

Semi-annual Environmental Monitoring Report

Project Number: 42414-043

Reporting period: July-December 2019

GEORGIA: SUSTAINABLE URBAN TRANSPORT INVESTMENT PROGRAM, Tranche 3

(Financed by the Asian Development Bank)

Prepared by: Ketevan Papashvili, Environmental Specialist for ADB projects
Environmental and Resettlement Unit, Municipal Development Fund (MDF)
Tbilisi, Georgia

Endorsed by: Elguja Kvantchilashvili, Head of Environmental and Resettlement Unit
Municipal Development Fund (MDF)
Tbilisi, Georgia

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Abbreviations

ADB	Asian Development Bank
EA	Executing Agency
EARF	Environmental Assessment and Review Framework
EIA	Environmental Impact Assessment
EIP	Environmental Impact Permit
EMP	Environmental Management Plan
EPSM	Engineering Procurement and Construction Management
GoG	Government of Georgia
SUTIP	Georgian Sustainable Urban Transport Investment Program
IA	Implementing Agency
IEE	Initial Environmental Examination
MDF	Municipal Development Fund of Georgia
MFF	Multi-tranche Financing Facility
MoEA	Ministry of Environmental Protection and Agriculture
MoRDI	Ministry of Regional Development & Infrastructure
SSEMP	Site-Specific Environmental Management Plan

INTRODUCTION

1.1 Preamble

1. This report represents the Semi - Annual Environmental Monitoring Review (SAEMR) for **Modernization of Tbilisi-Rustavi Section of the Tbilisi-Red Bridge (Azerbaijani Border) Road** (Section 2) project.
2. This report is the 6th EMR for the project.

1.2 Headline Information

3. Upgrading and improvement of local transport and transport-related infrastructure plays a significant role in the development of Georgia's urban infrastructure. To this effect, a number of important activities have been implemented and financed from the budget of Georgia and from other sources. Recently several significant programs, financed through state budget, loans and grants, have been implemented with this regard. The program will provide efficient, reliable and affordable urban transport infrastructure and services, thereby increasing economic growth potential and competitiveness of urban communities, improving livelihoods of over 1.5 million people (approx. 35% of Georgian population). SUTIP, T3 includes(a) Construction of an approximately 6.8 kilometers 4-lane urban road link between the cities of Rustavi and Tbilisi, including a 2 kilometers urban boulevard and recreational areas; The project will also: (I) improve urban, environment and communities' access to economic opportunities and to public and social services; (II) promote efficient and sustainable urban transportation; and (III) generate income and employment opportunities. The environment classification for Tranche 3 is Environmental Category B, as the impacts under subprojects SUTIP T3 are site specific and can be addressed through mitigation measures. For environmental category B, Initial Environmental Examination (IEE) was required. The environmental categorization of sub-projects was conducted by using ADB's Safeguard Policy Statement.

2 PROJECT DESCRIPTION AND CURRENT ACTIVITIES

2.1 Project Description

4. The Municipal Development Fund of Georgia is an Executing Agency for the Modernization Project of Tbilisi-Rustavi Section (Sections I, II and III) of Tbilisi-Red Bridge (Azerbaijan Border) Road. Civil Works for Section I (KM0+000~KM4+000) and Section III (KM10+800~KM17+055) were successfully completed in 2016.
5. Currently, EA is executing the Civil Works Contract (No. P42414-SUTIP3-ICB-3.02-2015) for Section II (KM4+000~ KM10+800) which passes through settlement of Phonichala. Detailed list of ongoing activities during the reporting period is given in article 2.3 below. For the photo materials, see table 2.
6. Initially, the contract considered modernization of the road with total length of 6.8km, which was divided into three Phases, the Dates of site accesses to the mentioned Phases were set as shown below and the Commencement Date was scheduled on Feb 28, 2017.
 - **Phase I- Part 1-KM4+000~KM5+100 and Part 2- KM8+600~KM10+800 - 3.3km**
Site access: 7 days after the Commencement Date- i.e. March 7, 2017
 - **Phase II – KM5+100~ KM6+900 -1.8km**
7 months after the Commencement Date-i.e. September 1, 2017
 - **Phase III - KM6+900~ KM8+600 -1.7km**
12 months after the Commencement Date-i.e. March 1, 2018
7. 730 days were set for the Time for Completion for the whole of the works and construction activities at Phase I commenced as scheduled.
8. Full site access to the Phase II was not granted to the Contractor due to an issue related to the reinforcement of annexes of the buildings that are located adjacent to the Project RoW. Such reinforcement could not be carried out as the property owners had objection to the activities needed for building reinforcement. However, reinforcement was needed as mentioned annexes were voluntarily constructed and did not comply with any safety regulations or construction norms. In the industrial zone within Phase II, the Contractor was eventually granted access to an 800m section (Km58+40~KM66+40) of Phase II in August 2018., where they partially constructed foundations of three sections (60m) of Retaining Wall (RW). Besides said section of RW, only Site clearance activities were completed in the Phase II area (KM5+100~ KM6+900).

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9. Partial access to Phase III was granted to the Contractor at KM 6+900~KM7+400 and KM8+300~ KM8+600. Although the Contractor had access to the parts of Phase III, it was impossible to complete all construction activities at KM 6+900~KM7+400 due to high voltage overhead power lines, which needed to be relocated if the Project was to be fully completed. Therefore, only earthworks along with some part of drainage works and utility relocations were completed at the Section between KM6+900~KM7+400. Works at Phase III will be fully completed only within a 300m section i.e. KM8+300~ KM8+600. Such 300m section of Phase III falls exactly on the alignment of the Existing road.
 10. Since the 300m section of Phase III (KM8+300~KM8+600 which is adjoining to the Part 2 of Phase I) is followed by Part 2 of Phase I (KM8+600~KM10+755), and at both of these sections works are to be completed fully in line with the design, it can be considered that Part 2 of Phase I is extended and re-established.

2.2 Project Contracts and Management

11. The Lender of the Project is ADB, PIU-Municipal Development Fund of Georgia; EPCM consultant - JV "Dohwa Engineering Ltd" (Korea). The contract for Tbilisi-Rustavi urban link (Section 2) Construction Works was signed with Sezalsaat San. Ve Tic. Ltd. STI (Turkey) on December 12, 2016. The main institutions involved in IEEs/EMPs/SSEMPs implementation and monitoring, are the executing agency (EA) - MDF, the Supervision Consultant (SC), the Construction Contractor and to a lesser extent the Ministry of Environmental Protection and Agriculture and Municipal Authorities. EA (MDF) and SC are responsible for ensuring monitoring of the project implementation at the construction stage. Ministry of Environmental Protection and Agriculture has the authority for periodic audits but should not be considered as a party responsible for monitoring according to the SSEMP. As it was mentioned above, MDF is responsible for general implementation of all safeguards tasks. EA (MDF) and SC (DOHWA) are responsible for ensuring monitoring of the project implementation at the construction stage, while Tbilisi City Hall and Road Department of the Ministry of Infrastructure and Regional Development at the road operation stage.
12. MDF ensures availability of all environmental information and facilitates environmental supervision of the project. The MDF's local environmental specialist's responsibilities in respect of implementation of the IEE/SSEMP, are to: ensure that all relevant IEE/SSEMP requirements (including environmental designs and mitigation measures) are incorporated into the project bidding documents; Assist Contractors to obtain necessary permits and/or clearance, as

required, from any relevant government agencies; Ensure that all necessary regulatory clearances are obtained before commencing any civil work on the project; Ensure, that contractors have access to the EMP and IEE report and understand their responsibilities to mitigate environmental problems associated with their construction activities and facilitate training of their staff in implementation of the EMP; Approve the Site-Specific Environmental Management Plan (SEMP) prepared by the Contractor before he takes possession of construction site; Time-to time monitor the contractor's implementation of the SEMP in accordance with the environmental monitoring plan by conducting site monitoring visits.

13. The MDF through its Environmental Specialist – Ketevan Papashvili, reports to the ADB in every 6 months on the status of environmental compliance of construction works by preparing semi-annual Environmental Monitoring Reports. In case unpredicted environmental impacts occur during the project implementation, prepares and implement as necessary an environmental emergency program in consultation with relevant government agencies and ADB.
14. The supervisor company (SC) of works commissioned by MDF is responsible to establish strong field presence in the Project area and keep a close eye on the course of works. Construction Supervision Company is responsible for supervision of all environmental issues during project implementation. Along with ensuring consistency with the design and ensuring quality of works, the supervisor is mandated to track implementation of EMP/SSEMP by the Construction Contractor and reveal any deviations from the prescribed actions.
15. Environmental issues at Supervision Company DOHWA are managed by national environmental specialist Paata Chankotadze, who is responsible for:
 - Reviewing and approval of environmental documentation, submitted by contractor;
 - Preparing quarterly progress reports;
 - Monitoring of construction activities, issuing NCRs;
 - Relationship with contractor and employer;
 - Support of contractor in obtaining of environmental permits and licenses;
 - Correspondence with Employer, contractor and local authorities.
16. Environmental specialist of technical supervisor should assess how accurate is the factual information provided in the contractor's reports, fill any gaps identified in them, and evaluate

adequacy of mitigation measures applied by contractor. Technical supervisor must highlight any cases of non-compliance with EMP/SSEMPs, inform on any acute issues brought up by contractor or revealed by supervisor himself, and propose corrective actions.

17. During implementation of construction activities Engineer`s environmental specialist time to time conducts environmental meetings and site inspections. In case of observation of significant non-compliances Engineer fills non-conformity report forms and sends them officially to Contractor. Most important issues, which cannot be managed by HSE department, are subject of review during weekly meetings. In case of emergency, contractor officially asks support of Employer, in the range of its competence, refers to relevant ministries and local authorities.
18. Thus, non-compliance notice has to be issued to the contractor if the SC requires action to be taken. The contractor is required to prepare a corrective action plan which needs to be implemented by a date agreed with the SC. Non-compliance should be ranked according to the established criteria.
19. SC company prepares quarterly progress reports, which cover the implementation of the SSEMP, discrepancies from the SSEMP and list all HSE relevant incidents and accidents that occur during the implementation; Submits periodic reports based on the monitoring data and laboratory analysis.
20. CC is obliged to follow EMP/SSEMP good construction practice during construction activities. In order to meet this obligation, Contractor has established environmental management team and procedures. The Contractor has contracted environmental consultancy company “GAMMA Consulting”, responsible for environmental monitoring of construction activities and development of thematic reports required under EIA, IEE and ADB guidelines and Georgian legislation. ‘GAMMA Consulting’ will monitor construction activities during whole period of project implementation.
21. Construction Contractor (SEZA) has also appointed a full time Health, Safety and Environmental Manager (HS&EM) – Vladimer Melia, which is a senior member of the construction management team based on site, for the duration of the contract. The construction

contractor's Environmental team responsible for implementation of EMP/SSEMP by daily environmental monitoring and reporting.

- 22.** Key responsibilities of the environmental team of the CC are preparation of the Site-Specific Environmental Management Plan (SEMP) for approval by the Employer (EA), prior to the Contractors taking possession of the construction site; Ensure that the SSEMP is implemented effectively throughout the construction period; Carry out the monitoring and mitigation measures set forth in the IEE/EMP/SSEMP; Establish an operational system for managing environmental impacts; Allocate the budget required to ensure that such measures are carried out. Construction contractor is responsible to prepare monthly progress reports on SSEMP implementation, which should contain information on the main types of activities carried out during the reporting period, status of any clearances/permits/licenses which are required for carrying out such activities, mitigation measures applied, and any environmental issues that have emerged in relations with suppliers, local authorities, affected communities, etc.
- 23.** The CC submits reports of the carrying out of such measures to the employer on a monthly basis; Coordinating community relations issues through acting as the Contractor's community relations focal point – Vladimer Melia (proactive community consultation, complaints investigation and grievance resolution), establishing and maintaining site records of:
- Weekly site inspections using check-lists based on SEMP;
 - Environmental accidents/incidents including resolution activities;
 - Environmental monitoring data;
 - Non-compliance notifications issued by the SC;
 - Corrective action plans issued to the SC in response to non-compliance notices;
 - Community relations activities including maintaining complaints register/complaints log-book;
 - Monitoring reports;
 - Routine reporting of SEMP compliance and community liaison activities;
 - Ad hoc reporting to the Employer's Engineer of environmental incidents/spillages including actions taken to resolve issues.
- 24.** Information on environmental issues, arising from the construction activities should be immediately brought to the attention of MDF's national environmental Consultant and safeguards team by the environmental specialists of construction and Supervision Companies',

in order to coordinate efforts and ensure immediate mitigation of impacts, protect the environment and safeguard the health and welfare of the local communities.

List of environmental staff of organizations is provided in the table 1 below.

Table 1.List of environmental staff of organizations

Organization	Name	Position	Phone	E-mail
Lender - ADB	Nurlan Djenchuraev,	Senior Environment Specialist Portfolio, Results, Safeguard, and Gender Unit		ndjenchuraev@adb.org
	Nino Nadashvili	Associate Safeguard Officer ADB GRM	995577440990	nnadashvili@adb.org
	Keti Dgebuadze	ADB RETA International Environmental Safeguards Consultant	995577232937	Kdgebuadze.consultants@adb.org ketdgeb@yahoo.com
Borrower - MDF	Ketevan Papashvili	Environmental specialist	995599149 696	kpapashvili@mdf.org.ge
Supervision Consultant - Dohwa	Paata Chankotadze	HSE specialist	995599181753	paatachank@yahoo.com
Construction Contractor - Seza	Vladimer Melia	HSE Manager	995574060001	lado.melia@yahoo.com

2.3 Project Activities During Current Reporting Period

25. July Monthly Highlights:

- Asphalt base course construction was ongoing
- Frontage #2 sub base construction works was ongoing
- Construction of drainage system (frontage road #2, Pk98+40 interchange)
- Footbridge Construction works
- Sidewalk construction
- Utilities relocation works (Internet)
- Construction of the road (frontage road)
- Construction of Renno Matrasses
- Pk 83+93 reinforced concrete pipe backfilling
- Traffic information banners installation works
- Sidewalk construction at Ramp A (Interchange Pk46, Pk83-44)
- Horizontal line marking
- Installation of high voltage towers (pk48)

26. August Monthly Highlights:

- Utilities relocation works (Gas, water)
- Paving the Asphalt in connection points
- Paving the Asphalt in Frontage road
- Dividing strip filling
- Asphalt base course construction
- Frontage #2 sub base construction works was ongoing
- Construction of drainage system (frontage road #2, Pk98+40 interchange)
- Footbridge Construction works
- Sidewalk construction
- Utilities relocation works (Internet)
- Construction of the road (frontage road)
- Construction of Renno Matrasses
- Pk 83+93 reinforced concrete pipe backfilling
- Traffic information banners installation works
- Sidewalk construction at Ramp A (Interchange Pk46, Pk83-44)
- Horizontal line marking was in process
- Installation of high voltage towers (pk48)

27. September Monthly Highlights:

- Asphalt wearing coarse was paved at Marabda and Socar area
- The Drainage and Base works are ongoing at the Frontage Road #3
- The installation of cast iron pipes for water removal is being executed at PK 9+824
- The Repairing works of Concrete Ditch Cracks were implemented at PK 9+824
- Tunnel Cracks Repairing works have been continued at PK 4+620

28. October Monthly Highlights:

- The installation of cast iron pipes for Bridge water removal at PK 98+24 was continued.
- Tunnel cracks repairing works are being executed at PK 98+24.

- The Repairing works of Concrete Ditch Cracks were implemented at PK 9+824.

29. November Monthly Highlights.



- The steel railing installation at the IC 2-1 is completed.
- At Pk 98+24 the installation of cast iron pipes for water removal is being executed.
- Internet optical cable Relocation works are being continued.
- The Repairing works of Concrete Ditch Cracks were implemented at Pk 98+24.
- Tunnel slab repairing works at Pk 46+20 this works is ongoing.
- New Jersey dividing strip pouring with concrete is completed.
- Tunnel drainage water removal system repairing works Pk44+80 –Pk49+00 is ongoing.
- Shoulders construction works at Main Road and IC 2-2 Pk98+40 is ongoing.
- Road sign installation is ongoing at IC 2-2 Pk98+40.
- Steel railing painting works at the IC 2-1 is being continued.
- Paving the tunnel walls with cement mortar.
- Sewer network construction for restaurant Marabda.
- Top soil filling works.
- Steel guardrail installation works at Pk 40+00 –Pk 44+80 Ramp D, Ramp C and Ramp B.

30. December Monthly Highlights:

- Shoulders filling was executed
- Road Signs installation works was in process
- Drainage System Construction works.

31. The overall physical progress of works is 68%.

Table 2. Photographs of construction activities

<p>Road Banner Installation at PK 47</p> 	<p>Utility relocation at PK 71+00</p> 
<p>Laying Asphalt at km 4 and km 9-km 11</p>	<p>Reno mattresses arrangement at PK 98 area</p>



Utility relocation at PK 71+00



Tunnel Guard Rail Installation at PK 98+24.



Map 1. Work site areas for period July-December 2019



2.4 Description of Any Changes to Project Design

- 32.** Due to the complaint of Marabda restaurant (PK46.00) owner, design of access road to the restaurant has been changed. There were not any changes to the project design from that which was assessed in the Impact Assessment phase of the project and is set out in the Initial Environmental Examination/Environmental Impact Assessment during reporting period.
- 33.** There were not any significant changes in the design, according which the Employer/Contractor had to update the EIA/IEE and/or Environmental Management Plans during the reporting period.
- 34.** Since the Project is being completed only at Phase I instead of Phases I, II and III, the Donor assigned the Parties to conduct the study and prepare Due Diligence Report (DDR) identifying negative effect (if any) in terms of safety, environment and social aspects of the Project. It was

also instructed, to establish relevant mitigation measures for each negative impact identified during the Study. Mitigation measures given in said DDR shall be incorporated in one of the Variation Orders to reflect cost of works needed to mitigate negative impact (if any) by the Project. Variation Order #4 was submitted by the Contractor reflecting his Proposal for all additional work volumes executed on Site. Such Variation Proposal was submitted in a disarray manner and the Contractor was instructed to correct his submission and make it reviewable. Moreover, DD Method Statements were incorporated and submitted to ADB. The document includes all the actions that should be carried out by the contractor, before the works are over.

2.5 Description of Any Changes to Agreed Construction methods

35. There were not any changes of construction methods during reporting period.

3. Environmental Safeguard activities

3.1. General Description of Environmental Safeguard Activities

36. Site supervision and inspections, as well as monitoring of compliance of construction activities are important aspects to ensure the proper implementation of EMP/SSEMP requirements. Environmental management team of Construction and Supervisor Companies carry out permanent supervision activities and monitoring of the project performance on regular basis.

37. Due diligence report, which was prepared in June 2019 and approved by ADB in August 2019, indicated environmental, social and safety measures, which should be implemented before completion of the Project, has been prepared by DOHWA team during reporting period. In the table provided below a summary has been provided detailing all the outstanding actions that must be completed prior to the completion of the Project. The reason why all these activities have been suspended for so long is related to suspension of main construction activities, which itself is related to financial issues between EA and CC.

Table 3. List of actions that must be completed prior to the completion of the Project

Outstanding Issue	Action Required for completion	Proposed date for completion
Hazardous and non-hazardous waste is still disposed in construction corridor and camp site	- All type of waste should be transferred to licensed sub-contractors.	Before completion of the Project

	- Acts of acceptances should be submitted to the Supervising Engineer	
Open excavations at several locations within construction corridor	<ul style="list-style-type: none"> - For all sites in the short-term they need to be made safe. This means placing barriers around each site or covering. - In the long-term these sites need all be completed and made safe to the local community, livestock and wildlife. This will still be in the scope of the Contractors work and should be completed prior to them leaving the site 	<p>Immediately</p> <p>Before completion of Project</p>
The construction camp is still being actively used and a decision to demolish/conservate the construction camp still needs to be made following the negotiations between the Client and the Contractor	<ul style="list-style-type: none"> - In case of a prospect to continue with the project, it will be desirable to conserve the existing buildings and premises, as well as utilities and water treatment plant and remove only all kind of waste from the territory. - Following the final decision to permanently suspend the project or following its completion, it will be necessary to dismantle all premises and put the territory to its original state 	Before completion of Project
Access roads	- All access roads, used during implementation of the Project should be reinstated to preconstruction condition, or better.	Before completion of Project
Reinstatement	- All affected areas should be reinstated and covered with topsoil; reinstated slopes of embankment should be protected from erosion processes	Before completion of Project
Material Storage Site	- At PK 6+900-7+140 the temporarily spoil stockpile should be made safe, landscaped and reseeded as necessary to avoid dust.	Before completion of Project
Compensatory tree planting	- Trees should be planted according Tbilisi City Hall and Gardabani municipality requirements	Before completion of Project
Following the works in Mtkvari River, long sections of reinforcement bars are protruding from the river	- Reinforcement bars should be cut on the concrete structure level.	July-August 2020

Mtkvari River reinstatement	All permanent footprint left in the Mtkvari River should be removed and slopes restored to allow natural revegetation. Should any visible footprint be retained, as per SPS requirements for No Net Loss, equivalent reinstatement will need to be implemented.	Before completion of Project
Conditions of Environmental Permit and National requirements	- The Contractor should implement Environmental permit and national requirements and submit any relevant documents to the government for approval.	Before completion of Project
Changing of work scope	- The Client is obliged to develop the document of screening the changes made to the project and agree it with the Ministry of Environment Protection and Agriculture of Georgia.”	Before completion of Project
Waste Code of Georgia	- As far as the quantity of the household waste, produced during implementation of project is 5 times more, then quantity, provided in the Waste Management Plan, the Contractor should update WMP and submit it to the Ministry for approval.	Before completion of Project

3.2. Site Audits

38. MDF’s representative - construction monitoring engineer Davit Kejerashvili is permanently on site. Weekly meetings also are conducted in a regular base every Tuesday. MDF’s environmental Specialist attends weekly meetings and conducts site-monitoring visits at least quarterly, and/or any time, in case of necessity, SEZA environmental Consultant Company (GAMMA Consulting) and OH&E Manager are attending weekly meetings and discussing pending environmental issues, reporting issues and etc. together with DOHWA and MDF’s Managers, environmental consultant and Engineers.

3.3. Issues Tracking (Based on Non-Conformance Notices)

39. Non-compliances related to road safety and wrong reinstatement issues have been recorded during this reporting period. Any significant violations of HSE procedures have not been recorded

during Jul-Dec 2019 reporting period. 2 of 5 NCR`s have been closed during the reporting period, 3 - are still open.

Table 4. Summary of Issues Tracking Activity for Current Period

Total Number of Issues for Project	30
Number of Open Issues	2
Number of Closed Issues	28
Percentage Closed	93.3%
Issues Opened This Reporting Period	4
Issues Closed This Reporting Period	2

Table 5 Non-Compliance Reports

N of NCR	Date of submission	Description of Non-Compliance	Corrective action required	Performance Date of Corrective actions
079	15.08.2019	<p>On the surface of the whole sections are noted the stratification of the concrete and sinks. The remaining from formwork mount gaps are not filled with concrete mix. The expansion joints were not properly treated after the concrete pouring process. The cracks are noted on the edges of the sections. The surface of the Retaining wall is covered with mud smudges. At the entrance of the Tunnel, the median dividing concrete strip is covered with chips.</p>	<p>Dissimilarity of the concrete mix. Insufficient vibration process of the poured concrete. Poor cleaning and insufficient lubrication of the formworks. Poor quality joints between sections.</p>	<p>Closed 29.11.2019</p>
081	20.08.2019	<p>The installation of the expansion joints shall be completed: In compensators "penoplast" temporary valves should be replaced with porous fillers.</p> <ul style="list-style-type: none"> - Rubber gaskets are not arranged in the anti-seismic stops. - Framework stretching armatures is not cut from pier columns. - Concrete surface (except pair columns) is uneven in concrete cracking's. - Hand rails surface is uneven and welding's are visible, and the metal elements of some sections is not painted properly with anti- corrosion paint. - Water removal pipes are not installed on footbridges and water intake pipes are installed with poor quality. 	<p>The Contractor is not following the work conditions and requirements:</p> <ul style="list-style-type: none"> - Unevenness of concrete mixture - Pawing concrete in above 300, without future carte of the concrete mixture. 	<p>Closed 04.11.2019</p>

		<ul style="list-style-type: none"> - There is an urgent need to repair construction crack in middle platform pk88+20, on the right side of the bridge. In the same bridge on the right side the Contractor should finish mortar of the cement with sand-gravel mix. 		
082	20.08.2019	<ul style="list-style-type: none"> - Framework stretching armatures is not cut from pier columns. - In the both pier columns the surface is uneven, the concrete is covered with cracks and sinks. - The Concrete surface is uneven. - The rubber gaskets are not installed in anti-seismic stops. - Handrail section in No.1 column (on the right side) should be arranged according the project slope, taking in consideration the benchmark. - New expansion joints should be installed on the right side if the bridge. 	<ul style="list-style-type: none"> - Suppliers should ensure timely submission of necessary materials. - Work requirements should be performed completely. 	Closed 04.12.2019
083	10.09.2019	<p>Filling the dividing strip with top soil at the PK 89+00.</p>	<p>Asphalt pieces and used tires should not be disposed in dividing strip. The Contractor should not be filling dividing strip with top soil and burying the waste.</p> <p>Before filling of dividing strip all types of waste should be removed from it.</p>	Closed 16.09.2019

3/71	24.05.19	Stone Curbs are opened and people are using them as a carriage way.	The Contractor should close opened stone curbs	n/a
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3.4. Trends

40. Most of NCR`s, filled by the Engineer are related to the violation of road safety issues and 1- to wrong reinstatement. Those issues were subject of discussions on weekly and monthly meetings with the Contractor and the Engineer. The Engineer has requested the Contractor to conduct additional trainings for all workers and foremen. Moreover, MDF has requested the Engineer in written to make sure that the contractor has corrected all the non-conformances that are described in monthly and semiannual reports by the end of February 2020.

3.5. Unanticipated Environmental Impacts or Risks

41. There were not identified any unanticipated environmental impacts and risks in the current period, which were not identified in the Environmental Impact Assessment report.

42. Results of environmental monitoring

3.6. Overview of Monitoring Conducted during Current Period

42. The Sub-Contractor`s (Gamma Ltd) environmental team was measuring noise level and dust concentration on construction sites each month.

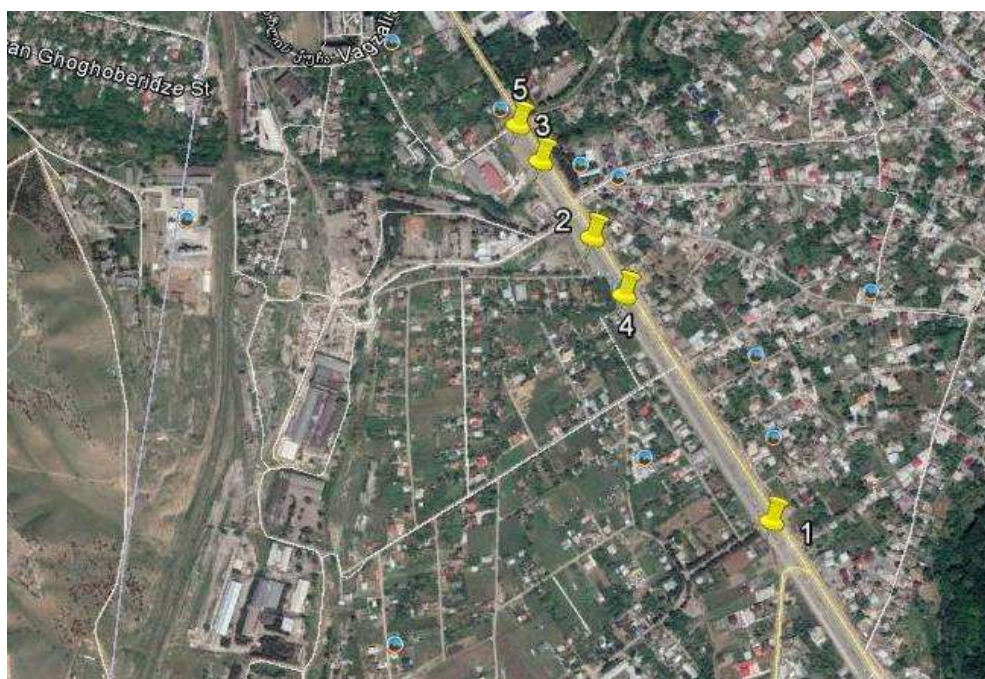
43. During preconstruction survey, conducted by the consulting company “Ecotech Ltd” in August 2013, the background noise was measured along the design road in close vicinity with the apartment buildings (Site1 - km5+300, Site 2 - km5+800; and Site 3 - km6+600) – and at the Site 4 km 8+200 near the existing road – (3m). Noise, dust and water sampling locations are provided on the Map 2 below.

44. The noise levels were highest in buildings directly facing the Rustavi Highway. Noise levels during both the daytime (between 62.1 to 77.6 dBA, with an average of 68.3 dBA) and night-time (between 59.5 to 71.0 dBA, with an average of 64.1 dBA) did not comply with the IFC noise

guidelines (see Table 1-1). On an average, the daytime and night-time noise levels exceeded the by 13 dBA and 19 dBA, respectively.

45. The noise levels were lower in buildings shielded from the Rustavi Highway by other buildings. Daytime noise levels (between 52.0 to 65.1 dBA, with an average of 57.1 dBA) were in compliance at 3 of the 6 measurement locations whereas, the night-time noise levels (between 48.5 to 51.9 dBA, with an average of 50.1 dBA) did not comply with IFC noise guidelines and the non-compliance was within 3.5 to 6.9 dBA.
46. The noise levels were low here characterized by the lowest L10 readings of 50.5 and 51.5 dBA. L10 is used to indicate anthropogenic noise influence in the area. The daytime noise levels (between 52.3 and 52.9, with an average of 52.6 dBA) were in compliance with IFC noise guidelines whereas, the nighttime noise levels (between 47.5 and 49.1, with an average of 48.3 dBA) did not comply with the IFC noise guidelines and the non-compliance was within 2.5 to 4.1 dBA.
47. There were not any activities along Mtkvari River, therefore Water quality in river Mtkvari was not checked during reporting period.

Map 2. Noise, dust and water quality-sampling locations



48. Due to the construction activities conducted in industrial and urban areas during reporting period, impacts on flora and fauna were not significant. Trees, felled from the construction corridor were

passed to the local municipality. Reinstatement management plan was prepared by the Contractor in August 2019 and approved by Tbilisi City Hall as well as Gardabani Municipality City Hall.

3.7. Trends

49. In the result of implementation of relevant mitigation measures, in contradiction to the previous reporting period, results of all measurements including dust and noise were not exceeding GEO and IFC permissible levels and concentrations.

3.8. Summary of Monitoring Outcomes

50. The Contractor should continue environmental monitoring of construction activities to ensure proper implementation of mitigation measures, considered by SEMP, IEE and EIA reports.

3.9. Material Resources Utilization

3.9.1. Cumulative Resource Utilization

Table 6. Utilization of power, water and gas for whole project life

Year	Month	Electricity, Kw/h	Water, m ³	gas, m ³
2017	May	0	330,2043883	1201,863354
	June	6869,415385	348,1965735	736,9565217
	July	11181,53846	462,4977457	780,7453416
	August	13994,09231	430,748422	728,5714286
	September	12523,38462	524,9413886	1601,552795
	October	9612,307692	516,4743012	4419,875776
	November	10517,16923	806,4592726	6206,832298
	December	13051,50769	320,2945597	8050,621118
2018	January	13200,8	548,097385	8534,161491

	February	12760,7384 6	611,1091073	6965,217391	
	March	13340,9230 8	958,1725278	6469,565217	
	April	9620,43076 9	1708,307785	4068,63354	
	May	11101,5384 6	895,1608055	1804,658385	
	June	13199,9384 6	726,1316501	1104,968944	
2019	July	17100,9846 2	967,1746318	1045,341615	2.5.1
2.5.2	August	13240,8	803,1439735	955,9006211	2.5.3
2.5.4	September	9960,61538 5	894,1599038	1103,73913	2.5.5
2.5.6	October	9740,55384 6	737,1325518	2800	2.5.7
2.5.8	November	11320,6769 2	653,1169222	7037,006211	2.5.9
2.5.10	December	16460,9846 2	733,1319507	8575,006211	2.5.11
Total	Total	228798.4	13974.66	74191	

3.10. Waste Management

51. During implementation of construction activities, the Contractor was daily collecting hazardous waste, generated on construction sites and disposed it on camp site. Household waste was removing from camp site twice per week by the sub-contractor, Kenari Ltd. Used oil mainly was used for lubricating of timbering, remaining part is stored on camp site and will be transferred to Sanitari Ltd. Material, excavated from the Construction corridor is stored within the RoW at PK 7 cannot be considered as waste, because it will be used for construction of embankment on phase 2 and 3

3.10.1. Current Period

52.

Month	Location	Quantity of Waste (m ³)		Comment/reference
		Household	hazardous	
July	Camp area	15	0	Household waste was passed to the Kenari Ltd, used oil was used for lubricating of timbering, 0.1 m ³ of polluted rags and used oil filters are stored on camp site at hazardous waste storage area. During next reporting period hazardous waste, stored on camp site will be delivered to Sanitari Ltd
August	Camp area	15	0	
September	Camp area	15	0	
October	Camp area	15	0	
November	Camp area	-	0	
December	Camp area	-	0	

3.10.2. Cumulative Waste Generation

53. Mostly waste is producing in result of maintenance of construction equipment, functioning of camp and excavation of construction corridor. Nonhazardous waste is transferring to the sub-contractor, Kenari Ltd, for disposal of hazardous waste the Contractor has signed agreement with Sanitari Ltd. Were possible the Contractor use excavated material for filling of embankment and used oil- for lubricating of timbering.

3.11. Health and Safety

3.11.1. Community Health and Safety

54. No major incidents have been revealed during the reporting period.

3.11.2. Worker Safety and Health

55. There were not any HS incidents on construction sites during reporting period. The Contractor has log book for registering of incidents/accidents and near misses and sends incident reports to the SC.

56. The Engineer`s traffic safety specialist has recorded 3 violations of traffic safety procedures on sites during reporting period and filled relevant, in particular:

- Road signs were not installed properly, plastic parapets were not filled with sand or SGM and wind created their movement at PK 112 (NCR No68);

-
- Stone curbs were opened and people were using them as a carriage way at PK87 (NCR No 71);
 - Plastic parapets were removed by local people at PK47 (NCR No73).

The Engineer has requested in written by MDF to make sure that all the NCRs are corrected by the end of February 2020 by the CC.

No traffic accidents have been recorded in result of abovementioned violations of traffic safety procedures.

- NCRS

3.12. Training

57.8 HSE trainings and 24 safety induction have been conducted to the new employs by the Contractor`s HSE staff during reporting period. Relevant training records are prepared and kept at the camp site (See Annex.3).

3.13. Grievance Redress Mechanism (GRM)

58. In order to provide a direct channel to the affected persons for approaching project authorities and have their grievance recorded and redressed in an appropriate time frame, Grievance Redress Mechanism was established with efforts of MDF.

59. Complaints' registration journal is created and available at construction site. The copy of journal with mobile numbers of relevant persons – Mr. Vladimer Melia, (Site HS&E Manager of Construction Company), to be addressed is placed at local Municipality as well. Complaints' from the local people, regarding the environmental safeguard issues in case of their disturbance and inconvenience, because of improper or inadequate implementation of EMP/SSEMP, can be accepted in both places. Complaints' would be registered in database system, assigning compliant number with date of receipt. Complaints' would be investigated and complainant would be informed about time frame in which the corrective action will be undertaken, in case if the raised problem is realistic. Thus every complaint would be indicated in Complaints Logbook, and problems would be solved in accordance of rules and regulations under the control of the supervising site manager and DOHWA's local Environmental Specialist (Paata Chankotadze), and if necessary with involvement of MDF side as well.

60. Grievances to be handled at the level of CC or SC include:

- Social concerns related to contractor activity;
- Environmental management;
- Community safety.

61. The issues listed below should not be included if the GRM for CC or SC and should be directed to MDF's safeguard Unit:

- land acquisition,
- valuation,
- compensation,
- entitlements,
- public consultations and meetings or delivery of information (e.g. results of environmental monitoring).

62. CC should maintain a grievance logbook at all sites and register queries / complaints / concerns (both written and verbal). A copy of logbook, together with status update on pending grievances, should be submitted, through SC, to MDF's SU on a bi-monthly basis. A summary report on grievances reported and closed by CC should be submitted to MDF and ADB as part of semi-annual EMR.

63. There were no grievances logged during the reporting period.

64. Functioning of the SEMP

3.14. SEMP Review

65. The Contractor considers SEMP requirements during implementation of construction activities and provide adequate monitoring and mitigation measures on all construction sites. Sometimes due to staff turnover, minor HSE violations happened on construction sites, which are improving by the Contractor immediately after the Engineer's instruction.

66. In general, SEMP is effective, and mitigation measures are set out and do not need changing. Statures of preparation of Environmental Management Plans are given in Annex 3.

67. Currently alternative mitigation measures are not necessary for successful implementation of the Project.

68. There are not any mitigation measures, which could be reduced or removed as the specific risk identified in the IEE/EIA and/or SEMP has not materialized.

69. Good practice and opportunity for improvement

3.15. Good Practice

70. No examples of good practice could be presented during reporting period. All performance was implemented within planned activities.

3.16. Opportunities for Improvement

71. The Contractor uses local road, locating along constructing highway near construction camp for transportation of construction materials and did not paved asphalt on it to prevent it`s damage by heavy trucks. In the result, dust from the unpaved road can disturb local people.

It is recommended to spray water on the local road each morning, or pave asphalt on it as soon as possible.

72. summary and recommendations

3.17. Summary

73. Implementation of environmental safeguards during reporting period in general were implemented in accordance with SEMP, IEE and EIA requirements. In case of minor non compliances the Contactor was improving them immediately after the Engineer`s verbal instruction. Significant violations of HSE procedures were subject of filling of non-conformity reports by the Engineer. Implementation of the Due Diligence Report has not started during the reporting period.

3.18. Recommendations

74. In summary, the following actions are recommended for the next reporting period:

- Transfer hazardous and construction waste, stored on camp site and in construction corridor to licensed sub-contractor-Before completion of project.
- All open excavations within and outside Construction Corridor should be backfilled and made safe to the local community, livestock and wildlife. - This will still be in the scope of the Contractors work and should be completed prior to them leaving the site; Construction Camp: In case of a prospect to continue with the project, it will be desirable to conserve the existing

buildings and premises, as well as utilities and water treatment plant and remove only all kind of waste from the territory.

- Following the final decision to permanently suspend the project or following its completion, it will be necessary to dismantle all premises and put the territory to its original state;
- All access roads, used during implementation of the Project should be reinstated to preconstruction condition, or better;
- All affected areas should be reinstated and covered with topsoil; reinstated slopes of embankment should be protected from erosion processes;
- At PK 6+900-7+140 the temporarily spoil stockpile should be made safe, landscaped and reseeded as necessary to avoid dust;
- The Contractor should plant trees according Tbilisi City Hall and Gardabani municipality requirements;
- Following the works in Mtkvari River, long sections of reinforcement bars are protruding from the river. Reinforcement bars should be cut on the concrete structure level;
- All permanent footprint left in the Mtkvari River should be removed and slopes restored to allow natural revegetation. Should any visible footprint be retained, as per SPS requirements for No Net Loss, equivalent reinstatement will need to be implemented;
- The Contractor should implement Environmental permit and national requirements and submit any relevant documents to the government for approval before completion of project;
- As far as the quantity of the household waste, produced during implementation of project is 5 times more, then quantity, provided in the Waste Management Plan, the Contractor should update WMP and submit it to the Ministry for approval.

ANNEXES:

Annex 1

Status of Management plans

№	Name of Plan	Preparing by/ Prepared by	Deadline for submission/ Date of preparation (status)	Agreed with/ Approved by
1	Pre-construction survey of flora and fauna within the RoW	Prepared by GAMMA Consulting	May 5, 2017	Approved by DOHWA and MDF
2	Emergency Response Plan	Prepared by GAMMA Consulting	April 5, 2017	Approved by DOHWA and MDF
3	Waste Management Plan	Prepared by GAMMA Consulting	May 15, 2017	Approved by MoEPA DOHWA and MDF
4	Top Soil Management Plan	Prepared by GAMMA Consulting	June 10, 2017	Approved by DOHWA and MDF
5	Communication plan with local people	Prepared by GAMMA Consulting	June 20, 2017	Approved by DOHWA and MDF
6	Traffic management plan; it shall include Community Safety and a Community Liaison Management Plan	Prepared by GAMMA Consulting	January 25, 2018	Approved by DOHWA and MDF
7	Camp site management plan, layout plan of the work camp and sanitary facilities, including a description of wastewater treatment and disposal	Prepared by GAMMA Consulting	July 10, 2017	Approved by DOHWA and MDF
8	Cultural Heritage Management Plan	Prepared by GAMMA Consulting	January 25, 2017	Approved by DOHWA and MDF
9	Health and Safety Plan	Prepared by GAMMA Consulting	July 18, 2017	Approved by DOHWA and MDF
10	Tree felling and landscape management plan	Prepared by GAMMA Consulting	August 7, 2017	Approved by DOHWA and MDF
11	A method statement on the management of dust and noise from material transport (including construction of temporary noise barriers)	Prepared by GAMMA Consulting	July 17, 2017	Approved by DOHWA and MDF


12	Vibration control management plan (for 9 buildings)	Preparing by DRC	April 22, 2018	Approved by DOHWA and MDF
13	SSEMP for phase 1 and phase 3	Prepared by GAMMA Consulting	May 2018	Approved by DOHWA and MDF
14	SSEMP for phase 2	Prepared by GAMMA Consulting	May 2018	Approved by DOHWA and MDF
15	Building reinforcement plan	Prepared by the Contractor	May 2018	The concept methodology and relevant concept drawings have been approved by the Engineer and submitted to the Employer for further instructions
16	Oil separators construction plan	Prepared by the Contractor	May 2018	The concept methodology and relevant concept drawings have been approved by the Engineer and submitted to the Employer for further instructions
17	Vulnerable Groups Mitigation Plan	Prepared by the Contractor	20.01.2018	The concept methodology and relevant concept drawings have been approved by the Engineer and submitted to the Employer for further instructions
18	Reinstatement management plan (tree planting plan)	Has not been submitted	May 2018	Will be submitted in August 2019
19	Due Diligence report	Prepared by the Contractor	July 2019	Approved by Dohwa and MDF
20	Due Diligence Method Statements	Prepared by the Contractor	August 2019	Approved by Dohwa and MDF

Annex 2: Training records

	Construction of The Modernization of Tbilisi-Rustavi section of the Tbilisi-Red Bridge(Azerbaijani Border) Road
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

TOOLBOX-TALK REPORT		Date: 22/06/2023	Time: 9:00
Crew (ჯგუფი): SEZA/100	Toolbox Talk held by: (სპეციალისტი) (სპეციალისტი)	Name: (სპეციალისტი) V. Melia	
Location (ადგილი/მუშის ადგილი): PK: 8770-8740		Position: (სპეციალისტი) HSE manager	
		Signature: (სპეციალისტი) 	


ATTENDEES (ჯგუფის წევრები)			
#	NAME (სპეციალისტი)	POSITION (სპეციალისტი)	SIGNATURE (სპეციალისტი)
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	Construction of The Modernization of Tbilisi-Rustavi section of the Tbilisi-Red Bridge(Azerbaijani Border) Road
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TOOLBOX-TALK REPORT		Date: 18/02/2019 <small>(თარიღი)</small>	Time: 08:45 <small>(დრო)</small>
Crew (ჯგუფი): SEZA	Toolbox Talk held by: <small>(ვინ მიიღო სახის ჩატარებულა)</small>	Name: <small>(სურსი & ბიძგა)</small> V Melia	
Location (ადგილმდებარეობა): PK: 8+450		Position: <small>(თანამდებობა)</small> HSE manager	
		Signature: <small>(ხელმოწერა)</small>	

ATTENDEES (დამსწრეები):

ATTENDEES (დამსწრეები):							
N	NAME <small>სურსი & ბიძგა</small>	POSITION <small>თანამდებობა</small>	SIGNATURE <small>ხელმოწერა</small>	N	NAME <small>სურსი & ბიძგა</small>	POSITION <small>თანამდებობა</small>	SIGNATURE <small>ხელმოწერა</small>
1	გიორგი მარცვალი	მენეჯერი		33			
2	გიორგი მარცვალი	მენეჯერი		34			
3	გიორგი მარცვალი	მენეჯერი		35			
4	გიორგი მარცვალი	მენეჯერი		36			
5	გიორგი მარცვალი	მენეჯერი		37			
6	გიორგი მარცვალი	მენეჯერი		38			
7	გიორგი მარცვალი	მენეჯერი		39			
8	გიორგი მარცვალი	მენეჯერი		40			
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 <p>Construction of The Modernization of Tbilisi-Rustavi section of the Tbilisi-Red Bridge (Azerbaijani Border) Road</p>	<p>İŞ BAŞI EĞİTİME KATILIM FORMU</p> <p>საუშაობზე მიღების ტექნიკური უსაფრთხოების ინსტრუქტაჟზე დასწრების ფორმას</p>	<p>Tarih: თარიღი:</p> <p>19/05/2019</p>
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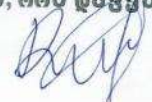
Eğitim Süresi: ინსტრუქტაჟის ხანგრძლივობა	2 saat / საათი		
Eğitmenin Adı/Soyadı/Pozisyonu ინსტრუქტორის გვარი და სახელი, თანამდებობა	V. Melia		
Eğitmenin İmzası ინსტრუქტორის ხელმოწერა			
ADI/SOYADI გვარი და სახელი	FİRMA კომპანიის დასახელება	GÖREV თანამდებობა	İMZA ხელმოწერა
Ayomat Valieva	SEZA	Kaynakçı	

Eğitim Konusu: ინსტრუქტაჟის თემატიკა:

İSG Politikası, Altın Kurallar, Acil Durum Toplanma Yerleri, Acil Durum Numaraları, Renk kodları, KKD ve Çevre Bilgilendirme (Çevre temizliği, atıkların depolanması, olası bir çevre kazasında alınması gereken önlemler), Uyarı levhaları, İş izin sistemi, GOST: III-4-80 (Gürcistan İSG mevzuatları), İSG ile ilgili riskler ve alınması gereken önlemler, Kaza ramak kaza bildirimleri, İSG gözlem kartının amacı ve kullanımı, Acil durum hazırlıkları, Kaldırma operasyonları, Yüksekde çalışma, Elektrikli el aletleri ve Elektrik tehlikesi, Araç güvenliği, İş makinası güvenliği, Yangın güvenliği, Kazı ve dolgu çalışmalarında İş güvenliği kuralları, Kapalı alanda güvenli çalışma.....

ჯანმრთელობის, უსაფრთხო მშრომის და გარემოს დაცვის პოლიტიკა, ოქროს წესები, პირადი დაცვის აღჭურვილობა, სახანძრო უსაფრთხოება, ვეღპტრო ხელსაწყოებით უსაფრთხო მუშაობა, სიმაღლეზე მუშაობის წესები, მობილური აპარატები, საგანგებო სიტუაციები, გარემოს დაცვის წესები, ნარჩენების მართვა, გამაფრთხილებელი და საგზაო ნიშნები, საქართველოს ტექნიკური უსაფრთხოების წესები (GOST "III-4-80"), რისკის შეფასება და შესაბამისი შემარბილებელი ზომების მიღება, უსაფრთხო ექსკავაცია, დახურულ სივრცეში მუშაობის წესები.....

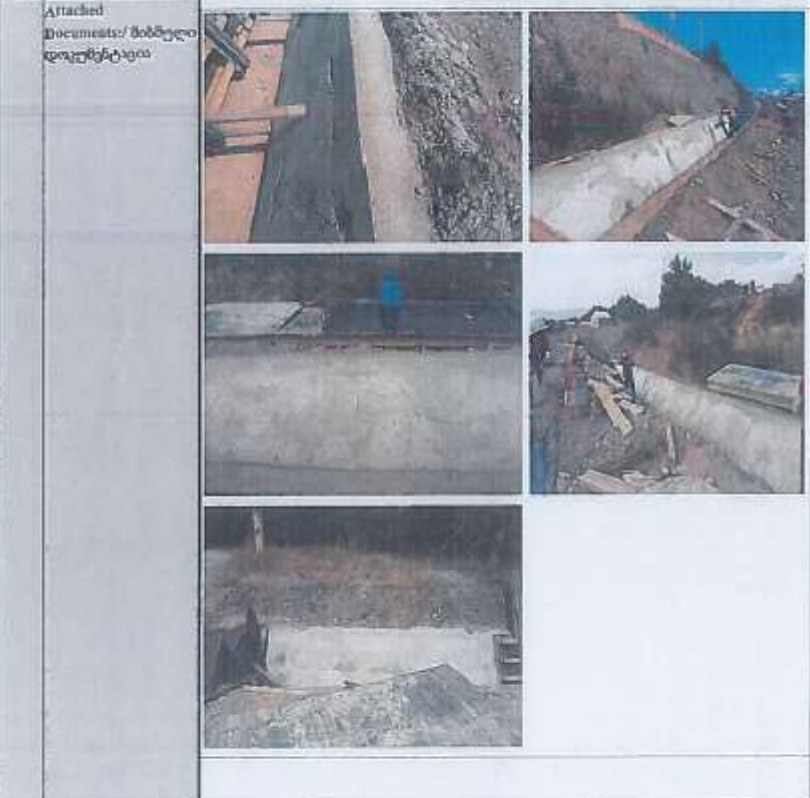
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 მიმოაღნიშნული საკითხები და უსაფრთხო მუშაობის პრინციპები გამაცნეს, გავიგე და ვადასტურებ ხელმოწერით, რომ დაფრთხილები ამ წესებს.



Annex 3 Non-Conformance Reports

 DOHWA Engineering Co., Ltd.	NON-CONFORMANCE REPORT / შეუსაბამობის აქტი	 Roads Rehabilitation and Modernization Supervision Direction Ltd.
NCR CODE / აქტის კოდი: NCR-64		

STEP 1 : IDENTIFICATION/ეჭაპი 1: იდენტიფიკაცია	REQUESTING PARTY / მომთხოვნი მხარე		
	Company: / კომპანია Dohwa	Department: / დეპარტამენტი Structure specialist	
	Name: / სახელი Tamazi Bogvelishvili	Date: / თარიღი 13.08.2019	
	NON-CONFORMANCE / შეუსაბამობა		
	Works Concerned / Location / Section / შეუსაბამო სამუშაოს მდებარეობა/მონაკვეთი Road #2; PK 15+70 – PK 17+00 Road #3; PK 15+40 – PK 17+00		
REQUIREMENT(S) / References: / მოთხოვნები/ წიითებები	The Deformation on the edges of the concrete ditches.		
DESCRIPTION OF NON-CONFORMANCE: / შეუსაბამობის აღწერილობა	The roughen and sinks on the local concrete surface.		
POSSIBLE ROOT CAUSE: / შეუსაბამობის წარმოშობის შესაძლო მიზეზები.	1. Roughness and unpurified surface of the formwork. 2. The concrete mix was poured in different periods of time, which causes dissimilarity of the concrete surface.	<input type="checkbox"/> Material / მასალა <input checked="" type="checkbox"/> Manpower / მუშახელი <input type="checkbox"/> Design / პროექტი <input type="checkbox"/> Method / მეთოდი <input type="checkbox"/> Process / პროცესი <input type="checkbox"/> Other / სხვა	



REMEDIAL WORKS PROPOSAL / CORRECTION: შეკეთების/აღმოსაწორებელი სამუშაოები CLOSURE DATE: შეკეთების თარიღი	Required a concrete grout. It is recommended to use a cement mix with glue component.	<input type="checkbox"/> DEMOLISH / დაშლის სამუშაოები <input type="checkbox"/> USE "AS IS" / არაშეკეთების სამუშაოები
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NCR CODE / აქტის კოდი: NCR-77

STEP 1: IDENTIFICATION/აქტი 1: იდენტიფიკაცია	REQUESTING PARTY / მომხმარებელი მხარე							
	Company / კომპანია: Dohwa	Department / დეპარტამენტი: Structure specialist						
	Name / სახელი: Tamazi Bogvelishvili	Date / თარიღი: 3.08.2019						
	NON-CONFORMANCE / შეუსაბამობა							
Works Covered / Line Item / Services / მოუხმავი სამუშაო / მომსახურება/ მოსახმარებელი	Interchange at PK 98+40 - Right side.							
REQUIREMENT(S) / მოთხოვნა/ მოსალოდნელი	The defects on the expansion joints.							
DESCRIPTION OF NON-CONFORMANCE / შეუსაბამობის აღწერა	The "Betaflex" layer surface is covered with cracks and partially destroyed. Nuts on bolted joints are not tightened, partially nuts are missing.							
POSSIBLE ROOT CAUSE / შეუსაბამობის შესაძლებელი მიზეზები.	The works were executed within inappropriate weather conditions (the air temperature was not less than +30C). The "Betaflex" concrete mix wasn't poured according to the Method of Statement. Cracks were formed during the milling process of the asphalt-concrete surface. <table border="0" style="float: right; margin-top: 10px;"> <tr> <td><input type="checkbox"/> Material / მასალი</td> </tr> <tr> <td><input checked="" type="checkbox"/> Manpower / მოსახმარებელი</td> </tr> <tr> <td><input type="checkbox"/> Design / პროექტი</td> </tr> <tr> <td><input checked="" type="checkbox"/> Method / მეთოდი</td> </tr> <tr> <td><input type="checkbox"/> Process / პროცესი</td> </tr> <tr> <td><input type="checkbox"/> Other / სხვა</td> </tr> </table>		<input type="checkbox"/> Material / მასალი	<input checked="" type="checkbox"/> Manpower / მოსახმარებელი	<input type="checkbox"/> Design / პროექტი	<input checked="" type="checkbox"/> Method / მეთოდი	<input type="checkbox"/> Process / პროცესი	<input type="checkbox"/> Other / სხვა
<input type="checkbox"/> Material / მასალი								
<input checked="" type="checkbox"/> Manpower / მოსახმარებელი								
<input type="checkbox"/> Design / პროექტი								
<input checked="" type="checkbox"/> Method / მეთოდი								
<input type="checkbox"/> Process / პროცესი								
<input type="checkbox"/> Other / სხვა								
Attached Documents / მიბმული დოკუმენტები	See Attached Photos							
STEP 2: REMEDIAL WORKS PROPOSAL / CORRECTION: აღდგენითი/გამოსწორების შემთხვევები.	REMEDIAL WORKS PROPOSAL / CORRECTION: აღდგენითი/გამოსწორების შემთხვევები.	Anchoring of the mentioned expansion joints, using "Betaflex" concrete mix shall be done from the beginning. Also pay due attention to the integrity of the bolted joints <table border="0" style="float: right; margin-top: 10px;"> <tr> <td><input type="checkbox"/> DEMOLISH / REJECT / გაშენი/გაშენი</td> </tr> <tr> <td><input type="checkbox"/> USE "AS IS" / არცხევის გამოყენება</td> </tr> </table>	<input type="checkbox"/> DEMOLISH / REJECT / გაშენი/გაშენი	<input type="checkbox"/> USE "AS IS" / არცხევის გამოყენება				
	<input type="checkbox"/> DEMOLISH / REJECT / გაშენი/გაშენი							
<input type="checkbox"/> USE "AS IS" / არცხევის გამოყენება								
CI OSURE DATE / დასრულების თარიღი								

*Resolved by
B. G. Bogvelishvili
06.08.19*

NCR CODE / აქტის კოდი: NCR-77

CORRECTIVE ACTION (to avoid recurrence):
კანონსწორებელი
ქმედებები(გამწეობებს
ის თავიდან
სასაბუღალტრო):

REVIEW by DESIGNER (if requires): დამპროექტებლის კომენტარი (საჭიროების შემთხვევაში):

Name / სახელი	Tamaz Bogvelishvili	Position / პოზიცია	Struct. num / ინჟინერი	Date / თარიღი	13.08.18	Signature / ხელმოწერა	
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CLIENT'S APPROVAL ON REMEDIAL WORKS / CORRECTIONS: დამკვეთის თანხმობა განსასწორებელ
სამუშაოებზე/კონსტრუქციას

Comments / კომენტარი:

Name / სახელი		Date / თარიღი		Signature / ხელმოწერა	
---------------	--	---------------	--	-----------------------	--

RESPONSIBLE FOR THE CLOSURE OF NCR / შეუსაბამობის აქტის დახურვაზე პასუხისმგებელი:

COMPANY: / კომპანია
PERSON: / პირი

VERIFICATION OF CLOSURE OF THIS NCR / INSPECTION: შეუსაბამობის აქტის დახურვის დამოწმება/ინსპექცია

STEP 3: CLOSURE/დახურვა	Attachment / არსებული დოკუმენტები			
	Site Inspector / ზედამხედველი	The Contractor / მშენებელი	The Engineer / ინჟინერი	
	Comments / კომენტარი	სივსების შემოწმების	Please see the attached photo	Closed
	Name / სახელი	Tamaz Bogvelishvili	S. H. M. G. N.	S. H. M. G. N.
	Date / თარიღი	29.10.2018	26.10.2019	2019.10.20
Signature / ხელმოწერა				











NCR CODE / აქტის კოდე: NCR-79

STEP 1 : IDENTIFICATION / ცხადი 1: იდენტიფიკაცია	REQUESTING PARTY / მიმომხმარებელი მხარე	
	Company / კომპანია Dohwa	Department / დეპარტამენტი Structure specialist
	Name / სახელი Tamazi Bagvelishvili	Date / თარიღი 5.08.2019
	NON-CONFORMANCE / შეუსაბამობა	
Works Concerned / Location / Sections / შეუსაბამი სამუშაო მუშაოების მდებარეობა	Reinforced concrete Retaining walls at the entrance of the tunnel at PK 44+80 - PK 45+80 and PK 46+60 - PK 49+00 (Right and Left sides).	
REQUIREMENT(S) / References / მოთხოვნები / დასაყრდენი	In continuation to our NCR No. 025 The defects on the visible surface of the retaining wall.	
DESCRIPTION OF NON-CONFORMANCE / შეუსაბამობის აღწერილობა	On the surface of the whole sections are noted the stratification of the concrete and sinks. The remaining from formwork mount gaps are not filled with concrete mix. The expansion joints were not properly treated after the concrete pouring process. The cracks are noted on the edges of the sections. The surface of the Retaining wall is covered with mud smudges. At the entrance of the Tunnel, the median dividing concrete strip is covered with chips.	
POSSIBLE ROOT CAUSE / შეუსაბამობის წარმოშობის შესაძლო მიზეზები.	Dissimilarity of the concrete mix. Insufficient vibration process of the poured concrete. Poor cleaning and insufficient lubrication of the formworks, Poor quality joints between sections.	<input type="checkbox"/> Material / მასალა <input checked="" type="checkbox"/> Workmanship / მუშაობის ხარისხი <input type="checkbox"/> Design / პროექტი <input type="checkbox"/> Method / მეთოდი <input type="checkbox"/> Process / პროცესი <input type="checkbox"/> Other / სხვა
Attached Documents / მიხმული დოკუმენტაცია	See Attached Photos	
STEP 2 : REMEDIAL WORKS PROPOSAL / CORRECTION / დაცხადი 2 : გამოსწორების პროპოზიციები	After cleaning the Retaining wall, the surface of the construction should be treated in a way to achieve the uniform area. The Contractor shall submit and approve to the Engineer the Method of Statement for this works.	
	<input type="checkbox"/> DEMOLISH / გადაშენება / <input type="checkbox"/> USE "AS IS" / არაფერა	

NCR CODE / აქტის კოდი: NCR-79

CLOSURE DATE / დახურვის თარიღი		დღე/წელი
CORRECTIVE ACTION (to avoid recurrence) / გადოსასწორებელი ქმედებები (განმეორებას თავიდან ახადილებლად):		
REVIEW by DESIGNER (if requires) / დამარეგისტრაციის კომენტარი (საჭიროების შემთხვევაში):		
Name / სახელი	Position / პოზიცია	Signature / ხელმოწერა
Tomaz Begvelishvili	Engineer	<i>[Signature]</i>
CLIENT'S APPROVAL ON REMEDIAL WORKS / CORRECTION / დამკვეთის თანხმობა გადოსასწორებელ სამუშაოებს/კომპრომისზე		
Comments / კომენტარი		
Name / სახელი	Date / თარიღი	Signature / ხელმოწერა

STEP 3 : CLOSURE / ცხადია საბოლოო დახურვა	RESPONSIBLE FOR THE CLOSURE OF NCR / შელსაზამობის აქტის დახურვაზე პასუხისმგებელი:	COMPANY / კომპანია	
		PERSON / პირი	
	VERIFICATION OF CLOSURE OF THIS NCR / INSPECTION / შელსაზამობის აქტის დახურვის დამოწმებასსამეცხად		
	Attachme / რის/თარგმანი / აქტი		
	Site Inspector / ზედამხედველი	The Contractor / მშენებელი	The Engineer / ინჟინერი
Comment / კომენტარი	closed	closed	closed
Name / სახელი	Tomaz Begvelishvili	Sadik Koradipoy	S. H. HOVA
Date / თარიღი	29.11.2019		2019.12.02
Signature / ხელმოწერა	<i>[Signature]</i>	<i>[Signature]</i>	<i>[Signature]</i>





NCR CODE / აქტის კოდი: NCR-81

STEP 1 : IDENTIFICATION/ეტაპი 1: აღწერა	REQUESTING PARTY / მომხმარებელი მხარე	
	Company / კომპანია Name / სახელი Address / მისამართი	Department / დეპარტამენტი Date / თარიღი
	DoHwa Tamazi Bogvelashvili	Structure specialist 09.08.2019
	NON-CONFORMANCE / შეუსაბამობა	
Works Concerned / Location / Section / შესაბამისი სადგურის მდებარეობა/წილი/ფეოი	Footbridge 1) Pk 84+20; 2) Pk 88+20; 3) Pk92 +40	
Requirement(s) / Reference: / წინადადება/ ბიძივები	Common defects of the bridge pier columns, superstructure and staircase of the bridge.	
Description of NON- CONFORMANCE / შესაბამისობის აღწერილობა	<ul style="list-style-type: none"> - The installation of the expansion joints shall be completed: In compensators "penoplast" temporary valves should be replaced with porous fillers. - Rubber gaskets are not arranged in the anti-seismic stops. - Framework stretching armatures is not cut from pier columns. - Concrete surface (except pier columns) is uneven in concrete cracking's. - Hand rails surface is uneven and welding's are visible, and the metal elements of some sections is not painted properly with anti-corrosion paint. - Water removal pipes are not installed on footbridges and water intake pipes are installed with poor quality. - There is an urgent need to repair construction crack in middle platform pk88 +20, on the right side of the bridge. In the same bridge on the right side the Contractor should finish mortar of the cement with sand-gravel mix. 	
Possible Root Cause: / შეუსაბამისობის შესაძლო მიზეზები.	The Contractor is not following the work conditions and requirements: <ul style="list-style-type: none"> - Unevenness of concrete mixture - Paving concrete in above 30^o, without future care of the concrete mixture. 	
Attached Documents / მიხმული დოკუმენტები	See Attached Photos	
** REMEDIAL WORKS		








NCR CODE / აქტის კოდექ: NCR-82


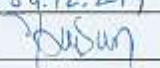


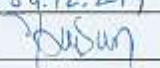


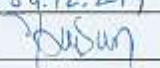

REQUESTING PARTY / მომთხოვნი მხარე	
Company / კომპანია: Dohwa	Department / დეპარტამენტი: Structure special ist
Name / სახელი: Tamazi Bogvelishvili	Date / თარიღი: 08.08.2019
NON-CONFORMANCE / შეუსაბამობა	
Work Concerned / Location / Section / შეუსაბამო სამუშაოს მდებარეობა/წილი	Interchange #1 Km 9+840 right and left side
REQUIREMENT(S) / Refereres: / მოთხოვნა/ საბუთები	Visual defects of the bridge pier
DESCRIPTION OF NON-CONFORMANCE / შეუსაბამობის აღწერა	<ul style="list-style-type: none"> - Framework stretching armatures is not cut from pier columns. - In the both pier columns the surface is uneven, the concrete is covered with cracks and sinks. - The Concrete surface is uneven. - The rubber gaskets are not installed in anti-seismic stops. - Handrail section in No.1 column (on the right side) should be arranged according the project slope, taking in consideration the benchmark. - New expansion joints should be installed on the right side of the bridge (see: NCR-077)
POSSIBLE ROOT CAUSE / შეუსაბამობის შესაძლო მიზეზები.	<ul style="list-style-type: none"> - Delaying submission of necessary materials. - Incomplete performance of work requirements. - Concrete mixture unevenness.
	<input type="checkbox"/> Material / მასალი <input checked="" type="checkbox"/> Manpower / მუშახელი <input type="checkbox"/> Design / პროექტი <input type="checkbox"/> Method / მეთოდი <input type="checkbox"/> Process / პროცესი <input type="checkbox"/> Other / სხვა
Attached Documents / მიბმული დოკუმენტაცია	See Attached Photos
REMEDIAL WORKS PROPOSAL / CORRECTION: / აღსწერილი გამოსწორების ან/და შეკეთების	<input checked="" type="checkbox"/> DEMOLISH / დაშლის/დაშორება <input type="checkbox"/> USE "AS IS" / არსებულს

STEP 1 : IDENTIFICATION/ეტაპი 1: იდენტიფიკაცია

ეტაპი 2: გამოსწორების ან/და შეკეთების

 DOHWA DOHWA Engineering Co., Ltd.	NON-CONFORMANCE REPORT / შეუსაბამობის აქტი	 Roads Rehabilitation and Modernization Supervision Director Ltd
NCR CODE / აქტის კოდი: NCR-82		

CLOSURE DATE / დახურვის თარიღი										
CORRECTIVE ACTION (to avoid recurrence) / გამოსასწორებელი ქმედებები (ანმეორების თავიდან ასაცილებლად):	The above mentioned defects shall be rectified after method statement will be submitted and approved by the Engineer.									
REVIEW by DESIGNER (if requires): დამპროექტებლის კომენტარი (საჭიროების შემთხვევაში):										
<table border="1" style="width: 100%;"> <tr> <td style="width: 15%;">Name / სახელი</td> <td style="width: 20%;">Tamar Bogvelishvili</td> <td style="width: 15%;">Position / პოზიცია</td> <td style="width: 15%;">Structural Engineer</td> <td style="width: 10%;">Date / თარიღი</td> <td style="width: 10%;">03.08.19</td> <td style="width: 15%;">Signature / ხელმოწერა</td> <td style="width: 10%;"></td> </tr> </table>			Name / სახელი	Tamar Bogvelishvili	Position / პოზიცია	Structural Engineer	Date / თარიღი	03.08.19	Signature / ხელმოწერა	
Name / სახელი	Tamar Bogvelishvili	Position / პოზიცია	Structural Engineer	Date / თარიღი	03.08.19	Signature / ხელმოწერა				
CLIENT'S APPROVAL ON REMEDIAL WORKS / CORRECTION / დასვევის თანხმობა გამოსასწორებელ სამუშაოებზე/გამოსწორება										
Comments / კომენტარი										
Name / სახელი		Signature / ხელმოწერა								

STEP 3 : CLOSURE / ეტაპი სამხ: დახურვა	RESPONSIBLE FOR THE CLOSURE OF NCR / შეუსაბამობის აქტის დახურვაზე პასუხისმგებელი:		COMPANY / კომპანია / PERSON / პირი:																
	VERIFICATION OF CLOSURE OF THIS NCR / INSPECTION / შეუსაბამობის აქტის დახურვის დამოწმება/ინსპექცია																		
	Attachments / დამატებითი დოკუმენტები																		
		Site Inspector / ზედამხედველი	The Contractor / მშენებელი	The Engineer / ინჟინერი															
	<table border="1" style="width: 100%;"> <tr> <td style="width: 25%;">Comment # / კომენტარი</td> <td style="width: 25%;">Closed</td> <td style="width: 25%;">Closed</td> <td style="width: 25%;">Closed</td> </tr> <tr> <td>Name / სახელი</td> <td>Tamar Bogvelishvili</td> <td>Shahk Karamadze</td> <td>S.H. NAKASHI</td> </tr> <tr> <td>Date / თარიღი</td> <td>04.12.2019</td> <td>04.12.2019</td> <td>20.9.2015</td> </tr> <tr> <td>Signature / ხელმოწერა</td> <td></td> <td></td> <td></td> </tr> </table>	Comment # / კომენტარი	Closed	Closed	Closed	Name / სახელი	Tamar Bogvelishvili	Shahk Karamadze	S.H. NAKASHI	Date / თარიღი	04.12.2019	04.12.2019	20.9.2015	Signature / ხელმოწერა					
Comment # / კომენტარი	Closed	Closed	Closed																
Name / სახელი	Tamar Bogvelishvili	Shahk Karamadze	S.H. NAKASHI																
Date / თარიღი	04.12.2019	04.12.2019	20.9.2015																
Signature / ხელმოწერა																			





NCR CODE / აქტის კოდი: NCR-83

STEP 1 : IDENTIFICATION / ეტაპი 1: იდენტიფიკაცია	REQUESTING PARTY / მომხმარებელი მხარე	
	Company / კომპანია: Dohwa	Department / დეპარტამენტი: HSE specialist
	Name / სახელი: Fatin Chankotadze	Date / თარიღი: 01/09/2019
	NON-CONFORMANCE / შეუსაბამობა	
Works Concerned / Location / Section / დარღვრის ადგილი / მუშაობის ადგილი	Filling of dividing strip with topsoil, PK89	
REQUIREMENT(S) / დარღვრის წინააღმდეგობა	Before filling of dividing strip all types of waste should be removed from it	
DESCRIPTION OF NON- CONFORMANCE / შეუსაბამობის აღწერა	Asphalt pieces and used tires are disposed in dividing strip. The Contractor is filling dividing strip with top soil and burying the waste	
POSSIBLE ROOT CAUSE / შეუსაბამობის საშუალო მიზეზები.	<input type="checkbox"/> Material <input type="checkbox"/> Equipment <input checked="" type="checkbox"/> Exposure <input type="checkbox"/> Design <input type="checkbox"/> Method <input type="checkbox"/> Other (Specify)	

NCR CODE / აქტის კოდე: NCR-83

Attached
Documents / მიბმული
დოკუმენტაცია



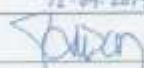

REMEDIAL WORKS
PROPOSAL /
CORRECTION:
დასწორების
დასაშვასი

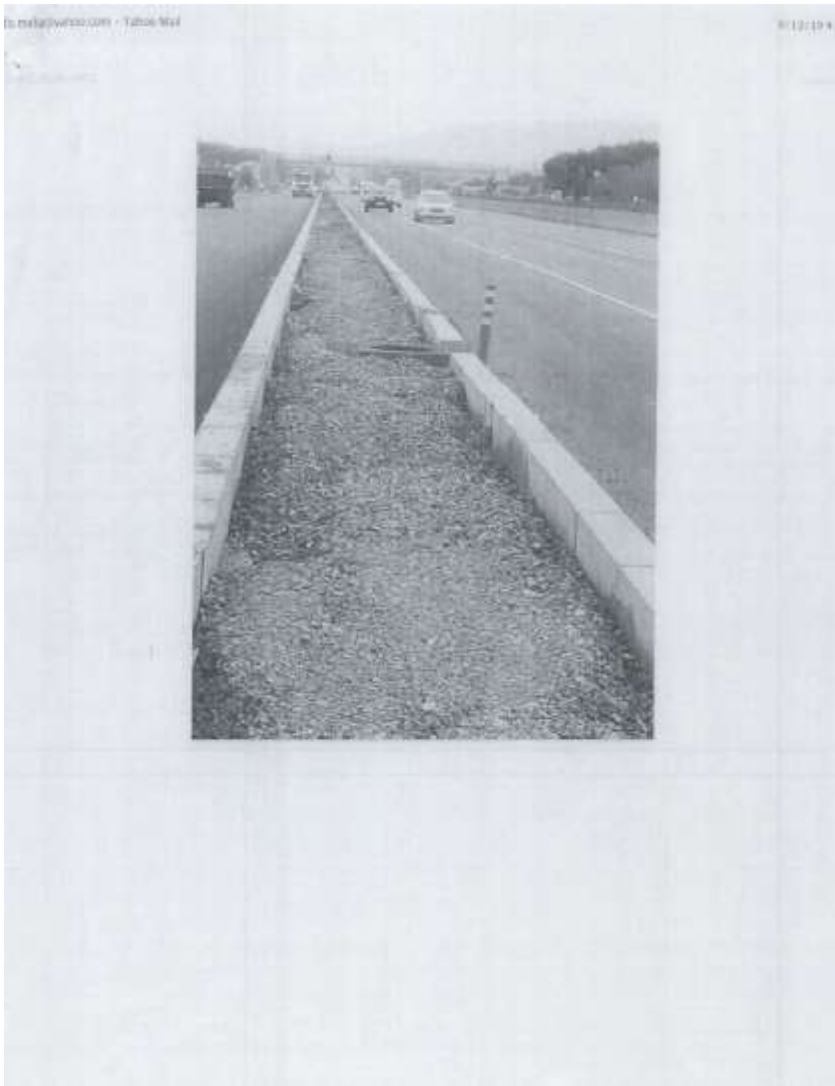
Remove all types of waste from dividing strip before filling it
with topsoil

DEMOLISH /
შეშენება




NCR CODE / აქტის კოდეი: NCR-83

ირველი ხანგრძლივობა: CLOSURE DATE: (დასრულების თარიღი) CORRECTIVE ACTION (to avoid recurrence): გამოსწორებელი ქვედებულებანი/მოქმედებ ის თავიდან ასაკიდებლად.		<input type="checkbox"/> USE "AG-157" სიტყვების დაბეჭდა							
REVIEW by DESIGNER (if required) დამამუშავებლის კომენტარი (საჭიროების შემთხვევაში)									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <th style="width: 10%;">Name / სახელი</th> <th style="width: 15%;">Pava Chankotadze</th> <th style="width: 15%;">Position / პოზიცია</th> <th style="width: 15%;">JSE specialie</th> <th style="width: 10%;">Date / თარიღი</th> <th style="width: 10%;">10.09.19</th> <th style="width: 20%;">Signature / ხელმოწერა</th> </tr> </table>			Name / სახელი	Pava Chankotadze	Position / პოზიცია	JSE specialie	Date / თარიღი	10.09.19	Signature / ხელმოწერა
Name / სახელი	Pava Chankotadze	Position / პოზიცია	JSE specialie	Date / თარიღი	10.09.19	Signature / ხელმოწერა			
CLIENT'S APPROVAL ON REMEDIAL WORKS / CORRECTION / დამკვეთის თანხმობა გამოსწორებელი სამუშაოების განხორციელება Comments: კომენტარი									
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 30%;">Name: სახელი</td> <td style="width: 30%;">Last / თარიღი</td> <td style="width: 40%;">Signature / ხელმოწერა</td> </tr> </table>			Name: სახელი	Last / თარიღი	Signature / ხელმოწერა				
Name: სახელი	Last / თარიღი	Signature / ხელმოწერა							

STEP 3 : CLOSURE / აქტი სტატუსი: დასრულება	RESPONSIBLE FOR THE CLOSURE OF NCR: შეუსაბამობის აქტის დასრულებაზე მასუბისმსრულებელი:	COMPANY / კომპანია:	
		PERSON: /პირი	
	VERIFICATION OF CLOSURE OF THIS NCR / INSPECTION / შეუსაბამობის აქტის დასრულების დამოწმება/ინსპექცია		
	Attachme რთომებ არსული ფოტოები აქტი		
	Site Inspector / შეამუშევებელი	The Contractor / მშენებელი	The Engineer / ინჟინერი
Comment აქტი Name: სახელი: Date: თარიღი: Signature: ხელმოწე რა	closed Pava Chankotadze 16.09.19	Hole has been removed. Please see attached photo S. KAKABIDZE 12.09.2019	Closed S. J. MOCW 2019.9.16
			



 DOHWA Engineering Co., Ltd.	NON-CONFORMANCE REPORT / შეუსაბამობის აქტი	 Roads Rehabilitation and Modernization Supervisor Direction Ltd.
NCR CODE / აქტის კოდი: NCR-64		

CORRECTIVE ACTION (to avoid recurrence): გამოსწორებელი ქმედებები, განმეორების თავიდან ასაცილებლად:											
REVIEW by DESIGNER (if required): დამარეგისტრირებლის კონტრაქტი (საჭიროების შემთხვევაში):											
<table border="1" style="width: 100%;"> <tr> <th>Name / სახელი</th> <th>Position / პოზიცია</th> <th>Structure specialist</th> <th>Date / თარიღი</th> <th>Signature / ხელმოწერა</th> </tr> <tr> <td>Tamazi Bagvelashvili</td> <td></td> <td></td> <td>13.08.2019</td> <td></td> </tr> </table>	Name / სახელი	Position / პოზიცია	Structure specialist	Date / თარიღი	Signature / ხელმოწერა	Tamazi Bagvelashvili			13.08.2019		
Name / სახელი	Position / პოზიცია	Structure specialist	Date / თარიღი	Signature / ხელმოწერა							
Tamazi Bagvelashvili			13.08.2019								
CLIENT'S APPROVAL ON REMEDIAL WORKS / CORRECTION (განმკვეთის თანხმება განმოსწორებელ სამუშაოებზე/კონკრეტულად):											
Comments / კომენტარი:											
Name: სახელი	Date: თარიღი										
Signature: ხელმოწერა											

STEP 3 : CLOSURE / ეტაპი სამხ: დახურვა	RESPONSIBLE FOR THE CLOSURE OF NCR / შეუსაბამობის აქტის დახურვაზე პასუხისმგებელი:	COMPANY / კომპანია:	
	PERSON:	პირი:	
	VERIFICATION OF CLOSURE OF THIS NCR / INSPECTION / შეუსაბამობის აქტის დახურვის დამოწმება/ხედავვა		
	Attachments / დანართები:		
		Site Inspector / ზედამხედველი	The Contractor / მშენებელი
Comment / კომენტარი:	Closed		For closed
Name / სახელი:	Tamaz Bagvelashvili	Sabil K...	Roman Arashidze
Date / თარიღი:	10.10.2019	10.10.2019	10.10.2019
Signature / ხელმოწერა:	