LOCAL AND REGIONAL COMPETITIVENESS PROJECT

INVESTMENTS IN TOURIST INFRASTRUCTURE AND CONNECTIONS IN DESTINATIONS IN THE MUNICIPALITY OF BITOLA

ENVIRONMENTAL AND SOCIAL MANAGEMENT PLANCHECKLIST FOR „RESTORATION AND ADAPTATION OF THE FORMER HOUSE OF ARMY WITH URBAN LANDSCAPING" – BITOLA

NOVEMBER 2018

MUNICIPALITY OF BITOLA

1. Short introduction to the sub-project

Local and Regional Competitiveness Project (LRCP) is a four-year investment operation, supported by European Union using funds from IPA II earmarked to competitiveness and innovation in Macedonia. LRCP will be managed as a Hybrid Trust Fund and consist of four components, executed by the World Bank and the Government of Macedonia. The Project will provide investment funding and capacity building to support sector growth, investment in destinations and specific destination prosperity. At the regional and local levels, the Project will support selected tourism destinations in the country through a combination of technical assistance to improve destination management, infrastructure investment and investments in linkages and innovation. The investments will be undertaken through a grant scheme for the regional tourism stakeholders such as municipalities, institutions, NGOs and private sector.

Following the application procedure for receiving a grant within the EU Local and Regional Competitiveness Project, Investments in tourist infrastructure and connections in destinations in the Municipality of Bitola, the investor prepared Environmental and Social Management Plan Checklist for the „Restoration and adaptation of the former House of Army with urban landscaping" – Bitola. ESMP Checklist, its implementation as well as all project activities must comply with the Environmental and Social Management Framework prepared for the overall Local and Regional Competitiveness Project.

The restoration activities planned to be implemented on the Former House of Army in Bitola will contribute to attract numerous tourists in order to visit the facility and the many cultural events organized in its vicinity. The House of Army is a monument of culture with Ist degree of protection by the Directorate for Protection of Cultural Heritage of Republic of Macedonia.

With the implementation of the sub-project, the municipality expects to actualize the House of Army as a tourist attraction in Bitola and the Region of Pelagonia, and to connect the distinctive strategic locations for tourism in the country.

According the Local and Regional Competitiveness Project office, this sub-project has been categorized as **Environmental risk category B-,** which means that the implementation of the project activities will have minor or no impact to the environment and the local population.

With the implementation of the project activities, the capacity to encourage the development of tourism will be increased, thus facilitating the management of the destinations.

The implementation of this project as an Infrastructure Investment will influence the increase in attractiveness of the destination city of Bitola, in Pelagonia together with the environment, and at the same time the offers of the local economy of Pelagonia and its surrounding settlements will improve.

Through the preparation of the ESMP Checklist and implementation of proposed measures for mitigation of impacts and following the recommendations for monitoring, which are prepared in accordance with the requirements of the World Bank, the public awareness of the Contractor will be raised, Supervision and state administration will minimize environmental impacts during the construction activities, as well as in the operational phase during the maintenance of the facility. The contractor will strengthen its capacities by implementing the

proposed mitigation measures for adverse environmental impacts, especially with regard to the proper management of the different fractions of waste that are expected to be generated during the construction phase.

1.1. Project description

The facility is an individual building located in the central district of the city of Bitola, on “Sirok Sokak” street (walking zone), under the DUP for Centar 1. The facility is covered by the protected area of cultural heritage “StaroGradskoJadro”. The House of Army is an individual monument of culture with Ist degree of protection by the Directorate for Protection of Cultural Heritage of Republic of Macedonia, protected with the Decision No.08676 from 18.12.2000.

The facility is positioned in the middle of the parcel surrounded by a park ending to driving streets on south, north and east, and on the west side the parcel opens to the walking zone of“Sirok Sokak”, the most popular and main walking zone in Bitola where almost all cultural and social events take place. The total surface of the facility is 1340m².

The entrances to the building are organized on the east and one on the west side, but the one on the west side is considered main entrance. On the location there is an entry for vehicles to the service yard on the east side of the parcel, towards the street "Makedonska Falanga".

1.2. Planned activities

The project will include the restoration of the House of Army, including preservation and renewal of façade plastics, change of façade carpentry, improving energy efficiency of the building, internal restoration with a defined purpose according to cultural events and settings throughout the year. Interior carpentry will be replaced and sanitary facilities will be renovated. New interior and exterior lighting will be installed. Adequate heating and cooling system will be installed in the building. Greening around the facility will be performed according to the purpose for realization of the desired cultural events and functions of the whole facility and requirements and guidelines of the competent authority for protection and preservation of cultural heritage. The park itself is not a protected cultural heritage nor nature protected area.




Figure 1Current situation inside the House of Army

Towards the complete functionality of the facility, renovation of the water supply and sewage network (connected to the municipality network) in and around the facility will take place, as well as replacement and upgrade of the electricity installations. The remaining interior elements, furnishing and procurement of equipment will be completed within this project.

Table 1 presents the summary of the planned activities that will be performed on the building during the restoration process of the House of Army, the sub-activities that will be implemented, the type and quantity of materials that will be used in order to determine potential adverse effects to the environment, OH&S and public safety and wellbeing.

Table1. Planned activities for the implementation of the sub-project

Type of activity	Sub-activity	Quantity
Preparatory works	Fencing of the site and installation of access ramps to the building	280 m
	Dismantling of shingles, slats, part of a wooden roof construction, lightning protection, ceramic tiles	1.760 m^2
	Installation of scaffolding	1.430 m^2
Construction works	Removing old plaster from walls, ceilings and facade	3.560 m^2
	Impregnation and repair of cracks and holes	270 m^2
	Plastering	3.560 m^2
Installation works	Installation of gypsum board walls and their final refinishing	1.000 m^2
Carpentry works	Dismantling of old wooden windows and installation of new, ecological fireproof coat (MKC EN 13381-3:2015) and finished with oil based color.	156 wooden windows
	Reparation of interior wooden doors, dismantling of old doors and transport to factory to be scrapped, ecological	60 wooden doors

Type of activity	Sub-activity	Quantity
	fire protection coat (MKC EN 13381-3:2015) and oil based color.	
Flooring	Restoration of the existing hardwood flooring with pre-scraping and varnishing with a basic lacquer and two applications of a toner, glossy finish, two-component nitro lacquer, and in places where it is necessary, the old hardwood floor will be replaced.	190 m^2
Tiling	Paving of walls and floors in bathrooms and toilets with ceramic tiles	750 m^2
Painting	Glazing walls and painting on the interior and exterior walls, ceilings and facade. Due to rust, the wrought iron grids on the windows and doors, as well as the fences on the balconies will be dismantled, and they will be coated with a means of removing corrosion from metal surfaces that do not contain chlorine compounds and do not corrode and damage the metal surfaces. Once the metal surface is cleaned out of corrosion, it will be painted with anti-corrosion coating.	10.000 m^2
Roofing	Repair of roof construction and roofing with traditional tiles	270 m^2
Insulation works	Installation of insulating material in internal partition walls	2.000 m^2
Water supply and sewage installations	Replacement of existing obsolete water supply and drainage network and implementation of the installation for 6 more toilets and bathrooms in the building	4 toilets 2 baths
Electrical installation	Replacement of old electrical installation	/
Installation of gas pipeline connection to the facility	Installation of gas pipe supply to the basement premises of the facility with the purpose of using gas for central heating of the building	/
Landscaping	Landscaping and correction of access roads and greenery that will be damaged during construction work during the rehabilitation.	/

The following photos show the look of the House of Army after its reconstruction.

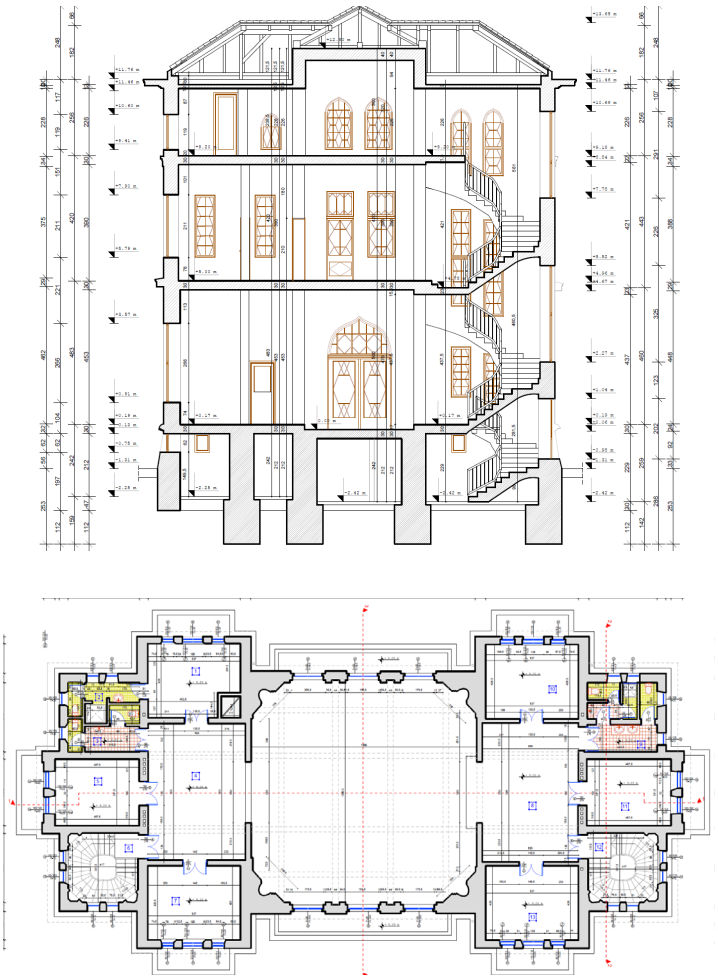


Figure 2Planned situation after performing construction work on the House of Army in Bitola

1.3. Project location

The project location is in the city center at “Sirok Sokak” street, in area of high protection of cultural heritage. The building is located on parcel No. KP 16702/1 KO Bitola 3. The land is in ownership of Republic of Macedonia, the building is owned by the Municipality of Bitola.

Figure 3 presents the location of the old House of Army in downtown Bitola and the nearest surrounding.

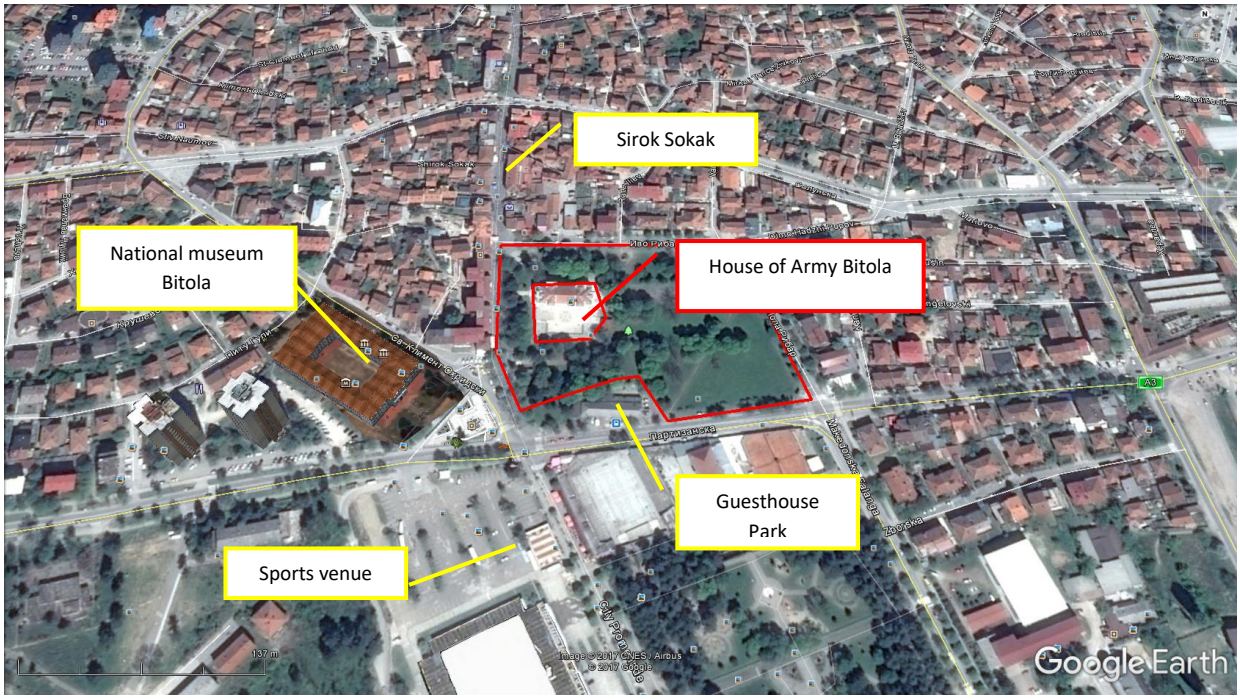


Figure 3 Location of the project site in Bitola

The building is located in very high populated area, high in traffic and pedestrians, especially the Ivo Lola Ribar Street and Partizanska, as well as the walking zone od Sirok Sokak. Near the building there are several public buildings like the National museum of Bitola, sports venue, and a restaurant at the south border of the parcel.

The location and the nearest surrounding are presented on the following pictures.

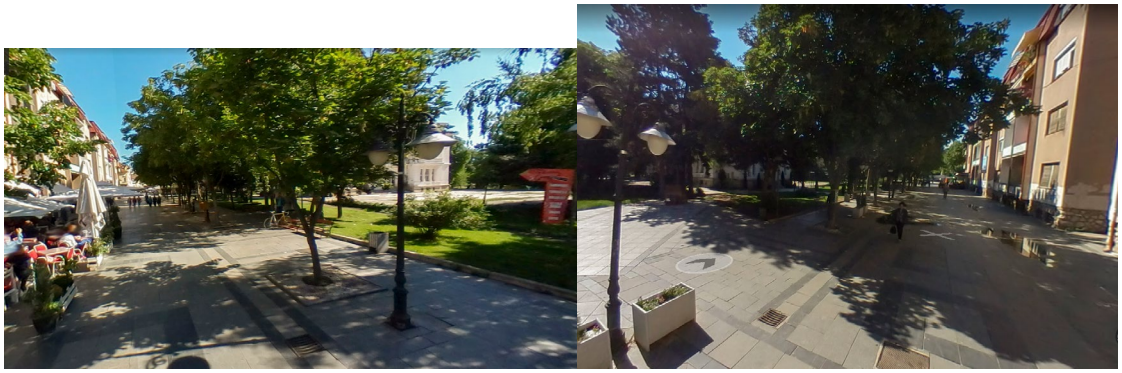


Figure 4View of the project site location and nearest surrounding

2. Overview of potential environmental impacts

The implementation of the project activities can cause insignificant, local, short term adverse impact to the environment, health and safety of workers and local population (by increase of noise, generation of different waste fractions, dust emissions and CO_2, NOx, PAH, SO_2).

Before starting the realization of the project activities, the investor should take all precautionary measures towards OH&S requirements according national legislation by preparing a Plan for OH&S at the construction site.

In order to provide suitable information to the local population about commencement of reconstruction activities to the House of Army, the investor needs to prepare Announcement disclosed in the municipality building in Bitola, on the web site of the municipality and the web site of the LRCP Project.

Air quality

The adverse impact to air is expected form the potential fugitive dust emissions coming from the demolition activities of concrete, scraping of plaster from walls and facade. Also VOC emissions are expected to appear from the phase of wood windows and internal doors reparation and lacquering, and repair of metal window bars. The construction activities will generate dust and combustion gases from fuel powered machinery and vehicles (PM10; $PM_{2,5}$; CO_2; NO_x; PAH; SO_2).

Noise

Restoration activities of the building will contribute to higher noise level in the area due to presence of construction machinery, usage of construction equipment and hand tools, demolition activities of concrete, plaster and façade, sanitary and tiling, cleaning activities and etc. Considering that the building is located in the center of Bitola on high frequent walking zone and residential area, noise emissions expected to appear are of local and minor importance. According the Rulebook on the locations of measuring stations and measuring points (Official Gazette No. 120/08) and the Rulebook on Environmental Noise Limit Values (Official Gazette No. 120/08), this location belongs to the area of II degree Noise protection, where the limit values are 45dBA for the night time, ie 55dBA per day and evening.

Waste

The restoration activities will generate different kind of waste around the construction area, construction waste, packaging waste, municipal waste. The potential impact of waste generation is minimal, local and short-term and by following the proposed measures this impact can easy be minimized and eliminated. The investor is obliged to prepare and implement **Waste Management Program**. The plan needs to envisage mitigation measures to select, store, and transport all types of generated waste on site. The investor needs to sign a contract with and licensed and authorized company to collect and transport all fractions of generated waste on site.

No asbestos or other hazardous materials (such as lead paint) are recorded at the site thus generation of large quantities of hazardous wastes is not expected in the course of works.

Table2: Envisaged waste quantities of generated waste according the main design

	Type of waste	***Quantity***
Preparation phase (demolition)	***17 01 – construction waste (concrete, brick, tiles)***	220 m^3/total expected
	17 02 01-wood	120 m^3/total expected
	17 02 02- glass	7.400 m^2/total expected
Construction phase	***20 03 01 – mixed communal waste***	20l/day
	Packaging waste(paint, lacquer, refinish) - 08 01 11* - waste paint, lacquer containing organic solvents and other hazardous substances	1,5 m^3/total expected
	15 02 02* - Absorbents, filter materials, wiping cloths and protective clothing contaminated with dangerous substances	1 m^3

Since the building is protected as cultural heritage by the State department for protection of cultural heritage, the requirements of the Conservation Elaborate (StudyX) need to be applied to the design before the start of the construction activities as well as in construction and operational phase.

For this mater Cultural Heritage Management Plan was prepared in which everything about cultural heritage from the Conservation Elaborate was incorporated.

Surface, ground water and soil emissions are not expected from the implementation of the sub-project reconstruction activities.

3. Purpose of the ESMP Checklist and Cultural Heritage Management Plan and disclosure requirements

The World Bank requires an Environmental Assessment (EA) for projects proposed for funding by the World Bank in order to ensure that they are sustained and sustainable from the environmental point of view and thus improve decision-making. EA is a process whose breadth, depth and type of analysis depend on the nature, scope and potential environmental impacts of the proposed project. The EA assesses the possible environmental risks of the project, as well as their impacts in the area covered by the project.

According to the conducted screening of the Application for Expression of Interest (including the Environmental Questionnaire), the sub-project ""Restoration and adaptation of the former House of Army with urban landscaping" was categorized as B-. The subprojects are classified in category B- Potential impacts on the environment are less harmful than sub-projects in categories A and B + given their nature, size and location, as well as the characteristics of potential environmental impacts.

The scope of the environmental assessment for the sub-projects may be different for different sub-projects, but it is usually less than the scope of the Environmental Impact Assessment, most often in the form of an Environmental and Social Management Plan (ESMP). For sub-projects that envisage simple upgrades, reconstructions or adaptations of objects, the ESMP Checklist is used.

The form of the ESMP Checklist is defined by the Environmental and Social Framework for the Local and Regional Competitiveness Project.

ESMP Checklist describes each mitigation measure, including the type of impact to which it relates and the conditions under which it is required (e.g., continuously or in the event of contingencies), together with designs, equipment descriptions, and operating procedures, as appropriate, estimates any potential environmental impacts of these measures and provides linkage with any other mitigation plans required for the project (Cultural Heritage Management Plan for ""Restoration and adaptation of the former House of Army with urban landscaping " sub project is prepared and its tabular form will be part of bidding documentation as well).

ESMP Checklist is applied for minor rehabilitation or small-scale building construction. It provides “pragmatic good practice” and it is designed to be user friendly and compatible with WB safeguard requirements. The checklist-type format attempts to cover typical mitigation approaches to common civil works contracts with localized impacts.

The checklist has one introduction section (Introduction part in which the project is described, part where environmental category is defined, identified impacts, and ESMP Checklist concept explained) and three main parts:

- Part 1 constitutes a descriptive part (“site passport”) that describes the project specifics in terms of physical location, the institutional and legislative aspects, the project description, inclusive of the need for a capacity building program and description of the public consultation process.
- Part 2 includes the environmental and social screening in a simple Yes/No format followed by mitigation measures for any given activity.
- Part 3 is a monitoring plan for activities during project construction and implementation. It retains the same format required for standard World Bank EMPs. It is the intention of this checklist that Part 2 and Part 3 be included as bidding documents for contractors.

The procedure for publishing the ESMP Checklist is as follows: ESMP Checklist in Macedonian, Albanian and English language should be published on the website of the LRCP and the recipient as well as on the websites of the affected municipality and should be available to the public for at least 14 days. It should be available in hard copy in the premises of the LRCP and in the relevant municipalities and / or in the centers of the planning regions. When it is announced, the call for remarks on the documents should be issued along with the available electronic and postal address for sending the remarks. The record of the public hearing (collected comments and questions) contains the basic information about the place, list of present persons and summary of the received remarks and should be included in the final version of the published document.

4. Application of ESMP Checklist

The ESMP Checklist will be used by the investor, Municipality of Bitola in order to implement the mitigation measures to prevent, minimize or eliminate the potential influence to

the environment and OH&S according the monitoring plan included in this checklist. The checklist will also be used by the contractor and the supervising inspector of Municipality of Bitola in order to make sure that all envisaged mitigation measures are implemented according the Plan.

ESMP Checklist is a document prepared and owned by Municipality of Bitola. The design process for the envisaged in the subproject “Restoration and adaptation of the former House of Army with urban landscaping" will be conducted in three phases:

1.General identification and scoping phase, in which the object for reconstruction and adoption is selected and an approximate program for the potential work typologies elaborated. At this stage, Parts 1, 2 and 3 of the ESMP Checklist are drafted. Part 2 of the ESMP can be used to select typical activities from a “menu” and relate them to the typical environmental issues and mitigation measures. Public consultations take place, ESMP is finalized.

2.Detailed planning and tendering phase, including specifications and bills of quantities for construction works, equipment goods, marketing and other services related to the subproject. The whole filled in tabular ESMP (Part 1, 2 and 3) will be attached as integral part to the bidding documentation and works contract as well as supervision contract, analogous to all technical and commercial terms, has to be signed by the contract parties.

3.During the works implementation phase environmental compliance (with ESMP Checklist and environmental and health and safety (H&S) regulation) and other qualitative criteria are implemented on the respective site and application checked/supervised by the site supervisor, which include the site supervisory engineer or supervisor of the project appointed for ESMP Checklist implementation supervision. The mitigation measures in Part 2 and monitoring plan in Part 3 are the basis to verify the Contractor’s compliance with the required environmental provisions.

Practical application of the ESMP Checklist will include the achievement of Part I for having and documenting all relevant site specifics. In the second part, the activities to be carried will be checked according to the envisaged activity type and in the third part the monitoring parameters (Part 3) will be identified and applied according to activities presented in Part 2.

The whole ESMP Checklist filled in table (Parts 1, 2 and 3) for each of the type of work should be attached as integral part of work contracts and as analogue with all technical and commercial conditions which should be signed by the contracting parties.

5. Monitoring and reporting procedures and distribution of responsibility

The supervision has the authority to monitor the implementation of the project activities in the construction and operational phase and to inform the Investor (Municipality of Bitola) according to the monthly dynamics in accordance with the conducted field inspection.

The applicant is obliged to submit 3 monthly reports on the implementation and monitoring of environmental mitigation measures in the form of a spreadsheet (tables / sections 2 and 3) with an additional column giving the status of the measure monitoring of the measure (implemented / not implemented, when, by which entity, etc.).

1. MITIGATION MEASURES

The measures to avoid and reduce/mitigate the identified impacts on the living environment, workers and communities, and social aspects of the subproject to be applied within the subproject are, but not limited to, the following:

Appropriate marking of the site for reconstruction, marking the appropriate location for temporary storage of the construction material on the site, providing warning strips, fences and markings, prohibiting entry of unemployed persons into the warning strips, applying the safety measures to citizens, machines to be run only from experienced and trained personnel, constant presence of fire extinguishers in case of fire or other damage, wearing protective equipment and clothes at all times, fixing scaffolds, and other H&S measures, flammable liquids can be placed and stored exclusively in vessels designed for that purpose.

All workers must be aware of the dangers of fire and firefighting measures and must be trained to deal with fire extinguishers, hydrants and other devices used to extinguish fires that need to be functional.

The noise level should not exceed 55dB during the day and 45dB at night and the construction work will not be performed overnight.

Identification, classification and separate temporary storage (in separate clearly marked waste bins/containers on separate pre-defined location on site and in sufficient number) of different types of waste that could be generated from rehabilitation and proper waste treatment. Waste can be transported and landfilled/processed only by licensed companies.

Establish a special traffic regime for the vehicles of the contractor during the period of rehabilitation, with appropriate signaling.

Signing a contract with the service company for regular maintenance, replacement of spare parts, preventive lubricant oil changes, proper maintenance (exhaustion fumes and safety e.g. breaks, tires, etc.) as one of the most important safety function, etc, regular washing of the vehicles and keep the parking site clean, forbidden replacement of motor oil at the parking site to avoid the oil and pollution of waters and soil, perform regular annual approval test during the annual registration of the vehicles.

Mitigation measures described in this section are the general ones, detailed mandatory mitigation measures are provided in the table Mitigation Measures Checklist (Part 3).

6. Table part of ESMP Checklist

This section of the ESMP Checklist for the sub-project is consisted of three parts:

1. The first part gives us the specifics of the project in terms of physical location, institutional and legislative aspects, project description, as well as the need for a program for capacity building and a description of the process of public debate.

2. The second part includes the identification of social and environmental aspects and mitigation measures for each activity, in particular:

3. The third part of the spreadsheet will serve us to monitor the activities during the construction and implementation of the project. This checklist aims to be included in the tender documentation for contractors assessed on the basis of the proposed objectives and, in addition, to provide reasonable control of the work process.

PART 1: INSTITUTIONAL & ADMINISTRATIVE		
Country	Republic of Macedonia	
Sub-Project title	„RESTORATION AND ADAPTATION OF THE FORMER HOUSE OF ARMY WITH URBAN LANDSCAPING" – BITOLA	
Scope of sub-project and particular activities	The sub project will include the restoration of the House of Army, including preservation and renewal of façade plastics, change of façade carpentry, improving energy efficiency of the building, internal restoration with a defined purpose according to cultural events and settings throughout the year. Replacement of the interior carpentry and renovation of sanitary facilities. Installation of new interior and exterior lighting. Implementation of adequate heating and cooling system in the building. Performance of landscaping according to the purpose for realization of the desired cultural events and functions of the whole facility.	
Institutional arrangements (Name and contacts)	**Project management***	
	Zora Simjanovska	Office of the Municipality of Bitola Address: Bul. "1st May" no.61 Telephone: +389 47 234 234 Mobil : +389 70 303 316 contact@opstinabitola.gov.mk zkomunalno@bitola.gov.mk
ntation nents	**Supervision****	

SITE DESCRIPTION		
Name of site	**Municipality of Bitola**	
Describe site location	House of Army Bitola	Annex 1: Site information (figures from the site) **[X]Y**[ ] N
Who owns the land?	Owner of the facility is Municipality of Bitola Owner of the parcel is Republic of Macedonia	
Geographic description	The location of the project is in the central city area of the city of Bitola on Str. Sirok Sokak bb, in a strictly protected pedestrian zone of monuments of culture	
LEGISLATION		
Identify national & local legislation & permits that apply to sub-project activity(s)	– Law on Environment ("Official Gazette of the Republic of Macedonia" No. 53/05, 81/05, 24/07, 159/08, 83/09, 48/10, 124/10, 51/11, 123/12, 93/13, 187/13 42/14, 44/15, 129/15, 192/15, 39/16); – Law on Waste Management (Official Gazette of the Republic of Macedonia No. 68/04, Amendments 71/04, 107/07, 102/08, 143/08, 124/10, 51/11, 123/12, 147/13, 163/13, 51/15,146/15 and 192/15); – Law on Ambient Air Quality (Official Gazette of the Republic of Macedonia No. 67/04, 92/07, 35/10, 47/11, 59/12, 163/13, 10/15 and 146/15)	

	– Law on protection against noise in the environment ("Official Gazette of the Republic of Macedonia" No. 79/07, 124/10, 47/11, 163/13 and 146/15); – Law on Safety and Health at Work (Official Gazette of the Republic of Macedonia No. 92/07, 136/11, 23/13, 25/13, 137/13, 164/13, 158/14 15/15 and 192/15) – Law on Construction (Official Gazette of RM No. 51/05, Amendments 124/10, 18/11, 36/11, 54/11, 13/12, 144/12, 25/13, 163/13, 28/14, 42/14, 115/14, 149/14, 187/14 and 44/15, 129/15, 217/15, 226/15, 31/16 and 39/16). – Law for protection of the cultural heritage ("Official Gazette of the RM" No. 20/04, 71/04, 115/07, 18/11, 148/11, 23/13, 137/13, 164 / 13, 38/14,44/14, 199/14, 104/15, 154/15, 192/15 and 39/16 – Decree of proclamation for protected object N.08676/1 from 18.12.2000 and proclamation N. 905/1 from 05.12.1977 from Museum Bitola.
PUBLIC CONSULTATION	
Identify when / where the public consultation process took place and what were the remarks from the consulted stakeholders	For sub-projects of category B-, there is no provision for holding a public hearing. The procedure for publishing the ESMP is as follows: The ESMP Checklist should be published on the website of the LRCP project and the recipient as well as on the websites of the affected municipality and should be available to the public for at least 14 days. It should be available in hard copy in the premises of the LRCP and in the relevant municipalities and / or in the centers of the planning regions. When it is announced, the call for remarks on the documents should be issued along with the available electronic and postal address for sending the notes. Received comments and / or questions from the concerned public will be taken into consideration and together with the answers of the questions will be summarized and included in the final version of the published document (final ESMP Checklist).

INSTITUTIONAL CAPACITY BUILDING	
Will there be any capacity building?	[ ] N or **[X]Y** if Yes, Annex 2 includes the capacity building information

PART 2: ENVIRONMENTAL /SOCIAL SCREENING			
Will the site activity include/involve any of the following:	Activity	Status	Additional references
	A. General conditions	**[X] Yes** [ ] No	See Section A below
	B. Building rehabilitation	**[X] Yes** [ ] No	See Section A and B below
	C. Historic building(s) and districts (including chance findings)	**[X] Yes** [ ] No [ ] Possible	See Section D below
	D. Procurement of chemicals	**[X] Yes** [ ] No	See Section E below
	E. Hazardous or toxic materials[1]	**[X] Yes** [ ] No	See Section F below
	F. Impacts on forests and/or protected areas	[ ] Yes [**X**] No	See Section G below
	G. Traffic and Pedestrian Safety	**[X] Yes** [ ] No	See Section I below

[1] Toxic / hazardous material includes and is not limited to asbestos, toxic paints, removal of lead paint, etc.

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
A. General Conditions	Notification and Worker Safety	(a) Preparation approval and implementation of OH&S and community safety Plan. (b) Obtaining all required permits, opinions, conditions, licenses, consents and other legal requirements are obtained before commencement of works. (c) Providing information to local population about the time of commencement and time of duration of construction activities by preparing Notification which will be placed on the municipality notice board and on the municipal web page (http://opstinabitola.gov.mk) (d)All work will be carried out in safe and disciplined manner; (e) Workers personal protective clothes and equipment is available in sufficient quantities and is worn/used at all times; (f) Workers are adequately trained and experienced; (g) Ensure the appropriate marking and informational board of the construction site; (h) Marking out the site for temporal storage of the construction material near the site; (i) Application of good construction practices during the implementation of project activities through: (j) Proper marking of the project location, placement of tape and warning signs as well as fencing off when necessary (e.g. fencing dangerous spots); (k) Placement of information board on the project location designating the Project general data, the contractor and the supervision; (l) Prohibit entrance or unemployed and unauthorized persons within the construction area; (m) Providing mobile toilets for construction workers, regular maintenance and emptying; (n) The construction machinery and tools need to be operated by trained and experienced personnel to prevent risk of accidents; (o) The presence of Fire Fighting Equipment is obligatory; (p) All workers must be trained with emergency routines, escape routes and use of FF equipment, hydrants and etc. (q) Contractor and sub-contractors have valid operating licences and permits/authorisations of the competent authorities to work on cultural heritage buildigns.
	Nature protection and biodiversity	(a) Logging is strictly prohibited. Removal of individual trees, if cannot be avoided should be done only with the consent of competent authority. (b) Open fires are strictly forbidden. (c) There will be no littering. (d) There will be no cleaning or washing of machinery and vehicles at the location. (e) Only native plants to local area can be used for greening/landscaping. (f) There will be no anti-corrosive application at the location.

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		(g) No trees will be damaged or removed during works. (h) Design of light posts will prevent excessive light pollution.
	Materials management	(i) Materials used in construction need to conform to durability and other requirements. All materials should be approved by the supervising engineer. (j) Mineral resources (aggregate, sand, gravel, etc.) and construction materials (as well as asphalt) are procured only from licensed companies with valid concessions for extraction/exploitation and valid IPPC permits. The companies can prove H&S measures and environmental management is in place. (k) Only existing sources of mineral resources and water will be used. (l) Only existing asphalt plants will be used.
B. General Rehabilitation and /or Construction Activities	Air Quality	(a) Vehicles and construction machines must be well maintained and in accordance with the relevant emission standards; (b) Restriction of vehicle speeds at the locations where the construction activities are carried out, since the area is high frequent of vehicles and pedestrians, in the central part of the city; (c) The construction sites, transport routes and locations where materials are handled should be sprayed with water on dry and windy days; (d) Building materials should be kept covered in suitable places to reduce the distribution of dust; (e) Regular maintenance of the vehicles (washing the wheels) and construction machines in order to reduce the leakage of engine oils, emissions and the expansion of pollution; (f) The material transported by vehicles and which emits dust shall be covered; (g) Use of protective masks for workers in case of dust emissions from the operation of the construction machinery.
	Noise	(a) The project location belongs to the area with II degree of noise protection (the limit values are 45dBA for the night time and 55dBA for the day and evening) because in the vicinity there are objects of sensitive character (sports field, museum, housing objects , Commercial objects, etc.); (b) The noise level should not exceed the permissible level in accordance with existing legislation; (c) It is forbidden to perform construction activities at night; (d) Project activities to be carried out from 7 am to 7 pm; (e) Workers should be provided with ear protection devices (plugs and / or ear pads)
	Waste management	(a) Identification of different types of waste at the construction site (waste from construction and demolition, excavated land and municipal waste); (b) Classification of waste according to the National Waste List (Official Gazette No. 100/05); (c) The main waste will be comprised of 17 01 - building rubble (concrete, bricks, ceramics, ceramics), 17 02 01 - wood, 17 02 02 - glass, 17 05 06 - excavated land not mentioned in 17 05 05, 20 03 01 - Mixed communal waste, Packaging waste, varnishes, coatings, insecticides and fungicides - 08 01 11 * - waste paints and varnishes containing organic solvents or other dangerous substances, 15 02 02* - Absorbents, filter materials, wiping cloths and protective clothing contaminated with dangerous substances,20 03 01 – mixed communal waste; (d) Transport and final disposal of waste is performed by licensed and authorized company to the legal, licensed landfill “;

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
		(e) Covering the waste during its transport to avoid unintentional discharge of waste along the road. (f) The potential hazardous waste (engine oils, fuel for a vehicle) should be collected separately collect and transported by a licensed company. Hazardous waste will be processed or disposed only to processing plants/landfills with valid licenses; (g) Burning of the construction waste at site is prohibited. (h) Containers for each identified waste category are provided in sufficient quantities and positioned conveniently. (i) Mineral (natural) construction and demolition wastes will be separated from general refuse, organic, liquid and chemical wastes by on-site sorting and temporarily stored in appropriate containers. Depending of its origin and content, mineral waste will be reapplied to its original location or reused. (j) The records of waste disposal will be regularly updated and kept as proof for proper management, as designed. (k) Whenever feasible the contractor will reuse and recycle appropriate and viable materials. Discarding any kind of waste (including organic waste) or waste water to the surrounding nature or water-bodies is strictly forbidden. (l) Collect, transport and final disposal/processing of the municipal waste by a licensed company to the licensed landfill in all project phases (including the use phase);
	Soil and water	(a) Exercise erosion and sediment control during works where needed. (b) Removed mineral content (soil and rocks) should be reapplied to its original location if possible. Waste soil will not be dumped in the surrounding or water bodies, but reused on site or appropriately disposed to a landfill or location approved by the municipality and the supervisor. (c) Keep vehicles to well define haul roads. (d) No new access roads will be build. (e) Soil work and management will consider metrological data and conditions when planned and carried out (e.g. temperature of the soil, humidity, snow, ice, etc.). (f) Use of antifreeze and/or accelerator compounds is not allowed. (g) Prevent hazardous spillage coming from waste (temporary waste storage should be leakage protected and those for hazardous or toxic waste equipped with secondary containment system, e.g. double walled or bunded containers). (h) If hazardous spillage occurs, curb and remove it, clean the site and follow procedures and measures for hazardous waste management. (i) Install and maintain of proper sanitary facilities for workers. The wastewater from these sources should be transported to proper waste water treatment facilities. (j) Prevent hazardous spillage coming from tanks (mandatory secondary containment system, e.g. double walled or bunded containers), construction equipment and vehicles (regular maintenance and check-ups of oil and gas tanks, machinery and vehicles can be parked (manipulated) only on asphalted or concrete surfaces with surface runoff water collecting system. (k) Building's wastewater system is connected to the municipal wastewater collection system.
C. Historic building(s)	Cultural Heritage	(a) During the implementation of construction activities, follow precise measures envisaged in the Elaborate for conservation of natural heritage prepared for the House of Army and Cultural Heritage Management Plan.

ACTIVITY	PARAMETER	MITIGATION MEASURES CHECKLIST
	Chance Findings	(b) In the case of chance findings, the works must be stopped immediately and competent authorities,(Ministry of Culture, Directorate for Protection of Cultural Heritage – Skopje, National Institution - Institute for the Protection of Cultural Monuments and Museum- Bitola) informed within 24 hours following the national procedures. Works will recommence upon approval of competent authorities.
D. Procurement of chemicals	Improper or lack of proper management could increase the environmental and occupational safety risks and health risks to all citizens	a) Chemicals are managed, handled and stored in accordance to Materials Safety Data Sheet (MSDS) b) Chemicals are purchased from authorized dealer c) Chemicals are managed and handled only by authorized and adequately trained and experienced personal/staff .
E. Toxic Materials	Toxic / hazardous waste management	(a) Possible hazardous waste (expired paints and varnishes, fats and oils, diluents, ecological fireproof coat (MKC EN 13381-3:2015), fungicides and insecticides) should be collected separately and an agreement should be made with a subcontractor who will have authorization for the collection and transport of hazardous waste for transport and final disposal of the hazardous waste;
G Traffic and Pedestrian Safety	Direct or indirect hazards to public traffic and pedestrians by construction activities	(a) The Investor should publish a notice to the citizens on the website of the Municipality of Bitola and local television for the commencement of performance of activities for reconstruction of the House of Army; (b) Fencing and placement of signs for the performance of construction works should be visible and clear to all pedestrians; (c) Excess roads to the building for construction machinery, service vehicles, and delivery during the day should be provided by service street Ivo Lola Ribar; (d) Restrict access to unauthorized persons in the construction zone; (e) Cover and mark open holes and channels on construction site for plumbing, gas and electric installation; (f) Pedestrian safety (e.g. safety passages) will be ensured.

PART 3: MONITORING PLAN							
Phase	**What** (Parameter will be monitored?)	**Where** (Is the parameter to be monitored?)	**How** (Is the parameter to be monitored?)	**When** (Define the frequency / or continuity?)	**Why** (Is the parameter being monitored?)	**Cost**(If not included in project budget)	**Who** (Is responsible for monitoring?)
During activity p**reparation**	Precaution measures should be taken for workers and all employees in the House of Army	Around project location – House of Army	Visual inspection and notification to authorized persons in the municipality of Bitola	At the beginning of construction activities focusing on preliminary measures	Prevent health and safety risks, mechanical injury, providing safe access to the House of Army	included in sub-project budget	Contractor Bidder Municipal environmental supervising inspector
	All required permits are obtained before works start.	At the city administration	Inspection of all required documents	Before works start	To ensure the legal aspects of the rehabilitation activities	/	Contractor; Supervisor of the construction works; Construction inspector, LRCP PIU
	Public and relevant institutions are notified	Contractor's premises	Inspection of all necessary documents	Before works start	To ensure public awareness	/	Contractor; Supervisor of the construction works;
During activity **implementatio n**	Identification separation and storage of hazardous waste	Near the project location	Visual inspections and reporting to municipal authorized persons	During the constructive phase of the project	To avoid generation, disposal and mixing of inert with hazardous waste at the place of generation, prevent	included in sub-project budget	Contractor Bidder Municipal environmental supervising inspector

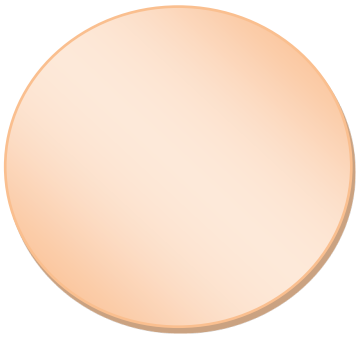
					pollution to the environment		
	Selection, identification determination of characteristics and classification of the generated waste according the national List of Waste (Official Gazette no.100/05), Storage on places designated for that purpose Containers for each identified waste category are provided in sufficient quantities and positioned conveniently.	At the site	Visual monitoring and inspection of the transport lists of the contractor	Daily level after the collection and transportation of the solid waste	Do not leave the solid waste on the construction site and to avoid negative impact to the local environment and the local inhabitants health	/	Contractor; Supervisor of the construction works; Authorized environmental inspector, Construction inspector, LRCP EE
	Filled Annual Report on Collection, Transport and Disposal of Waste The	Local Government Administration	Document overview - List for waste identification	Upon completion of collection, transport and temporary and final disposal of waste	To improve waste management at local and national level To comply with national legal requirements	/	Mayor of the Municipality of Bitola / Manager of PE“Niskogradba” from the Municipality of Bitola

	Noise level	Near the House of Army (sensitive receptors: residential facilities 50 meters from the House of Army and the Museum of Bitola)	Measurements of noise level dB (A) with appropriate equipment	Regularly, during the construction activities especially during intensive use of construction machinery	To determine whether the noise level is above / below the permissible noise level for the project locations according national legislation	included in sub-project budget	Contractor – Bidder A company authorized to perform measurements of the noise level engaged by the Contractor
During supervision	Drinking water quality	Taping water in the facility. Analysis of taping water need to be performed by Accredited laboratory for water quality (Public health institute – Bitola)	Laboratory equipment for physical and chemical property analysis of drinking water.	Before the start of the operative phase and in case of further need	To provide high quality of drinking water for employees and visitors and minimize potential adverse health effects.	200EUR	Supervisor Accredited laboratory for water quality (Public health institute – Bitola) Municipal communal inspector

Legal Applicant Representative: M.sc. Natasha Petrovska

Signature :

Date :



(Official Stamp of the Applicant)