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**REPUBLIC OF MOLDOVA  
ROAD SECTOR PROGRAM**

**STATE ROAD ADMINISTRATION**

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**AMENDMENT No.2  
to the Tender Documents**

**ref: Tendering No. RSP/2012/OT/02**

**Road Rehabilitation & Construction Works under two Contracts**

- **Contract RSPSP/W5/01:**  
*“Rehabilitation of R1 Chisinau-Ungheni-Sculeni Road km 74+177-km 96+200”*
- **Contract RSPSP/W5/02:**  
*“Rehabilitation of R33 Hincesti-Lapusna-M1 Road km 0+000-km 37+200”*

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**Issued on 23 January 2014**



### General:

Each of the following amendment articles specifies whether it is applicable to all two (2) contracts, or to a specific contract, respectively.

### Article 1

Tender Documents, Part 1 – Tendering Procedures, Section II: Tender Data Sheet, Clause 22 - Deadline for Submission of Tenders, Sub-Clause 22.1, the date “January 10, 2014” shall be substituted with the date “January 31, 2014”.

### Article 2

Tender Documents, Part 1 – Tendering Procedures, Section II: Tender Data Sheet, Clause 25 – Tender Opening, Sub-Clause 25.1, the date “January 10, 2014” shall be substituted with the date “January 31, 2014”.

### Article 3

Contract RSP/W5/01, Part 2- Requirements – BoQ, Bill No. 300 – Pavement, and Part 2- Requirements – Specifications, Chapter 305.17, in the table under the heading ‘Payment’, the indicated item description shall be substituted by the description provided below:

Item No.	Item Description	Unit of Measure	Quantity	Unit price €	Total cost €
30505	Binder course of asphalt concrete M II Thickness 60 mm	Square Metre	n/a		

### Article 4

Contracts RSP/W5/01 and RSP/W5/02, Part 2- Requirements – BoQ, Bill No. 300 – Pavement, and Part 2 – Requirements – Specifications, Chapter 301, Payment, indicated item description shall be substituted by the description provided below:

Item No.	Item Description	Unit of Measure	Quantity	Unit price €	Total cost €
30103	Cold recycling of the asphalt concrete pavement at a depth of 100 - 200 mm. Mixing in of 50% new aggregates and stabilization with 2% to 4 % cement. Regulation to required transverse and longitudinal profile. Compaction. Total layer thickness 50 - 300 mm	Cubic Metre	43 450,00		

### Article 5

Contracts RSP/W5/01 & RSP/W5/02, Part 2- Requirements – Specifications, Chapter 301.08, a new paragraph shall be added as follows:

*‘The time periods specified in Chapter 301.08 all commence after the completion of the activities described in Chapter 301.07.’*

### Article 6

Contracts RSP/W5/01 & RSP/W5/02, Part 2- Requirements – Specifications, at the end of Chapter 305.08, after the last paragraph the following text shall be added:

*‘Where there is a discrepancy between the standards, the requirements of SM STB 1033 – 2008 shall prevail.’*



### Article 7

Contract RSP/W5/02, Part 2-Requirements – BoQ, Bill No. 500 – Drainage structures, indicated units of measure shall be substituted by the following units of measure:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
50107.3	to Pipe culverts Ø 1000	Linear metre	14,00		
50107.6	to Pipe culverts Ø 1600	Linear metre	10,00		

### Article 8

Contract RSP/W5/02, Part 2-Requirements – BoQ, Bill No. 500 – Drainage structures, indicated quantity shall be substituted by the following quantities:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
50105.9	to Pipe culverts Ø 1600	Linear metre	35,00		
50105.13	to Double pipe culverts Ø 1600	Linear metre	n/a		

### Article 9

Contract RSP/W5/02, Part 2-Requirements – BoQ, Bill No. 600 – Incidental construction, indicated quantity shall be substituted by the following quantity:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
70304	Construction of new sidewalk with Concrete Paving Blocks	Square metre	1 380,00		

### Article 10

Contract RSP/W5/02, Part 2-Requirements – BoQ, Bill No. 500 – Drainage structures, indicated quantity shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
50404	Precast RC slab 300x100x20cm	Number	3.00		

### Article 11

Contract RSP/W5/02, Part 2-Requirements – BoQ, Bill No. 500 – Drainage structures, indicated quantities shall be substituted by the quantities provided below:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
50103.10	to Double pipe culverts Ø 1000	Number	n/a		
50103.12	to Double pipe culverts Ø 1250	Number	6,00		



### Article 12

Contract RSP/W5/02, Part2-Requirements – BoQ, Bill No. 400 – Bridges and Overpasses, indicated quantity shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
41504	Jacking superstructure, furnishing and installing neoprene bearing pads.	Number	n/a		

### Article 13

Contract RSP/W5/01, Part 2-Requirements – Specifications, under 201.17.04, the second paragraph shall be amended as follows:

*‘Place and anchor the geotextile on an approved smooth-graded surface. For slope or wave protection, place the long dimension of the geotextile down the slope. The geotextile with the min. density of 500g/cm<sup>3</sup> shall be placed in one layer. For stream bank protection, place the long dimension of the geotextile parallel to the centerline of the channel.’*

### Article 14

Contracts RSP/W5/01 and RSP/W5/02, Part 2-Requirements – BoQ, Bill No.400, for all bridges the indicated quantity shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
40002	Traffic safety measures. Temporary carrying regulation during construction woks. Installation, service and remove.	Lump-sum	n/a		

Contract RSP/W5/01, Part 2-Requirements – BoQ, Bill No.400, Bridge R1-17-B, the indicated quantity shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
40004	Temporary by-pass, accommodation of traffic (ravine/channel crossing), set-up, maintenance and removal after the bridge construction has been finished, incl. traffic safety measures. According sketch on the drawing.	Lump-sum	n/a		

Contract RSP/W5/02, Part 2 – Requirements – Specifications, Chapter 400, Sub-chapter ‘Preparatory works, site installation, accommodation of traffic’, Subheading ‘Payment’; and Part 2-Requirements – BoQ, Bill No.400, Bridges R33-0,1-B, R33-1-B, R33-2-B, R33-3-B, R33-4-B, R33-5-B, R33-6-B, R33-7-B, R33-8-B the indicated Item description and unit of measure shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
40004	Temporary by-pass, accommodation of traffic (ravine/channel crossing), set-up, maintenance and removal after the bridge construction has been finished, incl. traffic safety measures.	Lump-sum	n/a		

Contract RSP/W5/02, Part 2-Requirements – BoQ, Bill No.400, Bridge R33-0,1-B the indicated quantity shall be modified as follows:



Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
40004	Temporary by-pass, accommodation of traffic (ravine/channel crossing), set-up, maintenance and removal after the bridge construction has been finished, incl. traffic safety measures.	Lump-sum	1,00		

Contract RSP/W5/02, Part 2-Requirements – BoQ, Bill No.400, Bridges R33-1-B, R33-2-B, R33-4-B, R33-6-B, R33-7-B the indicated quantity shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
40004	Temporary by-pass, accommodation of traffic (ravine/channel crossing), set-up, maintenance and removal after the bridge construction has been finished, incl. traffic safety measures.	Lump-sum	n/a		

Contract RSP/W5/01, Part 2-Requirements – Specifications, the first two paragraphs of Chapter 400 (*Various*) under the heading '*Preparatory works, site installation, accommodation of traffic*' sub-heading '*Traffic Accommodation*', shall be amended as follows :

*'Excepting for the Bridge R1-18-B, where diversion of the traffic is required throughout the period of works to that bridge, the traffic is to be accommodated on the bridges throughout the construction period, in accordance with the requirements of Chapter 007.'*

Contract RSP/W5/01, Part 2-Requirements – Specifications, Chapter 400 (*Various*), sub-heading '*Payment*' shall be added a new paragraph as follows:

*'Payment for Traffic Management at bridge sites is included for under Chapter 007, BoQ Item 00701.'*

Contract RSP/W5/01, Part 2-Requirements – Specifications, the first paragraph and table under the heading '*Payment*' of the Chapter 105.13, shall be amended as follows :

*'The provision of approved, authorized diversion roads for the execution of road or bridge works will be paid as Lump Sum items. Payment will not be made for diversions at locations where the Item 40004 in the Bills of Quantities has been designated to be 'n/a' (not applicable). Any diversion road which the Contractor decides to construct, other than those listed in the Bills of Quantities for payment, shall be entirely at his own cost.'*

No.	Item	Unit of Measure
10501	Provide diversion road	Lump Sum

The remaining paragraphs under the heading '*Payment*' remain unchanged.

The, above, amendments to Chapter 105.13 shall apply to all of the diversion works the R1 Contract W5/01.

Contract RSP/W5/01, Part 2-Requirements – BoQ, Bill No.100, the indicated unit of measure and the quantity shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
10501	Provide diversion road	Lump-sum	n/a		



Contract RSP/W5/02, Part 2-Requirements – Specifications, the first paragraph of the Chapter 105.13 (*Acceptance*) shall be amended to read as follows :

*‘The execution of the temporary roads and traffic directing installations will be accepted only when the work is done according to the requirements of the Contract and has been approved by the Engineer.’*

Contract RSP/W5/02, Part 2-Requirements – Specifications, the paragraphs under the heading ‘*Measurements*’ of the Chapter 105.13 shall be replaced with as follows :

*‘Authorized and accepted diversion roads are Lump Sum payment items against which measurement for payment of the specified interim payment installments shall be contingent upon the Engineer’s acceptance of the properly maintained condition of the diversion roads’*

Contract RSP/W5/02, Part 2-Requirements – Specifications, the first paragraph and table under the heading ‘*Payment*’ of the Chapter 105.13, shall be amended as follows :

*‘The provision of approved, authorised diversion roads for the execution of road or bridge works will be paid as Lump Sum items. Payment will not be made for diversions at locations where the Item 40004 in the Bills of Quantities has been designated to be ‘n/a’ (not applicable). Any diversion road which the Contractor decides to construct, other than those listed in the Bills of Quantities for payment, shall be entirely at his own cost.’*

No.	Item	Unit of Measure
10501	Provide diversion road	Lump Sum

The remaining paragraphs under the heading ‘*Payment*’ remain unchanged.

The, above, amendments to Chapter 105.13 shall apply to all of the diversion works the R33 Contract W5/02.

Contract RSP/W5/02, Part 2-Requirements – BoQ, Bill No.100, the indicated unit of measure and shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unit price €	Total cost €
10501	Provide diversion road	Lump-sum	n/a		

Contract RSP/W5/02, Part 2-Requirements – Drawings, R33-1-B (2-3), R33-2-B (1), R33-3-B (2-2), R33-4-B (2-3), R33-5-B (2-2), R33-6-B (2-2), R33-7-B (2-2), R33-8-B (2-2), the following words shall be deleted:

*‘Temporary bypass preparatory works, construction, maintenance and removal after the bridge rehabilitation has been finished including traffic safety maintenance.’*



## Article 15

Contract RSP/W5/01, Part 2-Requirements – BoQ, Bill No.800, Items 80101, 80101A, 80102, 80201, 80202, 80203 shall be amended as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unit price €	Total cost €
80101	The Rearrangement of poles for 0,4 kV of aerial power lines with light	Provisional Sum	1	200.000,00	200.000,00
80101A	The Rearrangement of poles for 0,4 kV of aerial power lines (included)	Provisional Sum	1	30.000,00	30.000,00
80102	The Rearrangement of poles 10.5m for 10 kV of aerial power lines (included)	Provisional Sum	1	70.000,00	70.000,00
80201	Relocation of underground communication cable	Provisional Sum	1	5.000,00	5.000,00
80202	Relocation of aerial communication line including poles	Provisional Sum	1	3.000,00	3.000,00
80203	Relocation of underground gas pipeline	Provisional Sum	1	45.000,00	45.000,00

Contract RSP/W5/01, Part 2-Requirements – Specifications, Chapter 801.03. under the heading ‘Measurements’ the text shall be replaced with the following words:

*‘The rearrangement of aerial power lines of 10kV and 0.4 kV and the rearrangement of external lights shall be executed, subject to the approval of the Employer and in accordance with the Engineers Instructions, against the Provisional Sums Included in the Bills of Quantities. The Percentage Adjustment of the substantiated costs, by which the Provisional Sums are offset, shall be at the percentage stated in the Contract Data with reference to Sub-Clause 13.5(b)(ii).’*

Contract RSP/W5/01, Part 2-Requirements – Specifications, Chapter 801.03. under the heading ‘Payment’ the first paragraph shall be replaced with the following words:

*‘Instructed works shall be paid from the Provisional Sums included in the Bills of Quantities for the following items.’*

Contract RSP/W5/01, Part 2-Requirements – Specifications, Chapter 801.03. under the heading ‘Payment’ the table shall be amended as follows:

No.	Item	Unit of Measure
80101	The Rearrangement of poles for 0,4 kV of aerial power lines with light	Provisional Sum
80101A	The Rearrangement of poles for 0,4 kV of aerial power lines (included)	Provisional Sum
80102	The Rearrangement of poles 10.5m for 10 kV of aerial power lines (included)	Provisional Sum

Contract RSP/W5/01, Part 2-Requirements – Specifications, Chapter 802.03. a new heading shall be added as follows:

*‘Measurements’*

*‘The relocation of underground communication cables, aerial communication lines and the relocation of underground gas pipelines shall be executed, subject to the approval of the Employer and in accordance with the Engineers Instructions, against the Provisional Sums Included in the Bills of Quantities. The Percentage Adjustment of the substantiated costs, by which the Provisional Sums are offset, shall be at the percentage stated in the Contract Data with reference to Sub-Clause 13.5(b)(ii).’*



Contract RSP/W5/01, Part 2-Requirements – Specifications, Chapter 802.03. under the heading ‘Payment’ the table shall be amended as follows:

No.	Item	Unit of Measure
80201	Relocation of underground communication cable	Provisional Sum
80202	Relocation of aerial communication line including poles	Provisional Sum
80203	Relocation of underground gas pipeline	Provisional Sum

#### Article 16

Contract RSP/W5/01, Part 2-Requirements – BoQ, Bill No.500, Item 50503, the indicated item description and quantity shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unit price €	Total cost €
50503	Closed concrete channel as per drawing type 1	Linear Metre	5970		

Contract RSP/W5/01, Part 2-Requirements – BoQ, Bill No.500, under Open Drains, Side Drains, a new Item 50503A shall be added as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unit price €	Total cost €
50503A	Closed concrete channel as per drawing type 2 (access)	Linear Metre	790		

Contract RSP/W5/01, Part 2-Requirements – Specifications, in the table under the heading ‘Payment’ of the Chapter 505.04., Item 50503 shall be replaced with the following two Items:

No.	Item	Unit of Measure
50503	Closed concrete channel as per drawing type 1	Linear Meter
50503A	Closed concrete channel as per drawing type 2 (access)	Linear Meter

#### Article 17

Contract RSP/W5/01, Part 2 – Requirements – Specifications, Chapter 505.03, the third paragraph shall be amended as follows:

*‘The U-drains shall be made of concrete C 20/25, constructed on a layer of lean concrete C 12/15. The load class for the cover in sidewalks shall be B125, and for areas under traffic, e.g. at junctions, D400 shall be used.’*

#### Article 18

Contract RSP/W5/01, BoQ, Bill No. 500 – Drainage structures, indicated item description and quantity shall be substituted by the item description and quantity provided below:

Item No.	Item Description	Unit of Measure	Quantity	Unit price €	Total cost €
50311	Construct reception pit incl. all necessary works and all ancillary materials	Number	14.00		





Contract RSP/W5/01, Part 2-Requirements – Specifications, in the table under the heading ‘Payment’ of the Chapter 503.06., Item 50311 shall be replaced as follows:

No.	Item	Unit of Measure
50311	Construct reception pit incl. all necessary works and all ancillary materials	Number

#### Article 19

Contract RSP/W5/01, Part2-Requirements – BoQ, Bill No.500 – Drainage structures, indicated quantity shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
50106.6A	Box Culverts, 2(2,00m x 2,00m), (span x rise)	Linear Metre	15.00		

#### Article 20

Contract RSP/W5/01, Part 2-Requirements – BoQ, Bill No. 500 – Drainage structures, indicated quantity shall be modified as follows:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
50105.11	to Triple pipe culverts Ø 1600	Linear Metre	15.00		

#### Article 21

Contract RSP/W5/01, Part 2-Requirements – BoQ, Bridge R1-18-B, the following item shall be added:

Item No.	Item Description	Unit of Measure	Quantity	Unite price €	Total cost €
40118	Demolition of masonry constructions. Disposal of all materials.	Cubic metre	16.00		

Contract RSP/W5/01, Part 2-Requirements – Specifications, under 401.01 Introduction, a new bullet point will be added as follows:

*‘Demolition of masonry constructions and disposal of materials’*

Contract RSP/W5/01, Part 2-Requirements – Specifications, under 401.02 Equipment, the bullet point will be amended to read, as follows :

*‘Compressor(s) with tools for demolition of concrete, masonry constructions and of asphalt surfacing;’*

Contract RSP/W5/01, Part 2-Requirements – Specifications, under 401.03 Dismantling and Demolition of Elements, the second sentence of the second paragraph shall be amended to read, as follows :

*‘Re-useable masonry elements and complete prefabricated elements .....’*



Contract RSP/W5/01, Part 2-Requirements, Part 2-Requirements – Specifications, under 401.03, Payment Table a new item shall be added as follows:

No.	Item	Unit of Measure
40118	Demolition of masonry constructions. Disposal of all materials.	Cubic metre

#### **Article 22**

Contract RSP/W5/01, Part 2 – Requirements –BoQ, Bill No.400, Bridge R1-17-B and Part 2 – Requirements – Specifications, Chapter 402.04, Subheading ‘Payment’, Item 40208 have been deleted.

#### **Article 23**

Contract RSP/W5/01, Drawings - the following drawings have been amended: SD-26, SD-31.  
Contract RSP/W5/02, Drawings – the following drawings have been amended: LA 006, BC03, BC04, R33-1-B (2-3), R33-2-B (1), R33-3-B (2-2), R33-4-B (2-3), R33-5-B (2-2), R33-6-B (2-2), R33-7-B (2-2), R33-8-B (2-2)

Contract RSP/W5/02, Drawings – the following drawings have been deleted: BS003, BS004.

#### **Article 24**

Contract RSP/W5/01, Drawings – the following drawing have been added: SD-39;  
Contract RSP/W5/02, Drawings – the following drawings have been added: MI02, MI03, MI04.

#### **Annexes:**

Annex A - Drawings: SD-26, SD-31, LA 006, BC03, BC04, SD-39, MI02, MI03, MI04, R33-1-B (2-3), R33-2-B (1), R33-3-B (2-2), R33-4-B (2-3), R33-5-B (2-2), R33-6-B (2-2), R33-7-B (2-2), R33-8-B (2-2)

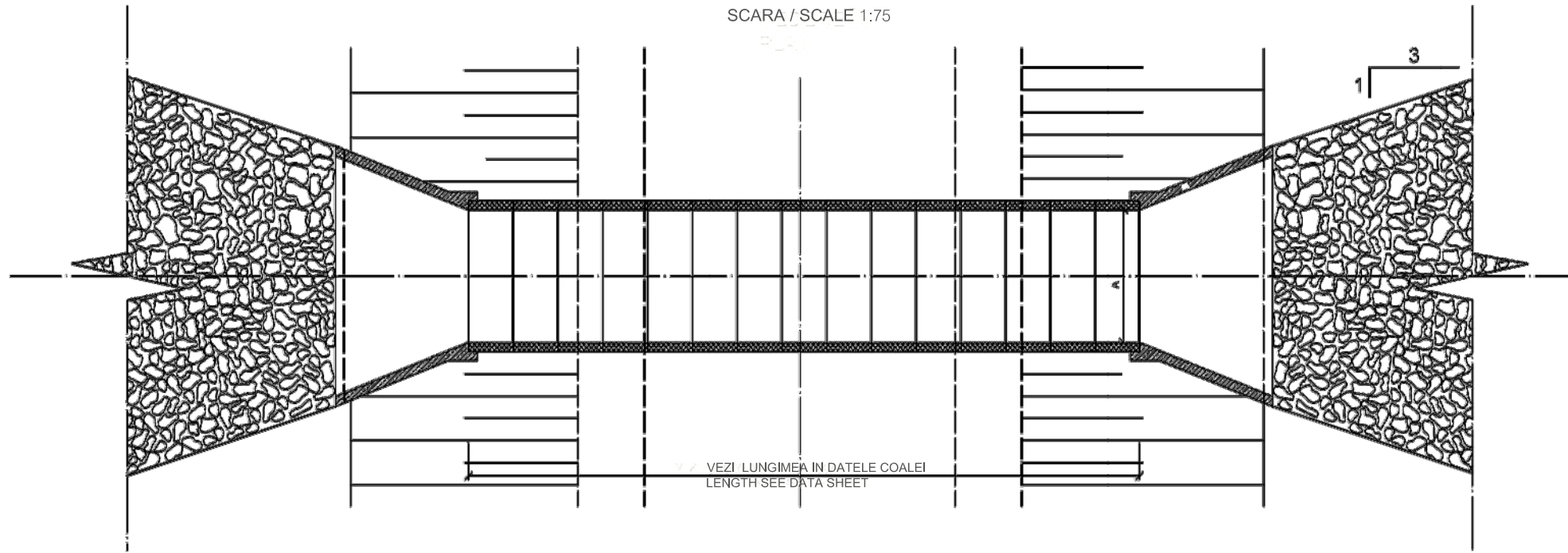


## **ANNEX A**

### **Amended and added Drawings**

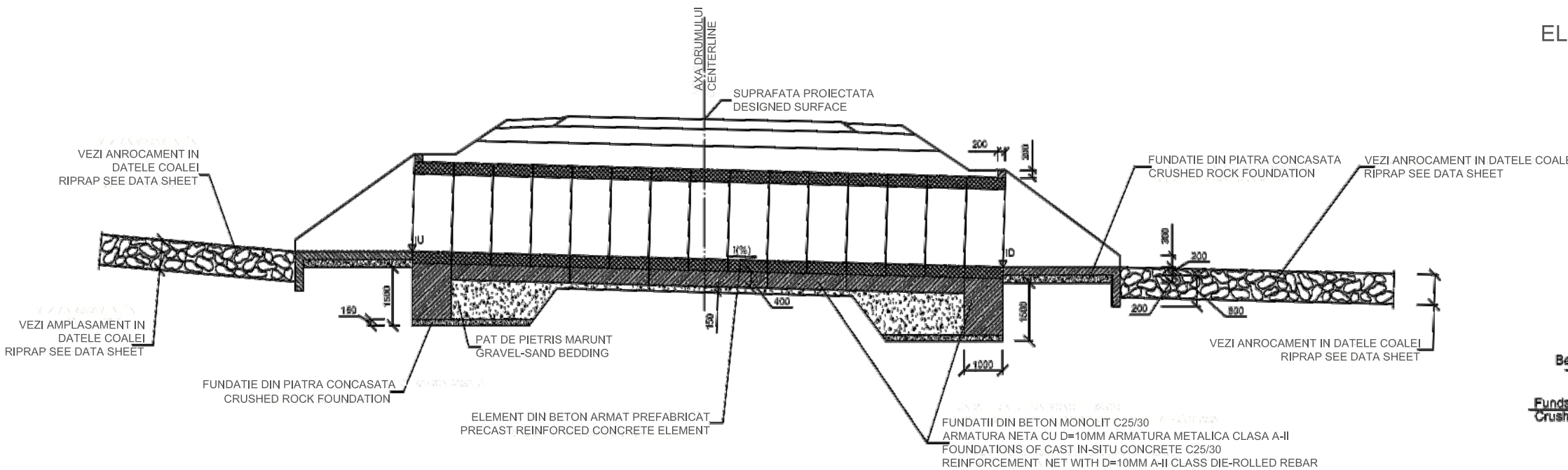
PROIECTAREA PODETELOR CADRU  
STANDARD DRAWING BOX CULVERTS

VEDERE IN PLAN  
PLAN TOP VIEW  
SCARA / SCALE 1:75

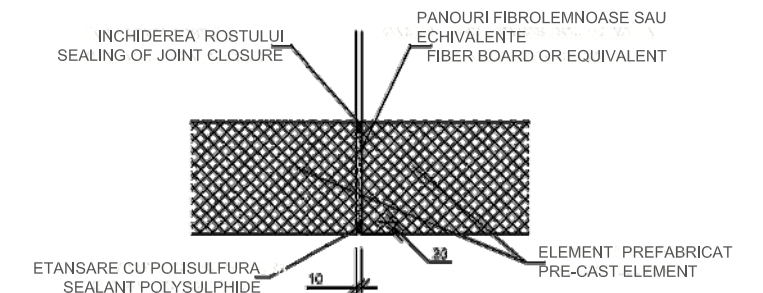


PROFIL LONGITUDINAL  
LONGITUDINAL SECTION  
SCARA / SCALE 1:75

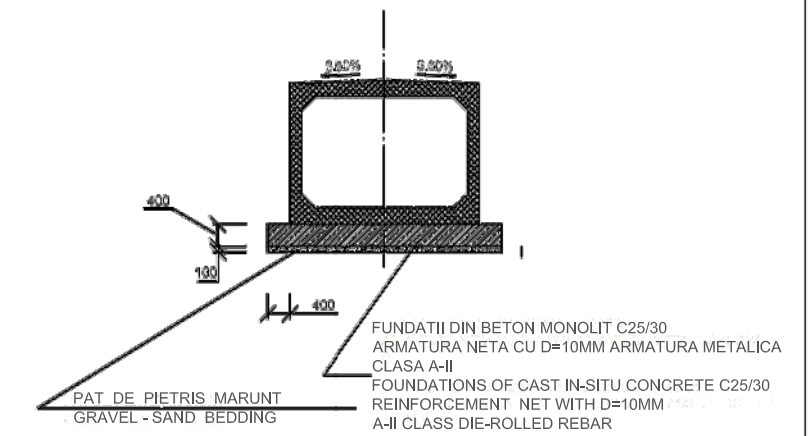
VEZI LUNGIMEA SI GROSIMEA PLATFORMEI IN DATELE COALEI  
LENGTH AND THICKNESS OF APRON SEE DATA SHEET



DETALIU DE INCHIDERE A ROSTURILOR  
DETAIL JOINT SEALING

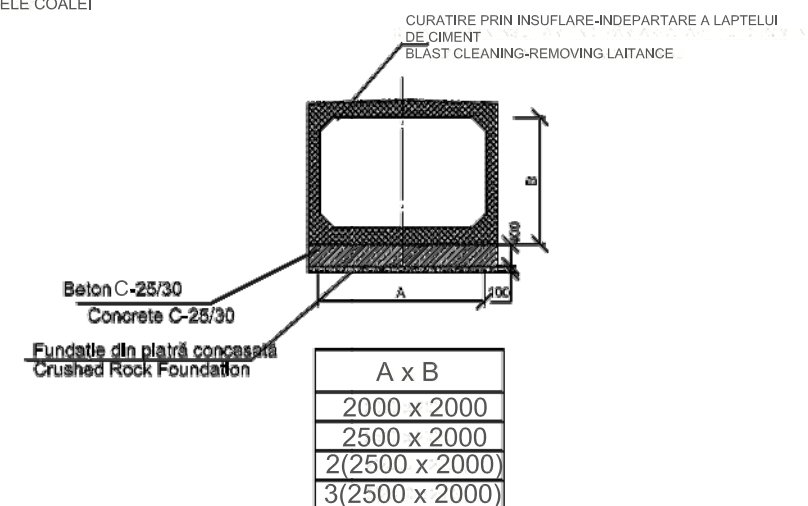


SCARA / SCALE 1:75



ELEMENTE PREFABRICATE A PODETULUI CADRU  
LUNGIMEA 1 M  
PRE-CAST ELEMENTS OF BOX CULVERT  
1 M IN LENGTH

SCARA / SCALE 1:75



1. Culvert structure - according to the type design 3.501.1-177.93.0-1  
2. All dimensions are given in mm

Consultantii/ Consultants:

**KOCKS**  
INGENIEURE

**DESTIA FINNROAD**

**UNIVERSINJ**  
DESIGN, ENGINEERING, CONSULTING

Aprobat/Approved  
Date/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Studies

Proiectul de Susținere al Programului  
Sectorului Rutier  
Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

PROIECTAREA PODETELOR CADRU  
STANDARD DRAWING BOX CULVERTS

Coala Nr. / Drawing: 8D - 26

Rev. Amendamente  
Rev. Amendments

Aprobat:  
Approved:

Data  
Date

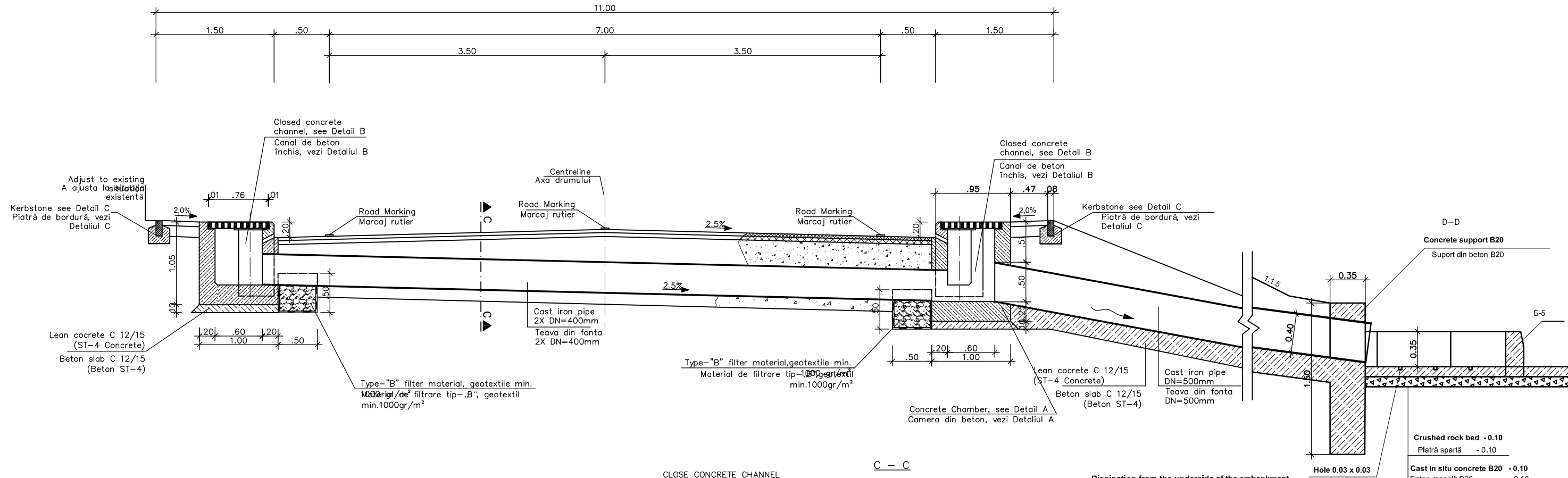
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Verificat/Checked:

Desenat/Drawn:  
Data/Date

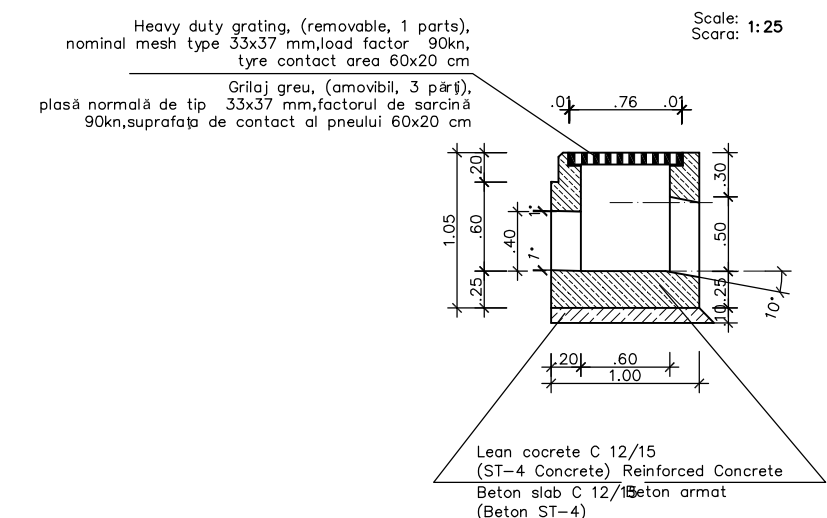
Marimea originala a desenului  
Original Drawing Size A3 (297 x 420)

TYPICAL CROSS SECTION  
PROFIL TRANSVERSAT TIPIC

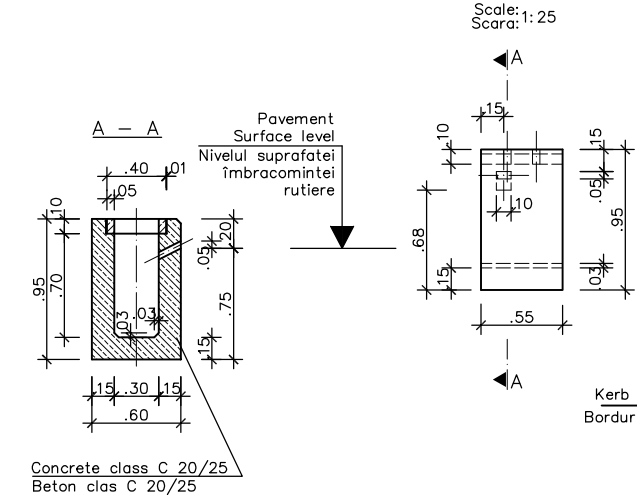
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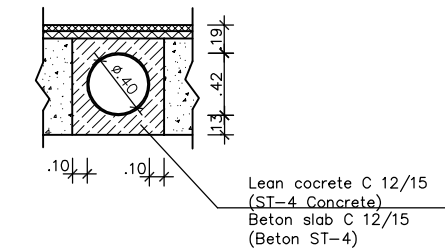
Detail A



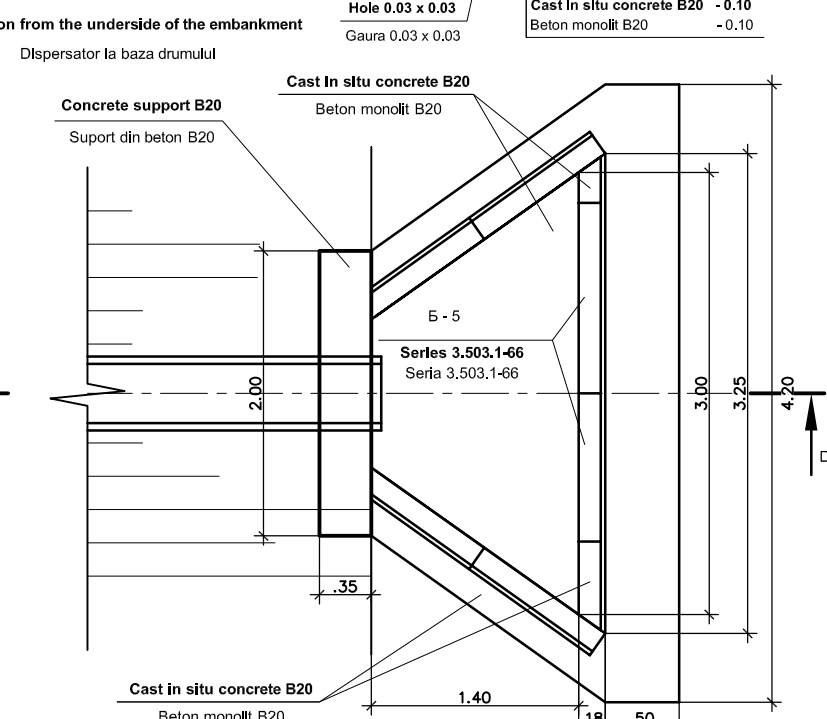
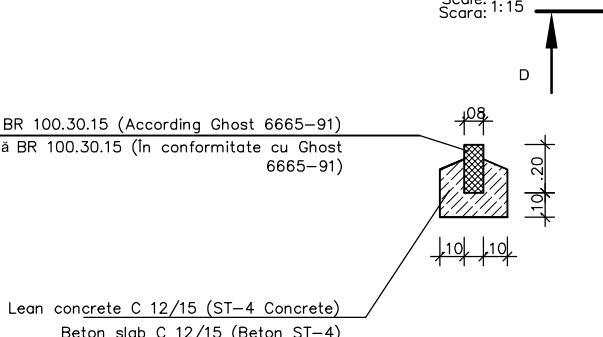
Detail B



C - C



Detail C



Consultantii/ Consultants:



Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design  
Studies

Proiectul de Susținere al Programului  
Sectorului Rutier  
Studiul de Fezabilitate a Drumurilor și  
Proiectare Detaliată

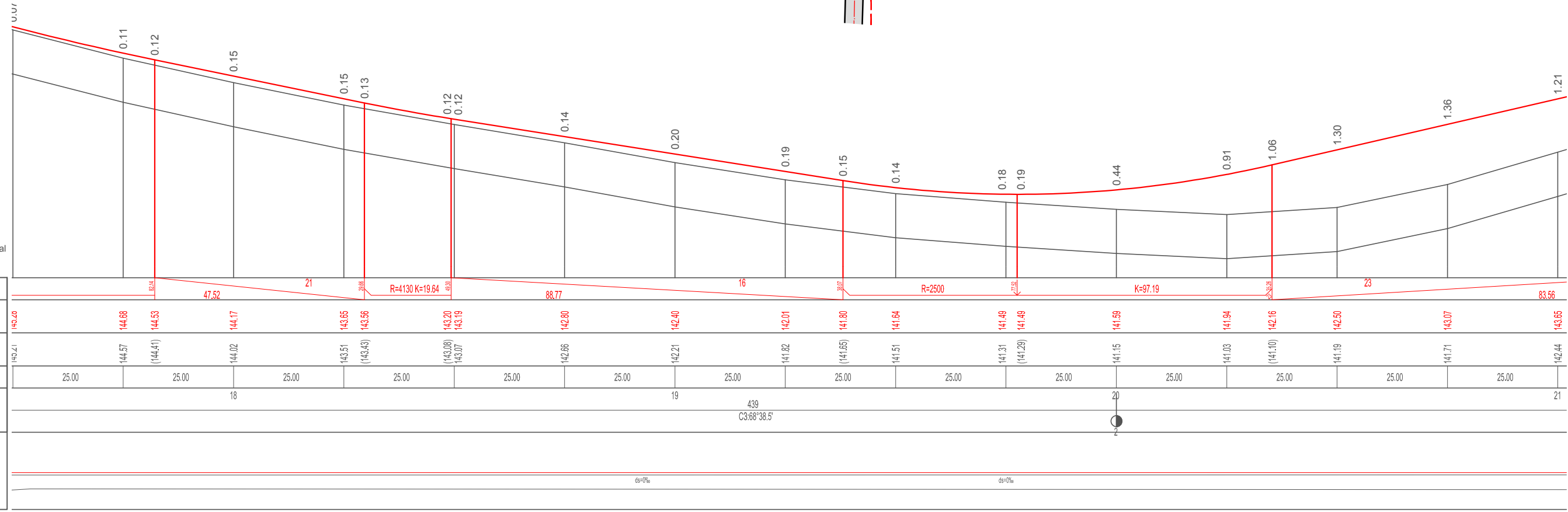
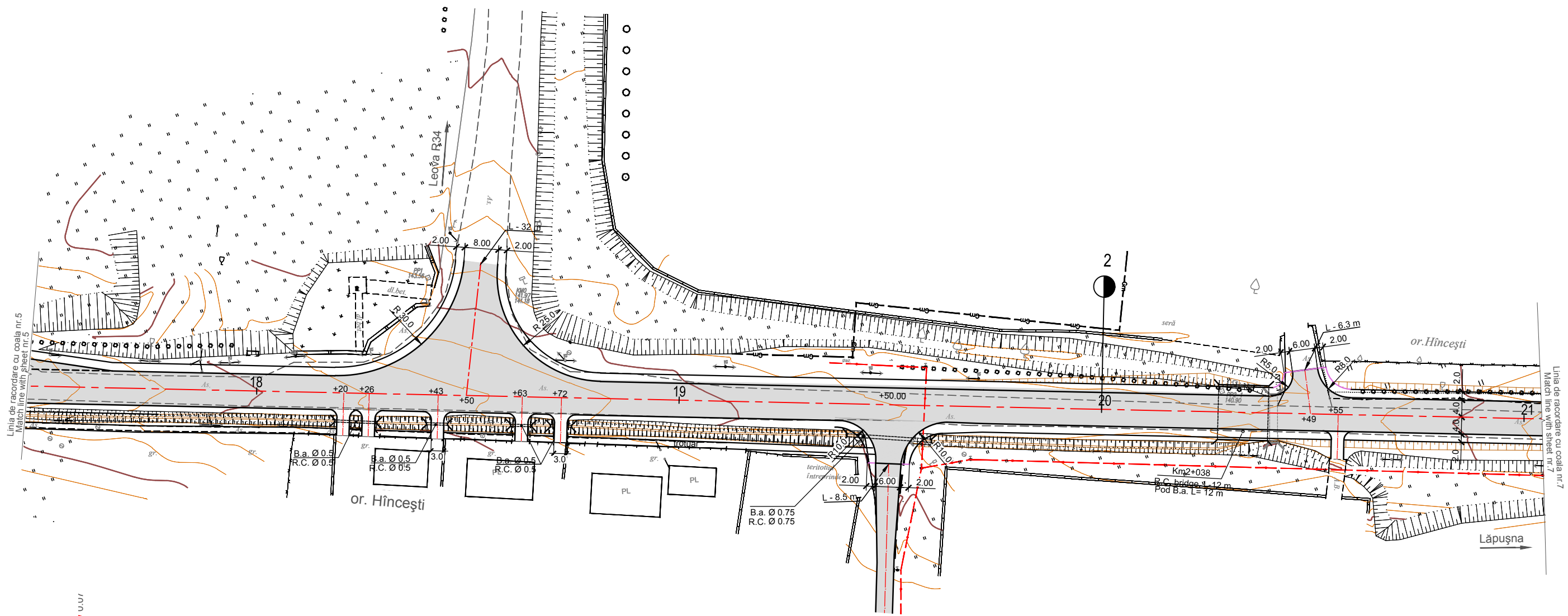
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date
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Proiectat/Designed Verificat/Checked	Desenat/Drawn Data/Date
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Marimea originala a desenului  
Original Drawing Size A1 (841x594)

TYPICAL CROSS SECTION  
PROFIL TRANSVERSAL TIPIC  
Coala Nr./Sheet No. SD-31

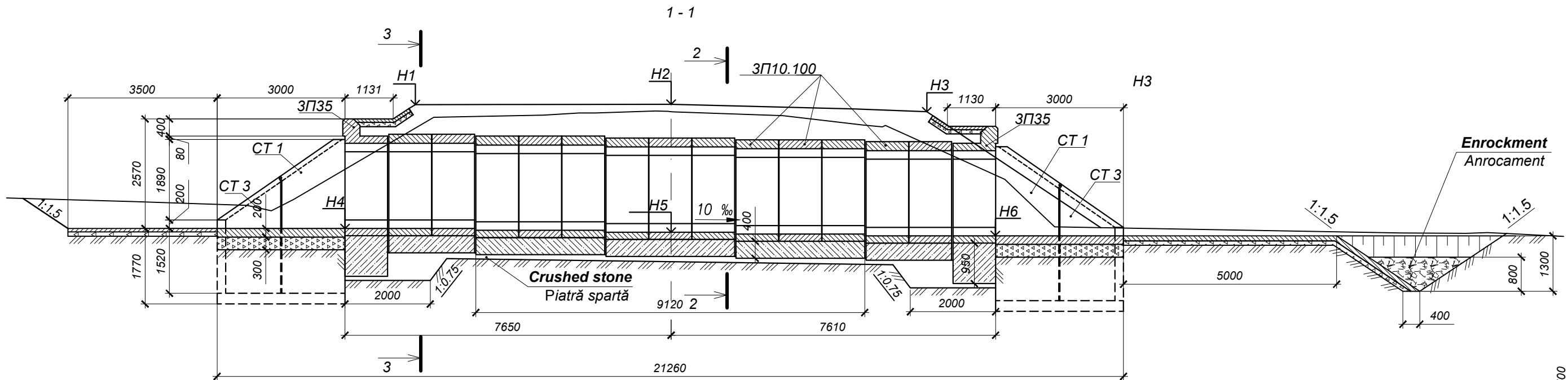


S 1:500 - orizontal / horizontal  
S 1:50 - vertical / vertical

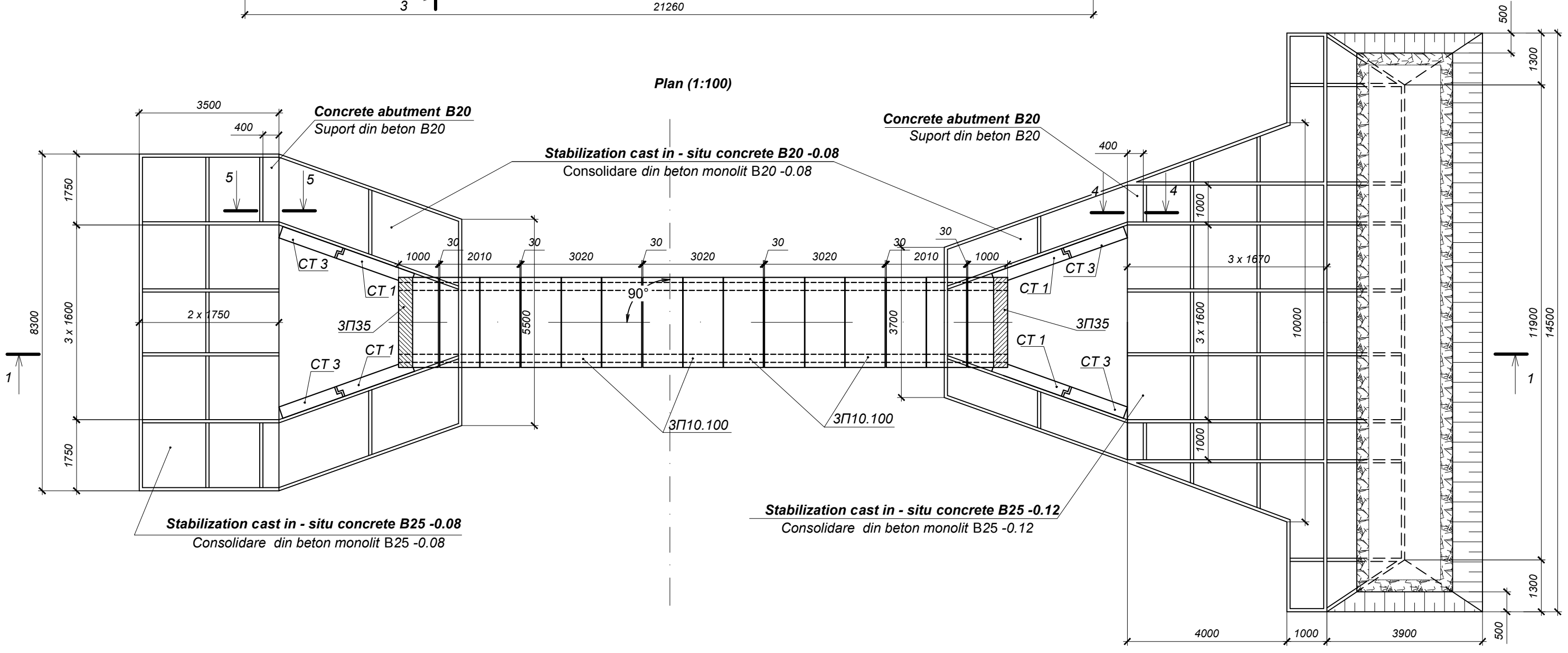
Station	18	18.5	19	19.5	20	20.5	21
1	143.20	144.68	144.53	144.17	143.65	143.56	143.20
2	143.41	144.57	144.41	144.02	143.51	143.43	143.07
3	25.00	25.00	25.00	25.00	25.00	25.00	25.00
4	18	18.5	19	19.5	20	20.5	21
5	C3:68°38.5'						
6	ds=0‰						

Schimb Inv. Nr.  
Semnatura si data  
Inv. Nr.

		Consultanti/ Consultants: 		Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport 	Road Sector Program Support Project Roads Feasibility and Detailed Design Study Denumirea drumului/ Road name R33 Hîncești-Lăpușna-M1, Km 0+000 - Km 37+200	Proiectul de Susținere al Programului Sectorului Rutier / Studii de Fezabilitate a Drumurilor și Proiectare Detaliată	
Proiectat/Designed Verificat/Checked	Sajin V. 	Desenat/Drawn Data/Date	Sajin V. 	Marimea originala a desenului Original Drawing Size	A1 A1	Contract No.4283-MD Plan, Profil longitudinal S 500, km 1+750 - 2+100 (Modified) Drawing name Road plan, Longitudinal profile S 500, km 1+750 - 2+100 (Modified)	Coala Nr./Sheet No. LA006	Coli / Sheets 60



Plan (1:100)



Semnatura si data Schimb Inv. Nr.

Inv. Nr.	
Rev./ Rev.	Amendamente/ Amendments
Aprobat/ Approved	
Data/ Date	

Consultantii/ Consultants:

Proiectat/Designed	Sajin V.	Desenat/Drawn	Sajin V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved Data/Date

Republic of Moldova Ministry of Transport

Marimea originala a desenului A1 Original Drawing Size

Road Sector Program Support Project Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată

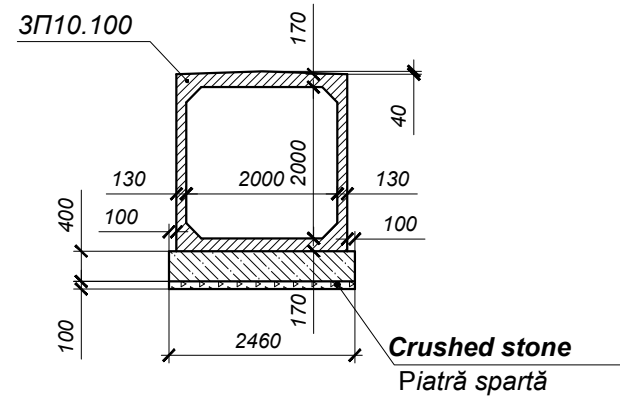
R33 Hîncești-Lăpușna-M1, Km 0+000 - Km 37+200

Cosntruția podețului cadru 2x2m (Modificat) Box culvert construction 2x2m (Modified)

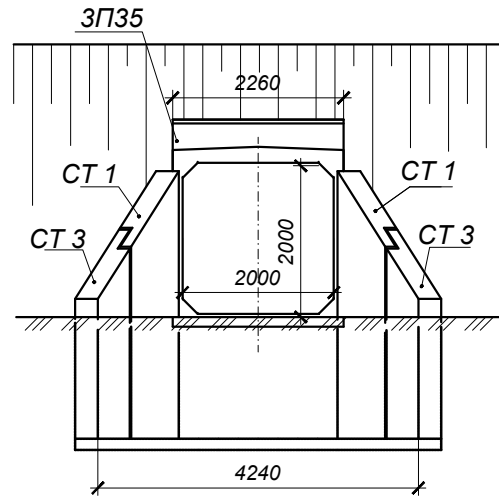
Contract No.4283-MD

Coala Nr./Sheet No.	BC03	Coli / Sheets	BC04
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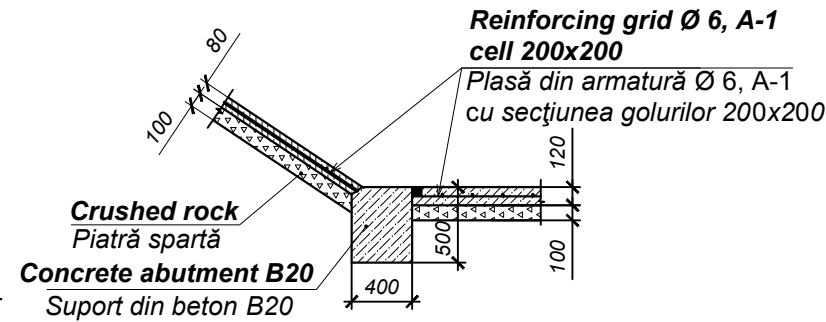
2 - 2 (1:100)  
(the embankment is not shown)  
(rambleul nu este arătat)



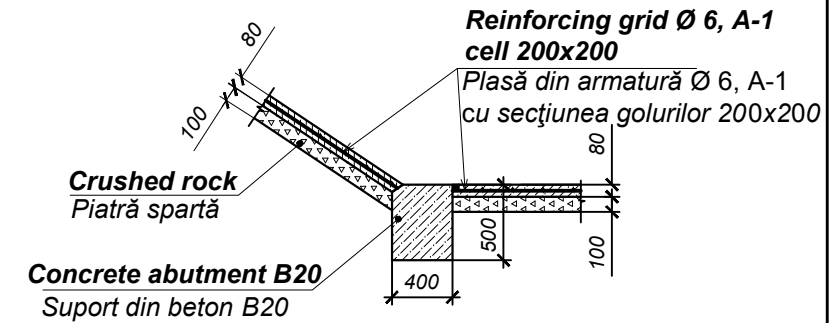
Front elevation of pipe culvert's  
inlet and out let (1:100)  
Elevație capăt amonte și aval  
(1:100)



4 - 4 (1:50)



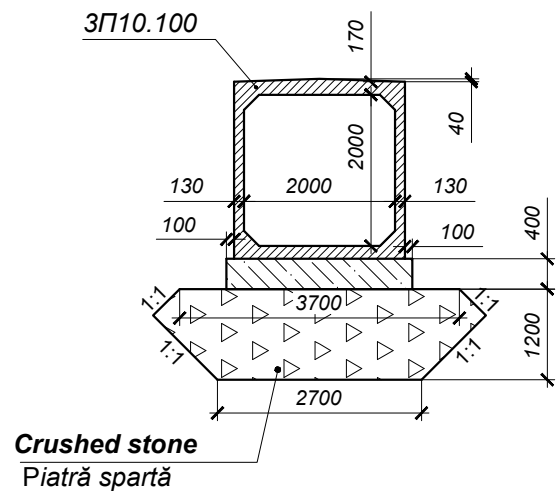
5 - 5 (1:50)



Specifications of Precast RC elements / Prefabricate din beton armat

Location km+ Amplasament km+	Quantity, unit / Cantitate, buc				
	Element of the culvert Elementul podețului 3П10.100 Weight of unic - 3,50tn Masa - 3,50t Volume - 1.41m³ Volum - 1,41M³	Element of the culvert Elementul podețului 3П10.200 Weight of unic - 7.00tn Masa - 7.00t Volume - 2.82m³ Volum - 2.82M³	Element of the culvert Elementul podețului 3П35 Weight of unic - 4,40tn Masa - 4,40t Volume - 1.75m³ Volum - 1,75M³	Lateral wing Perete lateral CT1 Weight of unic - 3,80tn Masa - 3,80t Volume - 1.52m³ Volum - 1,52M³	Lateral wing Perete lateral CT3 Weight of unic - 2,80tn Masa - 2,80t Volume - 1.13m³ Volum - 1.13m³
2+857	13	-	2	4	4

3 - 3 (1:100)  
(the embankment is not shown)  
(rambleu nu este arătat)



Main parameters / Parametrii principali

Location km+ Amplasament km+	Waterway direction Direcția cursului de apă	Level / Cotă						Longht of the culvert Lungimea podețului			Cross angle, α, ° Unghiul intersecției, α, °	Slope, ‰ Decalitate, ‰	H of the camber, m H profilului de construcție ridicat, m	Hydrological characteristic Caracteristicile hidrologice			Flow regime Regim hidraulic
		edge of the road / pe marginea drumului			of the culvert ulucul drumului			upper de sus L1	lower de jos L2	full deplină L				Rate of flow, m³/s Debit de calcul, m³/s	Backwater, m Remuu, m	Water flow at out let, m³/s Viteza la ieșire, m³/s	
		Left Stînga H1	On the axis direction Pe axă H2	Right Dreapta H3	Inlet La intrare H4	On the axis direction Pe axă H5	Outlet La ieșire H6										
2+857	→	146.67	146.68	146.50	143.77	143.76	143.62	7.65	7.61	21.26	90	10	0.06	10.0	1.80	4.03	free / n.l.

1. Culvert structure - according to the typical design 3.501.1-177.93.0-1
2. The consolidation of channels and slopes are adopted according to the typical design 501 - 0 - 46.
3. The axis level for the culvert includes the rise for construction.
4. All dimensions are given in mm.

1. Structura podețului - conform proiectului tip 3.501.1-177.93.0-1
2. Consolidarea pe taluz proiect tip 501- 0 - 46.
3. Cota pe axa podețului este acceptată conform valorii contrasăgeței
4. Toate dimensiunile sînt indicate in mm.

Semnatura si data

Inv. Nr.

Consultantii/ Consultants:			
<b>KOCKS</b> INGENIEURE	<b>DESTIA</b> FINNROAD	<b>UNIVERSINJ</b> DESIGN, ENGINEERING, CONSULTING	
Proiectat/Designed	Sajin V.	Desenat/Drawn	Sajin V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport

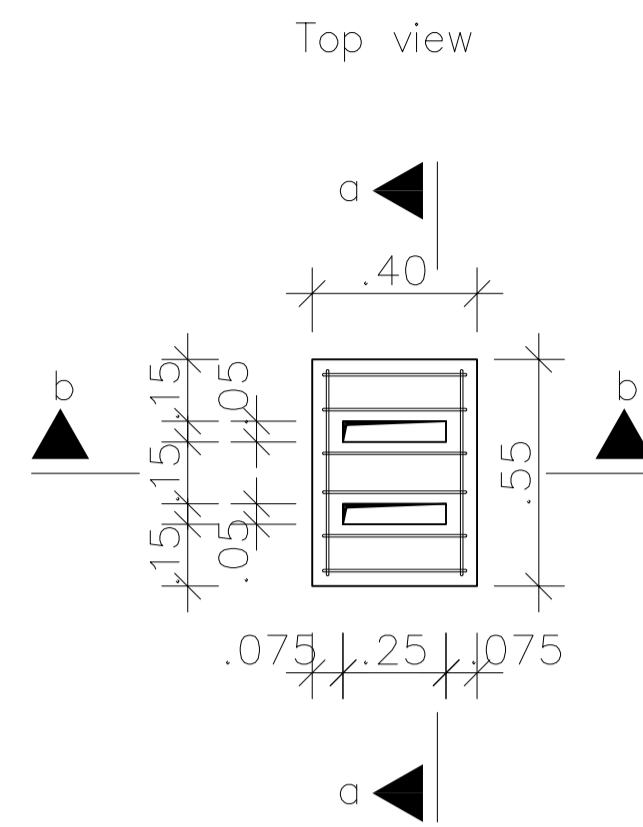
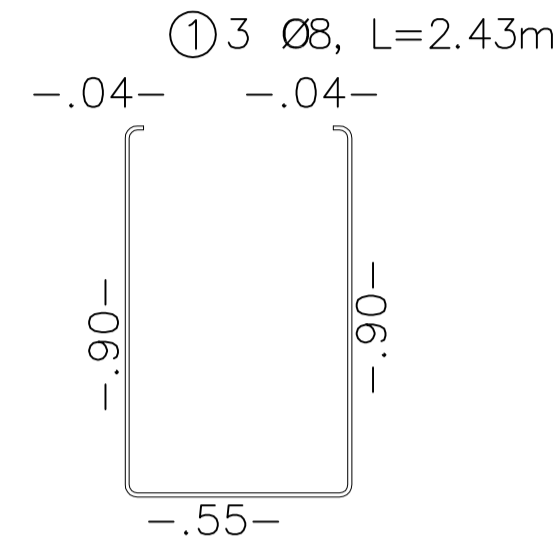
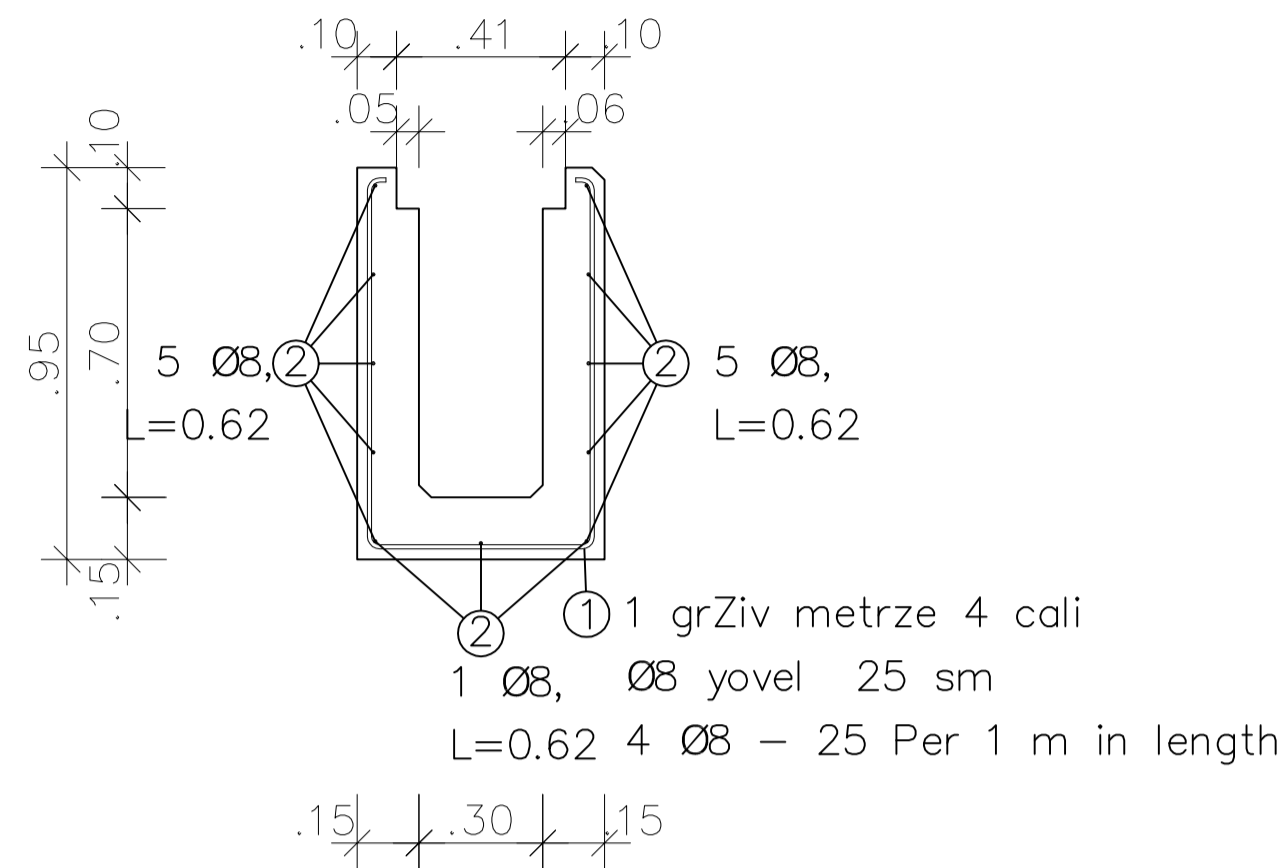


Road Sector Program Support Project Roads Feasibility and Detailed Design Study	Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată
Denumirea drumului/ Road name	R33 Hîncești-Lăpușna-M1, Km 0+000 - Km 37+200
Denumirea desenului/ Drawing name	Parametrii principali ai podețului cadru 2x2m (Modificat) Main parameters of box culverts 2x2m (Modified)
Coala Nr./Sheet No.	BC04
Coli / Sheets	BC04

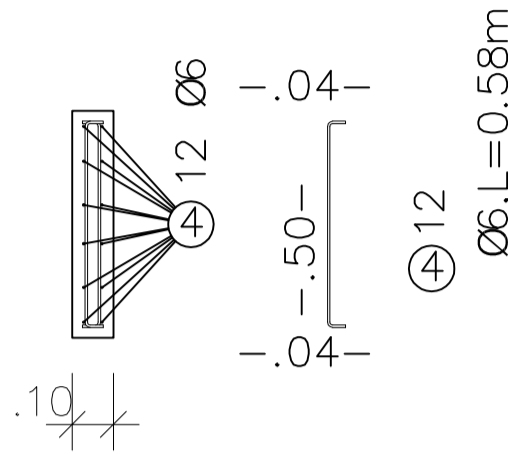
Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date



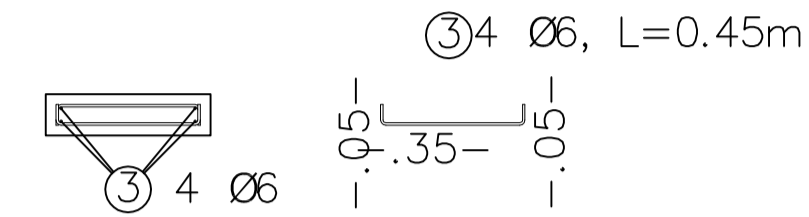
DETAILS OF DRAINAGE GUTTER BUILT IN SIDEWALK



Section a - a



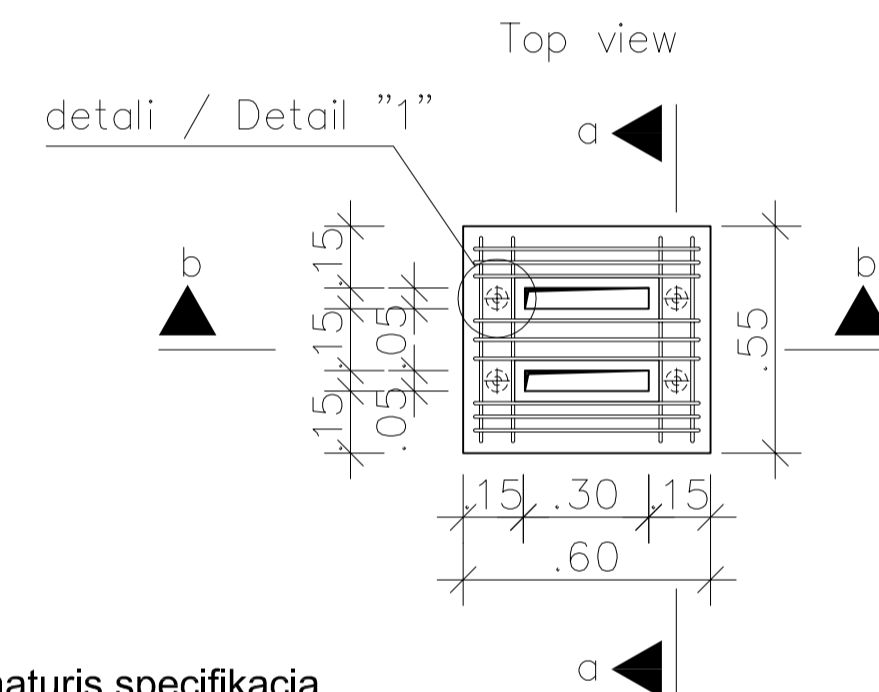
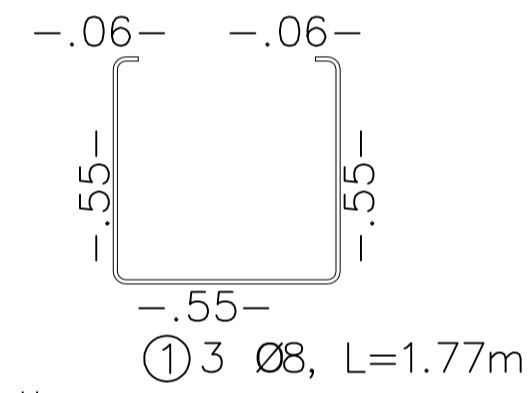
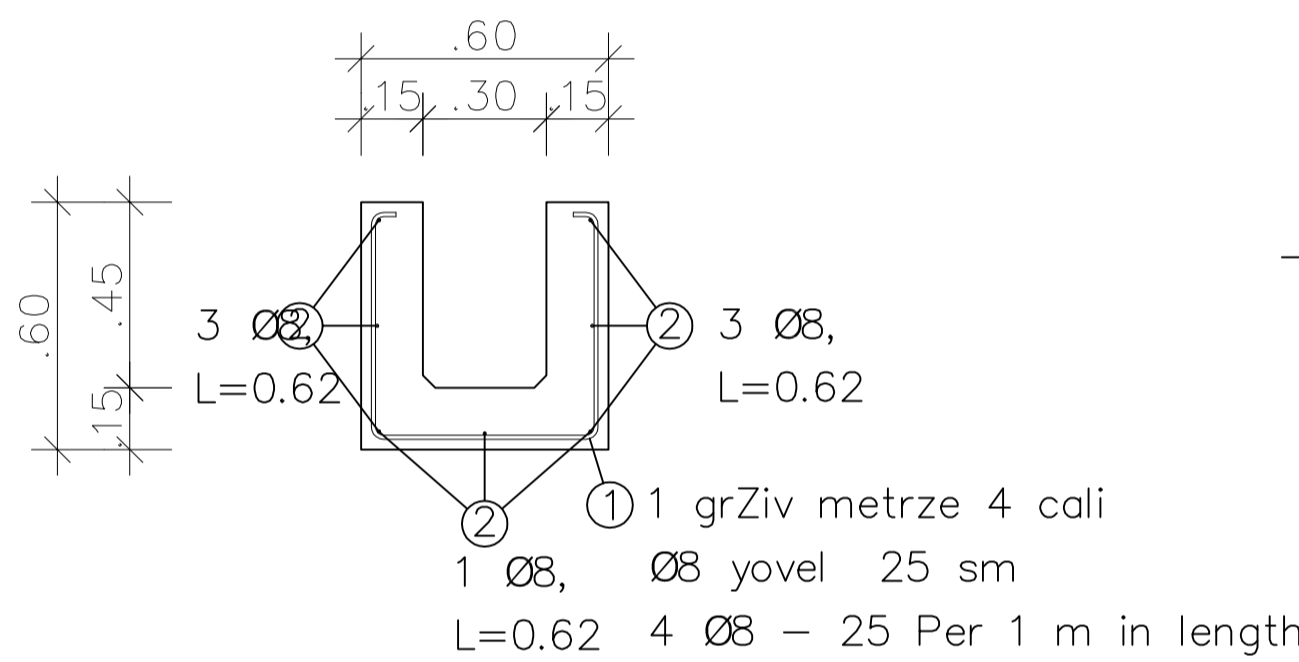
Section b - b



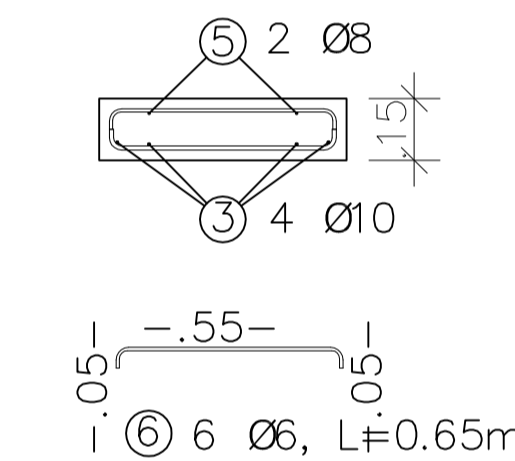
armaturis specificatia  
LIST OF STEEL Reinforcement steel: 500S  
poz. raod. sigrZe

Item	Piece	d	Length	D6
D8				
1	3	8	2.43	
7.29				
2	11	8	0.62	
6.82				
3	4	6	0.45	
1.80				
4	12	6	0.58	
6.96				
Total length / sigrZe sul				8.760
14.11				
kg / m				
D6 0.222		D6 0.395		
kg / d				
1.994		5.573		
Total weigth (kg)				7.567

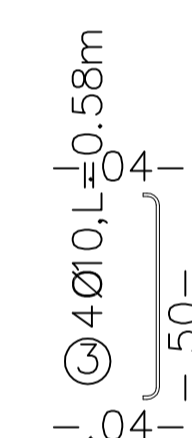
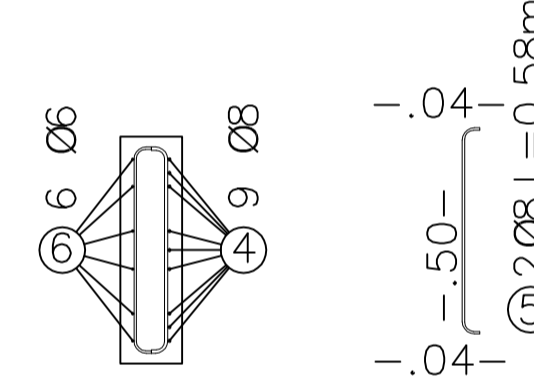
REINFORCEMENT DETAILS OF DRAINAGE GUTTERS AT JUNCTIONS AND ENTRANCES



Section b - b



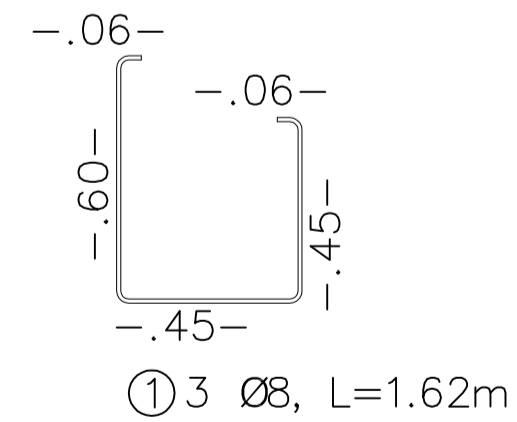
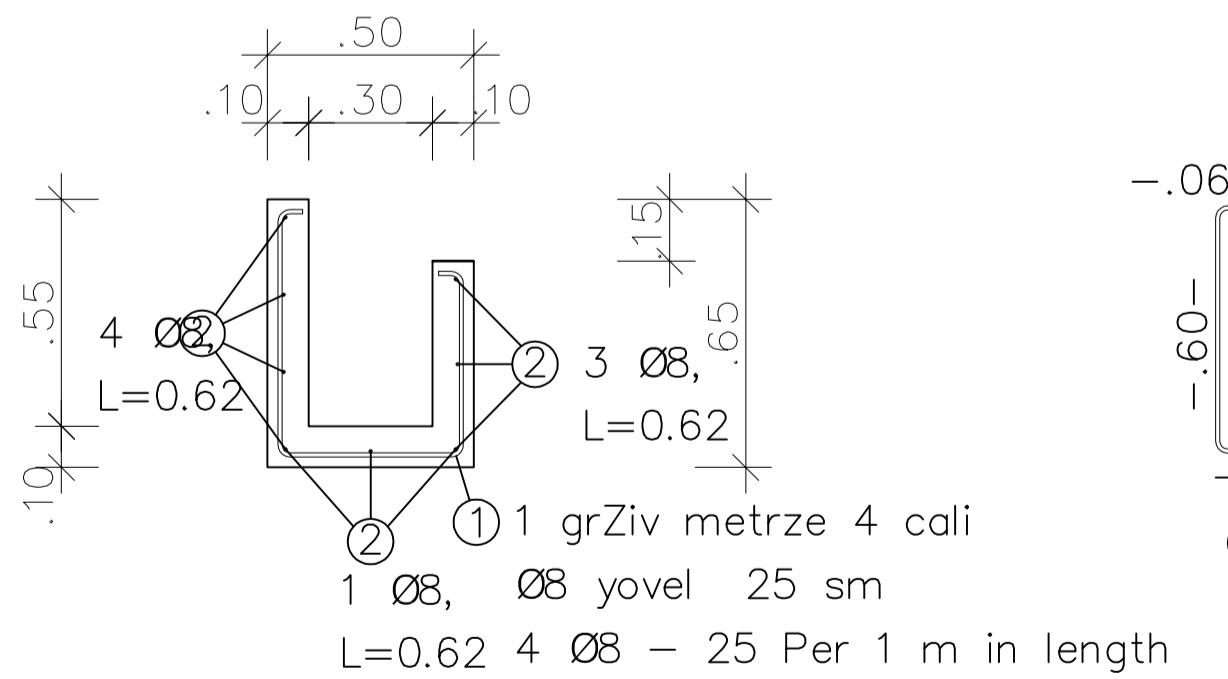
Section a - a



armaturis specificatia  
LIST OF STEEL Reinforcement steel: 500S  
poz. raod. sigrZe

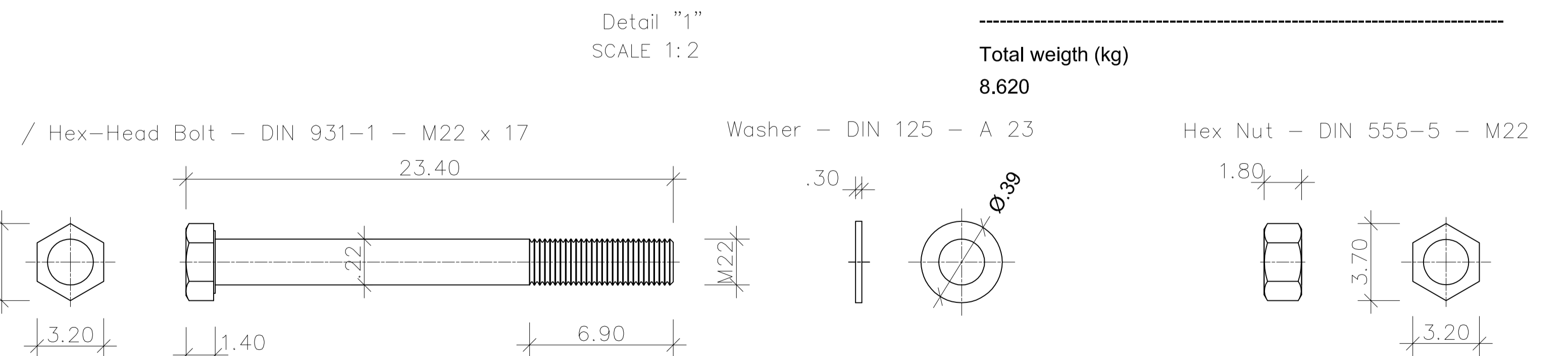
Item	Piece	d	Length	D6
D8				
D10				
1	3	8	1.77	
5.31				
2	7	8	0.62	
4.34				
3	4	10	0.58	
2.32				
4	8	8	0.65	
5.20				
5	2	8	0.58	
1.16				
6	6	6	0.65	
3.9				
Total length / sigrZe sul				3.9
2.32				16.01
kg / m				
D6 0.222		D8 0.395	D10 0.617	
kg / d				
0.865		6.323	1.432	
Total weigth (kg)				8.620

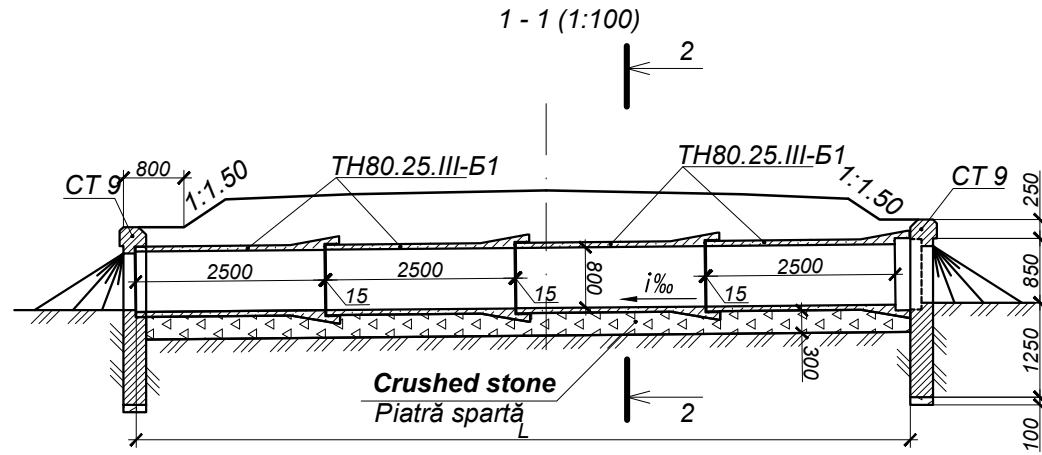
REINFORCEMENT DETAILS OF DRAINAGE GUTTER



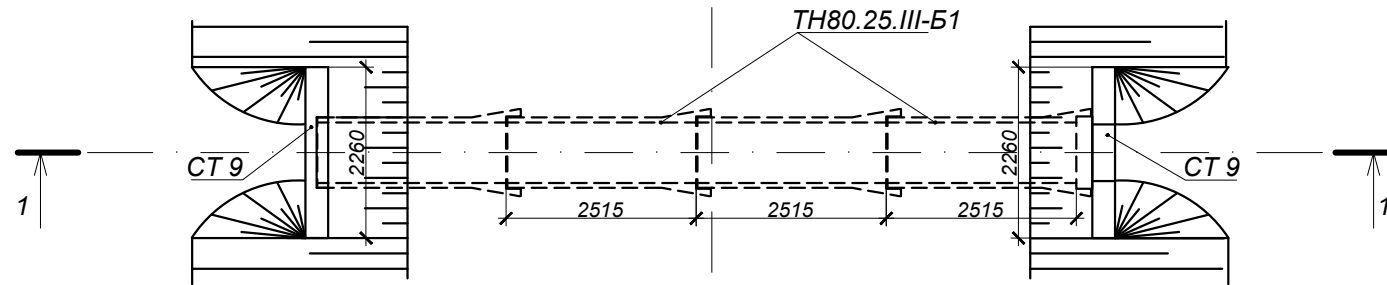
armaturis specificatia  
LIST OF STEEL Reinforcement steel: 500S  
poz. raod. sigrZe

Item	Piece	d	Length
D8			
1	3	8	1.62
4.86			
2	8	8	0.62
4.96			
Total length / sigrZe sul			9.82
kg / m			
D8 0.395			
kg / d			
3.500			
Total weigth (kg)			3.878



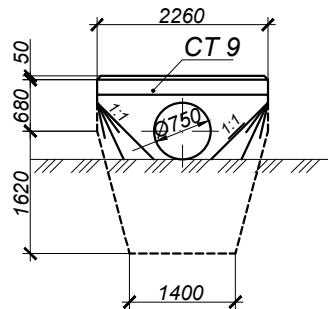


Plan (1:100)  
Plan (1:100)



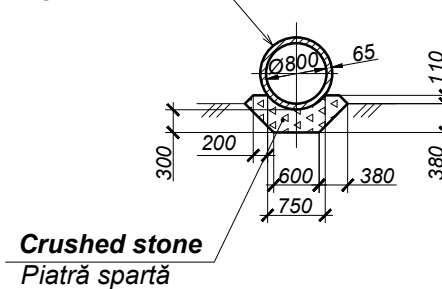
Frontal view of the pipe inlet and outlet (1:100)

Fasad capăt amonte și aval (1:100)



3 - 3(1:100)  
(the embankment is not shown)  
(rambleu nu este arătat)

Membrane water proofing  
Hidroizolație masticosă



Specification of the culvert block Ø0.8m  
Specificațiile blocului podețului Ø0.8m

Location km+ Amplasament km+		Quantity, unit Cantitate, buc.		
		Length of Pipe Lungimea podețului	Element of the culvert Elementul podețului TH80.25.III-B1 Weight of unit - 1.15tn Masa - 1.15t Volume - 0.46m³ Volum - 0.46m³	Portal wall Perete portal CT9 Weight of unit - 3.10tn Masa - 3.10t Volume - 1.23m³ Volum - 1.23m³
to the left spre stînga	to the right spre dreapta			
-	1+950	20.30	8	2
-	11+254	15.27	6	2
-	11+542	15.27	6	2
-	12+393	15.27	6	2
-	12+708	15.27	6	2
-	28+838	15.27	6	2

1. Culvert structure - according to the typical design 503 - 07 - 2.
2. All dimensions are given in mm.

1. Structura podețului - conform proiectului tip 503 - 07 - 2.
2. Toate dimensiunile sînt indicate in mm.

Nr. inv. orig. \_\_\_\_\_  
Semnat la data \_\_\_\_\_  
Shimb. nr. inv. \_\_\_\_\_

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date

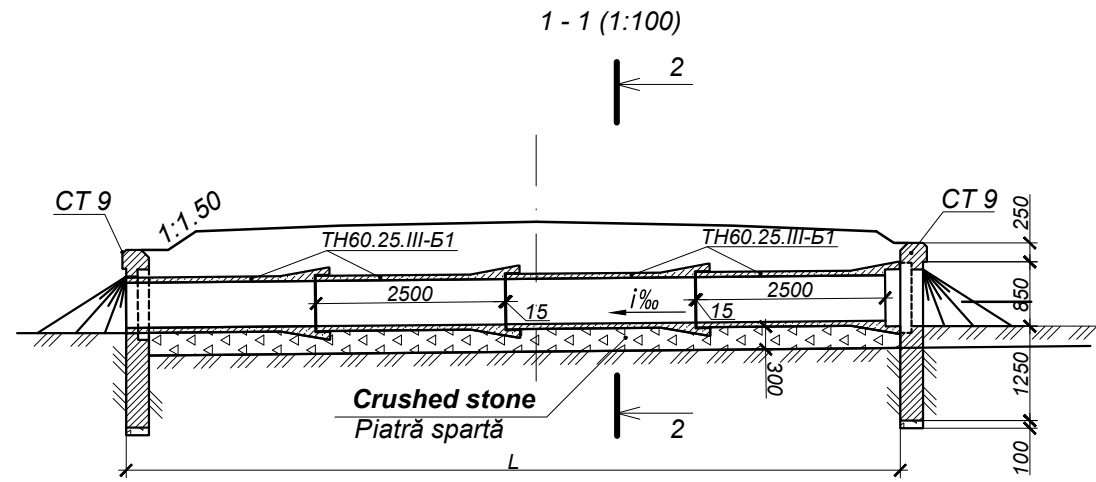
Consultantii/ Consultants:

<b>KOCKS</b> INGENIEURE	<b>DESTIA FINNROAD</b>	<b>UNIVERSINJ</b> DESIGN, ENGINEERING, CONSULTING
Proiectat/Designed Verificat/Checked	Sajin V. Vilcinski D.	Desenat/Drawn Data/Date
		Sajin V. 06.2011

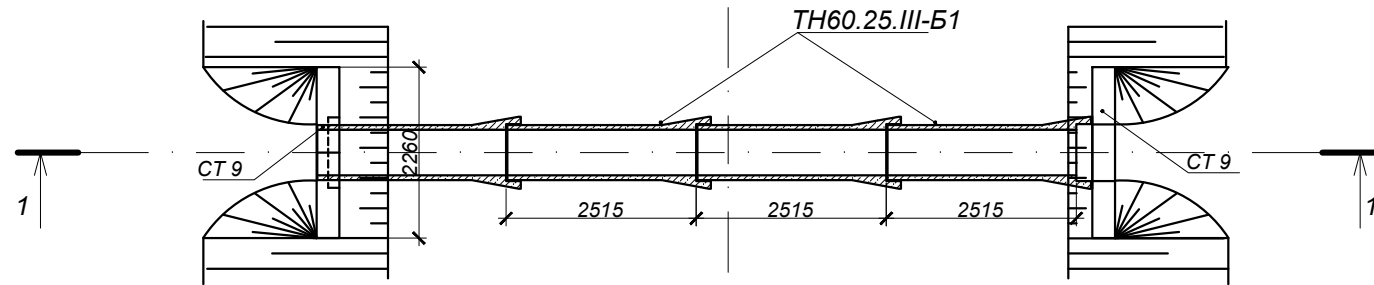
Aprobat/Approved Data/Date	

Republic of Moldova Ministry of Transport	
Marimea originala a desenului Original Drawing Size	A1 A1

Road Sector Program Support Project Roads Feasibility and Detailed Design Stud y	Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată
Denumirea drumului/ Road name	R33 Hîncești-Lăpușna-M1, Km 0+000 - Km 37+200
Denumirea desenului/ Drawing name	Structura podețelor cu d 0.8m la drumurile laterale (Nou) Culvert Structure of d 0.8m at Side Roads (New)
Coala Nr./Sheet No.	MI02
Coli / Sheets	MI04

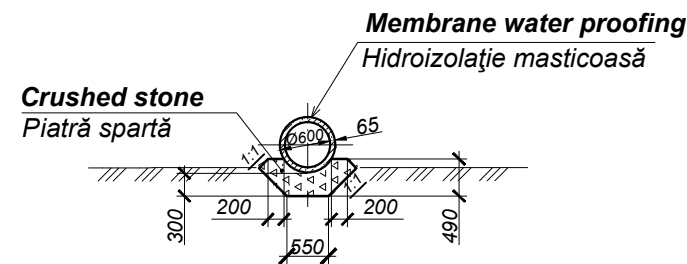
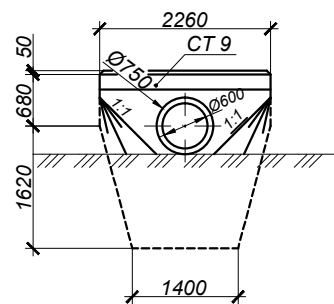


Plan (1:100)  
Plan (1:100)



Frontal view of the pipe inlet and outlet (1:100)  
Fasad capăt amonte și aval (1:100)

2 - 2 (1:100)  
(the embankment is not shown)  
(rambleu nu este arătat)



**Specification of the culvert block Ø0.6m**  
Specificațiile blocului podețului Ø0.6m

Location km+ Amplasament km+		Quantity, unit Cantitate, buc.		
		Length of Pipe Lungimea podețului	Element of the culvert Elementul podețului TH60.25.III-B1 Weight of unit - 1.08tn Masa - 1.08t Volume - 0.43m³ Volum - 0.43m³	Portal wall Perete portal CT9 Weight of unit - 3.10tn Masa - 3.10t Volume - 1.23m³ Volum - 1.23m³
to the left spre stînga	to the right spre dreapta			
7+245	-	10.24	4	2
-	8+942	10.24	4	2
-	11+133	10.24	4	2
-	11+590	10.24	4	2
-	14+378	10.24	4	2
-	16+351	10.24	4	2
-	17+280	10.24	4	2
-	20+350	10.24	4	2
-	30+420	10.24	4	2
-	31+157	10.24	4	2
-	32+822	10.24	4	2
-	33+138	10.24	4	2
-	34+449	10.24	4	2
-	34+536	10.24	4	2

1. Culvert structure - according to the typical design 503 - 07 - 2.
2. All dimensions are given in mm.

1. Structura podețului - conform proiectului tip 503 - 07 - 2.
2. Toate dimensiunile sînt indicate in mm.

Nr. inv. orig.  
Semnat la data  
Shimb. nr. inv.

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date

Consultantii/ Consultants:

<b>KOCKS</b> INGENIEURE	Sajin V.	<b>DESTIA FINNROAD</b>	<b>UNIVERSINJ</b> DESIGN, ENGINEERING, CONSULTING
Proiectat/Designed	Sajin V.	Desenat/Drawn	Sajin V.
Verificat/Checked	Vilcinski D.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport

Road Sector Program Support Project  
Roads Feasibility and Detailed Design Stud y

Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată

Denumirea drumului/  
Road name

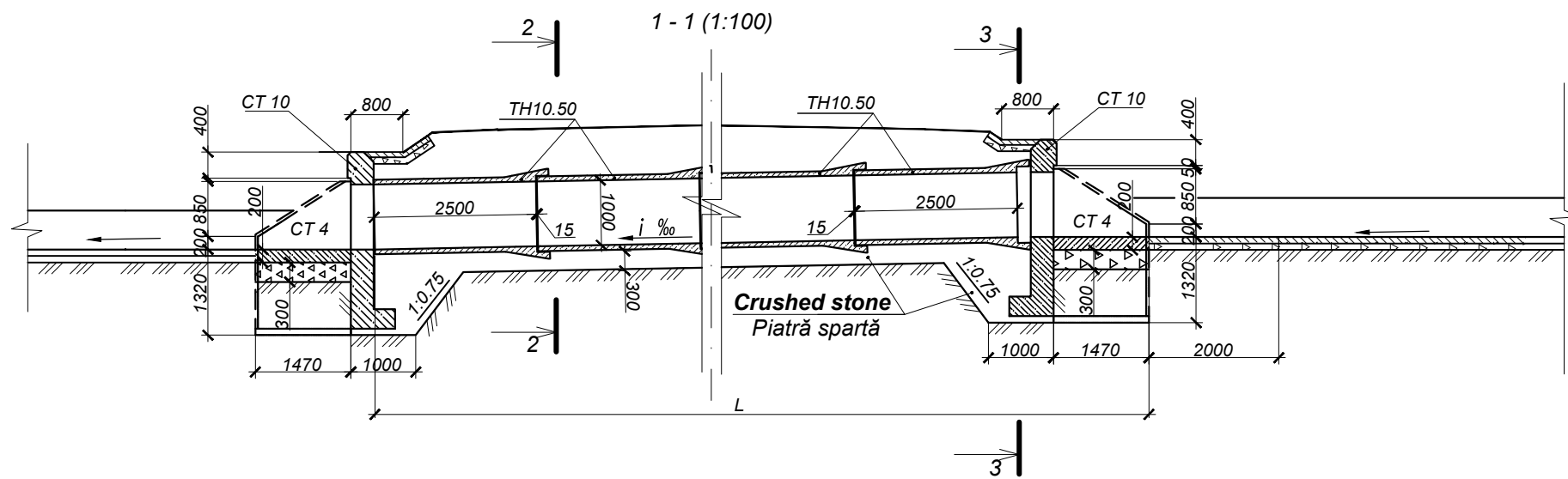
R33 Hîncești-Lăpușna-M1, Km 0+000 - Km 37+200

Denumirea desenului/  
Drawing name

Structura podețelor cu d 0.6m la drumurile laterale (Nou)  
Culvert Structure of d 0.6m at Side Roads (New)

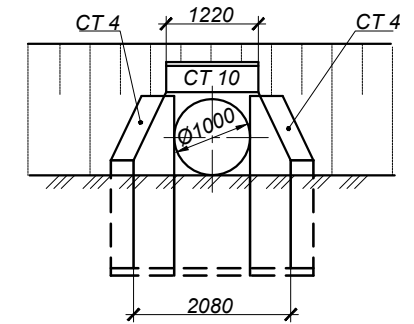
Contract No.4283-MD

Coala Nr./Sheet No. M103 Coli / Sheets M104



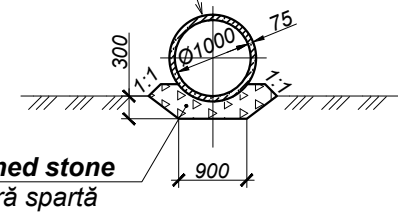
Front elevation of pipe culvert's inlet (1:100)

Eliveție capăt amonte (1:100)



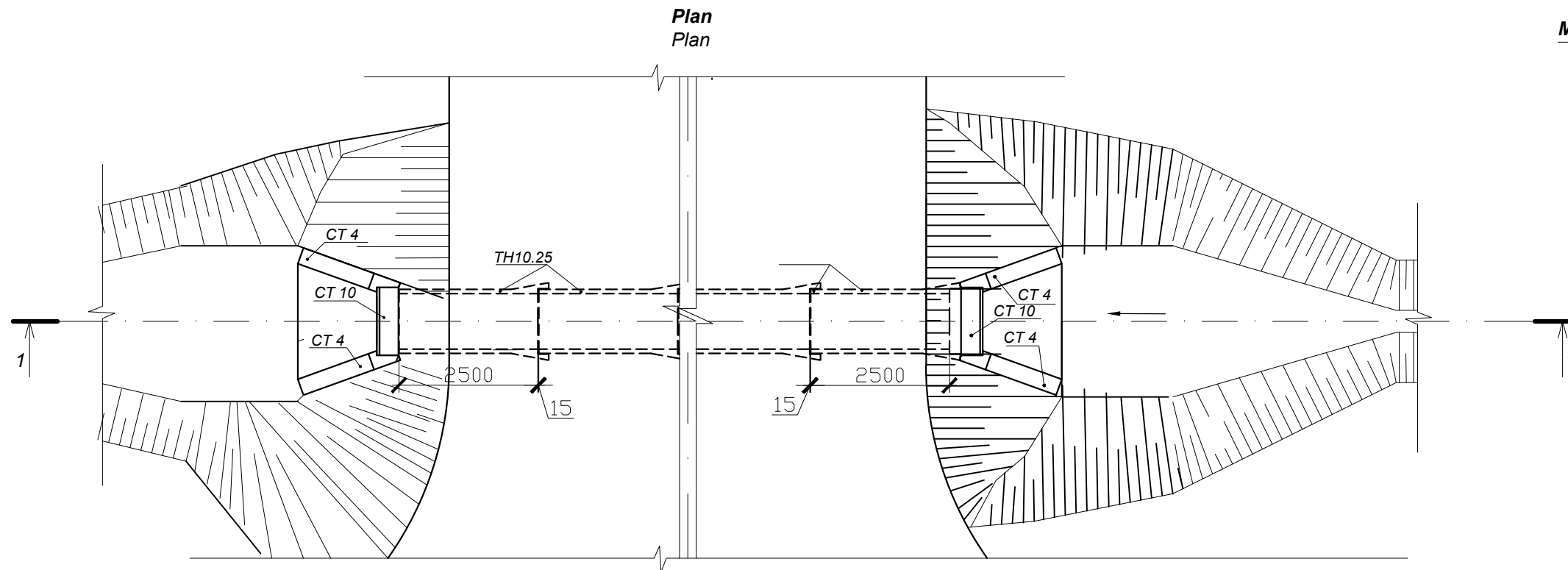
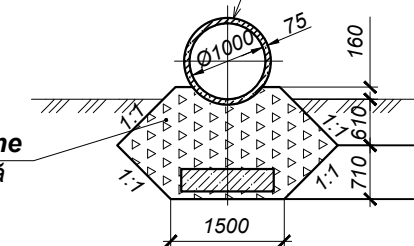
2 - 2 (1:100)

Membrane water proofing  
Hidroizolație masticoasă



3 - 3 (1:100)

Membrane water proofing  
Hidroizolație masticoasă



Specification of the culvert block Ø1.00m  
Specificațiile blocului podețului Ø 1.00m

Location km+ Amplasament km+	Quantity, unit Cantitate, buc.				
	Length of Pipe Lungimea podețului	Element of the culvert Elementul podețului TH100.25.III-B1 Weight of unit - 1.98t Masa - 1.98t Volume - 0.79m <sup>3</sup> Volum - 0.79m <sup>3</sup>	Portal wall Perete portal CT10, B20 Weight of unit - 2,50t Masa - 2,50t Volume - 1,01m <sup>3</sup> Volum - 1,01m <sup>3</sup>	Lateral wing Perete lateral CT4, B20 Weight of unit - 2,50t Masa - 2,50t Volume - 0,98m <sup>3</sup> Volum - 0,98m <sup>3</sup>	
to the left spre stînga	to the right spre dreapta				
3+888	-	20.30	8	2	4

- Culvert elements - according to OST 35-27. 0-85; OST 35-27. 1-85.
- The reinforcement of channels and slopes are adopted according to the typical design 501 - 0 - 46.
- The axis level for the culvert includes the rise for construction.
- All dimensions are given in mm.

- Elementele prefabricate a podețului conform OST 35-27. 0-85; OST 35-27. 1-85
- Consolidarea pe taluz proiect tip 501 - 0 - 46.
- Cota tubului pe axa include cota pentru construcție.
- Toate dimensiunile sînt indicate in mm.

Scimb Inv. Nr  
Semnatura si data  
Inv. Nr

Consultantii/ Consultants:

**KOCKS**  
INGENIEURE

**DESTIA FINNROAD**

**UNIVERSINJ**  
DESIGN, ENGINEERING, CONSULTING

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Susținere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor și Proiectare Detaliată

Contract No.4283-MD

Denumirea drumului/  
Road name  
R33 Hîncești-Lăpușna-M1, Km 0+000 - Km 37+200

Denumirea desenului/  
Drawing name  
Structura podețelor cu d 1.0m la drumurile laterale (Nou)  
Culvert Structure of d 1.0m at Side Roads (New)

Marimea originala a desenului  
Original Drawing Size

A1  
A1

Coala Nr./Sheet No.

M104

Coli / Sheets

M104

Rev./  
Rev.

Amendamente/  
Amendments

Aprobat/  
Approved

Data/  
Date

Proiectat/Designed

Sajin V.

Sajin V.

Desenat/Drawn

Sajin V.

Data/Date

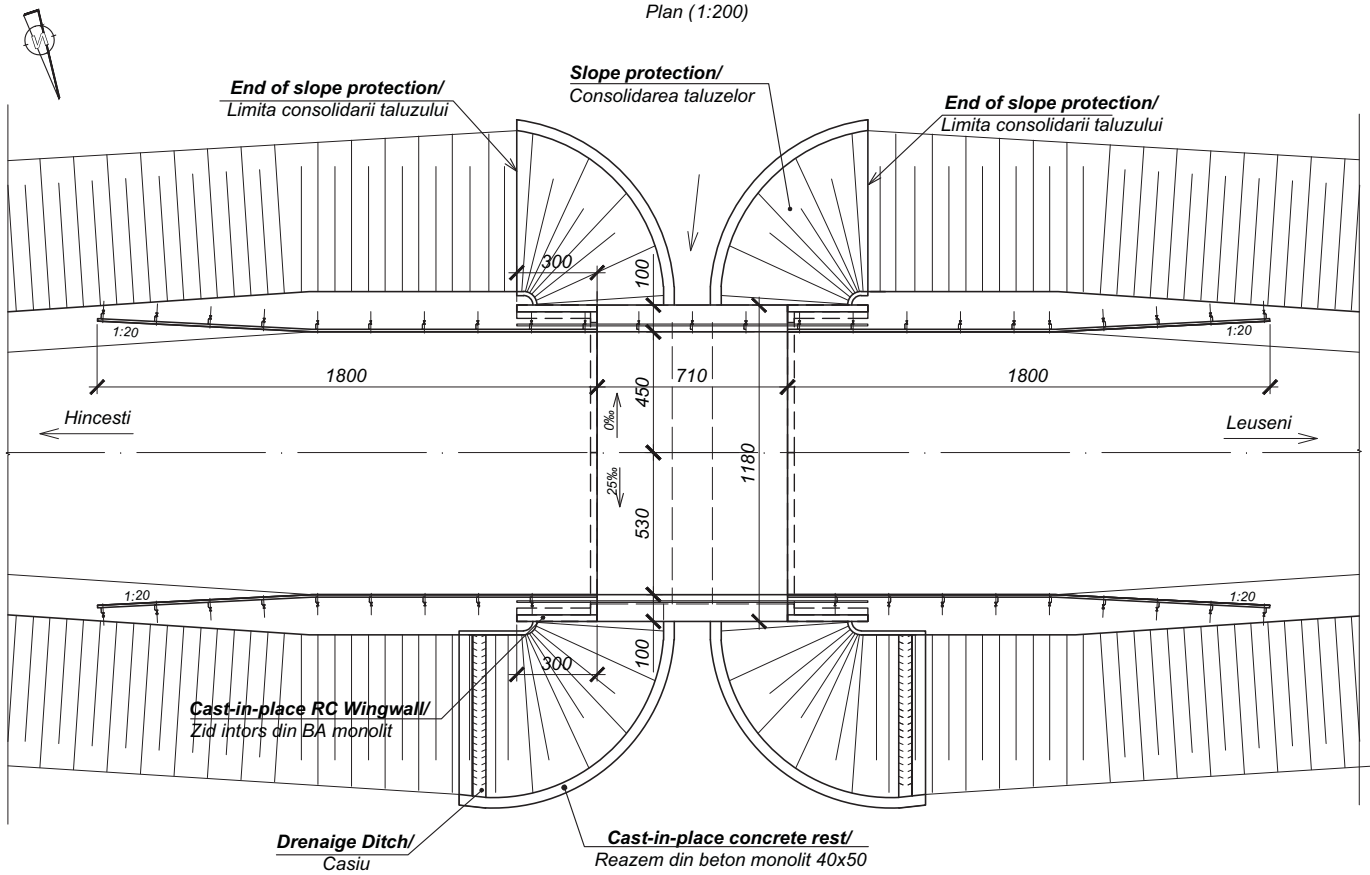
06.2011

Verificat/Checked

Vilcinski D.

Data/Date

06.2011



**Construction Sequence/ Ordinea Efectuarii Lucrarilor**

- **Milling and disposal of asphalt layer on the bridge.**  
Frezarea si depozitarea stratului de asfalt de pe pod.
- **Removal and disposal of existing pavement layers.**  
Demontarea si depozitarea straturilor existente a imbracamintei podului.
- **Demolition of masonry parts of substructure/**  
Demolarea elementelor din zidarie a infrastructurii
- **Construction of new cast-in-place back walls and wing walls/**  
Efectuarea zidurilor de garda si a zidurilor intoarse noi din BA monolit.
- **Cast-in-place RC slab construction/**  
Efectuarea placii de suprabetonare din BA monolit.

- **Laying of waterproofing membrane on bridge deck/**  
Asterderea membranei hidroizolante pe calea podului.
- **Providing of asphalt mastic protective layer on carriageway/**  
Efectuarea stratului de protectie din mastic bituminos.
- **Installing of steel guardrail and handrail on bridge deck and approach/**  
Instalarea parapetilor de siguranta si pietonali pe tablier si racordare.
- **Providing the wearing course of stone mastic asphalt concrete SMA (in the course of road works)/**  
Efectuarea stratului de uzura din beton asfaltic be baza de mastic cu piatra SMSc (in fluxul efectuarii lucrarilor rutiere).
- **Removal of temporary safety and traffic control measures/**  
Demontarea utilajelor temporare de securitate si control al traficului.

**Note:/ Nota:**  
**All dimensions are in mm unless noted otherwise/ Toate dimensiunile sunt date in mm.**

Nr. inv. orig. / Semnat la data / Schimb. nr. inv.

Rev./ Rev.		Amendamente/ Amendments	Approbat/ Approved	Data/ Date	Consultantii/ Consultants: <b>KOCKS DESTIA FINNROAD UNIVERSINJ</b> INGENIEURE DESIGN, ENGINEERING, CONSULTING		Proiectat/Designed Russu A. <i>BR</i>	Desenat/Drawn Russu A. <i>BR</i>	Verificat/Checked Ghimpu A. <i>AG</i>	Data/Date 06.2011	Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport	Road Sector Program Support Project Roads Feasibility and Detailed Design Study		Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata		Contract No.4283-MD
Denumirea drumului/ Road name		R33 Hincești - Lăpușna - M1 Km 0+000 - Km 37+200															
Denumirea desenului/ Drawing name		Pod nr. R33-1-B, km 8+844. Dispozitie generala Bridge No. R33-1-B, km 8+844. General arrangement															
Coala Nr./Sheet No.		R33-1-B_2-2		Coli / Sheets		10		Marimea originala a desenului Original Drawing Size		A3		A3					

**Index of drawings for bridge No. R33-2-B, km 12+640/  
Borderou de desene pentru pod nr. R33-2-B, km 12+640**

Sheet No/ Coala Nr.	Name/ Denumirea	Note/ Nota
1	<b>Index of drawings/ Borderou de desene</b>	
2	<b>General arrangement/ Dispozitie generala</b>	
3	<b>Superstructure Cross Section/ Profil transversal al suprastructurii</b>	
4	<b>Bridge approach/ Racordarea cu terasamentul</b>	
5	<b>Quantities of main work/ Volume de baza</b>	
6	<b>Existing bridge/ Pod existent</b>	
7	<b>Pictures/ Vederi</b>	

**Construction Sequence/ Ordinea Efectuarii Lucrarilor**

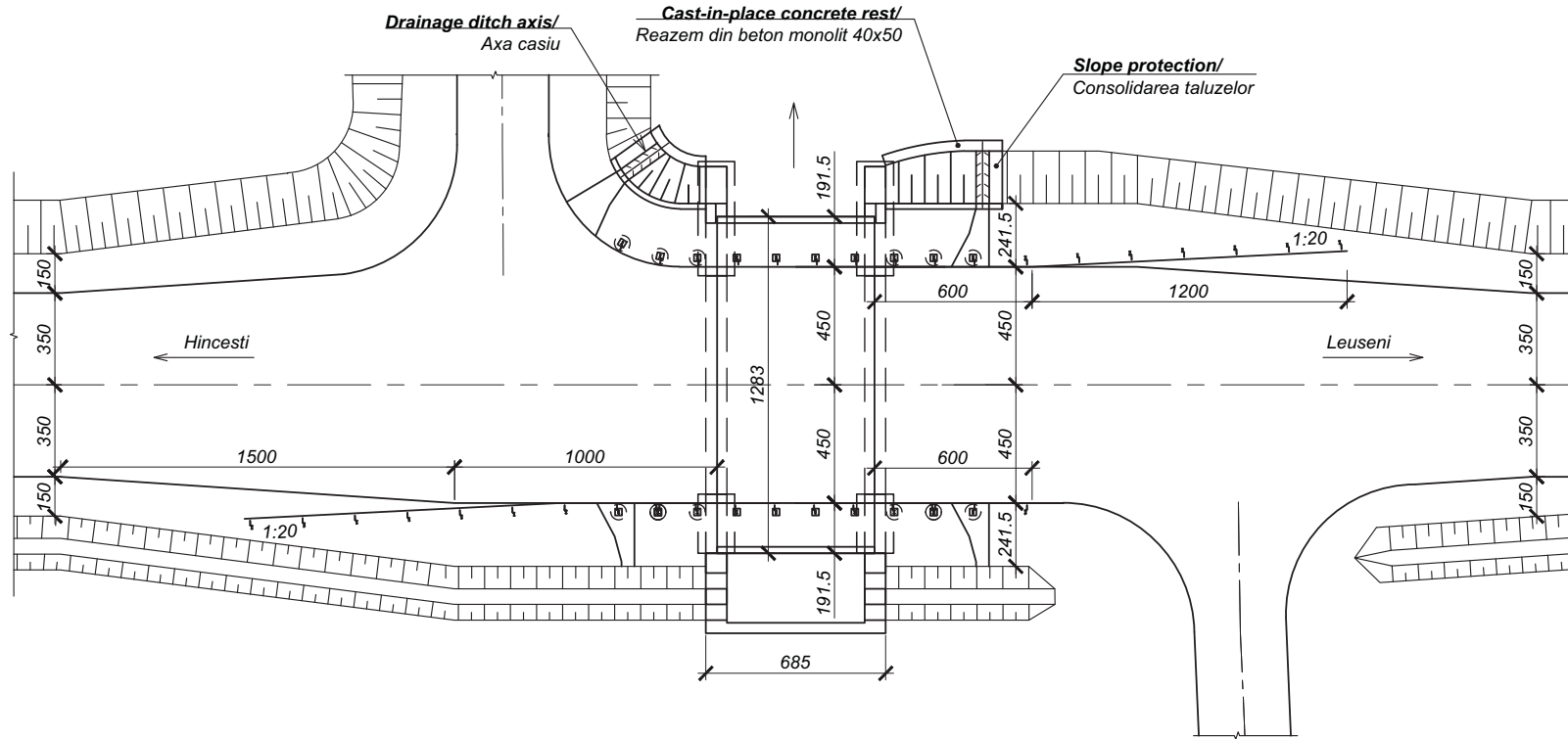
- **Removal and disposal of metal guardrails.**  
Demolarea si depozitarea parapetilor de siguranta metalici.
- **Removal and disposal of concrete handrails.**  
Demolarea si depozitarea parapetilor pietonali din beton.
- **Milling and disposal of asphalt layer on the bridge.**  
Frezarea si depozitarea stratului de asfalt de pe pod.
- **Removal and disposal of existing pavement layers.**  
Demontarea si depozitarea straturilor existente a imbracamintei podului.
- **Demount, disposal, repair and placing back of existing slabs.**  
Demontarea, depozitarea, reparatia si montarea dalelor existente.
- **Chipping, saw cut and cleaning of poor concrete surfaces to be repaired/**  
Dezbaterea, taierea si curatarea suprafetelor de beton slab ce urmeaza a fi reparate.
- **Partial cut off of superstructure/**  
Taierea partiala a suprastructurii.

- **Construction of new cast-in-place abutment and wing walls/**  
Efectuarea culeei si a zidurilor intoarse noi din BA monolit.
- **Demount, disposal, repair and placing back of existing slabs.**  
Demontarea, depozitarea, reparatia si montarea dalelor existente.
- **Mounting of precast approach slabs and providing all necessary earthworks on approach/**  
Montarea dalelor de racordare prefabricate si efectuarea tuturor lucrarilor de terasament necesare pe racordare.
- **Mounting new slabs/**  
Montarea dalelor noi.
- **Connecting slabs construction/**  
Monolitizarea dalelor.
- **Cast-in-place RC slab construction/**  
Efectuarea placii de suprabetonare din BA monolit.
- **Laying of waterproofing membrane on bridge deck/**  
Asternera membranei hidroizolante pe calea podului.
- **Providing of asphalt mastic protective layer on carriageway/**  
Efectuarea stratului de protectie din mastic bituminos.
- **Installing of steel guardrail and handrail on bridge deck and approach/**  
Instalarea parapetilor de siguranta si pietonali pe tablier si racordare.
- **Providing the wearing course of stone mastic asphalt concrete SMA (in the course of road works)/**  
Efectuarea stratului de uzura din beton asfaltic pe baza de mastic cu piatra SMSc (in fluxul efectuării lucrărilor rutiere).
- **Removal of temporary safety and traffic control measures/**  
Demontarea utilajelor temporare de securitate si control al traficului.

Nr. inv. orig. / Semnat la data / Schimb. nr. inv.

Rev./ Rev.	Amendamente/ Amendments	Approbated/ Approved	Date/ Date	Consultantii/ Consultants:		Aprobat/Approved Data/Date	Republic of Moldova Ministry of Transport		Road Sector Program Support Project	Proiectul de Sustinere al Programului Sectorului
				Proiectat/Designed	Cubovscaia O. 				Desenat/Drawn	Cubovscaia O. 
				Verificat/Checked	Ghimpu A. 	Data/Date	06.2011	Marimea originala a desenului A3	Denumirea drumului/ Road name	R33 Hincești - Lăpușna - M1 Km 0+000 - Km 37+200
								Original Drawing Size	Denumirea desenului/ Drawing name	Pod nr. R33-2-B, km 12+640. Borderou de desene Bridge No. R33-2-B, km 12+640. Index of drawings
									Coala Nr./Sheet No.	R33-2-B_1
									Coli / Sheets	7

Plan (1:200)



**Construction Sequence/ Ordinea Efectuarii Lucrarilor**

- **Milling and disposal of asphalt layer on the bridge.**  
Frezarea si depozitarea stratului de asfalt de pe pod.
- **Removal and disposal of existing pavement layers.**  
Demontarea si depozitarea straturilor existente a imbracamintei podului.
- **Demount, disposal and repair of existing slabs.**  
Demontarea, depozitarea si reparatia dalelor existente.
- **Construction of new cast-in-place retaining walls and Inlet header/**  
Efectuarea zidurilor de sprijin si a putului colectordin BA monolit.
- **Chipping, saw cut and cleaning of poor concrete surfaces to be repaired/**  
Dezbaterea, taierea si curatarea suprafetelor de beton slab ce urmeaza a fi reparate.
- **Repair of existing concrete surfaces/**  
Reparatia suprafetelor de beton.
- **Providing of cast-in-place concrete leveling layer/**  
Efectuarea stratului de egalizare din beton monolit.

- **Laying of waterproofing membrane on bridge deck/**  
Asternerea membranei hidroizolante pe calea podului.
- **Construction of cast-in-place cornice/**  
Efectuarea cornisei monolite.
- **Providing of asphalt mastic protective layer on carriageway/**  
Efectuarea stratului de protectie din mastic bituminos.
- **Construction of recycled asphalt courses for bridge approach/**  
Efectuarea straturilor din asfalt reciclat pentru racordarea podului.
- **Forming of embankment at abutment area/**  
Rambleierea in spatele culeei si formarea taluzurilor.
- **Installing of steel guardrail on bridge deck and approach/**  
Instalarea parapetilor de siguranta pe tablier si racordare.
- **Providing the wearing course of stone mastic asphalt concrete SMA (in the course of road works)/**  
Efectuarea stratului de uzura din beton asfaltic pe baza de mastic cu piatra SMSc (in fluxul efectuarii lucrarilor rutiere).
- **Removal of temporary safety and traffic control measures/**  
Demontarea utilajelor temporare de securitate si control al traficului.

**Note/ Nota:**

**1. All dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date in cm daca nu sunt indicate diferit.**

Schimb. nr. inv.

Semnat la data

Nr. inv. orig.

Consultantii/ Consultants:



Aprobat/Approved Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study

Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata

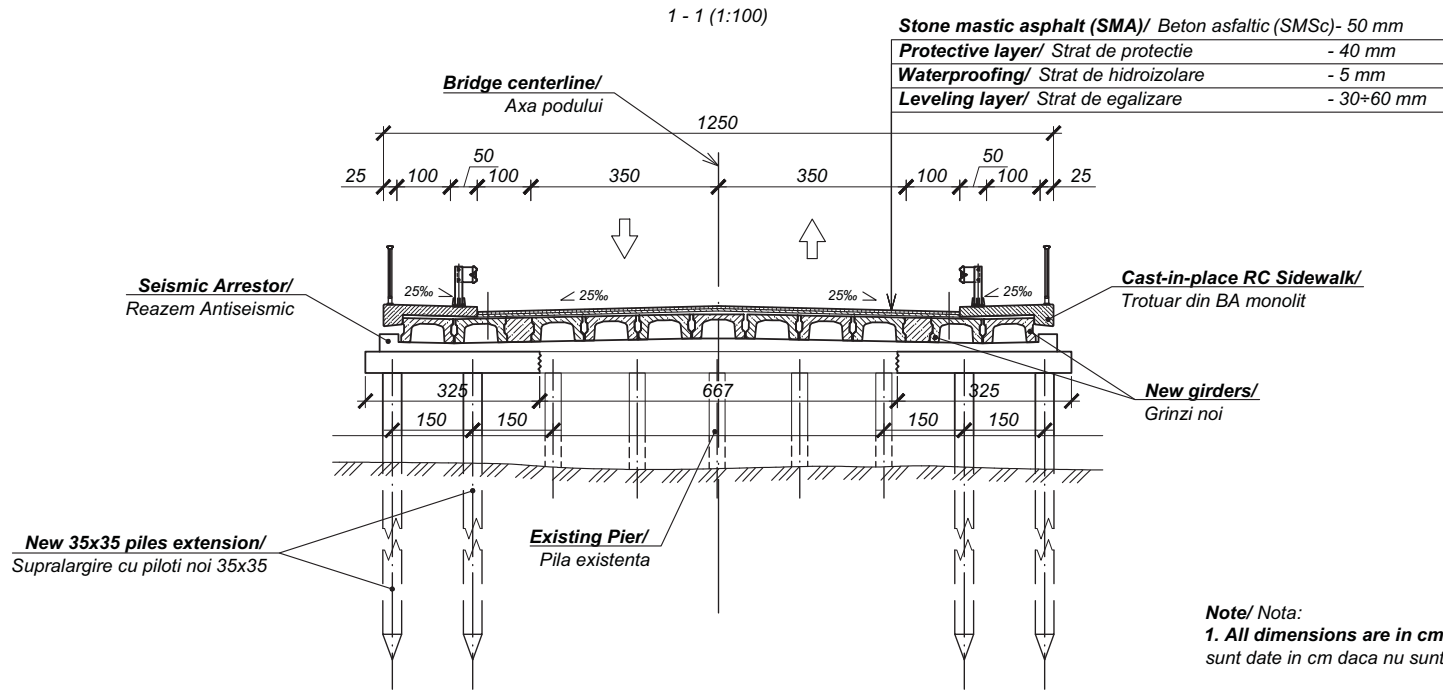
Contract No.4283-MD

Denumirea drumului/ Road name R33 Hincesti - Lapusna - M1 Km 0+000 - Km 37+200

Denumirea desenului/ Drawing name Pod nr. R33-3-B, km 14+360. Dispozitie generala Bridge No. R33-3-B, km 14+360. General arrangement

Coala Nr./Sheet No. R33-3-B\_2-2 Coli / Sheets 10

Rev./ Rev.	Amendamente/ Amendments	Aprobat/ Approved	Data/ Date	Proiectat/Designed Psariova V.	Desenat/Drawn Psariova V.	Data/Date 06.2011
				Verificat/Checked Ghimpu A.		



**Note/ Nota:**  
**1. All dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date in cm daca nu sunt indicate diferit.**

**Construction Sequence/ Ordinea Efectuarii Lucrarilor**

- **Removal and disposal of concrete handrails.**  
Demolarea si depozitarea parapetilor pietonali din beton.
- **Removal and disposal of precast sidewalk.**  
Demontarea si depozitarea blocurilor prefabricate de trotuar.
- **Milling and disposal of asphalt layer on the bridge.**  
Frezarea si depozitarea stratului de asfalt de pe pod.
- **Removal and disposal of existing pavement layers.**  
Demontarea si depozitarea straturilor existente a imbracamintei podului.
- **Demount, disposal and repair of existing girders.**  
Demontarea, depozitarea si reparatia grinzilor existente.
- **Chipping, saw cut and cleaning of poor concrete surfaces to be repaired/**  
Dezbaterea, taierea si curatarea suprafetelor de beton slab ce urmeaza a fi reparate.
- **Repair of existing piles concrete surfaces/**  
Reparatia suprafetelor de beton a pilotilor existenti.
- **Partial cut off of piers and abutment caps/**  
Taierea partiala a riglelor la pile si culei.
- **Driving piles for piers and abutments extension/**  
Baterea pilotilor pentru supralargirea pililor si a culeelor.
- **Construction of cast-in-place jacket for existing caps, cast-in-place pier and abutment caps on extension/**  
Efectuarea camasielii din BA monolit la riglele existente, riglei din BA monolit pe supralargire.

- **Construction of new cast-in-place back walls and wing walls/**  
Efectuarea zidurilor de garda si a zidurilor intoarse noi din BA monolit.
- **Mounting of precast approach slabs and providing all necessary earthworks on approach/**  
Montarea dalelor de racordare prefabricate si efectuarea tuturor lucrarilor de terasament necesare pe racordare.
- **Mounting new slabs/**  
Montarea dalelor noi.
- **Connecting slabs construction/**  
Monolitizarea dalelor.
- **Leveling layer construction/**  
Efectuarea stratului de egalizare.
- **Laying of waterproofing membrane on bridge deck/**  
Asternerea membranei hidroizolante pe calea podului.
- **Construction of cast-in-place concrete sidewalks/**  
Efectuarea trotuarelor din beton armat monolit.
- **Providing of asphalt mastic protective layer on carriageway/**  
Efectuarea stratului de protectie din mastic bituminos.
- **Installing of steel guardrail and handrail on bridge deck and approach/**  
Instalarea parapetilor de siguranta si pietonali pe tablier si racordare.
- **Providing the wearing course of stone mastic asphalt concrete SMA (in the course of road works)/**  
Efectuarea stratului de uzura din beton asfaltic pe baza de mastic cu piatra SMSc (in fluxul efectuarii lucrarilor rutiere).
- **Removal of temporary safety and traffic control measures/**  
Demontarea utilajelor temporare de securitate si control al traficului.

Schimb. nr. inv.

Semnat la data

Nr. inv. orig.

Consultantii/ Consultants:



Approbat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study  
Proiectul de Sustinere al Programului Sectorului  
Rutier / Studiul de Fezabilitate a Drumurilor si  
Proiectare Detaliata

Denumirea drumului/  
Road name R33 Hîncești - Lăpușna - M1 Km 0+000 - Km 37+200 Contract No.4283-MD

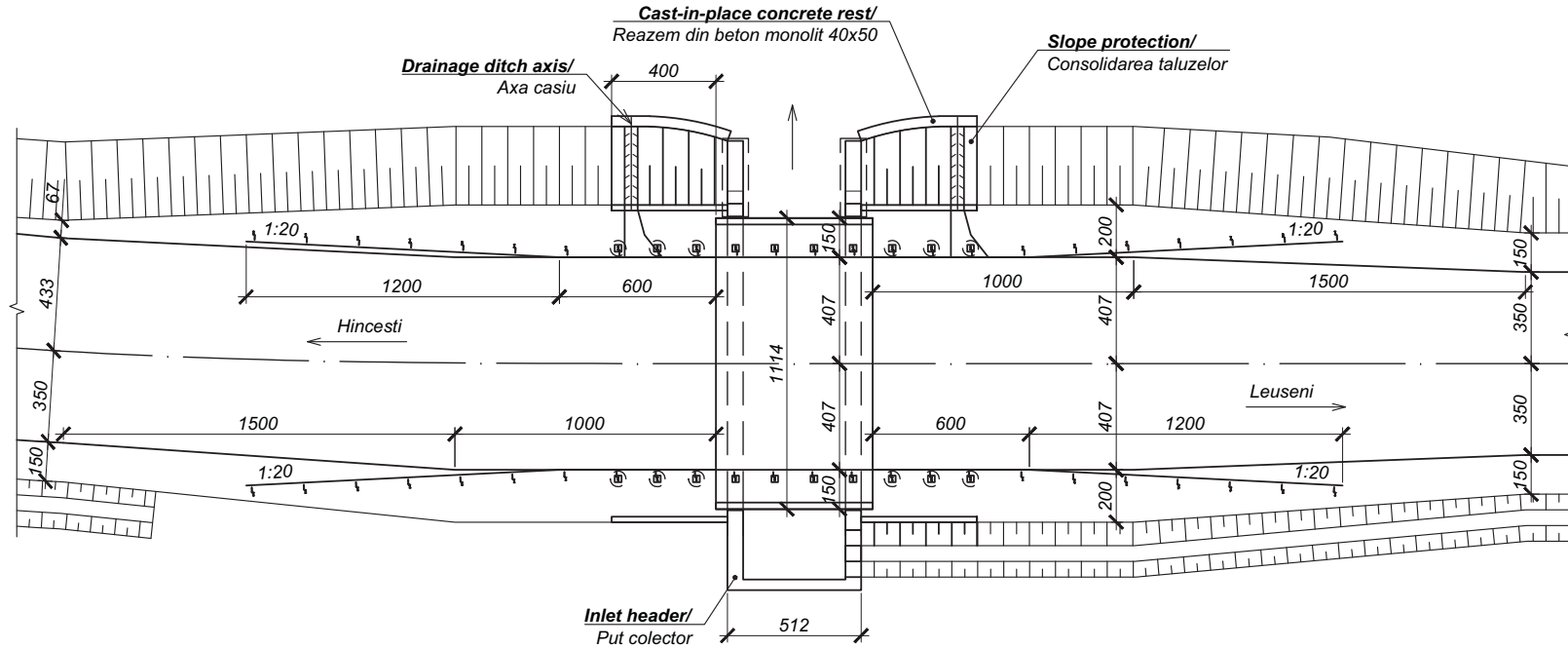
Denumirea desenului/  
Drawing name Pod nr. R33-4-B, km 17+509. Dispozitie generala  
Bridge No. R33-4-B, km 17+509. General arrangement

Coala Nr./Sheet No. R33-4-B\_2-3 Coli / Sheets 11

Rev./ Rev.	Amendamente/ Amendments	Approbat/ Approved	Data/ Date	Proiectat/Designed Cotelea A. <i>[Signature]</i>	Desenat/Drawn Cotelea A. <i>[Signature]</i>	06.2011
				Verificat/Checked Ghimpu A. <i>[Signature]</i>		



Plan (1:200)



**Construction Sequence/ Ordinea Efectuarii Lucrarilor**

- **Milling and disposal of asphalt layer on the bridge.**  
Frezarea si depozitarea stratului de asfalt de pe pod.
- **Removal and disposal of existing pavement layers.**  
Demontarea si depozitarea straturilor existente a imbracamintei podului.
- **Demount, disposal and repair of existing slabs.**  
Demontarea, depozitarea si reparatia dalelor existente.
- **Chipping, saw cut and cleaning of poor concrete surfaces to be repaired/**  
Dezbaterea, taierea si curatarea suprafetelor de beton slab ce urmeaza a fi reparate.
- **Repair of existing concrete surfaces/**  
Reparatia suprafetelor de beton.
- **Providing of cast-in-place concrete leveling layer/**  
Efectuarea stratului de egalizare din beton monolit.
- **Laying of waterproofing membrane on bridge deck/**  
Asternerea membranei hidroizolante pe calea podului.

- **Construction of cast-in-place cornice/**  
Efectuarea cornisei monolite.
- **Providing of asphalt mastic protective layer on carriageway/**  
Efectuarea stratului de protectie din mastic bituminos.
- **Construction of new cast-in-place retaining walls/**  
Efectuarea zidurilor de sprijin din BA monolit.
- **Construction of new cast-in-place Inlet header/**  
Efectuarea putului colector din BA monolit.
- **Construction of recycled asphalt courses for bridge approach/**  
Efectuarea straturilor din asfalt reciclat pentru racordarea podului.
- **Forming of embankment at abutment area/**  
Rambleierea in spatele culeei si formarea taluzurilor.
- **Installing of steel guardrail on bridge deck and approach/**  
Instalarea parapetilor de siguranta pe tablier si racordare.
- **Providing the wearing course of stone mastic asphalt concrete SMA (in the course of road works)/**  
Efectuarea stratului de uzura din beton asfaltic pe baza de mastic cu piatra SMSc (in fluxul efectuarii lucrarilor rutiere).
- **Removal of temporary safety and traffic control measures/**  
Demontarea utilajelor temporare de securitate si control al traficului.

**Note/ Nota:**

1. All dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date in cm daca nu sunt indicate diferit.

Nr. inv. orig. / Semnat la data / Schimb. nr. inv.

**Consultantii/ Consultants:**



Proiectat/Designed	Cotelea A.	Desenat/Drawn	Cotelea A.
Verificat/Checked	Ghimpu A.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study  
Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata

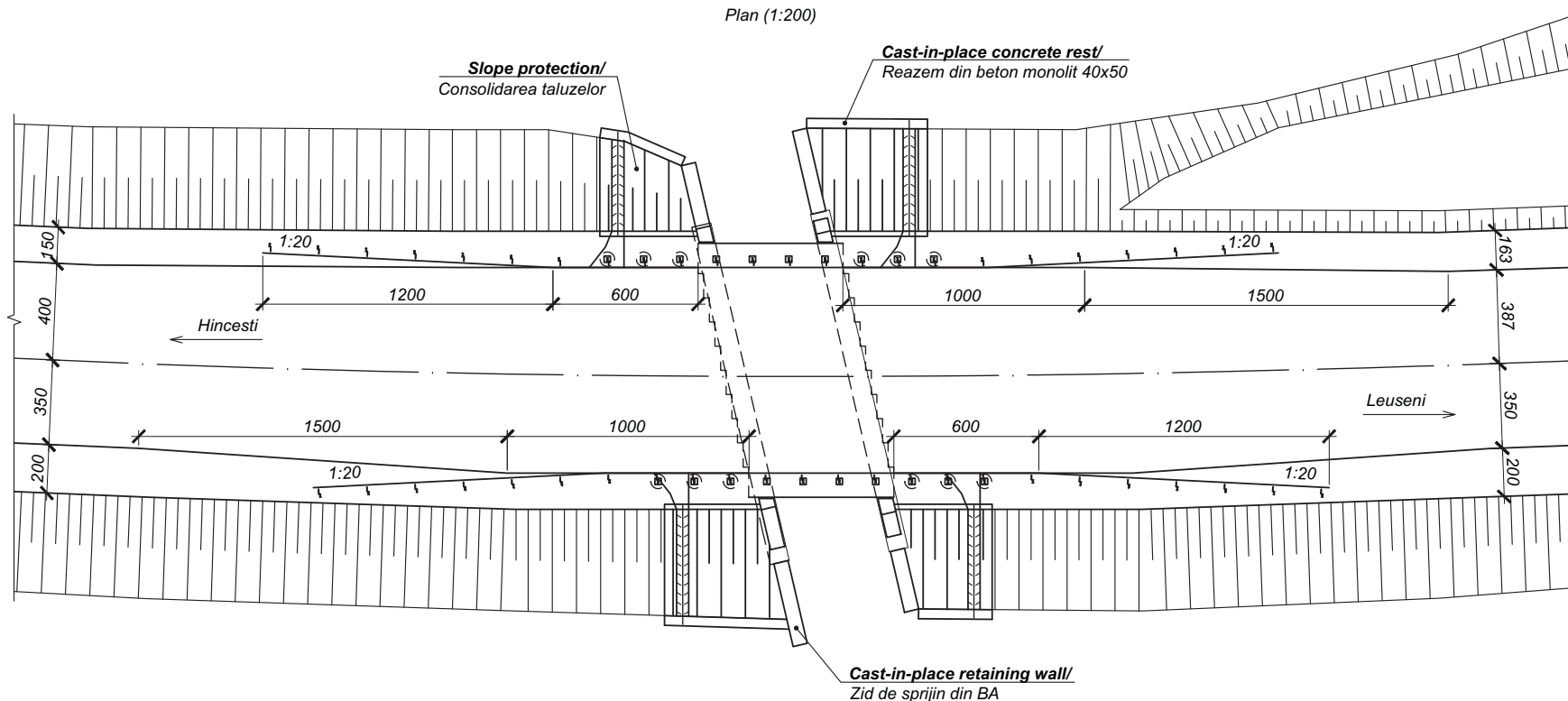
Denumirea drumului/  
Road name R33 Hînceşti - Lăpuşna - M1 Km 0+000 - Km 37+200 Contract No.4283-MD

Denumirea desenului/  
Drawing name Pod nr. R33-5-B, km 25+387. Dispozitie generala  
Bridge No. R33-5-B, km 25+387. General arrangement

Marimea originala a desenului A3  
Original Drawing Size

Coala Nr./Sheet No. R33-5-B\_2-2 Coli / Sheets 10

Plan (1:200)



**Construction Sequence/ Ordinea Efectuarii Lucrarilor**

- **Removal and disposal of concrete guardrail.**  
Demolarea si depozitarea parapetilor de siguranta din beton.
- **Milling and disposal of asphalt layer on the bridge.**  
Frezarea si depozitarea stratului de asfalt de pe pod.
- **Removal and disposal of existing pavement layers.**  
Demontarea si depozitarea straturilor existente a imbracamintei podului.
- **Demount, disposal, repair and placing back of existing slabs.**  
Demontarea, depozitarea, reparatia si montarea dalelor existente.
- **Chipping, saw cut and cleaning of poor concrete surfaces to be repaired/**  
Dezbaterea, taierea si curatarea suprafetelor de beton slab ce urmeaza a fi reparate.
- **Repair of existing concrete surfaces/**  
Reparatia suprafetelor de beton.
- **Providing of cast-in-place concrete leveling layer/**  
Efectuarea stratului de egalizare din beton monolit.

- **Laying of waterproofing membrane on bridge deck/**  
Asternerea membranei hidroizolante pe calea podului.
- **Construction of cast-in-place cornice/**  
Efectuarea cornisei monolite.
- **Providing of asphalt mastic protective layer on carriageway/**  
Efectuarea stratului de protectie din mastic bituminos.
- **Construction of new cast-in-place retaining walls/**  
Efectuarea zidurilor de sprijin din BA monolit.
- **Construction of recycled asphalt courses for bridge approach/**  
Efectuarea straturilor din asfalt reciclat pentru racordarea podului.
- **Forming of embankment at abutment area/**  
Rambleierea in spatele culeei si formarea taluzurilor.
- **Installing of steel guardrail on bridge deck and approach/**  
Instalarea parapetilor de siguranta pe tablier si racordare.
- **Providing the wearing course of stone mastic asphalt concrete SMA (in the course of road works)/**  
Efectuarea stratului de uzura din beton asfaltic pe baza de mastic cu piatra SMSc (in fluxul efectuarii lucrarilor rutiere).
- **Removal of temporary safety and traffic control measures/**  
Demontarea utilajelor temporare de securitate si control al traficului.

Schimb. nr. inv.

Semnat la data

Nr. inv. orig.

Consultantii/ Consultants:



Proiectat/Designed	Cotelea A.	Desenat/Drawn	Cotelea A.
Verificat/Checked	Ghimpu A.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

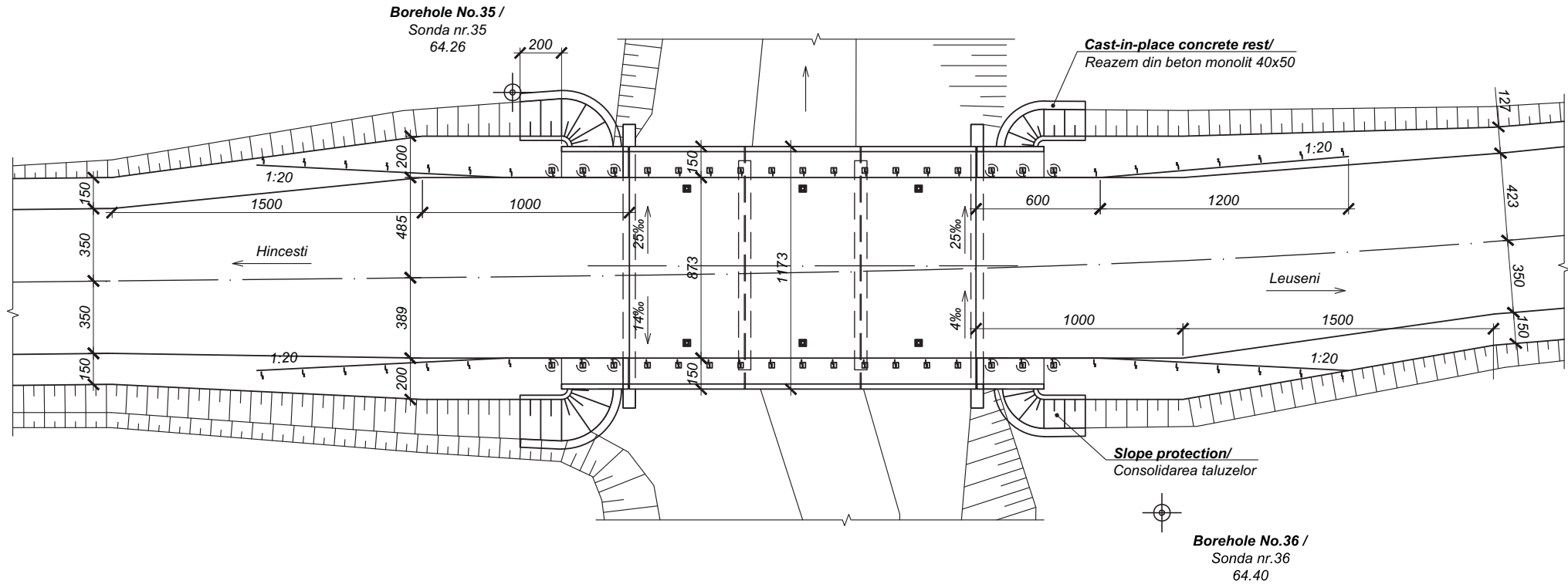
Republic of Moldova  
Ministry of Transport



Marimea originala a desenului A3  
Original Drawing Size

Road Sector	Program Support Project	Proiectul de Sustinere al Programului Sectorului
Roads Feasibility and Detailed Design Study	Rutier / Studii de Fezabilitate a Drumurilor si	Proiectare Detaliata
Denumirea drumului/ Road name	R33 Hincesti - Lăpuşna - M1 Km 0+000 - Km 37+200	Contract No.4283-MD
Denumirea desenului/ Drawing name	Pod nr. R33-6-B, km 27+569. Dispozitie generala Bridge No. R33-6-B, km 25+387. General arrangement	
Coala Nr./Sheet No.	R33-6-B_2-2	Coli / Sheets
		8

Plan (1:200)



**Construction Sequence/ Ordinea Efectuarii Lucrarilor**

- **Removal and disposal of metal handrails.**  
Demolarea si depozitarea parapetilor pietonali metalici.
- **Milling and disposal of asphalt layer on the bridge.**  
Frezarea si depozitarea stratului de asfalt de pe pod.
- **Removal and disposal of existing pavement layers.**  
Demontarea si depozitarea straturilor existente a imbracamintei podului.
- **Chipping, saw cut and cleaning of poor concrete surfaces to be repaired/**  
Dezbaterea, taierea si curatarea suprafetelor de beton slab ce urmeaza a fi reparate.
- **Repair of existing concrete surfaces/**  
Reparatia suprafetelor de beton.
- **Construction of new cast-in-place back walls and wing walls/**  
Efectuarea zidurilor de garda si a zidurilor intoarse noi din BA monolit.
- **Mounting new slabs/**  
Montarea dalelor noi.

- **Drilling holes and installing anchors on epoxy/**  
Forarea gaurilor si instalarea ancorelor pe resina epoxidica.
- **Construction of cast-in-place RC slab and cantilevers/**  
Efectuarea dalei de suprabetonare monolite si a consolelor.
- **Laying of waterproofing membrane on bridge deck/**  
Asternerea membranei hidroizolante pe calea podului.
- **Providing of asphalt mastic protective layer on carriageway/**  
Efectuarea stratului de protectie din mastic bituminos.
- **Construction of recycled asphalt courses for bridge approach/**  
Efectuarea straturilor din asfalt reciclat pentru racordarea podului.
- **Forming of embankment at abutment area/**  
Rambleierea in spatele culeei si formarea taluzurilor.
- **Installing of steel guardrail on bridge deck and approach/**  
Instalarea parapetilor de siguranta pe tablier si racordare.
- **Providing the wearing course of stone mastic asphalt concrete SMA (in the course of road works)/**  
Efectuarea stratului de uzura din beton asfaltic pe baza de mastic cu piatra SMSc (in fluxul executarii lucrarilor rutiere).
- **Removal of temporary safety and traffic control measures/**  
Demontarea utilajelor temporare de securitate si control al traficului.

**Note/ Nota:**

**1. All dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date in cm daca nu sunt indicate diferit.**

Nr. inv. orig. / Semnat la data / Schimb. nr. inv.

Consultantii/ Consultants:



Proiectat/Designed	Cotelea A.	Desenat/Drawn	Cotelea A.
Verificat/Checked	Ghimpu A.	Data/Date	06.2011

Aprobat/Approved Data/Date

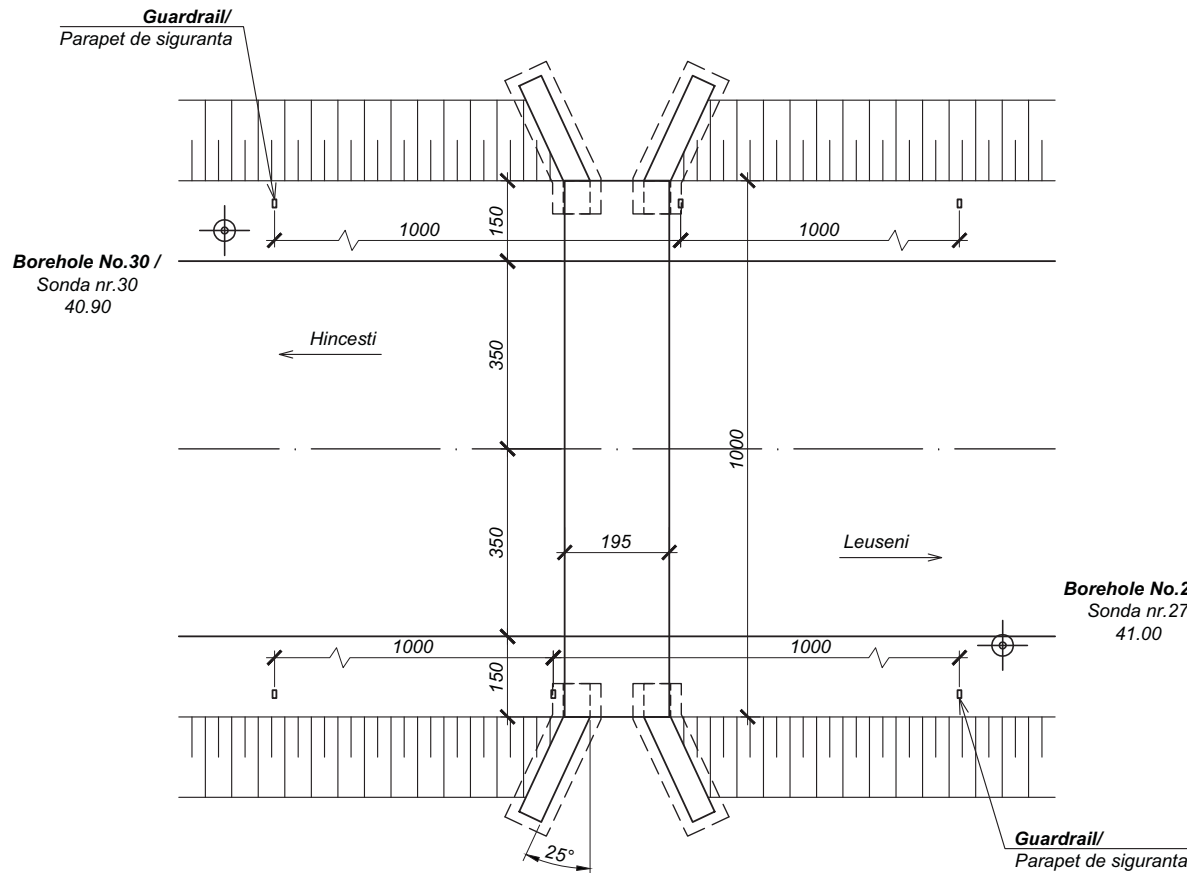
Republic of Moldova  
Ministry of Transport



Marimea originala a desenului A3  
Original Drawing Size

Road Sector	Program Support Project	Proiectul de Sustinere al Programului Sectorului
Roads Feasibility and Detailed Design Study	Rutier / Studii de Fezabilitate a Drumurilor si Proiectare Detaliata	
Denumirea drumului/ Road name	R33 Hinesti - Lapusna - M1 Km 0+000 - Km 37+200	Contract No.4283-MD
Denumirea desenului/ Drawing name	Pod nr. R33-7-B, km 29+492. Dispozitie generala Bridge No. R33-7-B, km 29+492. General arrangement	
Coala Nr./Sheet No.	R33-7-B_2-2	Coli / Sheets 10

Plan (1:100)



**Construction Sequence/ Ordinea Efectuarii Lucrarilor**

- **Milling and disposal of asphalt layer on the bridge.**  
Frezarea si depozitarea stratului de asfalt de pe pod.
- **Removal and disposal of existing pavement layers.**  
Demontarea si depozitarea straturilor existente a imbracamintei podului.
- **Chipping, saw cut of poor concrete surfaces to be repaired/**  
Dezbaterea, taierea suprafetelor de beton slab ce urmeaza a fi reparate.
- **Construction of new and wingwalls/**  
Efectuarea zidurilor intoarse noi din BA monolit.
- **Construction of cast-in-place RC cantilevers/**  
Efectuarea consolelor monolite.
- **Providing of cast-in-place concrete leveling layer/**  
Efectuarea stratului de egalizare din beton monolit.
- **Laying of waterproofing membrane on bridge deck/**  
Asternerea membranei hidroizolante pe calea podului.
- **Providing of asphalt mastic protective layer on carriageway/**  
Efectuarea stratului de protectie din mastic bituminos.
- **Construction of recycled asphalt courses for bridge approach/**  
Efectuarea straturilor din asfalt reciclat pentru racordarea podului.
- **Forming of embankment at abutment area/**  
Rambleierea in spatele culeei si formarea taluzurilor.
- **Installing of guardrail on approach/**  
Instalarea parapetilor de siguranta pe racordare.
- **Providing the wearing course of stone mastic asphalt concrete SMA (in the course of road works)/** Efectuarea stratului de uzura din beton asfaltic pe baza de mastic cu piatra SMSc (in fluxul efectuarii lucrarilor rutiere).
- **Removal of temporary safety and traffic control measures/**  
Demontarea utilajelor temporare de securitate si control al traficului.

**Note/ Nota:**

**1. All dimensions are in cm unless noted otherwise/ Toate dimensiunile sunt date in cm daca nu sunt indicate diferit.**

Nr. inv. orig. / Semnat la data / Schimb. nr. inv.

**Consultantii/ Consultants:**



Proiectat/Designed	Cotelea A.	Desenat/Drawn	Cotelea A.
Verificat/Checked	Ghimpu A.	Data/Date	06.2011

Aprobat/Approved  
Data/Date

Republic of Moldova  
Ministry of Transport



Road Sector Program Support Project  
Roads Feasibility and Detailed Design Study  
Proiectul de Sustinere al Programului Sectorului Rutier / Studiul de Fezabilitate a Drumurilor si Proiectare Detaliata  
Contract No.4283-MD

Denumirea drumului/  
Road name R33 Hincesti - Lăpuşna - M1 Km 0+000 - Km 37+200  
Denumirea desenului/  
Drawing name Pod nr. R33-B-B, km 36+402. Dispozitie generala  
Bridge No. R33-B-B, km 36+402. General arrangement

Marimea originala a desenului A3  
Original Drawing Size

Coala Nr./Sheet No. R33-8-B\_2-2  
Coli / Sheets 7