

BORDER EFFICIENCY FOR SUSTAINABLE TRADE PROJECT TERMS OF REFERENCE FOR CONSULTING SERVICES

CONSTRUCTION SUPERVISION

Ref.No:CS-01

I. BACKGROUND

1. The Government of Mongolia has received financing from the Asian Development Bank (ADB) in the form of a loan toward the cost of the Border Efficiency for Sustainable Trade Project. The executing agency is the National Committee for Port Recovery (NCPR) and the implementing agencies are the Border Ports Administration (BPA) and the Mongolian Customs General Administration (MCGA).
2. The project has three outputs as detailed below.

Output 1: Efficient and climate-resilient border facilities developed. The output will include subprojects in at least three border crossing points (BCPs) to enhance climate resilience, increase cargo and passenger throughput, reduce congestion and processing times, and increase tourism by (a) renovating BCP facilities and staff housing, expanding passenger and cargo lanes and providing supporting infrastructure (water, heating, energy, and communications);(b)installing climate adaptation measures; and (c) providing smart border inspection and detection equipment. Designs will incorporate future transport and logistics needs, sustainable construction materials wherever possible, energy-efficient solutions, and elderly-women-children-disabled friendly features.

Output 2: One Health coordination at the borders established. The output will include subprojects in at least two BCPs to improve health security through early warning, surveillance, detection, and response to infectious diseases of animals and humans, as well as biological contagion threats associated with agricultural products. The output will (a) construct One Health facilities at the selected BCPs, including detection and surveillance equipment, laboratories for testing of plant pests, animal diseases and food safety standards, and medical facilities for testing, consultation, and isolation of people; (b) improve capacity of border officials related to biological threat preparedness and response, occupational health and safety and first-aid, and risks associated with human trafficking and sexual exploitation through training and simulation exercises; and (c) prepare a border-level disaster and emergency coordination and response plan, operating procedures, and training materials.¹ The output will also support implementation of the expected Joint Ministerial Order on National One Health by developing coordinated action plans for better alignment with border agencies.

Output 3: Trade facilitation systems enhanced. The output will enhance operational efficiency of border operations through implementation of full scope of the national single window (NSW) and application of common risk management module for improved and integrated decision-making at all BCPs in Mongolia through (a) developing and implementing risk management system for MCGA and risk management module within NSW and its supporting operational procedures; (b) application development of cross-border exchange of paperless trade documents with main trading partners; (c) developing data sharing, coordination management and truck

management/logistics systems; and (d) strengthening capacity of local small traders and micro, small, and medium enterprises related to paperless trade, especially to enhance the participation of women in the value chains as economic opportunities expand.

3. The project will achieve the best value for money through (i) open competitive bidding with international or national advertising for procurement of works; and (ii) attracting well-qualified contractors to deliver quality civil works through large contracts, evaluated based on the lowest evaluated price and contracts will be awarded to the lowest evaluated substantially responsive bidder.

II. OBJECTIVE OF ASSIGNMENT

4. The consulting services shall be provided by a consulting firm or consortium recruited by the employer. The objective of the consulting services is to achieve the efficient and proper preparation and implementation of the Project.

III. SCOPE OF WORK

5. The consultant shall carry out the following tasks:
 - (i) Construction supervision for all work packages.
 - (ii) Act as the Engineer under the FIDIC based contract to execute construction supervision.
 - (iii) Supervision of Design works (if any), construction works and supplies for all systems, Testing, Installation and Commissioning including pre-shipment inspections.
 - (iv) During the execution of the contracts, review, validate and propose modification to the Employer's approval (if necessary) to the detailed design for the project already prepared.
 - (v) Facilitating Interface Management among packages and integration.
 - (vi) New Design works (if needed) that has not been designed previously in coordination with the DED firm.
 - (vii) Management and Operational Support during handing over of total infrastructure.
 - (viii) Services during Defect Liability Period and Closure of project.
 - (ix) Coordination with Stakeholders.
 - (x) Security Assessment and Risk Mitigation.
 - (xi) Review, update (as necessary), and supervision of Environmental Management Plan (EMP), Environmental Monitoring Plan (EMoP).
 - (xii) Sexual exploitation, abuse and harassment (SEAH) related activities.
 - (xiii) Technology Transfer including training, workshop, seminar etc.
 - (xiv) Monitoring & forecasting the physical progress and submitting progress report fortnightly.
 - (xv) Assistance to the Employer concerning variations and claims.
 - (xvi) Advise on dispute resolution.
 - (xvii) Any other tasks required for smooth completion and operation of the Project.

IV. DETAILED TASKS OF THE ASSIGNMENT

6. The consultant shall perform duties during the contract implementation period of the contracts to be executed by the employer and the contractor. FIDIC Red Book (2017) as included in the Standard Bidding Documents for Works of ADB will be applied to the Project. In this context, the consultant shall:
- (i) Act as the engineer in execution of contract between the contractor and the employer, construction supervision and contract administration/management in accordance with the power and authority to be delegated by the employer;
 - (ii) Provide assistance to the employer concerning claim management variations and claims which are to be ordered/issued at the initiative of the employer. Advise and help the client in preparing of DAAB/Arbitration submissions on resolution of any dispute with the contractor.
 - (iii) Issue instructions, approvals, and notices as appropriate;
 - (iv) Provide recommendation to the employer for acceptance of the contractor's performance security, advance payment security, and required insurances;
 - (v) Provide commencement order to the contractor;
 - (vi) Assess and ensure adequacy of all inputs such as materials, labor, and equipment provided by the contractor;
 - (vii) Check and approve the contractor's method of work, including site organization, program of performance, quality assurance system, safety plan, method statements of safety, and environmental monitoring plan so that the requirements set forth in the applicable laws and regulations, the specifications or other parts of the contract are to be duly respected;
 - (viii) Supervise the works so that all the contractual requirements are met by the contractor as required under the contract with the employer, including but not limited to (a) quality of the works; (b) time management; (c) resources management; (d) community and occupational health and safety; and (e) implementation of the EMP and EMoP and other measures for protection of the environment, including control measures such as for noise and vibration. Confirm that a health and safety officer proposed by the contractor is duly assigned at the project site. Require the contractor to take appropriate remedies if any questions are recognized regarding the safety measures;
 - (ix) Regularly monitor physical and financial progress, and take appropriate action to expedite progress if necessary, so that the time for completion set forth in the contract with the contractor will be duly respected by the contractor;
 - (x) Explain and/or adjust ambiguities and/or discrepancies in the contract documents and issue any necessary clarifications or instructions. Issue further drawings and give instructions to the contractor for any works which may not be sufficiently detailed in the contract documents, if any;
 - (xi) Review and approve the contractor's working drawings, shop drawings and drawings for temporary works. Also review and approve in consultation with PIU, if any, design prepared by the contractor for any part of the permanent works;
 - (xii) Liaise with the appropriate authorities to ensure that all the affected utility services are promptly relocated;
 - (xiii) Carry out field inspections on the contractor's setting out of the works in relation to original points, lines, and levels of reference specified in the contract;
 - (xiv) Organize, as necessary, management meetings with the contractor to review the arrangements for future work. Prepare and deliver minutes of such meetings to the employer and the contractor;

- (xv) Supervise field tests, sampling and laboratory test to be carried out by the contractor, including environmental parameters as set out in the EMoP;
- (xvi) Inspect the construction method, equipment to be used, workmanship at the site, and attend shop inspection and manufacturing tests in accordance with the specifications;
- (xvii) Survey and measure the work output performed by the contractor verify statements submitted by the contractor and issue payment certificates such as interim payment certificates and final payment certificate as specified in the contract;
- (xviii) Coordinate the works and assure interface among different contractors employed for the project;
- (xix) During the execution of the contracts, review, validate, and propose modifications of the designs, technical specifications and drawings, relevant calculations and cost estimates as may be necessary in accordance with the actual site conditions, and issue variation orders (including necessary actions in relation to the works performed by other contractors working for the same or other projects, if any)
- (xx) Timely reporting to the Employer for any inconsistency in executing the works and suggesting appropriate corrective measures to be applied;
- (xxi) Inspect, verify, agree and/or fairly determine claims issued by the parties to the contract (i.e., employer and contractor) in accordance with the civil works contract;
- (xxii) Perform the inspection of the works, including test on completion, and to issue certificates such as the taking-over certificate, performance certificate as specified in the contract;
- (xxiii) Quality and quantity control for all works/system and supplies;
- (xxiv) Ensure that the contractor is only using permanent and temporary construction material in compliance with the employer's requirement;
- (xxv) Assistance to the employer in dealing with any variation orders to the works/system contract;
- (xxvi) Review of the contractor's reports, as-build drawing, operational manuals, maintenance schedule/plan;
- (xxvii) Supervise commissioning and carry out tests during the commissioning;
- (xxviii) Provide periodic and/or continuous inspection services during defects notification period and if any defects are noted, instruct the contractor to rectify;
- (xxix) Check and certify as-built drawings for the parts of the works designed by the contractor, if any;
- (xxx) Prepare an operation and maintenance manual for the parts of the works constructed in accordance with the design provided by the employer. Check and certify an operation and maintenance manual for the parts of the works designed by the contractor, if any;
- (xxxi) In case of accidents during the construction, assist the employer to report to ADB the details of such accidents within reasonable time and in a manner reasonably requested by ADB; and
- (xxxii) Prepare and submit various kinds of progress reports to the employer in relation to implementation of the works packages;
- (xxxiii) Sexual exploitation, abuse and harassment: For piloting of SEAH Good Practice Note to address risks of SEAH in ADB-financed operations with civil work, the Consultant will ensure and support contractors to (a) implement of SEAH action

plan of contractors; (b) operate of SEAH reporting mechanism and case handling protocol; (c) report SEAH complaints within 24 hours to the executing agency, implementing agency, and PIU; and (d) suppliers and sub-contractors of contractors meet Minimum Good Practice Standard. The consultant will assign its engineers and environmental, social safeguard and SEAH monitoring specialist to monitor implementation and effectiveness of adherence to Minimum Good Practice Standard and quarterly report monitoring to SEAH implementation of the executing and implementing agencies and PIU.5 Where there are delays in reporting without justification, the executing and implementing agencies and PIU will take action to address this in accordance with contract provisions.

V. DURATION OF THE CONSULTANCY SERVICE

7. The duration of the consultancy service is 36 person-months.

VI. EXPECTED OUTPUTS AND DELIVERABLES

8. The consultant is responsible for presenting and defending their outputs and deliverables including work plans and data quality, plans and policy documents developed under the assignment as well as other relevant documents as required by the client and the approval agencies. The consultant is responsible for revising and supplementing the documents as required by the relevant agencies.
9. The consultant shall submit the following key outputs and deliverables, but not limited to these only: The key contents in the table below are tentative and the final key contents must be discussed with the PIU and be approved prior to drafting:

Report or outputs	Key contents/sub-outputs	Number of copies	Tentative date for submission
Consultant's Inception report	<ul style="list-style-type: none"> • Consolidated work plan, detailed work schedule and implementation milestones; • Mobilization arrangements, including specific deliverables; • Summary of activities undertaken; • Business process analysis and reviews; • Initial issues/constraints arising; • Records of meetings held; • Other information as necessary 	5	Within 2 months after the effective date of contract (EDC)
Progress reports (monthly, quarterly, annually, midterm)	<ul style="list-style-type: none"> • Updated action plans and schedules; • Summary of activities undertaken; • Project progress against approved work plan; • Major achievements; 	5	<p>Within 10th of each applicable month</p> <p>The fourth quarter report will serve as the annual report for the years concerned.</p>

	<ul style="list-style-type: none"> • Risk assessment and risk management plan and implementation status; • Monitoring and evaluation results; • Issues/constraints encountered; • Main actions for next period; • Records of meetings held; • Other information as necessary 		Every quarter, until completion of the project.
Final reports	<ul style="list-style-type: none"> • Summary of work completed, including progress and performance against project outputs and outcome; • Major achievements and constraints encountered; • Status of system development, relevant manuals and guidelines; • Lessons learned and recommendations; • All relevant assessments and results; • Updated project implementation schedule; • Other information as necessary 	5	Final reports (3) Interim report One final report for each BCP, delivered within 1 month of issuance of taking over certificate for each BCP
Social and Gender	<ul style="list-style-type: none"> • GAP progress report • Social development activities implementation and progress • SEAH action plan progress report 		As per the requirements set forth in the PAM
Safeguards	<ul style="list-style-type: none"> • Social Safeguards Monitoring Reports (as per ADB's SPS) 		Semi-annually for Category B subprojects, as part of semi-annual social monitoring reports
	<ul style="list-style-type: none"> • Environmental Safeguards Monitoring Reports (asper ADB's SPS) 		Quarterly, as part of a quarterly safeguards report
Management Systems / Tools (Management systems / tools to be developed [partly procured], maintained, and to be transferred / handed over to the Employer at the end of the project)	<ul style="list-style-type: none"> • Document Control System (including data migration, trainings, etc.) 		Within two (2) months from the commencement of services
	<ul style="list-style-type: none"> • Project Performance Management System 		Within one (1) month from the commencement of services
	<ul style="list-style-type: none"> • Project Control System / Database 		Within one (1) month from the commencement of services

implementation phase)			
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10. As far as specified, some of these outputs and deliverables are initially developed or prepared by or in coordination with other project consultants and/or by the contractor(s) and are to be reviewed, adapted, integrated, and consolidated by the consultant, and regularly updated, maintained and further developed throughout the project.
11. All the above-mentioned documents shall be prepared in English and translated into Mongolian. Final reports will be submitted to the client with CD-ROM storing all the data. The consultant shall be responsible for all the expenses for translation services to translate the English reports into Mongolian. The consultant should indicate the timing for the delivery of outputs in their proposal and confirm the timings in its inception report.
12. The payment for the services under the terms of references will be paid to the consultant based on the acceptance of deliverable approved by the PIU as well as performance output of the individual consultants against his/her inputs provided in the time sheet. expected to develop a work plan which presents clearly the tasks, deliverables, and timeframe each consultant specialist is expected to produce.
13. Any delay occurred due to late (behind the schedule) submission of deliverable (without acceptable justification for such delay) and/or unsatisfactory quality of deliverable might cause damage to the implementation of the project and affect the overall project and program performance. Therefore, if delay occurs due to unacceptable reasons or causes, the consultant shall be requested to take immediate actions and corrective measures to minimize such damage and all expenses related to such actions will be the responsibility of the consultant.
14. The consultant should understand that the nature of the consulting service requires completion of each tasks outlined above and each task may not be directly linked to a specific to the actual outputs/deliverables each consultant must produce and ensure effective management. The content for each deliverable and report must be discussed and approved by the PIU. The documents attached indicating progress each consultant produced shall respond to the actual inputs recorded in the time sheets.
15. A deliverable will be considered complete only when all relevant components for each item are submitted as final, i.e., accepted and approved by the PIU and in both English and Mongolian languages. Submission of incomplete and/or non-approved deliverable will not be considered acceptable and could cause delay in processing the payments claimed.
16. In case the consultant is not able to provide qualified deliverable, the consultant will be requested to take measures to meet the quality standards without any extra cost, i.e. if the consultant used his/her person-month input to produce low quality deliverable, the consultant as a firm responsible for hiring qualified experts for the job and effective management of the contract will be responsible for producing qualified deliverables without any cost implications to the contract. More specifically, unsatisfactory output,

i.e. report without useful information after 3 rounds of back-and-forth comments and feedbacks is subject to extensive revision without any paid inputs.

VII. TEAM COMPOSITION, KEY TASKS, AND QUALIFICATION REQUIREMENTS:

17. **Team composition.** The consultant is responsible to recruit international and national as well as the non-key experts that are well-suited to conduct the tasks outlined in the TOR and manage the team to produce the deliverables of highest possible quality in a timely manner. The consultant shall have expertise in all technical areas required to accomplish the scope of work described in the TOR with highest attainable quality.
18. The consultant and their staff should hold the relevant licenses and professional registrations required to enable them to undertake the work in accordance with the prevailing laws and regulations of Mongolia.
19. The consultant should have a field office in Ulaanbaatar for the convenience of day-to-day working with the PIU and contacting with the authorities concerned. The consultant shall be responsible for operation and maintenance of this field office as well as for all other costs in connection with the implementation of the assignment.

a. Key Experts

No.	International Positions	Person-months	No.	National Positions	Person-months
1	Team Leader	24	1	Deputy Team Leader	36
2	Contract Specialist	18	2	Contract Specialist	36
3	Project Monitoring specialist	6	3	Planning Engineer	18
4	Border Equipment Specialist	5	4	Quantity Surveyor/ Cost estimator	18
			5	Resident Engineer (Civil) x 3	108
			6	Structural Engineers x 3	27
			7	Biomedical Engineer/ Medical equipment engineer/ Laboratory specialist x 1	12
			8	Electrical Engineer x 1	18
			9	MEP Engineer x 1	18
			10	Water and Sanitation Engineer x 1	18
			11	Telecommunication/ Automation engineer x 1	12
			12	SPS Specialist x 3	12
			13	Environmental, Social Safeguard and SEAH Monitoring Specialist	36
			14	Occupational Health and Safety (OHS) Specialist	36

b. Non-Key Experts

National positions	Person-months
Secretary x1	30
Document control x1	30
Translators x1	24
Office manager/accountant x1	30
Total	114

20. Key tasks and requirement for qualification. The key responsibilities outlined below are only indicative and assignment of additional tasks that are in line with the objective stated above or deemed necessary for the successful implementation of the project should be expected:

Code	Key Experts	Key Responsibilities	Minimum Qualification Requirements
International positions			
1.	Team Leader	<ul style="list-style-type: none"> The Team Leader is the representative of the Consultant and will be fully responsible for overall management and Consultant's activities of the entire project. Meet, liaise, interact and coordinate with the Employer as required to ensure that the overall management of the project progresses efficiently and the works and supplies are carried out to high quality standards, avoiding cost/time overruns. Ensure that the Employer is promptly informed of any major problems that arise. Ensure that appropriate project procedures are established and followed. Organize the supervision of the performance of the Contractors and Suppliers until the stage of commissioning of the Project after trial runs. Organize a procedure for promptly reporting to the contractors and suppliers any deviation from the contract requirements that could affect the cost, safety or progress of the works, with recommendations for remedial measures. Make suitable arrangements under his organization for monitoring the Contractors'/Suppliers' compliance with insurance and bond obligations as well as adherence to the labor, tax and contract laws of Mongolia as applicable to their respective contracts and promptly report on any breach. Arrange to report to the Employer the full details of such disputes and claims, with recommendations on measures to prevent, resolve, counter and mitigate such claims and disputes. In the defects liability stage, assist the Employer to notify the Contractor of any defects and occurrences of damage if occurred, proceed with the procedure for Testing after Completion, issue the Performance Certificate and Final Payment Certificate, etc. Assist the Employer in coordination among the Employer, Operator/Maintainer, Consultants, Constructors and Suppliers with the (a)related government agencies, (b) utility agencies, (c)public transport agencies/operators, (d) environmental authorities, (e) lenders for financing the project (ADB) in the fulfillment of their contractual obligations. Assist the Employer in coordinating with the Contractor's design and its approval process with the related government agencies and others. Preparation and submission of required reports and other relevant documentation. 	<ul style="list-style-type: none"> Education: Professionally qualified engineer with Master's degree in civil engineering or related areas. Overall experience: Min. 20 years of professional experience. Min. 15 years of experience in project management and supervision of international large-scale infrastructure/building projects, preferably in the transport sector. Experience of working on projects financed by ADB or other multilateral or bilateral development banks will be highly desired. Previous border crossing, trade facilitation and Customs project experience. Knowledge and an understanding of Mongolian Customs and other border agency systems. Length of experience in civil works/Building works: 10 years Length of Experience of working as project Team Leader: 5 years Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. Ability and willingness to travel to the project border crossing sites in Mongolia.

2.	Contract Specialist	<ul style="list-style-type: none"> • Report to Team Leader. • Be responsible for managing the contracts concerned such as payments, variations, insurance, claims, disputes, etc. • Manage the contracts under the contract scheme of Building and Engineering Works Designed by the Employer under FIDIC Red Book 2017 (amended 2022). • Review all submittals related to contractual requirements during the Contractor's mobilization period. • Examine the Contractor's claims and disputes in accordance with the Specification and the Employer's Requirements, the guidelines of ADB Standards during the implementation and taking-over period. • Receive and evaluate the Contractor's proposal of Value Engineering, Variations, Contractor's Claims and, if necessary, determine the Adjustments for Changes of Cost, according to the Contract documents • Monitor the contractors' compliance with regard to insurance, bond obligations as well as labor and tax laws and report on Contractors to the Employer. 	<ul style="list-style-type: none"> • Education: <ul style="list-style-type: none"> Master's degree in civil engineering, quantity surveying or other related field. • Overall Experience: <ul style="list-style-type: none"> Min. 15 years of professional experience. Experience of working on projects financed by ADB or other multilateral development banks will be highly desired. • Length of Experience as contract Specialist: <ul style="list-style-type: none"> Min. 10 years of experience as lead or senior contract and claims manager/administrator on international construction/infrastructure contracts (preferably FIDIC). • Overseas Experience (number of years) (other than home country): 2 years (Experience of working on projects in South Asia or Southeast Asia will be given preference). Previous border crossing, trade facilitation and Knowledge and an understanding of Mongolian Customs and other border agency systems. • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. • Ability and willingness to travel to the project border crossing sites in Mongolia.
3.	Project Monitoring specialist	<ul style="list-style-type: none"> • Report to Team Leader. • Review existing project master program and up-date to feasible the Project Master Program. • Review and update the Project Master Program at regular interval and big event. • Advise the Team Leader any action required from the Employer. 	<ul style="list-style-type: none"> • Education: Bachelor's degree in civil/mechanical/electrical engineering or equivalent. • Overall Experience: 10 years. • Length of relevant field experience (number of working years in relevant field): 5 years. • Experience of working in the relevant areas in any MDB aided projects. • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. • Ability and willingness to travel to the project border crossing sites in Mongolia.

4.	Border Equipment Specialist	<ul style="list-style-type: none"> • Supervision of ICT infrastructure works for each of three border crossing points. • Liaising and attending meetings with national colleagues and international consultants on IT matters. • Carry out a border crossing staff and manager IT training needs assessment (TNA). 	<ul style="list-style-type: none"> • Education: Bachelor's degree in IT or equivalent. • Overall Experience: 10 years. • Length of relevant field Experience (number of working years in relevant field): 5 years. • Experience of working in the relevant areas in any MDB aided projects. • International Border Crossing Points ICT experience • IT competence with knowledge and an understanding of Mongolian Customs and other border agency systems. • Proven Information and Communication Technology competence with respect to cross border transactions • Knowledge of Customs Transit and eTIR Management System will be an asset. • Prior experience working and living in developing and transitional countries. • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. • Ability and willingness to travel to the project border crossing sites in Mongolia.
Code	Key expert	Key responsibilities	Minimum qualification requirements
National Positions			
1	Deputy Team Leader	<ul style="list-style-type: none"> • Report to Team Leader. • During the absence of TL, act as the representative of the Consultant and assume the role of TL. • Act as a coordinator between the Employer and the Consultant. • Coordinate among all sections of Consultant. • Keep communications with Contractors on all aspects, including, progress, works quality, invoice, interface, etc. 	<ul style="list-style-type: none"> • Education: Professionally qualified engineer with Master's degree in civil engineering/electrical engineering or related areas. • Overall experience: <ul style="list-style-type: none"> Min. 15 years of professional experience. Min. 10 years of experience in project management and supervision of international large-scale infrastructure/building projects. Experience of working on projects financed by ADB or other multilateral or bilateral development banks will be highly desired. Previous border crossing, trade facilitation and Customs project experience. • Length of Experience in civil works/Building works: 10 years • Length of Experience of working as project Team Leader 5 years

			<ul style="list-style-type: none"> • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. • Ability and willingness to travel to the project border crossing sites in Mongolia.
2	Contract Specialist	<ul style="list-style-type: none"> • Report to Team Leader. • Be responsible for managing the contracts concerned such as payments, variations, insurance, claims, disputes, etc. • Manage the contracts under the contract scheme of Building and Engineering Works Designed by the Employer under FIDIC Red Book 2017 (amended 2022). • Review all submittals related to contractual requirements during the Contractor's mobilization period. • Examine the Contractor's claims and disputes in accordance with the Specification and the Employer's Requirements, the guidelines of ADB Standards during the implementation and taking-over period. • Receive and evaluate the Contractor's proposal of Value Engineering, Variations, Contractor's Claims and, if necessary, determine the Adjustments for Changes of Cost, according to the Contract documents. • Monitor the contractors' compliance with regard to insurance, bond obligations as well as labor and tax laws and report on any breach of contract by the Contractors to the Employer. 	<ul style="list-style-type: none"> • Education: Bachelor's degree in civil/mechanical/electrical engineering or equivalent • Overall Experience: 20 years • Length of relevant field Experience (number of working years in relevant field): 10 years • Experience of working in the relevant areas in any MDB aided projects with the minimum value of \$20 million. • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. • Ability and willingness to travel to the project border crossing sites in Mongolia.
3.	Planning engineer	<ul style="list-style-type: none"> • Report to Team Leader. • Review existing project master program and up-date to feasible the Project Master Program. • Review and update the Project Master Program at regular interval and big event. • Advise the Team Leader any action required from the Employer. 	<ul style="list-style-type: none"> • Education: Bachelor's degree in civil/mechanical/electrical engineering or equivalent. • Overall Experience: 10 years. • Length of relevant field Experience (number of working years in relevant field): 5 years. • Experience of working in the relevant areas in any MDB aided projects. • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. • Ability and willingness to travel to the project border crossing sites in Mongolia.
4.	Quantity Surveyor/ Cost estimator	<ul style="list-style-type: none"> • Report to Deputy Team Leader. • Be responsible for managing the contracts concerned such as payments, variations, insurance, claims, disputes, etc. • Examine the Contractor's claims and disputes in accordance with the Specification, the guidelines of ADB Standards during the implementation and caking-over period. • Receive and evaluate the Contractor's proposal of Value Engineering. Variations, Contractor's Claims and, if necessary, determine the Adjustments for Changes of Cost, according to the Contract documents. 	<ul style="list-style-type: none"> • Education: Bachelor's degree in quantity surveying/civil/mechanical/electrical engineering or equivalent. • Overall Experience: 10 years. • Length of relevant field Experience (number of working years in relevant field): 5 years. • Experience of working in the relevant areas in any MDB aided projects. • Excellent engagement and communications skills; both written and verbal, with a confident and

			<p>engaging leadership style that generates respect.</p> <ul style="list-style-type: none"> • Ability and willingness to travel to the project border crossing sites in Mongolia.
5.	Resident Engineer (Civil) x 3	<ul style="list-style-type: none"> • Report to Team Leader. • Managing project implementation in terms of the schedule, budgeting/financing, communication/coordination among related parties, etc., including monitoring from time to time, while conducting risk management such as managing the Project Risk Register, developing a Contingency Plan, taking the role in minimizing risks, etc. together with acting as a trainer for the training of a project management system for this mass rapid transit construction project. • Establish overall implementation programs for construction, manufacturing, installation, testing and commissioning of the various elements of the Project to identify interfacing and relationships among individual work elements included in all Contracts as well as to clarify critical paths, update such a program to be consistent with the programs of each Contract. monitor the progress of work of the Project, and report it to the Employer via Team Leader. • Establish project communication and a coordination plan, which defines a mechanism for interaction among the Employer, Consultants, Contractors, Suppliers, Operators/Maintainers and related Agencies. • Establish an overall Project Implementation Management System consisting of the project programming and monitoring system for assuring that the project will be delivered within scope, quality, time, budget, functionally performed and reliability as planned by utilizing project management software, Primavera Project Planning Program. which is same as the one to be applied by the Contractors. • Manage and supervise all site level staff • Assure that the detailed design, specifications, standards and codes implemented on site are in compliance with the Contract documents. • Make suitable arrangements with his Specialists and engineers for monitoring the performance of the R Contractors and its Sub-contractors. • Provide monthly reports to the Team Leader covering the progress of the works, including the installation schedule, quality, quantity and safety. 	<ul style="list-style-type: none"> • Education: Master's degree in civil engineering or equivalent • Overall Experience: 20 years • Length of relevant field Experience (number of working years in relevant field): 10 years • Experience of working in the relevant areas in any MDB aided projects with the minimum value of \$20 million. • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. • Ability and willingness to travel to the project border crossing sites in Mongolia
6	Structural Engineers x 3	<ul style="list-style-type: none"> • Report to Resident Engineer Civil. • Be responsible for managing and supervising all technical matters related to the civil works. including geotechnical, alignment, concrete structures, embankment, excavation works, etc. • Review, evaluate and modify (if needed) for Standards, Design Criteria, Loading Scheme for structures including temporary works. 	<ul style="list-style-type: none"> • Education: Bachelor's degree in civil engineering or equivalent. • Overall Experience: 10 years. • Length of relevant field Experience (number of working years in relevant field): 5 years. • Experience of working in the relevant areas in any MDB aided projects. • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect.

			<ul style="list-style-type: none"> Ability and willingness to travel to the project border crossing sites in Mongolia.
7	Biomedical Engineer/ Medical equipment engineer/ Laboratory specialist x 1	<ul style="list-style-type: none"> Participate in the procurement process for medical equipment, ensuring that specifications are accurate, vendors are reputable, and equipment aligns with project requirements. Supervise the installation and setup of medical equipment and laboratory instruments, ensuring proper calibration, alignment, and functionality. Participate in the procurement process for medical equipment, ensuring that specifications are accurate, vendors are project requirements. Supervise the installation and setup of medical equipment and laboratory instruments, ensuring proper calibration, alignment, and functionality. Maintain detailed records of medical equipment and laboratory installation, testing, and compliance verification, adhering to Clause 14 (Records and Audit). Prepare regular progress reports outlining the status of medical equipment integration, laboratory functionality, and any issues faced, as per Clause 14(Progress Reports). Maintain detailed records of medical equipment and laboratory installation, testing, and compliance verification, adhering to Clause 14 (Records and Audit). Prepare regular progress reports outlining the status of medical equipment integration, laboratory functionality, and any issues faced, as per Clause 14 (Progress Reports). 	<ul style="list-style-type: none"> Education: Bachelor's degree in medical engineering or equivalent. Overall Experience: 15 years. Length of relevant field Experience (number of working years in relevant field): 10 years. Experience of working in the relevant areas in any MDB aided projects. Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. Ability and willingness to travel to the project border crossing sites in Mongolia.
8	Electrical Engineer x 1	<ul style="list-style-type: none"> Report to the Resident Engineer Civil. Be responsible for supervising the construction of electrical works. Check and review the Contractors 'working/ shop design and construction planning related to electrical works. Collect and compile data related to the monthly reports covering the progress of the works, including the construction schedule, quality, safety and cost status. Assist in resolving, countering or mitigating actual and potential claims from the Contractor. Assist the Employer in testing on completion of the works related to electrical. 	<ul style="list-style-type: none"> Education: Bachelor's degree in electrical engineering or equivalent. Overall Experience: 15 years. Length of relevant field Experience (number of working years in relevant field): 10 years. Experience of working in the relevant areas in any MDB aided projects. Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. Ability and willingness to travel to the project border crossing sites in Mongolia.
9	MEP Engineer x 1	<ul style="list-style-type: none"> Report to the Resident Engineer Civil. Be responsible for supervising the construction of mechanical works. Check and review the Contractors' working/ shop design and construction planning related to mechanical works. Collect and compile data related to the monthly reports covering the progress of the works, including the construction schedule, quality, safety and cost status. Assist in resolving, countering or mitigating actual and potential claims from the Contractor. Assist the Employer in testing on completion of the works related to mechanical works. 	<ul style="list-style-type: none"> Education: Bachelor's degree in mechanical engineering or equivalent. Overall Experience: 15 years. Length of relevant field Experience (number of working years in relevant field): 10 years. Experience of working in the relevant areas in any MDB aided projects. Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect.

			<ul style="list-style-type: none"> Ability and willingness to travel to the project border crossing sites in Mongolia.
10	Water and Sanitation Engineer x 1	<ul style="list-style-type: none"> Report to the Resident Engineer Civil. Be responsible for supervising the construction of plumbing works. Check and review the Contractors' working/ shop design and construction planning related to plumbing works. Collect and compile data related to the monthly reports covering the progress of the works, including the construction schedule, quality, safety and cost status. Assist in resolving, countering or mitigating actual and potential claims from the Contractor. Assist the Employer in testing on completion of the works related to plumbing works. 	<ul style="list-style-type: none"> Education: Bachelor's degree in mechanical engineering or equivalent. Overall Experience: 15 years. Length of relevant field Experience (number of working years in relevant field): 10 years. Experience of working in the relevant areas in any MDB aided projects. Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. Ability and willingness to travel to the project border crossing sites in Mongolia.
11	Telecommunication/Automation engineer x 1	<ul style="list-style-type: none"> Manage and supervise all Specialists staff related to the Telecommunications. Be responsible for supervising the design and installation works of the telecommunication system. Supervise the progress of the installation, carry out inspections for quality, quantity and safety, also check the maintainability of the system. facilities and equipment. Assist the Employer in testing on completion and commissioning of the communication system. Assist to resolve actual and potential claims from the Contractor during the manufacturing, Installation, testing and commissioning Stages. System integration. 	<ul style="list-style-type: none"> Education: Bachelor's degree in telecommunication engineering or equivalent. Overall Experience: 15 years. Length of relevant field Experience (number of working years in relevant field): 10 years. Experience of working in the relevant areas in any MDB aided projects. Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. Ability and willingness to travel to the project border crossing sites in Mongolia.
12	SPS Specialist x 3	<ul style="list-style-type: none"> Manage and supervise all specialists and works related to SPS Review and interpret relevant national and international SPS regulations, standards, and guidelines applicable to the construction of border crossing points. Develop a comprehensive SPS compliance framework tailored to the project, outlining specific requirements and best practices to be followed. Regularly monitor construction activities to ensure strict adherence to established SPS protocols, including but not limited to sanitary and phytosanitary regulations, waste management, and hazard control. 	<ul style="list-style-type: none"> Education: Bachelor's degree in economy, social science, environmental engineering or in relevant field. Overall Experience: 15 years. Length of relevant field Experience (number of working years in relevant field): 10 years. Experience of working in the relevant areas in any MDB aided projects. Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. Ability and willingness to travel to the project border crossing sites in Mongolia.

13	Environmental, Social Safeguard and SEAH Monitoring Specialist	<ul style="list-style-type: none"> • Report to Team Leader. • Lead the Safeguard section of the Consultant's Team. • Supervise all the activities of International and National Specialists of Safeguard Section. • Make internal coordination of Safeguard Section with Design Section, Contract and Safety Section, Traffic management Section, and Construction supervision team. • Make external coordination of General Consultant with the Employer, PIU and other relevant agencies. 	<ul style="list-style-type: none"> • Education: Bachelor's degree in ecology/environmental engineering or equivalent. • Overall Experience: 15 years. • Length of relevant field Experience (number of working years in relevant field): 10 years • Experience of working in the relevant areas in any MDB aided projects. • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. • Ability and willingness to travel to the project border crossing sites in Mongolia.
14	Occupational Health and Safety (OHS) Specialist	<ul style="list-style-type: none"> • Report to Team Leader. • Review the relevant health and safety requirements applied to the Project • Analyze the risks and vulnerabilities for health and safety in construction. • Ensure Contractor's compliance with the contractual obligations. 	<ul style="list-style-type: none"> • Education: Bachelor's degree in civil engineering or equivalent. • Overall Experience: 15 years. • Length of relevant field Experience (number of working years in relevant field): 10 years. • Certification in occupational health and safety (NEBOSH, IOSH or equivalent) will be an advantage; • Experience of working in the relevant areas in any MDB aided projects. • Excellent engagement and communications skills; both written and verbal, with a confident and engaging leadership style that generates respect. • Ability and willingness to travel to the project border crossing sites in Mongolia.