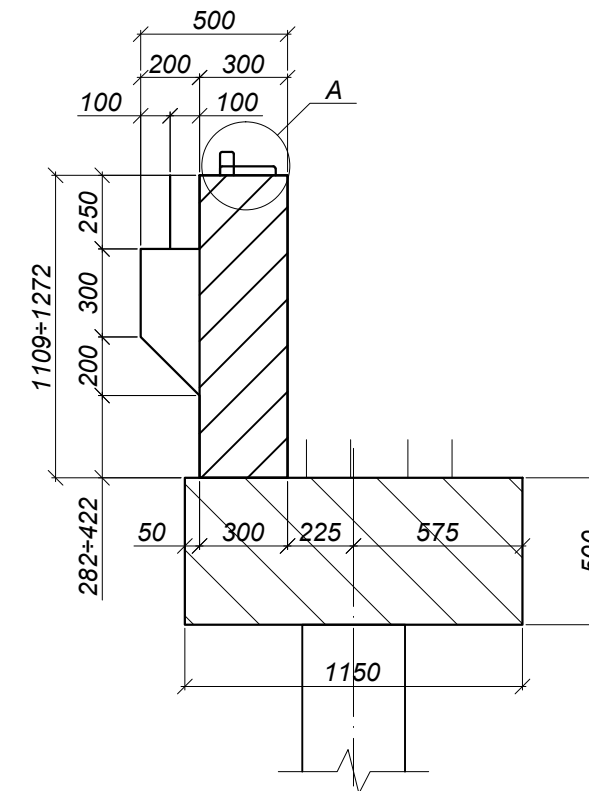
- 1 Reinforcement rod l=21440
- 2 Reinforcement rod l=20840
- 3 Reinforcement rod l=1720
- 4 Reinforcement rod l=3080
- 5 Reinforcement rod l=35000

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support	Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 52 + 015</i> <i>Collar beam R - 1. Reinforcement scheme</i> <i>Rigla R - 1. Schema de armare</i>	Checked	N.Tcaci		Drawing R-P-2		
		Control STAS	L.Pozdirca				

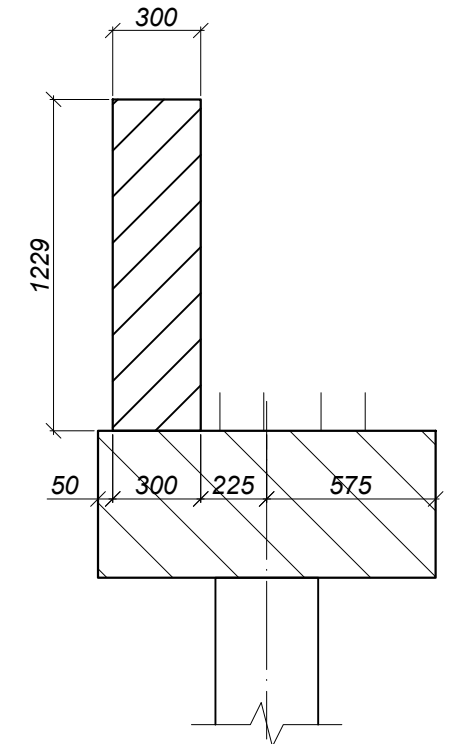
Formwork  
Schema de cofraj  
Fațada  
Scara 1:100



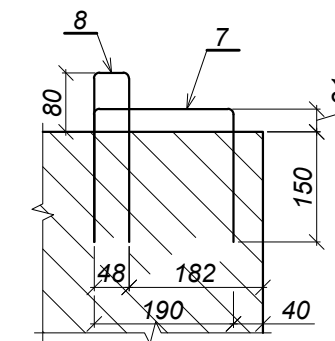
1-1  
Scara 1:25



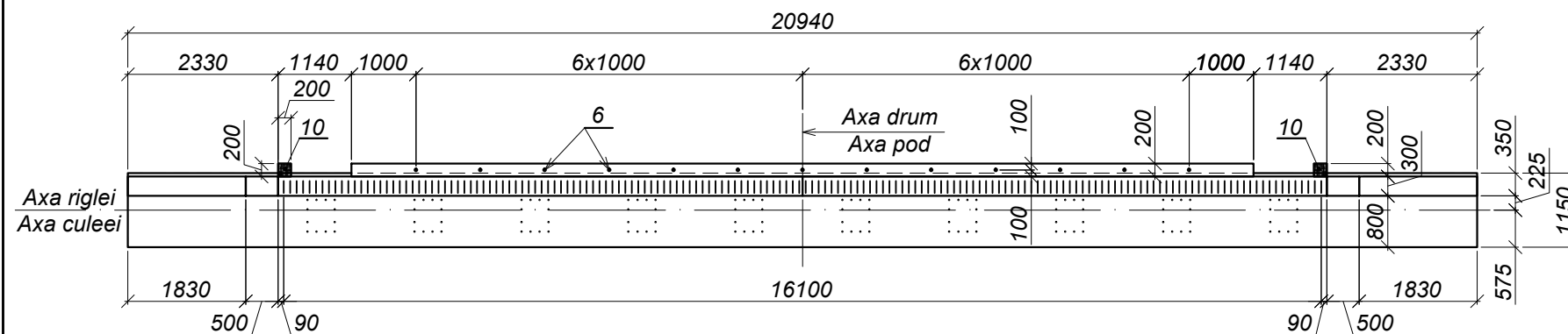
2-2  
Scara 1:25



Nodul A  
Scara 1:10

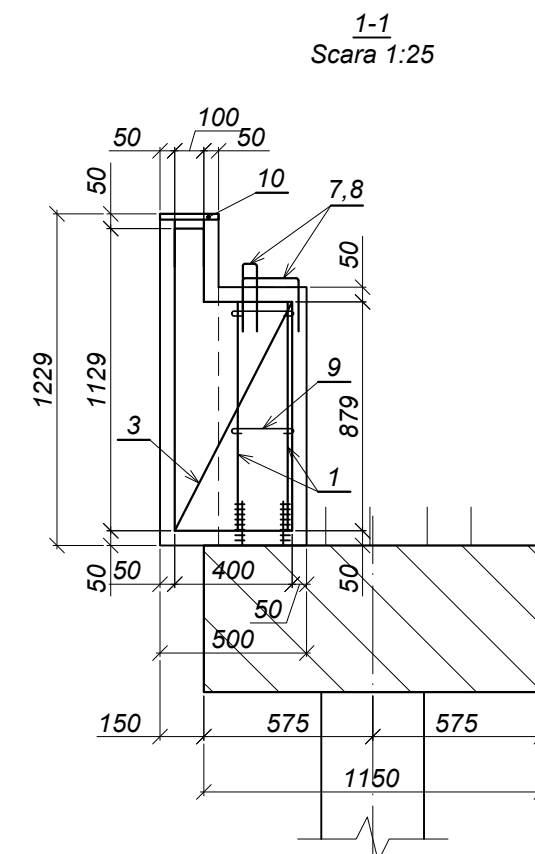
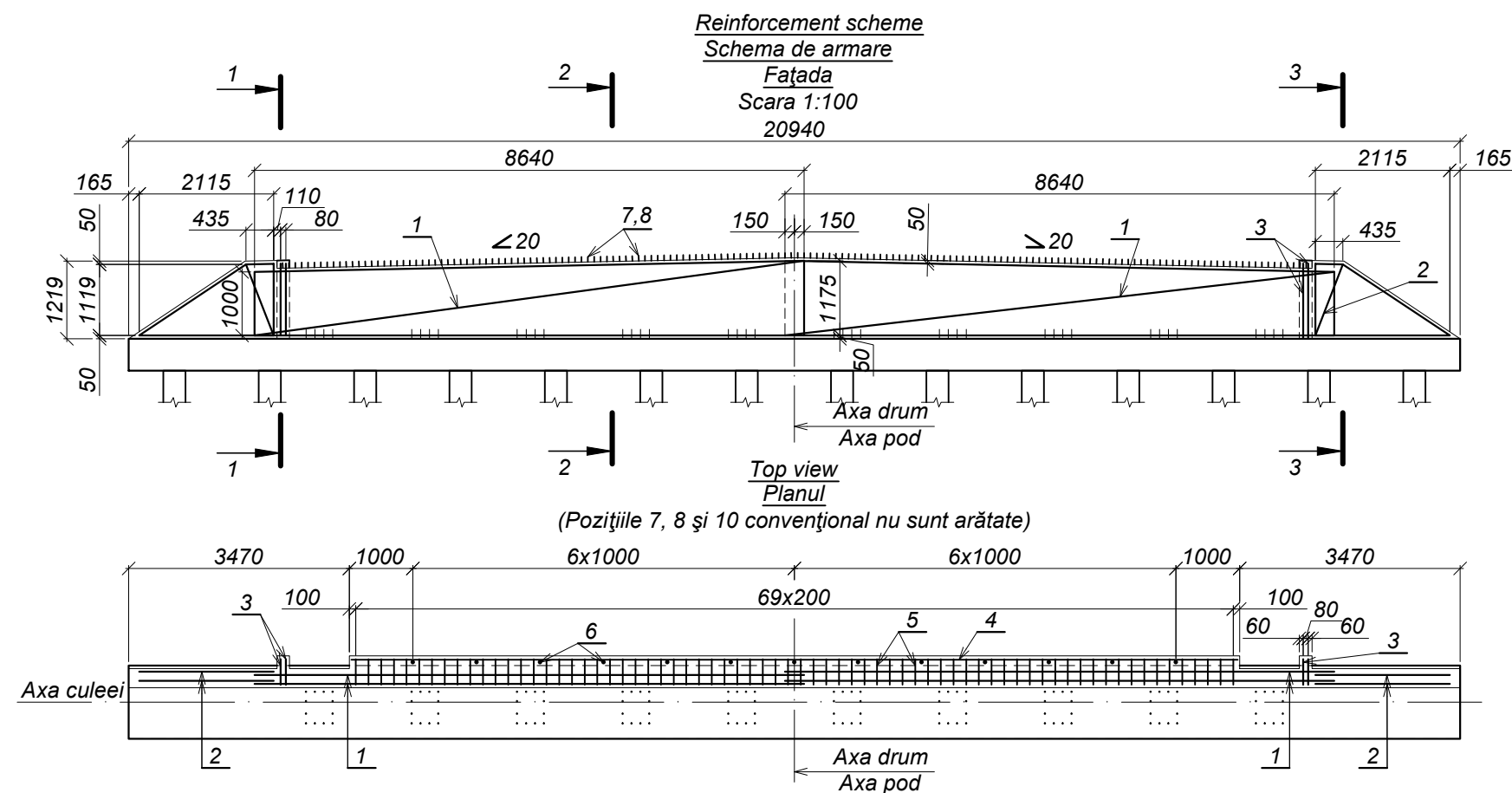


Top view  
Planul



- 6 Reinforcement rod l=450
- 7 Reinforcement rod l=550
- 8 Reinforcement rod l=510
- 10 Embedded base plate / Piesă înglobată PÎ-2

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road      Sector      Programme      Support      Project						
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 52 + 015</i> <i>Protection wall</i> <i>Zid de gardă ZG - 1</i>	Checked	N.Tcaci		Drawing ZG-P-1	
		Control STAS	L.Pozdirca			



**2-2**  
**Scara 1:25**

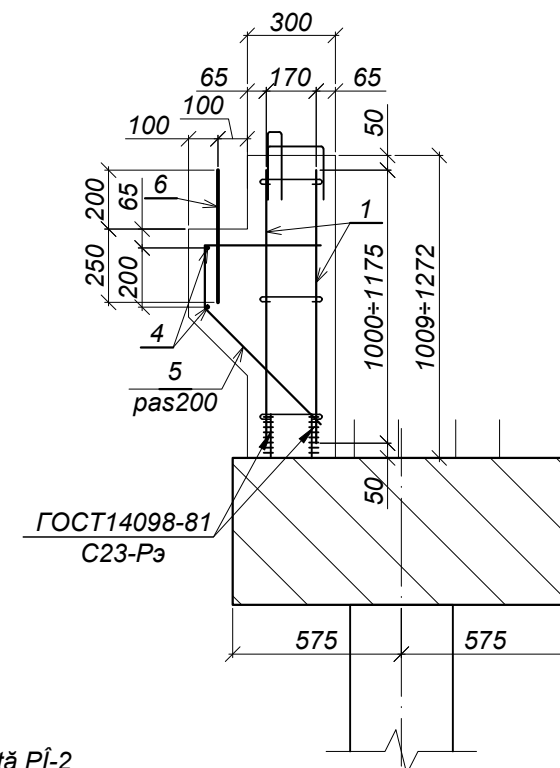
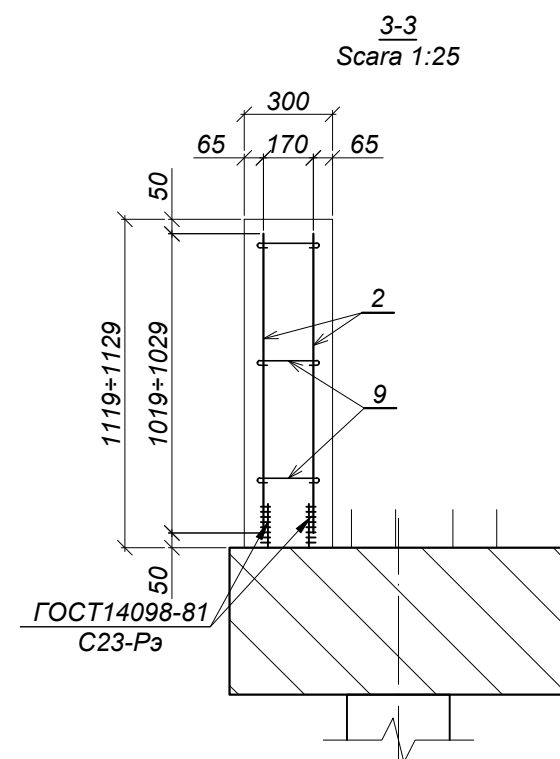


Table of elements. Tabela pieselor

Poz.	Eschiz
5	
7	
8	
9	



- 1 Steel grid /Plasă de oțel  
100÷117,5x864
- 2 Steel grid /Plasă de oțel  
112.9x211,5
- 3 Steel grid /Plasă de oțel  
112.9x40
- 4 Reinforcement rod l=13900
- 5 Reinforcement rod l=1170
- 6 Reinforcement rod l=450
- 7 Reinforcement rod l=550
- 8 Reinforcement rod l=510
- 9 Reinforcement rod l=350
- 10 Embedded base plate / Piesă înglobată PÎ-2

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme	Support	Project		
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza	Date	04.2012
			Designed	A.Cecan	Scale	
Universcons	Drawing title Bridge.Pod, Km 52 + 015 Protection wall . Reinforcement scheme Zid de gardă ZG - 1. Schema de armare		Checked	N.Tcaci	Drawing ZG-P-2	
			Control STAS	L.Pozdirca		

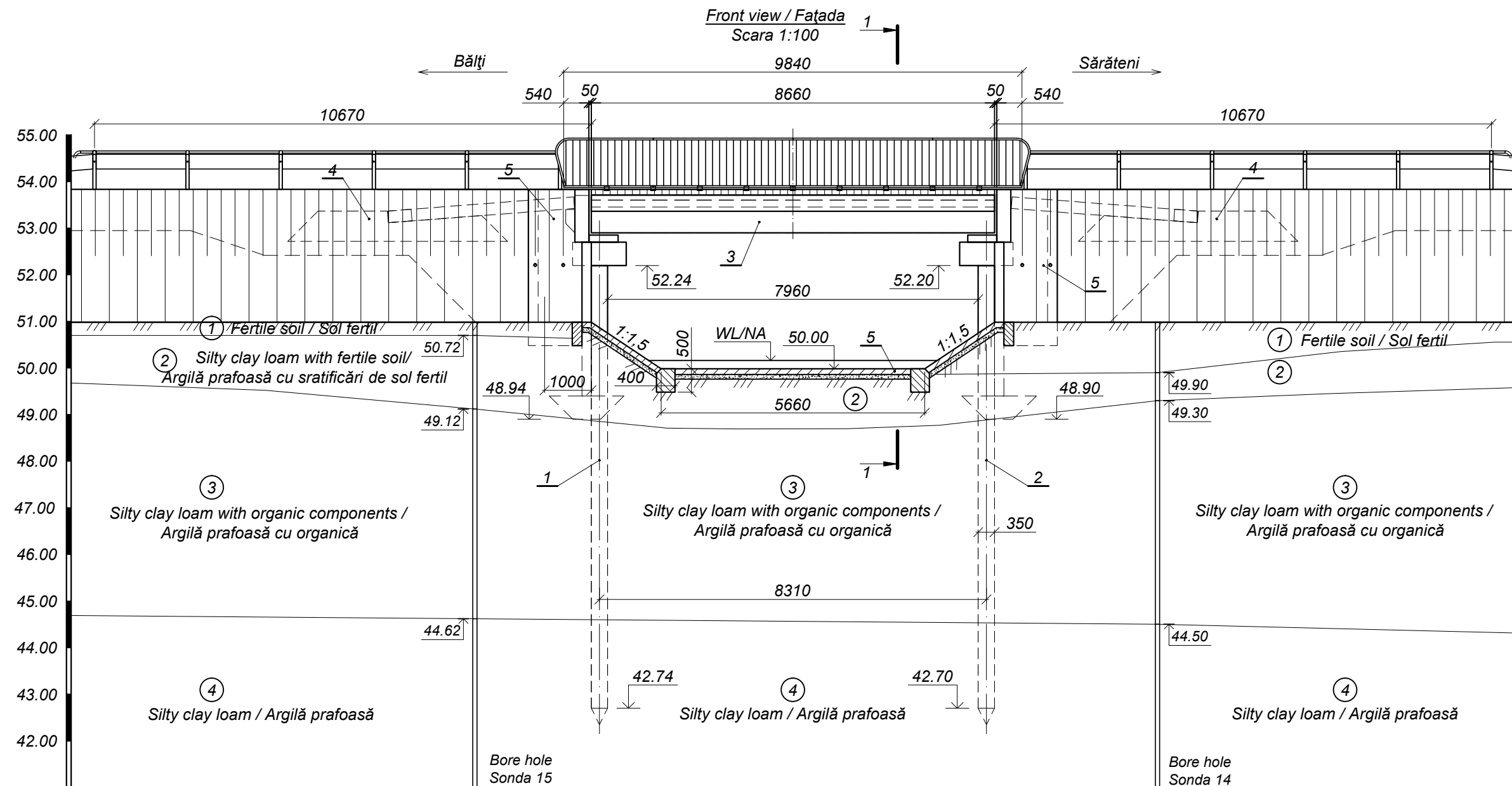
List of executive drawings of the main set. Lista planșelor de execuție a setului de bază		
Drawing Planșa	Item Denumirea	Note Notă
1	General data / Date generale	DG-1
2	General view of the bridge. Facade / Dispoziție generală a podului. Fațada	F-P-1
3	General view of the bridge. Plan / Dispoziție generală a podului. Planul	P-P-1
4	General view of the bridge. Section 1-1 / Dispoziție generală a podului. Secțiunea 1-1	S-P-1
5	General view of the abutment 1 / Dispoziția generală a culeei 1	C-P-1
6	Approach to bridge at abutment 1 and 2 / Racordarea podului cu drumul la culeea 1 și 2	RP-P-1
7	Consolidation of riverbeds and shoulders/Consolidarea albiei și a acostamentelor	CAA-P-2
8	Detail NM-1 / Nodul NM-1	NM-P-1
9	Detail NM-2 / Nodul NM-2	NM-P-2
10	Collar beam R-1/ Rigla R-1	R-P-1
11	Protection wall ZG-1 / Zid de gardă ZG-1	ZG-P-1
12	The drawings RD-P, PSCV-P, PSP-P, NIPR-P, SS-P, CC-P are common for all bridges Desenele RD-P, PSCV-P, PSP-P, NIPR-P, SS-P, CC-P se refera la toate podurile	See bridge km 64+756 Vezi podul km 64+756

List of reference documents / Lista documentelor de referință și anexate						
Document Number Indicativ	Item / Denumirea	Note Notă				
	Reference documents / Documente de referință					
Серия 3.500.1-1.93	Сваи забивные железобетонные цельные сплошного квадратного сечения для опор мостов .	Piles /Piloți				
Серия 3.503.1-81 Выпуски 1-1, 3-1	Пролетные строения сборные ж. б. длиной 12, 15, 18, 21, 24 и 33м из балок таврового сечения с предварительно напрягаемой арматурой для мостов и путепроводов	Pedestrian guardrail /Parapet de siguranță și pietonal				
Серия 3.503.1-101 Выпуск 0, 1	Изоляция проезжей части, перекрытие деформационных швов ж. б. строений длиной до 33м автодорожных мостов и путепроводов	Bridgeway parts /Elementele căii podului				
ALGA Bearing s and Expansion Joints	Expansion joints ALGAFLEX T instalation Procedure, 10.10.2005	Joint filling elements / Elemente de acoperire a rosturilor				
Серия 3.501-156 Выпуски 0, 1	Укрепление русел, конусов и откосов насыпи у малых и средних мостов и водопропускных труб.	Surface protection /Protecția suprafețelor				
BCH 24-88	Технические правила ремонта и содержания автомобильных дорог	Reinforced concrete repair /Reparația betonului armat				
BCH 32-81	Инструкция по устройству гидроизоляции конструкций мостов и труб на железных, автомобильных и городских дорогах	Waterproofing of concrete surfaces / Izolarea suprafețelor de beton				
СНУП 3.06.04-91	Мосты и трубы	Bridge, culvert works / Executarea lucrărilor				

Note / Notă:

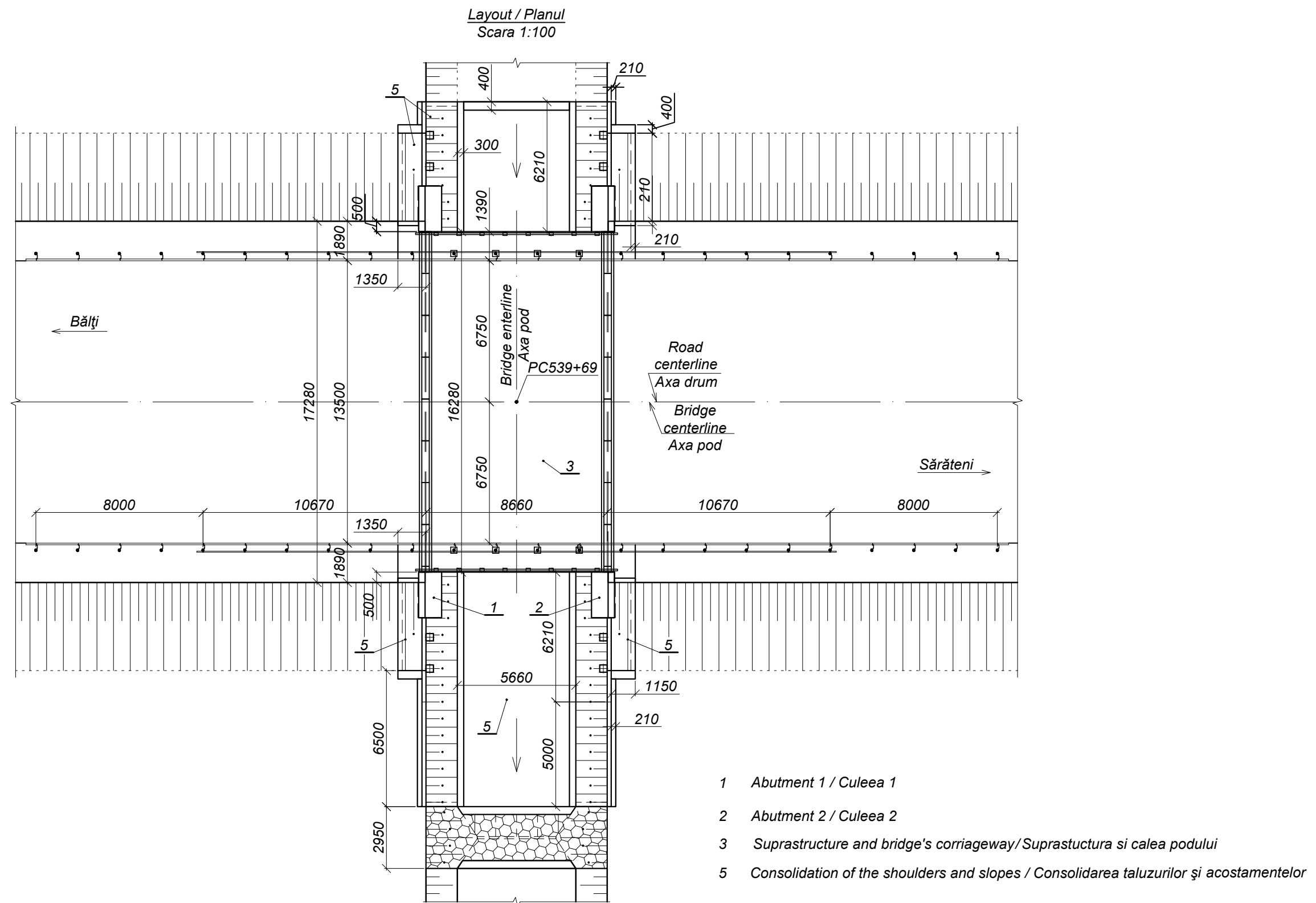
- Design norms / Normele de proiectare: СНУП 2.05.03-84 "Мосты и Трубы", СНУП 2.05.02-85\* "Автомобильные дороги".
- Road category /Categoria drumului auto - III. Bridge width / Gabaritul podului G-14,40+2x0,75 m.
- Reference loading / Sarcina de calcul: A11 și HK-80.
- Reference seismicity of construction / Seismicitatea de calcul a construcției - 7 grade.
- Baltic Sea reference level system. As base is taken Rp26 - 89.738 at PC261+585, (kilometer stone- placed on right side shoulder, direction after stakes) / Sistem de cote Baltic. Drept bază servesc reperul Rp26 - 89.738 la PC261+585, (borna de marcare a kilometrajului, amplasată pe acostament din partea dreaptă, direcție după pichetare).
- Decisive phases for checking and acceptance of repair works / Fazele determinante de verificare și recepție a lucrărilor de reparație:
  - Transmission of center line references, location and bench marks /Predarea trasării, amplasamentului și a bornelor de reper;
  - Infrastructure repair / Reparația infrastructurii (abutment /culeea 1, pile / pila 2, pile / pila 3, abutment / culeea 4);
  - Superstructure and bridge way works / Execuția suprastructurii și căii podului;
  - Approach to bridge works / Execuția racordării podului cu terasamentul.
- Type of works, determined as hidden works shall be checked and accepted with the record of verification results in Reports of quality check / Genul de lucrări determinate ca lucrări ascunse ce urmează a fi verificate și recepționate cu consemnarea rezultatelor verificării în procese verbale de verificare a calității:
  - Determination and positioning of road center lines and elements / Trasarea și poziționarea axelor și elementelor;
  - Bases and footings / Temeliile și fundațiile;
  - Inspection of materials, semifabricates and parts at entrances / Examinarea materialelor, semifabricatelor și elementelor la intrare;
  - Reinforcement and concrete of parts, formworks / Armarea și betonarea elementelor, cofrajele;
  - Welding of metal parts / Sudarea elementelor metalice.

<div>The design is elaborated in accordance with the standards and requirements existing design rules / Proiectul este elaborat în conformitate cu cerințele normelor și regulilor în construcții în vigoare</div> <div>Chief engineer / Inginer șef proiect compartiment</div> <div>A. Cekan</div>	World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
	Road      Sector      Programme      Support      Project						
	Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
	Universcons	Drawing title      Bridge.Pod, Km 53+969 General data / Date generale	Checked	N.Tcaci		Drawing DG-P-1	
Control STAS			L.Pozdirca				

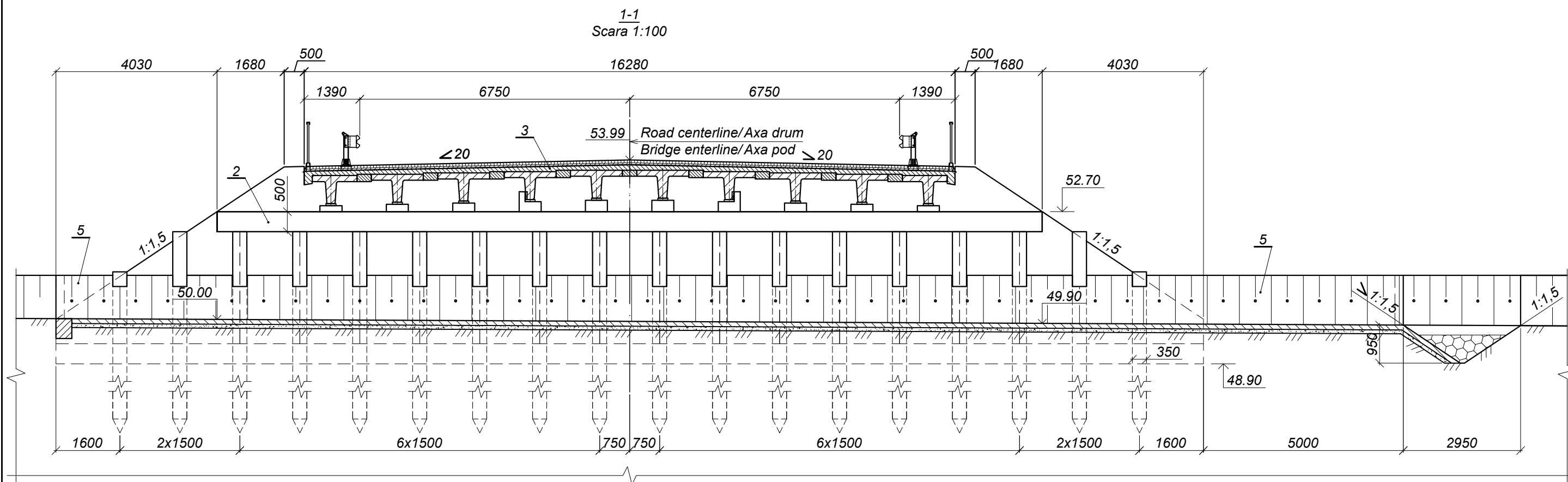


- 1 Abutmen/Culeea-1
- 2 Abutmen/Culeea-2
- 3 Suprastructure and bridge's carriageway/Suprastuctura si calea podului
- 4 Crushed stone bed / Pat din piatră spartă M400
- 5 Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 53+969</i> <i>General view of the bridge. Façade /</i> <i>Dispoziție generală a podului. Fațada</i>		Checked	N.Tcaci		Drawing	
			Control STAS	L.Pozdirca		F-P-1	



World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 53+969</i> <i>General view of the bridge. Plan /</i> <i>Dispoziție generală a podului. Planul</i>	Checked	N.Tcaci		Drawing		
		Control STAS	L.Pozdirca		P-P-2		

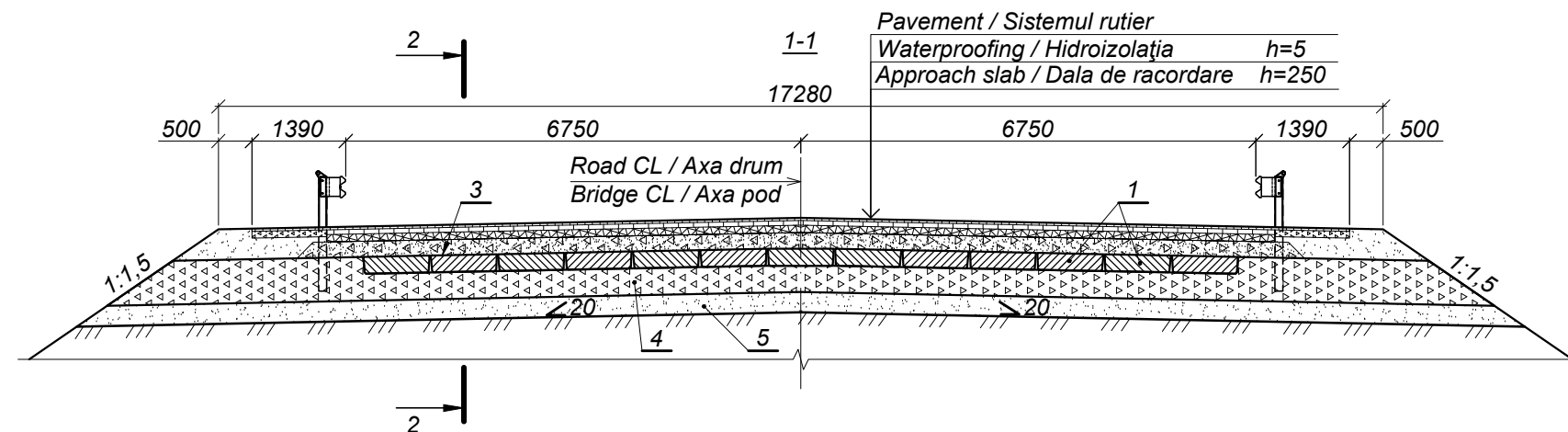


- 2 Abutment 2 / Culeea 2
- 3 Suprastructure and bridge's corriageway/Suprastuctura si calea podului
- 5 Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor

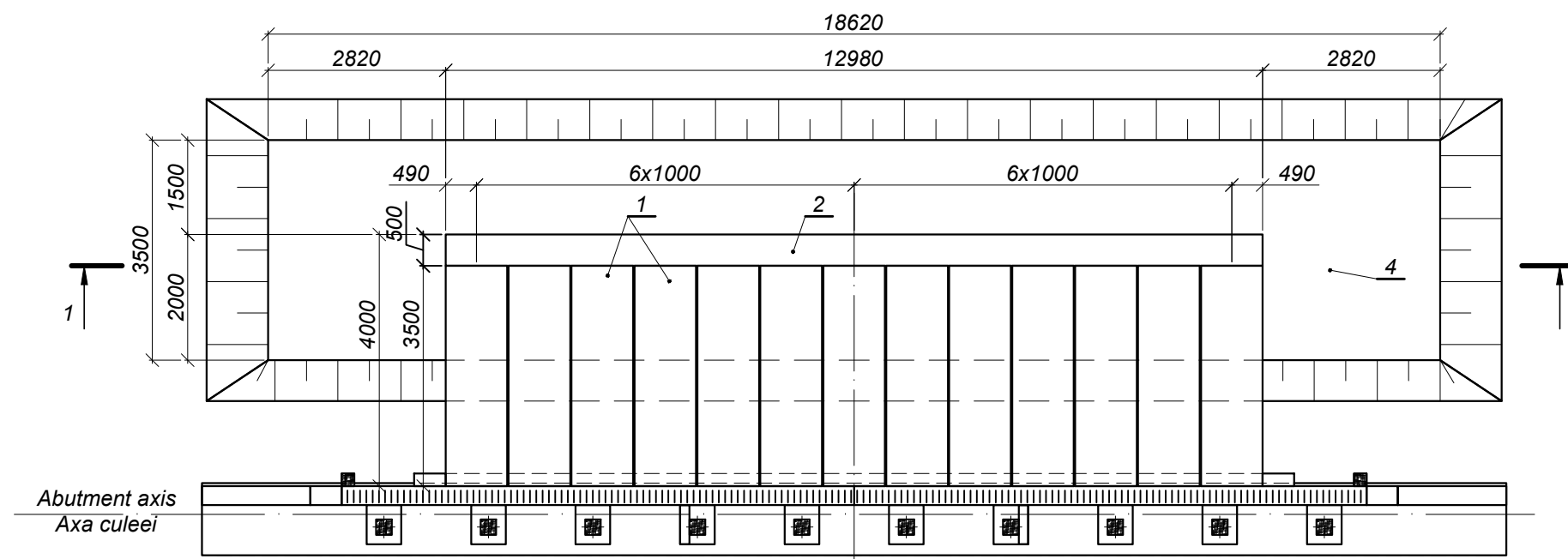
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 53+969</i> <i>General view of the bridge. Section 1-1 /</i> <i>Dispoziție generală a podului. Secțiunea 1-1</i>	Checked	N.Tcaci		Drawing		
		Control STAS	L.Pozdirca		S-P-3		







Layout / Planul  
(Pavement, consolidation and superstructure conventionally not shown) /  
(Sistemul rutier, consolidarea și suprastructura convențional nu sunt arătate)



Asphalt wearing course /  
Uzură din beton asfaltic h=40

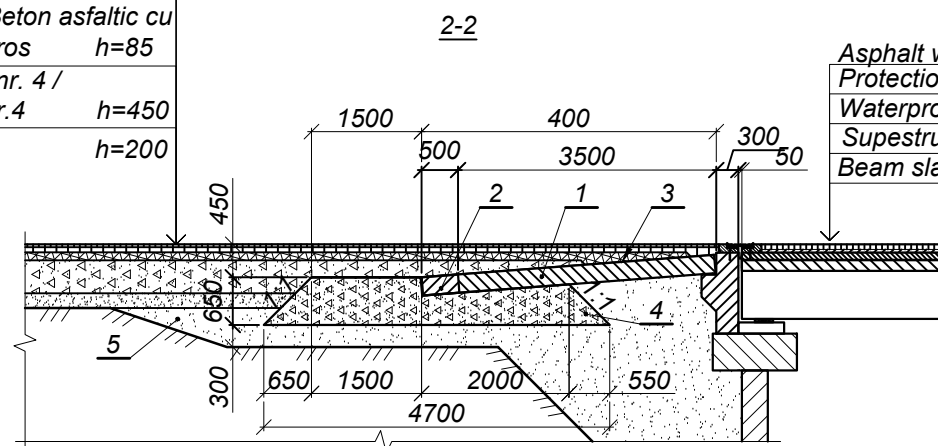
Geocomposite / Geocompozit  
PGM-G 50/50

Fine grained porous asphalt  
concrete M1 / Beton asfaltic cu  
granulație fină poros M1 h=60

Coarse grained porous asphalt  
concrete M1 / Beton asfaltic cu  
granul mare poros h=85

Crushed stone nr. 4 /  
Piatră spartă Nr.4 h=450

Sand / Nisip h=200

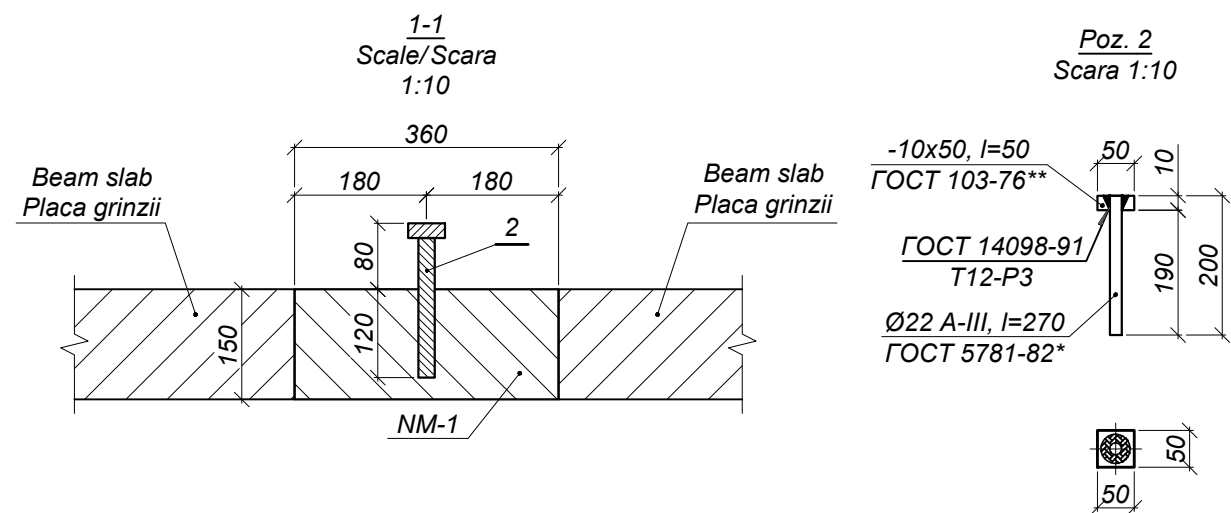
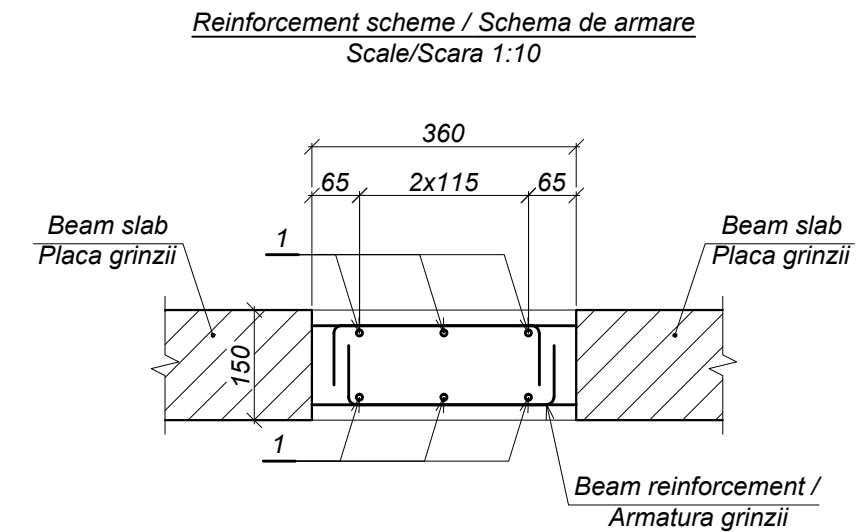
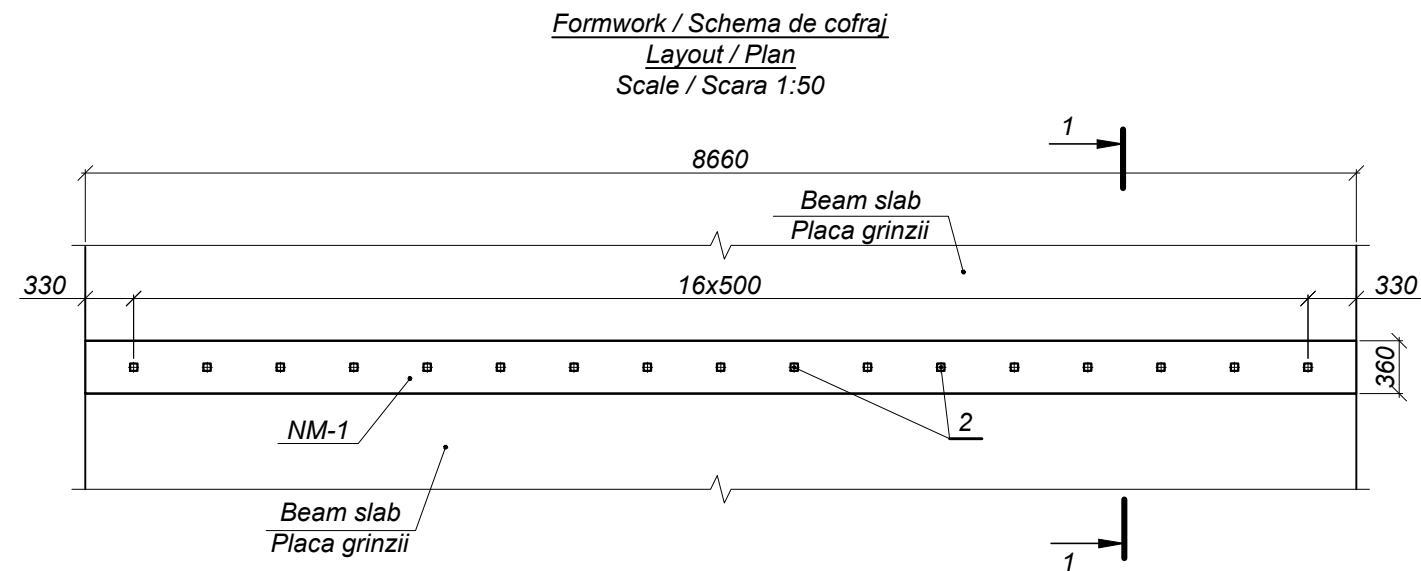


Asphalt wearing course / Îmbrăcămintă asfaltică h=70  
Protection layer / Strat de protecție h=40  
Waterproofing / Hidroizolația h=5  
Superstructure slab/Placa suprastructurii h<sub>min</sub>=100  
Beam slab / Placa grinzii h=150

1. Approach slab / Dala de racordare П400.98.25-TAIII
2. Connecting joint of approaching slabs /  
Nodul de îmbinare a plăcilor de racordare NM-7
3. Waterproofing of approaching parts /  
Hidroizolarea elementelor de racordare
4. Crushed stone bed / Pat din piatră spartă M400
5. Sand with gravel mix / Amestec de nisip cu pietriș

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme Support Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 53+969 Approach to bridge at abutment 1 and 2/ Racordarea podului cu drumul la culeea 1;2</i>	Checked	N.Tcaci		Drawing		
		Control STAS	L.Pozdirca		RP-P-1		





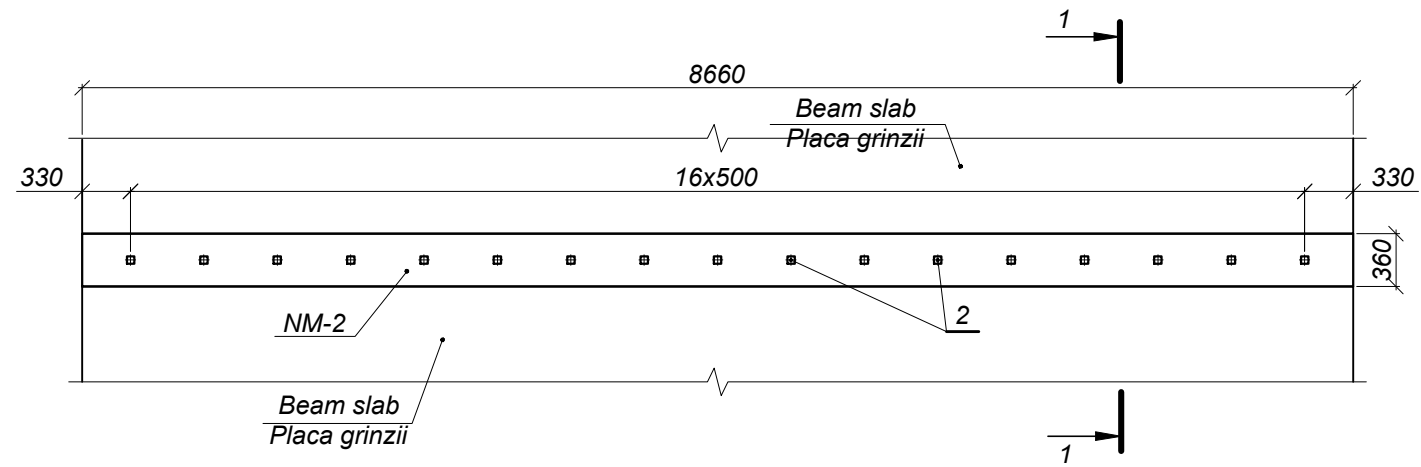
Quantity of steel per one element / Consumul de metal pentru un element, kg

Element name / Marca elementului	Reinforcement parts / Piese de armare			Embedded parts / Piese înglobate					Total weight / Greutate totală
	Reinforcement type / Clasa armaturii		Total	Reinforc. type / Clasa armaturii		Steel type / Marca metalului		Total	
	A-I			A-III		16Д			
	ГОСТ 5781-82*			ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø8	Total		Ø16	Total	-10	Total		
NM-5	20,4	20,4	20,4	10,2	10,2	3,4	3,4	13,6	34.0

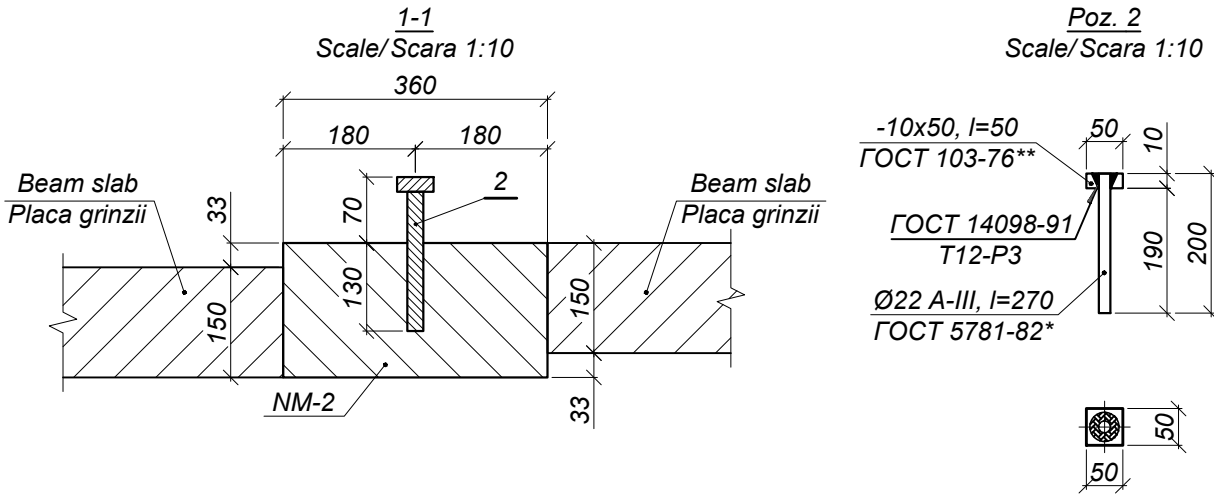
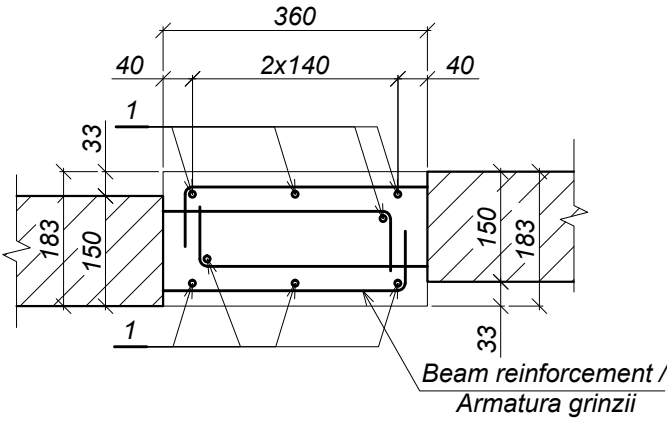
1. Reinforcement rod l=8600  
2. Connector/ Conector 1

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 53+969</i> <i>Monolithic joint MJ-1 / Nodul monolit NM-1</i>	Checked	N.Tcaci		Drawing	
		Control STAS	L.Pozdirca		NM-P-1	

Formwork/Schema de cofraj  
Layout/Plan  
Scale/Scara 1:50



Reinforcement scheme/ Schema de armare  
Scale/Scara 1:10



Specificația

Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note/ Notă
				<u>Parts/Piese</u>		
				<u>A-I-8 GOCT 5781-82*</u> <u>См3пс3 GOCT 380-94</u>		
FP		1		Reinforcement rod l=8600	8	3,4 kg
FP		2		Connector/Conectorul 1	17	0,8 kg
				<u>Materials / Materiale</u>		
			GOCT 26633-91*	Concrete/Beton cl.B30, F200, W6		0,57 m³

Quantity of steel per one element / Consumul de metal pentru un element, kg

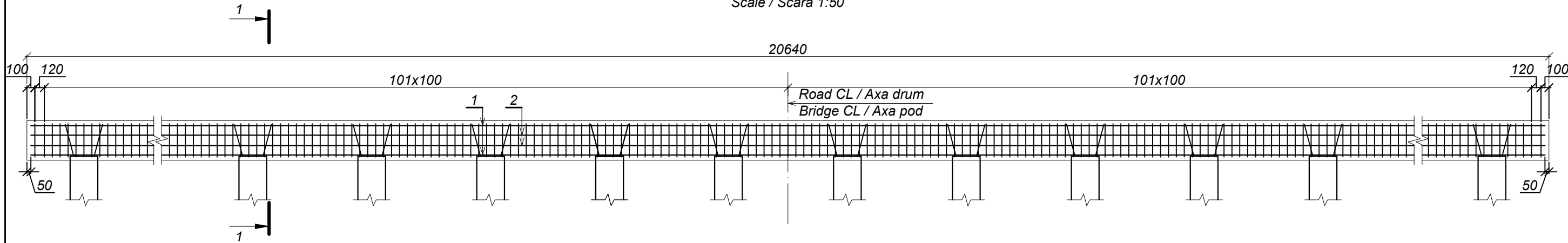
Element name / Marca elementului	Reinforcement parts / Piese de armare			Embedded parts / Piese înglobate					Total weight / Greutate totală
	Reinforcement type / Clasa armaturii		Total	Reinforc. type / Clasa armaturii		Steel type / Marca metalului		Total	
	A-I			A-III		16Д			
	ГОСТ 5781-82*			ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø8	Total		Ø16	Total	-10	Total		
NM-2	27,2	27,2	27,2	10,2	10,2	3,4	3,4	13,6	40,8

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 53+969</i> <i>Monolithic joint MJ-2 / Nodul monolit NM-2</i>		Checked	N.Tcaci		Drawing	
			Control STAS	L.Pozdirca		NM-P-2	

Reinforcement scheme / Schema de armare

Front view / Fațada

Scale / Scara 1:50



Specificația

Format	Zona	Position/ Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				<u>Parts / Piese</u>		
FP		1		A-III-20 GOCT 5781-82*, l=21140 25Г2С GOCT 5781-82*	14	52,2 kg
FP		2		A-I-10 GOCT 5781-82*, l=20540 Cm3пc3 GOCT 380-94	4	12,7 kg
				A-I-8 GOCT 5781-82* Cm3пc3 GOCT 380-94		
FP		3		l=1720	1025	0,7 kg
FP		4		l=3080	52	1,2 kg
FP		5		A-I-6 GOCT 5781-82*, l=35000 Cm3пc3 GOCT 380-94	1	7,8 kg
				A-III-14 GOCT 5781-82* 25Г2С GOCT 5781-82*		
FP		6		l=430	120	0,5 kg
FP		7		l=450	204	0,5 kg
				<u>Materials / Materiale</u>		
			GOCT 26633-91*	Concrete cl.B25, F200, W6 / Beton cl.B25, F200, W6		11,94 m³

1-1  
Scale/Scara 1:20

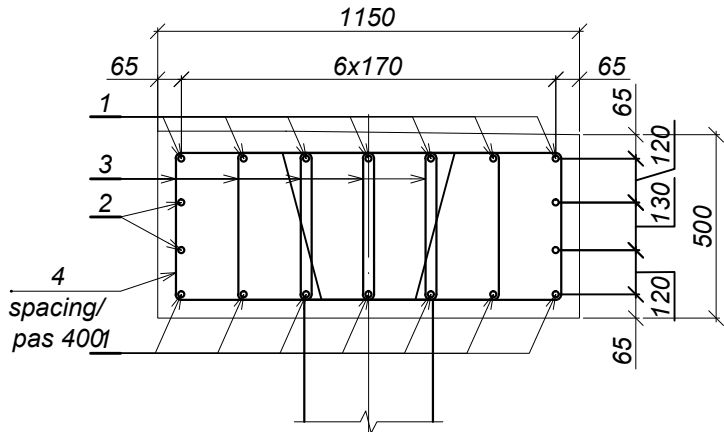
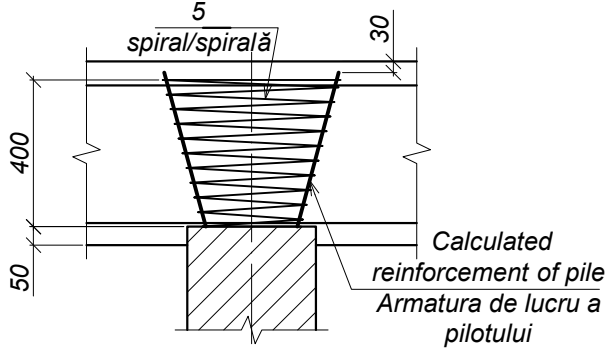


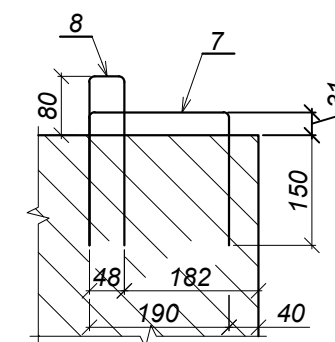
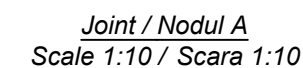
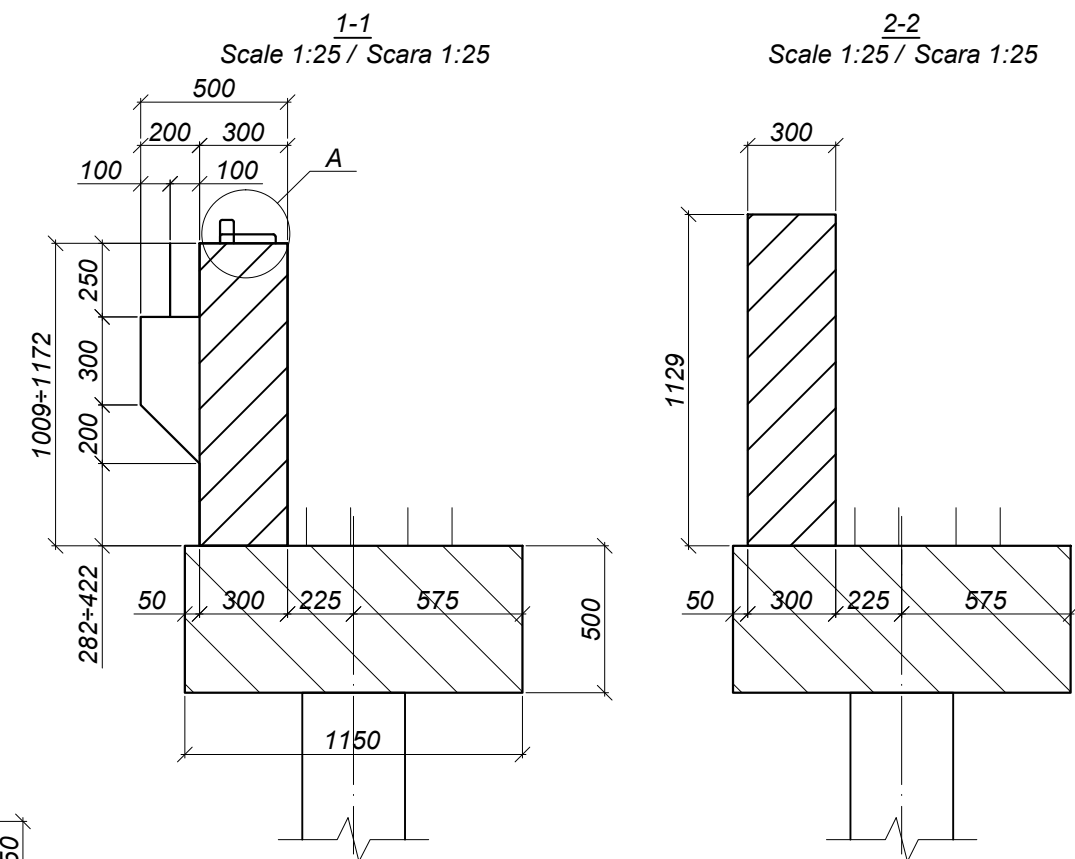
Table of parts / Tabela pieselor

Pos. Poz.	Draft / Schiță
3	
4	

Collar beam and pile connection joint /  
Nod de îmbinare a riglei cu pilotul  
Scale 1:20 / Scara 1:20



World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 53+969</i> <i>Collar beam R-1/ Rigla R-1</i>		Checked	N.Tcaci		Drawing	
			Control STAS	L.Pozdirca		R-P-1	



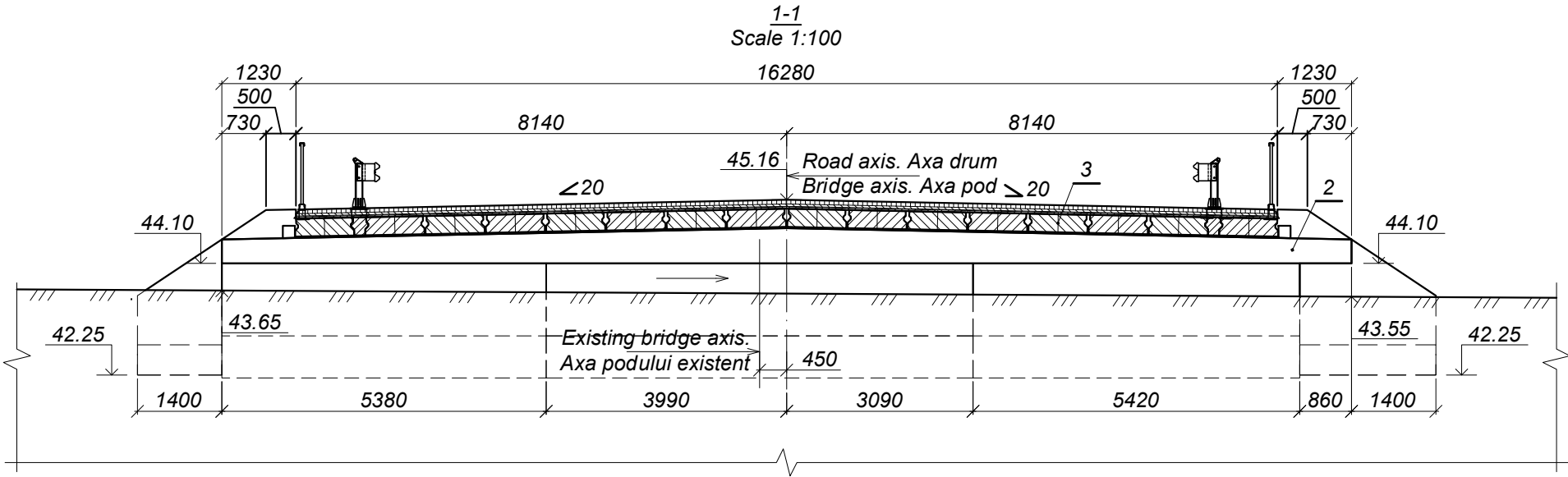
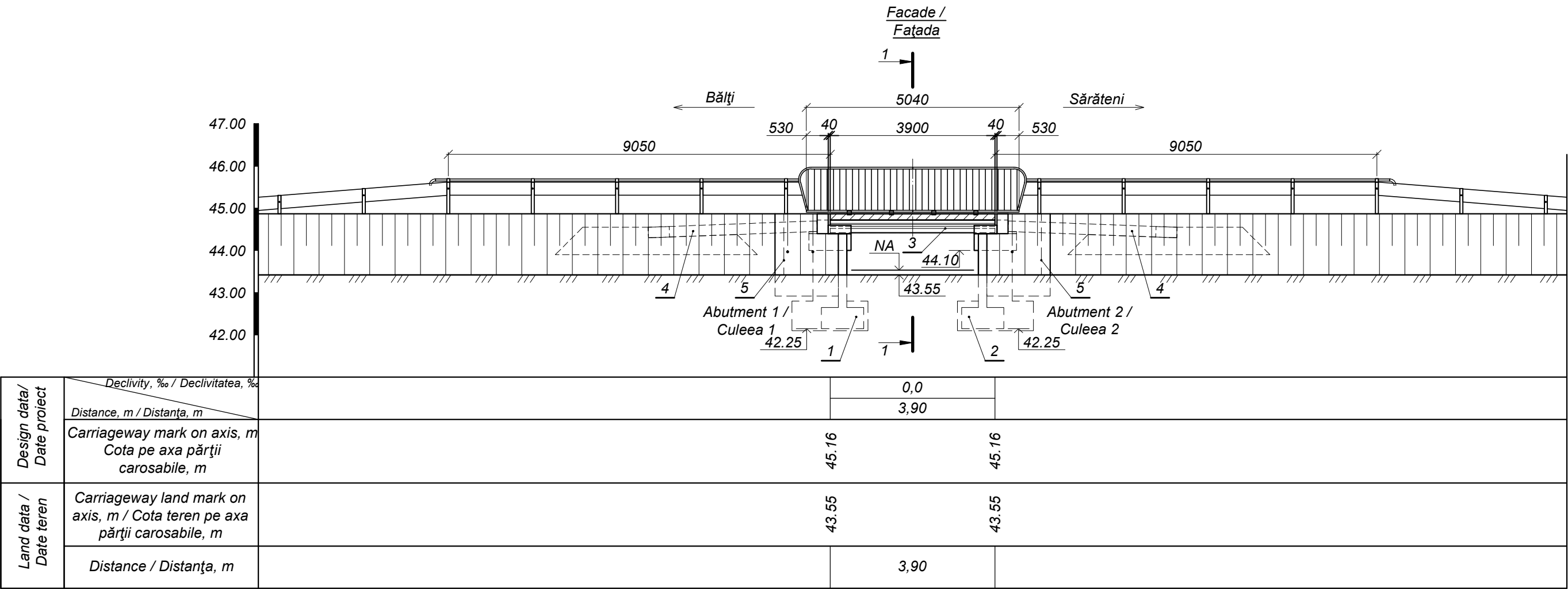
- 6 A-I-25 GOCT 5781-82\*, l=450  
Cm3nc3 GOCT 380-94
- 7 Reinforcement rod l=550
- 8 Reinforcement rod l=510
- 10 Embedded base plate PĬ-2  
Piesă înglobată PĬ-2

Element type / Marca elementulu	Reinforcement parts / Piese de armare									Embedded parts / Piese înglobate					Total weight / Greutate totală
	Reinforcement type / Clasa armaturii								Total	Reinforcement type / Clasa armaturii		Steel type/ Marca metalului		Total	
	A-I				A-III					A-III		16Д			
	ГОСТ 5781-82*									ГОСТ 5781-82*		ГОСТ 103-76**			
	Ø6	Ø10	Ø25	Total	Ø10	Ø12	Ø14	Total		Ø16	Total	-20	Total		
ZG-1	28,0	97,2	23,4	148,6	154,4	70,0	236,4	460,8	609,4	2,4	2,4	12,6	12,6	15,0	607,2

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International  Universcons	Rehabilitation of R14 Road Balti-Saratonii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
	Drawing title <i>Bridge.Pod, Km 53+969</i> <i>Protection wall ZG-1 / Zid de gardă ZG-1</i>	Checked	N.Tcaci		Drawing	
		Control STAS	L.Pozdirca		ZG-P-1	



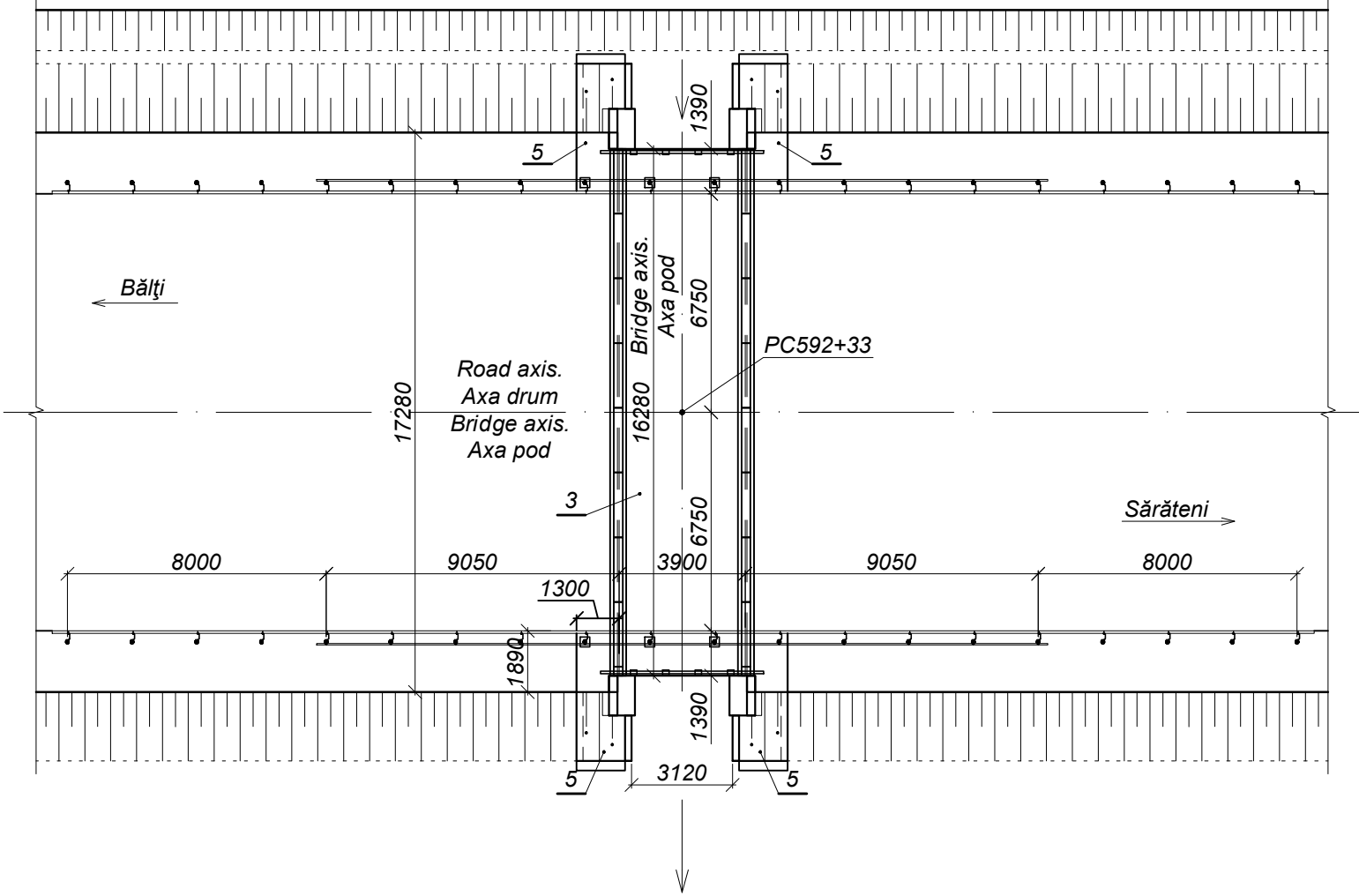




- 1 Abutment 1 / Culeea 1
- 2 Abutment 2 / Culeea 2
- 3 Superstructure and bridge way / Suprastructura și calea podului
- 4 Bridge approach slabs / Racordarea podului cu drumul
- 5 Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor

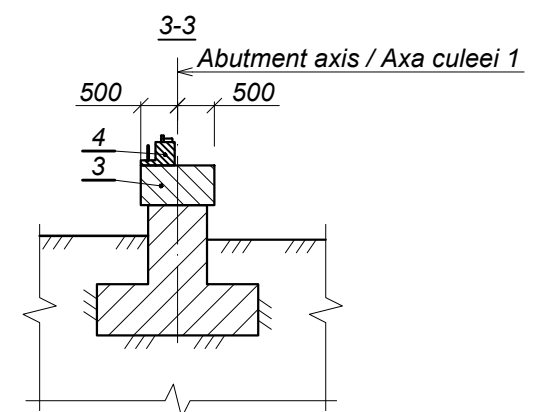
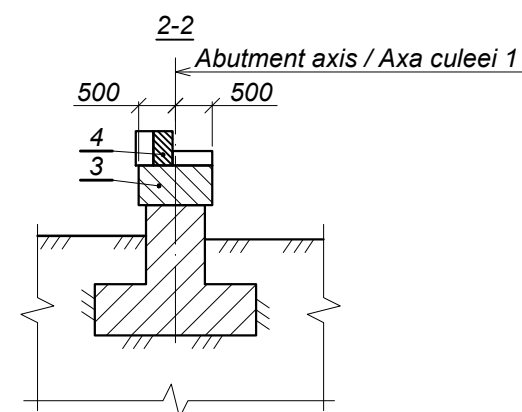
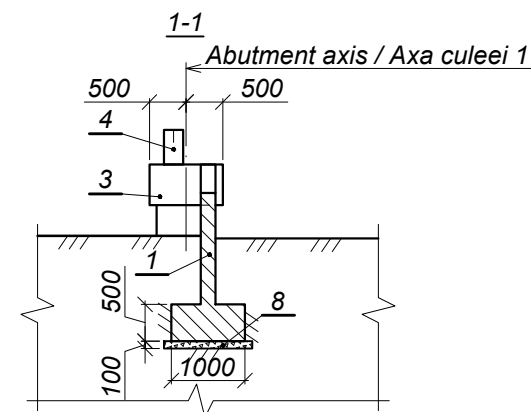
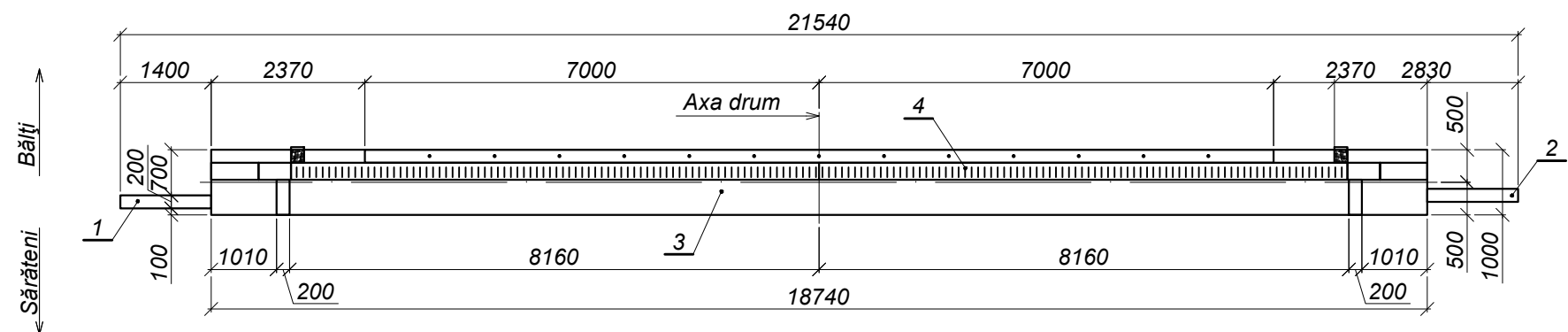
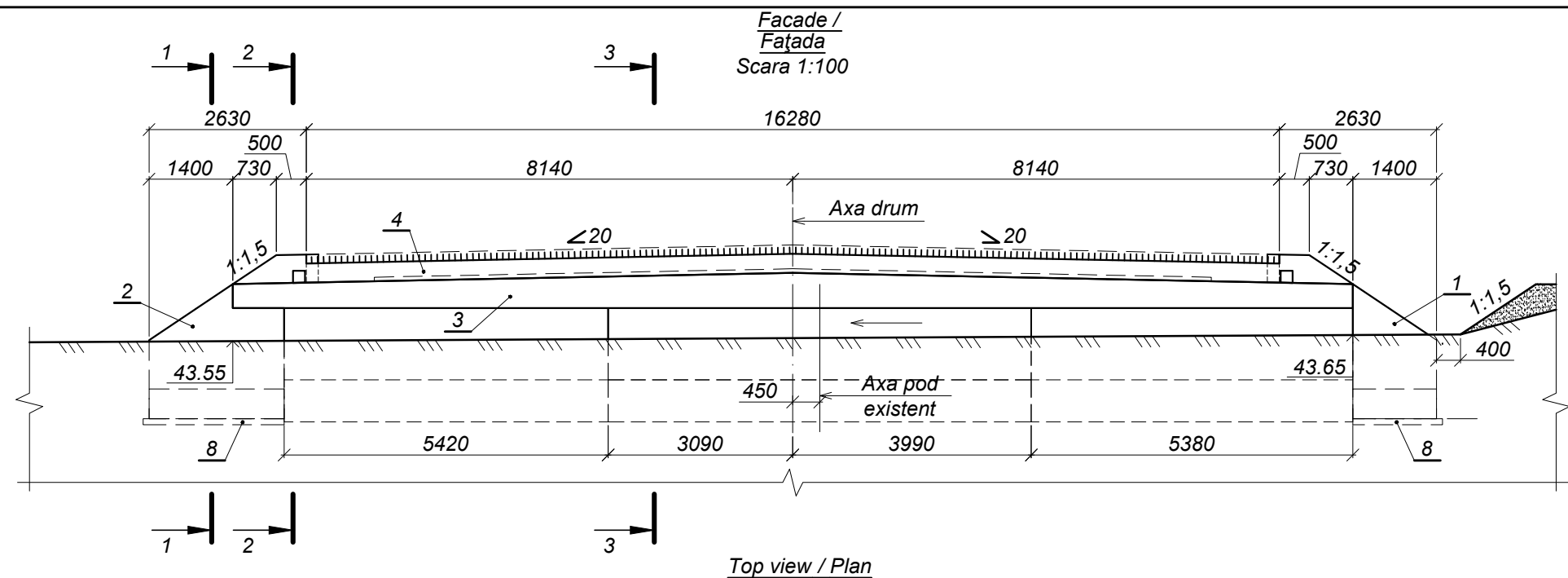
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector		Programme Support		Project			
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title Bridge.Pod, Km 59 + 233 General View / Dispoziție generală Facade / Fațada		Checked	N.Tcaci		Drawing F-P-1	
			Control STAS	L.Pozdirca			

Top view / Plan  
Scale 1:200



- 3 Superstructure and bridge way / Suprastructura și calea podului
- 5 Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor

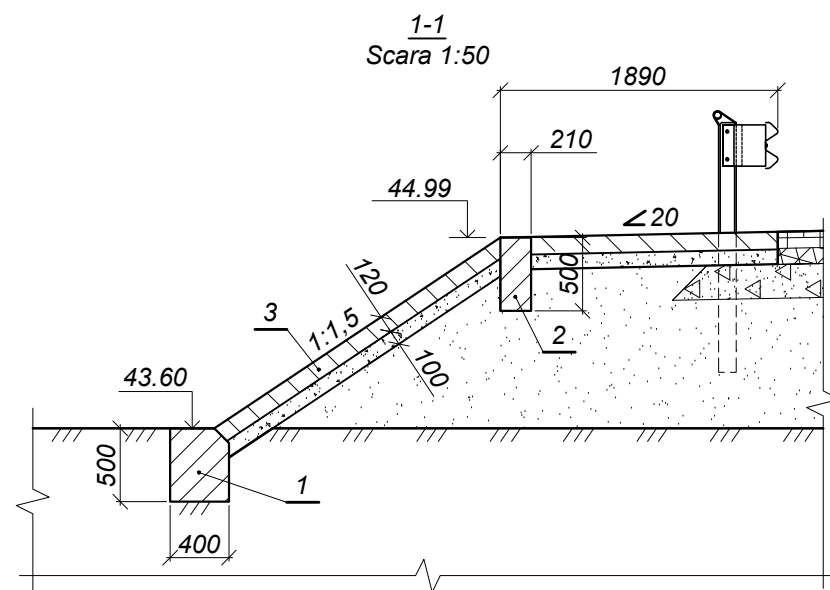
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support	Project			
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 59 + 233 General View / Dispoziție generală Layout / Plan</i>	Checked	N.Tcaci		Drawing P-P-1	
		Control STAS	L.Pozdirca			



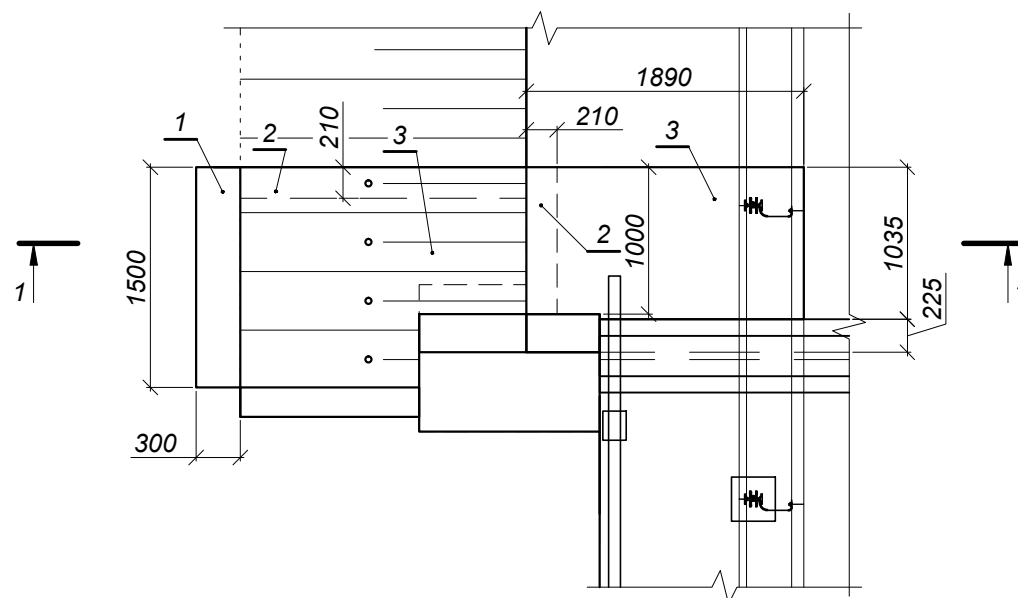
- 1 Abutment wing walls / Aripa
- 2 Abutment wing walls / Aripa
- 3 Collar beam R - 1 / Rigla R-1
- 4 Protection wall / Zid de gardă ZG-1
- 5 Connector / Conectori
- 6 Waterproofing / Hidroizolarea suprafețelor din bitum filerizat în două straturi
- 8 Base courses of crushed granite / Pat de piatră spartă din granit, h=100

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 59 + 233</i> <i>General View of abutment</i> <i>Dispoziție generală a culeei</i>		Checked	N.Tcaci		Drawing C-P-1	
			Control STAS	L.Pozdirca			





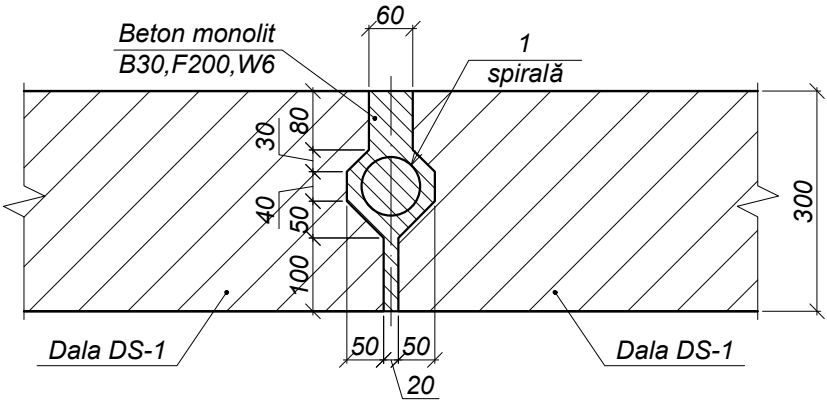
Top view  
Planul



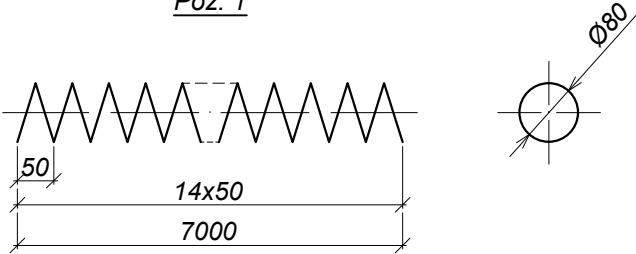
- 1 Concrete spur / Pinten din beton cl. B20, F200, W6, sec. 40x50cm, L=6,00 m
- 2 Concrete spur / Pinten din beton cl. B20, F200, W6, sec. 21x50cm, L=13,40 m
- 3 Consolidation of the shoulders and slopes / Consolidarea taluzurilor și acostamentelor cu beton armat cl.B20,F200, W6,h=12cm pe pat de granit h=10cm

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza		Date	04.2012
			Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 59+233 Consolidation of slopes and shoulders Consolidarea taluziilor si acostamentilor</i>		Checked	N.Tcaci		Drawing CTA-P-1	
			Control STAS	L.Pozdirca			

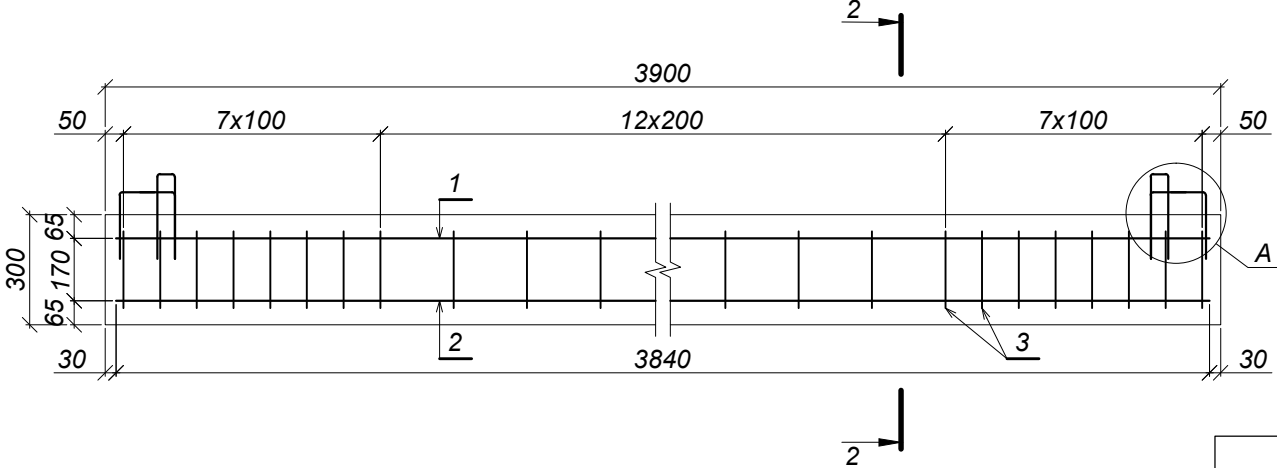
Monolithic joint NM-1  
Nodul monolit NM - 1



Poz. 1

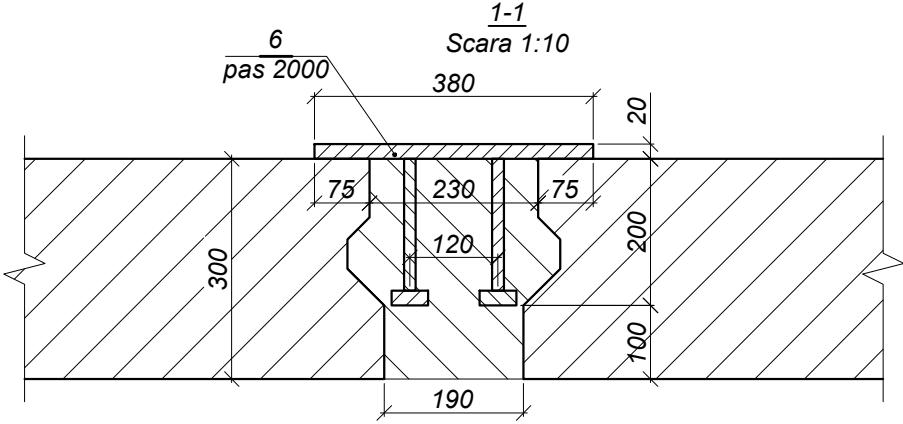


2-2  
Scara 1:20



Monolithic joint NM-1 / Nodul monolit NM - 2

Formwork / Schemade cofraj



Reinforcement scheme

Schema de armare

1-1  
Scara 1:10

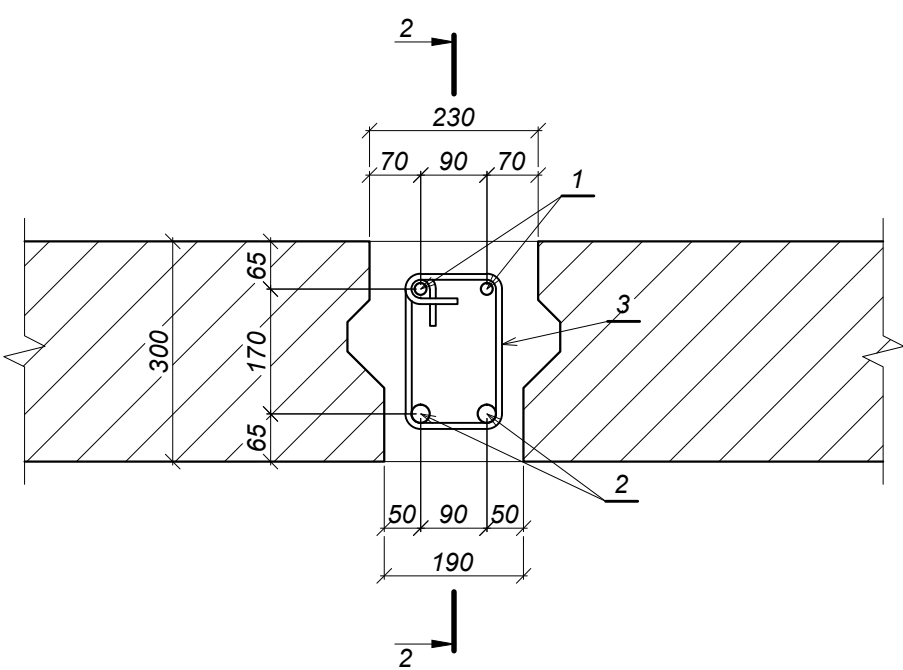


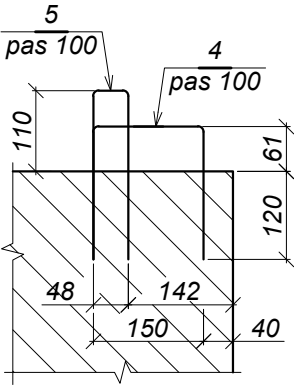
Table of elements. Tabela pieselor

Poz.	Eschiz
3	
4	
5	

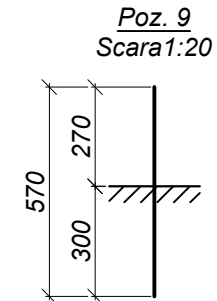
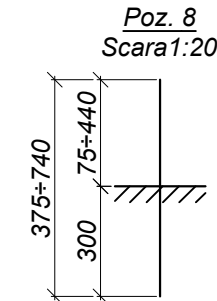
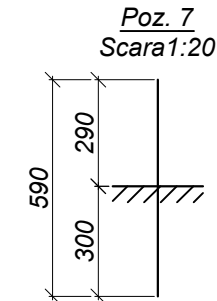
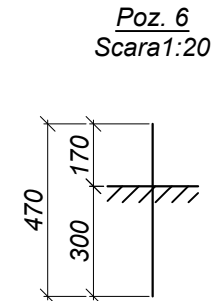
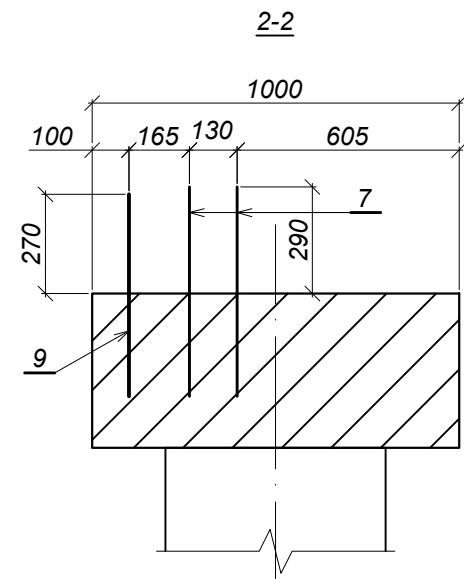
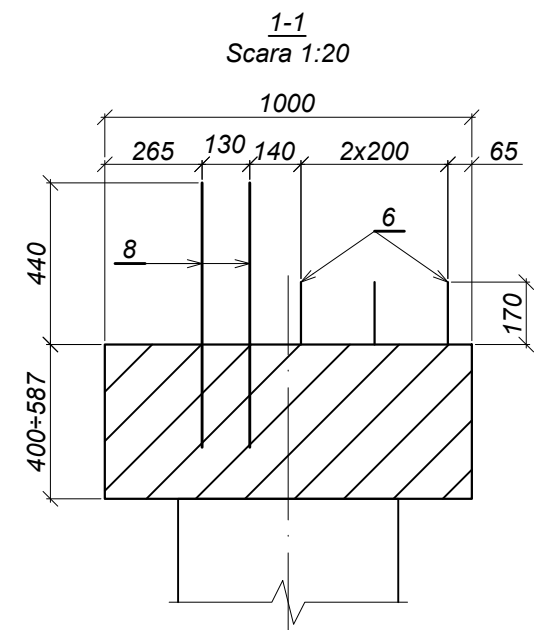
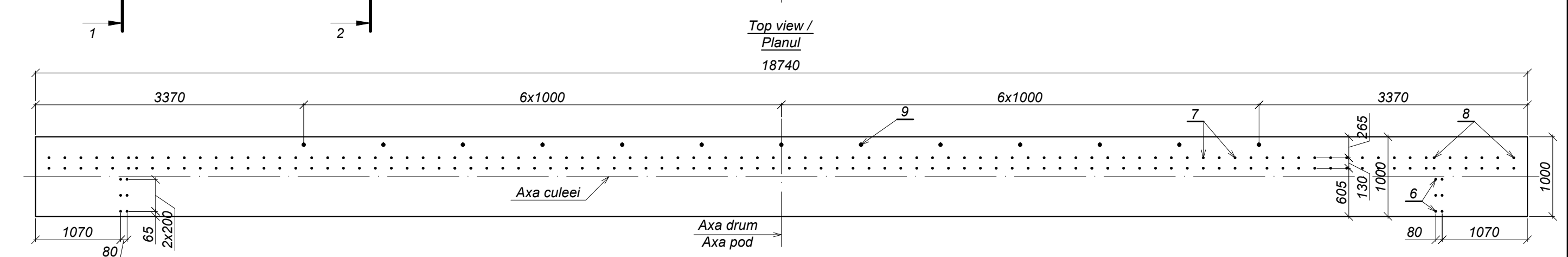
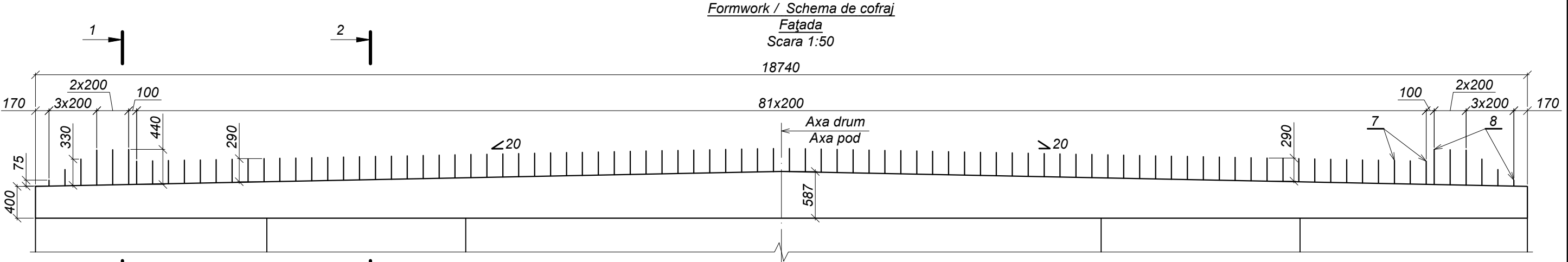
Joint A

Nodul A

Scara 1:10



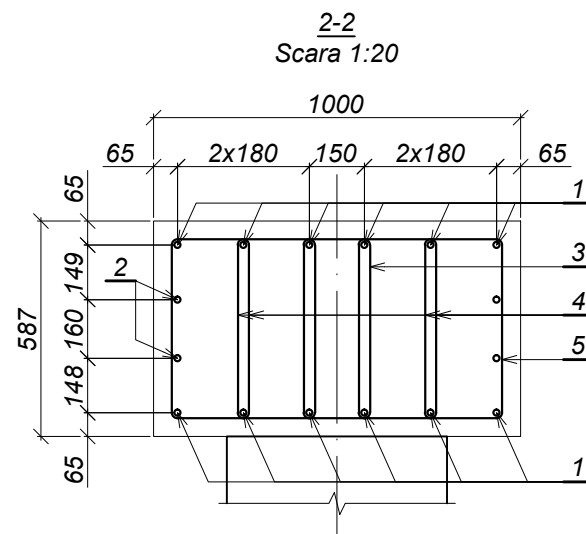
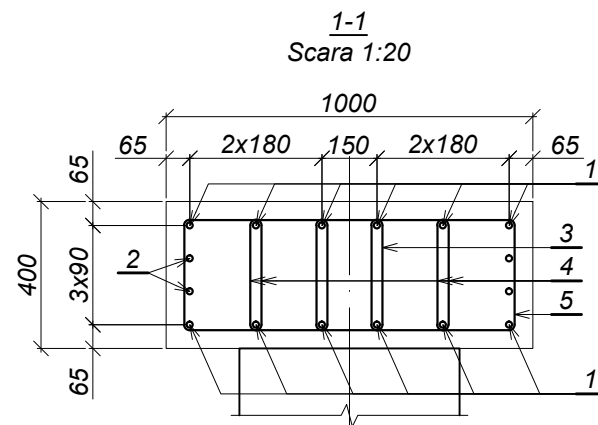
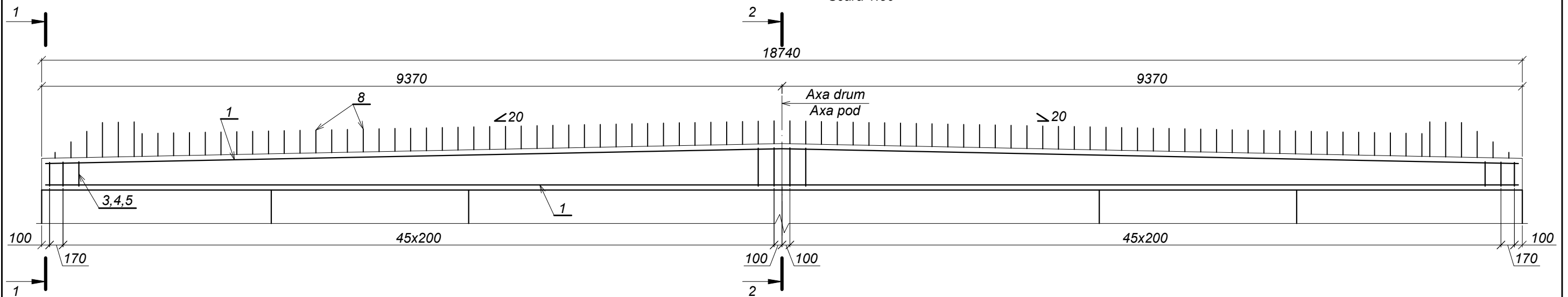
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector		Programme	Support	Project			
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 59 + 233 Monolithic joint - 1 and NM - 2 Nodul monolit NM - 1 și NM - 2</i>	Checked	N.Tcaci		Drawing NM-P-1		
		Control STAS	L.Pozdirca				



- 6 Reinforcement rod l=470  
7 Reinforcement rod l=590  
8 Reinforcement rod l=620  
9 Reinforcement rod l=570

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support	Project			
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 59 + 233</i> <i>Collar beam R - 1</i> <i>Rigla R - 1</i>	Checked	N.Tcaci		Drawing R-P-1	
		Control STAS	L.Pozdirca			

Scara 1:50

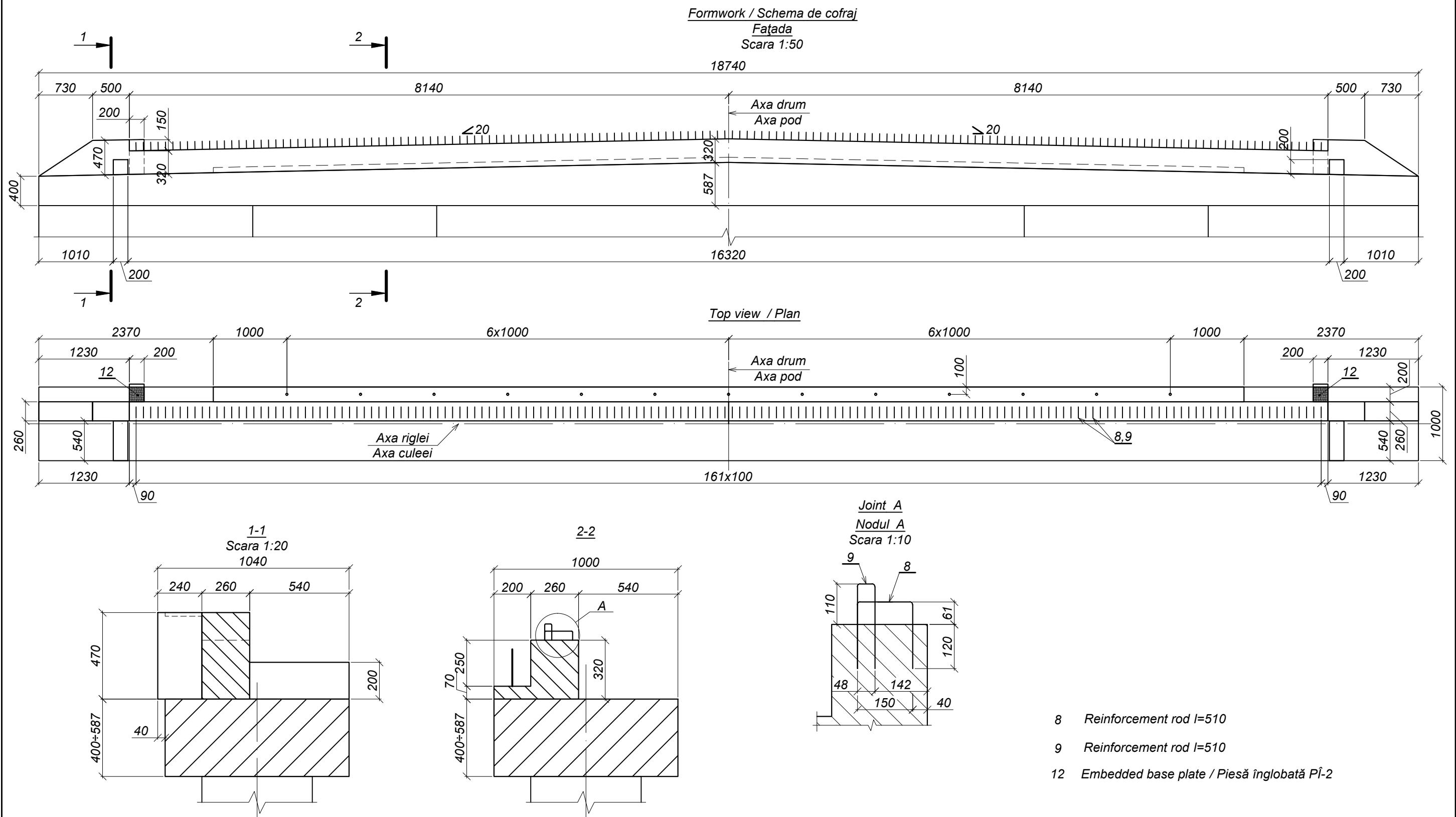


Poz.	Eschiz
3	
4	
5	

- 1 Reinforcement rod l=18640
- 2 Reinforcement rod l=18640
- 3 Reinforcement rod l=1330
- 4 Reinforcement rod l=1390
- 5 Reinforcement rod l=2770

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 59 + 233</i> <i>Collar beam R - 1. Reinforcement scheme</i> <i>Riula R - 1. Schema de armare</i>	Checked	N.Tcaci		Drawing R-P-2	
		Control STAS	L.Pozdirca			





World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road      Sector      Programme      Support      Project						
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 59 + 233</i> <i>Protection wall</i> <i>Zid de gardă ZG - 1</i>	Checked	N.Tcaci		Drawing ZG-P-1	
		Control STAS	L.Pozdirca			

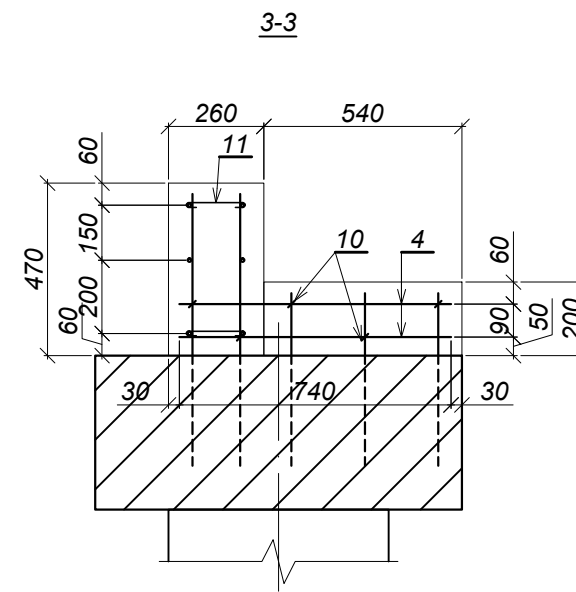
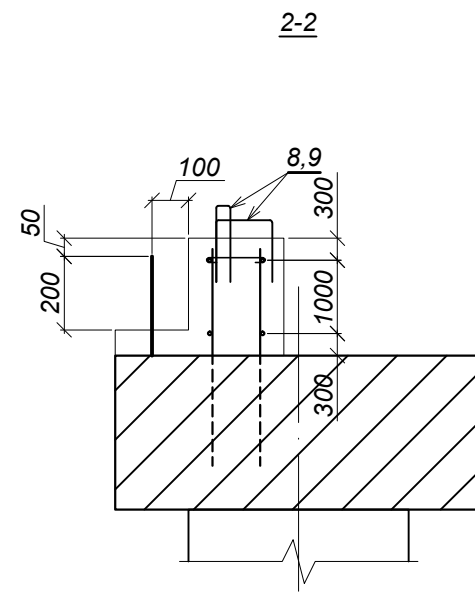
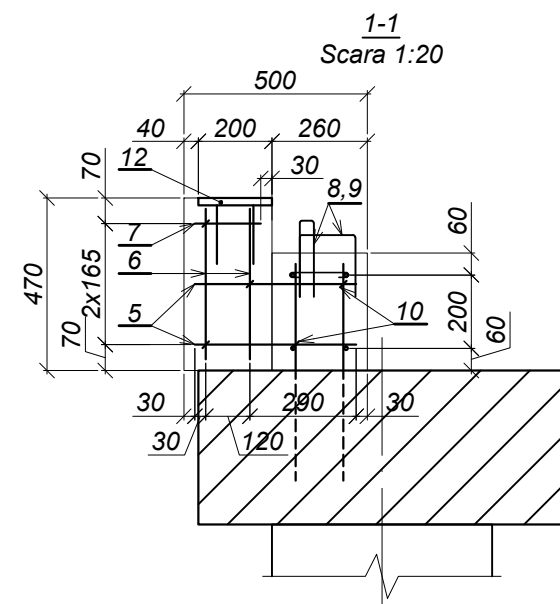
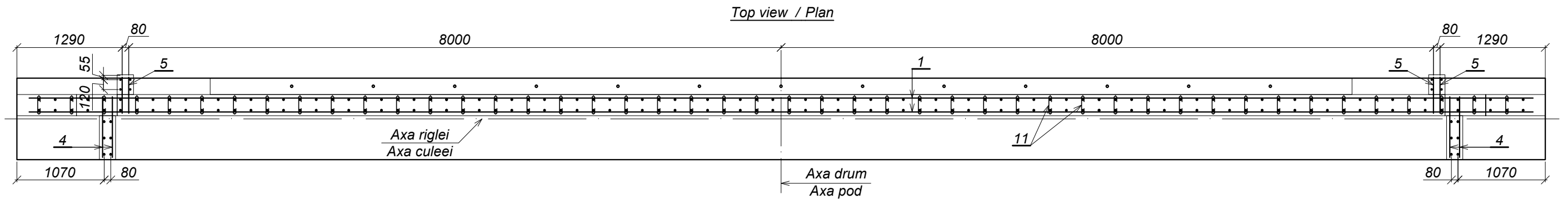
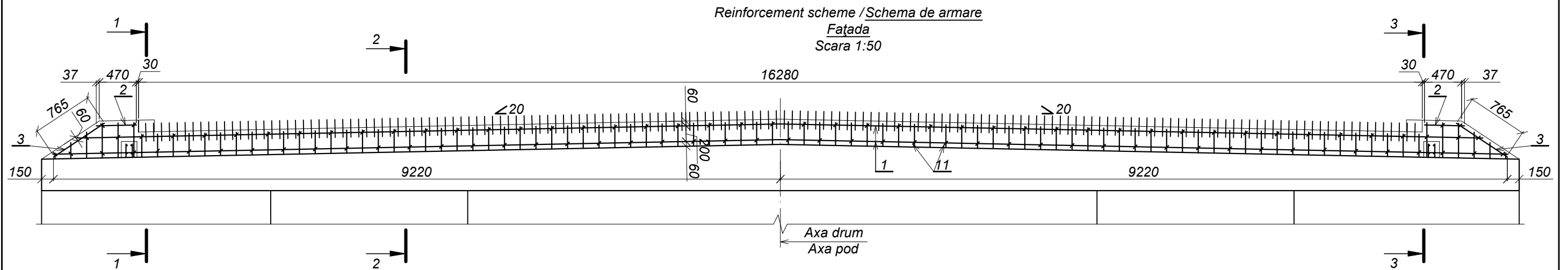


Table of elements. Tabela pieselor

Poz.	Eschiz
8	
9	
10	
11	

- 1 Reinforcement rod l=18160
- 2 Reinforcement rod l=470
- 3 Reinforcement rod l=765
- 4 Reinforcement rod l=740
- 5 Reinforcement rod l=440
- 6 Reinforcement rod l=410
- 7 Reinforcement rod l=180
- 8 Reinforcement rod l=510
- 9 Reinforcement rod l=510
- 10 Reinforcement rod l=200
- 11 Reinforcement rod l=300
- 12 Embedded base plate / Piesă înglobată PÎ-2

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title Bridge.Pod, Km 59 + 233 Protection wall . Reinforcement scheme Zid de gardă ZG - 1. Schema de armare	Checked	N.Tcaci		Drawing ZG-P-2	
		Control STAS	L.Pozdirca			

List of executive drawings of the main set / Lista seturilor de bază a planșelor de execuție

Number / Indicativ	Item / Denumirea	Note / Notă
2012/045D	Bridge / Lucrări de artă	

List of executive drawings of the main set / Lista planșelor de execuție a setului de bază 2012/045D

Drawing Planșa	Item / Denumirea	Note / Notă
1	General data /Date generale	
2	Bridge general view. Front view / Dispoziție generală a podului. Fațada.	
3	General view of abutment 1 / Dispoziția generală a culeei 1	
4	General view of abutment 1.Section 1-1 and 2-2 / Dispoziția generală a culeei 1. Secțiunea 1-1 și 2-2	
5	General view of pile 2,3,4,5,6,7 / Dispoziția generală a pilei 2,3,4,5,6,7	
6	General view of abutment 8 / Dispoziția generală a culeei 8	
7	General view of abutment 8.Section 1-1 and 2-2 / Dispoziția generală a culeei 8. Secțiunea 1-1 și 2-2	
8	Consolidation of cones / Consolidarea semiconurilor	
9	Protection wall wing of abutmen 1. Reinforcement scheme / Aripa zidului de gardă la culeea 1. Schema de armare	
10	Protection wall wing of abutmen 8. Reinforcement scheme / Aripa zidului de gardă la culeea 8. Schema de armare	
11	Expansion joint ALGAFLEX T80 / Rost de dilatație ALGAFLEX T80	
12	Guardrailing / Parapet de siguranță a circulației vehiculelor	
13	Pedestrian guardrail / Parapet de siguranță pietonal	
14	Connection joint between approach slabs MJ-7 / Nodul de îmbinare a plăcilor de racordare NM-7	
15	Backstairs / Scară de serviciu	
16	Seating bearing parts of abutment / Cuzineții culeei	

List of reference documents / Lista documentelor de referință și anexate

Document Number Indicativ	Item / Denumirea	Note Notă
	<u>Reference documents / Documente de referință</u>	
Серия 3.500.1-1.93	Сваи забивные железобетонные цельные сплошного квадратного сечения для опор мостов .	Piles /Piloți
Серия 3.503.1-81 Выпуски 1-1, 3-1	Пролетные строения сборные ж. б. длиной 12, 15, 18, 21, 24 и 33м из балок таврового сечения с предварительно напрягаемой арматурой для мостов и путепроводов	Pedestrian guardrail /Parapet de siguranță și pietonal
Серия 3.503.1-101 Выпуск 0, 1	Изоляция проезжей части, перекрытие деформационных швов ж. б. строений длиной до 33м автодорожных мостов и путепроводов	Bridgeway parts /Elementele căii podului
ALGA Bearing s and Expansion Joints	Expansion joints ALGAFLEX T instalation Procedure, 10.10.2005	Joint filling elements / Elemente de acoperire a rosturilor
Серия 3.501-156 Выпуски 0, 1	Укрепление русел, конусов и откосов насыпи у малых и средних мостов и водопропускных труб.	Surface protection / Protecția suprafețelor
BCH 24-88	Технические правила ремонта и содержания автомобильных дорог	Reinforced concrete repair /Reparația betonului armat
BCH 32-81	Инструкция по устройству гидроизоляции конструкций мостов и труб на железных, автомобильных и городских дорогах	Waterproofing of concrete surfaces / Izolarea suprafețelor de beton
СНУП 3.06.04-91	Мосты и трубы	Bridge, culvert works / Executarea lucrărilor

Note / Notă:

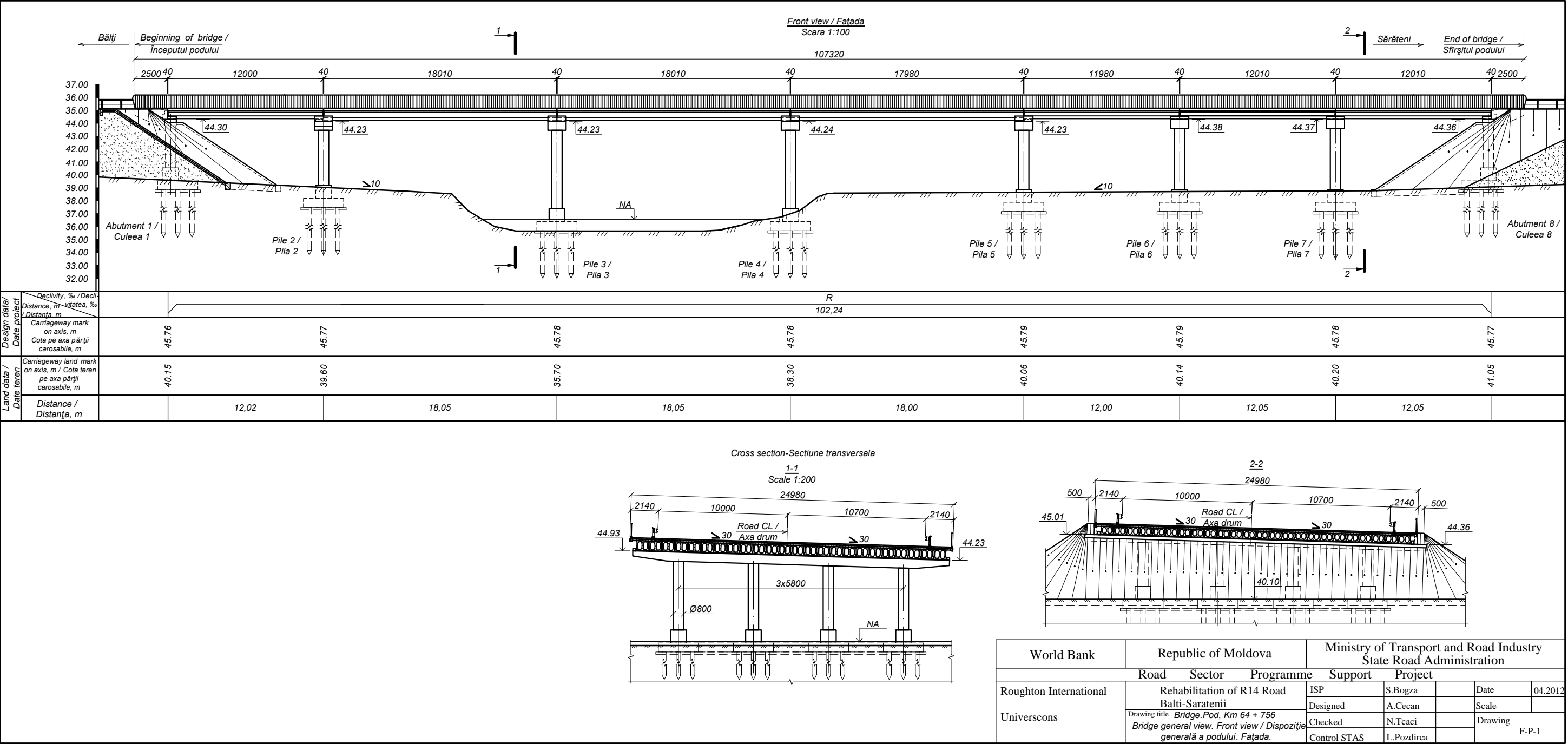
- Design norms / Normele de proiectare: СНУП 2.05.03-84 "Мосты и Трубы", СНУП 2.05.02-85\* "Автомобильные дороги".
- Road category /Categoria drumului auto - III. Bridge width / Gabaritul podului G-14,40+2x0,75 m.
- Reference loading / Sarcina de calcul: A11 și HK-80.
- Reference seismicity of construction / Seismicitatea de calcul a construcției - 7 grade.
- Baltic Sea reference level system. As base is taken Rp26 - 89.738 at PC261+585, (kilometer stone- placed on right side shoulder, direction after stakes) / Sistem de cote Baltic. Drept bază servesc reperul Rp26 - 89.738 la PC261+585, (borna de marcare a kilometrajului, amplasată pe acostament din partea dreaptă, direcție după pichetare).
- Decisive phases for checking and acceptance of repair works / Fazele determinante de verificare și recepție a lucrărilor de reparație:
  - Transmission of center line references, location and bench marks /Predarea trasării, amplasamentului și a bornelor de reper;
  - Infrastructure repair / Reparația infrastructurii (abutment /culeea 1, pile / pila 2, pile / pila 3, abutment / culeea 4);
  - Superstructure and bridge way works / Execuția suprastructurii și căii podului;
  - Approach to bridge works / Execuția racordării podului cu terasamentul.
- Type of works, determined as hidden works shall be checked and accepted with the record of verification results in Reports of quality check / Genul de lucrări determinate ca lucrări ascunse ce urmează a fi verificate și recepționate cu consemnarea rezultatelor verificării în procese verbale de verificare a calității:
  - Determination and positioning of road center lines and elements / Trasarea și poziționarea axelor și elementelor;
  - Bases and footings / Temeliile și fundațiile;
  - Inspection of materials, semifabricates and parts at entrances / Examinarea materialelor, semifabricatelor și elementelor la intrare;
  - Reinforcement and concrete of parts, formworks / Armarea și betonarea elementelor, cofrajele;
  - Welding of metal parts / Sudarea elementelor metalice.

The design is elaborated in accordance with the standards and requirements existing design rules / Proiectul este elaborat în conformitate cu cerințele normelor și regulelor în construcții în vigoare

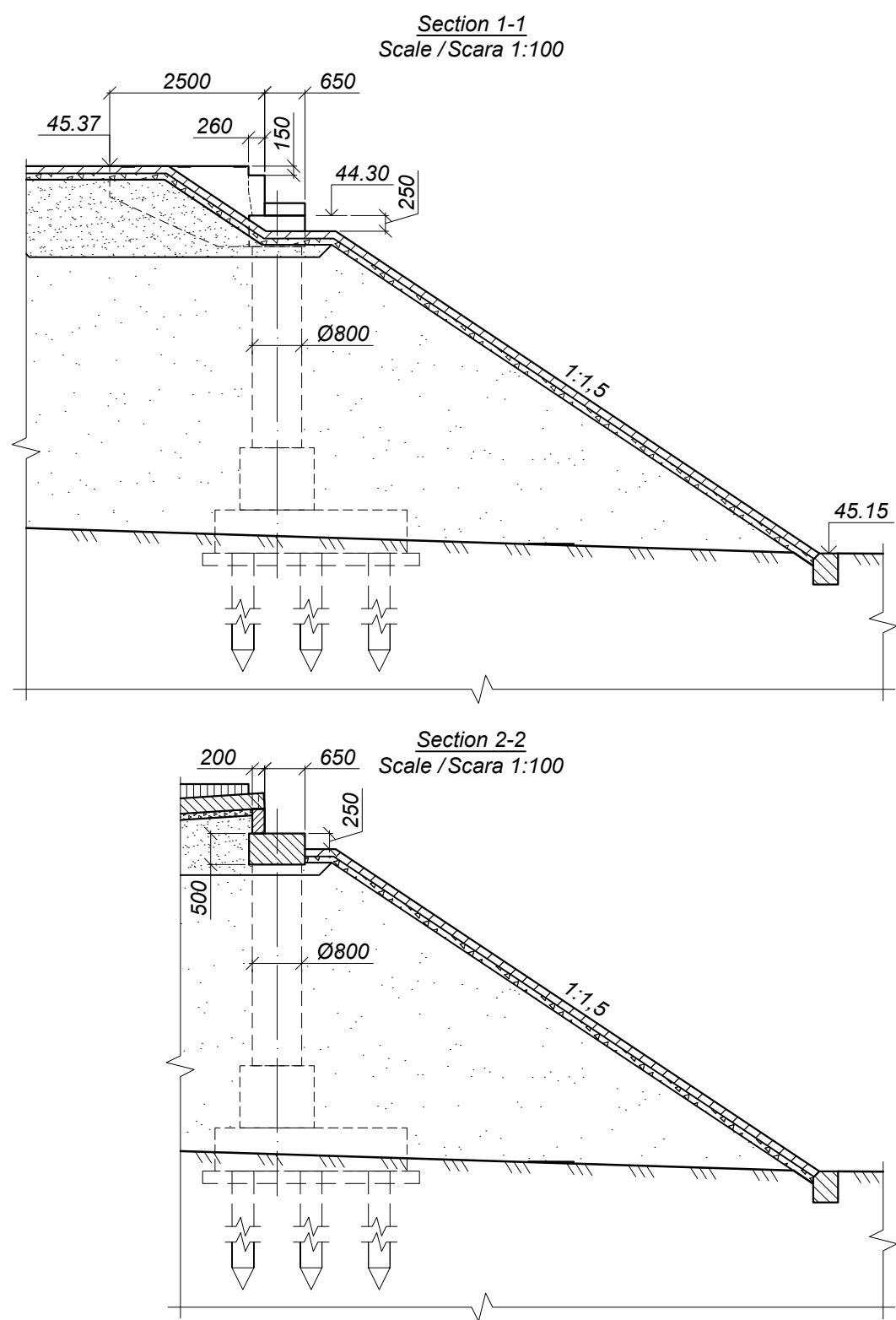
Chief engineer /  
Inginer șef proiect compartiment

A. Cekan

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road		Sector	Programme	Support	Project		
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
Universcons	Drawing title <i>Bridge.Pod, Km 64+756</i> <i>General data / Date generale</i>	Checked	N.Tcaci		Drawing DG-P-1		
		Control STAS	L.Pozdirca				

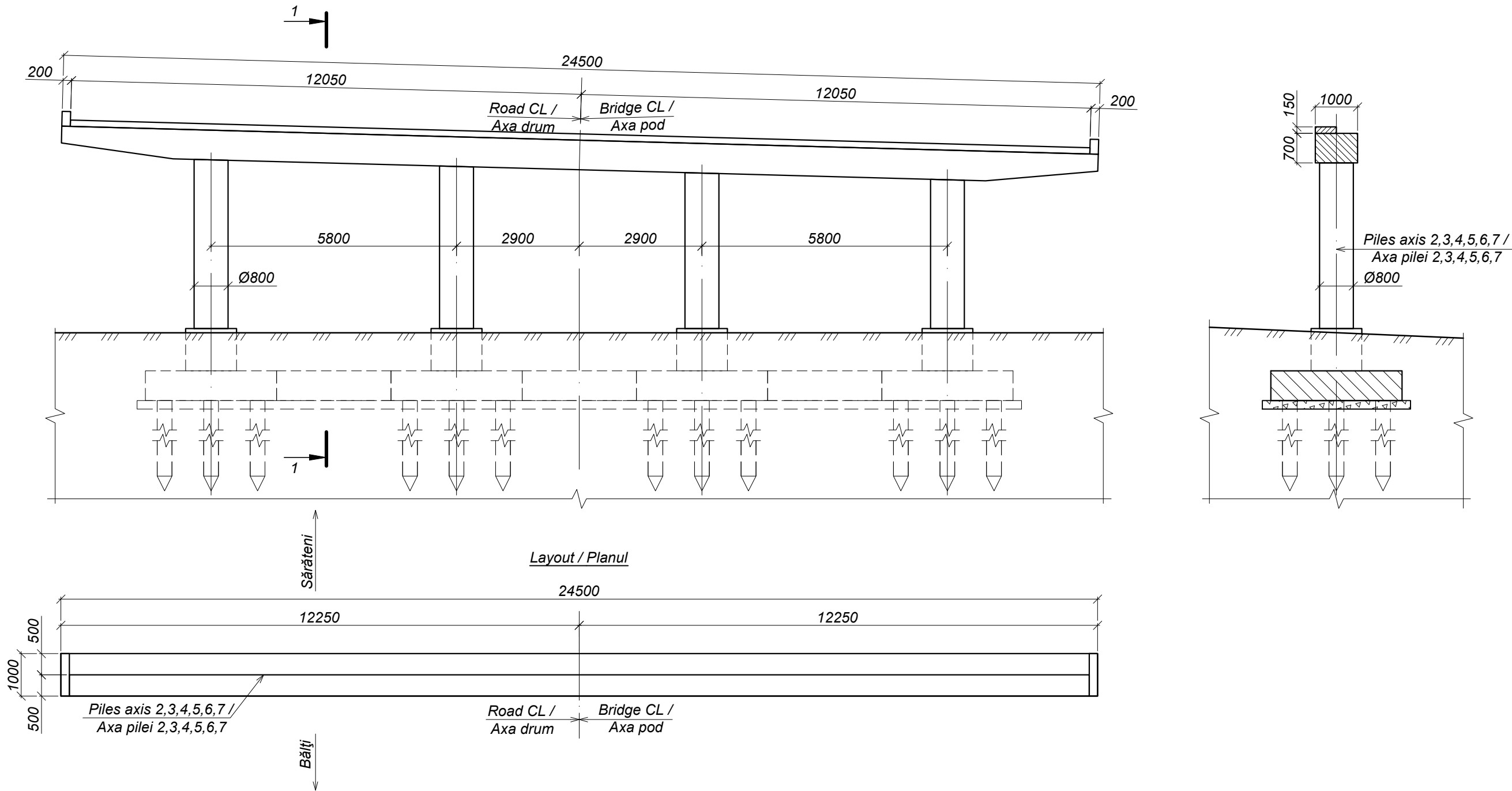




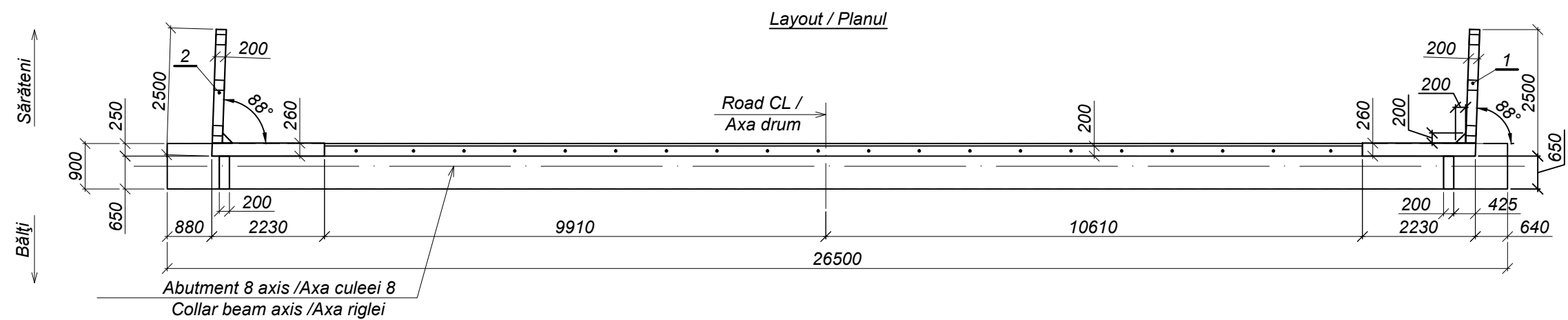
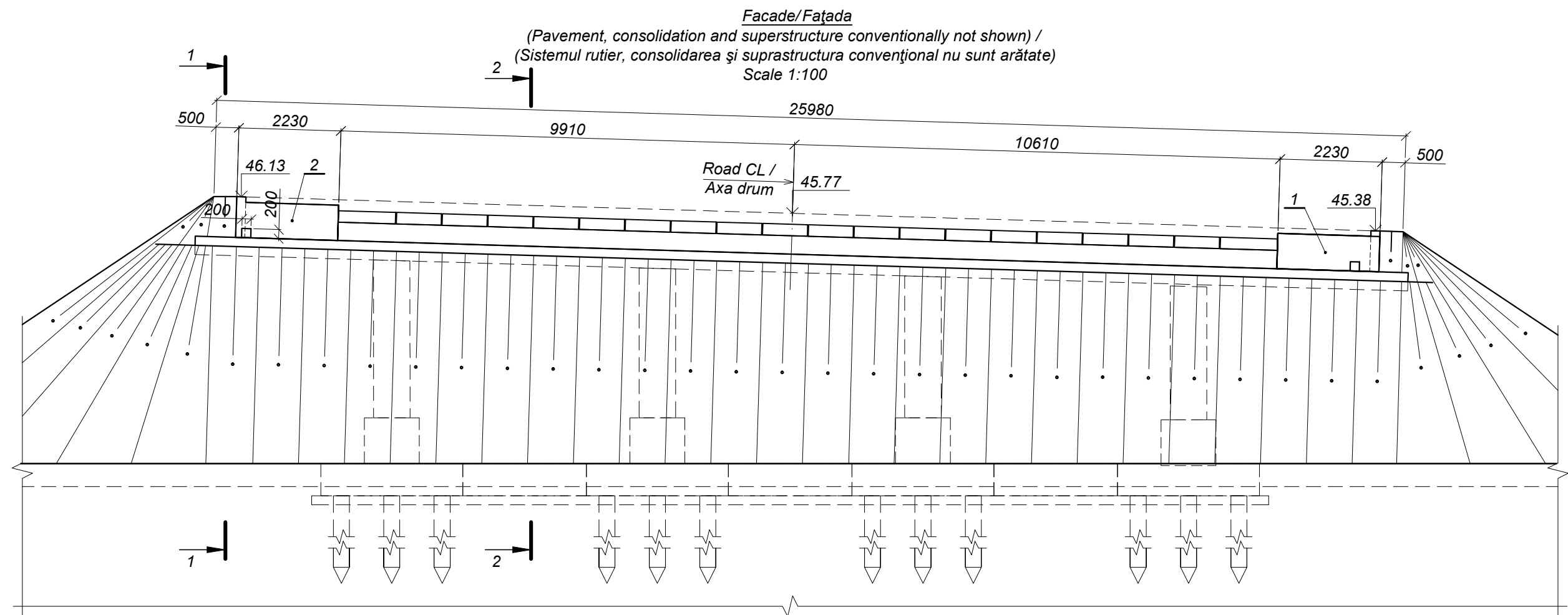


World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Balti-Saratenii  Drawing title <i>Bridge.Pod, Km 64 + 756</i> <i>General view of abutment 1.Section 1-1 and 2-2 /</i> <i>Dispoziția generală a culeei 1. Secțiunea 1-1 și 2-2</i>	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
		Checked	N.Tcaci		Drawing C-P-2		
		Control STAS	L.Pozdirca				

Facade/Fațada  
(Pavement and superstructure conventionally not shown) /  
(Sistemul rutier și suprastructura convențional nu sunt arătate)  
Scale 1:100



World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
		Road	Sector	Programme	Support	Project
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
Universcons	Drawing title <i>Bridge.Pod, Km 64 + 756</i> <i>General view of pile 2,3,4,5,6,7 / Dispoziția generală a pilei 2,3,4,5,6,7</i>	Designed	A.Cecan		Scale	
		Checked	N.Tcaci		Drawing PL-P-1	
		Control STAS	L.Pozdirca			

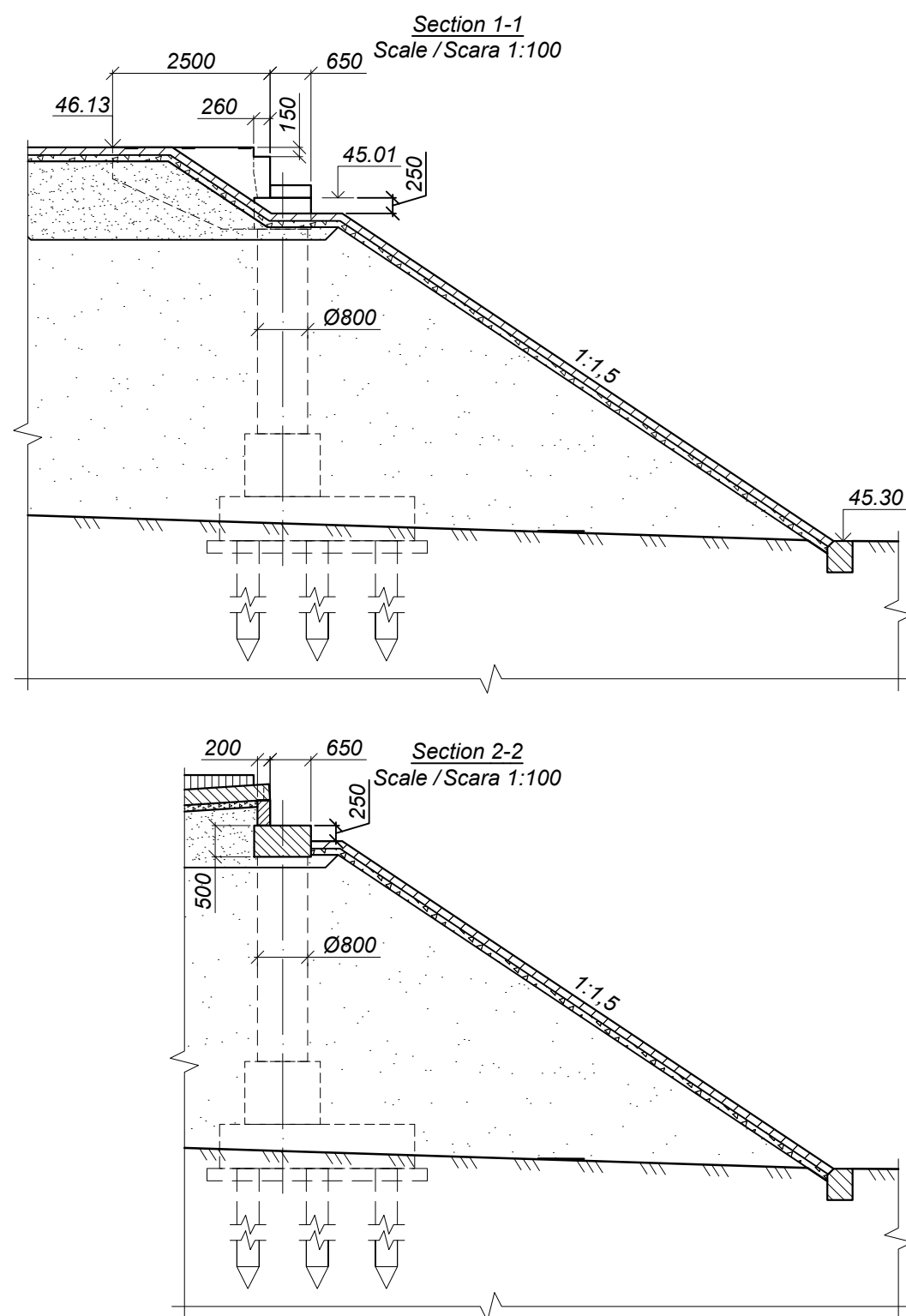


Note / Notă:

1. Wing 1.1 / Aripa 1.1
2. Wing 1.2 / Aripa 1.2

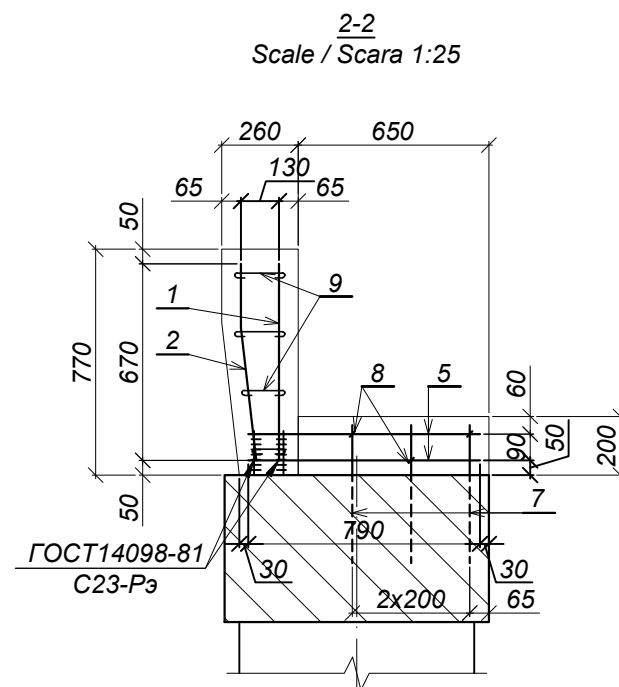
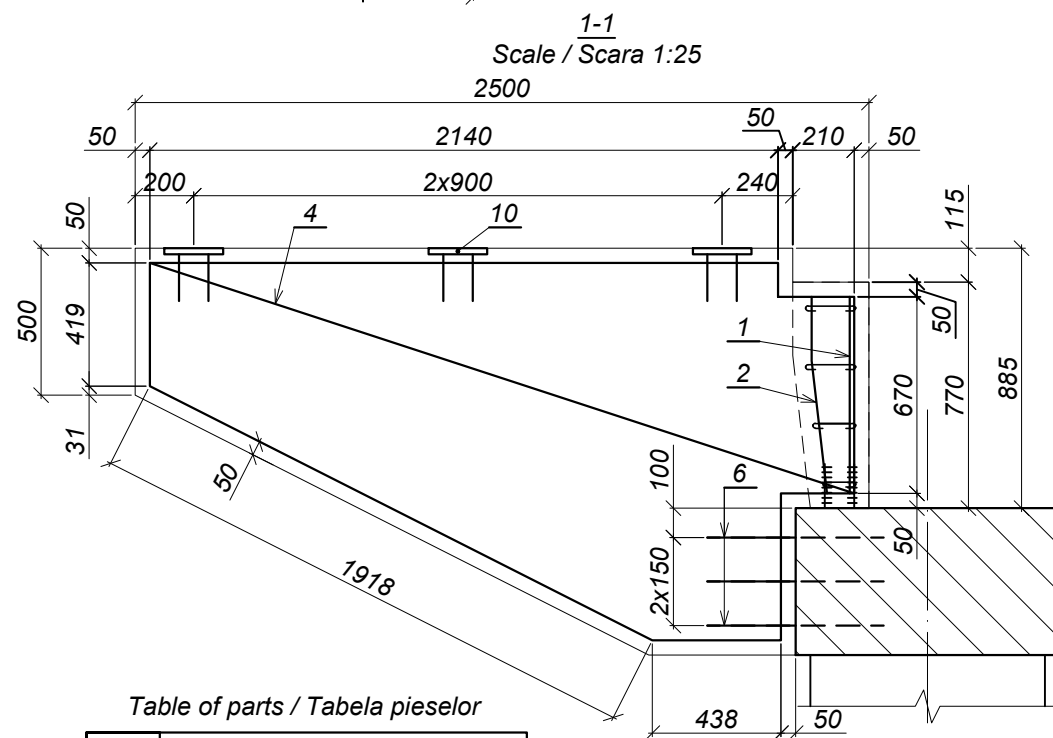
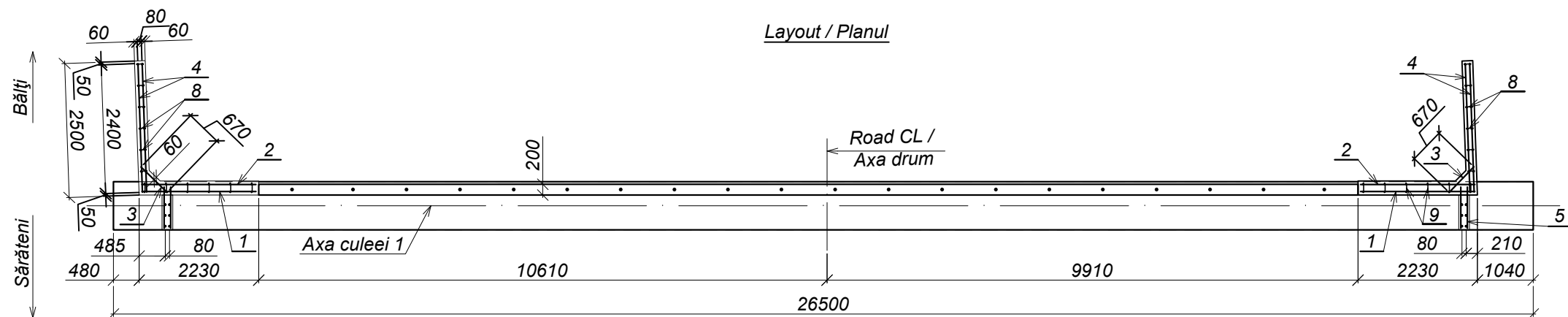
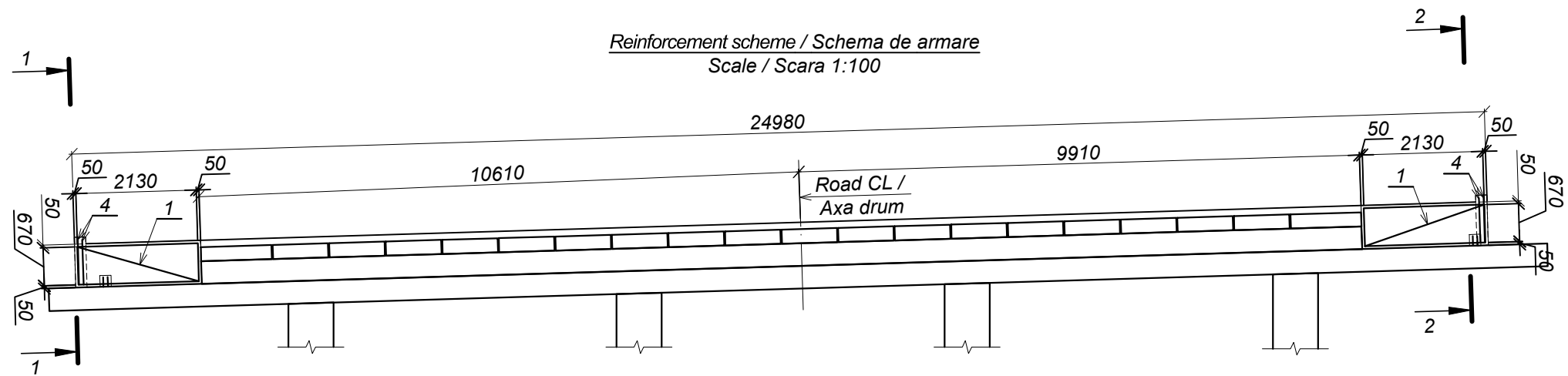
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Bridge.Pod, Km 64 + 756</i> <i>General view of abutment 8 / Dispoziția generală a culeei 8</i>	Checked	N.Tcaci		Drawing C-P-1	
		Control STAS	L.Pozdirca			



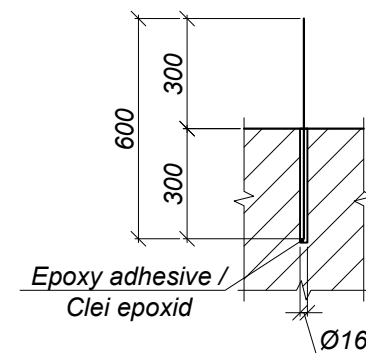


World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International  Universcons	Rehabilitation of R14 Road Balti-Saratenii  Drawing title <i>Bridge.Pod, Km 64 + 756</i> <i>General view of abutment 8. Section 1-1 and 2-2 /</i> <i>Dispoziția generală a culeei 8. Secțiunea 1-1 și 2-2</i>	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
		Checked	N.Tcaci		Drawing  C-P-2		
		Control STAS	L.Pozdirca				

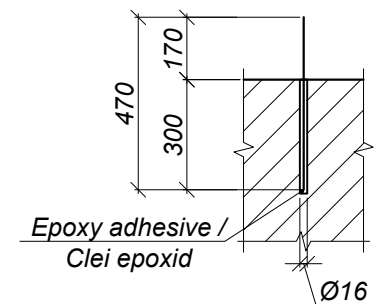




Pos. / Poz. 6  
Scara / Scara 1:20



Pos. / Poz. 7  
Scara / Scara 1:20



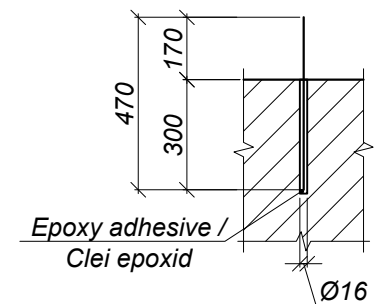
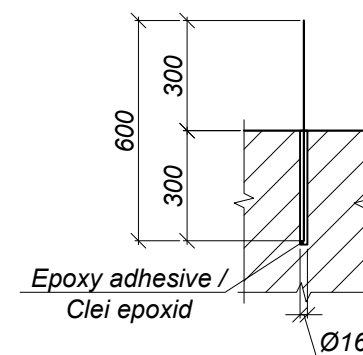
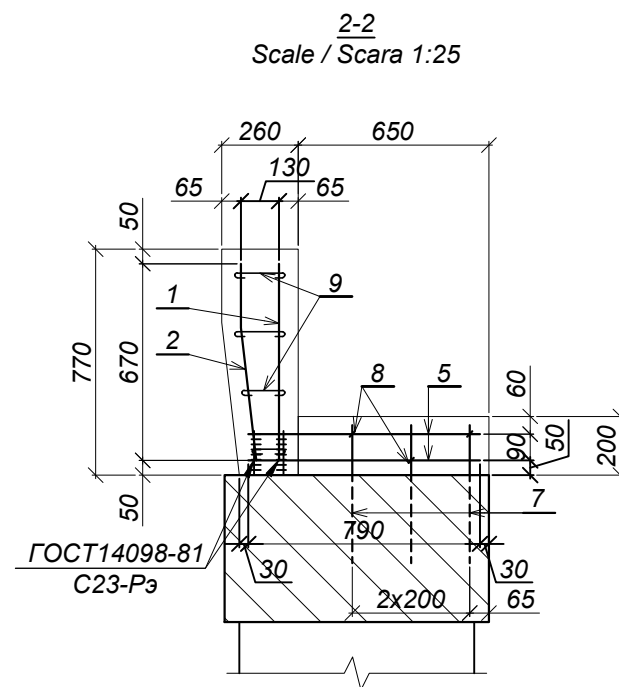
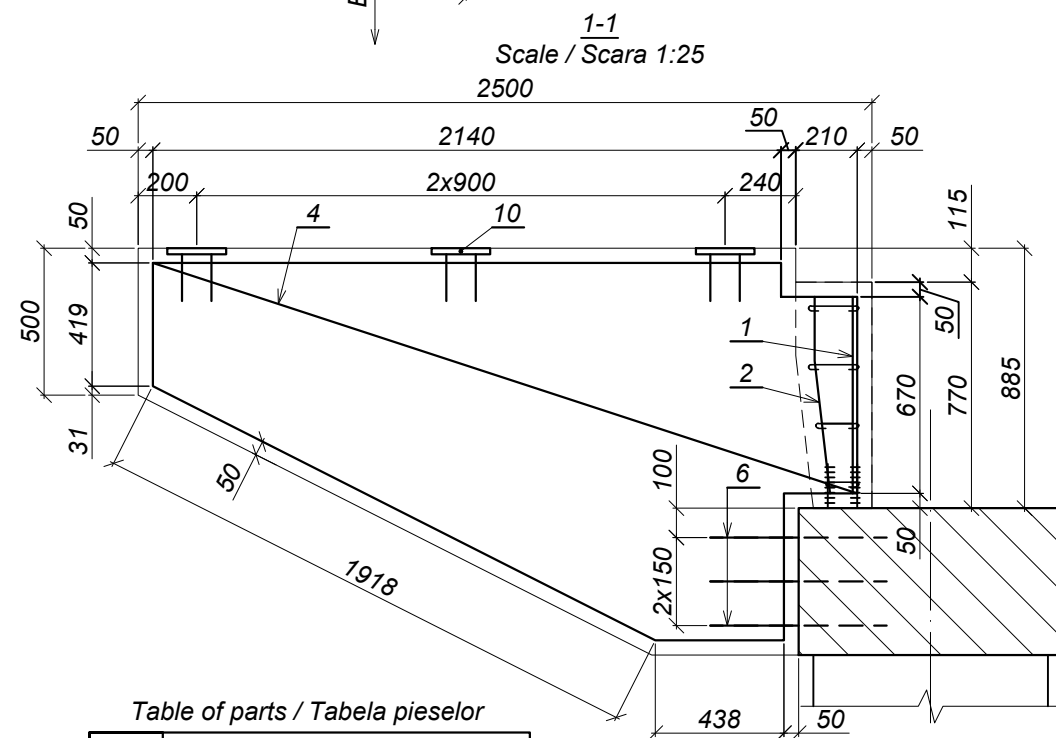
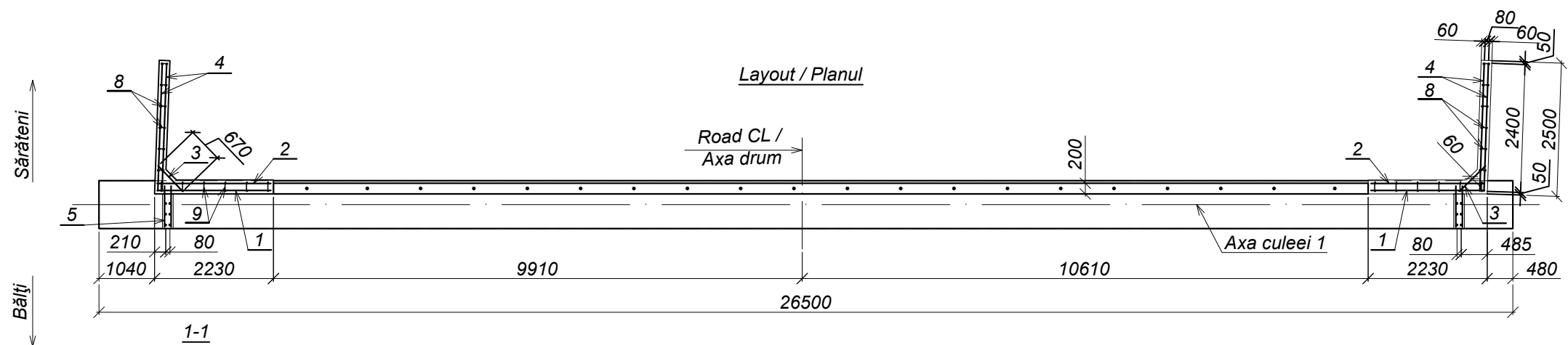
Note / Notă:

1. Steel grid 4C / Plasă de oțel 4C 213x67
2. Steel grid 4C / Plasă de oțel 4C 213x68
3. Steel grid 4C / Plasă de oțel 4C 67x67
4. Steel grid 4C / Plasă de oțel 4C 240x128,5
5. Reinforcement rod l=790
6. Reinforcement rod l=600
7. Reinforcement rod l=470
8. Reinforcement rod l=200
9. Reinforcement rod l=250
10. Embedded base plate EBP-2 / Piesă înglobată PÎ-2

Table of parts / Tabela pieselor

Pos. Poz.	Draft / Schiță
8	
9	

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme	Support	Project		
Roughton International	Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza	Date	04.2012
Universcons	Drawing title <i>Bridge.Pod, Km 64 + 756</i>		Designed	A.Cecan	Scale	
	Protection wall wing of abutmen 1. Reinforcement scheme / Aripa zidului de gardă la culeea 1. Schema de armare		Checked	N.Tcaci	Drawing AZGC-P-1	
			Control STAS	L.Pozdirca		

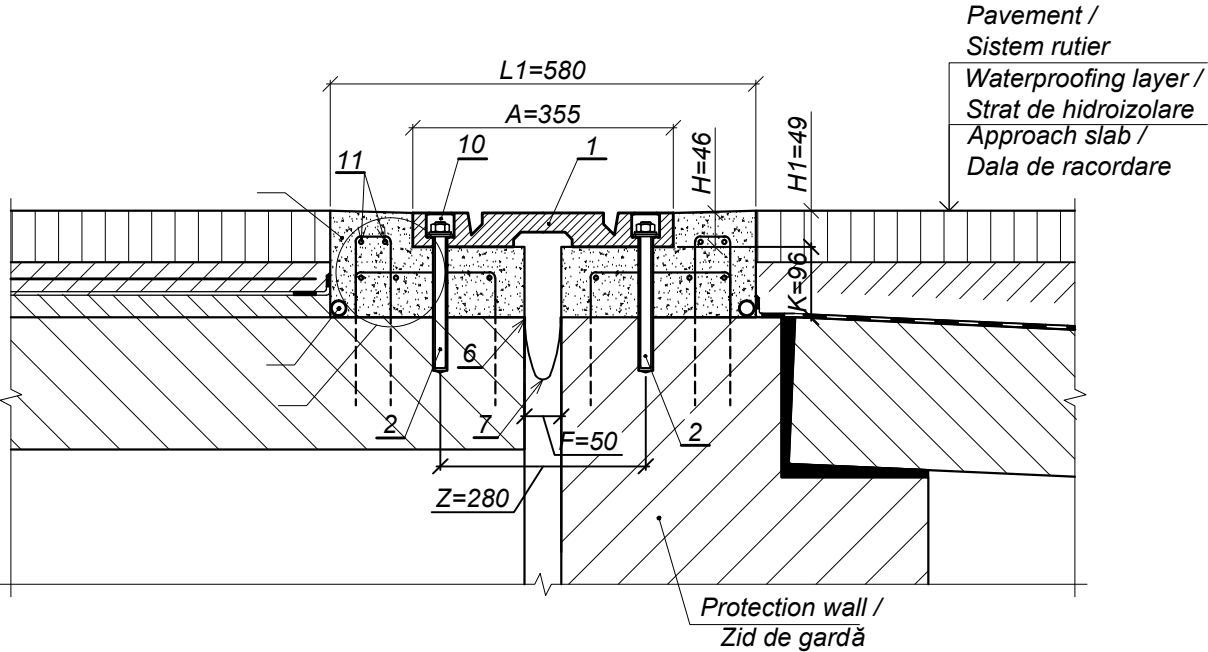


1. Steel grid 4C / Plasă de oțel 4C 213x67
2. Steel grid 4C / Plasă de oțel 4C 213x68
3. Steel grid 4C / Plasă de oțel 4C 67x67
4. Steel grid 4C / Plasă de oțel 4C 240x128,5
5. Reinforcement rod l=790
6. Reinforcement rod l=600
7. Reinforcement rod l=470
8. Reinforcement rod l=200
9. Reinforcement rod l=250
10. Embedded base plate EBP-2 / Piesă înglobată PÎ-2

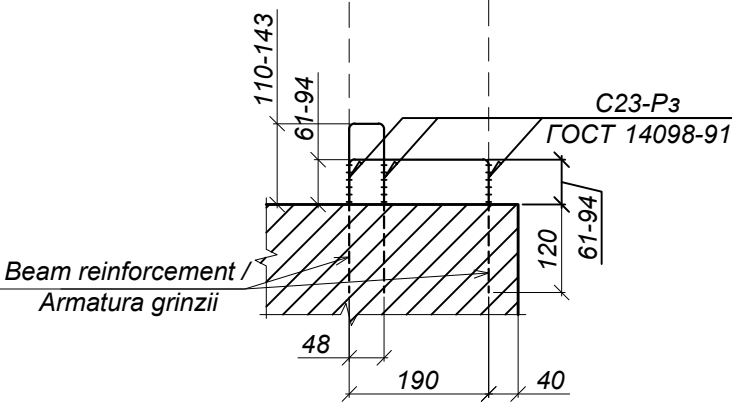
Pos. Poz.	Draft / <i>Schiță</i>
8	<u><math>l=200</math></u>
9	<u><math>l_{med}=250</math></u>

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road Sector Programme		Support Project					
Roughton International  Universcons	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
	Drawing title <i>Bridge.Pod, Km 64 + 756</i> <i>Protection wall wing of abutment 8. Reinforcement scheme</i> <i>/ Aripa zidului de gardă la culeea 8. Schema de armare</i>	Checked	N.Tcaci		Drawing  AZGC-P-2		
		Control	STAS	L.Pozdirca			

Expansion joint with elastomeric covering part ALGAFLEX T80 /  
Rost de dilatație cu element de acoperire elastomerică ALGAFLEX T80  
Scale / Scara 1:10



Joint / Nodul A  
Scale / Scara 1:10



Specification / Specificația

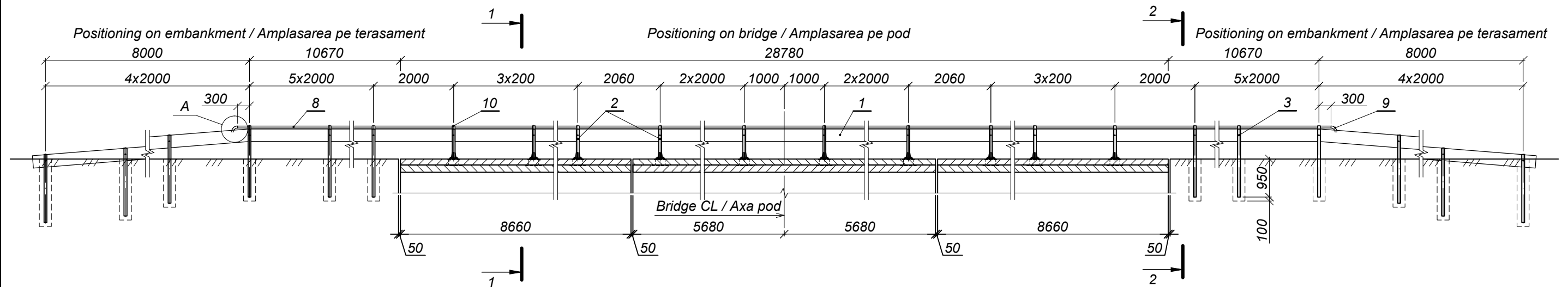
Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea
				<u>Expansion joint / Rost de dilatație</u> <u>ALGAFLEX T80</u>
			ALGAFLEX T80 Kit / Set ALGAFLEX T80	<u>Expansion joint kit parts / Pieseale rostului</u> <u>din setul ALGAFLEX T80</u>
		1	CNR 10018	Reinforced rubber covering / Placa de acoperire din cauciuc armat ALGAFLEX-GOMMA 355x46x2000
		2	UNI EN 10083/1	Chemical anchor / Bulon de ancorare (C40 + DACROMET 320)
		3	UNI 6592	Oval washer, washer / Șaibă de bulon (R40 / R60 + DACROMET 320)
		4	UNI 5588	Nut / Piulița bulonului (Cl. 6S + DACROMET 320)
		5	ALGA 668-M1029	Levelling mortar / Beton polimeric (Tigigrount 102FR)
		6	ALGA 668-M1029	Epoxy adhesive / Clei epoxid (Tigigrount T01)
		7	ALGA 668-M1029	Flashing (rubber) / Membrană din cauciuc (Tigitec - E) 200x3x17180
		8	ALGA 668-M1029	Epoxy resin / Clei epoxid (TigiepoX Grount)
		9	ALGA 668-M1029	PVC drainage pipe (sheathed) / Țeavă de drenaj din polimeri (PVC Ø20)
		10	ALGA 668-M1029	Filled recess / Material de sigilare (Tigitar A)
				<u>Parts from local materials /</u> <u>Pieseale rostului din materiale locale</u>
				<u>A-I-10 GOCT 5781-82*</u> <u>Cm3nc3 GOCT 380-94</u>
		11		Reinforcement rod l=17120

Note / Notă:

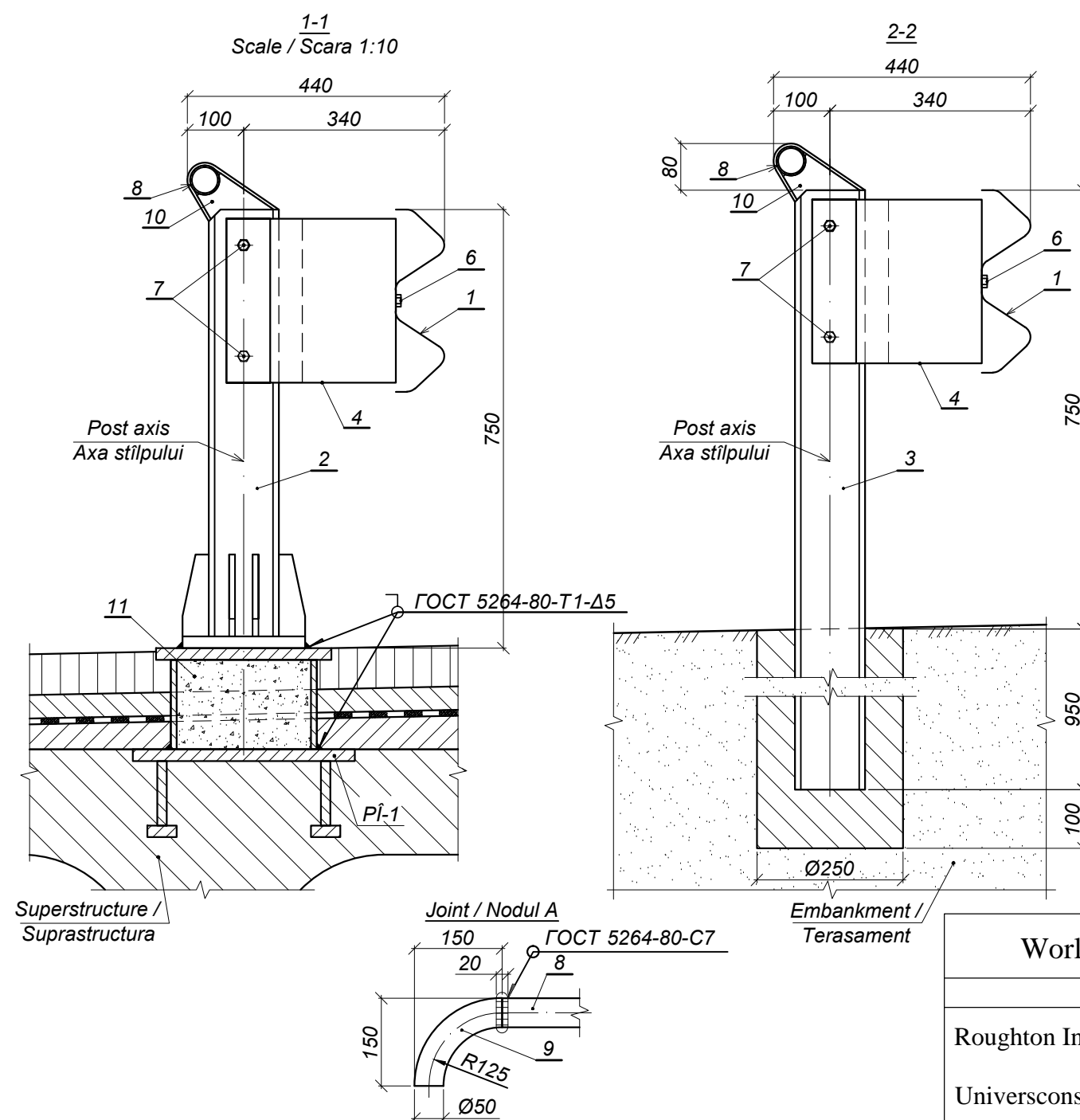
- Length of position 11 implies the need to splice reinforcement bars by welding according to the type of splicing / Lungimea poziției 11 include necesitatea îmbinării barelor de armatură prin sudare conform tipului de îmbinare C23-P3 GOCT 14098-91.
- Beam reinforcement is bent depending on road's gradient / Armatura grinzii se îndoaie în dependență de declivitatea drumului.
- Total quantity of steel for one expansion joint : 106.0 kg / Consumul total de metal pentru un rost: 106,0 kg.
- The project provides the covering of the expansion joint with elements from ALGAFLEX kit, produced by italian company "ALGA SPA" and used for bridge repair works / Proiectul prevede acoperirea rostului de dilatație cu elemente din setul ALGAFLEX produs de firma italiană "ALGA SPA" și utilizate la reparația podurilor.
- Contractor, with approval of Beneficiary and Designer can suggest another similar construction for joint covering / Antreprenorul, cu acordul Beneficiarului și Proiectantului, poate propune o altă construcție similară de acoperire a rostului.

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road		Sector	Programme	Support	Project		
Roughton International		Rehabilitation of R14 Road Balti-Saratenii		ISP	S.Bogza	Date	04.2012
				Designed	A.Cecan	Scale	
Universcons		Drawing title Expansion joint ALGAFLEX T80 / Rost de dilatație ALGAFLEX T80		Checked	N.Tcaci	Drawing RD-P-1	
				Control STAS	L.Pozdirca		

*Front view / Façada*  
*Scale / Scara 1:100*



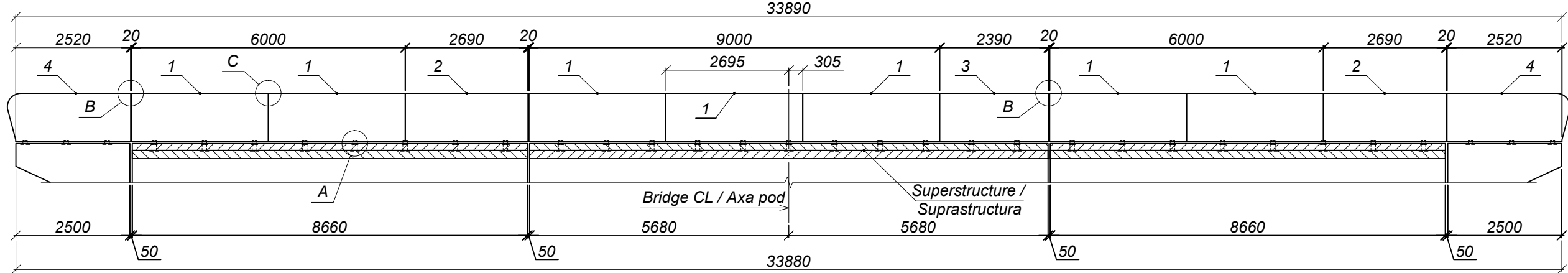
*Specification / Specificația*



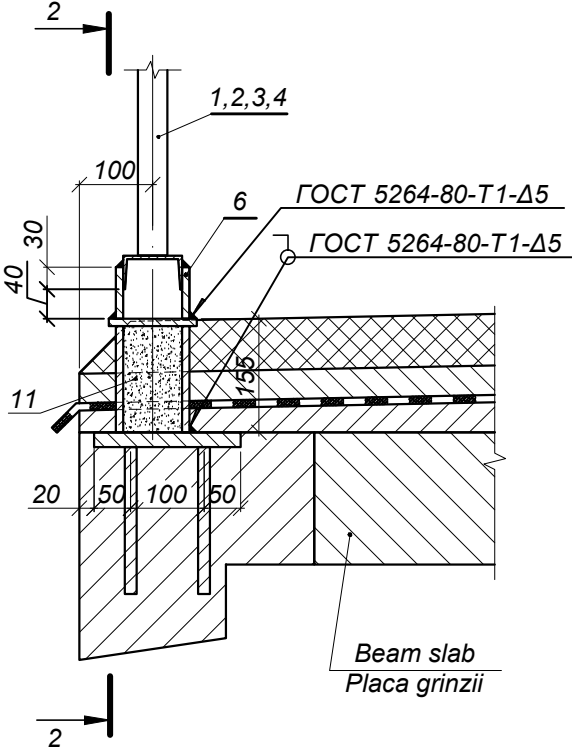
Format	Zona	Position / Poziția	Document Number / Indicativ	Name / Denumirea
				<u>Assembly pieces /</u> <u>Elemente de asamblare</u>
FP		1	ГОСТ 8240-89	W-beam profile / Profil lisă CB-2, l=6320
FP		2	2009/032D - 00.21.00 ГОСТ 8240-89	Rail post / Stîlpul parapetului CM*
FP		3	2009/032D - 00.22.00 ГОСТ 8240-89	Rail post / Stîlpul parapetului CD-3*
FP		4	Pr. tip Seria 3.503.1-81.3-1-10, Ediția 3-1	Offset block / Amortizator KA
FP		5	Pr. tip Seria 3.503.1-81.3-1-12, Ediția 3-1	Reflecting element / Reflector YC-1
FP		6	Pr. tip Seria 3.503.1-81.3-1-12, Ediția 3-1	Bolt / Bolt M16x45. Nut / Piuliță M16. Washer / Șaibă 20
FP		7	Pr. tip Seria 3.503.1-81.3-1-12, Ediția 3-1	Bolt / Bolt M16x30. Nut / Piuliță M16. Washer / Șaibă 16
FP		8	ГОСТ 8732-78*	Steel tube / Țeavă de metal Ø50, δ=2,5, l=50720. Cm3nc ГОСТ 8731-87
FP		9	ГОСТ 8732-78*	Steel tube / Țeavă de metal Ø50, δ=2,5, l=200. Cm3nc ГОСТ 8731-87
A4		10	2009/032D - 00.23.00	Tube attachment element / Element de fixare a țevii
A4		11	2009/032D - 00.19.00	Base plate / Soclul parapetului de siguranță Scl-1
				<u>Materials / Materiale</u>
			ГОСТ 26633-91*	Concrete / Beton cl. B20, F200, W4

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme Support Project						
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
		Designed	A.Cecan		Scale	
Universcons	Drawing title <i>Guardrailing / Parapet de siguranță a circulației vehiculelor</i>	Checked	N.Tcaci		Drawing PSCV-P-1	
		Control	STAS	L.Pozdirca		

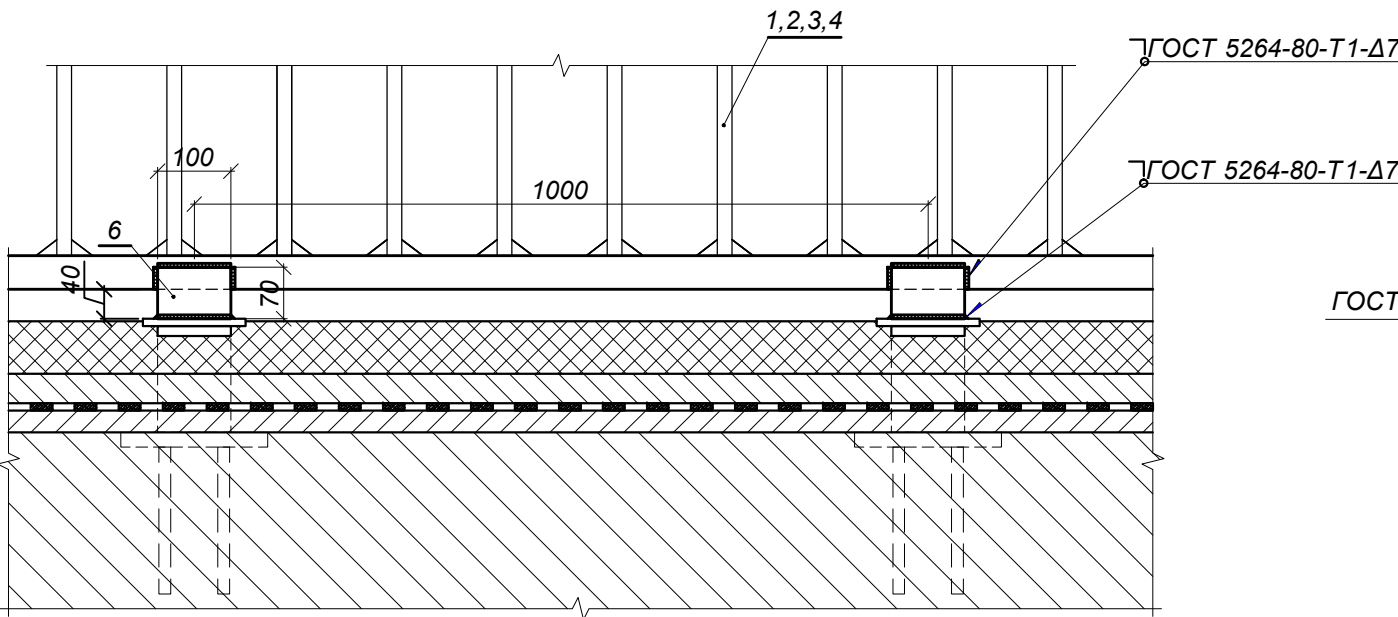
Front view / Fațada  
Scale / Scara 1:100



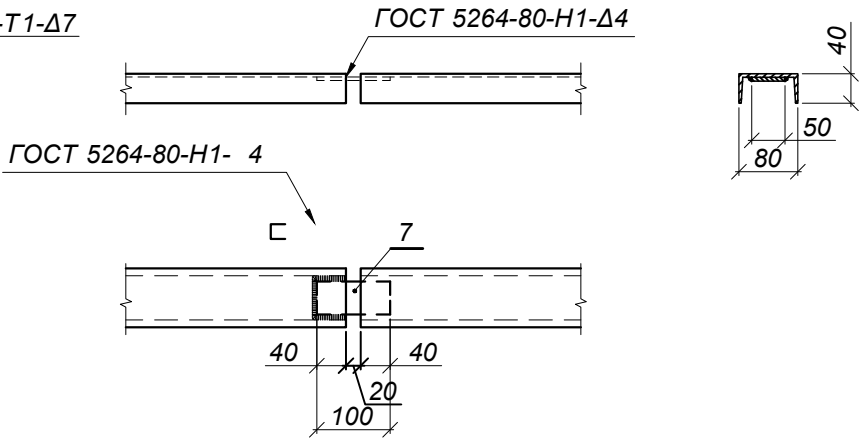
Joint A / Nodul A  
Scale / Scara 1:10



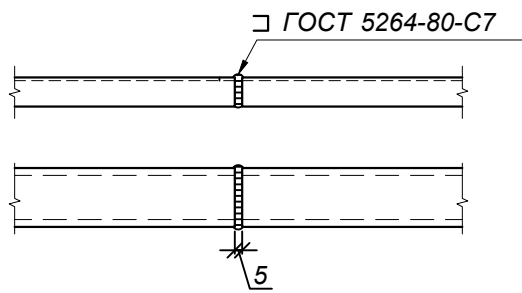
2-2



Joint B / Nodul B  
Scale / Scara 1:10



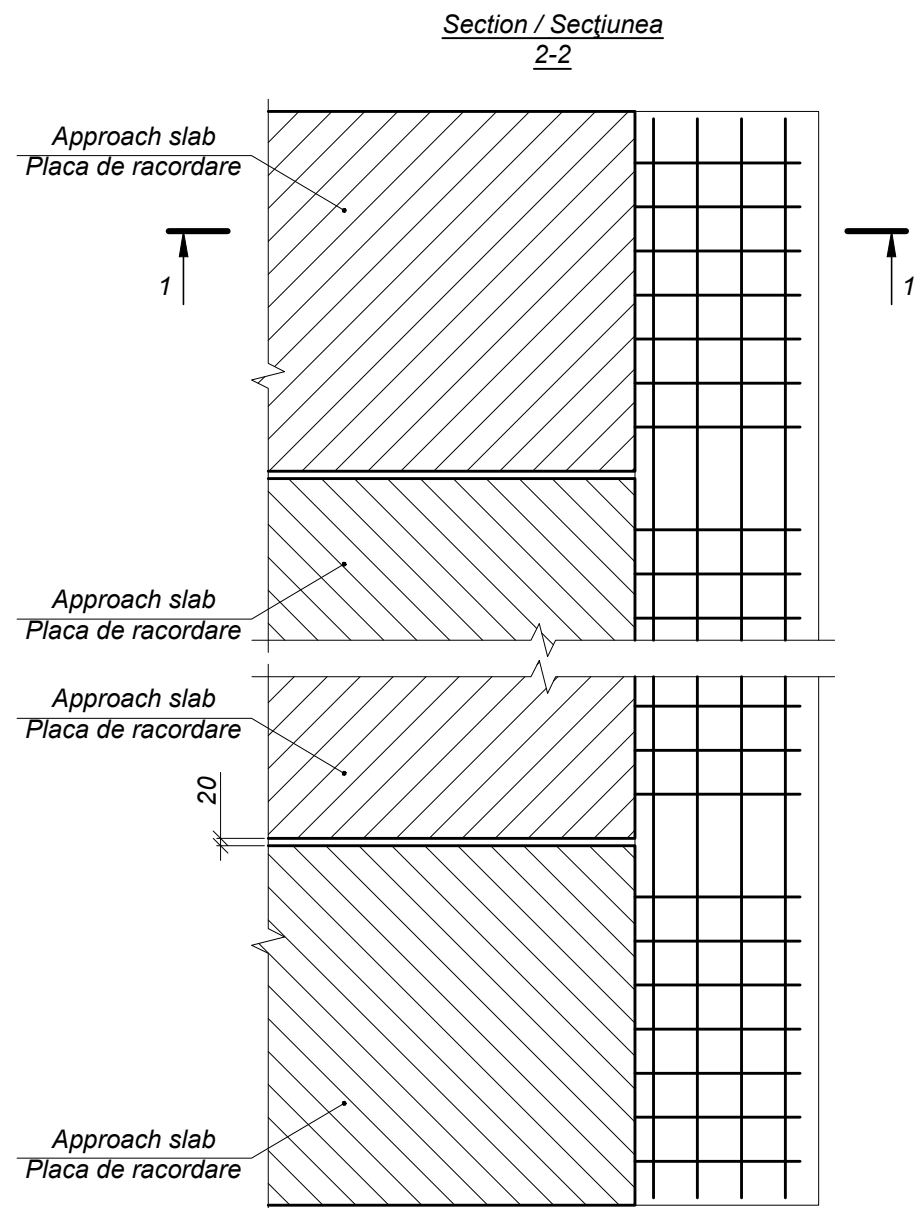
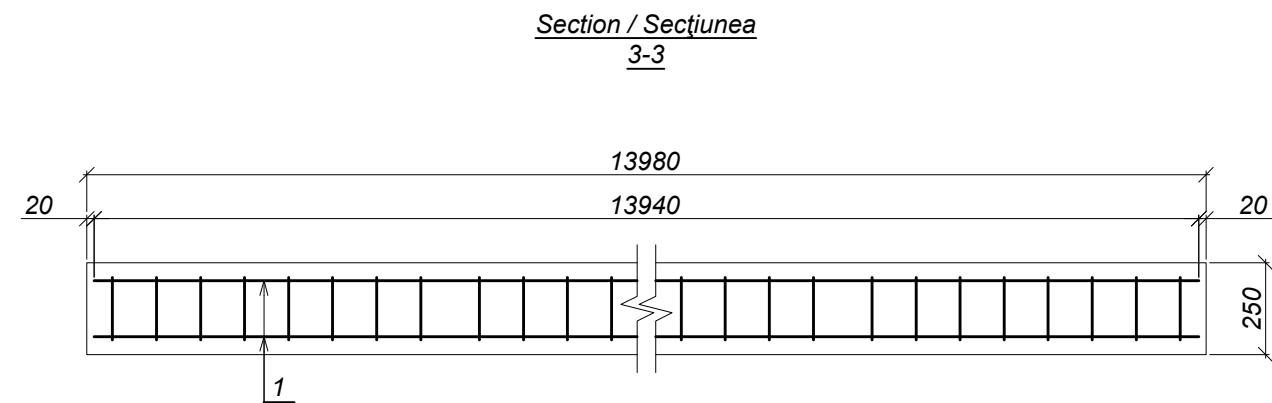
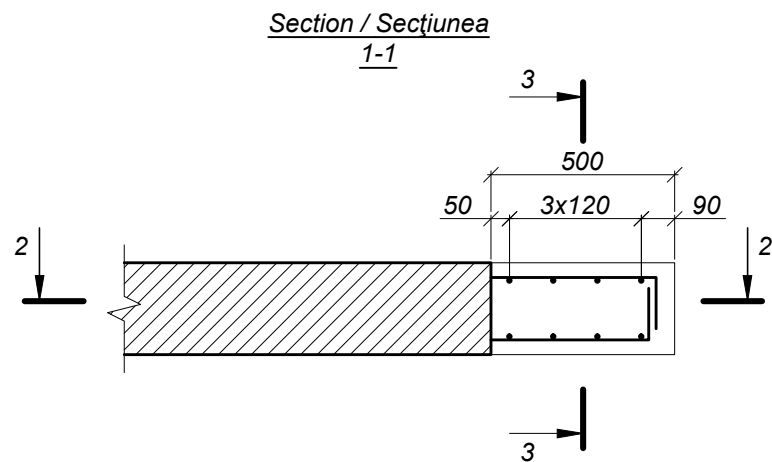
Joint C / Nodul C  
Joints between pedestrian guardrail sections /  
Rostul între panourile parapetului pietonal  
Scale 1:10



Specificația

Position / Pozitia	Document Number / Indicativ	Name / Denumirea
		<b>Assembly pieces / Elemente de asamblare</b>
1	2012/032D - 00.24.00	Pedestrian guardrail section Panoul parapetului pietonal SP-1
2	2012/032D - 00.24.00 - 01	Pedestrian guardrail section Panoul parapetului pietonal SP-2
3	2012/032D - 00.24.00 - 02	Pedestrian guardrail section Panoul parapetului pietonal SP-3
4	2012/032D - 00.24.00 - 03	Pedestrian guardrail section Panoul parapetului pietonal SP-4
5	2012/032D - 00.24.00	Base plate Socul parapetului pietonal Scl-2
		<b>Parts/Piese</b>
6		Б-ПН-10x70x100, ГОСТ19903-74, 16Д ГОСТ 6713-91
7		Б-ПН-10x50x100, ГОСТ19903-74, 16Д ГОСТ 6713-91

World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector		Programme	Support	Project		
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza	Date	04.2012	
		Designed	A.Cecan	Scale		
Universcons	Drawing title Pedestrian guardrail / Parapet de siguranță pietonal	Checked	N.Tcaci	Drawing	PSP-P-1	
		Control STAS	L.Pozdirca			



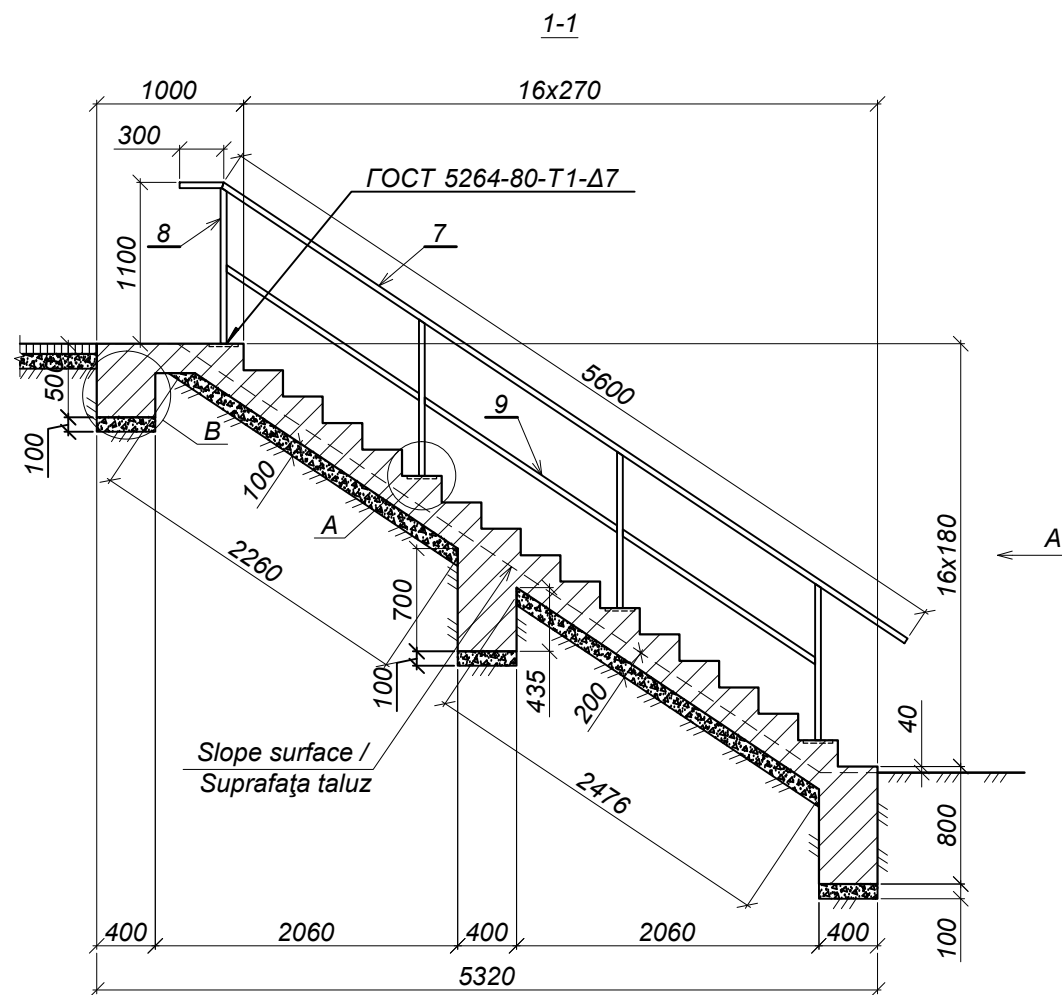
Specification / Specificația

Format	Zona	Position / Pozitia	Document Number / Indicativ	Name / Denumirea	Quantity / Cantitatea	Note / Notă
				Elements / Piese		
FP		1		A-III-18 GOCT 5781-82* 25Г2С GOCT 5781-82*		
				Reinforcement rod l=13940	8	27,9 kg
				Materials / Materiale		
			GOCT 26633-91*	Concrete / Beton cl. B30, F200, W6		1,75 m³

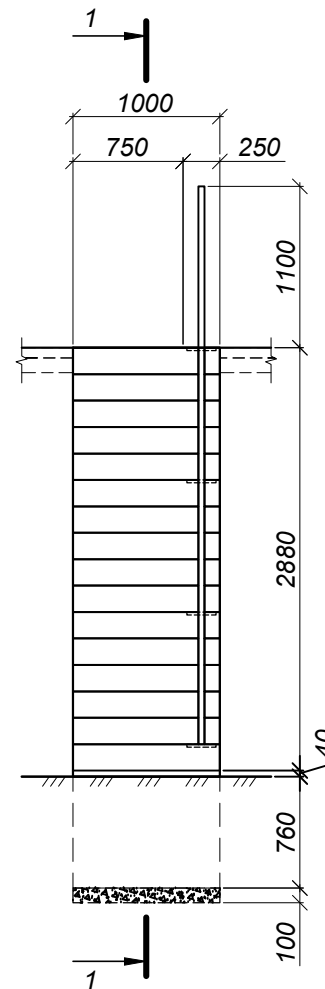
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration					
Road      Sector      Programme      Support      Project							
Roughton International  Universcons	Rehabilitation of R14 Road Balti-Saratenii  Drawing title <i>For all bridges / Pentru toate podurile</i> <i>Connection joint between approach slabs</i> <i>Nodul de imbinare a plăcilor de racordare</i>	ISP	S.Bogza		Date	04.2012	
		Designed	A.Cecan		Scale		
		Checked	N.Tcaci		Drawing  NIPR-P-1		
		Control STAS	L.Pozdirca				



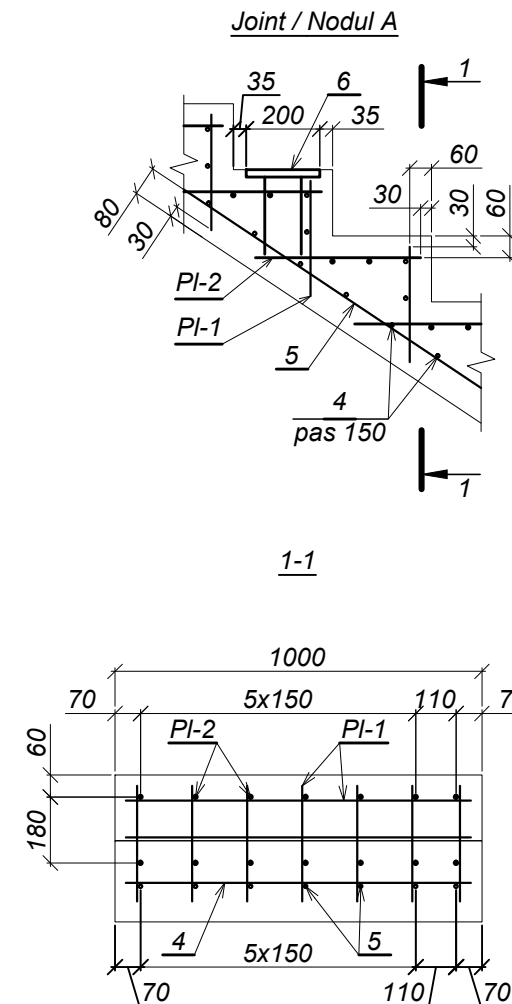
Formwork / Schema de cofraj  
Scale / Scara 1:50



View / Vederea A



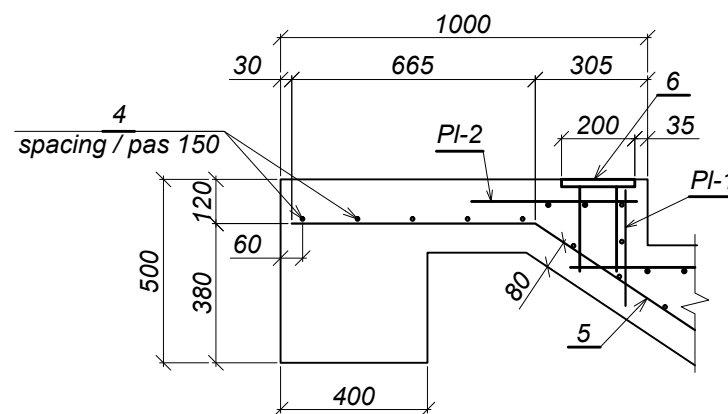
Reinforcement scheme / Schema de armare  
Scale / Scara 1:20



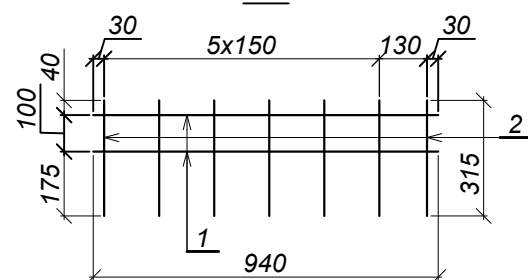
Specification / Specificația

Position / Poziția	Name / Denumirea
	Grid / Plasa PI-1
	A-III-12 GOCT 5781-82* 25Г2С GOCT 5781-82*
1	Reinforcement rod l=940
2	Reinforcement rod l=315
	Grid / Plasa PI-2
	A-III-12 GOCT 5781-82* 25Г2С GOCT 5781-82*
1	Reinforcement rod l=940
3	Reinforcement rod l=450
	Parts / Piese
	A-III-12 GOCT 5781-82* 25Г2С GOCT 5781-82*
4	Reinforcement rod l=940
5	Reinforcement rod l=6190
6	Embedded base plate 3 / Piesa PÎ-3
	Railing / Parapet
7	Tube / Țeavă Ø50, δ=2,5, GOCT8732-78, l=5900
8	Tube / Țeavă Ø50, δ=2,5, GOCT8732-78, l=1060
9	Tube / Țeavă Ø50, δ=2,5, GOCT8732-78, l=1600
	Materials / Materiale
	Concrete / Beton cl.B30, F200, W6
	Granit crushed stone / Piatră spartă de granit

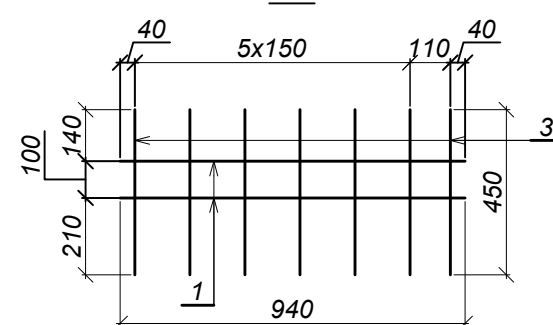
Joint / Nodul B



PI-1



PI-2



World Bank

Republic of Moldova

Ministry of Transport and Road Industry  
State Road Administration

Road Sector Programme Support Project

Roughton International

Rehabilitation of R14 Road  
Balti-Saratenii

ISP

S.Bogza

Date

04.2012

Designed

A.Cecan

Scale

Universcons

Drawing title  
Backstairs /  
Scară de serviciu

Checked

N.Tcaci

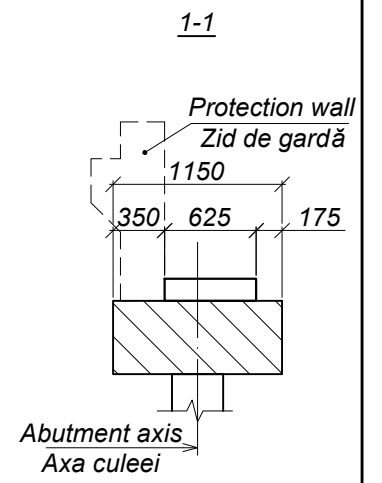
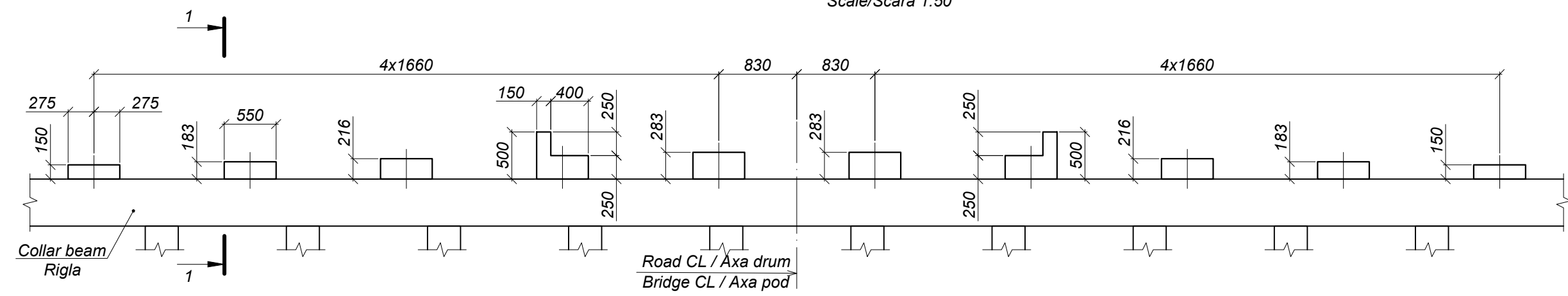
Drawing

SS-P-1

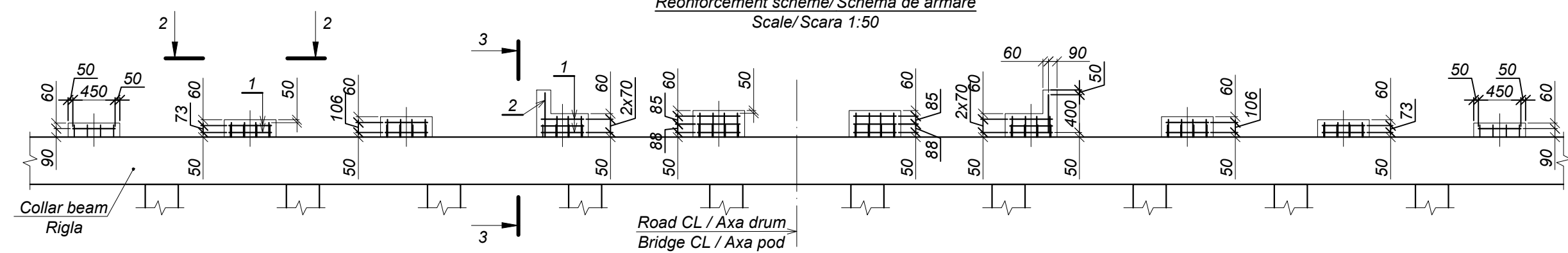
Control STAS

L.Pozdirca

Formwork layout / Schema de cofraj  
(protection wall is not shown)/(zigul de gardă convențional nu este arătat)  
Scale/Scara 1:50



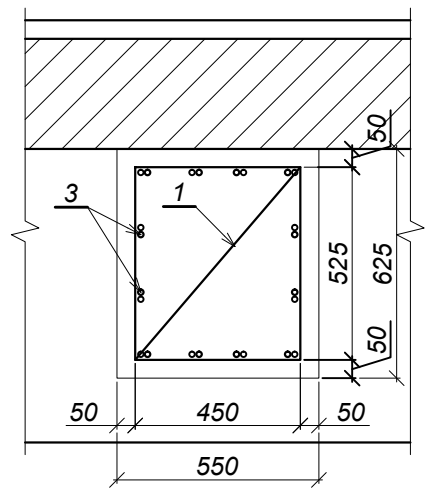
Reinforcement scheme / Schema de armare  
Scale/Scara 1:50



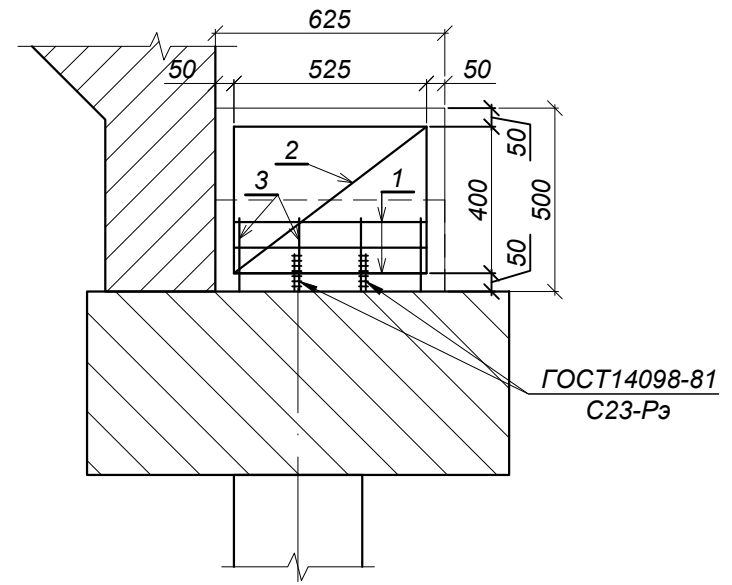
Specification / Specificația

Format	Zona / Position / Pozitia	Document Number / Indicativ	Name / Denumirea
			Assembly elements Elemente de asamblare
FP	1	ГОСТ23279-85	Steel grid 4C 8 A-I-100 Plasă de oțel 4C 8 A-I-100 52,5x45
FP	2	ГОСТ23279-85	Steel grid 4C 8 A-I-100 Plasă de oțel 4C 8 A-I-100 52,5x40
FP	3		A-III-14 ГОСТ 5781-82* ,I <sub>med</sub> =185 25Г2С ГОСТ 5781-82*
			Materials/Materiale
		ГОСТ 26633-91*	Concrete/Beton cl.B25, F200, W6

2-2  
Scale/Scara 1:20



3-3  
Scale/Scara 1:20



Note/Notă:  
1. Protection layer/Stratul de protecție - 50 mm.

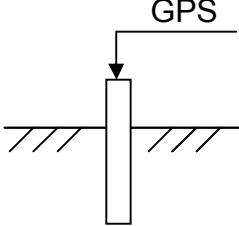
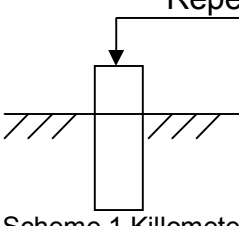
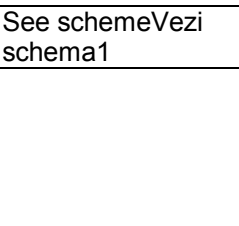
World Bank	Republic of Moldova	Ministry of Transport and Road Industry State Road Administration				
Road Sector Programme		Support Project				
Roughton International	Rehabilitation of R14 Road Balti-Saratenii	ISP	S.Bogza		Date	04.2012
Universcons	Drawing title Bridge.Pod Seating bearing parts of abutment Cuzineții culeei	Designed	A.Cecan		Scale	
		Checked	N.Tcaci		Drawing CC-P-1	
		Control STAS	L.Pozdirca			

**Sheets by chainages**

Nr. Drawing	Name	Page
<b>1</b>	<b>2</b>	<b>4</b>
<b>Road</b>		
1	Sheets by chainages	
2	List of benchmarks	
3	Road Geometrical Elements	
4	List of existing bridges and culverts	
5	List of Existing and Desidned Kerbs	
6	List of designed lined side drains	
7	List of Lined Existing drains	
8	Pavement Quantities	
9	List of chutes on the slope	
10	Side roads construction	
11	Property accesses	
12	List of sidewalks	
13	List of junctions lane ,bus laybys	
14	List of Existing and Designed guardrails	
15	List of road signs	
16	List of marker posts	

# **List of benchmarks** **Lista punctelor de reper**

**Rehabilitation of Road** Bălți - Sărăteni km 43+000 - km 66+665.7  
**Reabilitarea drumului auto** Bălți - Sărăteni km 43+600 - km 66+665.7

Nr.	Km	PC +	Nr. Rp	X	Y	Level of benchmark Cota reperului, m	Distance (lin.m) between benchmark and road axis,m Distanța reperului de la axă, m		Scheme of benchmark  Schema reperului
							RHS dreapta	LHS stînga	
1	2	3	4	5	6	7	8	9	10
									
1.	11	107+85,16	GPS1	289493,406	166736,562	141,412	12,40	-	
									
2.	12	111+56,24	11	289218,138	166985,400	141,727	13,65	-	
									
3.	12	111+82,97	GPS2	289214,653	167021,237	141,828	-	10,32	
4.	13	121+43,11	12	288490,311	167651,799	178,964	9,42	-	<p align="center">See scheme2 Vezi schema 2</p>
5.	14	131+25,31	13	287799,865	168333,484	179,530	11,11	-	
6.	15	142+32,22	14	287392,342	169303,246	193,905	11,34	-	
7.	16	152+67,19	15	286443,788	169701,473	182,705	11,19	-	
8.	17	162+96,24	16	285560,316	170228,805	165,137	11,97	-	
9.	18	173+33,39	17	284677,780	170773,992	160,606	11,25	-	
10.	19	183+61,12	18	283799,665	171307,378	166,467	12,45	-	
11.	20	193+24,61	19	282973,764	171803,601	156,258	11,22	-	
12.	21	201+49,15	20	282264,047	172222,976	155,316	10,96	-	
13.	22	213+87,39	21	281235,856	172908,137	152,438	11,04	-	
14.	23	225+78,91	22	280384,534	173741,041	151,177	10,18	-	
15.	24	236+16,84	23	279687,804	174511,793	124,369	12,78	-	
16.	25	244+67,29	24	279136,677	175159,453	95,283	10,12	-	
17.	26	252+75,41	25	278611,301	175761,052	92,002	12,03	-	
18.	27	261+57,62	26	278437,193	176626,349	89,736	11,44	-	
19.	28	279+15,56	28	277364,608	177877,322	104,873	7,86	-	
20.	29	289+24,18	29	277042,273	178824,349	127,015	9,61	-	
21.	30	299+43,75	30	276876,883	179830,077	119,913	8,98	-	
22.	31	309+58,86	31	276707,037	180829,163	115,607	10,03	-	
23.	32	319+31,77	32	276365,800	181717,400	109,388	8,01	-	
24.	33	329+76,48	33	275854,258	182585,743	86,184	8,46	-	
25.	34	339+21,41	34	276289,157	183401,047	82,294	6,85	-	
26.	35	349+29,67	35	275973,958	184354,543	81,517	7,74	-	
27.	36	359+71,60	36	275630,312	185338,654	78,800	8,80	-	

[illegible]

**ROAD GEOMETRICAL ELEMENTS**  
**ELEMENTELE GEOMETRICE ALE TRASEULUI**

ANGELS UNGHIURI					CURVES CURBE													Alignments ALINIAMENTE		Azimut	Coordinates Coordonate, m	
Number angels Nr.unghi	Angle vertex Pozitie vârful unghi		Angle degree Mărire unghi		R, m	L1, m	L2, m	T1, m	T2, m	Lenth of Linking Lungime racordarei, m	Lenth of circular curve Lungim arc de cerc,m	B, m	D, m	Beginning of linking Început racordare, PC +	Beginning of circular curve Început arc de cerc, PC +	End of circular curve Sfârșit arc de cerc, PC +	End of linking Sfârșit racordare,PC +	Distance Distanța între VU, m	Lunghime aliniament,m		Y	X
	PC+	km	RHS stînga	RHS dreapta																		
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
Ît	107+84.00	11	0°0'0.0"																		289502,65	166744,95
VU1	114+84.21	11		0°9'43.9"	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	114+84.21	114+84.21	114+84.21	114+84.21	700,21	700,21	SE:42°19.8'		
VU2	123+70.26	12		15°41'17.1"	330,00	90,00	90,00	90,58	90,58	180,36	0,36	4,15	0,79	122+79.68	123+69.68	123+70.04	124+60.04	886,05	795,47	SE:42°10.0'		
																		199,97	23,74	SE:26°28.7'		
VU3	125+69.43	13	20°37'28.0"		250,00	80,00	80,00	85,65	85,65	169,99	9,99	5,19	1,30	124+83.78	125+63.78	125+73.78	126+53.78				288149,27	167900,42
																		470,28	161,33	SE:47°6.2'		
VU4	130+38.41	13	28°35'28.1"		640,00	120,00	120,00	223,30	223,30	439,37	199,37	21,42	7,24	128+15.11	129+35.11	131+34.47	132+54.47				287829,16	168244,94
																		839,47	492,14	SE:75°41.7'		
VU5	138+70.63	14		13°15'26.6"	550,00	120,00	120,00	124,02	124,02	247,26	7,26	4,80	0,78	137+46.61	138+66.61	138+73.88	139+93.88				287621,74	169058,38
																		264,79	48,33	SE:62°26.2'		
VU6	141+34.65	14		50°57'23.6"	130,00	60,00	60,00	92,44	92,44	175,62	55,62	15,28	9,27	140+42.21	141+2.21	141+57.82	142+17.82				287499,21	169293,11
																		185,52	24,88	SE:11°28.8'		
VU7	143+10.90	14	3°48'39.4"		2050,00	0,00	0,00	68,20	68,20	136,35	136,35	1,13	0,05	142+42.70	142+42.70	143+79.06	143+79.06				287317,40	169330,04
																		453,16	317,27	SE:15°17.5'		
VU8	147+64.01	15	15°59'17.0"		250,00	65,00	65,00	67,69	67,69	134,76	4,76	3,16	0,62	146+96.32	147+61.32	147+66.08	148+31.08				286880,29	169449,55
																		768,47	700,78	SE:31°16.8'		
VU9	155+31.87	16		0°31'51.8"	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	155+31.87	155+31.87	155+31.87	155+31.87				286223,52	169848,55
																		728,94	728,94	SE:30°44.9'		
VU10	162+60.81	16		0°17'46.0"	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	162+60.81	162+60.81	162+60.81	162+60.81				285597,05	170221,24
																		439,40	387,65	SE:30°27.1'		
VU11	167+0.20	17	1°58'34.7"		3000,00	0,00	0,00	51,74	51,74	103,48	103,48	0,45	0,01	166+48.46	166+48.46	167+51.94	167+51.94				285218,27	170443,93
																		923,29	674,87	SE:32°25.7'		
VU12	176+23.48	18		1°30'8.5"	15000,00	0,00	0,00	196,67	196,67	393,32	393,32	1,29	0,02	174+26.81	174+26.81	178+20.12	178+20.12				284438,96	170939,04
																		1990,23	1793,56	SE:30°55.6'		
VU13	196+13.69	20		0°34'44.4"	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	196+13.69	196+13.69	196+13.69	196+13.69				282731,68	171961,89
																		586,32	586,32	SE:30°20.8'		
VU14	202+0.00	20	0°11'04"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	202+0.00	202+0.00	202+0.00	202+0.00				282225,70	172258,13
																		903,96	765,24	SE:30°32.2'		
VU15	211+3.96	21	13°47'38.0"		650,00	120,00	120,00	138,72	138,72	276,49	36,49	5,67	0,95	209+65.24	210+85.24	211+21.73	212+41.73				281447,12	172717,41
																		1649,23	1441,46	SE:44°19.8'		
VU16	227+52.24	23	3°51'30.1"		2050,00	0,00	0,00	69,05	69,05	138,05	138,05	1,16	0,05	226+83.19	226+83.19	228+21.24	228+21.24				280267,38	173869,89
																		554,77	485,72	SE:48°11.3'		
VU17	233+6.96	23	1°38'32.1"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	233+6.96	233+6.96	233+6.96	233+6.96				279897,53	174283,38
																		394,18	394,18	SV:49°49.9'		
VU18	237+1.14	24		0°31'23.6"	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	237+1.14	237+1.14	237+1.14	237+1.14				279643,27	174584,59
																		266,90	266,90	SE:49°18.5'		
VU19	239+68.04	24	0°6'39.6"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	239+68.04	239+68.04	239+68.04	239+68.04				279469,25	174786,96

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
																		661,94	575,48	SE:49°25.1'		
VU20	246+29.97	25		8°22'32.2"	600,00	85,00	85,00	86,46	86,46	172,71	2,71	2,11	0,22	245+43.51	246+28.51	246+31.22	247+16.22				279038,64	175289,69
																		513,93	280,84	SE:41°2.6'		
VU21	251+43.69	25	37°18'37.8"		300,00	90,00	90,00	146,63	146,63	285,36	105,36	17,82	7,90	249+97.06	250+87.06	251+92.42	252+82.42				278651,02	175627,15
																		514,97	368,34	SE:78°21.2'		
VU22	256+50.76	26	0°26'3.0"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	256+50.76	256+50.76	256+50.76	256+50.76				278547,07	176131,52
																		1041,46	927,09	SE:78°47.3'		
VU23	266+92.22	27		25°1'46.5"	320,00	90,00	45,00	114,37	95,45	207,29	72,29	8,47	2,53	265+77.85	266+67.85	267+40.15	267+85.15				278344,56	177153,10
																		171,32	0,44	SE:53°45.5'		
VU24	268+61.01	27		20°21'39.7"	280,00	45,00	90,00	75,43	92,86	167,00	32,00	5,26	1,29	267+85.58	268+30.58	268+62.59	269+52.59				278243,28	177291,27
																		672,21	579,34	SE:33°23.8'		
VU25	275+31.93	28	0°24'1.9"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	275+31.93	275+31.93	275+31.93	275+31.93				277682,07	177661,28
																		384,84	210,66	SE:33°47.9'		
VU26	279+16.77	28	20°39'54.2"		640,00	120,00	0,00	174,18	119,34	290,83	170,83	11,03	2,69	277+42.59	278+62.59	280+33.42	280+33.42				277362,27	177875,36
																		162,27	0,21	SE:54°27.8'		
VU27	280+76.35	28	14°10'18.7"		340,00	0,00	30,00	42,71	56,83	99,10	69,10	2,67	0,44	280+33.63	280+33.63	281+2.73	281+32.73				277267,95	178007,40
																		142,62	15,58	SE:68°38.1'		
VU28	282+18.53	28	7°54'24.3"		600,00	45,00	120,00	70,22	95,27	165,30	0,30	2,03	0,19	281+48.31	281+93.31	281+93.61	283+13.61				277216,00	178140,22
																		1176,29	859,10	SE:76°32.5'		
VU29	293+94.63	29	7°34'48.2"		3350,00	0,00	0,00	221,92	221,92	443,20	443,20	7,34	0,65	291+72.71	291+72.71	296+15.90	296+15.90				276942,24	179284,21
																		804,43	465,42	SE:84°7.3'		
VU30	301+98.41	30		5°15'28.1"	2550,00	0,00	0,00	117,08	117,08	234,00	234,00	2,69	0,16	300+81.32	300+81.32	303+15.33	303+15.33				276859,86	180084,41
																		332,11	215,02	SE:78°51.9'		
VU31	305+30.35	31	0°30'13.1"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	305+30.35	305+30.35	305+30.35	305+30.35				276795,72	180410,26
																		662,08	565,03	SE:79°22.1'		
VU32	311+92.43	31		1°35'19.0"	7000,00	0,00	0,00	97,05	97,05	194,09	194,09	0,67	0,01	310+95.38	310+95.38	312+89.46	312+89.46				276673,57	181060,98
																		416,49	29,64	SE:77°46.8'		
VU33	316+8.90	32		27°44'27.9"	930,00	120,00	120,00	289,80	289,80	570,28	330,28	28,60	9,31	313+19.11	314+39.11	317+69.39	318+89.39				276585,41	181468,03
																		1049,37	572,56	SE:50°2.3'		
VU34	326+48.96	33	15°30'4.8"		950,00	120,00	0,00	187,02	131,66	317,02	197,02	9,08	1,66	324+61.94	325+81.94	327+78.97	327+78.97				275911,43	182272,34
																		216,73	4,82	SE:65°32.4'		
VU35	328+64.03	33	43°58'39.8"		195,00	0,00	70,00	80,25	112,62	184,67	114,67	15,87	8,19	327+83.79	327+83.79	328+98.46	329+68.46				275821,69	182469,62
																		359,27	89,80	NE:70°29.0'		
VU36	332+15.11	33	19°56'22.5"		550,00	120,00	120,00	156,85	156,85	311,41	71,41	9,54	2,29	330+58.26	331+78.26	332+49.67	333+69.67				275941,72	182808,25
																		642,08	209,29	NE:50°32.6'		
VU37	338+54.90	34		58°47'57.0"	400,00	100,00	100,00	275,95	275,95	510,50	310,50	60,32	41,39	335+78.96	336+78.96	339+89.45	340+89.45				276349,76	183304,00
																		766,04	490,10	SE:70°39.5'		
VU38	345+79.55	35	0°9'53.3"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	345+79.55	345+79.55	345+79.55	345+79.55				276096,04	184026,80
																		2647,49	2525,77	SE:70°49.4'		
VU39	372+27.04	37	18°4'44.6"		450,00	100,00	100,00	121,72	121,72	241,99	41,99	6,60	1,44	371+05.32	372+5.32	372+47.31	373+47.31				275226,36	186527,37
																		472,53	247,36	SE:88°54.1'		
VU40	376+98.13	38		4°21'37.4"	1500,00	100,00	0,00	103,46	60,76	164,15	64,15	1,23	0,06	375+94.67	376+94.67	377+58.82	377+58.82				275217,30	186999,82
																		244,13	0,02	SE:84°32.5'		
VU41	379+42.20	38		18°48'28.3"	1100,00	0,00	100,00	183,36	231,07	411,09	311,09	15,18	3,34	377+58.84	377+58.84	380+69.92	381+69.92				275194,08	187242,85
																		691,87	370,94	SE:65°44.0'		
VU42	386+30.73	39		43°16'58.1"	150,00	60,00	60,00	89,87	89,87	173,31	53,31	12,45	6,43	385+40.86	386+0.86	386+54.17	387+14.17				274909,73	187873,59
																		204,97	62,98	SE:22°27.0'		
VU43	388+29.27	40		12°31'42.6"	250,00	50,00	45,00	52,12	50,34	102,17	7,17	1,88	0,29	387+77.15	388+27.15	388+34.32	388+79.32				274720,30	187951,86
																		101,78	0,84	SE:9°55.3'		
VU44	389+30.76	40	23°0'7.2"		150,00	40,00	40,00	50,60	50,60	100,22	20,22	3,53	0,98	388+80.16	389+20.16	389+40.38	389+80.38				274620,04	187969,40
																		268,25	82,86	SE:32°55.4'		
VU45	391+98.02	40	33°13'3.2"		300,00	90,00	90,00	134,79	134,79	263,93	83,93	14,23	5,64	390+63.24	391+53.24	392+37.17	393+27.17				274394,88	188115,19
																		1107,62	972,84	SE:66°8.5'		
VU46	403+0.00	40	0°3'0.5"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	403+0.00	403+0.00	403+0.00	403+0.00				273946,87	189128,17
																		1414,42	1414,42	SE:66°5.0'		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
VU47	417+14.42	42	0°5'20.5"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	417+14.42	417+14.42	417+14.42	417+14.42				273373,45	190421,14
																		803,82	730,32	SE:66°10.3'		
VU48	425+18.24	43	11°41'30.7"		400,00	65,00	65,00	73,49	73,49	146,62	16,62	2,53	0,36	424+44.75	425+9.75	425+26.37	425+91.37				273048,72	191156,44
																		614,56	541,06	SE:77°51.8'		
VU49	431+32.44	43		0°8'31.7"	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	431+32.44	431+32.44	431+32.44	431+32.44				272919,52	191757,27
																		2089,11	2089,11	SE:77°43.3'		
VU50	452+21.54	45		0°8'0.3"	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	452+21.54	452+21.54	452+21.54	452+21.54				272475,26	193798,59
																		1184,67	1080,74	SE:77°35.3'		
VU51	464+6.21	47		15°19'33.0"	400,00	100,00	100,00	103,93	103,93	206,99	6,99	4,65	0,87	463+2.28	464+2.28	464+9.27	465+9.27				272220,64	194955,57
																		683,76	414,57	SE:62°15.8'		
VU52	470+89.10	47	15°57'47.0"		750,00	120,00	120,00	165,26	165,26	328,96	88,96	8,14	1,56	469+23.84	470+43.84	471+32.80	472+52.80				271902,40	195560,76
																		1307,48	978,73	SE:78°13.5'		
VU53	483+95.02	48		13°52'24.4"	850,00	120,00	120,00	163,49	163,49	325,82	85,82	6,98	1,16	482+31.53	483+51.53	484+37.35	485+57.35				271635,60	196840,73
																		2906,15	2742,66	SE:64°21.1'		
VU54	513+0.00	51	0°3'0.7"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	513+0.00	513+0.00	513+0.00	513+0.00				270377,72	199460,54
																		2071,88	1966,57	SE:64°24.8'		
VU55	533+71.88	53	15°42'50.6"		400,00	100,00	100,00	105,32	105,32	209,70	9,70	4,84	0,93	532+66.57	533+66.57	533+76.27	534+76.27				269482,92	201329,24
																		797,21	599,59	SE:80°7.6'		
VU56	541+68.17	54	11°59'16.8"		450,00	90,00	90,00	92,31	92,31	184,15	4,15	3,23	0,47	540+75.86	541+65.86	541+70.01	542+60.01				269346,23	202114,65
																		714,05	540,28	NE:87°53.1'		
VU57	548+81.75	55		18°46'10.4"	250,00	80,00	80,00	81,46	81,46	161,90	1,90	4,47	1,02	548+0.29	548+80.29	548+82.19	549+62.19				269372,59	202828,21
																		1607,41	1452,07	SE:73°20.7'		
VU58	564+88.14	57		17°38'8.3"	250,00	70,00	70,00	73,89	73,89	146,95	6,95	3,82	0,82	564+14.25	564+84.25	564+91.20	565+61.20				268911,91	204368,20
																		319,06	245,18	SE:55°42.6'		
VU59	568+6.38	57	0°7'37.0"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	568+6.38	568+6.38	568+6.38	568+6.38				268732,15	204631,81
																		300,84	300,84	SE:55°50.2'		
VU60	571+7.22	57	0°56'28.7"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	571+7.22	571+7.22	571+7.22	571+7.22				268563,22	204880,74
																		330,50	153,67	SE:56°46.7'		
VU61	574+37.73	57		35°6'29.6"	400,00	100,00	100,00	176,84	176,84	345,10	145,10	20,63	8,57	572+60.89	573+60.89	575+5.99	576+5.99				268382,14	205157,23
																		426,87	100,14	SE:21°40.2'		
VU62	578+56.02	58	44°54'8.7"		265,00	80,00	80,00	149,89	149,89	287,68	127,68	22,82	12,10	577+6.13	577+86.13	579+13.81	579+93.81				267985,44	205314,85
																		1141,25	917,27	SE:66°34.4'		
VU63	589+85.18	59		17°43'44.1"	250,00	70,00	70,00	74,09	74,09	147,36	7,36	3,85	0,83	589+11.08	589+81.08	589+88.44	590+58.44				267531,69	206362,02
																		461,36	282,56	SE:48°50.6'		
VU64	594+45.71	59	11°20'54.9"		550,00	100,00	100,00	104,71	104,71	208,94	8,94	3,47	0,48	593+41.00	594+41.00	594+49.93	595+49.93				267228,07	206709,39
																		904,08	436,21	SE:60°11.5'		
VU65	603+49.31	60	35°22'35.7"		950,00	120,00	120,00	363,16	363,16	706,57	466,57	47,80	19,76	599+86.14	601+6.14	605+72.71	606+92.71				266778,65	207493,86
																		767,67	404,50	NE:84°25.9'		
VU66	610+97.21	61	0°32'23.0"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	610+97.21	610+97.21	610+97.21	610+97.21				266853,15	208257,90
																		605,45	605,45	NE:83°53.5'		
VU67	617+2.66	62	0°20'16.7"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	617+2.66	617+2.66	617+2.66	617+2.66				266917,58	208859,91
																		738,19	738,19	NE:83°33.2'		
VU68	624+40.86	62	0°17'25.6"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	624+40.86	624+40.86	624+40.86	624+40.86				267000,46	209593,44
																		964,64	964,64	NE:83°15.8'		
VU69	634+5.50	63		0°5'19.2"	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	634+5.50	634+5.50	634+5.50	634+5.50				267113,62	210551,42
																		1179,57	654,68	NE:83°21.1'		
VU70	645+85.35	65		50°38'53.0"	1000,00	100,00	100,00	523,40	523,40	983,98	783,98	106,77	62,83	640+61.94	641+61.94	649+45.92	650+45.92				267250,22	211723,34
																		820,79	131,32	SE:46°0.0'		
VU71	653+43.31	65	17°26'27.8"		700,00	120,00	85,00	166,06	151,36	315,58	110,58	8,84	1,84	651+77.24	652+97.24	654+7.83	654+92.83				266680,05	212313,77
																		283,22	12,36	SE:63°26.5'		
VU72	656+24.69	66	15°30'39.2"		550,00	85,00	120,00	119,50	133,00	251,39	46,39	5,91	1,11	655+5.19	655+90.19	656+36.58	657+56.58				266553,42	212567,10
																		744,58	611,58	SE:78°57.1'		
VU73	663+68.16	66	0°8'59.9"		0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	0,00	663+68.16	663+68.16	663+68.16	663+68.16				266410,73	213297,88
																		297,57	297,57	SE:79°6.1'		
St	666+65.73	67	0°0'0.0"																		266354,48	213590,08



**List of existing bridges and culverts**  
**Lista podurilor și podețelor existente**

Nr.	PC+	Data about bridges and culverts Date despre poduri si podețe	Length Lungimea, ml	Note Notă
1	2	3	4	5
1	433+34	Beton armat Ø 1,0	15,9	repair reparatie
2	440+46	Beton armat Ø 1,0	15,8	elongation alungire
3	447+43	Pod beton armat	12,3	repair reparatie
4	457+78	Beton armat Ø 1,0	14,5	repair reparatie
5	462+92	Beton armat,intrare- dreptunghiular 1,9x0,6; esire-Ø	28,0	repair reparatie
6	468+63	Pod beton armat	12,0	repair reparatie
7	472+62	Beton armat Ø 1,0	15,2	elongation alungire
8	474+06	Beton armat Ø 1,5	14,4	elongation alungire
9	483+57	Beton armat Ø 1,0	15,9	repair reparatie
10	493+30	Pod beton armat	12,0	repair reparatie
11	498+25	Beton armat Ø 1,0	17,0	repair reparatie
12	501+94	Beton armat Ø 1,5	17,5	repair reparatie
13	506+47	Beton armat Ø 1,5	18,4	-
14	520+12	Pod beton armat	12,1	repair reparatie
15	528+70	Pod beton armat	4,4	demolition demolare
16	539+69	Pod beton armat	12,0	repair reparatie
17	545+38	Beton armat Ø 1,5	18,2	repair reparatie
18	551+89	Beton armat Ø 1,5	19,0	repair reparatie
19	555+91	Pod beton armat	4,0	-
20	557+23	Beton armat dreptunghiular 1,5 x2	16,6	repair reparatie

21	559+38	Beton armat Ø 1,5	18,6	repair reparatie
22	562+02	Beton armat Ø 1,5	13,3	elongation alungire
23	564+36	Pod beton armat	6,7	repair reparatie
24	565+87	Beton armat Ø 1,0	14,3	elongation alungire
25	572+57	Beton armat Ø 1,5	22,0	repair reparatie
26	579+38	Beton armat intrare-Ø 0,6; esire-Ø 1,0;	21,5	repair reparatie
27	587+35	Pod beton armat	4,0	demolition demolare
28	592+33	Pod beton armat	9,6	repair reparatie
29	601+21	Beton armat 2xØ 2,0	23,0	repair reparatie
30	602+70	Beton armat 2xØ 2,0	23,6	repair reparatie
31	612+61	Beton armat Ø 1,0	17,0	repair reparatie
32	618+45	Beton armat Ø 1,0	17,4	repair reparatie
33	633+43	Beton armat Ø 1,0	16,6	repair reparatie
34	647+56	Pod beton armat	105,1	repair reparatie

**List of designed lined side drains****Lista șanțurilor proiectate**

№	Side drain Șanț de pământ			C C side drain I<5% Șanț din beton monolit I<5%			C C drain I<5% Șanțul pentru apă rapidă din beton monoliti>5%			Note Nota
	LHS Stînga	RHS Dreapta	Lenth Lungime, ml	LHS Stînga	RHS Dreapta	Lenth Lungime, ml	LHS Stînga	RHS Dreapta	Lenth Lungime, ml	
	PC+	PC+		PC+	PC+		PC+	PC+		
1	2	3	4	5	6	7	8	9	10	11
1	433+34-437+20		386							
2	439+50-442+00		250							
3	446+00-452+00		600							
4				452+00-454+00		200				
5					452+75-454+50	175				
6	454+00-460+50		650							
7				460+50-468+50		800				Rectangular Dreptunghiular
8					463+70-467+40	370				
9				468+80-482+25		1345				
10					471+30-472+65	135				
11					473+50-474+06	56				
12					481+80-483+20	140				
13	482+25-493+27		1102							
14				493+31-496+00		269				
15								495+10-495+69	59	
16										
17		496+42-498+00	158							
18	496+00-501+94		594							
19	510+80-516+50		570							
20		516+20-518+80	260							
21	521+00-523+20		220							
22		521+15-523+00	185							
23	531+00-533+00		200							
24	535+00-539+67		467							
25	541+00-553+45		1245							
26	553+75-555+90		215							
27	557+23-572+57		1534							
28	574+00-580+50		650							
29		575+50-577+50	200							
30	581+05-599+50		1845							
31	604+80-607+80		300							

Rehabilitation of R14 Road Balti-Sarateni , km 43.00 – km 66.667

1	2	3	4	5	6	7	8	9	10	11
32	610+00-643+00		3300							
33	656+60-665+30		870							
<b>Total</b>			<b>15801</b>			<b>3490</b>			<b>59</b>	

**List of existing drains**  
**Lista șanțurilor existente din beton ciment**

Nr.	Location of line drains Amplasarea șanțului din beton- ciment		Length Lungimea, ml	Note Notă
	LHS Stînga PC+	RHS Dreapta PC+		
1	2	3	4	5
1		495+90-496+18	28	clean curat
Total			28	

PAVEMENT QUANTITIES  
VOLUME LE DE LUCRU

Nr.	PC +	PC +	Length Lungime, m	Existing pavement Sistem rutier existent			Designed pavement																Sistem	Amenajarea sistemului rutier																				
				Width Latimea, m			rutier proiectat																Average thickness of regulating layer H med, a stratului de egalizare, cm	Priming the existing asphalt surface with bitumen Amorsarea suprafețelor de asfalt existente cu bitum 0,3/imp, t	Regulating with fine grained porous asphalt Egalizare cu beton asfaltic poros, t	Reinforcement Ranforsare						Drainage layer of sand Strat drenat din nisip, H=20 cm, mc	Foundation layer of crushed stone Strat de fundatie din piatra sparta M300 H- 22,5cm, mc			Foundation layer of crushed stone Strat de fundatie din piatra sparta M1000 H- 22,5cm, mc			Priming the existing asphalt surface with bitumen Amorsarea suprafețelor din amestecuri de piatra concasată de granit cu bitum 0,6/imp, t	High grained dense asphalt concrete Type A M1 Beton asfaltic cu granulație mare poros M1 h=8,5cm, t	Priming the existing asphalt surface with bitumen Amorsarea suprafețelor din criblura anrobata cu bitum 0,3/imp, t	Fine grained dense asphalt concrete Type A M1 Beton asfaltic cu granulație fin poros M1 h=6cm, t	Priming the existing asphalt surface with bitumen Amorsarea suprafețelor de asfalt cu bitum 0,3/imp, t	Coarse-grained porous asphalt concrete Beton asfaltic cu granulație fina Tip A M1 h=4cm, t
							Line screening Banda de incadrare, m		Surface carriageway widening in curves Suprafața lărgirii părții carosabile in viraj, mp		Total area (without widening in turn) Suprafața totala ( fara supralărgirii in viraj), mp			Surface bonding layer widening in turn Suprafața stratului de egalizare + lărgirii in viraj, mp			Surface enlargement new road system in turn Suprafata sistemului rutier nou + lărgirii in viraj, mp			Lower layer Stratul de jos H=12,5 cm		Upper layer Stratul de sus, H=10cm				Lower layer Stratul de jos H=12,5 cm		Upper layer Stratul de sus, H=10cm																
							LHS Stinga, m	RHS Dreapta, m	LHS Stinga, m	RHS Dreapta, m	LHS Stinga, m	RHS Dreapta, m	LHS Stinga, m	RHS Dreapta, m	Total	LHS Stinga, m	RHS Dreapta, m	Total	LHS Stinga, m	RHS Dreapta, m	Total	LHS Stinga, m				RHS Dreapta, m	Total	crushed stone piatra sparta 40-70mm	crushed stone piatra sparta 40-70mm	crushed stone piatra sparta 10-20mm	crushed stone piatra sparta 40-70mm		crushed stone piatra sparta 40-70mm	crushed stone piatra sparta 10-20mm										
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43		
1	430+00	430+60	60	5,57	5,45	11,02	III	5,25	5,25	0,32	0,20			325	332	656	325	332	656				5,5	0,20	84,7																0,20	63,9		
2	430+60	431+60	100	5,46	5,58	11,04		5,25	5,25	0,21	0,33			536	560	1095	536	560	1095					0,33	141,3																0,33	106,7		
3	431+60	433+00	140	5,25	5,61	10,86		5,25	5,25	0,00	0,36			735	787	1522	735	787	1522					0,46	196,3																0,46	148,2		
4	433+00	433+60	60	5,25	5,63	10,88		5,25	5,25	0,00	0,38			319	335	654	319	335	654					0,20	84,3																0,20	63,7		
5	433+60	434+60	100	5,37	5,54	10,91		5,25	5,25	0,12	0,29			539	549	1088	539	549	1088					0,33	140,3																0,33	105,9		
6	434+60	435+20	60	5,41	5,43	10,84		5,25	5,25	0,16	0,18			326	320	647	326	320	647					0,19	83,4																0,19	63,0		
7	435+20	435+60	40	5,46	5,25	10,71		5,25	5,25	0,21	0,00			214	210	424	214	210	424					0,13	54,7																0,13	41,3		
8	435+60	436+80	120	5,25	5,25	10,50		5,25	5,25	0,00	0,00			660	660	1320	660	660	1320					0,40	170,3																0,40	128,6		
9	436+80	438+20	140	5,12	4,82	9,94	VI	5,25	5,25	0,50	0,50			805	805	1610	717	675	1392	88	130	218	5,5	0,42	179,5					239,0	34,4	27,5	3,3	34,4	27,5	3,3	0,13	43,1	0,07	30,7	0,48	156,8		
10	438+20	438+80	60	4,99	5,25	10,24		5,25	5,25	0,50	0,50			345	345	690	299	315	614	46	30	76		0,18	79,3					98,5	11,9	9,5	1,1	11,9	9,5	1,1	0,05	14,9	0,02	10,6	0,21	67,2		
11	438+80	439+20	40	5,10	4,94	10,04		5,25	5,25	0,50	0,50			230	230	460	204	198	402	26	32	58		0,12	51,8					67,4	9,2	7,4	0,9	9,2	7,4	0,9	0,04	11,5	0,02	8,2	0,14	44,8		
12	439+20	440+20	100	5,39	5,04	10,43		5,25	5,25	0,50	0,50			575	575	1150	539	504	1043	36	71	107		0,31	134,5					159,9	16,9	13,5	1,6	16,9	13,5	1,6	0,06	21,1	0,03	15,1	0,35	112,0		
13	440+20	440+40	20	5,42	5,51	10,93		5,25	5,25	0,50	0,50			115	115	230	108	110	219	7	5	11		0,07	28,2					29,8	1,8	1,4	0,2	1,8	1,4	0,2	0,01	2,3	0,00	1,6	0,07	22,4		
14	440+40	440+60	20	5,42	5,75	11,17		5,25	5,25	0,50	0,50			115	115	230	108	115	223	7		7		0,07	28,8					15,1	1,0	0,8	0,1	1,0	0,8	0,1	0,00	1,3	0,00	0,9	0,07	22,4		
15	440+60	442+80	220	5,06	5,75	10,81		5,25	5,25	0,50	0,50			1265	1265	2530	1113	1265	2378	152		152		0,71	306,8					183,4	23,9	19,1	2,3	23,9	19,1	2,3	0,09	30,0	0,05	21,4	0,76	246,4		
16	442+80	443+09	29	4,77	5,75	10,52		5,25	5,25	0,50	0,50			167	167	334	138	167	305	28		28		0,09	39,4					26,0	4,5	3,6	0,4	4,5	3,6	0,4	0,02	5,6	0,01	4,0	0,10	32,5		
17	443+09	443+20	11	4,44	5,36	9,80	V	5,25	5,25	0,50	0,50			63	63	127	49	59	108	14	4	19	0,03	13,9					19,1	2,9	2,4	0,3	2,9	2,4	0,3	0,01	3,7	0,01	2,6	0,04	12,3			
18	443+20	443+40	20	3,99	2,97	6,96		5,25	5,25	0,50	0,50			115	115	230	80	59	139	35	56	91	0,04	18,0					47,3	14,3	11,4	1,4	14,3	11,4	1,4	0,05	17,9	0,03	12,8	0,07	22,4			
19	443+40	443+60	20	3,54	2,99	6,53		5,25	5,25	0,50	0,50			115	115	230	71	60	131	44	55	99	0,04	16,8					49,1	15,7	12,5	1,5	15,7	12,5	1,5	0,06	19,6	0,03	14,0	0,07	22,4			
20	443+60	444+00	40	3,06	3,07	6,13		5,25	5,25	0,50	0,50			230	230	460	122	123	245	108	107	215	0,07	31,6					101,8	33,8	27,1	3,2	33,8	27,1	3,2	0,13	42,4	0,06	30,2	0,14	44,8			
21	444+00	446+80	280	3,08	3,22	6,30		5,25	5,25	0,50	0,50			1610	1610	3220	862	902	1764	748	708	1456	0,53	227,6					702,2	229,3	183,5	21,8	229,3	183,5	21,8	0,87	287,6	0,44	204,9	0,97	313,6			
22	446+80	447+60	80	2,87	3,32	6,19		5,25	5,25	0,50	0,50			460	460	920	230	266	495	230	194	425	0,15	63,9					202,6	66,9	53,5	6,4	66,9	53,5	6,4	0,25	83,9	0,13	59,8	0,28	89,6			
23	447+60	448+80	120	3,17	3,15	6,32		5,25	5,25	0,50	0,50			690	690	1380	380	378	758	310	312	622	0,23	97,8					300,4	97,9	78,3	9,3	97,9	78,3	9,3	0,37	122,8	0,19	87,5	0,41	134,4			
24	448+80	449+40	60	3,14	3,39	6,53		VI	5,25	5,25	0,50	0,50			345	345	690	188	203	392	157	142	298	0,12	50,5					147,4	47,0	37,6	4,5	47,0	37,6	4,5	0,18	58,9	0,09	42,0	0,21	67,2		
25	449+40	450+00	60	2,90	3,56	6,46	5,25		5,25	0,50	0,50			345	345	690	174	214	388	171	131	302	0,12	50,0					148,4	47,6	38,1	4,5	47,6	38,1	4,5	0,18	59,7	0,09	42,5	0,21	67,2			
26	450+00	450+60	60	3,01	3,26	6,27	5,25		5,25	0,50	0,50			345	345	690	181	196	376	164	149	314	0,11	48,5					150,9	49,4	39,5	4,7	49,4	39,5	4,7	0,19	62,0	0,09	44,2	0,21	67,2			
27	450+60	451+20	60	2,76	3,27	6,03	5,25		5,25	0,50	0,50			345	345	690	166	196	362	179	149	328	0,11	46,7					154,0	51,7	41,4	4,9	51,7	41,4	4,9	0,20	64,8	0,10	46,2	0,21	67,2			
28	451+20	452+40	120	3,01	3,26	6,27	5,25		5,25	0,50	0,50			690	690	1380	361	391	752	329	299	628	0,23	97,1					301,8	98,8	79,1	9,4	98,8	79,1	9,4	0,38	124,0	0,19	88,3	0,41	134,4			
29	452+40	453+20	80	3,10	2,89	5,99	5,25		5,25	0,50	0,50			460	460	920	248	231	479	212	229	441	0,14	61,8					206,1	69,4	55,5	6,6	69,4	55,5	6,6	0,26	87,1	0,13	62,0	0,28	89,6			
30	453+20	454+20	100	3,39	2,76	6,15	5,25		5,25	0,50	0,50			575	575	1150	339	276	615	236	299	535	0,18	79,3					254,1	84,3	67,4	8,0	84,3	67,4	8,0	0,32	105,7	0,16	75,3	0,35	112,0			
31	454+20	454+80	60	3,22	3,12	6,34	5,25		5,25	0,50	0,50			345	345	690	193	187	380	152	158	310	0,11	49,1					150,0	48,8	39,0	4,6	48,8	39,0	4,6	0,19	61,1	0,09	43,6	0,21	67,2			
32	454+80	455+20	40	2,96	3,32	6,28	VII	5,25	5,25	0,50	0,50			230	230	460	118	133	251	112	97	209	0,08	32,4					100,5	32,9	26,3	3,1	32,9	26,3	3,1	0,13	41,2	0,06	29,4	0,14	44,8			
33	455+20	456+20	100	2,72	3,25	5,97		5,25	5,25	0,50	0,50			575	575	1150	272	325	597	303	250	553	0,18	77,0					258,1	87,1	69,7	8,3	87,1	69,7	8,3	0,33	109,2	0,17	77,8	0,35	112,0			
34	456+20	457+00	80	2,58	3,41	5,99		5,25	5,25	0,50	0,50			460	460	920	206	273	479	254	187	441	0,14	61,8					206,1	69,4	55,5	6,6	69,4	55,5	6,6	0,26	87,1	0,13	62,0	0,28	89,6			
35	457+0																																											

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43
55	465+30	465+80	50	4,77	5,23	10,00	VI	5,25	5,25	0,50	0,50			288	288	575	239	262	500	49	26	75	7,0	0,15	64,5					84,7	11,8	9,5	1,1	11,8	9,5	1,1	0,05	14,8	0,02	10,6	0,17	56,0
56	465+80	466+00	20	4,87	4,56	9,43		5,25	5,25	0,50	0,50			115	115	230	97	91	189	18	24	41		0,06	24,3					36,4	6,5	5,2	0,6	6,5	5,2	0,6	0,02	8,2	0,01	5,8	0,07	22,4
57	466+00	466+40	40	5,08	4,11	9,19		5,25	5,25	0,50	0,50			230	230	460	203	164	368	27	66	92		0,11	47,4					74,9	14,6	11,6	1,4	14,6	11,6	1,4	0,06	18,2	0,03	13,0	0,14	44,8
58	466+40	467+00	60	4,85	4,16	9,01		5,25	5,25	0,50	0,50			345	345	690	291	250	541	54	95	149		0,16	69,7					114,7	23,5	18,8	2,2	23,5	18,8	2,2	0,09	29,5	0,04	21,0	0,21	67,2
59	467+00	467+60	60	4,29	3,95	8,24		5,25	5,25	0,50	0,50			345	345	690	257	237	494	88	108	196		0,15	63,8					124,9	30,8	24,6	2,9	30,8	24,6	2,9	0,12	38,6	0,06	27,5	0,21	67,2
60	467+60	468+00	40	4,40	3,57	7,97		5,25	5,25	0,50	0,50			230	230	460	176	143	319	54	87	141		0,10	41,1					85,6	22,2	17,8	2,1	22,2	17,8	2,1	0,08	27,9	0,04	19,9	0,14	44,8
61	468+00	468+40	40	4,27	3,58	7,85		5,25	5,25	0,50	0,50			230	230	460	171	143	314	59	87	146		0,09	51,1	51,5	0,09	29,5	0,09	86,7	23,0	18,4	2,2	23,0	18,4	2,2	0,09	28,8	0,04	20,5	0,14	44,8
62	468+40	468+60	20	3,75	3,36	7,11		5,25	5,25	0,50	0,50			115	115	230	75	67	142	40	48	88		0,04	23,1	23,3	0,04	13,3	0,04	46,6	13,8	11,1	1,3	13,8	11,1	1,3	0,05	17,4	0,03	12,4	0,07	22,4
63	468+60	468+80	20	3,51	4,22	7,73		5,25	5,25	0,50	0,50			115	115	230	70	84	155	45	31	75		0,05	25,2	25,4	0,05	14,5	0,05	43,9	11,9	9,5	1,1	11,9	9,5	1,1	0,05	14,9	0,02	10,6	0,07	22,4
64	468+80	469+00	20	3,58	4,65	8,23		5,25	5,25	0,50	0,50			115	115	230	72	93	165	43	22	65		0,05	26,8	27,0	0,05	15,5	0,05	41,7	10,3	8,2	1,0	10,3	8,2	1,0	0,04	12,9	0,02	9,2	0,07	22,4
65	469+00	469+40	40	3,55	5,10	8,65		5,25	5,25	0,50	0,50			230	230	460	142	204	346	88	26	114		0,10	56,3	56,8	0,10	32,5	0,10	79,6	18,0	14,4	1,7	18,0	14,4	1,7	0,07	22,5	0,03	16,0	0,14	44,8
66	469+40	470+00	60	3,82	5,30	9,12		5,25	5,25	0,50	0,50			345	345	690	229	318	547	116	27	143		0,16	89,0	89,8	0,16	51,4	0,16	113,3	22,5	18,0	2,1	22,5	18,0	2,1	0,09	28,2	0,04	20,1	0,21	67,2
67	470+00	470+20	20	4,03	5,16	9,18		5,25	5,25	0,50	0,50			115	115	230	81	103	184	34	12	46		0,06	34,1					37,5	7,3	5,8	0,7	7,3	5,8	0,7	0,03	9,2	0,01	6,5	0,07	22,4
68	470+20	470+40	20	4,33	4,76	9,09		5,25	5,25	0,50	0,50			115	115	230	87	95	182	28	20	48		0,05	33,8					37,9	7,6	6,1	0,7	7,6	6,1	0,7	0,03	9,5	0,01	6,8	0,07	22,4
69	470+40	470+80	40	4,60	4,29	8,89		5,25	5,25	0,50	0,50			230	230	460	184	172	356	46	58	104		0,11	66,1					77,5	16,4	13,2	1,6	16,4	13,2	1,6	0,06	20,6	0,03	14,7	0,14	44,8
70	470+80	471+20	40	4,85	4,53	9,38		5,25	5,25	0,50	0,50			230	230	460	194	181	375	36	49	85		0,11	69,7					73,2	13,4	10,7	1,3	13,4	10,7	1,3	0,05	16,7	0,03	11,9	0,14	44,8
71	471+20	471+80	60	4,87	3,91	8,78		5,25	5,25	0,50	0,50			345	345	690	292	235	527	53	110	163		0,16	97,9					117,7	25,7	20,6	2,4	25,7	20,6	2,4	0,10	32,2	0,05	23,0	0,21	67,2
72	471+80	472+00	20	4,69	3,25	7,94		5,25	5,25	0,50	0,50			115	115	230	94	65	159	21	50	71		0,05	29,5					42,9	11,2	9,0	1,1	11,2	9,0	1,1	0,04	14,1	0,02	10,0	0,07	22,4
73	472+00	472+40	40	3,61	3,71	7,32		5,25	5,25	0,50	0,50			230	230	460	144	148	293	86	82	167		0,09	54,4					91,3	26,3	21,1	2,5	26,3	21,1	2,5	0,10	33,0	0,05	23,5	0,14	44,8
74	472+40	472+60	20	3,90	4,31	8,20		5,25	5,25	0,50	0,50			115	115	230	78	86	164	37	29	170		0,05	30,5					64,8	26,8	21,5	2,6	26,8	21,5	2,6	0,10	33,7	0,05	24,0	0,07	22,4
75	472+60	472+80	20	4,91	3,60	8,51		5,25	5,25	0,50	0,50			115	115	230	98	72	170	17	43	60		0,05	31,6					40,4	9,4	7,5	0,9	9,4	7,5	0,9	0,04	11,8	0,02	8,4	0,07	22,4
76	472+80	473+40	60	5,39	3,21	8,60		5,25	5,25	0,50	0,50			345	345	6																										

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	
143	511+80	512+40	60	4,95	4,98	9,93	VI	5,25	5,25	0,50	0,50			345	345	690	297	299	596	48	46	94	5,5	0,18	62,9					102,6	14,8	11,9	1,4	14,8	11,9	1,4	0,06	18,6	0,03	13,3	0,21	67,2	
144	512+40	513+00	60	5,15	4,55	9,70		5,25	5,25	0,50	0,50			345	345	690	309	273	582	36	72	108		0,17	61,5						105,6	17,0	13,6	1,6	17,0	13,6	1,6	0,06	21,3	0,03	15,2	0,21	67,2
145	513+00	513+80	80	4,77	4,98	9,75		5,25	5,25	0,50	0,50			460	460	920	382	398	780	78	62	140		0,23	100,6						139,9	22,1	17,6	2,1	22,1	17,6	2,1	0,08	27,7	0,04	19,7	0,28	89,6
146	513+80	514+40	60	4,44	5,29	9,73	V	5,25	5,25	0,50	0,50			345	345	690	266	317	584	79	28	106	5,5	0,18	75,3					105,2	16,7	13,4	1,6	16,7	13,4	1,6	0,06	21,0	0,03	14,9	0,21	67,2	
147	514+40	515+00	60	4,31	5,20	9,51		5,25	5,25	0,50	0,50			345	345	690	259	312	571	86	33	119		0,17	73,6						108,1	18,8	15,0	1,8	18,8	15,0	1,8	0,07	23,6	0,04	16,8	0,21	67,2
148	515+00	515+20	20	4,35	5,75	10,10		5,25	5,25	0,50	0,50			115	115	230	87	115	202	28		28		0,06	26,1						19,8	4,4	3,5	0,4	4,4	3,5	0,4	0,02	5,5	0,01	3,9	0,07	22,4
149	515+20	515+80	60	4,26	5,75	10,01	VI	5,25	5,25	0,50	0,50			345	345	690	256	345	601	89		89	5,5	0,18	77,5					60,6	14,1	11,3	1,3	14,1	11,3	1,3	0,05	17,7	0,03	12,6	0,21	67,2	
150	515+80	516+20	40	4,57	5,75	10,32		5,25	5,25	0,50	0,50			230	230	460	183	230	413	47		47		0,12	53,3						37,7	7,4	5,9	0,7	7,4	5,9	0,7	0,03	9,3	0,01	6,6	0,14	44,8
151	516+20	516+50	30	4,86	5,75	10,61		5,25	5,25	0,50	0,50			173	173	345	146	173	318	27		27		0,10	41,1						26,3	4,2	3,4	0,4	4,2	3,4	0,4	0,02	5,3	0,01	3,8	0,10	33,6
152	516+50	516+80	30	4,57	5,21	9,78	VI	5,25	5,25	0,50	0,50			173	173	345	137	156	293	35	16	52	5,5	0,09	37,8					52,3	8,1	6,5	0,8	8,1	6,5	0,8	0,03	10,2	0,02	7,3	0,10	33,6	
153	516+80	518+00	120	4,26	4,98	9,24		5,25	5,25	0,50	0,50			690	690	1380	511	598	1109	179	92	271		0,33	143,0						223,3	42,7	34,2	4,1	42,7	34,2	4,1	0,16	53,6	0,08	38,2	0,41	134,4
154	518+00	518+20	20	4,51	4,97	9,48		5,25	5,25	0,50	0,50			115	115	230	90	99	190	25	16	40		0,06	24,5						36,2	6,4	5,1	0,6	6,4	5,1	0,6	0,02	8,0	0,01	5,7	0,07	22,4
155	518+20	518+80	60	4,84	5,04	9,88	VI	5,25	5,25	0,50	0,50			345	345	690	290	302	593	55	43	97	5,5	0,18	76,5					103,2	15,3	12,2	1,5	15,3	12,2	1,5	0,06	19,2	0,03	13,7	0,21	67,2	
156	518+80	519+00	20	5,26	4,45	9,71		5,25	5,25	0,50	0,50			115	115	230	105	89	194	10	26	36		0,06	25,1						35,2	5,6	4,5	0,5	5,6	4,5	0,5	0,02	7,1	0,01	5,0	0,07	22,4
157	519+00	519+80	80	5,55	4,49	10,04		5,25	5,25	0,50	0,50			460	460	920	444	359	803	16	101	117		0,24	103,6						134,8	18,4	14,7	1,8	18,4	14,7	1,8	0,07	23,1	0,04	16,4	0,28	89,6
158	519+80	520+00	20	5,27	4,11	9,38	VI	5,25	5,25	0,50	0,50			115	115	230	105	82	188	10	33	42	5,5	0,06	24,2					36,6	6,7	5,3	0,6	6,7	5,3	0,6	0,03	8,4	0,01	6,0	0,07	22,4	
159	520+00	520+60	60	4,92	4,38	9,30		5,25	5,25	0,50	0,50			345	345	690	295	263	558	50	82	132		0,17	72,0						110,9	20,8	16,6	2,0	20,8	16,6	2,0	0,08	26,1	0,04	18,6	0,21	67,2
160	520+60	521+50	90	5,36	5,01	10,37		5,25	5,25	0,50	0,50			518	518	1035	482	451	933	35	67	102		0,28	120,4						145,1	16,0	12,8	1,5	16,0	12,8	1,5	0,06	20,1	0,03	14,3	0,31	100,8
161	521+50	522+40	90	5,75	4,88	10,63	IV	5,25	5,25	0,50	0,50			518	518	1035	518	439	957		78	78	5,5	0,29	123,4					78,6	12,3	9,9	1,2	12,3	9,9	1,2	0,05	15,5	0,02	11,0	0,31	100,8	
162	522+40	523+60	120	5,75	4,59	10,34		5,25	5,25	0,50	0,50			690	690	1380	690	551	1241		139	139		0,37	160,1						112,5	21,9	17,5	2,1	21,9	17,5	2,1	0,08	27,5	0,04	19,6	0,41	134,4
163	523+60	524+00	40	5,75	4,12	9,87		5,25	5,25	0,50	0,50			230	230	460	230	165	395		65	65		0,12	50,9						41,6	10,3	8,2	1,0	10,3	8,2	1,0	0,04	12,9	0,02	9,2	0,14	44,8
164	524+00	524+20																																									



	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43			
231	568+00	569+20	120	5,02	5,10	10,12	VI	5,25	5,25	0,50	0,50			690	690	1380	602	612	1214	88	78	166		0,36	211,7					200,1	26,1	20,9	2,5	26,1	20,9	2,5	0,10	32,7	0,05	23,3	0,41	134,4			
232	569+20	569+80	60	5,09	4,85	9,94		5,25	5,25	0,50	0,50			345	345	690	305	291	596	40	54	94		0,18	104,0						102,4	14,7	11,8	1,4	14,7	11,8	1,4	0,06	18,5	0,03	13,2	0,21	67,2		
233	569+80	570+00	20	5,26	4,85	10,11		5,25	5,25	0,50	0,50			115	115	230	105	97	202	10	18	28		0,06	35,2						33,4	4,4	3,5	0,4	4,4	3,5	0,4	0,02	5,5	0,01	3,9	0,07	22,4		
234	570+00	570+20	20	5,38	4,90	10,28	IV	5,25	5,25	0,50	0,50			115	115	230	115	98	213		17	17		0,06	37,1					17,4	2,7	2,1	0,3	2,7	2,1	0,3	0,01	3,4	0,01	2,4	0,07	22,4			
235	570+20	570+90	70	5,81	4,89	10,70		5,25	5,25	0,50	0,50			403	403	805	403	342	745		60	60		0,22	129,8						61,0	9,5	7,6	0,9	9,5	7,6	0,9	0,04	11,9	0,02	8,5	0,24	78,4		
236	570+90	571+40	50	5,34	5,31	10,65		5,25	5,25	0,50	0,50			288	288	575	267	266	533	21	22	43		0,16	92,8						77,6	6,7	5,4	0,6	6,7	5,4	0,6	0,03	8,4	0,01	6,0	0,17	56,0		
237	571+40	572+00	60	4,92	5,19	10,11	VI	5,25	5,25	0,50	0,50			345	345	690	295	311	607	50	34	83		0,18	105,7					100,2	13,1	10,5	1,3	13,1	10,5	1,3	0,05	16,5	0,03	11,7	0,21	67,2			
238	572+00	572+20	20	4,21	5,15	9,36		5,25	5,25	0,50	0,50			115	115	230	84	103	187	31	12	43		0,06	32,6						36,7	6,7	5,4	0,6	6,7	5,4	0,6	0,03	8,5	0,01	6,0	0,07	22,4		
239	572+20	572+60	40	4,93	5,21	10,14		5,25	5,25	0,50	0,50			230	230	460	197	208	406	33	22	54		0,12	70,7						66,5	8,6	6,9	0,8	8,6	6,9	0,8	0,03	10,7	0,02	7,7	0,14	44,8		
240	572+60	573+00	40	5,21	5,10	10,31	IV	5,25	5,25	0,50	0,50			230	230	460	208	204	412	22	26	111		0,12	71,9					78,9	17,4	13,9	1,7	17,4	13,9	1,7	0,07	21,8	0,03	15,6	0,14	44,8			
241	573+00	573+20	20	5,52	5,31	10,83		5,25	5,25	0,50	0,50			115	115	230	115	106	221		9	9		0,07	38,6						15,6	1,4	1,1	0,1	1,4	1,1	0,1	0,01	1,7	0,00	1,2	0,07	22,4		
242	573+20	573+40	20	5,86	5,45	11,31		5,25	5,25	0,50	0,50			115	115	230	115	109	224		6	6		0,07	39,0						15,0	0,9	0,8	0,1	0,9	0,8	0,1	0,00	1,2	0,00	0,8	0,07	22,4		
243	573+40	573+80	40	6,40	5,62	12,02	II	5,25	5,25	0,50	0,50			230	230	460	230	225	455		5	5		0,14	79,3					28,4	0,8	0,7	0,1	0,8	0,7	0,1	0,00	1,0	0,00	0,7	0,14	44,8			
244	573+80	574+40	60	6,21	6,68	12,89		5,25	5,25	0,50	0,50			345	345	690	345	345	690					0,21	120,3																0,21	67,2			
245	574+40	575+40	100	6,36	6,75	13,11		5,25	5,25	0,50	0,50			575	575	1150	575	575	1150					0,35	200,4																	0,35	112,0		
246	575+40	575+80	40	6,20	6,83	13,03	IV	5,25	5,25	0,50	0,50			230	230	460	230	230	460					0,14	80,2																		0,14	44,8	
247	575+80	576+20	40	6,73	6,48	13,21		5,25	5,25	0,50	0,50			230	230	460	230	230	618					0,19	107,6																	0,14	44,8		
248	576+20	576+80	60	6,45	6,55	13,00		5,25	5,25	0,50	0,50			345	345	690	345	345	690					0,21	120,3																	0,21	67,2		
249	576+80	577+00	20	6,26	7,09	13,35	IV	5,25	5,25	0,50	0,50			115	115	230	115	115	230					0,07	40,1																			0,07	22,4
250	577+00	577+70	70	6,93	6,14	13,07		5,25	5,25	0,50	0,50			403	403	805	403	403	805					0,24	140,3																	0,24	78,4		
251	577+70	578+00	30	6,84	5,32	12,16		5,25	5,25	0,50	0,50			173	173	345	173	160	332		13	13		0,10	57,9						23,3	2,0	1,6	0,2	2,0	1,6	0,2	0,01	2,5	0,00	1,8	0,10	33,6		
252	578+00	579+20	120	6,99	4,76	11,75	IV	5,25	5,25	0,50	0,50			690	690	1380	690	571	1261		119	119		0,38	219,8						108,0	18,7	15,0	1,8	18,7	15,0	1,8	0,07	23,5	0,04	16,7	0,41	134,4		
253	579+20	579+70	50	6,62	5,27	11,89		5,25	5,25	0,50	0,50			288	288	575	288	264	551																										

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	
319	608+80	609+20	40	11,51	9,36	20,87	II	5,25	5,25	0,50	0,50			230	230	460	230	230	460					0,14	80,2																0,14	44,8	
320	609+20	609+60	40	11,06	11,14	22,20		5,25	5,25	0,50	0,50			230	230	460	230	230	460					0,14	80,2															0,14	44,8		
321	609+60	610+20	60	10,51	10,61	21,12		5,25	5,25	0,50	0,50			345	345	690	345	345	690					0,21	120,3															0,21	67,2		
322	610+20	610+40	20	9,72	10,28	20,00		5,25	5,25	0,50	0,50			115	115	230	115	115	230					0,07	40,1															0,07	22,4		
323	610+40	610+60	20	8,71	10,11	18,82	IV	5,25	5,25	0,50	0,50			115	115	230	115	115	230					0,07	40,1																0,07	22,4	
324	610+60	611+20	60	7,12	9,28	16,40		5,25	5,25	0,50	0,50			345	345	690	345	345	690					0,21	120,3														0,21	67,2			
325	611+20	611+75	55	6,05	6,71	12,76		5,25	5,25	0,50	0,50			316	316	633	316	316	633					0,19	110,2														0,19	61,6			
326	611+75	612+00	25	5,80	5,42	11,22		5,25	5,25	0,50	0,50			144	144	288	144	136	279		8	8		0,08	48,7						18,9	1,3	1,0	0,1	1,3	1,0	0,1	0,00	1,6	0,00	1,2	0,09	28,0
870	612+00	613+20	120	5,80	4,43	10,23	V	5,25	5,25	0,50	0,50			690	690	1380	690	532	1222		158	158		0,37	212,9					116,7	24,9	20,0	2,4	24,9	20,0	2,4	0,10	31,3	0,05	22,3	0,41	134,4	
871	613+20	614+00	80	5,80	4,63	10,43		5,25	5,25	0,50	0,50			460	460	920	460	370	830		90	90		0,25	144,7					74,3	14,1	11,3	1,3	14,1	11,3	1,3	0,05	17,7	0,03	12,6	0,28	89,6	
872	614+00	614+40	40	5,80	4,91	10,71		5,25	5,25	0,50	0,50			230	230	460	230	196	426		34	34		0,13	74,3					34,7	5,3	4,2	0,5	5,3	4,2	0,5	0,02	6,6	0,01	4,7	0,14	44,8	
873	614+40	615+20	80	4,97	5,80	10,77		5,25	5,25	0,50	0,50			460	460	920	398	460	858	62		62		0,26	149,5					68,3	9,8	7,9	0,9	9,8	7,9	0,9	0,04	12,3	0,02	8,8	0,28	89,6	
874	615+20	615+80	60	4,80	5,82	10,62	VI	5,25	5,25	0,50	0,50			345	345	690	288	345	633	57		57		0,19	110,3					53,5	9,0	7,2	0,9	9,0	7,2	0,9	0,03	11,3	0,02	8,0	0,21	67,2	
875	615+80	617+00	120	4,98	5,88	10,86		5,25	5,25	0,50	0,50			690	690	1380	598	690	1288	92		92		0,39	224,4					102,2	14,6	11,6	1,4	14,6	11,6	1,4	0,06	18,2	0,03	13,0	0,41	134,4	
876	617+00	624+00	700	5,40	5,42	10,82		5,25	5,25	0,15	0,17			3780	3794	7574	3780	3794	7574					2,27	1320														2,27	737,7			
877	624+00	624+80	80	5,38	5,42	10,80		5,25	5,25	0,13	0,17			430	434	864	430	434	864					0,26	131,7				81,1	0,3										0,26	84,2		
878	624+80	628+00	320	5,38	5,40	10,78	III	5,25	5,25	0,13	0,15			1722	1728	3450	1722	1728	3450				6,5	1,03	525,7				323,9	1,0											1,03	336,0	
879	628+00	632+60	460	5,41	5,44	10,85		5,25	5,25	0,16	0,19			2489	2502	4991	2489	2502	4991					1,50	643,8														1,50	486,1			
880	632+60	634+70	210	5,32	5,32	10,64		5,25	5,25	0,07	0,07			1117	1117	2234	1117	1117	2234					0,67	288,2															0,67	217,6		
881	634+70	636+00	130	4,95	5,11	10,06		5,25	5,25	0,50	0,50			748	748	1495	644	664	1308	104	83	187		0,39	168,7						218,5	29,5	23,6	2,8	29,5	23,6	2,8	0,11	37,0	0,06	26,3	0,45	145,6
882	636+00	636+60	60	5,06	4,61	9,67	V	5,25	5,25	0,50	0,50			345	345	690	304	277	580	41	68	110		0,17	74,8					106,0	17,3	13,8	1,6	17,3	13,8	1,6	0,07	21,7	0,03	15,4	0,21	67,2	
883	636+60	638+40	180	5,06	5,07	10,13		5,25	5,25	0,50	0,50			1035	1035	2070	911	913	1823	124	122	247		0,55	235,2					299,8	38,8	31,1	3,7	38,8	31,1	3,7	0,15	48,7	0,07	34,7	0,62	201,6	
884	638+40	640+40	200	4,65	5,81	10,46		5,25	5,25	0,50	0,50			1150	1150	2300	930	1150	2080	220		220		0,62	268,3					184,8	34,7	27,7	3,3	34,7	27,7	3,3	0,13	43,5	0,07	31,0	0,69	224,0	
885	640+40	640+80	40	4,97	5,82	10,79		5,25	5,25	0,50	0,50			230	230	460	199	230	429	31		31		0,13	55,3					34,1	4,9	3,9	0,5	4,9	3,9	0,5	0,02	6,2	0,01	4,4	0,14	44,8	
886	640+80	640+90	10	5,84	6,38	12,22	VI	5,25	5,25	0,50	0,50			58	58	115	58	58	116				5,5	0,03	15,0					0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,03	11,2
887	640+90	641+50	60	5,84	6,38	12,22		5,25	5,25	0,50	0,50			398	398	795	350	398	748	47																							

**List of chutes on the slope**  
**Lista cascadelor pe taluz**

Nr.	Designed Proiectat			
	LHS Stînga PC+	RHS Dreapta PC+	Length of the slope Lungimea pe taluzului, m	Dissipating basin for chuts Camin de disipare pentru cascadi
1	2	3	4	5
1	451+70		1,5	1
2		451+70	5,0	1
3	452+30		3,0	
4		452+30	4,5	1
5	452+90		0,7	
6		452+90	1,2	
7	453+50		1,0	
8		453+50	1,5	
9	465+90		0,7	
10		465+90	0,7	
11	466+40		0,7	
12		466+40	0,7	
13	466+95		0,7	
14		466+95	4,5	
15	471+95		0,7	
16	472+35		0,7	
17	475+40		1,0	
18		475+40	3,5	1
19	476+10		3,0	
20		476+10	5,0	1
21	476+70		0,7	
22		476+70	4,0	1
23	494+60		5,0	
24		494+60	10,0	1
25	495+25		7,0	
26		495+25	16,5	
27	495+90		0,7	
28		495+90	0,7	
29		574+30	6,0	1
30		574+60	8,0	1
31		574+95	12,0	1
32	582+60		1,5	1
33		582+60	1,0	1
34	583+00		0,7	1

Rehabilitation of R14 Road Balti-Sarateni , km 43.00 – km 66.667

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
35		583+00	3,0	1
36	606+50		0,7	1
37		606+50	3,5	1
38	606+90		0,7	1
39		606+90	4,0	1
<b>Total</b>			<b>126</b>	<b>18,0</b>

**Side roads construction**  
**Amenajarea drumurilor laterale**

Nr.	Direction Îndrumare		Type of cross road Tipul drumului de intersecție ( tipul îmbrăcămintei rutiere existente)	Cross angle Unghi de intersecție	Area, type of designed pavement, sq m Suprafața , tip îmbrăcămintă rutieră proiectat, mp				Culvert Podeț				Notă
	LHS stînga	RHS dreapta			Tip I	Tip II	Tip III	Tip IV	Existing Existent		Designed Proiectat		
									Ø, m	L, m	Ø, m	L, m	
1	2	3	4	5	6	7	8	9	10	11	12	13	14
1		435+45	Pămînt	97			95	61					În cîmp
2	447+26		Pămînt	97			76	69					În cîmp
3		454+75	Asphalt concrete Beton asfaltic	90	112								În cîmp
4	460+42		Crushed stone Piatra sparta	92		167		42					În cîmp
5		460+81	Asphalt concrete Beton asfaltic	101	214								Stradă
6	463+31		Crushed stone Piatra sparta	89		65	75				1,0	10,0	Stradă
7		463+57	Pămînt	90			138						Stradă
8		465+40	Asphalt concrete Beton asfaltic	85	145								Stradă
9	465+56		Crushed stone Piatra sparta	105		106	50				1,0	10,0	Stradă
10	467+28		Pămînt	91			155				1,0	15,0	Stradă
11		471+28	Asphalt concrete Beton asfaltic	90	79		32						Stradă
12	472+48		Crushed stone Piatra sparta	104		189	60				1,0	20,0	s. Pepeni
13		472+76		78		107	54						

1	2	3	4	5	6	7	8	9	10	11	12	13	14
14	473+63			94		115	55				1,0	20,0	Stradă
15	474+68		Pămînt	64			132				1,0	10,0	Stradă
16		477+63	Crushed stone Piatra sparta	94		93	63						Stradă
17	478+09			92		61	95				1,0	15,0	Stradă
18		478+09		85		77	79						Stradă
19	479+84			93		94	62				1,0	15,0	Stradă
20		480+26		80		74	70						Stradă
21	484+05			82			97	59					În câmp
22		496+30	Asphalt concrete Beton asfaltic	100	370				1,5	23,6			Telenești
23		498+10	Pămînt	55			142						Stradă
24	506+30		Crushed stone Piatra sparta	90		88		67	1,0	5,6	1,0	5,0	În câmp
25		506+30		96		94	63						Stradă
26		506+30- 511+65					1630						Dreaptă paralel cu drumul
27	511+61		Crushed stone Piatra sparta	120		164		29					În câmp
28		511+65	Asphalt concrete Beton asfaltic	171	204								Stradă
29		516+07		79	196								Stradă
30		518+40	Crushed stone Piatra sparta	95		127	51						Stradă
31	519+49			89		174	37		1,0	20,0			s. Băneștii Noi
32	521+02		Pămînt	81			99	59			1,0	10,0	În câmp

rehabilitation of R 14 Balti-Sarateni , km 43.00 – km 66.667

[illegible]

1	2	3	4	5	6	7	8	9	10	11	12	13	14
52		618+06		80	313								s. Mîndra
53		622+52	Crushed stone Piatra sparta	93		91	65						s. Mîndra
54		624+64	Pămînt	94			93	63					În cîmp
55		637+92	Asphalt concrete Beton asfaltic	96	157								În cîmp
56	651+66			91	440								Stradă
57		651+66		85	447								Stradă
58		653+85	Pămînt	90	180								Piață
59	655+12		Asphalt concrete Beton asfaltic	104	172								În cîmp
60		657+58	Crushed stone Piatra sparta	90		164		45					În cîmp
61	666+65, 73		Asphalt concrete Beton asfaltic	115	592								Soroca
<b>Total</b>					<b>6566</b>	<b>3357</b>	<b>4264</b>	<b>560</b>	<b>5</b>	<b>64</b>	<b>12</b>	<b>150</b>	

**Note:** Priming the existing asphalt surface with bitumen

**Notă:** Amorsarea fundatiei din piatra sparta cu bitum -0,6 l/m2

Priming the existing asphalt surface with bitumen

Amorsarea stratului de jos din asfalt cu bitum -0,3 l/m2

#### Tip I

Fine grained asphalt concrete Type A M I

Beton asfaltic cu granulație fină Tip A M I -4cm

Fine grained dense asphalt concrete M I

Egalizare cu beton asfaltic cu granulație fina poros M I Hmed - 3cm

#### Tip II

Fine grained dense asphalt concrete Type A M I

Beton asfaltic cu granulație fină dens tip A M I -4cm

High grained asphalt concrete and large grained gravel Type A M I

Beton asfaltic cu granulație mare poros din pietriș cu granulație mare tip M I -6cm



1	2	3	4	5	6	7	8	9	10	11	12	13	14
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Mixture of crushed granite rock-pebble-sand

Amestec din piatra concosata de granit-prundis-nisip Nr.4

-15cm

**Tip III**

Fine grained dense asphalt concrete Type A M1

Beton asfaltic cu granulație fină dens tip A M I

-4cm

High grained dense asphalt concrete Type A M1

Beton asfaltic cu granulație mare poros M I

-6cm

Mixture of crushed granite rock-pebble-sand

Amestec din piatra concosata de granit-prundis-nisip Nr.4

-25cm

Large grain sand

Nisip cu granulație mare(ПГС)

-15cm

**Tip IV**

Crushed stone

Piatră concasată M 300

-20cm

Large grain sand

Nisip cu granulație mare(ПГС)

-15cm

**Property accesses**  
**Întrări în curți**

Nr.	Existing Existente			Designed Proiectat			Earth work Lucrări de pământ			Surfaces of pavement Suprafața sistemului rutier		Bridge dal concrete Podeț, dală din beton			Property accesses Acces in curti				Note Nota
	LHS Stînga	RHS Dreapta	Length Lungimea, ml	LHS Stînga	RHS Dreapta	Length Lungimea , ml	Earth excavations Excavarea pământului cu exc.0,65 in carier	Level Surfaces wiith bulldozer Planificarea cu buldozer pînă la 30m	Backfilk of embankment with roller Compactarea terasamentului cu rulou	Type tip1	Type tip2	Existing Existente	Designed proiectat Ø0,6m.	Dal concrete dala din beton, buc/m3	Type Tip I	Type Tip II	Type Tip III	Type Tip IV	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
s. Prepelita																			
1				460+56		7,3					28			2			1		
2				460+84		7,0					25			2			1		
3					461+18	8,6	11,0	11,0	11,0		30				1				
4				461+19		7,1					25			2			1		
5				461+29		7,1					25			2			1		
6					461+45	8,0	10,0	10,0	10,0		28				1				
7					461+96	7,3					26				1				
8				461+97		7,6					63			4			1		
9					462+37	7,1					25				1				
10				462+37		8,1					27			2			1		
11				462+44		8,1					27			2			1		
12				463+62		7,8					27			2			1		
13					463+86	5,4					20			2			1		
14				464+00		6,4					23			2			1		
15					464+26	6,9					25			2			1		
16				464+27		5,1					19			2			1		
17				464+50		5,3					20			2			1		
18					464+60	8,3					29			2			1		
19				464+79		6,7					24			2			1		
20					465+11	8,6					30			2			1		
21					465+78	8,5					29			2			1		
22				465+98		9,8					33			2			1		
23					466+27	8,9					31			2			1		

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
24				466+34		9,3					32			2			1		
25					466+42	9,7					33			2			1		
26				469+47		8,3					28			2			1		
27				469+68		8,5					30			2			1		
28					469+98	6,7					24				1				
29					470+18	6,3					23				1				
30				470+20		10,0					34			2			1		
31					470+76	6,1					22				1				
32					470+89	6,5					24				1				
33					471+68	5,4					20			2			1		
34					472+23	4,1					16				1				
35				474+02		12,2	20,0	20,0	20,0		41		5,0			1			
36				474+50		12,1	20,0	20,0	20,0		40			2			1		
37					477+05	6,7	10,0	10,0	10,0		24				1				
38				477+36		7,5					27			2			1		
39				477+75		7,3					26			2			1		
40				477+93		7,4					26			2			1		
41					478+68	5,6	8,0	8,0	8,0		21				1				
42					479+42	5,8	8,0	8,0	8,0		22				1				
43					479+96	5,8	8,0	8,0	8,0		22				1				
44				479+52		8,3					29			2			1		
45				480+70		8,8					30			2			1		
46					481+23	6,1	18,0	18,0	18,0		22				1				
47				481+32		8,5	3,0	3,0	3,0		30			2			1		
48					481+49	5,7	7,0	7,0	7,0		20				1				
49					481+56	5,7	7,0	7,0	7,0		20				1				
50				481+56		8,6	3,0	3,0	3,0		30			2			1		
51				481+79		8,9	3,0	3,0	3,0		31			2			1		
52					481+90	5,8					21			2			1		
53				482+02		9,4	3,0	3,0	3,0		32			2			1		
54				482+23		9,9	3,0	3,0	3,0		34			2			1		
55					482+45	5,9					22			2			1		
56				482+46		10,5	3,0	3,0	3,0		36			2			1		
57				482+80		11,6					39			2			1		
58				483+32		14,2	3,0	3,0	3,0		47			2			1		
59				483+90		15,9	3,0	3,0	3,0		52			2			1		
60					484+54	8,4	16,0	16,0	16,0		29				1				
61					484+68	9,7	20,0	20,0	20,0		33				1				
62					484+99	10,0	25,0	25,0	25,0		34				1				

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
<b>s. Banesti</b>																			
1					501+18	20,2	27,0	27,0	27,0		64		5				1		
2					502+79	20,7	50,0	50,0	50,0		66		5				1		
3					503+10	20,8	50,0	50,0	50,0		66		5				1		
4					503+66	20,8	50,0	50,0	50,0		66		5				1		
5					505+64	21,4	50,0	50,0	50,0		68		15				1		10m PC 506+48
6					508+12	3,2					11							1	
7					508+57	6,1					20							1	
8					508+82	6,0					19							1	
9					509+09	5,9					19							1	
10					509+29	6,0					19							1	
11					509+68	5,8					18							1	
12					509+84	5,7					18							1	
13					510+51	6,2					20							1	
14					510+75	6,8					22							1	
15					510+98	6,4					20							1	
16					511+52	7,9					25							1	
17					512+11	16,2	24,0	24,0	24,0		53		5				1		
18					512+38	16,2	24,0	24,0	24,0		53		5				1		
19					512+67	15,6	22,0	22,0	22,0		51		5				1		
20					512+85	15,2	20,0	20,0	20,0		50		5				1		
21					513+03	15,1	20,0	20,0	20,0		49		5				1		
22					513+25	15,9	19,0	19,0	19,0		52		5				1		
23					513+43	16,0	19,0	19,0	19,0		52		5				1		
24					514+76	14,8	18,0	18,0	18,0		48		5				1		
25					515+20	15,1	11,0	11,0	11,0		49		5				1		
26					515+61	15,6	11,0	11,0	11,0		51		5				1		
27					517+17	16,0	35,0	35,0	35,0		52		5				1		
28					517+61	15,0	35,0	35,0	35,0		49		5				1		
<b>s. Ratus</b>																			
1					605+34	5,2					18				1				
2					605+68		10,4				35		5				1		
3					605+92		11,1				37		5				1		
4					606+25		11,9				40		5				1		
5					606+61	3,7					15				1				
95	<b>Total</b>						<b>697</b>	<b>697</b>	<b>697</b>	<b>0</b>	<b>3060</b>	<b>0</b>	<b>115</b>	<b>86</b>	<b>21</b>	<b>1</b>	<b>62</b>	<b>11</b>	

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
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### Tip 1

Fine grained dense asphalt

Beton asfaltic cu granulatie fina dens Tip B M1

- 4cm

30801

### Tip 2

Fine grained dense asphalt

Beton asfaltic cu granulatie fina dens Tip B M1

Piatra concasata M 300/ crushed stone

Nisip /Sand

- 4cm

30801 3060

- 15cm

30602 459

- 10cm

30601 306

**List of existing pavements**  
**Lista trotuarelor existente**

Nr.	Location Amplasare PC, +		Pavement width Lățimea trotuarelor, m	Length Lungimea, m	Surface Suprafața, mp	Pavement Imbracaminte	Sidewalk location Amplasarea trotuarului	Note Nota
	LHS stînga	RHS dreapta						
1	2	3	4	5	6	7	8	9
1	460+61-483+71		1,50	2258	3387	As	after turf după gazon	s.Prepeșița
2		460+85-462+73	2,00	188	376	As		s.Prepeșița
3		463+65-467+31	1,50	359	539	As		s.Prepeșița
4		468+75-472+27	1,50	345	518	As		s.Prepeșița
5		472+27-472+76	1,50	42	63	Ps		s.Prepeșița
6		476+81-482+65	1,50	557	836	As		s.Prepeșița
<b>Total</b>				<b>3749</b>	<b>5718</b>			<b>s.Prepeșița</b>
7		496+53-506+09	1,00	932	932	As		s.Bănești
8		508+02-518+32	1,50	1013	1519,5	As		s.Bănești
<b>Total</b>				<b>1945</b>	<b>2451,5</b>			<b>s.Bănești</b>
9	652+69-653+85		1,50	116	174	As		s.Sărăteni
10		657+62-666+66	1,00	904	904	As		s.Sărăteni
<b>Total</b>				<b>1020</b>	<b>1078</b>			<b>s.Sărăteni</b>
<b>Total obiect</b>				<b>6714</b>	<b>9247</b>			

**List of junctions lane, bus laybys**  
**Lista volumelor la amenajarea benzilor de accelerare-frânare**

Nr.	Location bands acceleration-braking Amplasarea benzilor de accelerare-frinare				Type of line Tipul benzii, lungimea trecerii	Type of pavement      Tipul îmbrăcăminteii rutiere		Note Nota
	Existing/Existente		Designed/Proiectate			TIP I	TIP II	
	LSH Stînga PC+	RHS Dreapta PC+	LSH Stînga PC+	RHS Dreapta PC+				
1	2	3	4	5	6	7	8	9
1	-	-	439+60-442+10	-	Frinare - Accelerare 30/30	200	571	fintina
2	-	-	471+30-473+85	-	Frinare - Accelerare 30/30	-	787	s.Pepeni
3	-	-	-	472+15-474+00	Frinare - Accelerare 30/30	214	253	s. Copăceni
4	-	-	-	494+30-498+30	Frinare - Accelerare 60/30	498	732	or.Telenesti
5	-	-	579+60-581+95	-	Frinare - Accelerare 30/30	220	500	s.Verejeni
6	-	-	-	579+80-582+75	Frinare - Accelerare 30/30	440	489	s.Verejeni
7	-	607+00-610+90	-	-	Frinare - Accelerare 60/60	847	308	or.Telenesti
8	607+66-610+73	-	-	-	Frinare - Accelerare 30/60	917	-	Cafenea,oprire
9	650+35-654+20	-	-	-	Frinare - Accelerare 20/60	1156	120	Cafenea,acces
10	-	650+10-653+75	-	-	Frinare - Accelerare 60/60	1097	-	s.Sarateni
11	-	664+90-sf.traseu	-	-	Frinare - 60/0	563	-	oprire
12	665+12-sf.traseu	-	-	-	Accelerare - 60/0	538	-	oprire
	Total					6690	3760	

**Tip I**

Fine grained asphalt concrete Type A MI

Beton asfaltic cu granulație fină Tip A M I -4cm

Fine grained dense asphalt concrete MI

Egalizare cu beton asfaltic cu granulație fina poros M I - Hmed - 4cm

**Tip II**

Fine grained asphalt concrete Type A MI

Beton asfaltic cu granulație fină Tip A M I -4cm

1	2	3	4	5	6	7	8	9
	High grained dense asphalt concrete Type A M1							
	Beton asfaltic cu granulație mare poros M I			-7cm				
	Chippings anrobata M600							
	Criblura anrobata M600			-11cm				
	Mixture of crushed stone foundation of granite-pebble-sand							
	Fundatie din amestecuri din piatra concosata de granit-prundis-nisip Nr.4 (15+15+15)			-45cm				
	Large grain sand							
	Nisip cu granulație mare(ΠΓC)			-20cm				



**List of Existing and Designed guardrails**  
**Lista parapetelor de protectie existente si proiectate**

Nr.	Type of guardrails Tipul parapetelor	Existing guardrail Parapet existent				Designed guardrail Parapet metalic proiectat			Note Notă
		LHS Stînga PC+	RHS Dreapta PC+	Poles Stîlpi	length Lungimea, m	LHS Stînga PC+	RHS Dreapta PC+	length Lungimea, m	
1	2	3	4		5	6	7	8	9
1	stîlpi		577+66-579+70	53			577+66-579+70	204	
2	metalic						599+50-604+00	450	
3	stîlpi		644+07-647+04	75			642+75-647+07	432	
4	stîlpi	644+10-647+05		75		644+00-647+07		307	
5	stîlpi	648+07-650+26		56		648+10-650+50		240	
6	stîlpi		648+08-650+28	57			648+10-650+50	240	
<b>Total</b>				<b>316</b>	<b>0</b>			<b>1873</b>	

List of road signs  
Lista indicatoarelor rutiere proiectate

Nr.	PC+		Existing Existente	Quanties number Cantitatea buc.	Designed Proiectate	Quanties number Cantitatea buc.	D	A	B	B H	B H	B H	B H	B H	B H	km stone Borna chilometrica	Note Notă
	Forward direction Sens direct	Backward direction Sens opus	Nr. după STAS		STAS		700	900	700	700x350	900x600	2250x500	2200x500	2100x1100	2600x1500	5.78.2	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
1	430+00				5.78.2	1										1	Borna
2	434+00				1.7.2	1		1									
3	435+45				2.1	1		1									Drum lateral
4		436+97			1.7.3	1		1									
5		439+90			5.40.1	1			1								
6	440+00				5.78.2	1										1	Borna
7	440+40				5.22	1					1						
8		441+32			5.22	1					1						
9	442+00		1.18.1	1													Demontat
10		442+10			5.39.1	1			1								
11		443+60	5.48.1;6.1.1	2						1	1						
12	445+65				1.7.3	1		1									
13		447+25			2.1	1		1									Drum lateral
14		448+68			1.7.2	1		1									
15	450+00				5.78.2	1										1	Borna
16	453+23				1.7.2	1		1									
17	454+75				2.1	1		1									Drum lateral
18		456+23			1.7.3	1		1									
19	456+23		5.63.1; 5.64	2										2			
20	459+48				1.7.1	1		1									
21	460+00				5.78.2	1										1	Borna
22		460+42			2.1	1		1									Drum lateral
23	460+81				2.1	1		1									Drum lateral
24		461+73			1.7.1	1		1									
25	462+39				2.3	1			1								
26		463+28			2.1	1		1									Drum lateral
27		463+59	5.48.1; 5.22	2													Demontat
28	463+60				2.1	1		1									Drum lateral
29	464+47				2.3	1			1								
30		464+47			2.3	1			1								
31	465+40				2.1	1		1									Drum lateral
32		465+52			2.1	1		1									Drum lateral
33	466+48				2.3	1			1								
34		466+48			2.3	1			1								
35		467+28			2.1	1		1									Drum lateral
36		467+98			2.3	1			1								
37	470+00				5.78.2	1										1	Borna
38	470+48				2.3	1			1								
39	471+28				2.1	1		1									Drum lateral
40		471+60			5.40.1	1			1								
41	471+69				2.3	1			1								
42	472+01				1.20	1		1									
43	472+38		5.61.2	1									1				
44		472+48			2.1	1		1									Drum lateral
45	472+60				5.15	1					1						
46		472+62	5.61.2	1									1				
47	472+76				2.1	1		1									Drum lateral
48	472+97				4.2.3;	2	1			1							benzinarie
49	473+11				3.1	1	1										benzinarie
50		473+15			2.3	1			1								
51	473+15				5.6; 5.50.1;	3			2		1						
52		473+38			5.6;5.50.1;	3			2		1						
53	473+59				2.1	1		1									stație
54		473+63			2.1	1		1									Drum lateral
55		473+85			5.39.1	1			1								
56	473+98				2.3	1			1								
57		474+16			1.20	1		1									
58		474+48			2.3	1			1								
59		474+72			2.1	1		1									Drum lateral
60	474+88				1.21; 1.20	2		2									
61		475+47			2.3	1			1								
62	476+97				2.3	1			1								
63	477+17				5.50.1;	2			2								
64		477+20			5.50.1;	2			2								
65	477+63				2.1	1		1									Drum lateral
66		477+80			1.21;2.3	2		1	1								
67	477+90				1.21;2.3	2		1	1								
68		478+09			2.1	1		1									Drum lateral
69	478+09				2.1	1		1									Drum lateral
70		478+56			1.20	1		1									
71		478+97			2.3	1			1								
72	479+20				2.3	1			1								
73		479+87			2.1	1		1									Drum lateral
74	480+00				5.78.2	1										1	Borna
75	480+26				2.1	1		1									Drum lateral
76		481+24			2.3	1			1								
77	483+48				1.7.3	1		1									
78		484+05			2.1	1		1									Drum lateral
79		484+20	5.64; 5.63.1	2													Demontat
80		484+97			2.3	1			1								
81		485+47			5.64; 5.63.1	2							2				
82	490+00				5.78.2	1										1	Borna
83	494+30				5.39.1	1			1								
84	494+82				1.7.2	1		1									
85	495+20				5.15	1					1						
86	495+30		5.63.1; 5.64	2										2			
87		495+91			5.15	1					1						

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
88	495+92				4.2.3; 6.24.3	2	1			1							benzinarie
89	496+16				2.1	1		1									benzinarie
90	496+17				3.1	1	1										benzinarie
91	496+31				5.61.2	1							1				Drum lateral
92		496+32	5.61.2	1									1				
93	496+30		2.1	1				1									Drum lateral
94	497+47				2.3	1		1	1								
95		497+83			1.7.3	1		1									
96	498+00				5.40.1	1			1								
97	498+10				2.1	1		1									Drum lateral
98		498+97			1.7.3	1		1									
99	500+00				5.78.2	1										1	Borna
100	505+47				2.3	1			1								
101		506+30			2.1	1		1									Drum lateral
102	506+30		2.1	1				1									Drum lateral
103		507+24			2.3	1			1								
104	510+00				5.78.2	1										1	Borna
105	510+75				2.3	1			1								
106		511+61			2.1	1		1									Drum lateral
107	511+65				2.1	1		1									Drum lateral
108		512+47			2.3	1			1								
109	515+47				2.3	1			1								
110	516+07				2.1	1		1									Drum lateral
111		516+70			2.3	1			1								
112	517+47				1.7.2	1		1									
113	517+89		1.7.3	1													Demontat
114	518+40				2.1	1		1									Drum lateral
115	518+60				1.7.3	1		1									
116	519+10		5.61.2	1									1				
117		519+17			1.7.3	1		1									
118		519+27			5.63.1; 5.64	2							2				
119		519+47			2.1	1		1									Drum lateral
120		519+71			5.61.2	1							1				
121	520+00				5.78.2	1										1	Borna
122	520+30				1.7.3	1		1									
123		520+48			1.7.2	1		1									
124		521+02			2.1	1		1									Drum lateral
125		521+61			1.7.2	1		1									
126	521+75				2.1	1		1									Drum lateral
127	522+03				1.7.2	1		1									
128		522+97			1.7.3	1		1									
129	523+28				2.1	1		1									Drum lateral
130	525+97				1.7.2	1		1									
131	527+56				2.1	1		1									Drum lateral
132		528+98			1.7.3	1		1									
133	530+00				5.78.2	1										1	Borna
134	530+20				1.7.3	1		1									
135		531+76			2.1	1		1									Drum lateral
136	531+90				1.12.2	1		1									
137		533+47			1.7.2	1		1									
138		535+97			1.12.1	1		1									
139	540+00				5.78.2	1										1	Borna
140	545+97				1.12.1	1		1									
141	550+00				5.78.2	1										1	Borna
142		551+70	1.12.2	1				1									
143	551+97				1.7.3	1		1									
144		553+64			2.1	1		1									Drum lateral
145		555+25			1.7.2	1		1									
146	556+47				1.7.2	1		1									
147	557+64				2.1	1		1									Drum lateral
148		559+54			1.7.3	1		1									
149	560+00				5.78.2	1										1	Borna
150	562+35				1.12.1	1		1									
151		564+98			1.33	1						1					
152		567+98			1.12.2	1		1									
153	570+00				5.78.2	1										1	Borna
154	570+48				1.13.1; 1.7.3	2		2									
155		571+94			2.1	1		1									Drum lateral
156		573+47			1.7.2	1		1									
157	578+78				1.33	1						1					
158	579+36				1.20	1		1									
159	579+36		1.7.2	1				1									
160	579+80				5.39.1	1			1								
161		579+90			5.40.1	1			1								
162	579+97		5.61.2	1									1				
163	580+00				5.78.2	1										1	Borna
164		581+00			2.1	1		1									Drum lateral
165	581+18				5.6; 5.50.1;	3			2		1						
166		581+25			5.6; 5.50.1;	3			2		1						
167		581+47			5.61.2	1							1				
168		581+65			5.39.1	1			1								
169		581+85	1.3.1; 1.7.3	2				2									
170	582+45				5.40.1	1			1								
171		582+97			1.20	1		1									
172	587+50				1.13.1	1		1									
173	590+00				5.78.2	1										1	Borna
174		597+00			1.13.1	1		1									
175	598+50				1.12.2	1		1									
176	600+00				5.78.2	1										1	Borna
177	603+47				5.63.1	1							1				
178		603+47			5.64	1							1				
179	603+97				1.7.1	1		1									
180		604+69			2.1	1		1									Drum lateral
181	605+56				2.2	1			1								Drum lateral
182	605+88				1.7.3	1		1									
183	606+29				1.20	1		1									
184		606+29			1.7.1	1		1									
185		606+53			2.1	1		1									Drum lateral
186	606+90				5.39.1	1		1									

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
187	607+04		5.61.2	1											1		
188	607+32				1.7.1	1		1									
189		607+43			1.12.1;1.7.2	2		2									
190		607+95			5.40.1	1			1								
191	608+20				5.6; 5.50.1;	3			2		1						
192		608+20			5.50.1;	2			2								
193	608+44		5.50.1; 5.50.2	2					2								
194		608+53	5.61.2	2									2				
195	608+65				2.1;5.61.2	2		1							1		Drum lateral
196		608+70			2.1; 5.61.2	2		1							1		Drum lateral
197	609+47				5.50.1;	2			2								
198		609+67			5.20; 5.48.1	2			1		1						
199		609+95			5.6;5.50.1;	2			2								
200	610+00				5.78.2	1										1	Borna
201		610+17			5.20	1					1						
202		610+22	5.61.2	1											1		
203	610+30				5.40.1	1			1								
204		610+63			5.63.1	1							1				
205	610+69				5.64	1							1				
206		610+70			5.39.1	1			1								
207		610+97			1.7.1; 1.20	2		2									
208	616+47				1.7.2	1		1									
209	617+50				5.6	1					1						
210	617+79				5.61.2	1							1				
211	618+09				5.61.2	1							1				Drum lateral
212	618+09		2.1	1				1									Drum lateral
213	618+35				5.50.1;	3			2		1						
214		618+38			5.6; 5.50.1; 5.50.2	3			2		1						
215		618+97			5.61.2	1							1				
216		619+56			1.7.3	1		1									
217	620+00				5.78.2	1										1	Borna
218	620+97				1.7.2	1		1									
219	622+52				2.1	1		1									Drum lateral
220	623+06				1.7.2	1		1									
221		623+91			1.7.3	1		1									
222	624+64				2.1	1		1									Drum lateral
223		626+13			1.7.3	1		1									
224	630+00				5.78.2	1										1	Borna
225	636+40				1.7.2	1		1									
226	637+92				2.1	1		1									Drum lateral
227		637+94	Reclamă														
228	638+50				1.13.1	1		1									
229		639+51			1.7.3	1		1									
230	640+00				5.78.2	1										1	Borna
231		642+00			5.40.1	1			1								
232	647+03				5.67	1							1				
233		648+10			5.67	1							1				
234	648+63		5.63.1; 5.64	2									2				
235	649+47				1.20	1		1									
236		649+72			5.39.1	1			1								
237	650+00				5.78.2	1										1	Borna
238	650+07				2.3	1			1								
239	651+12				5.6	1					1						
240	651+12		5.50.1; 5.50.2	2					2								
241		651+40			5.6; 5.50.1; 5.50.2	3			2		1						
242		651+47	Reclamă														
243		651+66	2.1	1				1									Drum lateral
244	651+66				2.1; 5.61.2	2		1					1				Drum lateral
245		651+66			5.61.2	1							1				
246		652+11	1.20	1				1									
247	652+65				1.20	1		1									
248		652+66			4.2.3; 6.24.3	2	1			1							
249		652+97			5.48.1	1			1								
250		653+14			1.7.1	1			1								
251	653+14		2.1	1				1									
252	654+47				1.7.3	1		1									
253		654+87			5.50.1; 5.50.2	2			2								
254		654+90			5.50.1; 5.50.2	2			2								
255	655+07				5.13	1					1						
256		655+09			2.1	1		1									Drum lateral
257		655+15			5.13	1					1						
258		655+97			1.7.2; 1.20	2		2									
259		656+55			5.40.1; 1.7.2	2		1	1								
260	657+58				2.1	1		1									Drum lateral
261		657+81			5.63.1	1							1				
262	657+81				5.64	1							1				
263		658+90			1.13.1;1.7.3	2		2									
264	660+00				5.78.2	1										1	Borna
265	662+83		3.27	1			1										
266	663+34		5.29	1							1						
267	664+39		5.39.1	1													Demontat
268	664+86		1.20	1				1									
269		665+75			5.40.1	1			1								
270	665+77		5.61.2	1									1				
271		665+90			5.6;5.50.1; 5.50.2	3			2		1						
272		666+10	5.50.1; 5.50.2	2					2								
273		666+10	Reclamă														
274		666+53			5.6	1					1						
275		666+65			2.1; 5.61.2	2		1					1				Drum lateral
276	666+78		5.50.1; 5.50.2	2					2								
277		666+90			5.50.1;	2			2								
Total senme rutiere				46		285	6	136	90	4	23	2	31	4	4	24	324

**List of marker posts**  
**Lista stilpilor de dirijare**

Nr.	PC+	Marker posts according STAS,units Stilpi de dirijare dupa STAS, buc.			Note Notă
		LHS Stinga	RHS Dreapta	Total	
1	2	3	4	5	6
2	435+45	6	6	12	side road / drum lateral
3	440+46	3	3	6	RC / Beton armat Ø 1,0
4	447+26	6		6	side road / drum lateral
5	447+43	3	6	9	RC Bridge Pod beton armat
6	454+75	6	6	12	side road / drum lateral
7	457+81	3	3	6	RC / Beton armat Ø 1,0
8	460+42	6	6	12	side road / drum lateral
9	462+92	3	3	6	RC / Beton armat Ø 1,6 TN
10	468+65	6	6	12	RC Bridge Pod beton armat
11	472+48	9	6	15	side road / drum lateral
12	472+62		3	3	RC / Beton armat Ø 1,0
13	474+06	7	7	14	RC / Beton armat Ø 1,5
14	483+59	3	3	6	RC / Beton armat Ø 1,0
15	484+05	6	6	12	side road / drum lateral
16	493+30	6	6	12	RC Bridge Pod beton armat
17	496+30	9		9	side road / drum lateral
18	498+25	3	3	6	RC / Beton armat Ø 1,0
19	501+94	7	7	14	RC / Beton armat Ø 1,5
20	506+30	6	3	9	side road / drum lateral
21	506+47	4	7	11	RC / Beton armat Ø 1,5
22	511+61	6	6	12	side road / drum lateral
23	519+49	9	9	18	side road / drum lateral
24	520+12	3	6	9	RC Bridge Pod beton armat
25	521+02	3	6	9	side road / drum lateral
26	521+75	9	9	18	side road / drum lateral
27	523+28	6	6	12	side road / drum lateral
28	527+56	6	6	12	side road / drum lateral
29	528+70	7	7	14	RC / Beton armat Ø 1,6 TN
30	531+76	6	6	12	side road / drum lateral
31	532+67-534+76	10	13	23	R400
32	539+69	6	6	12	RC Bridge Pod beton armat
33	540+76-542+60	7	8	15	R450
34	545+38	7	7	14	RC / Beton armat Ø 1,5
35	548+00-549+62	14	10	24	R250
36	551+89	7	7	14	RC / Beton armat Ø 1,5
37	553+64	6	9	15	side road / drum lateral
38	555+91	6	6	12	RC Bridge Pod beton armat

Nr.	PC+	Marker posts according STAS,units Stilpi de dirijare dupa STAS, buc.			Note Notă
		LHS Stinga	RHS Dreapta	Total	
1	2	3	4	5	6
39	557+23	7	7	14	Rectangular RC Beton armat dreptunghiular 1,5 x2
40	557+92	6	3	9	side road / drum lateral
41	559+38	7	7	14	RC / Beton armat Ø 1,5
42	562+02	7	7	14	RC / Beton armat Ø 1,5
43	564+14-565+61	11	8	19	R250
44	564+36	6	6	12	RC Bridge in curve Pod beton armat - in curba
45	565+87	3	3	6	RC / Beton armat Ø 1,0
46	571+94	8	5	13	side road / drum lateral
47	572+60-576+06	18	13	31	R400
48	572+57	3	3	6	RC / Beton armat Ø 1,5
49	577+06-579+94	8	4	12	R265 - parapet PC 577+66 - PC 579+70
50	579+38	3		3	Beton armat intrare-Ø 0,6; esire-Ø 1,0
51	581+00	9	9	18	side road / drum lateral
52	587+35	6	6	12	RC / Beton armat Æ 1,6 TN - parapet
53	589+11-590+58	13	10	23	R250
54	592+33	6	6	12	RC Bridge Pod beton armat
55	593+41-595+50	10	10	20	R550
56	601+21	6		6	RC - guardrails Beton armat 2xØ 2,0 - parapet
57	602+70	6		6	RC - guardrails Beton armat 2xÆ 2,0 - parapet
58	608+65	12	14	26	side road / drum lateral
59	612+61	3	3	6	RC - guardrails Beton armat Ø 1,0 - parapet
60	618+06	7	10	17	side road / drum lateral
61	618+45	3	0	3	RC / Beton armat Ø 1,0
62	622+52	6	6	12	side road / drum lateral
63	624+64	6	6	12	side road / drum lateral
64	633+43	3	3	6	RC / Beton armat Ø 1,0
65	637+92	6	6	12	side road / drum lateral
66	647+56				RC bridge - guardrails Pod beton armat - parapet
67	655+05-657+57	11	11	22	R550
68	666+65	11	14	25	side road / drum lateral
Total		434	401	833	