

REQUEST FOR EXPRESSIONS OF INTEREST

CONSULTING SERVICES – FIRMS SELECTION

Republic of Serbia

The Western Balkans Trade and Transport Facilitation Project (WBTF)

Project ID No. P162043

Assignment Title:

SUPERVISION SERVICES FOR RAILWAY LEVEL CROSSINGS

Reference No. SER-WBTF-QCBS-CS-20-14

The Republic of Serbia (RoS) has received financing in the amount of EUR 35 million loan from the International Bank for Reconstruction and Development (IBRD) toward the cost of the Western Balkans Trade and Transport Facilitation Project (WBTF), and it intends to apply part of the proceeds to payments for consulting services to be procured under this project.

Scope of Work

The Consultant shall carry out the specific tasks and activities as listed below and develop a well-functioning co-operation mechanism with the Project Implementation Unit (PIU) and Infrastruktura železnica Srbije (Serbian Railway Infrastructure – IZS) on the basis of the following principles:

- a) Consultation and consent - the responsibilities for the general implementation of the Project are delegated to the PIU. Ministry of Construction, Transport and Infrastructure (MCTI) is the Client for all present and future contracts for works and/or services and for this Contract, as well. The PIU/MCTI and the IZS, shall be involved in the decision making processes regarding the Contract implementation and shall be kept informed in all stages related to works contract(s) monitoring and implementation. IZS and several municipalities are among the final beneficiaries of the works contract(s) and they should be satisfied with all results and outputs. The cooperation with the final beneficiaries will be sustained and managed by the PIU;
- b) Know-how transfer - although the Contract does not contain a formal training activity, on the job training and instruction/mentoring in supervision will be provided to IZS to strengthen ownership and capacities;
- c) The involvement of the IZS's personnel in the head office on the day-to-day activities together with the Consultant's staff is crucial;
- d) Efficiency - the cooperation with the IZS and PIU/MCTI shall be designed to avoid any delay or discontinuity in the decision making process or any dilution of the Consultant's responsibility.

The Consultant is required to provide professional inputs, advices and support during preparation and implementation of the specific Railway Level Crossings (the list of 58 RLCs is attached in **Error! Reference source not found.** of the Terms of References) in RoS through the provision of appropriate suggestions, comments for designs and costing estimates. The Consultant will also be required to undertake coordination role, where applicable, and to supervise the construction of the aforementioned works, purchase and installation of the equipment and to facilitate commissioning and taking-over procedure.

Services under this contract will be implemented in the territory of RoS. The Link for access to the map and geographical location of the RLCs is provided in the Terms of References. All 58 RLCs, subject of this Contract, are divided into two groups. Procurement of design services, purchase and installation of equipment and construction works, will be done in lots respecting this grouping.

The Consultant is expected to perform following Activities as part of the consultancy service:

Activity 1: Preparatory works (site-visit; Inception phase)

Activity 2: Supervision of design preparation

Activity 3: Supervision of works (construction and installation)

Sub-activity 1. Pre-construction activities

Sub- activity 2. Construction activities

Sub- activity 3. Activities during installation

Sub- activity 4. Post-construction activities

Activity 4: Final works

Contract duration: 48 months starting from the commencement date.

The detailed Terms of Reference for the above referenced consulting services is posted on the website of the Ministry of Construction, Transportation and Infrastructure (MCTI)

<https://www.mgsi.gov.rs/en/dokuments/request-expression-interest-consulting-services-firm-selection>

The Central Fiduciary Unit (CFU) of the Ministry of Finance now invites eligible Consultants to indicate their interest in providing the Services. Interested Consultants should provide information demonstrating that they have the required qualifications and relevant experience to perform the Services.

The assignment will require a qualified consulting company or Joint Venture that can demonstrate extensive experience in Supervision services for the contracts based on FIDIC Yellow Book.

The following shortlisting criteria will be applied to all consulting firms that have submitted EoI:

- i) The Consulting firm must be a legal entity;
- ii) The number of permanent staff of the consultant (individual company or joint venture overall) currently working in the field related to this contract, must be at least 6 for each of the last three years (2018, 2019 and 2020);
- iii) The consultant (individual company or joint venture altogether) has implemented and successfully completed, during the last five years (from the January 2016 up to the deadline for the receipt of applications indicated below), at least one (1) contract in a field related to these Services, i.e. supervision of RLCs' and equipment installation or works for safety improvement of RLCs, and shall demonstrate that it had a participation of minimum 60% in each of the contracts brought as reference;
- iv) Experience in Western Balkans region, will be advantage.

As a proof, the Consultant firm shall prepare a table listing following information: name of the relevant assignments, name of a firm that conducted the assignment, short scope of work, year of contract's implementation, country/region, contact reference (name, e-mail, phone number).

Key Experts' CV are not required and will not be evaluated at the shortlisting stage.

MCTI, as the Client, intends to shortlist up to eight eligible firms to whom a subsequent Request for Proposals (RFP), both technical and financial, shall be sent. In the event that more than eight firms fulfil all the qualifying criteria above, the MCTI shall use the following criteria to rank the firms and the top eight shall be invited to submit proposals: (i) the number of contracts in a field related to these Services brought as reference in para (iii) above, and in case of equality on this criterion, then the value of the eligible part (the value of the activities carried out by the firm) of the projects found eligible in para (iii).

Consultants may associate with other firms to enhance their qualifications, but should indicate clearly whether the association is in the form of a joint venture and/or a sub-consultancy. In the case of a joint

venture (JV), all the partners in the JV shall be jointly and severally liable for the entire contract, if selected. Furthermore, Eols submitted by JVs will be evaluated based on composition of JV submitted, whereas experience of other firms not included in the JV will not be considered in the evaluation.

A Consultant will be selected in accordance with the Quality and Cost-Based Selection as set out in the World Bank's Procurement Regulations for IPF Borrowers – Procurement in Investment Project Financing Goods, Works, Non-Consulting and Consulting Services (July 2016, revised November 2017) (“the Regulations”).

The attention of interested Consultants is drawn to paragraphs 3.14, 3.16 and 3.17 of the Regulations, setting forth the World Bank's policy on conflict of interest.

Further information can be obtained at the address below during office hours 09:00 to 15:00 hours.

Expressions of interest in English language must be delivered in a written form to the email below, by **May 19, 2021**, 12:00 hours, noon, local time.

| | | |
|----------|--|---|
| Contact: | E-mail: | Address: |
| To: | zorica.petrovic@mfin.gov.rs Ms. Zorica Petrovic Procurement Specialist | Ministry of Finance Central Fiduciary Unit 3-5 Sremska St 11000 Belgrade, Serbia |
| Cc: | ljiljana.dzuver@mfin.gov.rs ljiljana.stojic@mgsi.gov.rs | Tel/Fax: (+381 11) 2021530 |

TERMS OF REFERENCE

Supervision Services for Railway Level Crossings

Western Balkan Trade and Transport Facilitation Project (Part referred to Republic of Serbia)

1. Background information

1.1 Beneficiary country: Republic of Serbia

Client: Ministry of Construction, Transport, and Infrastructure of Republic of Serbia (MCTI).

Final Beneficiary: Infrastruktura železnica Srbije (Serbian Railway Infrastructure - IZS).

1.2 Relevant country background

The International Bank for Reconstruction and Development (IBRD) launched the Multiphase Programmatic Approach to facilitate the achievement of the Western Balkans Governments' goal of reducing trade costs and increasing transport efficiency. The Program includes two phases: i) phase 1 includes Albania, North Macedonia and Serbia, and ii) phase 2 other beneficiaries in the Western Balkan.

For the purpose of financing of the Western Balkan Trade and Transport Facilitation Project (Project), part of Phase 1 of the Program, IBRD has granted to the Republic of Serbia (RoS) EUR 35 million loan to support a combination of investments, technical assistance and regulatory and institutional reforms.

At the regional level, the Secretariat for Transport Community Treaty (TCT) will play the role of the regional coordination and liaison office for the Western Balkans Six, for all the transport related dimensions of the project. The CEFTA Secretariat will play the same role for the trade elements of the Project.

At the national level, Project Implementation Unit (PIU), within the Ministry of Construction, Transport, and Infrastructure of Republic of Serbia (MCTI), has primary responsibility for Project execution ensuring that the Project development objectives are met.

These Terms of References (ToR) relates to the Supervision consultancy firm for the design, civil works and installation of equipment on the RLCs. MCTI with support of Infrastruktura železnice Srbije (Final Beneficiary) intends to engage a highly qualified consultant to provide services of FIDIC Engineer, for 58 Railway Level Crossings (RLCs) listed in the Appendix 1 of this ToR, which will be executed under FIDIC rules: design, construction, trial operation and commissioning (equipment and design-build — FIDIC 'Yellow Book').

1.3 General information

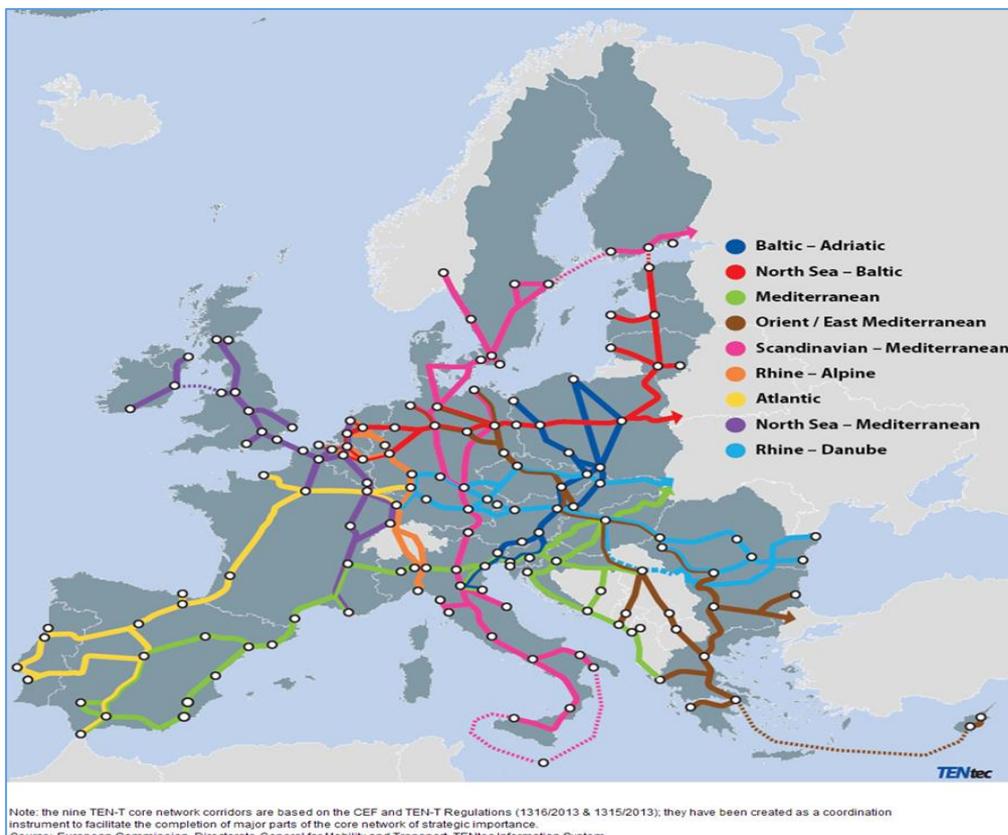
Level crossing represents weak spot for both traffic modes – road and railway. Due to increased traffic, which especially refers to road traffic, intersections of main roads with railway lines, i.e. level crossings, are dangerous points with traffic accidents. According to the European Railway Agency in the European Union every year on RLCs occur over 1,200 traffic accidents. The operationalization of functioning RLC is key to the objective of improving transport efficiency and predictability for the railway trade flows in the Western Balkans. EU Member States reported that in 2015, more than 400 RLC users were killed and 400 were seriously injured in a total of about 700 accidents occurring on more than 120,000 RLCs in the EU. Analysis of these accidents primarily identifies human factor as primary cause, while other reasons such as current state of pavement, vehicles or equipment are often disregarded.

Basic requirement for level crossings safety is reduction of number of accidents. Level crossings are becoming a national problem having in mind that the number of motor vehicles is increasing every year.

1.4 Current state of affairs in the relevant sector

Due to its position on the geographic borderline between the East and West, Serbia is often referred to as a gateway of Europe. The total length of railway network in RoS is 3,809 km. The important European Corridor X – the international highway and railway corridor, part of the core TENT-T network through RoS, provides excellent connections with Western Europe and the Middle East.

Figure 1 TENT-T core Network corridors



In RoS, Core Network extends for 1,414 km and it encompasses Corridor X (with branches Xb and Xc -770 km), Route 4 (421 km), Route 10 (84.5 km) and Route 11 (138 km). Except for one section on the Corridor Xc (Nis - Dimitrovgrad), Corridor X is electrified with 108 km of double track sections and 219 km of single track sections. As for Route 4, connecting RoS with Montenegro and Romania, approximately 157 km is in very good and good condition, major part of route 4,212km is in medium condition, single track, electrified except for the section Pančevo - Vršac with diesel traction. Largest part of Route 10 traversing RoS is in good condition, and Route 11 section from Požega to Kraljevo is in very good condition.

Figure 2 Extension of the TEN-T Comprehensive/ Core Network to the Western Balkan



There are many level crossings on the road and railway map of RoS which are „forgotten“, (i.e. poorly maintained) and which require increase of safety level, ie. reduction of irregular events probability. There are approximately 2,100 locations with level crossings on the IZS network. The majority of level crossings (77%) are equipped with road signage. The remaining 23% are barrier and gated crossings with or without road traffic light signals.

The dominant technology on the network is produced by Siemens. Mihajlo Pupin’s and AZD Praha’s solutions account for a relatively small share of level crossings. As a consequence of gradual modernization and a change in technology, Westinghouse’s products have been fully replaced on the IZS network.

Analysis of the level crossing present state from the aspect of safety gives conditions for further application of relevant measures for increasing the safety and interlocking level on the level crossing.

2. Objective, purpose and expected results

2.1 Overall objective

Objective of the Project is to reduce trade costs and increase transport efficiency in RoS. The Project consists of the following parts:

Component 1: Facilitating movement of goods across the Western Balkans. The component focuses on (a) the design and adoption and implementation of the National Single Window (NSW); (b) implementation of Electronic Data Interchange (EDI) for railways.

Component 2: Enhancing transport efficiency and predictability. This component will focus on (a) the adoption of an Intelligent Transport System (ITS), (b) the improvement of Railway Level Crossings (RLC) and c) development of National Transport Strategy.

Component 3: Improve market access in services and foster regional investments (this Component is covered by grant resources from other development partners, which complements the support from the World Bank Group) and

Component 4: Support project implementation unit (PIU) and provide additional technical support, including for policy coordination, operating costs, and monitoring and evaluation of the project.

The Consultant shall support the successful implementation of the Project to time, quality and cost constraints thereby to bring the chosen RLCs into compliance with TENT standards by 2023 in line with relevant national policies and strategies.

2.2 Objective of the assignment

The term “the Consultant” refers to the “Supervisor” to be assigned with this Service Contract which is equivalent to the FIDIC Terminology “the Engineer” and therefore the responsibilities and assignments defined for the Engineer in the relevant FIDIC General Conditions of Contracts are valid, unless noted otherwise.

The term “the Contractor(s)” refers to the contractor to be selected for work contract(s).

The term “works contract” refers to the contract for design, civil works and purchase and installation of the equipment for RLCs to be signed with selected contractor(s).

The main purpose of this Contract is to Assign a Supervisor (Consultant) to perform the duties and authority of a FIDIC Engineer as specified in or necessarily implied from the relevant works contract(s) as well as administer the Contract, dealing with situations in accordance with the Contract and taking due regard of all relevant circumstances.

The Consultant will be responsible to ensure that RLCs, subject of this ToR, are improved vis a vis safety and efficiency of the signaling and interoperability. This will include:

- a. improving the level of safety on the most unsafe and complex level crossings;
- b. improving traffic signaling, interlocking devices and power supply at the railway crossing.

Responsibility of the Contractor, to be selected, will be to prepare conceptual designs, required for obtaining of location conditions, preliminary designs, purchase and install equipment and execute civil works, all in compliance with the FIDIC Yellow Book. At this moment exact number of works contracts is not known, however it is envisaged to procure works for 58 RLCs in total 2 lots.

Responsibility of the Consultant will be to supervise Contractor's activities ensuring the works are implemented in accordance with the provisions of the works contract(s) to be signed, engineering decisions required for the successful and timely implementation of the works contract(s) and support to the IZS and the Client's PIU team in achievement of Project's goals.

2.3 Results to be achieved by the Consultant

The Consultant shall be responsible for the following results:

- High quality construction is achieved and (all) works contract(s) is carried out timely and in full compliance with the engineering design, technical specifications and other works contract(s)'s documents,
- Timely identification and assistance in the resolution of issues (be they legal, technical, financial, environmental, social), and any resulting disputes and complaints arising in connection with the works contract(s);
- Compliance with World Bank Environmental and Social Framework (ESF), Serbian pertinent legislation¹ and Project documents developed to comply with the WB ESF, respectively Environmental and Social Management Framework (ESMF), Resettlement Policy Framework (RPF);
- Other tasks on an ad hoc basis, per request of the Client.

¹ Where gaps between the World Bank Environmental and Social Standards (ESS) and the national requirements are identified the more stringent one will prevail

3. Assumptions and risks

3.1 Assumptions

The following assumptions are made for implementing this assignment:

- The activities under this Contract are conducted in close cooperation between the Consultant, PIU and IZS;
- Competent and dedicated members are appointed by the IZS and full cooperation is sustained between the IZS, PIU and the Consultant;
- Prerequisites beyond the control of the Consultant (permits, environmental and social issues, etc.) are fulfilled, mitigated and/or isolated by the IZS, PIU and/or relevant stakeholders responsible as per the national legislation;
- The background documents required are supplied by the IZS and/or the PIU in a timely manner and at the required quality;
- The guidance, comments and approvals of the IZS and PIU/MCTI, whenever required contractually, are timely provided;
- The residents in the area as well as the municipalities are willing to provide the required support and assistance with no resistance and opposition against the implementation of the Project;
- Competent contractor(s) is selected for the works.

3.2 Risks

The following risks are identified:

- Technical, e.g. unforeseen poor ground or existing asset condition;
- Environmental, e.g. unforeseen negative impacts and/or ineffectiveness of selected measures to address risks;
- Social, e.g. unforeseen negative impacts and/or ineffectiveness of selected measures to address risks, poor performance of contractor(s) in implementing agreed management measures;
- Institutional, e.g. unforeseen instability in the relationships between key stakeholders or ineffectiveness of established arrangements, insufficient cooperation of relevant stakeholders, lack of capacity in the IZS for works and services implemented under international procedures, delay in obtaining permits and licenses for construction;
- Delay in tendering process resulting in delays of signing the works contract(s).

4. Scope of the work

4.1 General

The Consultant shall carry out the specific tasks and activities as listed below and develop a well-functioning co-operation mechanism with the PIU and IZS on the basis of the following principles:

- a) Consultation and consent - the responsibilities for the general implementation of the Project are delegated to the PIU. MCTI is the Client for all present and future contracts for works and/or services and for this Contract, as well. The PIU/MCTI and the IZS, shall be involved in the decision making processes regarding the Contract implementation and shall be kept informed in all stages related to works contract(s) monitoring and implementation. IZS and several municipalities are among the final beneficiaries of the works contract(s) and they should be satisfied with all results and outputs. The cooperation with the final beneficiaries will be sustained and managed by the PIU;
- b) Know-how transfer - although the Contract does not contain a formal training activity, on the job training and instruction/mentoring in supervision will be provided to IZS to strengthen ownership and capacities;
- c) The involvement of the IZS's personnel in the head office on the day-to-day activities together with the Consultant's staff is crucial;
- d) Efficiency - the cooperation with the IZS and PIU/MCTI shall be designed to avoid any delay or discontinuity in the decision making process or any dilution of the Consultant's responsibility.

The Consultant is required to provide professional inputs, advices and support during preparation and implementation of the specific Railway Level Crossings (the list of 58 RLCs is attached in Appendix 1) in RoS through the provision of appropriate suggestions, comments for designs and costing estimates. The Consultant will also be required to undertake coordination role, where applicable, and to supervise the construction of the aforementioned works, purchase and installation of the equipment and to facilitate commissioning and taking-over procedure.

Services under this contract will be implemented in the territory of RoS as shown in the Figure 3 Geographical location of the RLCs. The Link for access to the map and geographical location of the RLCs is following address:

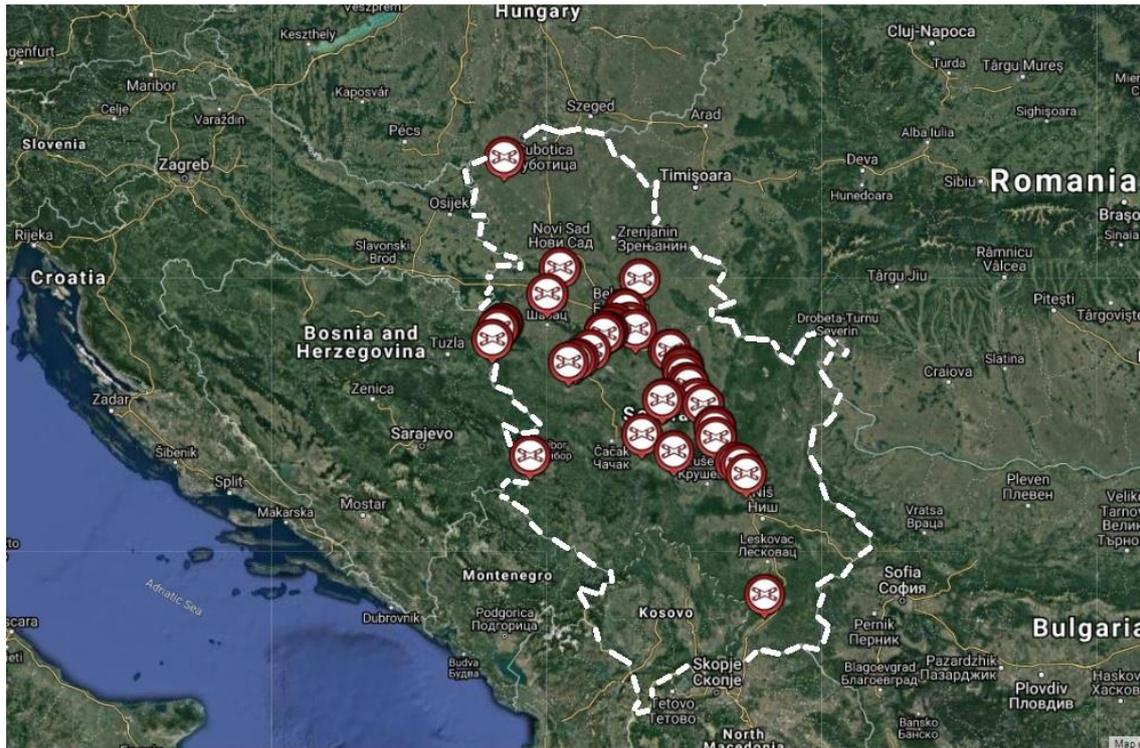
<https://www.zetp.rs/Prelazi>

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All 58 RLCs, subject of this Contract, are divided into two groups. Procurement of design services, purchase and installation of equipment and construction works, will be done in lots respecting this grouping.

Figure 3 Geographical location of the RLCs



4.2 Specific activities

The Consultant is expected to perform following activities as a part of the consultancy service:

Activity 1: Preparatory works (site-visit; Inception phase)

Activity 2: Supervision of design preparation

Activity 3: Supervision of works (construction and installation)

Activity 4: Final works.

4.2.1 Activity 1 Preparatory works

Following the Kick-off Meeting to be held with the MCTI/PIU representative(s) and IZS, the Consultant's first task shall be to visit all sites, to be familiar with the specific areas, to meet with the relevant stakeholders and to gather the necessary data. The IZS will supply the Consult with the existing background documentation. Gathered information, data and collected documents shall be included in the Inception Report, with a detailed description and assessment of the current situation.

The outline of the Inception Report shall be proposed by the Consultant. The Inception Report shall be the specific output of the Inception Period and present an overall approach and detailed program work plan and completion schedule for the services. It should discuss constraints and challenges identified by the Consultant and ways to address them in order to timely and effectively deliver the assignment.

4.2.2 Activity 2 Supervision of design preparation

As already mentioned, works contract(s) will be FIDIC Yellow Book, and the contractor(s) will be responsible for preparation of conceptual designs and preliminary designs, subject of review and approval of official review committee/technical control to be selected by the MCTI.

The Consultant shall review and assess all existing documentation, reports, studies, and other relevant data and information to obtain the required information for monitoring of designs preparation. The Consultant shall compare collected data with the current situation and technical solutions proposed by the Contractor(s).

During the preparation of designs by the Contractor(s), the Consultant shall provide full technical assistance to the IZS and PIU and will be responsible to supervise preparation of technical documents, ensuring that:

- They include all required parts for implementation (drawings, surveys, Bill of Quantities, technical specifications and cost estimation),
- Proposed technical solution is feasible,
- Proposed technical solution will increase safety at the specific RLC,
- Proposed technical solution offers new faster, more safe, more reliable and more accurate organization of both railway and road traffic,
- Technological requirements are defined through the conceptual designs according to the IZS request and they include all elements required for interlocking device to be installed on the RLC together with required civil engineering structures that should be reconstructed as well as specific details of the certain level crossing resulting from requirements set by the IZS,
- Based on the assessed documents and site visits, as the specific output of this activity, the Consultant shall review if Design Basis Report includes the scope, methodology, critical inputs and criteria which will be in preliminary designs for each RLC,
- Timely preparation of required documents;
- Guidance, comments and approvals of the IZS and PIU/MCTI, whenever required, are timely provided,
- Provisions of the works contract(s) are fully respected by the Contractor(s), considering the time and budget constraints,
- Environmental and social requirements of the World Bank and the Serbian legal framework are integrated.

4.2.3 Activity 3 Supervision of works (construction and equipment installation)

The Consultant shall provide full supervisory services during construction of works as FIDIC Engineer in accordance with FIDIC Conditions of Contract for Plant and Design-Build for Building and Engineering Works Designed by the Contractor, First Edition 1999 (Yellow Book).

The Consultant will set up an adequate organization, including monitoring systems, to meet requirements for an efficient construction supervision and administration. In the performance of duties of the FIDIC Engineer, the Consultant shall ensure that the works contract(s) brings the construction works to completion within the approved time, quality

and budget in accordance with the requirements of the works contract(s). The Consultant shall provide services to the MCTI with respect to the scope of this Contract and shall establish, with the consent of the MCTI the implementation programs for the facilities and be generally responsible for the co-ordination and administration of all works contracts' issues.

The Consultant shall be required to establish and follow detailed supervision procedures based on sound international practice to monitor the completion of the works contract(s) within the agreed program and budget and to the quality standards and environmental provisions stipulated in those contracts.

The Consultant shall perform his duties or act:

- proactively, where the initiative lies with the Consultant in administering the work contract (s);
- reactively, in response to the Contractor's or the MCTI/PIU requests and
- passively, in observing the requirements of the works contract(s).

Wherever appropriate and not in conflict with the works contract, the Consultant shall exercise every reasonable care to protect the interests of the MCTI.

The Consultant shall be responsible for the supervision of the works contract(s), including but not limited to the below items:

- Supervision of works according to the signed contracts, approved designs, technical specifications, general and special conditions, drawings and breakdown of the overall contract price of the works contract(s);
- Give approval for the sub-contractors for the works, if any
- Give Commencement Order
- Pre-approval of the interim payment application and sending it to the IZS and PIU for the final approval
- Attend the taking over and final taking over committee
- Pre-approval for the draft final statement of account and submission of final statement of account to the IZS and PIU for its final approval
- Approval of verification operations
- Approval of any change of the key personnel of the contractor(s) that is listed in the works contract(s),
- Approval of material samples
- Other tasks (as needed) and responsibilities assigned to the supervision in the related works contracts.

The Consultant shall obtain the specific approval of the MCTI in the performance of his duties before taking following actions:

- Agreeing or determining any matter, which will change the Contract Price of the works contract(s);
- Giving consent to a Sub-contractor for which a different sub-contractor is named in the works contract(s);
- Agreeing or determining time extension for the works contract(s);

- Instructing an administrative order which is expected to change the Contract Price for works contract(s) or in any change in the scope, character or quality of the works. No Administrative Order shall be given by the Consultant without the consent of the MCTI regardless of whether it will change the price or not (including the change of materials and design);
- Issuing an administrative order for the use of the provisional sums/contingencies/dayworks;
- Issuing a suspension order.

The Consultant shall set up a functional organization for supervision allowing for a fast and efficient phasing of the implementation activities. The Consultant shall ensure a presence of his key personnel at the works site, by planning of human resources.

The supervision of works shall be implemented in compliance with the requirements of the relevant legislation and WB environmental and social requirements. Having said that, the Consultant should have a license indicating the eligibility to act as a Supervisor in RoS for signaling interlocking and civil works.

Activities of the Consultant for supervision of works are divided in four main sub-activities:

1. Pre-construction activities
2. Construction activities
3. Activities during installation of the equipment
4. Post-construction activities

4.2.3.1 Pre-construction activities

These activities will initiate with the award of works contract(s) and ceases with the commencement of the implementation. Most of the pre-construction activities (reviews, time and activity planning etc.) will be performed in the main office in Belgrade.

The Consultant shall:

- Ensure that all Consultant's Representatives in the sites are prepared to act with a common approach and performing the activities in the same manner and in accordance with the rules and procedures of the Project;
- Prepare detailed time and activity schedule (supervision plan) for the relevant works contract, for easy monthly (minimum) updating throughout the duration of the contract and with reference to reporting requirements;
- Assess the site conditions, related legislation, related technical standards and institutional state of the key stakeholders;
- Evaluate and scrutinize the relevant documentation;
- Mobilize and set-up the site offices at the premises to be provided by the contractor(s) as indicated in the works contract(s);
- Ensure proper introduction and training of all relevant staff;
- Confirm the responsibilities and duties of the supervisory staff with the MCTI, IZS and the contractor(s);
- For each works contract signed or taken-over mobilize the supervision staff to the site;

- Ensure/check that all activities/formalities and in particular all Supervisor's responsibilities are fulfilled prior to the works are carried out or started up for each works contract signed or taken-over, such as insurance of works, detailed Implementation Program, Notice of Commencement Order, approval of contractors representative and other staff, approval of sub-contractors, suppliers (of works contract), supply of documents of contractors, data for setting-out, safety on site, machinery and equipment used in the construction works, approval of means and format of the communication and reporting;
- Hold kick-off meeting with the IZS, PIU and the contractors and keep the minutes of the meeting;
- Agree to regular site meetings, weekly, monthly meeting formats and attendance,
- Agree on timing and commencement of the works;
- Supervise implementation of environmental, occupational, health and safety (OHS) and community safety related activities as outlined in the ESMF² of the Project and further defined in the Environmental and Social Management Plan (ESMP)³, required by the WB Safeguards Policies and the relevant national regulation.

4.2.3.2 Construction activities

The Consultant shall provide full supervision services during construction of the works on behalf of the MCTI.

This phase will commence at the Commencement Date for the respective works contract and will continue until the temporary acceptance.

The Consultant's services will include but not be limited to:

- Overall day-to-day supervision, including, but not limited to, management and planning, cost and quality control, reporting and monitoring physical and financial progress of the works contract(s) and related activities;
- Organization of the bi-weekly site meetings, and ad hoc site meetings, whenever necessary, with the contractor(s) and other related parties (IZS, PIU/MCTI, Municipalities, etc.), if any, to monitor the progress of works to ensure sound and timely completion of the works in the desired quality;
- Carry out quantity surveys to verify the progress of the works;
- Checking of the quality of executed works, quality of built-in materials and installed equipment, all test runs of completed works along with the tests proving the achievement of guaranteed parameters set out in the works contract(s) and all related activities taken by the contractor(s), checking quality certificates, approvals, statement of compliance, certificates, guarantees etc.;
- Prepare post-contract documentation, checking the contractor's invoice(es), that amounts claimed have actually incurred in accordance with the requirements of

² Developed by the MCTI, October 2018

³ To be developed by the MCTI for each specific sub-project

the works contract(s), issuing the certificates of payment, variation orders, taking-over certificates, payment certificates, performance certificates etc.;

- Follow-up on cash flows and monthly progress time schedules;
- Control the contractor's setting out of the works, review and approve the as-built drawings and Operation and Maintenance Manuals prepared by the contractor(s) post construction activities;
- Review and approve the testing plans, performance test and commissioning plans in accordance with the special conditions of the works contract(s);
- Carry out the taking-over inspections;
- Control the trial operating periods, performance tests and the handing-over of the works to the IZS/MCTI;
- Settlement of disputes amicably;
- Prepare and submit Progress Reports (Monthly, Quarterly) which includes progress reporting, photos, physical and financial progress schedules, minutes of meetings related to the reporting period;
- Supervise implementation of environmental, OHS and community safety related activities as outlined in the ESMF of the Project and further defined in the ESMP, required by the WB Safeguards Policies and the relevant national regulation.

More precisely, supervision for construction works for RLCs will further cover following works on road and railway traffic, civil works and electrical works in accordance to more detail description:

1. *Supervision of the traffic work, relates to:*

- Technology of the traffic flow for the duration of the works on the road crossing and temporary regulation of the road traffic during the reconstruction works and raising the safety level of the road crossing,
- Plan of temporary and permanent vertical and horizontal signaling,
- Proposal for technical and technological intervention on raising the safety level on the railway and on the road with possible stages of realization.

2. *Supervision of the civil work* is related to work on railway line and work on road in proposed zone of work for upgrading railway level crossing:

- Upgrading of substructure and superstructure in railway level crossing in zone of railway land (with cadastral plan, the ownership document containing the drawing of insurance elements) presented on geodetic layout,
- Check of the longitudinal profile and cross sections with drainage plan,
- Review of marking plan and major points of level crossing, railway sections and road section,
- Supervision during installation of rubber panels at level crossing zone.

3. *Supervision of the electrical works* - RLC safety device shall be equipped with diagnostic device; thus it is necessary to ensure that diagnostics of each RLC is carried out from the authorized centers.

The Consultant will be responsible to control if all required elements are included in the design, and executed in accordance with approved design. For that purpose, the Consultant will at least ensure that following is included:

Internal device and external device with technical specification according to accepted possibilities. For interlocking device: calculation of activation points,

indoor and outdoor equipment requirements, cable network and cable calculations, cable plan, protection at work, mounting conditions, detailed bill of quantities and cost estimate, disposition of indoor and outdoor equipment. Control of proposed solution by the Consultant for next items: the power supply of the level crossing, video surveillance, lighting the level crossing.

The internal device of the road crossing has to be placed into an isolated house in accordance to the standard for accommodating such equipment without heating and cooling bodies.

Since in this phase Consultant's services include check of designers propose methodology of works execution together with time schedule, it is supposed to be harmonized to Contractor who dictates final time schedule and cost of works.

Coordinate activities among RLCs in RoS and support and assist to MCTI in coordination of activities with representatives of EU and non-EU countries bordering with RoS.

4.2.3.3 Activities during installation

The Consultant's services will include but not be limited to:

- Monitoring and ensuring timely purchase and delivery of the equipment at the specific RLC site,
- Acceptance of equipment delivered from the plant to the specific RLC site,
- Quality control of installation performed,
- Check-up of interlocking,
- Check-up of documents availability,
- Check-up of completeness of equipment in accordance with packing lists,
- Check-up of completeness of spare parts and accessories in accordance with documents,
- Check-up of components, assembly parts and materials,
- Check-up of delivered equipment integrity,
- Compliance of foundation (bottom) for mounting of equipment,
- Control of the quality of installation,
- Visual inspection of assembly and check-up of the whole equipment,
- Testing of the equipment,
- Set out basic principles for the safe and reliable operation of equipment as a reference for the Contractor(s) to prepare his O&M manual,
- Specify the principles for the operation and maintenance of the equipment, considering the IZS existing in-house maintenance management systems for other RLCs,
- Check-up integration of new, installed equipment into existing system,
- Commissioning of the completed systems on RLCs,
- Supervision of trainings to be provide by the Contractors
- Supervise implementation of environmental, OHS and community safety related activities as outlined in the ESMF of the Project, further defined in ESMP of the sub-project, required by the WB Safeguards Policies and the relevant national regulation

4.2.3.4 Post-construction activities

After completion of the works, the Consultant shall inspect the works on a semi-annual basis in order to ensure a proper monitoring of the works performance during the Defects Notification Period (DNP) defined in each works contract.

During this period, the Consultant shall notify the contractor(s) for works and the MCTI/PIU of such visits.

- Regular inspections (semi-annually) up to the end of defects liability period of the works contract(s),
- Organization of the semi-annually site meetings, and ad hoc site meetings, whenever necessary, with the contractor(s), IZS and other related stakeholders to ensure sound and timely completion of the works in the desired quality. Preparation and distribution of the Minutes of Meetings.
- Agree (semi-annually) performance tests together with the contractors for proving the parameters of the work(s),
- Issue of the final Performance Certificate, when the contractor has fulfilled his obligations,
- Check the contractor's final statement of account and prepare and issue the final payment certificate for IZS and PIU approval.
- Supervise actions ensuring that the project remains compliant to the World Bank Environmental and Social Safeguard policies and guidelines.

4.2.4 Activity 4: Final works

Before the contract completion a Final Report shall be prepared by the Consultant providing the content of the ToR compared with the activities implemented, the achieved results, encountered problems and lessons learned.

5. Logistic and timing

5.1 Location

Operational base for the Contract will be Belgrade. Internal travel within the RoS is required for site supervision.

The Consultant shall undertake the works in the RoS, in his office(s) and at site offices indicated by the MCTI and established by the Contractor(s) as indicated in the works contract(s).

5.2 Commencement date and period of implementation

The intended commencement date is September 2021 but the actual commencement date will be defined with the signature of the Contract. The period of implementation of the contract will be 48 months starting from the commencement date.

The Consultant will carry out the services in line with a detailed time schedule to be submitted as part of his proposal, which could be changed during the negotiations in order to reflect the comments and/or requirements by the parties.

6. Requirements

6.1 Shortlisting criteria

The Consultant firm will be selected in accordance with QCBS (Quality-and Cost-Based Selection) method set out in the World Bank's Procurement Regulations for IPF Borrowers (July 2016, revised November 2017).

The assignment will require a qualified consulting company or consortium that can demonstrate extensive experience in Supervision services for the contracts based on FIDIC Yellow Book.

The following shortlisting criteria will be applied to all consulting firms that have submitted EoI:

- i) The Consulting firm must be a legal entity;
- ii) The number of permanent staff of the consultant (individual company or joint venture overall) currently working in the field related to this contract, must be at least 6 for each of the last three years (2018, 2019 and 2020);
- iii) The consultant (individual company or joint venture altogether) has implemented and successfully completed, during the last five years (from the January 2016 up to the deadline for the receipt of applications indicated below), at least one (1) contract in a field related to these Services, i.e. supervision of RLCs' and equipment installation or works for safety improvement of RLCs, and shall demonstrate that it had a participation of minimum 60% in each of the contracts brought as reference;
- iv) Experience in Western Balkans region, will be advantage;

As a proof, the Consultant firm shall prepare a table listing following information: name of the relevant assignment, name of a firm that conducted the assignment, short scope of work, year of contract implementation, country/region, contact reference (name, e-mail, phone number).

Key Experts' CV are not required and will not be evaluated at the shortlisting stage.

MCTI, as the Client, intends to shortlist up to eight eligible firms to whom a subsequent Request for Proposals (RFP), both technical and financial, shall be sent. In the event that more than eight firms fulfil all the qualifying criteria above, the MCTI shall use the following criteria to rank the firms and the top eight shall be invited to submit proposals: (i) the number of contracts in a field related to these Services brought as reference in para (iii) above, and in case of equality on this criterion, then the value of the eligible part (the value of the activities carried out by the firm) of the projects found eligible in para (iii).

6.2 Personnel

The Consultant shall establish his Team in accordance with the needs and requirements of this ToR. The Team shall consist of a core team made of key experts with the qualifications and skills defined in the Table 1, below and non-key experts, as needed. The Consultant is obliged to ensure adequate staff in terms of expertise and time allocation, as well as needed equipment in order to complete the activities required under the scope of work and to achieve the objectives of this Contract in terms of time, costs, and quality. Having in mind the diversity of areas covered by this Contract it is expected

that the Consultant will have sufficient expertise and required licenses to supervise the works contract(s) and sufficient expertise to cover preparation of the necessary documentation for RLCs. Moreover, considering the geographical distribution of the scope, the Consultant is expected to be flexible in terms of travelling.

The Team, as a whole, shall include experts familiar with RoS' regulations. The team organization, proposed staff availability and number of working days assigned to specific activities and backup will be evaluated as one of the major criteria within the evaluation of the proposed methodology and time schedule.

Given the complex nature of the services to be rendered by the Consultant for the implementation of the Contract, in terms of expertise required, as part of the organization and methodology of the technical proposal, the bidders will be expected to effectively mobilize highly qualified key experts to carry out requested specific activities.

The Team Leader with qualifications and skills given below will lead the Team. He/she will be the main contact for the Team and will interface with the MCTI, PIU and IZS, and other interested stakeholders (e.g. municipalities). He/she should be responsible for ensuring high quality performance of the main outputs and deliverables and the timing implementation of the activities during the Contract execution. He/she will be supported by the Deputy Team Leader, who will replace the Team Leader when necessary.

The employment of local experts will be welcomed by the Client, and such experts should form a part of the team carrying out supervision. The Consultant should pay attention to the need to ensure the active participation of local professional skills, and to provide a suitable mix of international and local-staff in the Team.

All experts shall be independent and free from any conflicts of interest in the responsibilities they take on and have to spend minimum 90% time in the country. The experts should have appropriate licenses issued by the MCTI or a declaration stating that they shall apply for and receive the license in no more than 1 months after the announcement of the award.

The Consultant shall be responsible for organization of its key experts in such a way to ensure the works contract(s) are executed in accordance with the Contractors' work program. The Consultant shall make available each of its key experts at any time that their services may be required.

The Consultant shall secure that the construction sites are permanently staffed with the relevant key experts at any time during the construction/installation phase.

The total inputs for non-key experts are given indicatively for the purpose of this contract.

Table 1 Indicative total inputs for experts

| | Key Expert Position | Working Days (indicative) |
|---|----------------------------------|----------------------------------|
| 1 | Team Leader | 340 days |
| 2 | Site Engineers (FIDIC Engineers) | 1080 days |
| 3 | Key Experts | 1500 days |
| | <i>Key Experts, total</i> | <i>2920 days</i> |

| | | |
|---|--------------------------------------|---|
| | <i>Non - Key Experts</i> | <i>Working Days (indicative)</i> |
| 1 | Senior Experts | 1200 days |
| 2 | Junior Experts | 1000 days |
| | <i>Non-key experts, total</i> | <i>2200 days</i> |

Note that civil servants and other staff of the public administration of the beneficiary country (Republic of Serbia) cannot be proposed as experts.

The Project language is English. All the team members assigned by the Consultant must be able to communicate effectively in English. A sufficient number of the Consultant's team should be fluent in Serbian language, especially the staff assigned to be on site.

The Consultant shall provide adequate administrative staff (secretary, translators, drivers accountant) needed to support the expert team.

6.2.1 Key experts

All experts who have a crucial role in implementing the contract are referred to as key experts. The key experts will spend no less than 90% of their allocated time at construction sites or Belgrade. No home based work is possible unless prior approval from the MCTI/PIU and this will be assessed on a case-by-case basis. The profiles of the key experts for this contract are given below.

Table 2 Key experts

| Title | Qualifications/Experience | Skills |
|---|--|---|
| Key experts: A Deputy team leader shall be appointed from one of the key or senior non-key experts who shall be familiar with the relevant Serbian legislation and speak fluently Serbian | | |
| Team Leader – Senior railway engineer | <u>Education:</u> Have as a minimum B. Sc. Degree in Civil or Electro Engineering or other relevant discipline <u>Relevant professional experience:</u> At least 20 years of general professional experience of which at least 10 in the rail sector Have a focus of professional experience in supervision or construction of railway projects; Team leader on international railway projects (minimum two projects) | Excellent command of the English language. Computer literacy. Knowledge of Serbian language will be an advantage |
| Engineer for the signaling/interlocking and telecommunication on RLC | <u>Education:</u> Have as a minimum B. Sc. Degree in electrical Engineering or other relevant discipline At least 10 years of general professional experience of which at least 6 in the rail sector; Have a focus of professional experience in supervision and/or construction of railway construction projects in field of signaling or telecommunication; <u>Relevant professional experience:</u> License 352;353, 453/10 year | Communication skills, fluency in English. Knowledge of Serbian language will be an advantage, FIDIC engineer |

| Title | Qualifications/Experience | Skills |
|--|--|--|
| Engineer for power supply on RLC | <u>Education:</u> Have as a minimum B. Sc. Degree in electrical Engineering or other relevant discipline At least 10 years of general professional experience of which at least 6 in the rail sector Have a focus of professional experience in supervision and/or construction of railway construction projects in field of power supply <u>Relevant professional experience:</u> License 351;451/10 year | Communication skills, fluency in English. Knowledge of Serbian language will be an advantage |
| Engineer for the Civil Works on RLC | <u>Education:</u> Have as a minimum B. Sc. Degree in Civil Engineering or other relevant discipline At least 10 years of general professional experience of which at least 6 in the rail sector Have a focus of professional experience in supervision and/or construction of railway construction projects in field of substructure or superstructure design <u>Relevant professional experience:</u> License 315;312;412;415/10 year | Communication skills, fluency in English. Knowledge of Serbian language will be an advantage, FIDIC engineer |
| Engineer for the road/railway traffic signalization on RLC | <u>Education:</u> Have as a minimum B. Sc. Degree in Traffic Engineering or other relevant discipline; At least 10 years of general professional experience of which at least 6 in the rail/road sector Have a focus of professional experience in supervision and/or construction of railway construction projects in field of traffic signalization for road/rail design <u>Relevant professional experience:</u> License 368;370;470/10 year | Communication skills, fluency in English. Knowledge of Serbian language will be an advantage |
| Environmental Specialist | <u>Education:</u> Have as a minimum B.Sc. Degree in environmental sciences, engineering or other relevant social science <u>Relevant professional experience:</u> At least 8 years of relevant assessment studies for infrastructure projects. Have experience in the development of environmental and social impact assessment studies for infrastructure projects. Preparation of ESIA studies for infrastructure projects financed by the World Bank; Experience in working on ESIA for infrastructure projects in the Western Balkans and the region | Communication skills, fluency in English. Knowledge of Serbian language will be an advantage |

6.2.2 Non-key experts (NKE)

The Consultant is expected to include in their proposals other positions that they consider necessary for the assignment. CVs for non-key experts should be submitted in the proposal, however they would not be subject of evaluation.

The Consultant is expected to select and hire other experts as required according to the profiles identified in the Organization & Methodology including but not limited to civil engineer, railway engineer, mechanical engineer and electrical engineer. They must indicate clearly which profile they have so it is clear which fee rate in the budget breakdown will apply. All experts must be independent and free from conflicts of interest in the responsibilities they take on.

The pool of non-key experts is expected to support/complement all the activities of the key experts. Possession of relevant Serbian license for design/construction would be required, as applicable.

Senior non-key experts: Minimum 10 years of experience. Good command of written and spoken English. Knowledge of local language is an asset. Non-key senior experts shall be licensed in accordance with the national Law on Planning and Construction of the RS (license No 312, 315, 350,351, 352, 353, 412, 415, 450, 451, 453). Full computer literacy in MS applications. Profile such as civil engineers, mechanical engineers, electrical engineers, etc.

Junior non-key experts: Minimum 5 years of experience. Profiles such as design engineers, civil engineers, mechanical engineers, electrical engineers, survey technicians, inspectors, etc.

6.3 Office accommodation

Office accommodation for each expert working on the Contract is to be provided by the Consultant.

The Consultant shall ensure that experts are adequately supported and equipped. In particular, it shall ensure that there is sufficient administrative, secretarial and interpreting provision to enable experts to concentrate on their primary responsibilities.

No equipment is to be purchased on behalf of the neither Client (MCTI), PIU nor Beneficiaries (IZS) as part of this service contract or transferred to the Client or beneficiaries at the end of this Contract.

7. Outputs

7.1 Outputs requirements

The Consultant shall prepare, as a minimum, the below listed reports during the period of execution of the Contract.

All deliverables (draft and final versions) shall be prepared in both, English and Serbian language.

The deliverables should be delivered in accordance with the following timetable:

| Deliverables | Description | Due date | Format |
|----------------------------|--|---|---------------------------|
| Inception Report | Preparation of the plan to establish and follow detailed construction supervision procedures based on sound international practice to monitor the completion of the works contract(s) within the agreed time and budget and to the quality standards and environmental provisions stipulated in the works contract(s). (up to 30 pages) | No later than 4 weeks after the commencement | Digital and 3 hard copies |
| Supervise Basis Report | The Supervise basis report shall summarize all data accessed and to be used as an input to the construction. It shall include a section on the validation of data and lack of data, if any.(up to 10 pages) | No later than 2 months after the commencement | Digital and 3 hard copies |
| Monthly Progress Reports | The key issues to be addressed in this report are the brief description of the quantitative progress (completion, disbursements, milestones reached) and major bottlenecks for each works contract(s) (not more than 2 pages). | Not later than 2 weeks after the end of month | Digital and 3 hard copies |
| Quarterly Progress Reports | <p>Description of progress (technical and financial) including problems encountered; planned activities for the next 3 months (up to 50 pages)</p> <p>The key issues to be addressed in the quarterly report are the progress of the activities as detailed under Section 4 of this ToR including the measures subject to the supervision activities such as safety, quality, progress, work programme, resources, contract management and cost control.</p> <p>The report must include a summary of the progress of the services defined under Section 4 of this ToR, with particular reference to major activities and those on the critical path for completion of the works. The report must detail delays and difficulties encountered and proposed mitigation measures to alleviate them and provide future projections for implementation of the activities.</p> <p>The financial section must contain details of the time inputs of the experts and of the provision for expenditure verification.</p> | No later than 1 month after the end of each 3 month implementation period | Digital and 3 hard copies |

| Deliverables | Description | Due date | Format |
|----------------------------------|--|--|---------------------------|
| Works Contract Completion Report | <p>On completion of each works contract, upon issue of the Taking-Over Certificate, within 15 days the Consultant shall submit a Completion Report to the IZS and PIU/MCTI. The main report must contain:</p> <ul style="list-style-type: none"> ○ Copies of the Taking-Over Certificate(s) ○ Verified "as-built" drawings showing all revision to the design of the works. ○ A complete analysis of the completion cost of the works. ○ An overview of the actual progress of the works detailing reasons for delays and/or extensions of time ○ Commissioning report for the various mechanical and electrical components of the works ○ Details of all permits required for the operation of the works ○ An overview of site safety procedures, any problems in this regard and recommendations for improvement. ○ An overview of the Consultant's working practices and resources. ○ An assessment of the quality of materials and workmanship any problems in this regard and recommendations for improvement. ○ Details of technical difficulties encountered and how these were overcome. ○ Details of administrative difficulties encountered and how these were overcome ○ An appraisal of the strengths and weaknesses in the contract documents and in the design of the works (including but not limited to the Special Conditions of works contract, technical specifications, price schedules, design details and drawings) with recommendations on how improvements could be made for future contracts. | No later than 15 days after issue of Taking-Over Certificate of each works contract. | Digital and 3 hard copies |
| Quality Assurance (QA) Dossiers | <p>In addition to the Completion Report the Consultant shall submit for each works contract, a comprehensive QA Dossier containing all original requests for inspection, approval, test forms and certificates relating to the construction of the works, materials and equipment incorporated into the works. Documentation in the QA Dossier must include but not necessarily be restricted to:</p> <ul style="list-style-type: none"> ○ All manufacturer's test certificates for materials, if any ○ Performance test certificates and warranty agreements where applicable for mechanical and electrical equipment. ○ Requests for inspection (if any), approvals and test results. | The QA Dossier will be compiled during the course of the each works contract and it must be available for inspection by the MCTI at any reasonable time. | Digital and 3 hard copies |

| Deliverables | Description | Due date | Format |
|--------------|--|--|---------------------------|
| Final Report | <p>There must be a final report for the Contract, final invoice and the financial report at the end of the period of execution.</p> <p>Extensive description of progress (technical and financial) including problems encountered.</p> <p>It must describe, in detail, the technical progress of works, it must compare in detail the actual progress with the agreed work programs, it must describe the achievements and the suggestions for future similar works (up to 40 pages)</p> | No later than 1 month before the end of the implementation period. | Digital and 3 hard copies |

7.2 Submission and approval of outputs

All reports and other outputs, if any must be written in English and translated into Serbian language and must include an executive summary. Each report shall consist of a narrative section and a financial section. The financial section must contain details of the time inputs of the experts and expenditure.

The draft version of the reports (electronic copy) must be simultaneously transmitted to the PIU/MCTI and to the IZS.

The commenting period for the outputs is 2 weeks. In case of no-reaction to the submitted outputs from the stakeholders such status will be interpreted as “no objection” of the related stakeholder and shall be deemed as approved.

The Consultant shall prepare the Minutes of Meetings (MoM) for the site meetings and monthly progress meetings. All Meetings must be ensured to lead to clear decisions, persons in charge and deadlines. Minutes of Meetings will be distributed by the Consultant. MoM of the site meetings must be commented within 7 calendar days by participants. MoM for the monthly progress meetings will be always in the agenda of the next monthly meeting to be approved and followed up.

All deliverables will be sent as electronic copies to the MCTI/PIU and IZS.

Hard copies will be send to the following addresses:

- “Serbian Railways Infrastructure“ JSC, 6, Nemanjina Street, 11000 Belgrade, Republic of Serbia
- PIU, Omladinskih brigada 1, office 555, 11070 Novi Beograd, Republic of Serbia.

Appendix 1 List of Railway Level Crossings

| No | Railway track | Position on a rail track |
|----------------------------|---|---|
| RLC 1 | Ruma-Sabac-branch-line junction Donja Borina – state border – (Zvornik Novi) | Loznica 49+511 |
| RLC 2 | Ruma-Sabac-branch-line junction Donja Borina – state border – (Zvornik Novi) | Budjanovci 3+285 |
| RLC 3 | Ruma-Sabac-branch-line junction Donja Borina – state border – (Zvornik Novi) | Donja Borina 67+660 |
| RLC 4 | Ruma-Sabac-branch-line junction Donja Borina – state border – (Zvornik Novi) | Klenak 29+048 |
| RLC 5 | Ruma-Sabac-branch-line junction Donja Borina – state border – (Zvornik Novi) | Zejtin Voda 62+425 |
| RLC 6 | Ruma-Sabac-branch-line junction Donja Borina – state border – (Zvornik Novi) | Sabacki put 50+317 |
| RLC 7, RLC 8 | Ruma-Sabac-branch-line junction Donja Borina – state border – (Zvornik Novi) | Ilicevo 1 52+471 Ilicevo 2 52+714 |
| RLC 9 | Ruma-Sabac-branch-line junction Donja Borina – state border – (Zvornik Novi) | Prnjavor Macvanski 27+774 |
| RLC 10 | Belgrade Centre – Pancevo main - Vrsac – state border – (Stamora Moravita) | Pivarski 17+544 |
| RLC 11 | Belgrade Centre – Pancevo main - Vrsac – state border – (Stamora Moravita) | Strazara 11 49+577 |
| RLC 12 | Belgrade Centre – Pancevo main - Vrsac – state border – (Stamora Moravita) | Strazara 2 19+836 |
| RLC 13 | Belgrade Centre – Pancevo main - Vrsac – state border – (Stamora Moravita) | Strazara 22 58+060 |
| RLC 14 RLC 15 RLC 16 | Subotica - Bogojevo – state border – (Erdut) | Strazara 105 127+680 128+340 128+854 |
| RLC 17 | Vrbas-Sombor | Kljajicevo 76+073 |
| RLC 18 | Lapovo – Kraljevo – Lesak – Kosovo Polje – Djeneral Jankovic – state border – (Volkovo) | Kaznovici 155+449 |
| RLC 19 | Lapovo – Kraljevo – Lesak – Kosovo Polje – Djeneral Jankovic – state border – (Volkovo) | Lapovo – Kraljevo 33+242 |
| RLC 20 | Lapovo – Kraljevo – Lesak – Kosovo Polje – Djeneral Jankovic – state border – (Volkovo) | Lapovo - Kraljevo 30+043 |
| RLC 21 RLC 22 | Stalac - Kraljevo - Pozega | Sumadija 40+967 Trstenik 41+715 |
| RLC 23 | Stalac - Kraljevo - Pozega | Spanac 74+044 |
| RLC 24 | Stalac - Kraljevo - Pozega | Stopanja 29+700 |
| RLC 25 | Stalac - Kraljevo - Pozega | Kamidzora 68+336 |
| RLC 26 | Crveni krst - Zajecar - Prahovo port | Svrljig 39+605 |
| RLC 27 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – state border – (Tabanovce) | Koncarevo 138+649 |

| No | Railway track | Position on a rail track |
|--------|---|--------------------------------|
| RLC 28 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – state border – (Tabanovce) | Block 2 st. Paracin 155+535 |
| RLC 29 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – state border – (Tabanovce) | Block 1 st. Vranje 353+833 |
| RLC 30 | Pancevo Main – Zrenjanin – Kikinda – State border (Jimbolia) | Melenci 105+561 |
| RLC 31 | Belgrade – Resnik – Pozega – Vrbnica – State border | 20+497 |
| RLC 32 | Belgrade – Resnik – Pozega – Vrbnica – State border | 24+269 |
| RLC 33 | Belgrade – Resnik – Pozega – Vrbnica – State border | 32+022 |
| RLC 34 | Belgrade – Resnik – Pozega – Vrbnica – State border | 33+484 |
| RLC 35 | Belgrade – Resnik – Pozega – Vrbnica – State border | 53+795 |
| RLC 36 | Belgrade – Resnik – Pozega – Vrbnica – State border | 66+716 |
| RLC 37 | Belgrade – Resnik – Pozega – Vrbnica – State border | 75+705 |
| RLC 38 | Belgrade – Resnik – Pozega – Vrbnica – State border | 225+878 |
| RLC 39 | Belgrade – Resnik – Pozega – Vrbnica – State border | 253+549 |
| RLC 40 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 20+183 |
| RLC 41 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 21+858 |
| RLC 42 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 34+436 |
| RLC 43 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 41+841 |
| RLC 44 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 78+247 |
| RLC 45 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 79+362 |
| RLC 46 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 99+939 |
| RLC 47 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 100+976 |
| RLC 48 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 105+545 |
| RLC 49 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 114+196 |
| RLC 50 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 116+995 |
| RLC 51 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 131+308 |
| RLC 52 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 162+516 |
| RLC 53 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 163+819 |
| RLC 54 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 171+810 |

| No | Railway track | Position on a rail track |
|--------|---|--------------------------|
| RLC 55 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 201+565 |
| RLC 56 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 208+192 |
| RLC 57 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 212+914 |
| RLC 58 | Belgrade – Mladenovac – Lapovo – Nis – Presevo – State border | 222+057 |

Appendix 2 Quarterly Progress Report

The Consultant shall consider following measures in his reports;

Safety: An update of accidents at works, an appraisal of the safety of the contractor's working practices, and how many safety transgressions may be remedied.

Quality: A summary of the quality of the contractor's work and materials and any problems related thereto with recommendations for improvement. A summary of all samples and tests carried out on materials, equipment and works.

Progress: A summary of the progress of the works with particular reference to major activities and those on the critical path for completion. The report shall detail delays and difficulties encountered and proposed measures to alleviate them.

Environmental Management: A summary of the remedial actions for the environmental protection as addressed in the EIA report.

A copy of the contractor's program marked up to show actual progress to date shall be included in the report.

Specific progress details for major activities and those on the critical path shall be presented showing a comparison between actual and scheduled progress.

Resources: A schedule of the contractor's labor, staff and equipment resources with an updated appraisal as to whether or not these are adequate to complete his Contract on time.

Contract Management and Cost: a revised projection of the final cost of the works, which takes into consideration but is not necessarily restricted to the following:

- value of interim payment certificates to date
- anticipated decreases or increases in the contract price
- valuation of any variation of orders issued by the contractor
- substantiation and valuation of any claims submitted by the contractor
- cost implications for any time overruns with or without extensions of time being granted to the contractor.

The values of the completed works shall be presented in graphical form showing a comparison between actual and proposed schedules values from commencement of the works.

Tabulated summaries of:

- Submittals of the contractor and approvals of the Consultant
- Site Instructions issued to date
- Administrative Orders for Modifications issued to date
- Claims notified by the contractor
- Interim Payment Certificates certified by the Consultant with the tabulation clearly showing the date on which the contractor has received payment, the

outstanding amount to be paid of any advance payment, and the amount of retention held

- Provisional sums or contingencies used to date
- Authorized day-works to date
- Other contractual issues e.g.; claims made on the insurance policies

In a suitable appendix the quarterly progress report shall contain the minutes of the monthly site meeting and any other contractual meetings, and a copy of the latest interim payment certificate.

The Quarterly Report shall also summarize the activities of the Consultant as:

- An appraisal of the working relationship with the PIU, IZS and contractor, detailing any specific administrative, supervision and inspection problems (including significant changes vs initial scope) encountered with the recommendations and how these may be overcome.
- Financial and technical summary of the work carried out by the Consultant during the period as well as in the previous periods
- Planned activities for the next period
- A schedule of the Consultant's staff in this service and any other relevant information, for example, visits to site by the IZS, PIU or the Consultant, meetings held, availability of the facilities etc.
- Any significant issue that has occurred and any significant risk may affect the project's operation
- A summary, in a tabulated format, of the disbursement made to the Consultant.