

BOSNIA AND HERZEGOVINA

FEDERATION OF BOSNIA AND HERZEGOVINA

JP AUTOCESTE FBiH d.o.o. MOSTAR

**MOTORWAY ON CORRIDOR Vc IN FEDERATION OF BiH  
CONSTRUCTION OF SECTION SVILAJ - ODŽAK  
PROGRESS REPORT  
as of 31<sup>st</sup> December, 2018**

**Mostar, January 2018**

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## 1. INTRODUCTION

At conferences held in Crete and Helsinki in year 1994 and 1997, ten trans-European corridors have been identified as routes in Central and Eastern Europe which require priority investments. Corridor V (five) which is linking Kiev in the Ukraine to the Adriatic Sea via Lvov and Budapest (Hungary) is one of them. Consisting of three branches, the Vc branch follows European route E73 from Budapest to Ploče (Croatia) via Osijek (Croatia) and Sarajevo (Bosnia and Herzegovina). Bosnia and Herzegovina contains the longest section of the Vc branch. With a total length of approximately 323 km the driving force to construct Corridor Vc motorways is to improve connectivity of BH with its neighbouring countries and to enhance its potential for economic development. The project is strongly supported by the Government and is expected to enable BiH to integrate better with the European economic and social structure.

Corridor Vc is multimodal road corridor that connects Hungary Budapest to Ploče (Croatia), via Osijek (Croatia) and Sarajevo (Bosnia and Herzegovina), it is also the largest project of transport infrastructure in Bosnia and Herzegovina with a total length of about 323 km. The construction of the highway Corridor Vc enhances connectivity of BiH with neighboring countries and enhances the potential for economic development. The project has strong support from the Government of the Federation of Bosnia and Herzegovina, and is expected to enable Bosnia and Herzegovina, better integration with the European economic and social structures in Europe.

Corridor Vc in Bosnia and Herzegovina consists of four main sections (in official documents named as "Lots"), as follows:

- **Lot 1:** Svilaj on The Sava River (connection to Corridor X) - Doboj South;
- **Lot 2:** Doboj South - Sarajevo South (Tarčin);
- **Lot 3:** Sarajevo South (Tarčin) - Mostar North;
- **Lot 4:** Mostar North - Bijača on the southern border with Croatia.

So far there have been constructed and open to traffic 92 km of the motorway on Corridor Vc referring to the following sections:

- Kakanj - Zenica South
- Zenica South - Sarajevo North
- Sarajevo North - Sarajevo West
- Sarajevo West - Tarčin
- Zvirovići - Bijača

The project has been financed by the loan funds of EIB, EBRD, KFAED, as well as the own funds of JP Autoceste FBH.



Map of motorways and expressways in Bosnia and Herzegovina

## 2. FINANCING THE CONSTRUCTION OF SECTION SVILAJ - ODŽAK

In order to create a stable financial leverage JP Autoceste FBH has addressed International financing institutions in order to support its construction projects. European Investment Bank (EIB) and European Bank for Reconstruction and Development (EBRD) have provided two loans in order to finance the construction of section Svilaj -Odžak.

First loan agreement was signed in mid-2012 with The European Investment Bank (EIB) in amount of **166 million EUR** out of which **11.345.810 EUR** was used to finance the construction of section Svilaj - Odžak.

In March 2018, the loan agreement in the amount of **76 million EUR** was signed with European Bank for Reconstruction and Development (EBRD) out of which **40 million EUR** are intended to co-finance the construction of Phase II of the section Svilaj - Odžak.

In the previous period, JP Autoceste FBH concluded the following credit arrangements with European Investment Bank (EIB):

- in October 2015, the amount of **100 million EUR** for the construction of subsection Počitelj – Zvirovići,
- on 26<sup>th</sup> April 2018, the amount of **100 million EUR** for the construction of subsection Tunnel Kvanj – Buna,
- on 26<sup>th</sup> April 2018, the amount of **50 million EUR** for the construction of subsection Ponirak - Vraca.

### FINANCIAL POSITION Section Svilaj - Odžak

#### Payments from the EIB (166 million EUR)

No.	Loan EIB (166 mil€)		The amount of the payment without VAT	
	Own funds			
1.	JV STRABAG AG, Euro Asphalt d.o.o., GP ŽGP d.d. .	I phase	38.130.038,49	€
		II phase	18.484.894,31	
2.	AECOM INOCSA S.L.U.	I phase	2.738.632,00	€
		II phase	567.947,50	
<b>TOTAL:</b>			<b>59.921.512,30</b>	<b>€</b>

Table 1. Payments from the EIB (166 million EUR)

**Recapitulation of payment - construction**

No.	Funding source	The amount of the payment without VAT	The amount of the payment with VAT
1.	EIB – I phase (166 mil €)	10.924.585,49	12.866.467,67
2.	Own funds	45.690.347,31	52.951.147,27
<b>3.</b>	<b>TOTAL:</b>	<b>56.614.932.80</b>	<b>65.817.614,94</b>

**Table 1a.** Recapitulation of payment - construction

**Note:** Until 31<sup>st</sup> December, 2018 a refund of own funds from EBRD loan number 48999 for construction was made:

- Phase I in the amount of 122,254.87 € without VAT (143,873.14 € with VAT) and
- Phase II in the amount of 9.446.733,01 € without VAT (11.004.813,41 € with VAT)

**Recapitulation of payment - supervision services of construction**

No.	Funding source	The amount of the payment without VAT	The amount of the payment with VAT
1.	EIB – I phase (166 mil €)	421.224,50	492.832,67
2.	Own funds	2.885.355,00	3.375.865,35
	<b>TOTAL:</b>	<b>3.306.579,50</b>	<b>3.868.698,02</b>

**Table 1b.** Recapitulation of payment - supervision services of construction

**Note:** Until 31<sup>st</sup> December, 2018 a refund of own funds from the EBRD loan number 48999 for supervision was made:

- Phase II in the amount of 748.712,50 € without VAT (875.993,63 € with VAT)

### 3. TECHNICAL DESCRIPTION OF SECTION SVILAJ - ODŽAK

The Svilaj - Odžak section of the motorway is over 10 km long and represents the most northerly point of the corridor Vc in B&H. The section starts directly after the future inter-state bridge Svilaj over the Sava River and ends at the Odžak interchange, located north of the town of Odžak. The bridge over the river Sava connects the motorways between BiH and Croatia. Important structures on this section include a border crossing, two bridges, two wildlife corridors, four overpasses, three underpasses and two culverts for irrigation canals.

This section has been financed from the EIB loan No.31.174 as well as from own funds of JP Autoceste FBiH. Construction works on this section started in September 2013. Works on the bridge over the Sava river are ongoing. Expected date of completion is May 2019. Construction of the section Odžak – Vukosavlje which is managed by the RS Government hasn't started yet. This project (the Contract) has been divided in two sections, Section/Phase I and Section/Phase II by the Addendum to the Contract JPAC 327-B45-12 dated April 30th, 2015. Completed Works under Section 1 are the following: culvert K1, culvert K2, underpass PP0, underpass PP2, underpass PP3, overpass NP1, overpass NP2, overpass NP3, animal passage OPD1, animal passage OPD2, animal passage OPD3, local and service roads, crossroads on underpasses and overpasses, access road and by-pass Odžak, national road next to NP 1, watercourses (channel 1 and Srnatoca), protection fence, demobilisation of site and preparation of As-built drawings for Section/Phase I.

Partly completed Works under Section/Phase I are the following: bridge MD Potočani (concrete works are finished), bridge Odžak (concrete works are finished), embankment included rock beam on main alignment and interchange Svilaj, embankment included rock beam on toll station and rest area, embankment included rock beam on interchange Odžak and border crossing and external drainage as well as preparation of hand-over of Site towards Employer.

Works on Section/Phase II are including the following: examination of Partly Completed Works under Section/Phase I after Interruption Period, mobilization for implementation of Section/Phase II, restore of works and repair of defects originated from the interruption, completion of all works which are not in Section/Phase I.

Completion date for Section/Phase I was on 30<sup>th</sup> June 2015.

Completion Date for Section/Phase II is 242 days from commencement date for Section/Phase II which is 16<sup>th</sup> March, 2017.

The following table provides an overview of the most significant structures in Section/Phase I Svilaj-Odžak:

<b>Section I: Svilaj-Odžak</b> from km 0+328,05 to km 10+762,50 <b>Length: 10.434,45 meters</b>	
Junctions	-Svilaj -Odžak
Viaducts and Bridges	Bridge Potočari 38m, Overpass NP1 L=82m, NP2 L=145m, NP3 L=83m
Galleries	-
Other Structures	Rest area Vrbovac

**Table 2.** *The most significant structures on the section Svilaj-Odžak*



#### 4. INVESTMENT COST ANALYSIS

Investment cost analysis for Phase II financed by EIB loan No. 31.174 and own funds

Cost Items (in Euro prices)	Sub-section Vlakovo- Lepenica	Sub-section Lepenica- Suhodol	Section Odžak-Svilaj	Total
<b>Works</b>				
Earthworks	22.038.846,66	20.360.525,18	16.879.823,65	57.082.849,11
Major bridge structure (>100 m)	20.062.978,20	8.452.496,02	1.026.730,38	29.248.761,03
Major tunnels (>100 m)	28.975.127,90	13.522.627,07	0,00	41.413.351,41
Structures general	8.506.893,15	2.144.363,34	3.785.036,86	14.401.135,65
Drainage, includ. culverts	7.333.876,60	3.364.706,30	1.649.000,99	12.317.274,09
Retaining structures	2.797.692,51	7.936.053,32	0,00	10.722.183,39
Road works and pavement	5.175.476,18	3.841.088,48	1.620.764,70	10.615.939,89
Safety measures (signage, guard railing)	2.938.326,80	1.194.180,82	1.162.544,14	5.282.908,10
Installations (mechanical and electrical)	12.142.197,13	4.602.907,87	1.114.494,78	17.809.417,91
Environment (e.g. noise, fencing, animal protection)	2.608.834,58	568.070,65	0,00	3.076.905,23
Other works + Worksitge Safety costs	28.785.939,29	754.099,04	8.146.893,91	37.567.964,30
<b>Total works</b>	<b>141.366.189,00</b>	<b>66.741.118,09</b>	<b>35.385.289,41</b>	<b>239.538.690,11</b>
<b>General costs</b>				
Preliminary studies and design	2.878.447,51	1.736.572,22	1.500.000,00	6.115.019,73
Management costs				0,00
Supervision	3.455.829,62	2.888.242,21	1.941.297,00	8.285.368,83
<b>Total general costs</b>	<b>6.334.277,13</b>	<b>4.624.814,43</b>	<b>3.441.297,00</b>	<b>14.400.388,56</b>
<b>Land acquisition</b>				
Expropriation and compensations	8.240.511,19	7.909.980,17	4.388.683,28	20.539.174,64
Other land acquisition costs (removal of subservices)	1.081.579,92	393.527,49	1.785.238,70	3.260.346,11
<b>Total Land acquisition</b>	<b>9.322.091,11</b>	<b>8.303.507,66</b>	<b>6.173.921,98</b>	<b>23.799.520,74</b>
<b>Base costs</b>				
EIB Technical contingencies				
EIB Price contingencies				
Interest during construction	1.142.524,08	829.720,36	243.150,96	2.215.395,40
<b>Total project investment costs (excl. VAT)</b>	<b>158.165.081,32</b>	<b>80.499.160,54</b>	<b>45.243.659,35</b>	<b>283.907.901,20</b>

**Tabele 3.** Investment cost analyses for the project for Phase II financed by EIB loan No. 31.174(BA)

**Notes:** The value of the remaining outstanding balance of retention money is included in the works realization.

## 5. PROCUREMENT PLAN

JP Autoceste has prepared a procurement plan. The estimated values are planned, but real values will be determined after completion of the main project and tender procedures. Please consider that contracted values and changes in the values of contracts occur according to the signed Addendums which are given in detail under **Chapter 10**.

*Values are given in 000 EUR*

No	Description	Estimated contract value	Financed by	Financed by others	Contract	Contract	Procurement	Tender	Contract	Contract
			EBRD/EIB	Investor	Amount including VAT	Type	method	Invitation month/year	Award month/year	Completion month/year
1.	Svilaj (northern border with Croatia) - Odžak motorway project	1.500		MKTBiH		Design	Competitive	Aug-07	Feb-08	Aug-11
2.	Svilaj (northern border with Croatia) - Odžak supervision services of construction	I phase 3.000	3.000 EIB		3.204	Supervision	Competitive	Nov-11	Sep-13	Nov-16 <sup>1</sup>
		II phase 1.500	1.500 EBRD		1.186	Supervision	Direct contacting	Feb-17	Mar-17	Dec-19
3.	Svilaj (northern border with Croatia) - Odžak construction works	31.000	11.300EIB 38.500 EBRD		85.648	Construction Works	Open	Nov-11	Sep-13	Nov-14 <sup>2</sup>
6.	<b>Land Expropriation</b>	<b>5.833</b>		<b>JPAC</b>						
7.	<b>PDV (17%)</b>	<b>9.231</b>		<b>JPAC</b>						
	<b>TOTAL:</b>	<b>15.064</b>		<b>JPAC MTCBH</b>						
	<b>TOTAL:</b>	<b>54.300</b>	<b>EIB, EBRD</b>							

<sup>1</sup> Addendum 1 - Deadline for supervision has been extended until June 2017

<sup>2</sup> Addendum 3 - The remaining works on Section II begin 7 days after obtaining a GP license or 15.03.2018. depending on what happens before, with a deadline for carrying out works of 400 days from the beginning, and the completion of construction works in April 2019th

**Table 4. Procurement plan**

**Notice:** VAT charged on the total amount of the budget (does not include land expropriation).

**Legend:** **MKTBiH** - Ministry of Transport and Communications BiH ; **JPAFBiH**- JP Autoceste FBiH d.o.o. Mostar (PC Motorways of FBH ltd. Mostar)

## 6. ENVIRONMENTAL PERMITS

The Federal Ministry of Environment and Tourism issued an environmental permit for for section from Svilaj (including a part of the bridge that belongs to Bosnia and Herzegovina - bridge over the river Sava) to Doboj South (Karuše) in September 2010.

## 7. MAIN DESIGN

Brief information on the main design for sections Svilaj - Odžak is represented as follows:

No	Section	Procedure	Status	Note:
1.	Svilaj - Odžak	Main Design	Completed	Section under construction.
		Expropriation	100%	
		Consents /Permits	Completed	

**Table 5.** *Progress of main designs*

## 8. COMPLETION OF CONSTRUCTION WORKS

### Section Svilaj - Odžak

- Contractor: Joint Venture Strabag AG, Euro - Asfalt d.o.o. Sarajevo and GP ŽGP d.d. Sarajevo;
- Construction contract signed on 12<sup>th</sup> September, 2013
- Number of Construction Contract: JPAC 327-B45-12;
- The value of the Contract amounts to 83.822.098,00 EUR including VAT;
- The construction period is 420 days;
- Addendum No. 1 was signed on April 30<sup>th</sup> 2015. The time for work's completion has been changed due to activities that are not a direct responsibility of the Public Company of Motorways of the Federation of Bosnia and Herzegovina Ltd. Mostar (the expropriation of land for the construction of the Border crossing Svilaj is the responsibility of the Bosnia and Herzegovina Indirect Taxation Authority and the construction of the bridge on the Sava River is under the jurisdiction of the Republic of Croatia). Therefore, the works are divided into two sections as follows: the first section includes the construction of the roadbed to the level of the motorway pavement as well as the buildings along the route, while the second section includes the finishing works. The completion date of Works for the first section is 30<sup>th</sup> June, 2015. The completion time for the second section is 242 days from the commencement date of 16<sup>th</sup> of March, 2017.

- Addendum No.2 was signed on 31<sup>st</sup> March, 2017. In the Addendum No.2 the Accepted Contract Amount has been changed from EUR 32.568.837,36 to EUR 44.579.348,66 for Section 2. Except the above mentioned, all other provisions of the Contract and Addendum no.1 have remained unchanged, valid and in full force and effect. The construction works for Section 2 are in progress.

Addendum No.3 of the Contract for Construction of Motorway on Corridor Vc, section Svilaj-Odžak was concluded on 22<sup>nd</sup> November 2017. Addendum No.3 is made due to the following events which have affected the contract completion: urban permit for the area of border crossing Svilaj has not been obtained yet and is expected at the beginning of 2018; bridge over Sava river in the northern limit of the project Svilaj-Odžak (traffic connection to Croatia) has not been finished yet; project Odžak-Vukoslavlje, Section 3 of Lot 1 at the southern limit of this project Svilaj-Odžak is in the authority of the Government of the RS, and probably will not start earlier than the end of 2018; tolling and traffic management systems are to be installed at a later stage in order to prevent possible theft of the equipment. In the Addendum No.3 the accepted contract amount for Section 1 has been amended to EUR 41.069.250,13, while the Accepted contract amount for Section 2 remains the same in the amount of EUR 44.579.348,66. This Addendum also defines the accepted contract amount for remaining works of Section 2 that is estimated at EUR 15.000.000,00 from a total of EUR 44.579.348,66 for Section 2. Hereinafter, remaining works of Section 2 are considered as a separate section and shall be completed within 400 days calculated from the commencement date for remaining works of Section 2 including 200 days of the embankment settlement period. Remaining works of Section 2 are specified in the Bill of Quantities as: border crossing Svilaj, two rest areas, landscaping, toll system and buildings and traffic management system including electrical installations. The commencement date for remaining works of Section 2 is also added and defined as seven days after obtaining the construction permit for the border crossing Svilaj or on 15<sup>th</sup> March 2018 - whatever happens earlier. Works have started as it is planned on 15.03.2018, even though the construction permit for border crossing has not been issued yet. Works will be performed just on remaining part of structures. The work was carried out at the charging point of Odžak and the resting place Vrbovački Lipik. Meanwhile, it was agreed with the UIO that the JP Autoceste FBiH would carry out part of the works at the location of the GP Svilaj located within the motorway area. The contractor started these works in July 2018 and the works are completed. In the next step, it is left to provide a consolidation of the embankment, after which conditions will be obtained to perform the remaining end layers of the pavement construction. With the contractor, the contract number 4 was signed in which it was determined that the part of the retention for the first phase of the works for which the guarantee period expired will be refunded.

### **Supervision**

- Consultant: AECOM Inocsa S.L.U. Spain;
- Number of Contract for Consultancy Services: JPAC 328-E152-12 in the amount of 2.645.311, 50 EUR including VAT signed on 2<sup>nd</sup> September, 2013, and the duration of the Contract is 38 months.
- Addendum No. 1 was signed on 2<sup>nd</sup> October, 2015 by the Investor and 6<sup>th</sup> October, 2015 by the Consultant of supervision with regards to an extension of time for completion of the work under the Contract on construction no. JPAC 327-B45-12 and dividing the existing section in the Phase/Section 1 and Phase/Section 2 in

Addendum 1 to the Contract on construction No. JPAC 327-B45-12 dated April 30<sup>th</sup>, 2015. Therefore, the period of consulting services is extended to 46.9 months as well the contract price is increased to EUR 3.204.199, 44 including VAT.

- Number of Contract for Consultancy Services: JPAC 819-E426- 17 - Consulting Services for supervision of works on Construction of motorway in Corridor Vc, section Svilaj-Odžak, Phase II in the amount of 1.186.672,50 EUR including VAT was signed on 13<sup>th</sup> March, 2017, and the duration of the Contract is 33 months.
- Project realization is divided into two phases (sections), because the construction works on the bridge over the Sava River, which connects parts of the Corridor Vc in Croatia and Bosnia and Herzegovina have not been started.
- Works on the realization for Phase/Section I of the project were completed.
- The technical inspection of completed works for Phase/Section I is completed.
- The use permit was obtained for Section/Phase I in November 2015.
- Works on Phase/Section II have commenced on 16<sup>th</sup> March, 2017, in accordance with the Addendum no1.
- Value of works for Section I is EUR 41.069.250,13 based on Addendum 3
- Construction period for Section II is 242 days.
- Current work progress: asphalt, toll station structure, equipment, safety rail.
- Current progress of the work: asphalt on the safety rail, toll station, equipment, GP Svilaj.

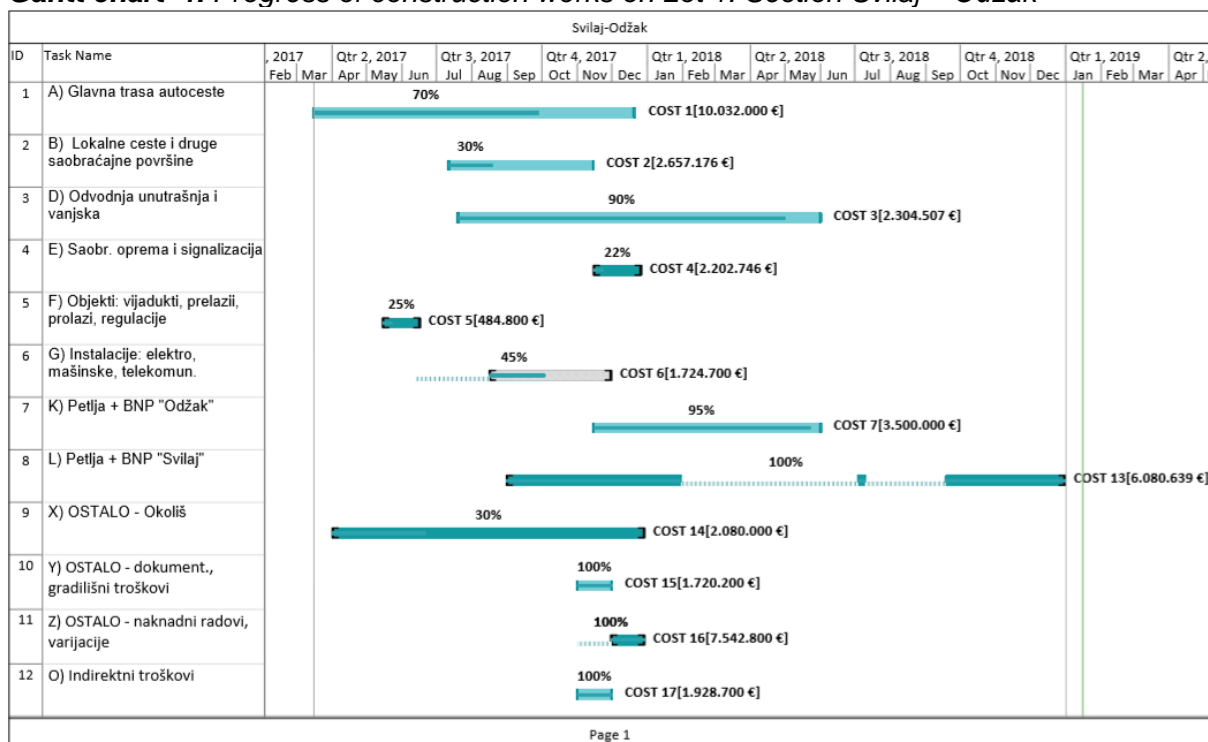
## 9. PROGRESS OF CONSTRUCTION WORKS

The following tables show the progress of construction works on section Svilaj - Odžak as of 31<sup>st</sup> December, 2018

No.	ID	Task Name	Duration	Start	Deadline	(Section I+ Section II) % of Completion	Type of Works in construction
1.		<b>ALLIGNMENT</b>					The technical inspection of completed works for Phase I is in progress.
	1.1.	Motorway alignment	8	16.03.2017.	13.11.2017.	95%	Earthworks and embankment
	1.2.	Local road alignment	8	16.03.2017.	13.11.2017.	95%	Earthworks and embankment
2.	2.1.	<b>INTERCHANGE SVILAJ</b>	8	16.03.2017.	13.11.2017.	95%	Earthworks and embankment
	2.2.	Construction of toll station „Svilaj“	8	16.03.2017.	13.11.2017.	90%	Earthworks and embankment
3.	3.1.	<b>INTERCHANGE ODŽAK</b>	8	16.03.2017.	13.11.2017.	95%	
	3.2.	Construction of toll station „Odžak“	8	16.03.2017.	13.11.2017.	35%	Earthworks and embankment
4.	4.1	<b>CROSSING BORDER SVILAJ</b>	8	16.03.2017.	13.11.2017.	90%	Preparation of detailed project
5.	5.1.	<b>PUO Vrbovački Lipik</b>	8	16.03.2017.	13.11.2017.	93%	Earthworks and embankment
6.		<b>ENGINEER'S CONSTRUCTIONS AND STRUCTURES</b>	8	16.03.2017.	13.11.2017.	90%	Earthworks, foundation structures and piles
	6.1.	Bridge Potočani	8	16.03.2017.	13.11.2017.	100%	Completed Phase I - the bridge was accepted and a passage under the bridge was provided.
	6.2.	Underpasses	8	16.03.2017.	13.11.2017.	100%	
	6.3.	Overpasses	8	16.03.2017.	13.11.2017.	100%	
	6.4.	Watercourse regulation	8	16.03.2017.	13.11.2017.	100%	Concrete works almost completed
7.		<b>DRAINAGE</b>	8	16.03.2017.	13.11.2017.	100%	
	7.1.	Internal drainage	8	16.03.2017.	13.11.2017.	90%	Works is in progress.
	7.2.	External drainage	8	16.03.2017.	13.11.2017.	90%	Construction of the typical culvert below the motorway route

Table 6. Progress of construction works on Lot 1: Section Svilaj - Odžak

**Gantt chart 1. Progress of construction works on Lot 1: Section Svilaj – Odžak**



**CASH FLOW 1., 2018-Q4 Section Svilaj-Odžak**

