

TERMS OF REFERENCE

for

SUPERVISION OF CIVIL WORKS FOR CONSTRUCTION OF SEVEN STREETS WITH SIDEWALKS, WATER SUPPLY SYSTEM, STORM WATER SYSTEM AND STREET LIGHTENING IN THE FORMER MILITARY AREA ARM1 AND ARM2 IN MUNICIPALITY BITOLA

1. Background

In the former military barracks of Army of the Republic of Macedonia (ARM), a new settlement called "Zlaten Rid" is planned. According to the technical design the settlement is divided in three districts (1, 2 and 3). Only two districts (ARM district 1 and ARM district 2) in the settlement "Zlaten Rid" are considered for construction at this phase and therefore the project activities will be provided in this area. ARM district 1 has 327,400m² or 32.74ha not constructed land planned for construction of residential, commercial, cultural and educational buildings. ARM district 2 has 397,546m² or 39.75ha not constructed land planned for construction of individual houses. Located on urban public land, this area will represent the spirit of Bitola in the 21 century and will complement the old architecture in Bitola. Hence, in ARM district 1 the project assumes construction of streets with sidewalks, water supply system, storm water system and street lightening of three streets: SRU 2, SRU 3 and SRU 4, as well as construction of street with sidewalks, water supply system and storm water system of STU 5b in ARM district 1. In ARM district 2 the project assumes construction of water supply system, storm water system, construction of streets and street lightening of three streets: SRU 4, STU 7 and STU 12.

The total lengths of streets that are subject of this appraisal are: 1,124.54m in ARM district 1 and 1,675.00m in ARM district 2, respectively the total length of streets planned for construction in the settlement "Zlaten Rid" is 2,799.54m. The project solution provides simultaneous placement of water supply system, storm water system, construction of streets with sidewalks and street lighting. With an approach like this the additional damage to the newly constructed streets and some partial solutions, which could cause damage to the newly constructed streets and sidewalks will be prevented.

However, it should be also emphasized that some of these streets are the main traffic arteries in both districts ARM district 1 and ARM district 2 which are very close and connected to the city center, whereby it can be inferred that the implementation of the project will have a wider indirect benefit on the community living in the municipality Bitola. The main purpose of the proposed technical solution is to provide a long range investment in the streets by construction of streets with sidewalks, water supply system, storm water system and street lightening, thus meeting the needs of the community in the municipality Bitola. At the same time, the purpose of the technical design is to provide convenience and safety for pedestrians and traffic by controlling storm water flows, within prescribed limits and to retain within each catchment as much storm water and run-off as possible given the planned use of the terrain and its civil engineering characteristics.

The proposed technical solution is in-line with the existing standards and positive regulation for this kind of projects, which implies that the implementation of the project is technically feasible. The project is also in accordance with the existing positive laws and regulations in the country. The relevance of the project comes from the fact that the municipality is obligated to ensure appropriate infrastructure (local roads, storm water system, water supply system, street lightening and electrification) to all settlements under its jurisdiction. This is regulated with the Law on Local Government (Official Gazette of the Republic of Macedonia 5/02) under the Article 22, List of competencies. The municipality should ensure that all residential and commercial buildings are

connected to the water supply network and have an appropriate infrastructure after the construction of buildings is finished. According to the regulation, the period for construction of different kind of buildings is from 6 years (for private houses) to 10 years (for bigger buildings) after the investors receiving construction permit. Because the municipality still is selling not constructed land in the settlement "Zlaten Rid", there is no risk of citizens to complain.

At the same time, the project is part of the general urban plan (GUP) of municipality Bitola and DUP for ARM district 1, 2 and 3. It will contribute towards achieving the vision of the municipal administration (the mayor and the municipal councilors) for providing full coverage of transport, storm water and other communal (utility) infrastructure throughout the municipal territory. It can be inferred that the implementation of the project will undoubtedly contribute towards improvement of the quality of life and well-being of the residents. Municipality has implemented various similar projects in the past, some of which in collaboration with international institutions, which implies that, is able to implement large construction projects such as this one. Also, municipality Bitola has already started the construction of one main street SrU1 in ARM1 with its own funds, and this construction is planned to be completed soon.

2. Objective and scope of work for the supervision

The objective of the assignment is to supervise and control the construction civil works for seven streets with sidewalks, water supply system, storm water system and street lightening in the former military area ARM1 and ARM2 in Municipality Bitola in accordance with the certificate for location conditions, Main Design and approval for construction. The Supervisor shall be responsible for the following activities:

- To control all phases for construction;
- To check the contractor's licenses and permissions in accordance with Macedonian law for construction;
- To check the quality of materials embedded in the water supply pipe network and its facilities, in accordance with Macedonian laws and regulation for construction.
- To check all certificates and results of tests, performed to prove the quality of materials and equipment;
- To report any defects and irregularities to the Client and inspector for construction, immediately by a written report and for writing the mentioned defects in construction diary;
- For each phase of construction, the supervisor is responsible to submit the report to the Client, Municipality of Bitola and to the Ministry of Finance – MSIP PMU. This report refers to the performed check with judgment for harmony between the constructed works and designs and location conditions;
- For overseeing on a daily basis the implementation for construction of seven streets with sidewalks, water supply system, storm water system and street lightening in the former military area ARM1 and ARM2 in Municipality Bitola
- In doing so, the Supervisor must inspect all aspects of the project for professional, qualitative, normative and quantitative specifications as described in the technical documentation accepted by the Client. These aspects may include but are not limited to structural, mechanical, electrical and hydro technical specifications ;
- To monitor the parameters with influence of the environment, during the construction works. The reports with results of monitoring should be submitted to the Municipality of Bitola and the Ministry of Finance – MSIP PMU;
- For truthful and accurate check, write in addition and signing in the Construction diary and the Construction book for the daily progress of accomplished works, labor presence, and on materials and construction items received on the site and review and approve as-built drawings for the execution of the works;
- Must participate in activities specified by all normative documents and sign corresponding statements;

- To verify the Statements of Accomplished works (Interim monthly reports) provided by the Contractor. The Main supervisor is responsible for signing of all documents that meet the quality and quantity specified in the contract signed by the Contractor and the Municipality of Bitola;
- To sign the provisional hand-over agreements accepted by the Client, provided that the Contractor has completed all his obligations under the contract signed with the Municipality of Bitola;
- To coordinate the whole supervision and to submit final report for performed supervision.

The Main Supervisor has the right to stop the execution of the works:

- In case of serious defaults and deviations from the technical design and technical specification for the relevant civil works
- If the works are in disrespect with actual standards and technical regulations

The Main Supervisor is not allowed:

- To take orders from the Contractor or his representative;
 - To discuss, debate or give orders to the workers. These matters should be discussed with the director of the Contractor firm or its representative.
 - To make changes in the technical design.
- The Consultant company has to nominate a **Main engineer for supervision** – graduated civil engineer, with at least 5 years working experience as supervisor, employed in this company as a full time employee, appropriate reference list for supervision at least 3 similar civil engineering works of II category and Authorization B for supervision of civil works issued by the Chamber of Authorized Architects and Authorized Engineers of the Republic of Macedonia, according to Art. 33 of the Law on Construction (O.G. od RM, No. 130/09).
 - The Consultant Company also has to nominate at least 6 engineers for supervision:
 1. 1 (one) civil engineers with Authorization B for supervision over construction in civil engineering - roads,
 2. 1 (one) civil engineers with Authorization B for supervision over construction in civil engineering – water supply,
 3. 1 (one) civil engineers with Authorization B for supervision over construction in mechanical engineering
 4. 1 (one) electrical engineer with Authorization B for supervision over construction in electro technical engineering and
 5. 1 (one) environmental engineer with Authorization B for supervision over construction in environmental engineering
 6. 1 (one) survey engineer with Authorization B for supervision over construction in survey engineering

and appropriate reference list for supervision of at least 3 similar civil works for each of experts.

7. Information and services to be provided by MoF - MSIP PMU

- The Consultant will have access to MOF-MSIP PMU materials necessary to complete the assignment:
 - Main Design for “construction of seven streets with sidewalks, water supply system, storm water system and street lightening in the former military area ARM1 and ARM2 in Municipality Bitola”;
 - Project Environmental Management Plan
 - Environmental Impact Assessment Elaborate.
- The consultant will have access to the site.

8. Implementation arrangement

The Supervisor will report directly to the Client Coordinator and the Ministry of finance – MSIP PMU, which will hold all proprietary rights to the materials and results of the activity.

During the construction period, the consulting company will be responsible for the project implementation, especially to oversee and to inspect all qualitative, normative, and quantitative aspects of the project in accordance with the technical specification and bill of quantity for the relevant civil works. Also, the consultant is responsible to verify the construction book, the construction diary and the interim monthly reports, prepared by Contractor and to report to the representative of the Municipality of Bitola and the MOF-MISP PMU for any defects and possible civil works which are in disrespect with actual standards and technical regulations for construction.

The consultant's main supervisor will submit reports to the Municipality of Bitola and the MOF-MISP PMU on a monthly basis, based on the progress of the civil works during the construction period, in comparison with the approved dynamic plan for civil works, submitted by the contractor.

5. Consultant Qualifications

5.1 Qualification of the consultant company

The Consultant Company should possess the following qualifications:

- License for supervision of II category of buildings (License B), issued by the Ministry of transport and connections of RM;
- The Consultant Company has to confirm its capability and adequacy for supervision of construction with detailed list of at least five (5) conducted similar supervisions of civil works for construction of streets and construction of water supply system in the last three years, with contract title, description of the task, Client's name and contact. The Recommendations/Certificates for satisfactory completion of the works from the clients are obligatory.
- The Consultant Company to have at least 6 (six) graduated civil engineers, 2 (two) graduated mechanical engineers, 2 (two) electrical engineers and 2 (two) survey engineers as full time employees.
- CV's of the proposed team members and the Team leader/Main supervisor engineer should be attached.
- Standards
ISO 9001:2008 Quality Management System
ISO 14001:2004 Environmental Management System

5.2 Qualification of the Supervisor Team of experts

A. Appropriate team of at least 7 specialists in the following fields of expertise:

- Main supervisor - Civil engineering / roads specialty
- Assistance Main supervisor - Civil engineering / roads specialty
- Civil engineering - water specialty
- Mechanical engineering
- Electrical engineering
- Environmental engineer
- Survey/geodetic engineer

All team members shall:

- Possess adequate Bachelor Degree;
- Advanced degree will be considered as a plus.
- Each member of the Supervisor Team shall submit copy of Authorization B, issued by the Chamber of Authorized Architects and Authorized Engineers of the Republic of Macedonia,
- Performed at least 3 similar civil works in the area of water supply for "Category III" of buildings.

One of the proposed members of the Supervisor Team shall be assigned as Team Leader. The Team Leader shall be responsible for overall Supervisor process, communication, reporting and quality control.

B. The minimum necessary qualification for the **Team Leader**

- Graduated civil engineer - roads specialty
- At least 5 years working experience as supervisor, employed in this company as a full time employee;
- Experience in the past 5 years in supervision of the construction for complex street construction with minimum 3 appropriate references;
- Knowledge of the Macedonian construction industry (construction costs, techniques, materials, etc.), standards and technical regulations for construction;
- Computer skills;
- Fluency in Macedonian and English language;

6. Reporting requirements

Completion and submission of the documentation, including:

Reports	Description
Periodically time sheets	Supervisors have to fill and submit time sheets for the actual time spent at the site.
Monthly reports	The Main supervisor is obliged to prepare monthly reports for construction progress with comparison with approved dynamic plan for civil works.
Reports for each phase of construction	Reports for each phase of construction
Final report	Final Report for supervision after the completion of civil works for construction of seven streets with sidewalks, water supply system, storm water system and street lightening in the former military area arm1 and arm2 in municipality Bitola, in accordance with Macedonian law for construction.

All reports in Macedonian and English language must be sent for approval to the Client Coordinator specified in the Contract.

After the approval, the Client Coordinator shall send all the reports, via Ministry of Finance, to the MSIP Project Management Unit.

Duration of the assignment and type of procurement:

It is foreseen that the duration of the assignment will be 15 months during the period commencing August, 2015 through November 2016. It is expected that work will start immediately after signing of the contract.

The consulting firm shall be selected in accordance with the World Bank's Guidelines: Selection and Employment of Consultants by World Bank Borrowers, published by the World Bank in May 2004, revised October 2006 and January 2011 www.worldbank.org.

The Contract shall be standard World Bank Lump-Sum Contract for small assignments also in accordance with the WB Guidelines for Selection and Employment of Consultants' by World Bank borrowers.