

## Specific Procurement Notice (SPN)

# Obigarm - Nurobod Road Project - Long Bridge and Approach Roads, Tajikistan

## Request for Expressions of Interest Consultancy Services

### (Supervision of a Design and Build Works Contract)

<b>Country:</b>	Republic of Tajikistan
<b>Employer:</b>	The Ministry of Transport of the Republic of Tajikistan
<b>Name of Project:</b>	Obigarm - Nurobod Road Project - Long Bridge and Approach Roads, Tajikistan
<b>Loan No.:</b>	P000309
<b>Contract Title:</b>	Consultancy Services for Supervision in the role of the Engineer under FIDIC for an Output and Performance-Based Design, Build and Maintain Civil Works Contract for a Permanent High-level Long Bridge about 920 m long including the road approach works (1.5 kilometers)
<b>Reference No.:</b>	P000309/17
<b>Issued on:</b>	22 of December, 2023

1. The Government of the Republic of Tajikistan (hereinafter called “Recipient”) has applied for financing from the Asian Infrastructure Investment Bank (hereinafter called the “AIIB” or the “Bank”) in the form of a Loan (hereinafter called the “Loan”) toward the cost of Obigarm - Nurobod Road Project - Long Bridge and Approach Roads, Tajikistan (hereinafter called the “Project”), and intends to apply part of the proceeds toward payments for Consultancy Services for Supervision in the role of the Engineer under FIDIC for an Output and Performance-Based Design, Build and Maintain Civil Works Contract for a Permanent High-level Long Bridge about 920 m long including the road approach works (1.5 kilometers) (hereinafter called the “Services”)
2. The Ministry of Transport, represented by the Project Implementation Unit for Road Rehabilitation (“PIURR”, an implementing agency of the Recipient), (hereinafter collectively called the “Client”) intends to shortlist Consultants for the provision of Services under this Contract Package as shown below:

Contract Package	Time for Completion	
Consultancy Services for Supervision in the role of the Engineer under FIDIC for an Output and Performance-Based Design, Build and Maintain Civil Works for Permanent High-level Long Bridge about 920 m long including the road approach works (1.5 kilometers)	Construction Phase (Design and Build)	1,460 days after the Commencement Date.
	Maintenance Phase	730 days (This Phase will start from the Date of Completion).
	Defect Notification Period (DNP)	730 days (The DNP will start from the Date of Completion and run concurrently with the Maintenance Phase).

The overall project “Obigarm - Nurobod Road Project” involves construction of an alternative alignment (hereinafter called the “Project Road”) for the existing M41 highway connecting the northeast region of Tajikistan and the Kyrgyz Republic between Obigarm (Km 72) and Nurobod (Km 158), which will be inundated by the reservoir of the Rogun Hydro-Power Project (HPP) that is currently under construction.

The Project (Section 3) is located between Km 72+811 and Km 74+292 and includes the construction of Permanent Long Bridge about 920 m long and its approaches, as a permanent replacement for the temporary bridge to be provided under the adjacent Package 2. The total length of Package 3 including the road approaches is about 1.5 kilometers.

The Services to be provided are for the supervision of the Works in the role of the Engineer under a Design and Build type of contract (Conditions of Contract for Plant & Design-Build for Electrical & Mechanical Plant & for Building & Engineering Works Designed by the Contractor (“Yellow Book”) Second edition 2017”), published by the Federation Internationale Des Ingenieurs – Conseils (FIDIC).

It is expected that the Request for Proposals will be issued in Q2 of 2024.

3. Shortlisting of Consultants will be conducted through International Open Competitive Selection method plus Quality and Cost Based Selection procedures as specified in the Bank’s Interim Operational Directive on Procurement Instructions for Recipients (PIR, June 2, 2016, updated from time to time), and is open to all eligible Consultants as defined in the PIR.
4. The detailed draft Terms of Reference (TOR) for the assignment are attached to this Request for Expression of Interest
5. The main shortlisting evaluation criteria are as follows:
  - 1) Project experience in supervision of works contracts for construction of major bridges longer than 700m, including more than one span over 150 m, undertaken and successfully completed between 1st January 2013 and the Application submission deadline, in the role of the Engineer under FIDIC Conditions of Contract;

- 2) Project experience in supervision of works contracts for construction of major bridge and highway projects, undertaken and successfully completed between 1st January 2013 and the Application submission deadline, contracted using the FIDIC Conditions of Contract for Plant and Design Build or equivalent;
  - 3) Project experience in application of IFI environmental and social covenants, including environmental and social monitoring, compliance and reporting during implementation, on projects undertaken and successfully completed between 1st January 2013 and the Application submission deadline.
6. The attention of interested Consultants is drawn to Section II of the Bank's Procurement Instructions for Recipients (PIR), setting forth the Bank's policy on conflict of interest.
  7. 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, all the partners in the joint venture shall be jointly and severally liable for the entire contract, if selected.
  8. Further information, including details of the required format of the submission, can be obtained via a request submitted via email or by written application to the address given below. Requests should reference the name of the project, the contract title and the reference No.

**Mr. N. Arabzoda**, Executive Director  
Project Implementation Unit for Roads Rehabilitation  
Ministry of Transport of the Republic of Tajikistan  
14 Ayni Street, 2nd Floor,  
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9. Expression of Interest Submissions should be submitted in clearly marked envelopes and delivered to the address above by mail or by hand by 15.00 Dushanbe time on February 5<sup>th</sup>, 2024. Late applications will be rejected.

## Draft Terms of Reference for Construction Supervision Consultant

*These draft Terms of Reference have been developed to provide Consultants with an overview of the requirements of the Assignment. Final Terms of Reference will be provided during the subsequent stage of the procurement process. The Client reserves the right to make any changes necessary to the information provided below when preparing the final Terms of Reference for the Assignment.*

### 1. Background

The Asian Infrastructure Investment Bank (the “AIIB” or the “Bank”) intends to provide a loan to the Government of Tajikistan (GoT) for construction and supervision of the Obigarm - Nurobod Road Project, Section 3 (the Project). The Works for Section 3 include the construction of a 920 meter long, reinforced concrete, balanced cantilever, box girder bridge, as well as associated approach roads. The overall length of Section 3, including the approach roads, is approximately 1.4 km. The estimated overall investment cost for Section 3 is approximately USD 75,500,000.

The works for Section 3 form the final part of a much broader investment program providing for the improvement of the Obigarm to Nurobod road corridor. This involves construction of an alternative alignment for the existing M41 highway connecting the northeast region of Tajikistan and the Kyrgyz Republic between Obigarm (Km 72) and Nurobod (Km 158), which will be inundated by the reservoir of the Rogun Hydro-Power Project (HPP) that is currently under construction.



Figure 1 - Project Area

Development of the feasibility study and the design documentation of this road commenced under the Soviet Union in 1975. In 1984 the project was approved, and road construction began, but was

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suspended in the early 1990's. The original alignment of the 1984 project has been now adopted as the starting point for the design of the new road. The design category for the new road has been upgraded to Category III from the earlier design.

Section 1 of the highway is funded by the ADB and is currently under construction, with completion of the works expected in 2024. Section 2 of the highway is funded by the EBRD and is also currently under construction, with completion of the works similarly expected in 2024. A summary of the different works packages is shown below:

Package No.	Description	Financier
1	Km 0+000 to Km 30+217 Obigarm – Tagikamar section approximately 30 km long and includes 2 tunnels of 1.6km and 1.7 km, and construction of 6 short span bridges	ADB/OFID
2	Km 30+217 to Km 75+600 Tagikamar-Nurobod section approximately 44 km long and includes 1 tunnel of 2.6 km and construction of 7 short span bridges and 1 temporary bridge, excluding Package 3 which runs from Km 72+900 to Km 74+303	EBRD
3	Km 72+900 to Km 74+303 Permanent Long Bridge about 760 m long and its approaches, as a permanent replacement for the temporary bridge to be provided in Package 2. The total length of Package 3 including the road approaches is about 1.4 kilometers.	AIIB

The detailed design of the road, except for the long bridge and its approaches, has been completed by a national design consultant appointed by the MoT. However, documentation did not include the design of the required long bridge over the reservoir at the eastern end of the Project. Following a decision to adopt a design-build approach for Section 3, a consultant was appointed in August 2023, with the responsibility of:

- a) Identifying potential options for the long bridge type
- b) Preparing Preliminary Designs for the selected alternative
- c) Preparing Works Contract documents for the bridge and approaches, based on the FIDIC Conditions of Contract for Plant and Design Build (2<sup>nd</sup> Edition, 2017)

In order to ensure the implementation of the Project in accordance with the Bank's policies and procedures, and is completed within the expected timeframe, it is intended to engage a consultant (the "Consultant"), to supervise the construction of the Works for Section 3 – Long Bridge and Approaches, in the role of "The Engineer" under the FIDIC Conditions of Contract for Plant and Design Build (2<sup>nd</sup> Edition, 2017). The provision of services by the Consultant for the supervision of Section 3, the long bridge and approaches, is the subject of this Terms of Reference.

The Executing Agency for the Project is the Ministry of Transport (the "MoT"), and the Implementing Agency is the Project Implementation Unit for Road Rehabilitation (the "PIURR") of

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the Ministry of Transport. The PIURR will also act as “the Client” under this Services Contract for supervision and as “the Employer” under the Design-Build Works Contract.

The Project is designated as Category A for environmental and social impacts. The ADB/EBRD has commissioned and disclosed an Environmental and Social Impact Assessment (ESIA) for the entire alignment, and associated E&S Management Plans (ESMP). These are available at the following link: <https://www.adb.org/projects/documents/taj-52042-001-eia>. As the design of the Long Bridge was not available when the ADB ESIA was conducted in 2018-19, an Addendum to the ADB ESIA is being prepared, specifically for the Long Bridge site and will be shared upon its completion and disclosure.

The Tender Documents for the Works will be based on the FIDIC Plant and Design Build Contract 2<sup>nd</sup> Edition (2017, Yellow Book), suitable for public international procurement, using a Design-Build approach and adapted as necessary to include the milestones, performance indicators, payment model and maintenance requirements.

The Project is a government priority, as reflected by its inclusion in the National Development Strategy. The project is also consistent with the CAREC Transport and Trade Facilitation Strategy 2020 and the CAREC Transport Strategy 2030. It will contribute to achieving goals No.3 (good health and wellbeing) and No.9 (industry, innovation, and infrastructure) of the UN Sustainable Development Goals.

## 2. Objective(s) of the Assignment

The overall objective of the Assignment is to facilitate the timely and effective implementation of Section 3 of the Obigarm to Nurobod Highway - Long Bridge and Approaches (the Project), by providing the following services:

- Provision of support to the Implementing Agency for the overall management of the Project.
- Administration of the Works in the role of the Engineer under the FIDIC Conditions of Contract for Plant and Design Build (2<sup>nd</sup> Edition, 2017)
- Review of designs prepared by the Works Contractor and issue of a formal “no objection”
- Supervision of Works during implementation on site to ensure that they are constructed in accordance with the Contract, the design, the applicable standards and specifications
- Supervision of Works during the Defects Notification Period and Maintenance Period
- Ensuring that the Works are implemented in accordance with the current AIIB policies and procedures, in particular those related to Environmental, Social, Health and Safety (ESHS) issues.

Through the engagement of a suitably qualified consultant, the Client expects to obtain access to best international practice in the fields of project management, contract administration and works supervision of major bridges.

### 3. Scope of Services, Tasks (Components) and Expected Deliverables

The Consultant shall carry out all tasks under the Assignment in accordance with generally recognized international professional standards and practices.

The Consultant shall obtain the prior written approval of the Client before taking any action under a civil works contract designating the Consultant as “Engineer”, for which action, pursuant to such civil works contract, the written approval of the Client as “Employer” is required.

The Consultant shall perform all of the duties of the Engineer as specified or as implied by the Works Contract.

#### 3.1 Project Management Support

The Consultant shall provide general project management support to the PIU and assist them to fulfil their duties as the Employer under the FIDIC Conditions of Contract for Plant and Design Build (2<sup>nd</sup> Edition, 2017).

Specific tasks include but are not limited to:

- (i) provision of assistance to the PIURR to enable them to fulfil their duties as the Employer;
- (ii) preparation of an Employer decision schedule, to be updated on a quarterly basis, setting out requirements for Employer decisions;
- (iii) drawing up and maintaining a schedule of all necessary statutory licenses, permits and approvals necessary for the design, implementation and operation of the Project, identifying the dates for submissions the organizations responsible for making the applications;
- (iv) assist in the identification of any public utilities that need to be relocated or protected and provision of assistance to the Employer in coordination of utility works;
- (v) checking the compliance of Contractor’s securities and bonds and tracking their validity;
- (vi) ensuring that the contractor’s insurances are in line with the contract and tracking their validity;
- (vii) preparation and maintenance of a formal risk management matrix, identifying major risks affecting implementation of the project, their possible impact and suitable mitigation measures to be applied. The Consultant will proactively and continuously seek to assist the Employer in the management of the identified risks;
- (viii) monitoring the contractor’s program, cashflow projection and cost to completion and providing advice to the Employer on procedures necessary to complete the works within the time and cost stated in the contract;
- (ix) conducting formal monthly Contract Progress Meetings to be attended by representatives of the Employer and the Contractor;
- (x) preparation of the minutes of monthly Contract Progress meetings and circulating them among the participants;
- (xi) attending and making presentations at progress coordination meetings and similar progress reviews;

- (xii) coordination of the handover and acceptance of the works, including provision of assistance for any specific requirements related to the issue of the Permit for Use under local legislation.

### 3.2 Administration of the Works Contract

The Consultant shall administer the Works Contract in the role of the Engineer under the FIDIC Conditions of Contract for Plant and Design Build (2<sup>nd</sup> Edition, 2017).

Specific tasks include but are not limited to:

- (i) administration of the Works Contract and undertaking the duties of the Engineer, as defined in or implied by the Works Contract;
- (ii) verifying and recording that any precedent conditions associated with the commencement of works have been completed by both the Contractor and Employer;
- (iii) issuing the Contractor with notice of the Commencement Date;
- (iv) advising the Employer on compliance by the Contractors with respect to sub-contracting;
- (v) reviewing and commenting on the Contractor's Program, confirming the extent to which the Program complies with the Contract;
- (vi) requesting the Contractor to provide an expected monthly cash flow requirement;
- (vii) verifying that the progress of the Works is in compliance with the Program and milestone schedule;
- (viii) Reporting on the Contractor's control of the progress of the Works to ensure completion of the Works within the time established in accordance with the Contract;
- (ix) If for any cause other than those listed in the Contracts, the rate of progress of the Works is too slow to ensure the completion of the Works within the Time for Completion, instruct the Contractors to take the necessary measures in accordance with the Contract;
- (x) receiving from the Contractor their monthly Progress Reports, checking the same to ensure that they cover all relevant aspects of the Works;
- (xi) checking the Contractors' Interim Payment Statements and resolving with the Contractor any errors and queries which may arise. Advise the Employer and Contractor of any adjustments considered necessary;
- (xii) ascertain the amount to be certified in respect of the Contractor's Interim Payment Statements. Issue Interim Payment Certificates addressed to the Contractor and the Employer specifying the aggregate amount payable by the Employer to the Contractor;
- (xiii) certification of any additional amounts due to a Contractor in respect of valid claims notified in accordance with the procedure set out in a Contract;
- (xiv) the Consultant will provide a preliminary report to the Employer on any prospective variation, outlining the technical reasons for the variation, the contractual justification for the variation and the basis for the Consultant's valuation of the variation;
- (xv) administering variations in line with the provisions of the Contract. The Consultant will prepare a formal Variation Order confirming the agreement of the Contractor and Employer to the terms; The Consultant shall note that before agreeing to any modification of the contract, the Employer shall obtain the Bank's "no objection". All variations under the Contract are subject to the Bank's review prior to disbursement of loan funds. The Consultant will assist the Employer to comply with the procedures agreed with the AIIB;
- (xvi) notification, preparation and administration of Employer's claims, if necessary;



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- (xvii) establishment of a claims monitoring, evaluation and reporting system;
- (xviii) evaluation of claims for additional costs and/or extensions of time in line with the provisions of the Works Contract. Promptly after receipt of any Contractor's claim, the Consultant will provide the Employer with an assessment of the Consultant's preliminary conclusions with regard to the potential outcome of the claim;
- (xix) issuing determinations in respect of Contractor's and Employer's claims, subject to any limitations on the authority of the Engineer set out in the Contract;
- (xx) assisting and advising the Employer on all matters pertaining to the contract including disputes;
- (xxi) promoting and advising on appropriate dispute avoidance mechanisms;
- (xxii) preparing reports and providing assistance, as necessary and as required, to the Employer and the Dispute Board if and when appointed and during any subsequent arbitration procedures;
- (xxiii) providing the Employer with complete records and assisting the Contractor with providing "As Built" drawings for the Contract;
- (xxiv) following a request from a Contractor to issue a Taking-Over Certificate in respect of the Works, inspecting the Works and specifying any outstanding Works to be done by the Contractor before the issuance of a Taking-Over Certificate, as well as any minor or outstanding works which may be completed at a later date;
- (xxv) issuing a Taking-Over Certificate stating the date on which the Works were substantially completed in accordance with the Contract

### 3.3 Design Review

The Consultant shall review the designs prepared by the Contractor and provide their "no objection" in line with the provisions of the Works Contract.

It is noted that the designs will be prepared by the Contractor but will also be subject to both an independent 3<sup>rd</sup> party check and review by the appointed committee for State Expertise. The independent checker will be engaged by the Works Contractor.

Specific tasks include but are not limited to:

- (i) Verification of the capability and capacity of the Contractor's design team or design subcontractor;
- (ii) Before the start of the design process, require the Contractor to submit a specific quality control plan and program for design submissions. Review and comment upon this quality control plan and program;
- (iii) Together with the PIU, the Consultant shall facilitate liaison between the Contractor, design checker and the committee for State Expertise throughout the design process;
- (iv) assessment of the adequacy of the basic data used for the design;
- (v) assessment of the applicability of the design basis and standards established for the detailed design;
- (vi) verification that all design documents are in accordance with the requirements of the Contract including the Employer's Requirements, Preliminary Design and Technical Specifications;

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- (vii) reviewing adequacy of the Contractors detailed design based upon own calculations and evaluations, including geotechnical investigations;
- (viii) verifying that the independent 3<sup>rd</sup> party check has been completed and that any comments have been incorporated into the final design
- (ix) verifying that the design has been reviewed by the committee for State Expertise and that any comments have been incorporated into the final design
- (x) together with the PIU the Engineer shall assist in resolving any conflicts between the Contractor, the 3<sup>rd</sup> party checker and the committee for State Expertise as to the form and content of the design
- (xi) issuing a formal “no objection” to the Contractor’s design submissions, including shop drawings in line with the provisions of the Contract;
- (xii) as part of the design review process, the Consultant will carry out a road safety audit of the Project and as necessary require the Contractor to amend the design to comply with the findings of the audit;
- (xiii) Upon the completion of the works, the Consultant will carry out a further road safety audit of the completed works and as necessary require the Contractor to undertake any further works to comply with the findings of the audit;
- (xiv) Verification that the “As Built” drawings have been prepared by the Contractor in accordance with the Contract. Submission of “As-Built” drawings to the Employer;
- (xv) Verification that the maintenance and operation manuals have been prepared by the Contractor in accordance with the Contract. Submission of maintenance manuals to the Employer.

### **3.4 Supervision of the Works and Project Performance Monitoring during Implementation**

The Consultant shall verify the workmanship and quality of the Works, monitor the progress of the Works, and value the Works for payment in line with the provisions of the Works Contract, as well as in line with any relevant requirements under local legislation.

Specific tasks include but are not limited to:

- (i) checking and commenting on the Contractor’s method statements, working drawings, and programs for both temporary and permanent works;
- (ii) developing a comprehensive system of inspection checking and recording to ensure compliance of all works with contract requirements;
- (iii) developing measurement and payment systems; establishing a monitoring system for costs to date, and costs to completion; providing a system for the preparation of interim and final payment certificates;
- (iv) providing day-to-day supervision and inspection of works on site; maintenance by the supervision staff of a site diary covering all Contractor’s activities and site conditions;
- (v) prior to commencement of works, approving the contractor’s general method statements and management plans including occupational health and safety plans, traffic management and traffic control arrangements, proposed public and private haul and access routes, spoil disposal plans, borrow locations, working areas, materials stockpile areas, materials preparation, and processing areas, etc.;

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- (vi) reviewing, commenting upon, and accepting the contractor's quality assurance plans and procedures; assisting the contractor with establishing on-site and laboratory-based quality control, testing, and reporting procedures for all construction, workmanship, and materials; supervising the contractor in implementation of their approved quality assurance plans;
- (vii) obtaining from the Contractor (and design subcontractors) the full particularised version of their Quality Assurance/Quality Control plans. Checking and commenting upon the same and, if necessary, requesting the Contractors to amend the same;
- (viii) Auditing the Contractors' and Sub-Contractors' QA implementation;
- (ix) Carrying out necessary oversight to ensure that the Contractor maintains an effective and sufficient quality assurance procedure for the Works and monitor its operation;
- (x) Ensuring that the Contractor undertakes their own Quality Control (QC) in accordance with recognised good practice;
- (xi) addressing any failure of tests or inspection and advising on further tests required and measures to be undertaken by the Contractor;
- (xii) carrying out formal inspection of the work being executed by the Contractor to provide assurance as to the quality and standards of the materials and workmanship, and compliance with the requirements of the Contract and the Contractor's quality assurance system;
- (xiii) Verifying that any independent testing of the materials or plant as required by the Contract is carried out;
- (xiv) Agreeing with the Contractor procedures and times for inspecting, witnessing or testing any materials or plant as provided for in the Contract and the Contractor's quality assurance system;
- (xv) Agreeing with the Contractor and applying practical procedures for giving notice for any examination by the Engineer, which may be required before the Contractors can cover up or put out of view any part of the Works. In accordance with such procedures, and the Contractor's quality assurance system, examine where appropriate and check any part of the Works which is about to be covered or put out of view;
- (xvi) Obtaining for review copies of all test results within a reasonable time of the test being carried out;
- (xvii) Through oversight of the Contractor's operations, or through on-site inspection, determining if any materials or plant are defective or otherwise not in accordance with the Contract;
- (xviii) Carrying out, when requested by the Employer, such other inspections, supervision of testing on-site or procure the carrying out by the Contractors of such tests and supervise the same;
- (xix) Supervise factory inspections, all installation work at the sites and commissioning/ testing of Project components, if required.
- (xx) Attend and review the results of any tests on completion required under the Contract.
- (xxi) Verification of the accuracy and correctness of the Contractor's measurement of quantities for payment
- (xxii) verification of the accuracy and correctness of the Contractor's setting out.

### **3.5 Supervision of the Works During the Defects Notification and Maintenance Periods**

The Consultant shall monitor and supervise the Works during the Defects Notification Period and subsequent Maintenance Period, in line with the provisions of the Works Contract.

Specific tasks include but are not limited to:

- (i) Monitoring the performance of the Works during the Defects Notification Period and Maintenance Period;
- (ii) administration of the Contract during the Defects Notification Period and Maintenance Period;
- (iii) identification of any defects in the Works and issuing notification to the Contractor accordingly;
- (iv) supervision of minor works to be completed during the Defects Notification Period;
- (v) supervision of the rectification of any defects identified in the Works;
- (vi) attending and reporting on the results of any tests after completion specified in the Contract;
- (vii) checking in accordance with the relevant provisions of the Contract the Contractor's Final Payment Statements and resolve with the Contractor, where possible, any mistakes, queries or disagreements which may arise in conjunction therewith; advise the Employer of any adjustments considered necessary;
- (viii) Determining the amount to be certified in respect of the Contractor's Final Payment Statement;
- (ix) issuing a Final Payment Certificate addressed to the Contractor and the Employer specifying the total amount payable by the Employer to the Contractor;
- (x) Verifying the completion of the Contractor's obligations under the Contract and preparing and issuing the Performance Certificate;
- (xi) advising the Employer on the release of all contractor's securities and retentions.

### **3.6 Environmental, Social, Health and Safety (ESHS) Monitoring & Reporting**

The Consultant shall monitor and supervise the implementation of ESHS requirements, in line with the provisions of the Works Contract, Bank policy and procedures, and in line with any relevant requirements under local legislation.

The Consultant shall ensure that the Contractor's ESHS performance is in accordance with good international industry practice and delivers the Contractor's ESHS obligations.

The ESHS-related services include but are not limited to:

- (i) review and approve the Contractor's Environment and Social Management Plan (ESMP), including all updates and revisions (not less than once every six months);
- (ii) review and approve ESHS provisions of method statements, implementation plans, gender-based violence/sexual exploitation and abuse (GBV/SEA) prevention and

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- response action plan, drawings, proposals, schedules and all relevant Contractor's documents;
- (iii) review and consider the ESHS risks and impacts of any design change proposals and advise if there are implications for compliance with Environmental and Social Impact Assessment (ESIA), ESMP, consent/permits and other relevant project requirements;
  - (iv) undertake monthly inspections, monitoring and reporting of construction sites and all construction-related facilities (workers' camps, asphalt batching plants, concrete batching plants, borrow pits, disposal sites for spoil and unsuitable materials, equipment maintenance areas, fuel and materials storage sites, project-specific quarries and crushers, etc.) to assess the contractor's compliance with the ESMP;
  - (v) require the contractor to update its ESMP when necessary;
  - (vi) undertake audits, supervisions and/or inspections of any sites where the Contractor is undertaking activities related to the Works, to verify the Contractor's compliance with ESHS requirements including its GBV/SEA obligations, with and without contractor and/or client relevant representatives, as necessary, but not less than once per month;
  - (vii) Conduct E&S audit of the Contractor's performance, if needed.
  - (viii) undertake audits and inspections of Contractor's accident logs, community liaison records, monitoring findings and other ESHS-related documentation, as necessary, to confirm the Contractor's compliance with ESHS requirements;
  - (ix) Monitor and report on the Contractor's GRM for communities and separate GRM for project workers;
  - (x) agree remedial action/s and their timeframe for implementation in the event of a noncompliance with the Contractor's ESHS obligations;
  - (xi) ensure appropriate representation at relevant meetings including site meetings, and progress meetings to discuss and agree appropriate actions to ensure compliance with ESHS obligations;
  - (xii) check that the Contractor's actual reporting (content and timeliness) is in accordance with the Contractor's contractual obligations;
  - (xiii) review and critique, in a timely manner, the Contractor's ESHS documentation (including regular reports and incident reports) regarding the accuracy and efficacy of the documentation;
  - (xiv) undertake liaison, from time to time and as necessary, with project stakeholders to identify and discuss any actual or potential ESHS issues;
  - (xv) establish and maintain a grievance redress mechanism including types of grievances to be recorded and how to protect confidentiality, e.g., of those reporting allegations of GBV/SEA;
  - (xvi) ensure any GBV/SEA instances and complaints that come to the attention of the Consultant are registered in the grievance redress mechanism;
  - (xvii) assist the PIURR with operating the grievance redress mechanism, including creating a grievance chart (format to be agreed with the PIURR) which is to be updated on a weekly basis;
  - (xviii) provide guidance to the PIURR's environment specialist on the environmental aspects of the project with emphasis on compliance monitoring and reporting;
  - (xix) ensure that the Contractor has designed and implemented an ambient environmental monitoring program for air quality, water quality, noise and vibration. Ensure that the pre-construction baseline monitoring program has been implemented and the report is finalized prior to commencement of construction;

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- (xx) monitor the Contractor's compliance with occupational health and safety (OHS) requirements of the project as stipulated in the contract documents and their approved health and safety plans, and require the Contractor to provide an updated plan when necessary;
- (xxi) To ensure and monitor the implementation of social and relevant gender features included in the design of the project (i.e. inclusion of pedestrian and gender-friendly design features in civil works such as walkways, benches and signage);
- (xxii) Monitor and report on the contractors' HIV/AIDS sensitization to its labor force, as well as compliance of core labor standards and worker code of conduct by civil works Contractor;
- (xxiii) Monitor the Contractor's compliance with AIIB Involuntary Resettlement standard to avoid, minimize and mitigate any resettlement impacts during civil works;
- (xxiv) assess the use of temporary construction areas identified during construction such as camps, laydown areas, access roads etc;
- (xxv) include results of environmental and social monitoring in monthly progress reports.

### 3.7 Capacity Development

- (i) The Consultant shall prepare and organize training for capacity development of MoT/PIURR personnel in different disciplines. The consultant shall organize, manage and provide knowledge transfer on current practices and developments on construction techniques, advanced contract management, Dispute resolution, FIDIC, environment management, and road safety to PIURR personnel. The trainees may include staff from the Employer, Contractor, and others. All training including materials and plan will need the prior approval of the Employer.

## 4. Team Composition and Qualification Requirements for the Key Experts

It is expected that during the discharge of their duties the Consultant will apply international best practice in all fields including, but not limited to, the areas of environmental best practice and the promotion of gender equality. This will include an expectation to identify issues related to the overall performance of both the Contractor and the Project which might impact either positively or negatively on the effective promotion of gender equality or social and environmental best practice. In that regard, it is anticipated that where the Consultant provides guidance and support in the development of policies, procedures and documentation for Project they will ensure that these are drafted to promote environmental and social best practice whilst also promoting gender equality, non-discrimination and addressing any barriers impacting women or men disproportionately, be this related to staff of the Consultant, Contractors or other Project stakeholders. Where issues are identified, the Consultant is expected to raise these with the Client and in turn ensure that any design, management and/or monitoring activities include measurable targets to strengthen/safeguard equal opportunities, and that these are implemented and monitored, accordingly.

The Consultant shall retain personnel, with the required qualifications, for the tasks described in these Terms of Reference, covering the following disciplines:

- Project Management for infrastructure projects using a design build approach
- Administration of civil works contracts under the FIDIC Conditions of Contract

## Section VII. Terms of Reference

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- Design review and construction supervision of major multi-span structures with individual spans in excess of 150 metres
- Supervision of geotechnical works, in particular for major bridge foundations
- Supervision of hydrological works, in particular for scour protection at bridges
- Supervision of highways works
- Quality assurance and materials control
- Topographic survey control
- Cost control and measurement under FIDIC
- Works programme control under FIDIC
- Administration of claims under FIDIC
- Environmental & social impact assessment and management
- Occupational health and safety assessment and management

The estimated minimum inputs and required qualifications for the Consultant's team are presented below.

The Consultant shall propose a team structure and inputs (per expert) based on their experience in implementation of similar contracts and include a detailed plan as part of their methodology. **The Consultant shall include a detailed mobilisation schedule and monthly staffing plan as part of the work plan and staffing section of their methodology, showing the anticipated monthly input of each expert over the course of the project – this is in addition to the standard TECH-5 and TECH-6 forms to be submitted.** The Consultant shall clearly indicate the profiles of additional non-key experts, the provisional description of activities and time input, in the offer.

The Consultant shall pay due regard to the Contractors' programme and seasonal weather conditions in order to schedule his staff efficiently to meet the construction supervision requirements.

All members of the Consultant's team are to be based full time on site. Provision of input from off-site shall be limited in extent and authorized in writing by the Client on a case-by-case basis.

It is expected that the Consultant will engage a sufficient number of local experts who are familiar with the local working environment. This will include local specialists as required for works supervision.

All key personnel shall be proficient in English to the level required in the table below - knowledge of the local language will be considered an asset - and be fully computer literate

The Consultant's team will comprise, but not necessarily be limited to, the following key and non-key experts:

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<b>Key Experts</b>				
<b>Reference</b>	<b>Position</b>	<b>Minimum Qualifications and Experience</b>	<b>Main Duties and Responsibilities</b>	<b>Input (Months)</b>
KE1	Project Manager / FIDIC Engineer	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering or a related field. Masters' degree preferred</li> <li>- Professional qualification as a licensed/charted engineer or membership of relevant professional institution for civil engineering</li> <li>- At least 15 years of previous professional experience in civil engineering</li> <li>- A minimum of 5 years of international experience as Project Manager, Team Leader, or equivalent position for supervision of internationally financed construction projects in the transportation sector.</li> <li>- A minimum of 5 years international; experience in the role of the Engineer under FIDIC Conditions of Contract or equivalent in the transportation sector</li> <li>- A minimum of 5 years experience in the management of Design-Build projects in the transportation sector</li> <li>- Preference will be given to candidates who can demonstrate experience in a senior management role on international projects of a comparable size, for the construction of major highways bridges with multiple spans each greater than 150 metres.</li> <li>- Extensive experience of management of IFI funded projects</li> <li>- Fluent written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the administration of the Works Contract in the role of the Engineer under FIDIC Conditions of Contract for Design Build.</li> <li>- Assumes overall responsibility for the management of the supervision team</li> <li>- Responsible for coordination of the project activities between the Employer, the Contractor and other stakeholders involved.</li> <li>- Responsible for the preparation and issue of Progress Works and other deliverables under the Services Contract</li> <li>- Provision of support to all team members in matters related to administration of the services contract for supervision</li> </ul>	39
KE2	Chief Bridge Engineer	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering, Structural Engineering or a related field. Masters' degree preferred</li> </ul>	<ul style="list-style-type: none"> <li>- Assumes overall responsibility for the review and approval of bridge designs in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> </ul>	35



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		<ul style="list-style-type: none"> <li>- Professional qualification as a licensed/charted structural engineer or membership of relevant professional institution for structural engineering</li> <li>- At least 15 years of general professional experience in structural engineering</li> <li>- A minimum of 5 years of international experience as Chief Bridge Engineer, or equivalent position, for supervision of internationally financed bridge projects in the transportation sector.</li> <li>- A minimum of 5 years experience in the supervision of Design-Build bridge projects in the transportation sector</li> <li>- Preference will be given to candidates who can demonstrate experience in a senior technical role on international projects of a comparable size, for the construction of major highways bridges with multiple spans each greater than 150 metres.</li> <li>- Extensive experience of implementation of IFI funded projects</li> <li>- Very good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Assumes overall responsibility for the supervision of structural and other works associated with the main bridge</li> <li>- Assumes overall responsibility for the management of the bridge supervision team</li> <li>- Provision of support to all team members in matters related to structural engineering</li> </ul>	
KE3	Chief Geotechnical Engineer	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering, Geology, Geotechnical Engineering or a related field. Masters' degree preferred</li> <li>- At least 15 years of general professional experience in geotechnical engineering</li> <li>- A minimum of 5 years of international experience as Chief Geotechnical Engineer, or equivalent position, for supervision of internationally financed projects in the transportation sector.</li> <li>- Preference will be given to candidates who can demonstrate experience in a senior technical role on international projects of a comparable size, for the construction of</li> </ul>	<ul style="list-style-type: none"> <li>- Assumes overall responsibility for the review and approval of foundation and geotechnical designs in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Assumes overall responsibility for the supervision of foundation and geotechnical works</li> <li>- Assumes overall responsibility for the management of geotechnical experts</li> <li>- Provision of support to all team members in matters related to geotechnical engineering</li> </ul>	9

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		<p>major highways bridges with multiple spans each greater than 150 metres.</p> <ul style="list-style-type: none"> <li>- Very good written and spoken English</li> </ul>		
KE4	Chief Contracts and Claims Engineer	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering or other relevant field. Masters' degree preferred</li> <li>- At least 15 years of general professional experience in the management of claims</li> <li>- A minimum of 5 years of international experience as Chief Contracts and Claims Engineer, or equivalent position, for administration of claims under FIDIC or equivalent for internationally financed projects in the transportation sector</li> <li>- Preference will be given to candidates who can demonstrate experience in a senior role on international projects of a comparable size and/or under FIDIC Conditions of Contract for Design-Build.</li> <li>- Fluent written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Assumes overall responsibility for the administration and evaluation of Contractor claims, in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Assumes overall responsibility for the administration and evaluation of variations to the works, in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Assumes overall responsibility for the provision of expert advice on other contractual issues, including administration of bonds, guarantees and insurances</li> <li>- Provision of support to all team members in matters related to administration and interpretation of the Contract.</li> </ul>	9
KE5	Chief Materials and Quality Engineer	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering or a related field. Masters' degree preferred</li> <li>- At least 15 years of general professional experience in materials/quality engineering</li> <li>- A minimum of 5 years of international experience as Chief Materials and Quality Engineer, or equivalent position, for supervision of internationally financed projects in the transportation sector</li> <li>- Preference will be given to candidates who can demonstrate experience in a senior technical role on international projects of a comparable size, for the construction of major highways bridges with multiple spans each greater than 150 metres.</li> <li>- Specific experience of the application of Quality Control/Quality Assurance systems for major projects.</li> </ul>	<ul style="list-style-type: none"> <li>- Assumes overall responsibility for the review and supervision of the Works Contractor's Quality Control system, in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Assumes overall responsibility for the review and approval of materials proposed for the Works</li> <li>- Assumes overall responsibility for the supervision of materials testing both in the laboratory, in the field and off-site</li> <li>- Assumes overall responsibility for the management of materials and quality experts</li> <li>- Provision of support to all team members in matters related to materials engineering and quality control</li> </ul>	15

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		- Very good written and spoken English		
KE6	Environmental, Social, Health & Safety (ESHS) Manager	<ul style="list-style-type: none"> <li>- Degree in a relevant field. Masters' degree preferred</li> <li>- At least 15 years of general professional experience in the application and management of ESHS systems</li> <li>- A minimum of 5 years of international experience as ESHS Manager, or equivalent position, for internationally financed projects in the transportation sector</li> <li>- Preference will be given to candidates who can demonstrate experience in a senior role on international projects of a comparable size.</li> <li>- Specific experience of the environmental and social standards of the AIIB or comparable institutions</li> <li>- Fluent written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Assumes overall responsibility for the review and supervision of the Works Contractor's ESHS system, in accordance with the requirements of FIDIC Conditions of Contract for Design Build and the policies of the financing organisations</li> <li>- Assumes overall responsibility for the review and approval of ESHS documentation and management plans proposed for the Works</li> <li>- Assumes overall responsibility for the oversight of ESHS monitoring and reporting systems</li> <li>- Assumes overall responsibility for the preparation of ESHS reports and other ESHS related deliverables under the services contract</li> <li>- Provision of support to all team members in matters related to ESHS issues</li> </ul>	9
KE7	Resident Engineer Bridges	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering, Structural Engineering or a related field.</li> <li>- At least 10 years of general professional experience in structural engineering</li> <li>- A minimum of 5 years of experience as Resident Bridge Engineer, or equivalent position, for supervision of bridge projects in the transportation sector.</li> <li>- Preference will be given to candidates who can demonstrate experience in a technical role on major bridge projects</li> <li>- Good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and approval of bridge designs in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Responsible for the supervision of structural and other works associated with the main bridge</li> <li>- Responsibility for the management of the Assistant Resident Engineers within the bridge supervision team</li> <li>- Provision of support to the Chief Bridge Engineer for all activities related to bridge and structural engineering</li> </ul>	55
KE8	Resident Engineer Highways and Drainage	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering or a related field.</li> <li>- At least 10 years of general professional experience in highways engineering</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and approval of highway and drainage designs in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> </ul>	23

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		<ul style="list-style-type: none"> <li>- A minimum of 5 years of experience as Resident Highways Engineer, or equivalent position, for supervision of projects in the transportation sector.</li> <li>- Preference will be given to candidates who can demonstrate experience in a technical role on projects of an equivalent size and scope</li> <li>- Good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the supervision of highway and drainage works</li> <li>- Responsibility for the management of the Assistant Resident Engineers within the highways and drainage supervision team</li> <li>- Provision of support to the Engineer for all activities related to highways and drainage engineering</li> </ul>	
KE9	Resident Hydrology Engineer	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering or a related field. Masters' degree preferred</li> <li>- At least 15 years of general professional experience in hydrological engineering</li> <li>- A minimum of 5 years of experience as Chief Hydrology Engineer, or equivalent position, for supervision of bridge projects in the transportation sector</li> <li>- Specific experience of the application of scour protection measures for major bridges.</li> <li>- Good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and approval of hydrological designs, including in particular for scour protection at bridge piers and abutments, in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Responsible for the supervision of hydrological works, including in particular for scour protection at bridge piers and abutments</li> <li>- Provision of support to the Engineer in matters related to hydrological engineering</li> </ul>	11
KE10	Cost Engineer / Quantity Surveyor	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering or other relevant field</li> <li>- At least 10 years of general professional experience in civil engineering</li> <li>- A minimum of 5 years of experience as Cost Engineer / Quantity Surveyor, or equivalent position, for administration of costs under FIDIC or equivalent for internationally financed projects in the transportation sector</li> <li>- Preference will be given to candidates who can demonstrate experience on projects of a comparable size and/or under FIDIC Conditions of Contract for Design-Build.</li> <li>- Good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the administration of payments to the Works Contractor, in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Responsible for review and checking payment applications made by the Works Contractor</li> <li>- Responsible for preparation of interim and final payment certificates</li> <li>- Responsible for the assessment of costs associated with any additional works, variations or claims</li> <li>- Provision of support to the Engineer for all activities related to measurement and payment under the Works Contract</li> </ul>	40

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<b>Non Key Experts</b>				
<b>Reference</b>	<b>Position</b>	<b>Minimum Qualifications and Experience</b>	<b>Duties and Responsibilities</b>	<b>Input (Months)</b>
NKE1	Senior Design Review Team (Pool Experts)	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering, Structural Engineering or a related field relevant to their their of expertise. Masters' degree preferred</li> <li>- Professional qualification as a licensed/charted civil/structural engineer or membership of relevant professional institution for civil/structural engineering</li> <li>- At least 15 years of general professional experience in civil/structural engineering</li> <li>- A minimum of 5 years of international experience as a civil or structural engineer, or equivalent position, for preparation and/or review and checking of design for internationally financed bridge projects in the transportation sector.</li> <li>- A minimum of 5 years experience in the preparation and/or review of checking of civil and structural works for bridge projects in the transportation sector</li> <li>- Preference will be given to candidates who can demonstrate experience in a senior technical role on international projects of a comparable size, for the review of designs of major highways bridges with multiple spans each greater than 150 metres.</li> <li>- Extensive experience of implementation of IFI funded projects</li> <li>- Very good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Review and approval of civil works and bridge designs in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Provision of support to all team members in matters related to civil and structural engineering</li> </ul>	6
NKE3	Environmental Expert	<ul style="list-style-type: none"> <li>- Degree in a relevant field.</li> <li>- At least 5 years of general professional experience in ESHS systems</li> <li>- A minimum of 3 years of experience as Environmental Expert, or equivalent position, for internationally financed projects</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and supervision of the Works Contractor's Environmental and systems, in accordance with the requirements of FIDIC Conditions of Contract for Design Build and the policies of the financing organisations</li> </ul>	22.1

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		<ul style="list-style-type: none"> <li>- Specific experience of the application of local environmental standards</li> <li>- Preferences will be given to candidates with experience of the environmental standards of the AIIB or comparable institutions</li> <li>- Fluent written and spoken Tajik and Russian</li> <li>- Good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and approval of Environmental documentation and management plans proposed for the Works</li> <li>- Responsibility for oversight of Environmental monitoring and reporting systems</li> <li>- Assist with the preparation of Environmental and Social reports and other Environmental and Social related deliverables under the services contract</li> <li>- Provision of support to the Chief ESHS Expert in matters related to Environmental issues</li> </ul>	
NKE2	Social Expert	<ul style="list-style-type: none"> <li>- Degree in a relevant field.</li> <li>- At least 5 years of general professional experience in ESHS systems</li> <li>- A minimum of 3 years of experience as Social Expert, or equivalent position, for internationally financed projects</li> <li>- Specific experience of the application of local social impact standards</li> <li>- Preferences will be given to candidates with experience of the social standards of the AIIB or comparable institutions</li> <li>- Fluent written and spoken Tajik and Russian</li> <li>- Good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and supervision of the Works Contractor's Environmental and Social Impact systems, in accordance with the requirements of FIDIC Conditions of Contract for Design Build and the policies of the financing organisations</li> <li>- Responsible for the review and approval of Social Impact documentation and management plans proposed for the Works</li> <li>- Responsibility for oversight of Social Impact monitoring and reporting systems</li> <li>- Assist with the preparation of Environmental and Social reports and other Environmental and Social related deliverables under the services contract</li> <li>- Provision of support to the Chief ESHS Expert in matters related Social Impact issues</li> </ul>	16.2
NKE4	Occupational Health and Safety (OHS) Monitoring Expert	<ul style="list-style-type: none"> <li>- Degree in a relevant field.</li> <li>- At least 5 years of general professional experience in OHS systems</li> <li>- A minimum of 3 years of experience as OHS Expert, or equivalent position, for internationally financed projects</li> <li>- Specific experience of the application of local OHS standards</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and supervision of the Works Contractor's Occupational Health and Safety (OHS) systems, in accordance with the requirements of FIDIC Conditions of Contract for Design Build and the policies of the financing organisations</li> <li>- Responsible for the review and approval of OHS documentation and management plans proposed for the Works</li> </ul>	16.2

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		<ul style="list-style-type: none"> <li>- Preferences will be given to candidates with experience of the OHS standards of the AIIB or comparable institutions</li> <li>- Fluent written and spoken Tajik and Russian</li> <li>- Good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsibility for oversight of OHS monitoring and reporting systems</li> <li>- Assist with the preparation of OHS reports and other OHS related deliverables under the services contract</li> <li>- Provision of support to the Chief ESHS Expert in matters related to OHS</li> </ul>	
NKE5	Assistant Resident Engineer Bridges 1	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering, Structural Engineering or a related field.</li> <li>- At least 5 years of general professional experience in structural engineering</li> <li>- A minimum of 2 years of experience as Assistant Resident Bridge Engineer, or equivalent position, for supervision of bridge projects.</li> </ul>	<ul style="list-style-type: none"> <li>- Review and approval of bridge designs in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Supervision of structural and other works associated with the main bridge</li> <li>- Provision of support to the Resident Bridge Engineer for all activities related to bridge and structural engineering</li> </ul>	40
NKE6	Resident Geotechnical Engineer	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering, Geology, Geotechnical Engineering or a related field.</li> <li>- At least 10 years of general professional experience in geotechnical engineering</li> <li>- A minimum of 5 years of experience as Resident Geotechnical Engineer, or equivalent position, for supervision of projects in the transportation sector.</li> <li>- Preference will be given to candidates who can demonstrate experience in a technical role on major bridge projects</li> <li>- Good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and approval of foundation and geotechnical designs in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Responsible for the supervision of foundation and geotechnical works</li> <li>- Provision of support to the Chief Geotechnical Engineer for all activities related to geotechnical engineering</li> </ul>	16
NKE7	Resident Materials/Quality Engineer	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering or a related field.</li> <li>- At least 10 years of general professional experience in materials/quality engineering</li> <li>- A minimum of 5 years of experience as Resident Materials/Quality Engineer, or equivalent position, for supervision of projects in the transportation sector.</li> <li>- Preference will be given to candidates who can demonstrate experience in a technical role on projects of an equivalent size and scope</li> <li>- Good written and spoken English</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and supervision of the Works Contractor's Quality Control system, in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Responsible for the review and approval of materials proposed for the Works</li> <li>- Responsible for the supervision of materials testing both in the laboratory, in the field and off-site</li> </ul>	45

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			<ul style="list-style-type: none"> <li>- Responsible for the management of the Assistant Resident Engineers within the materials and quality supervision team</li> <li>- Provision of support to the Chief Materials and Quality Engineer for all activities related to materials and quality engineering</li> </ul>	
NKE8	Assistant Resident Materials/Quality Engineer	<ul style="list-style-type: none"> <li>- Degree in Civil Engineering or a related field.</li> <li>- At least 5 years of general professional experience in materials/quality control</li> <li>- A minimum of 2 years of experience as Assistant Resident Materials/Quality Engineer or equivalent position, for supervision of bridges/highways projects.</li> </ul>	<ul style="list-style-type: none"> <li>- Review and supervision of the Works Contractor's Quality Control system, in accordance with the requirements of FIDIC Conditions of Contract for Design Build</li> <li>- Review and approval of materials proposed for the Works</li> <li>- Supervision of materials testing both in the laboratory, in the field and off-site</li> <li>- Provision of support to the Resident Materials and Quality Engineer for all activities related to materials and quality engineering</li> </ul>	22
NKE9	Topographic Surveyor	<ul style="list-style-type: none"> <li>- Academic qualification in Surveying or a related field.</li> <li>- At least 10 years of general professional experience in topographic surveying</li> <li>- A minimum of 5 years of experience as Topographic Surveyor or equivalent position, for supervision of bridges/highways projects.</li> </ul>	<ul style="list-style-type: none"> <li>- Responsibility for checking the setting out and the line, level and location of the works</li> <li>- Responsibility for field measurement of quantities of works</li> <li>- Responsible for the management of the Topographic Survey Assistant</li> <li>- Provision of support to the Cost Engineer/Quantity Surveyor for all activities related to measurement of the works.</li> </ul>	44
NKE10	Topographic Survey Assistant	<ul style="list-style-type: none"> <li>- At least 2 years of general professional experience in topographic surveying</li> </ul>	<ul style="list-style-type: none"> <li>- Checking the setting out and the line, level and location of the works</li> <li>- Field measurement of quantities of works</li> <li>- Provision of support to the Topographic Surveyor for all activities related to surveying and measurement of the works.</li> </ul>	44
NKE11	Design Review Team (Pool Experts)	<ul style="list-style-type: none"> <li>- Degree in a relevant field.</li> <li>- At least 10 years of general professional experience in their field of expertise</li> <li>- A minimum of 5 years of experience in an equivalent position</li> <li>- Language skills as required for the position</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the review and approval of designs in accordance with their area of specialty and the requirements of FIDIC Conditions of Contract for Design Build</li> </ul>	12



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			- Provision of support to other members of the supervision team for all activities related to their speciality	
NKE11	Office Manager	<ul style="list-style-type: none"> <li>- Qualifications in a relevant field.</li> <li>- At least 10 years of general professional experience in office administration</li> <li>- Fluent written and spoken English</li> <li>- Fluent written and spoken Tajik and Russian</li> </ul>	<ul style="list-style-type: none"> <li>- Responsible for the organization and management of the project offices</li> <li>- Responsible for setting up and maintaining an administrative system for the management of documentation</li> <li>- Responsible for overseeing preparation of correspondence</li> <li>- Responsible for the management of the administrative and language support assistant.</li> </ul>	56
NKE12	Administrative and language support assistant	<ul style="list-style-type: none"> <li>- Qualifications in a relevant field.</li> <li>- At least 5 years of general professional experience in translation/interpretation</li> <li>- Fluent written and spoken English</li> <li>- Fluent written and spoken Tajik and Russian</li> </ul>	<ul style="list-style-type: none"> <li>- Preparation of correspondence</li> <li>- Preparation of translations</li> <li>- General translation/interpretation</li> <li>- Provision of support to the Office Manager for all activities related to the administration and management of the project office.</li> </ul>	40

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The Key Experts' experience will be evaluated based on their education, as well as experience in the relevant field. Preference will be given to experts who can demonstrate substantial inputs over an extended period during previous similar assignments. Relevant recent experience is preferred, as is previous experience in the region<sup>1</sup>.

All Key Experts shall preferably have an ongoing or previous working relationship with the Consultant or their named local subcontractors.

The Consultant shall note that the above represents Client's best estimate of the required qualifications and inputs, but the Consultant will be expected to fulfil all obligations as described in the subject TOR and therefore the Consultants are encouraged to propose additional experts as non-key experts and to assign additional input to individual experts if they deem this necessary.

## 5. Reporting Requirements and Time Schedule for Deliverables

The Consultant will report to the Client's nominated representative on all aspects of the Assignment. A list of formal reports to be submitted by the Consultant is provided below. All reports will be submitted in the English language and be accompanied by a Russian language translation. Reports will be submitted both in two hard copies (unless agreed otherwise with the Client) and electronically in .pdf and .doc format. All Project reports issued by the Consultant are subject to review by the PIU.

<b>Report</b>	<b>Content</b>	<b>Submission date</b>
<b>Inception Report</b>	Report will contain a detailed work program and staffing schedule for the services of the supervision consultant; identification of actions required by the Contractor, the Engineer and the Employer at the beginning of the Contract; any major issues and problems likely to be encountered; analysis of the key challenges and risk associated with the Works Contract; proposals for project control and reporting, including contents of monthly progress reports and quarterly environmental reports.	4 weeks after commencement of services
<b>Works Programme Report</b>	The Engineer will submit a Work Programme Report which will include commentary on the Contractor's proposed programme, identifying any area where the programme does not meet the requirements of the Contract; Specific detailed commentary on the programme for design submissions; A discussion of risks associated with critical path items; Cash-flow estimates for the Works, in monthly periods and in	3 weeks after receipt of the Contractor's Works Programme

<sup>1</sup> The region is defined as the CAREC countries, excluding China

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	accordance with milestone based payment schedules.	
<b>Monthly Progress Reports</b>	Monthly Report to summarize the progress of the Works including an Executive Summary; summary of contract details for the Works and Supervision contracts; the work accomplished to date; status of the design documentation; the activities of the supervision consultant; any problems encountered during the month; progress against programme; physical progress; financial progress; results of quality assurance; status of claims and variations; status of guarantees, bonds and insurances; ESHS issues including safety statistics; minutes of site meetings; list of all notices, consents, approvals, certificates or determinations given or issued within the reported period. The report will present progress information in graphical form as far as possible and be accompanied by photographs documenting progress.	Within 10 days after the end of each calendar month
<b>Semi-Annual Environmental Monitoring Reports</b>	Environmental monitoring report to include status of compliance with the project ESMP, records of related activities, status of grievance redress mechanism, issues and solutions, and results of environmental baselines and monitoring.	Within 10 days after the end of each 6-month reporting period
<b>Quarterly Reports During the Defects Notification Period</b>	Quarterly Report to summarize the status of the Works; summary of contract details for the Works and Supervision contracts; the activities of the supervision consultant; any problems encountered during the quarter; progress with the completion of outstanding works, remediation of defects and with maintenance activities; details of any new defects identified; ESHS issues including safety statistics; minutes of site meetings; list of all notices, consents, approvals, certificates or determinations given or issued within the reported period.	Within 10 days after the end of the reporting period.
<b>Completion Report</b>	The report will summarise project activities and provide additional information relevant to the overall project implementation.	1 months prior to the end of the Defects Notification Period.

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In addition to the above, the Consultant shall assist the Client in preparation of any reports required by the Bank under the terms of the Loan Agreement.

The Consultant shall also provide immediate notification to the Client should any incident in the following categories occur while carrying out the Services. Full details of such incidents shall be provided to the Client within the timeframe agreed with the Client.

- (i) confirmed or likely violation of any law or international agreement;
- (ii) any fatality or serious (lost time) injury;
- (iii) significant adverse effects or damage to private property (e.g. vehicle accident); or
- (iv) any allegation of sexual exploitation or assault (SEA), sexual harassment or sexual misbehavior, rape, sexual assault, child abuse or defilement, or other violations involving children,

The Consultant shall also:

- (i) ensure that Contractor immediate notifications on ESHS aspects are shared with the Client immediately.
- (ii) immediately inform and share with the Client any immediate notification related to ESHS incidents provided to the Consultant by the Contractor, and as required of the Contractor as part of the Progress Reporting
- (iii) share with the Client in a timely manner the Contractor's ESHS metrics, as required of the Contractor as part of the Progress Reports.

## 6. Implementation Arrangements

### 6.1 Commencement and duration of Assignment

The assignment is expected to start in Q2 2024 and have duration of up to 76 months, broken down as follows:

- 1 month for initial mobilization, issue of the notice to commence, preparation of Inception Report
- 48 months for Works supervision
- 24 months for supervision during the Maintenance Period and Defects Notification Period
- 3 months for contract close out

The Time for Completion under the Works Contract is estimated at 48 months. Following the issue of the Taking Over Certificate, the Works Contractor will be responsible for the maintenance of the bridge and approaches for a further two years. This maintenance period runs concurrently with the Defects Notification Period for these two years.

### 6.2 Services and facilities to be made available to the Consultant

The following facilities will be provided through the civil works contract at no cost to the Consultant:

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- (i) Site offices for the Consultant’s team. The offices will be fully furnished, maintained and serviced, including all office equipment, computers, software and printers, all consumables, and security;
- (ii) Site accommodation for the Consultant’s team. The accommodation will within a fully furnished shared building, with individual sleeping areas, showers and toilets as well as shared facilities for laundry and dining. The accommodation will be fully maintained and serviced, with security provided. Breakfast and evening meals will be provided.
- (iii) Access to materials testing laboratories, fully equipped, serviced and maintained, including equipment for field and laboratory testing, computers, software and printers and all consumables, and with appropriate technical personnel;
- (iv) Topographical survey equipment;
- (v) Fully maintained vehicles suitable for use on site and for liaison with the Employer in Dushanbe, with drivers.

The Consultant will provide any other required support services and facilities through its contract.

### **6.3 Counterpart personnel to be assigned to the Consultant**

No counterpart staff will be assigned to the Consultant’s team.

The Client will provide staff to fulfill their obligations as the Employer under the Works Contract and as the Client under the Services Contract. Although these staff will work closely with the Consultant, they will not be part of the Consultant’s team and will be employed by the Client.

## **7. Environmental and Social Policy**

The Works’ policy goal is to integrate environmental protection, occupational and community health and safety, gender, equality, child protection, vulnerable people (including those with disabilities), sexual harassment, sexual exploitation and assault (SEA), HIV/AIDS awareness and prevention and wide stakeholder engagement in the planning processes, programs, and activities of the parties involved in the execution of the Works.

For the purpose of the policy and/or code of conduct, the term “child” / “children” means any person(s) under the age of 18 years.

Through the Works’ policy, the Client affirms their commitment to:

1. Apply good international industry practice to protect and conserve the natural environment and to minimize unavoidable impacts.
2. Provide and maintain a healthy and safe work environment and safe systems of work.
3. Protect the health and safety of local communities and users, with particular concern for those who are disabled, elderly, or otherwise vulnerable.
4. Ensure that terms of employment and working conditions of all workers engaged in the Works meet the requirements of the ILO labor conventions to which the host country is a signatory.

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5. Be intolerant of and enforce disciplinary measures for illegal activities. To be intolerant of, and enforce disciplinary measures for SEA, inhumane treatment, sexual activity with children and sexual harassment.
6. Incorporate a gender perspective and provide an enabling environment where women and men have equal opportunity to participate in, and benefit from, planning and development of the Works.
7. Work cooperatively, including with end users of the Works, relevant authorities, contractors and local communities.
8. Engage with and listen to affected persons and organizations and be responsive to their concerns, with special regard for vulnerable, disabled and elderly people.
9. Provide an environment that fosters the exchange of information, views and ideas that is free of any fear of retaliation, and protects whistleblowers.
10. Minimize the risk of HIV transmission and to mitigate the effects of HIV/AIDS associated with the execution of the Works.

## 8. Code of Conduct

The Consultant is required to put into place a formal Code of Conduct during implementation of the project, taking into account the project requirements as set out in:

:

- Project reports, e.g., ESIA/ESMP.
- Any particular SEA requirements.
- Consent/permit conditions (regulatory authority conditions attached to any permits or approvals for the project).
- Required standards including the Bank EHS Guidelines.
- Relevant international conventions, standards or treaties, etc., national, legal and/or regulatory requirements and standards (where these represent higher standards than the Bank EHS Guidelines).
- Relevant standards, e.g., Workers' Accommodation: Process and Standards (IFC and EBRD).
- Relevant sector standards, e.g., workers' accommodation.
- Grievance redress mechanisms.

A satisfactory code of conduct will contain obligations on all Consultant's Experts that are suitable to address the following issues, as a minimum. Additional obligations may be added to respond to particular concerns of the region, the location and the project sector or to specific project requirements. The code of conduct shall contain a statement that the term "child" / "children" means any person(s) under the age of 18 years.

The issues to be addressed in the Consultant's Code of Conduct include:

1. Compliance with applicable laws, rules and regulations.
2. Compliance with applicable health and safety requirements to protect the local community (including vulnerable and disadvantaged groups), the Consultant's Experts, the Client's personnel, and the Contractor's personnel, including subcontractors and day workers (including wearing prescribed personal protective equipment, preventing avoidable accidents

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and a duty to report conditions or practices that pose a safety hazard or threaten the environment).

3. The use of illegal substances.
4. Non-discrimination in dealing with the local community (including vulnerable and disadvantaged groups), the Consultant's Experts, the Client's personnel, and the Contractor's personnel, including subcontractors and day workers (for example, on the basis of family status, ethnicity, race, gender, religion, language, marital status, age, disability (physical and mental), sexual orientation, gender identity, political conviction or social, civic or health status).
5. Interactions with the local community(ies), members of the local community(ies), and any affected person(s) (for example to convey an attitude of respect, including to their culture and traditions).
6. Sexual harassment (for example, to prohibit use of language or behavior, in particular toward women and/or children, that is inappropriate, harassing, abusive, sexually provocative, demeaning or culturally inappropriate)
7. Violence, including sexual and/or gender-based violence (for example, acts that inflict physical, mental or sexual harm or suffering, threats of such acts, coercion, and deprivation of liberty).
8. Exploitation including sexual exploitation and assault (for example, the prohibition of the exchange of money, employment, goods or services for sex, including sexual favors or other forms of humiliating, degrading behavior, exploitative behavior or abuse of power)
9. Protection of children (including prohibitions against sexual activity or abuse, or otherwise unacceptable behavior toward children, limiting interactions with children and ensuring their safety in project areas).
10. Sanitation requirements (for example, to ensure workers use specified sanitary facilities provided by their employer and not open areas).
11. Avoidance of conflicts of interest (such that benefits, contracts or employment, or any sort of preferential treatment or favors, are not provided to any person with whom there is a financial, family or personal connection).
12. Respecting reasonable work instructions (including regarding environmental and social norms).
13. Protection and proper use of property (for example, to prohibit theft, carelessness or waste).
14. Duty to report violations of this Code.
15. Non-retaliation against personnel who report violations of the Code, if that report is made in good faith.

The Code of Conduct should be written in plain language and signed by each Expert to indicate that they have:

1. received a copy of the code;
2. had the code explained to them;
3. acknowledged that adherence to this Code of Conduct is a condition of employment; and
4. understood that violations of the Code can result in serious consequences, up to and including dismissal, or referral to legal authorities.

A copy of the code shall be displayed in the Engineer's office. It shall be provided in appropriate languages.