



**ISLAMIC REPUBLIC OF AFGHANISTAN
NATIONAL WATER AFFAIRS REGULATION
AUTHORITY**

**Panj-Amu River Basin Sector Project – Additional
Financing**

Bidding Document

**For procurement of
Construction of Kando and Zali Valleys (Sar-e-Kamar)
check dams in Panshir Province
(NWARA/PARBPA/Addtlf/NCB-W001)**

Issued on: 26/April/2021

Invitation for Bids No.: NWARA/PARBPA/Addtl Fin/NCB-W001

OCB No.: NWARA/PARBPA/Addtlf/NCB-W001

Employer: National Water Affairs Regulation Authority (NWARA)

Country: Afghanistan

April 2021

Preface

This Bidding Document for the Procurement of Works has been prepared by the National Water Affairs Regulation Authority (NWARA) and is based on the Standard Bidding Document for the Procurement of Works–Small Contracts (*SBD Works-Small*) issued by the Asian Development Bank dated December 2016.

ADB's *SBD Works-Small* has the structure and the provisions of the Master Procurement Document entitled “Bidding Documents for the Procurement of Works–Small Contracts”, prepared by multilateral development banks and other public international financial institutions except where ADB-specific considerations have required a change.



Date: 26/April/2021

Loan/Grant No. and Title: Panj-Amu River Basin Sector Project- Additional Financing/0747-AFG (SF)

Contract No. and Title: NWARA/PARB/Adttf/NCB-W001, Construction of Kando and Zali Valleys (Sar-e-Kamar) check dams in Panshir province

Deadline for Submission of Bids: 29/May/2021, 10:00 AM

1. The Government of the Islamic Republic of Afghanistan has received financing from the Asian Development Bank (ADB) toward the cost of Panj-Amu River Basin Sector Project- Additional Financing. Part of this financing will be used for payments under the Contract named above. Bidding is open to Bidders from eligible source countries of ADB.
2. The National Water Affairs Regulation Authority (NWARA) ("the Employer") invites sealed bids from eligible Bidders for the construction and completion of NWARA/P-ARBP/Adttf/NCB-W001, Construction of Kando and Zali Valleys (Sar-e-Kamar) check dams ("the Works").
3. Open competitive bidding will be conducted in accordance with ADB's Single-Stage-Single-Envelope Bidding Procedure and is open to all Bidders from eligible countries as described in the Bidding Document.
4. Only eligible Bidders with the following key qualifications should participate in this bidding:

Financial Qualifications

No.	Item	Criteria Requirement
1	Historical Financial Performance	Bidder's Financial Position should be positive for the last 3 years
2	Average Annual Construction Turnover	Firm must have a minimum average annual construction turnover (AACT) of USD 356,000 calculated as total certified payments received for contracts in progress or completed, within the last Four (4) years.
3	Financial Resources	An amount of USD 119,000 should be available for the project in excess of Total Financial Requirements for Current Contract Commitments
	Financial Resources for Joint Ventures:	For Joint Ventures: (1) One partner must demonstrate that its financial resources defined in FIN-3, less its financial obligations for its own current contract commitments defined in FIN-4, meet or exceed its required share of USD 47,600 from the total requirement for the Subject Contract. AND
		(2) Each partner must demonstrate that its financial resources defined in FIN-3, less its financial obligations for its own current contract commitments defined in FIN-4, meet or exceed its required share of USD 29,750 the total requirement for the Subject Contract. AND
	(3) The joint venture must demonstrate that the combined financial resources of all partners defined in FIN-3, less all the partners' total financial obligations for the current contract commitments defined in FIN-4, meet or exceed the total requirement for the Subject Contract of USD 119,000 .	

Construction Experience:

No.	Item	Criteria Requirement
1	Contracts of Similar Size and Nature	Participation in at least one contract that has been successfully or substantially completed within the last ten (10) years and that is similar to the proposed works, where the value of the Bidder's participation exceeds USD 167,000 . The similarity of the Bidder's participation shall be based on the physical size, nature of works, complexity, methods, technology or other characteristics

5. To obtain further information and inspect the bidding documents, Bidders should contact:

The National Water Affairs Regulation Authority (NWARA)
Central Program Management Office Building
NWARA Compound, Darul Aman Road, District 6 Kabul, Afghanistan
Tel: +93(0) 786 538 477
Email: msadat@cpmo-nwara.org copy to mzahid@cpmo-nwara.org and rreshad@cpmo-nwara.org

6. A complete set of bidding documents including drawing in English may be obtained by interested eligible bidders from NPA websites, and also may be obtained in flash or CD from the National Water Affairs Regulation Authority office mentioned above. In case of any difficulty, interested bidders may contact the e-mail address msadat@cpmo-nwara.org copy to mzahid@cpmo-nwara.org and rreshad@cpmo-nwara.org

7. Deliver your bid

- to the address mention in para 5 above
- on or before the deadline: 29/May/2021, 10:00 AM
- together with a Bid Security as described in the Bidding Document

Bids will be opened immediately after the deadline for bid submission in the presence of Bidders' representatives who choose to attend.

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Section 1 - Instructions to Bidders

A. General

- 1. Scope of Bid**
 - 1.1 In connection with the Invitation for Bids (IFB) indicated in the Bid Data Sheet (BDS), the Employer, as indicated in the BDS, issues this Bidding Document for the procurement of the Works as specified in Section 6 (Employer's Requirements). The name, identification, and number of contracts of this bidding are provided in the BDS.
 - 1.2 Throughout this Bidding Document,
 - (a) the term "in writing" means communicated in written form and delivered against receipt;
 - (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and
 - (c) "day" means calendar day.
- 2. Source of Funds**
 - 2.1 The Borrower or Recipient (hereinafter called "Borrower") indicated in the BDS has applied for or received financing (hereinafter called "funds") from the Asian Development Bank (hereinafter called "ADB") toward the cost of the project named in the BDS. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Document is issued.
 - 2.2 Payments by ADB will be made only at the request of the Borrower and upon approval by ADB in accordance with the terms and conditions of the Financing Agreement between the Borrower and ADB (hereinafter called "Financing Agreement"), and will be subject in all respects to the terms and conditions of that Financing Agreement. No party other than the Borrower shall derive any rights from the Financing Agreement or have any claim to the funds.
- 3. Fraud and Corruption**
 - 3.1 ADB's Anticorruption Policy requires Borrowers (including beneficiaries of ADB-financed activity), as well as Bidders, Suppliers, and Contractors under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, ADB
 - (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
 - (ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;
 - (iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;

- (iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;
 - (v) "obstructive practice" means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an ADB investigation; (b) making false statements to investigators in order to materially impede an ADB investigation; (c) failing to comply with requests to provide information, documents, or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d) threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation; or (e) materially impeding ADB's contractual rights of audit or access to information; and
 - (vi) "integrity violation" is any act which violates ADB's Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;
 - (c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the Borrower or of a beneficiary of ADB financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the Borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation;
 - (d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate¹ in ADB-financed, -administered, or -supported activities or to benefit from an ADB-financed, -administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations; and

¹ Whether as a Contractor, Nominated Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document). A Nominated Subcontractor is one that either has been (i) included by the Bidder in its prequalification application or bid because it brings specific and critical experience and know-how that are accounted for in the evaluation of the bidder's prequalification application or the bid; or (ii) appointed by the Employer.

- (e) will have the right to require that a provision be included in bidding documents and in contracts financed by ADB, requiring Bidders, suppliers, and contractors to permit ADB or its representative to inspect their accounts and records and other documents relating to the bid submission and contract performance and to have them audited by auditors appointed by ADB.

3.2 Furthermore, Bidders shall be aware of the provisions of GCC28.3 and 73.2 (i).

4. Eligible Bidders

4.1 A Bidder may be a natural person, private entity, or government-owned enterprises subject to ITB 4.5 - or any combination of them with a formal intent to enter into an agreement or under an existing agreement in the form of a Joint Venture. In the case of a Joint Venture:

- (a) all partners shall be jointly and severally liable; and
- (b) the Joint Venture shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the parties of the Joint Venture during the bidding process and, in the event the Joint Venture is awarded the Contract, during contract execution.

4.2 A Bidder, and all parties constituting the Bidder, shall have the nationality of an eligible country, in accordance with Section 5 (Eligible Countries). A Bidder shall be deemed to have the nationality of a country if the Bidder is a citizen or is constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

4.3 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if any of, including but not limited to, the following apply:

- (a) they have controlling partners in common; or
- (b) they receive or have received any direct or indirect subsidy from any of them; or
- (c) they have the same legal representative for purposes of this bid; or
- (d) they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to material information about or improperly influence the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
- (e) a Bidder participates in more than one bid in this bidding process, either individually or as a partner in a joint venture, except for alternative offers permitted under ITB 13 of the Bidding Document. This will result in the disqualification of all Bids in which it is involved. However, subject to any finding of a conflict of interest in

terms of ITB 4.3 (a)–(d) above, this does not limit the participation of a Bidder as a Subcontractor in another Bid or of a firm as a Subcontractor in more than one Bid; or

(f) a Bidder or any affiliated entity, participated as a Consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or

(g) a Bidder was affiliated with a firm or entity that has been hired (or is proposed to be hired) by the Employer or Borrower as Engineer for the Contract.

4.4 A firm shall not be eligible to participate in any procurement activities under an ADB-financed, -administered, or -supported project while under temporary suspension or debarment by ADB pursuant to its Anticorruption Policy (see ITB 3), whether such debarment was directly imposed by ADB, or enforced by ADB pursuant to the Agreement for Mutual Enforcement of Debarment Decisions. A bid from a temporary suspended or debarred firm will be rejected.

4.5 Government-owned enterprises in the Borrower's country shall be eligible only if they can establish that they (i) are legally and financially autonomous, (ii) operate under commercial law, and (iii) are not a dependent agency of the Borrower.

4.6 Bidders shall provide such evidence of their continued eligibility satisfactory to the Employer, as the Employer shall reasonably request.

4.7 Firms shall be excluded if by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country or any payments to persons or entities in that country.

4.8 In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.

5. Eligible Materials, Equipment, and Services

5.1 The materials, equipment, and services to be supplied under the Contract shall have their origin in eligible source countries as defined in ITB 4.2 above and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment, and services.

5.2 For purposes of ITB 5.1 above, "origin" means the place where the materials and equipment are mined, grown, produced, or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

B. Contents of Bidding Document

- 6. Sections of Bidding Document**
- 6.1 The Bidding Document consist of Parts I, II, and III, which include all the sections indicated below, and should be read in conjunction with any addenda issued in accordance with ITB 8.
- PART I Bidding Procedures**
- Section 1 - Instructions to Bidders (ITB)
 - Section 2 - Bid Data Sheet (BDS)
 - Section 3 - Evaluation and Qualification Criteria (EQC)
 - Section 4 - Bidding Forms (BDF)
 - Section 5 - Eligible Countries (ELC)
- PART II Requirements**
- Section 6 – Employer’s Requirements (ERQ)
- PART III Conditions of Contract and Contract Forms**
- Section 7 - General Conditions of Contract (GCC)
 - Section 8 - Particular Conditions of Contract (PCC)
 - Section 9 - Contract Forms (COF)
- 6.2 The IFB issued by the Employer is not part of the Bidding Document.
- 6.3 The Employer is not responsible for the completeness of the Bidding Document and their addenda, if they were not obtained directly from the source stated by the Employer in the IFB.
- 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Document. Failure to furnish all information or documentation required by the Bidding Document may result in the rejection of the bid.
- 7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting**
- 7.1 A prospective Bidder requiring any clarification on the Bidding Document shall contact the Employer in writing at the Employer’s address indicated in the BDS or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer will respond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of bids, within a period given in the BDS. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. Should the Employer deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so following the procedure under ITB 8 and ITB 22.2.
- 7.2 The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself, on its own risk and responsibility, all information that may be necessary for preparing the Bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder’s own expense.
- 7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter its premises and lands for the purpose of such visit, but only upon the express condition that the

Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection.

- 7.4 The Bidder's designated representative is invited to attend a pre-bid meeting, if provided for in the BDS. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage.
- 7.5 The Bidder is requested to submit any questions in writing, to reach the Employer not later than 1 week before the meeting.
- 7.6 Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3. Any modification to the Bidding Document that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting.
- 7.7 Nonattendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.

8. Amendment of Bidding Document

- 8.1 At any time prior to the deadline for submission of Bids, the Employer may amend the Bidding Document by issuing addenda.
- 8.2 Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3.
- 8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.

C. Preparation of Bids

9. Cost of Bidding

- 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

10. Language of Bid

- 10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in the language specified in the BDS. Supporting documents and printed literature that are part of the Bid may be in another language provided they are accompanied by an accurate translation of the relevant passages in the language specified in the BDS, in which case, for purposes of interpretation of the Bid, such translation shall govern.

**11. Documents
Comprising the
Bid**

11.1 The Bid shall comprise the following:

- (a) Letter of Bid;
- (b) completed Schedules, in accordance with ITB 12 and ITB 14, or as stipulated in the BDS;
- (c) Bid Security or Bid-Securing Declaration, in accordance with ITB 19;
- (d) alternative Bids, at Bidder's option and if permissible, in accordance with ITB 13;
- (e) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;
- (f) documentary evidence in accordance with ITB 17, establishing the Bidder's qualifications to perform the contract;
- (g) Technical Proposal in accordance with ITB 16;
- (h) Any other document required in the BDS.

11.2 In addition to the requirements under ITB 11.1, Bids submitted by a Joint Venture shall include a copy of the Joint Venture Agreement entered into by all partners. Alternatively, a Letter of Intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all partners and submitted with the Bid, together with a copy of the proposed agreement.

**12. Letter of Bid and
Schedules**

12.1 The Letter of Bid, Schedules, and all documents listed under Clause 11, shall be prepared using the relevant forms in Section 4 (Bidding Forms), if so provided. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested and as required in the BDS.

13. Alternative Bids

13.1 Unless otherwise indicated in the BDS, alternative Bids shall not be considered.

13.2 When alternative times for completion are explicitly invited, a statement to that effect will be included in the BDS, as will the method of evaluating different times for completion.

13.3 When specified in the BDS pursuant to ITB 13.1, and subject to ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Document must first price the Employer's design as described in the Bidding Document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the lowest evaluated Bidder conforming to the basic technical requirements shall be considered by the Employer.

13.4 When specified in the BDS, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified in the BDS and described in Section 6 (Employer's Requirements). The method for their evaluation will be stipulated in Section 3 (Evaluation and Qualification Criteria).

- 14. Bid Prices and Discounts**
- 14.1 The prices and discounts quoted by the Bidder in the Letter of Bid and in the Schedules shall conform to the requirements specified below.
- 14.2 The Bidder shall submit a bid for the whole of the works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section 4 (Bidding Forms). In case of admeasurement contracts, the Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities.
- 14.3 The price to be quoted in the Letter of Bid shall be the total price of the Bid, excluding any discounts offered. Absence of the total bid price in the Letter of Bid may result in the rejection of the Bid.
- 14.4 The Bidder shall quote any discounts and the methodology for their application in the Letter of Bid, in accordance with ITB 12.1.
- 14.5 Unless otherwise provided in the BDS and the Conditions of Contract, the prices quoted by the Bidder shall be fixed. If the prices quoted by the Bidder are subject to adjustment during the performance of the Contract in accordance with the provisions of the Conditions of Contract, the Bidder shall furnish the indexes and weightings for the price adjustment formulas in the Table(s) of Adjustment Data in Section 4 (Bidding Forms) and the Employer may require the Bidder to justify its proposed indexes and weightings.
- 14.6 If so indicated in ITB 1.1, bids are invited for individual contracts or for any combination of contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all contracts are submitted and opened at the same time.
- 14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date 28 days prior to the deadline for submission of bids, shall be included in the rates and prices and the total bid price submitted by the Bidder.
- 15. Currencies of Bid and Payment**
- 15.1 The currency(ies) of the Bid and payment shall be as specified in the BDS.
- 15.2 Bidders may be required by the Employer to justify, to the Employer's satisfaction, their local and foreign currency requirements, and to substantiate that the amounts included in the prices shown in the appropriate form(s) of Section 4, in which case a detailed breakdown of the foreign currency requirements shall be provided by Bidders.
- 16. Documents Comprising the Technical**
- 16.1 The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule, and any other information as stipulated in Section 4 (Bidding Forms), in sufficient

- Proposal** detail to demonstrate the adequacy of the Bidders' proposal to meet the work requirements and the completion time.
- 17. Documents Establishing the Qualifications of the Bidder**
- 17.1 To establish its qualifications to perform the Contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding information sheets included in Section 4 (Bidding Forms).
- 17.2 Domestic Bidders, individually or in joint ventures, applying for eligibility for domestic preference shall supply all information required to satisfy the criteria for eligibility as described in ITB 33.
- 18. Period of Validity of Bids**
- 18.1 Bids shall remain valid for the period specified in the BDS after the bid submission deadline date prescribed by the Employer. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive.
- 18.2 In exceptional circumstances, prior to the expiration of the bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a bid security is requested in accordance with ITB 19, it shall also be extended 28 days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its bid security. A Bidder granting the request shall not be required or permitted to modify its Bid.
- 19. Bid Security/Bid-Securing Declaration**
- 19.1 Unless otherwise specified in the BDS, the Bidder shall furnish as part of its Bid, in original form, either a Bid-Securing Declaration or a bid security as specified in the BDS. In the case of a bid security, the amount and currency shall be as specified in the BDS.
- 19.2 If a Bid-Securing Declaration is required pursuant to ITB 19.1, it shall use the form included in Section 4 (Bidding Forms). The Employer will declare a Bidder ineligible to be awarded a Contract for a specified period of time, as indicated in the BDS, if the Bid-Securing Declaration is executed
- 19.3 If a bid security is specified pursuant to ITB 19.1, the bid security shall be, at the Bidder's option, in any of the following forms:
- (a) an unconditional bank guarantee,
 - (b) an irrevocable letter of credit, or
 - (c) a cashier's or certified check,
- all from a reputable source from an eligible country as described in Section 5 (Eligible Countries). In the case of a bank guarantee, the bid security shall be submitted either using the Bid Security Form included in Section 4 (Bidding Forms) or another form acceptable to the Employer. The form must include the complete name of the Bidder. The bid security shall be valid for 28 days beyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2.
- 19.4 Unless otherwise specified in the BDS, any Bid not accompanied by a substantially compliant bid security or Bid-Securing Declaration, if one is required in accordance with ITB 19.1, shall be rejected by the

Employer as nonresponsive.

- 19.5 If a bid security is specified pursuant to ITB 19.1, the bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security pursuant to ITB 41.
- 19.6 If a bid security is specified pursuant to ITB 19.1, the bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security.
- 19.7 The bid security may be forfeited or the Bid-Securing Declaration executed,
- (a) if a Bidder withdraws its bid during the period of bid validity specified by the Bidder on the Letter of Bid, except as provided in ITB 18.2; or
 - (b) if the successful Bidder fails to
 - (i) sign the Contract in accordance with ITB 40;
 - (ii) furnish a performance security in accordance with ITB 41;
 - (iii) accept arithmetical corrections in accordance with ITB 31; or
 - (iv) furnish a domestic preference security, if applicable, in accordance with ITB 41.
- 19.8 The bid security or the Bid-Securing Declaration of a Joint Venture shall be in the name of the Joint Venture that submits the Bid. If the Joint Venture has not been legally constituted at the time of bidding, the bid security or the Bid-Securing Declaration shall be in the names of all future partners as named in the letter of intent mentioned in ITB 4.1.

20. Format and Signing of Bid

- 20.1 The Bidder shall prepare one original set of the documents comprising the Bid as described in ITB 11 and clearly mark it "ORIGINAL." Alternative Bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE." In addition, the Bidder shall submit copies of the Bid in the number specified in the BDS, and clearly mark each of them "COPY." In the event of any discrepancy between the original and the copies, the original shall prevail.
- 20.2 The original and all copies of the Bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as specified in the BDS and shall be attached to the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the Bid, except for unamended printed literature, shall be signed or initialed by the person signing the bid. If a Bidder submits a deficient authorization, the Bid shall not be rejected in the first instance. The Employer shall request the Bidder to submit an acceptable authorization within the number of days as specified in the BDS. Failure to provide an acceptable authorization within the prescribed period of receiving such a request shall cause the rejection of the Bid.

- 20.3 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

D. Submission and Opening of Bids

21. Sealing and Marking of Bids

- 21.1 Bidders may always submit their Bids by mail or by hand. When so specified in the BDS, Bidders shall have the option of submitting their Bids electronically. Procedures for submission, sealing, and marking are as follows:

- (a) Bidders submitting Bids by mail or by hand shall enclose the original and each copy of the Bid, including alternative Bids, if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as "ORIGINAL," "ALTERNATIVE," and "COPY." These envelopes containing the original and the copies shall then be enclosed in one single envelope. The rest of the procedure shall be in accordance with ITB21.2 and ITB 21.3.
- (b) Bidders submitting Bids electronically shall follow the electronic bid submission procedures specified in the BDS.

- 21.2 The inner and outer envelopes shall

- (a) bear the name and address of the Bidder;
- (b) be addressed to the Employer as provided in BDS 22.1;
- (c) bear the specific identification of this bidding process indicated in BDS 1.1; and
- (d) bear a warning not to open before the time and date for bid opening.

- 21.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the Bid.

22. Deadline for Submission of Bids

- 22.1 Bids must be received by the Employer at the address and no later than the date and time indicated in the BDS.

- 22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

23. Late Bids

- 23.1 The Employer shall not consider any Bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any Bid received by the Employer after the deadline for submission of Bids shall be declared late, rejected, and returned unopened to the Bidder.

24. Withdrawal, Substitution, and Modification of Bids

- 24.1 A Bidder may withdraw, substitute, or modify its Bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the Bid must accompany the respective written notice. All notices must be
- (a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked "WITHDRAWAL," "SUBSTITUTION," "MODIFICATION;" and
 - (b) received by the Employer prior to the deadline prescribed for submission of Bids, in accordance with ITB 22.
- 24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders.
- 24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof.

25. Bid Opening

- 25.1 The Employer shall open the Bids in public at the address, on the date, and time specified in the BDS in the presence of Bidders` designated representatives and anyone who choose to attend. Any specific electronic bid opening procedures required if electronic bidding is permitted in accordance with ITB 21.1, shall be as specified in the BDS.
- 25.2 First, envelopes marked "WITHDRAWAL" shall be opened and read out and the envelope with the corresponding Bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked "SUBSTITUTION" shall be opened and read out and exchanged with the corresponding Bid being substituted, and the substituted Bid shall not be opened, but returned to the Bidder. No bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked "MODIFICATION" shall be opened and read out with the corresponding Bid. No bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at bid opening. Only envelopes that are opened and read out at bid opening shall be considered further.
- 25.3 All other envelopes shall be opened one at a time, reading out the name of the Bidder; the Bid Price(s), including any discounts and alternative bids and indicating whether there is a modification; the presence of a bid security or Bid-Securing Declaration, if required; and any other details as the Employer may consider appropriate. Only discounts and alternative offers read out at bid opening shall be considered for evaluation. Unless otherwise specified in the BDS, all pages of the Letter of Bid and Schedules are to be initialed by at least three representatives of the Employer attending the bid opening. No Bid

shall be rejected at bid opening except for late Bids, in accordance with ITB 23.1.

- 25.4 The Employer shall prepare a record of the bid opening that shall include, as a minimum, the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per contract if applicable, including any discounts and alternative offers; and the presence or absence of a bid security or a Bid-Securing Declaration, if one was required. The Bidders' representatives who are present shall be requested to sign the record. The omission of a Bidder's signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders who submitted Bids on time, and posted online when electronic bidding is permitted.

E. Evaluation and Comparison of Bids

26. Confidentiality

- 26.1 Information relating to the examination, evaluation, comparison, and post qualification of Bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders.
- 26.2 Any attempt by a Bidder to influence the Employer in the evaluation of the Bids or Contract award decisions may result in the rejection of its Bid.
- 26.3 Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may do so in writing.

27. Clarification of Bids

- 27.1 To assist in the examination, evaluation, and comparison of the bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid. Any clarification submitted by a Bidder that is not in response to a request by the Employer shall not be considered. The Employer's request for clarification and the response shall be in writing. No change in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 31.
- 27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.

28. Deviations, Reservations, and Omissions

- 28.1 During the evaluation of Bids, the following definitions apply:
- (a) "Deviation" is a departure from the requirements specified in the Bidding Document;
 - (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Document; and
 - (c) "Omission" is the failure to submit part or all of the information or

documentation required in the Bidding Document.

29. Determination of Responsiveness

- 29.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB11.
- 29.2 A substantially responsive Bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,
- (a) if accepted, would:
 - (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
 - (ii) limit in any substantial way, inconsistent with the Bidding Document, the Employer's rights or the Bidder's obligations under the proposed Contract; or
 - (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.
- 29.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section 6 (Employer's Requirements) have been met without any material deviation, reservation, or omission.
- 29.4 If a Bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

30. Nonmaterial Nonconformities

- 30.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid that do not constitute a material deviation, reservation, or omission.
- 30.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.
- 30.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price may be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component. The adjustment shall be made using the methods indicated in Section 3 (Evaluation and Qualification Criteria).

31. Correction of Arithmetical Errors

- 31.1 Provided that the Bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:
- (a) Only for unit price contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is

an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected.

- (b) If there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected.
- (c) If there is a discrepancy between the bid price in the Summary of Bill of Quantities and the bid amount in item (c) of the Letter of Bid, the bid price in the Summary of Bill of Quantities will prevail and the bid amount in item (c) of the Letter of Bid will be corrected.
- (d) If there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a), (b) and (c) above.

31.2 If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors, its bid shall be disqualified and its bid security may be forfeited or its Bid-Securing Declaration executed.

32. Conversion to Single Currency

32.1 For evaluation and comparison purposes, the currency(ies) of the Bid shall be converted into a single currency as specified in the BDS.

33. Margin of Preference

33.1 Unless otherwise specified in the BDS, a margin of preference shall not apply.

34. Evaluation of Bids

34.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.

34.2 To evaluate a Bid, the Employer shall consider the following:

- (a) the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities for admeasurement contracts, or Schedule of Prices for lump sum contracts, but including Dayworks items, where priced competitively;
- (b) price adjustment for correction of arithmetic errors in accordance with ITB 31.1;
- (c) price adjustment due to discounts offered in accordance with ITB 14.4;
- (d) converting the amount resulting from applying (a) to (c) above, if relevant, to a single currency in accordance with ITB 32;
- (e) adjustment for nonconformities in accordance with ITB 30.3; and
- (f) application of all the evaluation factors indicated in Section 3 (Evaluation and Qualification Criteria).

34.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation.

34.4 If this Bidding Document allows Bidders to quote separate prices for different contracts, and to award multiple contracts to a single Bidder,

the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Letter of Bid, is specified in Section 3 (Evaluation and Qualification Criteria).

34.5 If the Bid for an admeasurement contract, which results in the lowest Evaluated Bid Price, is seriously unbalanced, front loaded or substantially below updated estimates in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses for any or all items of the Bill of Quantities, to demonstrate the internal consistency of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated Contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract.

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| 35. Comparison of Bids | 35.1 The Employer shall compare all substantially responsive Bids to determine the lowest evaluated Bid, in accordance with ITB 34.2. |
| 36. Qualification of the Bidder | 36.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive Bid meets the qualifying criteria specified in Section 3 (Evaluation and Qualification Criteria). |
| | 36.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17.1. |
| | 36.3 An affirmative determination shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the Bid, in which event the Employer shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder's qualifications to perform satisfactorily. |
| 37. Employer's Right to Accept Any Bid, and to Reject Any or All Bids | 37.1 The Employer reserves the right to accept or reject any Bid, and to annul the bidding process and reject all Bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all Bids submitted and specifically, bid securities, shall be promptly returned to the Bidders. |

F. Award of Contract

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|----------------------------------|---|
| 38. Award Criteria | 38.1 The Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated Bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily. |
| 39. Notification of Award | 39.1 Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, that its Bid has been accepted. |

39.2 At the same time, the Employer shall also notify all other Bidders of the results of the bidding. The Employer will publish in an English language newspaper or well-known freely accessible website the results identifying the bid and lot numbers and the following information: (i) name of each Bidder who submitted a Bid; (ii) bid prices as read out at bid opening; (iii) name and evaluated prices of each Bid that was evaluated; (iv) name of bidders whose bids were rejected and the reasons for their rejection; and (v) name of the winning Bidder, and the price it offered, as well as the duration and summary scope of the contract awarded. After publication of the award, unsuccessful Bidders may request in writing to the Employer for a debriefing seeking explanations on the grounds on which their Bids were not selected. The Employer shall promptly respond in writing to any unsuccessful Bidder who, after publication of contract award, requests a debriefing.

39.3 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.

40. Signing of Contract

40.1 Promptly after notification, the Employer shall send the successful Bidder the Contract Agreement.

40.2 Within 28 days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.

41. Performance Security

41.1 Within 28 days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the Conditions of Contract, subject to ITB 34.5, using for that purpose the Performance Security Form included in Section 9 (Contract Forms), or another form acceptable to the Employer.

41.2 Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security or execution of the Bid-Securing Declaration. In that event, the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily.

41.3 The above provision shall also apply to the furnishing of a domestic preference security, if so required.

Section 2 - Bid Data Sheet

A. General

ITB 1.1	The number of the Invitation for Bids (IFB) is: NWARA/P-ARBP-Addf/NCB-W001
ITB 1.1	The Employer is: National Water Affairs Regulation Authority (NWARA)
ITB 1.1	The name of the bidding process is: Construction of Kando and Zali Valleys (Sar-e-Kamr) check dam in Panshir Province. The identification number of the bidding process is: NWARA/P-ARBP-Addf/NCB-W001
ITB 2.1	The Borrower is: Islamic Republic of Afghanistan
ITB 2.1	The name of the Project is: Panj-Amu River Basin Sector Project- Additional Financing

B. Contents of Bidding Documents

ITB 7.1	<p>For clarification purposes only, the Employer's address is: National Water Affairs Regulation Authority (NWARA), Central Program Management Office Building, NWARA Compound</p> <p>Attention: Said Moqem "Sadat", CPMO Director</p> <p>Street address: Dural – Aman Road, Opposite Sanatorium</p> <p>City: Kabul</p> <p>Country: Afghanistan</p> <p>Telephone: +93 78 653 8477</p> <p>E-mail: msadat@cpmo-nwara.org; copy to mzahid@cpmo-nwara.org & rreshad@cpmo-nwara.org</p> <p>Requests for clarification should be received by the Employer no later than: 10 days prior to bid submission deadline.</p>
ITB 7.4	<p>A Pre-Bid meeting will take place (optional).</p> <p>Date: 11/May/2021</p> <p>Time: 10:00 AM</p> <p>Place: CPMO Office, NWARA Compound, Darulaman Road, Kabul.</p> <p>Alternatively, virtual attendance to the Pre-Bid meeting also allowed, (the link of the meeting will be shared with the bidders two days before the meeting).</p> <p>Bidders who wishes to attend the pre-bid meeting virtually, shall send their intention to the below email address 4 days prior to the meeting date; mzahid@cpmo-nwara.org and copy to: msadat@cpmo-nwara.org & rreshad@cpmo-nwara.org</p> <p>A site visit conducted by the Employer will be organized (Optional), bidders who</p>

	wishes to visit the site on their own arrangement shall inform the CPMO/NWARA 4 days prior to their schedule for site visit”.
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C. Preparation of Bids

ITB 10.1	The language of the Bid is: English
ITB 11.1 (b)	In accordance with ITB 12 and ITB 14, the following schedules shall be submitted with the bid, including the priced Bill of Quantities: Work Program
ITB 11.1 (h)	The Bidder shall submit with its Bid the following additional documents: Certificate of Incorporation, QC Plan and Safety Plan
ITB 12.1	The units and rates in figures entered into the Bill of Quantities and Day work Schedule should be typewritten or if written by hand, must be in print form. Bill of Quantities and Day work Schedule not presented accordingly may be considered nonresponsive.
ITB 13.1	Alternative bids shall not be permitted.
ITB 13.2	Alternative times for completion not permitted.
ITB 13.4	Alternative technical solutions shall be permitted for the following parts of the Works: Not Applicable
ITB 14.5	The prices quoted by the Bidder shall not be subject to adjustment during the performance of the Contract.
ITB 15.1	The prices shall be quoted by the bidder and shall be paid in: USD
ITB 18.1	The bid validity period shall be Ninety (90) days .
ITB 19.1	The Bidder shall furnish a bid security in the amount of USD 5,000 .
ITB 19.2	The ineligibility period will be Not Applicable .

ITB 19.4	<p>Subject to the succeeding sentences, any bid not accompanied by an irrevocable and callable bid security shall be rejected by the Employer as nonresponsive.</p> <p>If a Bidder submits a bid security that (i) deviates in form, amount, and/or period of validity, or (ii) does not provide sufficient identification of the Bidder (including, without limitation, failure to indicate the name of the Joint Venture or, where the Joint Venture has not yet been constituted, the names of all future Joint Venture Partners), the Employer shall request the Bidder to submit a compliant bid security within 14 days of receiving such a request. Failure to provide a compliant bid security within the prescribed period of receiving such a request shall cause the rejection of the Bid.</p>
ITB 19.7 (b)	<p>Add to sub clause 19.7(b):</p> <p>(v) provide increased performance security due to a seriously unbalanced bid or a front-loaded bid in accordance with ITB 34.5</p> <p>(vi) accept to carry out the items against which there is no rate or price in accordance with ITB 14.2</p>
ITB 20.1	<p>In addition to the original Bid, the number of copies is: One (1) hard copy and one (1) electronic soft copy. If there are discrepancy(ies) between the hard copy and the soft copy, the hard copy (stamped as ORIGINAL) will prevail.</p>
ITB 20.2	<p>The written confirmation of authorization to sign on behalf of the Bidder shall consist of: <i>An organizational document, board resolution or its equivalent, or power of attorney specifying the representative's authority to sign the Bid on behalf of, and to legally bind, the Bidder. If the Bidder is an intended or an existing joint venture, the power of attorney should be signed by all partners and specify the authority of the named representative of the Joint Venture to sign on behalf of, and legally bind, the intended or existing Joint Venture. If the Joint Venture has not yet been formed, also include evidence from all proposed Joint Venture partners of their intent to enter into a Joint Venture in the event of a contract award in accordance with ITB 11.2.</i></p>
ITB 20.2	<p>The Bidder shall submit an acceptable authorization within 14 days.</p>

D. Submission and Opening of Bids

ITB 21.1	Bidders shall not have the option of submitting their Bids electronically.
ITB 21.1 (b)	Not Applicable
ITB 22.1	<p>For bid submission purposes only, the Employer's address is:</p> <p>Attention: National Water Affairs Regulation Authority (NWARA)</p> <p>Street address: CPMO Office, NWARA Compound, Darulaman Road</p> <p>City: Kabul</p> <p>Country: Afghanistan</p> <p>The deadline for bid submission is:</p> <p>Date: 29/May/2021</p> <p>Time: 10:00 AM</p> <p>In case the specified date of bid submission is declared a holiday for the Employer, the bids may be submitted up to the specified time on the next</p>

	working day.
ITB 25.1	The bid opening shall take place at: Attention: National Water Affairs Regulation Authority (NWARA) Street address: CPMO Office, NWARA Compound, Darulaman Road City: Kabul Country: Afghanistan Date: 29/May/2021 Time: 10:00 AM
ITB 25.1	Not Applicable
ITB 25.3	The Letter of Bid and Schedules shall be initialed by all representatives of the Employer attending the Bid opening.

E. Evaluation and Comparison of Bids

ITB 32.1	The currency that shall be used for bid evaluation and comparison purposes to convert all bid prices expressed in various currencies into a single currency is: USD (United States Dollar) The source of the selling exchange rate shall be: Da Afghanistan Bank The date for the selling exchange rate shall be: Date of bid opening
ITB 33.1	A margin of preference shall not apply.

Section 3 - Evaluation and Qualification Criteria

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(May be complied with by specialist subcontractors. The employer shall require evidence of the subcontracting agreement from the bidder. A specialist subcontractor is a specialist enterprise engaged for highly specialized processes, which the main contractor cannot provide.) 9

In the case of a joint venture bidder, at least one of the partners must have the experience in the key activity if the bidder itself (not its subcontractor) will carry out the relevant activity. Error! Bookmark not defined.

1. Evaluation

In addition to the criteria listed in ITB 34.2 (a)–(e), other relevant factors are as follows:

1.1 Adequacy of Technical Proposal

Evaluation of the Bidder's Technical Proposal will include an assessment of the Bidder's technical capacity to mobilize key equipment and personnel for the contract consistent with its proposal regarding work methods, scheduling, and material sourcing in sufficient detail and fully in accordance with the requirements stipulated in Section 6 (Employer's Requirements).

Bidders shall provide, as a minimum, the information requirements set out in Section 4 (Bidding Forms) under Technical Proposal. Non-compliance with equipment and personnel requirements described in Section 6 (Employer's Requirements) shall not be grounds for bid rejection and such non-compliance will be subject to clarification and rectification prior to contract award.

1.2 Completion Time

An alternative Completion Time, if permitted under ITB 13.2, will be evaluated as follows:

Not Applicable

1.3 Technical Alternatives

Technical alternatives, if permitted under ITB 13.4, will be evaluated as follows:

Not Applicable

1.4 Quantifiable Nonconformities and Omissions

Subject to ITB 14.2 and ITB 34.2, the evaluated cost of quantifiable nonconformities including omissions, is determined as follows:

Pursuant to ITB 30.3, the cost of all quantifiable nonmaterial nonconformities shall be evaluated, including omissions in Day work where competitively priced but excluding omission of prices in the Bill of Quantities. The Employer will make its own assessment of the cost of any nonmaterial nonconformities and omissions for the purpose of ensuring fair comparison of bids.

1.5 Margin of Preference (Applicable for ICB only)

If a margin of preference shall apply under ITB 33.1, the procedure will be as follows as:

Not Applicable

1.6 Multiple Contracts

If a bidder participated in more than one bid, the bidder must meet the cumulative financial requirement determined for each bid.

2. Qualification

It is the legal entity or entities comprising the Bidder, and not the Bidder's parent companies, subsidiaries, or affiliates, that must satisfy the qualification criteria described below.

2.1 Eligibility

Criteria	Compliance Requirements			Documents
Requirement	Single Entity	Joint Venture		Submission Requirements
		All Partners Combined	Each Partner	

2.1.1 Nationality

Nationality in accordance with ITB Sub-clause 4.2.	must meet requirement	must meet requirement	must meet requirement	not applicable	Forms ELI -1; ELI -2 with attachments
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2.1.2 Conflict of Interest

No conflicts of interest in accordance with ITB Sub-clause 4.3.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Bid
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2.1.3 ADB Eligibility

Not having been declared ineligible by ADB, as described in ITB Sub-clause 4.4.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Bid
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2.1.4 Government-Owned Enterprise

Bidder required to meet conditions of ITB Sub-clause 4.5.	must meet requirement	must meet requirement	must meet requirement	not applicable	Forms ELI -1, ELI -2 with attachments
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2.1.5 United Nations Eligibility

Not having been excluded by an act of compliance with a United Nations Security Council resolution in accordance with ITB Sub clause 4.7.	must meet requirement	must meet requirement	must meet requirement	not applicable	Letter of Bid
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2.2 Pending Litigation and Arbitration

Pending litigation and arbitration criterion shall apply.

2.2.1 Pending Litigation and Arbitration

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
All pending litigation and arbitration, if any, shall be treated as resolved against the Bidder and so shall in total not represent more than 50 percent of the Bidder's net worth calculated as the difference between total assets and total liabilities.	must meet requirement by itself or as partner to past or existing Joint Venture	not applicable	must meet requirement by itself or as partner to past or existing Joint Venture	not applicable	Form LIT - 1

2.3 Financial Situation

2.3.1 Historical Financial Performance

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Submission of audited financial statements or, if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, for the last Three (3) years to demonstrate the current soundness of the Bidder's financial position. As a minimum, the Bidder's net worth for the last year, calculated as the difference between total assets and total liabilities should be positive.	must meet requirement	not applicable	must meet requirement	not applicable	Form FIN - 1 with attachments

2.3.2 Average Annual Construction Turnover

Criteria	Compliance Requirements			Documents	
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
Minimum average annual construction turnover of USD 356,000 calculated as total certified payments received for contracts in progress or completed, within the last Four (4) years.	must meet requirement	must meet requirement	must meet 25% of the requirement	must meet 40% of the requirement	Form FIN - 2

2.3.3 Financial Resources

If the bid evaluation process and the decision for the award of the Contract takes more than one (1) year from the date of bid submission, Bidders shall be asked to resubmit their current contract commitments and latest information on financial resources supported by latest audited accounts/audited financial statements, or if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, and the Bidders' financial capacity shall be reassessed on this basis.

Criteria	Compliance Requirements			Documents	
	Single Entity	Joint Venture			
Requirement		All Partners Combined	Each Partner	One Partner	Submission Requirements
<p>For Single Entities:</p> <p>The Bidder must demonstrate that its financial resources defined in FIN-3, less its financial obligations for its current contract commitments defined in FIN-4, meet or exceed the total requirement for the Subject Contract of USD 119,000</p>	must meet requirement	not applicable	not applicable	not applicable	Form FIN – 3 and Form FIN – 4
<p>For Joint Ventures:</p> <p>(1) One partner must demonstrate that its financial resources defined in FIN-3, less its financial obligations for its own current contract commitments defined in FIN-4, meet or exceed its required share of USD 47,600 from the total requirement for the Subject Contract. AND</p>	not applicable	not applicable	not applicable	must meet requirement	Form FIN – 3 and Form FIN – 4
<p>(2) Each partner must demonstrate that its financial resources defined in FIN-3, less its financial obligations for its own current contract commitments defined in FIN-4, meet or exceed its required share of USD 29,750 the total requirement for the Subject Contract. AND</p>	not applicable	not applicable	must meet requirement	not applicable	Form FIN – 3 and Form FIN – 4
<p>(3) The joint venture must demonstrate that the combined financial resources of all partners defined in FIN-3, less all the partners' total financial obligations for the current contract commitments defined in FIN-4, meet or exceed the total requirement for the Subject Contract of USD 119,000.</p>	not applicable	must meet requirement	not applicable	not applicable	Form FIN – 3 and Form FIN – 4

2.4 Construction Experience

2.4.1 Contracts of Similar Size and Nature

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
<p>Participation as a contractor, Joint Venture partner, or Subcontractor, in at least one contract that has been successfully or substantially completed within the last ten (10) years and that is similar to the proposed works, where the value of the Bidder's participation exceeds USD 167,000.</p> <p>The similarity of the Bidder's participation shall be based on the physical size, nature of works, complexity, methods, technology or other characteristics as described in Section 6 (Employer's Requirements).</p>	<p>must meet requirement</p>	<p>not applicable</p>	<p>not applicable</p>	<p>must meet requirement</p>	<p>Form EXP -1 Submit copies of contracts/ completion certificate in case of completed contracts or substantial completion certificate where works have been substantially completed. Such documents should be the employer's letterhead clearly indicating the name of the employer, name of project, brief scope and contract amount and contact details of employer In case documents are not available in English, an English notarized version duly certified by certified translator should be provided.</p>

2.4.2 Construction Experience in Key Activities: Not Applicable

(May be complied with by specialist subcontractors. The employer shall require evidence of the subcontracting agreement from the bidder. A specialist subcontractor is a specialist enterprise engaged for highly specialized processes, which the main contractor cannot provide.)

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each Partner	One Partner	
For the above or other contracts executed during the period stipulated in 2.4.1 above, a minimum construction experience in the following key activities:	not applicable	not applicable	not applicable	not applicable	Form EXP-2

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Letter of Bid

-Note-

The bidder must accomplish the Letter of Bid on its letterhead clearly showing the bidder's complete name and address.

Date:

ICB/NCB No.:

Invitation for Bid No.:

To:.....

We, the undersigned, declare that:

- (a) We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB) Clause 8.
- (b) We offer to execute in conformity with the Bidding Documents the following Works:

- (c) The total price of our Bid, excluding any discounts offered in item (d) below is:

[amount of foreign currency in words], [amount in figures], and [amount of local currency in words], [amount in figures]

The total bid price from the Summary of Bill of Quantities for admeasurement contracts or Activity Schedule for lump sum contracts should be entered by the bidder inside this box. Absence of the total bid price in the Letter of Bid may result in the rejection of the bid.

- (d) The discounts offered and the methodology for their application are as follows:

- (e) Our bid shall be valid for a period of days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period.
- (f) If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document.
- (g) Our firm, including any Subcontractors or Suppliers for any part of the Contract, have nationalities from eligible countries in accordance with ITB 4.2.

- (h) We, including any Subcontractors or Suppliers for any part of the contract, do not have any conflict of interest in accordance with ITB 4.3.
- (i) We are not participating, as a Bidder in more than one Bid in this bidding process in accordance with ITB 4.3(e), other than alternative offers submitted in accordance with ITB 13.
- (j) Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by ADB, under the Employer’s country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council.
- (k) [We are not a government-owned enterprise] / [We are a government-owned enterprise but meet the requirements of ITB 4.5].¹
- (l) We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:²

Name of Recipient	Address	Reason	Amount
.....
.....

- (m) We understand that this Bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed.
- (n) We understand that you are not bound to accept the lowest evaluated Bid or any other Bid that you may receive.
- (o) We agree to permit ADB or its representative to inspect our accounts and records and other documents relating to the bid submission and to have them audited by auditors appointed by ADB.
- (p) If our Bid is accepted, we commit to mobilizing key equipment and personnel in accordance with the requirements set forth in Section 6 (Employer’s Requirements) and our technical proposal, or as otherwise agreed with the Employer.

Name

In the capacity of

Signed

Duly authorized to sign the Bid for and on behalf of

Date

¹ Use one of the two options as appropriate.
² If none has been paid or is to be paid, indicate “None”.

Schedules

Not Applicable

Schedule of Payment Currencies

Forinsert name of Section of the Works

Separate tables may be required if the various sections of the Works (or of the Bill of Quantities) will have substantially different foreign and local currency requirements. In such a case, the Employer should prepare separate tables for each Section of the Works.

	A	B	C	D
Name of Payment Currency	Amount of Currency	Rate of Exchange to Local Currency	Local Currency Equivalent C = A x B	Percentage of Net Bid Price (NBP) $\frac{100 \times C}{NBP}$
Local Currency _____		1.00		
Foreign Currency #1 _____				
Foreign Currency #2 _____				
Foreign Currency #3 _____				
Net Bid Price				100.00
Provisional Sums Expressed in Local Currency		1.00		
BID PRICE				

- Note -

The rates of exchange shall be the selling rates 28 days prior to the deadline for submission of bids published by the source specified in BDS 15.

Table(s) of Adjustment Data

Table A - Local Currency

Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Local Currency Amount	Bidder's Proposed Weighting (coefficient)
	Nonadjustable	—	—	—	a: (by Employer) b: _____ c: _____ d: _____ e: _____
Total					1.00

Table B - Foreign Currency *Not Applicable*

Name of Currency:

If the Bidder wishes to quote in more than one foreign currency, but in no case more than three, this table should be repeated for each foreign currency.

Index Code	Index Description	Source of Index	Base Value and Date	Bidder's Currency in Type/Amount	Equivalent in FC1	Bidder's Proposed Weighting (coefficient)
	Nonadjustable	—	—	—		a: (by Employer) b: _____ c: _____ d: _____ e: _____
Total						1.00

Note

"Base Date" means the date 28 days prior to the deadline for submission of bids.

Tables of Adjustment Data shall only be included if prices are to be quoted as adjustable prices in accordance with ITB 14.5.

Bill of Quantities

[Admeasurement Contract]

(a) Preamble to the Bills of Quantities

1. The Bill of Quantities shall be read in conjunction with the Instructions to Bidders, General and Particular Conditions of Contract, Technical Specifications, and Drawings.
2. The quantities given in the Bill of Quantities are estimated and provisional, and are given to provide a common basis for bidding. The basis of payment will be the actual quantities of work ordered and carried out, as measured by the Contractor and verified by the Project Manager and valued at the rates and prices bid in the priced Bill of Quantities, where applicable, and otherwise at such rates and prices as the Project Manager may fix within the terms of the Contract.
3. The rates and prices bid in the priced Bill of Quantities shall, except as otherwise provided under the Contract, include all construction equipment, labor, supervision, materials, erection, maintenance, insurance, profit, taxes, and duties, together with all general risks, liabilities, and obligations set out or implied in the Contract.
4. A rate or price shall be entered against each item in the priced Bill of Quantities, whether quantities are stated or not. The cost of Items against which the Contractor has failed to enter a rate or price shall be deemed to be covered by other rates and prices entered in the Bill of Quantities.
5. The whole cost of complying with the provisions of the Contract shall be included in the Items provided in the priced Bill of Quantities, and where no Items are provided, the cost shall be deemed to be distributed among the rates and prices entered for the related Items of Work.
6. General directions and descriptions of work and materials are not necessarily repeated nor summarized in the Bill of Quantities. References to the relevant sections of the Contract documentation shall be made before entering prices against each item in the priced Bill of Quantities.
7. Provisional Sums included and so designated in the Bill of Quantities shall be expended in whole or in part at the direction and discretion of the Project Manager in accordance with the Conditions of Contract.
8. The method of measurement of completed work for payment shall be in accordance with the Standard Method of Measurement issued by the UK Institution of Civil Engineers, 1-7 Great George Street, London SW1P 3AA.

Note:

- (i) The Employer/Client/Designer has allowed a width of 0.6 m on each side of all concrete structures as an adjustment for working space and the volume of earthworks for the excavation to this dimension has been calculated accordingly.
 - (ii) If the Contractor feels that he needs more working space at a particular type of structure, and it is likely he may, then it is his responsibility to ensure that his Unit Rate reflects the additional cost of the additional earthworks as the Employer/Client will only pay for the volume of earthworks NET to the 0.6 m dimension.
9. Arithmetic errors will be corrected by the Employer as follows:
 - (a) if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected, unless in the opinion of the Employer there is an obvious misplacement of the decimal point in the unit price, in which case the total price as quoted shall govern and the unit price shall be corrected
 - (b) if there is an error in a total corresponding to the addition or subtraction of subtotals, the subtotals shall prevail and the total shall be corrected

- (c) if there is a discrepancy between the bid price in the Summary of Bill of Quantities and the bid amount in item (c) of the Letter of Bid, the bid price in the Summary of Bill of Quantities will prevail and the bid amount in item (c) of the Letter of Bid will be corrected, and
- (d) if there is a discrepancy between words and figures, the amount in words shall prevail, unless the amount expressed in words is related to an arithmetic error, in which case the amount in figures shall prevail subject to (a), (b) and (c) above.
10. Any Item of Work included in the Bills of Quantities (BOQ), which is not carried out shall be omitted from the interim and final statements. Any additional Item of Work carried out on the Project Manager's/Engineer's instructions shall be included in the relevant interim and final statements.
11. Provisional Work and Provisional Sum items are Items for which the Employer/Client has reserved his right to order to be executed, or canceled in whole or in part(s).
12. IN ADDITION, The Bidder's/Contractor's attention is drawn to the requirements set out in the Technical Specifications related to the Environmental Management Plan and the Security Plan:
- The rates and prices inserted in the Bills of Quantities (BOQ) by the Bidder/Contractor shall be deemed to cover all costs related to these obligations.
13. No claim for additional payment will be allowed for any error or misunderstanding by the Bidder/Contractor in respect to all of the above.
14. "Authorized", "Directed" or "Approved" shall mean the authority, direction or approval of the Project Manager/Engineer under the authority of the Employer/Client.

(b) Summary of Bills of Quantities

(c) Daywork Schedule

1. General

- (i) Work shall not be executed on a daywork basis except by written order of the Project Manager. Bidders shall enter basic rates for daywork items in the Schedules, which rates shall apply to any quantity of daywork ordered by the Project Manager. Nominal quantities have been indicated against each item of daywork, and the extended total for Daywork shall be carried forward as a Provisional Sum to the Summary Total Bid Amount. Unless otherwise adjusted, payments for daywork shall be subject to price adjustment in accordance with the provisions in the Conditions of Contract.

2. Day-work Labor

- (i) In calculating payments due to the Bidder/Contractor for the execution of day-works, the hours for labor will be reckoned from the time spent in executing the work but excluding meal breaks and rest periods. Only the time for classes of labor directly doing work ordered by the Project Manager/Engineer and for which they are competent to perform will be measured. The time of gangers (charge hands) actually doing work with the gangs will also be measured but not the time of foremen or other supervisory personnel.
- (ii) The Contractor shall be entitled to payment in respect of the total time that labor is employed on day-works, calculated at the basic Unit Rates entered by him/her in the Schedule of Day-works Rates: Labor, together with an additional percentage payment on basic rates representing the Bidder's/Contractor's profit, overheads, etc., as described below:
 - i. The basic Unit Rates for labor shall cover all direct costs to the Contractor, including (but not limited to) the amount of wages paid to such labor, transportation time, overtime, subsistence allowances, and any sums paid to or on behalf of such labor for social benefits in accordance with Afghan Law.
 - ii. The additional percentage payment to be quoted by the Contractor and applied to costs incurred under (a) above shall be deemed to cover the Contractor's profit, overheads, superintendence, liabilities, and insurances and allowances to labor, timekeeping, and clerical and office work, the use of consumable stores, water, lighting, and power; the use and repair of stagings, scaffolding, workshops, and stores, portable power tools, manual plant, and tools; supervision by the Contractor's staff, foremen, and other supervisory personnel; and charges incidental to the foregoing.

3. Day-work Materials

- (i) The Contractor shall be entitled to payment in respect of materials used for day-work (except for materials for which the cost is included in the percentage addition to labor costs as detailed heretofore), at the basic Unit Rates entered by the him/her in the Schedule of Day-work Rates: Materials, together with an additional percentage payment on the basic rates to cover overhead charges and profit, as follows:
 - i. The basic Unit Rates for materials shall be calculated on the basis of the invoiced price, freight, insurance, handling expenses, damage, losses, etc., and shall provide for delivery to store for stockpiling at the Site.
 - ii. The cost of hauling materials for use on work ordered to be carried out as day-works from the store or stockpile on the Site to the place where it is to be used will be paid in accordance with the terms for Labor and Construction in this schedule.

4. Day-work Contractor's Equipment

- (i) The Contractor shall be entitled to payments in respect of Contractor's Equipment already on Site and employed on day-works at the basic rental rates entered by him/her in the Schedule of Day-work Rates: Contractor's Equipment. Said Unit Rates shall be deemed to include due and complete allowance for depreciation, interest, indemnity, and insurance, repairs, maintenance, supplies, fuel, lubricants, and other consumables, but excluding all overhead, profit, administrative costs related to the use of such equipment and the cost of drivers, operators and assistants.
- (ii) In calculating the payment due to the Contractor for the Contractor's Equipment employed on day-works, only the actual number of working hours will be eligible for payment, including the travelling time from the part of the Site where the Contractor's Equipment was located when ordered by the Project Manager to be employed on day-work and the time for return journey thereto for payment.
- (iii) The basic rental rates for Bidder's/Contractor's Equipment employed on day-work shall be stated in USD (Dollars).

Bid Security

Bank Guarantee

Bank's name, and address of issuing branch or office¹

Beneficiary: *name and address of employer*

Date:

Bid Security No.:

We have been informed that *name of the bidder*. (hereinafter called "the Bidder") has submitted to you its bid dated (hereinafter called "the Bid") for the execution of
. . . *name of contract* under Invitation for Bids No. ("the IFB").

Furthermore, we understand that, according to your conditions, bids must be supported by a bid guarantee.

At the request of the Bidder, we *name of bank*. hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *amount in figures* (. *amount in words*) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Bidder is in breach of its obligation(s) under the bid conditions, because the Bidder

- (a) has withdrawn its Bid during the period of bid validity specified by the Bidder in the Letter of Bid; or
- (b) does not accept the correction of errors in accordance with the Instructions to Bidders (hereinafter "the ITB"); or
- (c) having been notified of the acceptance of its Bid by the Employer during the period of bid validity, (i) fails or refuses to execute the Contract Agreement, or (ii) fails or refuses to furnish the performance security, in accordance with the ITB, or (iii) fails or refuses to furnish the domestic preference security, if required.

This guarantee will expire (a) if the Bidder is the successful Bidder, upon our receipt of copies of the Contract Agreement signed by the Bidder and the Performance Security issued to you upon the instruction of the Bidder; and (b) if the Bidder is not the successful Bidder, upon the earlier of (i) our receipt of a copy your notification to the Bidder of the name of the successful Bidder, or (ii) 28 days after the expiration of the Bidder's bid.

Consequently, any demand for payment under this guarantee must be received by us at the office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458.²

.....*Bank's seal and authorized signature(s)*.....

Note

In case of a joint venture, the bid security must be in the name of all partners to the joint venture that submits the bid.

¹ All italicized text is for use in preparing this form and shall be deleted from the final document.
² Or 758 as applicable.

Technical Proposal

Personnel

Form PER – 1: Proposed Personnel

Bidder should provide the details of the proposed personnel and their experience record in the relevant Information Forms below for each candidate:

1.	Title of position*
	Name
2.	Title of position*
	Name
3.	Title of position*
	Name
4.	Title of position*
	Name
5.	Title of position*
	Name
etc.	Title of position*
	Name

-- Note --

* As listed in Section 6 (Employer's Requirements).

Form PER – 2: Resume of Proposed Personnel

The Bidder shall provide all the information requested below. Use one form for each position.

Position		
Personnel information	Name	Date of birth
	Professional qualifications	
Present employment	Name of employer	
	Address of employer	
	Telephone	Contact (manager / personnel officer)
	Fax	E-mail
	Job title	Years with present employer

Summarize professional experience in reverse chronological order. Indicate particular technical and managerial experience relevant to the project.

From	To	Company, Project, Position and Relevant Technical and Management Experience

Equipment

Form EQU: Equipment

The Bidder shall provide adequate information and details to demonstrate clearly that it has the capability to meet the equipment requirements indicated in Section 6 (Employer's Requirements), using the Forms below. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder.

Type of Equipment		
Equipment Information	Name of manufacturer	Model and power rating
	Capacity	Year of manufacture
Current Status	Current location	
	Details of current commitments	
Source	Indicate source of the equipment <input type="checkbox"/> Owned <input type="checkbox"/> Rented <input type="checkbox"/> Leased <input type="checkbox"/> Specially manufactured	

Omit the following information for equipment owned by the Bidder.

Owner	Name of owner	
	Address of owner	
	Telephone	Contact name and title
	Fax	Telex
Agreements	Details of rental / lease / manufacture agreements specific to the project	

Site Organization

Method Statement

Mobilization Schedule

Construction Schedule

Bidder's Qualification

To establish its qualifications to perform the contract in accordance with Section 3 (Evaluation and Qualification Criteria) the Bidder shall provide the information requested in the corresponding Information Sheets included hereunder.

Form ELI – 1: Bidder’s Information Sheet

Bidder’s Information	
Bidder’s legal name	
In case of Joint Venture, legal name of each partner	
Bidder’s country of constitution	
Bidder’s year of constitution	
Bidder’s legal address in country of constitution	
Bidder’s authorized representative (name, address, telephone numbers, fax numbers, e-mail address)	
<p>Attached are copies of the following documents.</p> <ul style="list-style-type: none"> <input type="checkbox"/> 1. In case of single entity, articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2. <input type="checkbox"/> 2. Authorization to represent the firm or Joint Venture named above, in accordance with ITB 20.2. <input type="checkbox"/> 3. In case of Joint Venture, letter of intent to form Joint Venture or Joint Venture agreement, in accordance with ITB 4.1. <input type="checkbox"/> 4. In case of a government-owned enterprise, any additional documents not covered under 1 above required to comply with ITB 4.5. 	

Form ELI - 2: Joint Venture Information Sheet

Each member of the Joint Venture and Specialist Subcontractor must fill out this form separately.

Joint Venture / Specialist Subcontractor Information	
Bidder's legal name	
Joint Venture Partner's or Specialist Subcontractor's legal name	
Joint Venture Partner's or Specialist Subcontractor's country of constitution	
Joint Venture Partner's or Specialist Subcontractor's year of constitution	
Joint Venture Partner's or Specialist Subcontractor's legal address in country of constitution	
Joint Venture Partner's or Specialist Subcontractor's authorized representative information (name, address, telephone numbers, fax numbers, e-mail address)	
<p>Attached are copies of the following documents.</p> <p><input type="checkbox"/> 1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1 and ITB 4.2.</p> <p><input type="checkbox"/> 2. Authorization to represent the firm named above, in accordance with ITB 20.2.</p> <p><input type="checkbox"/> 3. In the case of government-owned enterprise, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB 4.5.</p>	

Specialist Subcontractor is a specialist enterprise engaged for highly specialized processes that cannot be provided by the main Contractor.

Form LIT - 1: Pending Litigation and Arbitration

Each Bidder must fill out this form if so required under Criterion 2.2 of Section 3 (Evaluation and Qualification Criteria) to describe any pending litigation or arbitration formally commenced against it.

In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Pending Litigation and Arbitration			
<p>Choose one of the following:</p> <p><input type="checkbox"/> No pending litigation and arbitration.</p> <p><input type="checkbox"/> Below is a description of all pending litigation and arbitration involving the Bidder (or each Joint Venture member if Bidder is a Joint Venture).</p>			
Year	Matter in Dispute	Value of Pending Claim in AFN Equivalent	Value of Pending Claim as a Percentage of Net Worth

- Note -

This form shall only be included if Criterion 2.2 of Section 3 (Evaluation and Qualification Criteria) is applicable.

Form FIN - 1: Historical Financial Performance

Each Bidder must fill out this form.

In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Financial Data for Previous 3 Years [AFN Equivalent]		
Year 1: 2018	Year 2: 2019	Year : 2020

Information from Balance Sheet

Total Assets (TA)			
Total Liabilities (TL)			
Net Worth =TA – TL			
Current Assets (CA)			
Current Liabilities (CL)			
Working Capital = CA - CL			

Most Recent Working Capital		To be obtained for most recent year and carried forward to FIN-3 Line 1; in case of Joint Ventures, to the corresponding Joint Venture Partner's FIN-3.
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Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			

- Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last _____ years, as indicated above, complying with the following conditions.
- Unless otherwise required by Section 3 of the Bidding Document, all such documents reflect the financial situation of the legal entity or entities comprising the Bidder and not the Bidder's parent companies, subsidiaries, or affiliates.
 - Historical financial statements must be audited by a certified accountant.
 - Historical financial statements must be complete, including all notes to the financial statements.
 - Historical financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

Form FIN - 2: Average Annual Construction Turnover

Each Bidder must fill out this form.

The information supplied should be the Annual Turnover of the Bidder or each member of a Joint Venture in terms of the amounts billed to clients for each year for work in progress or completed, converted to the Local Currency at the specified exchange rate.

In case of joint ventures, each Joint Venture Partner must fill out this form separately, and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Annual Turnover Data for the Last Four (4) Years (Construction only)			
Year	Amount Currency	Exchange Rate	AFN Equivalent
2017			
2018			
2019			
2020			
Average Annual Construction Turnover			

Form FIN – 3: Availability of Financial Resources

Bidder must demonstrate sufficient financial resources, usually comprising of Working Capital supplemented by credit line statements or overdraft facilities and others to meet the Bidder's financial requirements for

- (a) its current contract commitments, and
- (b) the subject contract.

In case of joint ventures, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Financial Resources		
No.	Source of financing	Amount (AFN equivalent)
1	Working Capital (to be taken from FIN-1)	
2	Credit Line ^a	
3	Other Financial Resources	
	Total Available Financial Resources	

^a To be substantiated by a letter from the bank issuing the line of credit.

Form FIN- 4: Financial Resources Requirement

Bidders (or each Joint Venture partner) should provide information on their current commitments on all contracts that have been awarded, or for which a letter of intent or acceptance has been received, or for contracts approaching completion, but for which an unqualified, full completion certificate has yet to be issued.

In case of joint ventures, each Joint Venture Partner must fill out this form separately and provide the Joint Venture Partner name below:

Joint Venture Partner: _____

Current Contract Commitments						
No.	Name of Contract	Employer's Contact (Address, Tel, Fax)	Contract Completion Date	Outstanding Contract Value (X)	Remaining Contract Period in months (Y)	Monthly Financial Resources Requirement (X / Y)
1						
2						
3						
4						
Total Monthly Financial Requirements for Current Contract Commitments						AFN

Form FIN - 5: Compliance Check of Financial Resources (Criterion 2.3.3 of Section 3)

Form FIN-5A: For Single Entities

For Single Entities:	Total Available Financial Resources from FIN-3 (C)	Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN-4 (D)	Available Financial Resources net of CCC (C-D)	≥	Requirement ^a
_____ (Name of Bidder)	_____	_____	_____	≥	100% of Requirement from Section 3 - 2.3.3(b)

Form FIN-5B: For Joint Ventures

For Joint Ventures:	Total Available Financial Resources from FIN-3 (C)	Total Monthly Financial Requirement for Current Contract Commitments (CCC) from FIN-4 (D)	Available Financial Resources net of CCC (C-D)	≥	Requirement ^a
One Partner:					
_____ (Name of Partner)	_____	_____	_____	≥	B(%) of Requirement
Each (Other) Partner:					
_____ (Name of Partner 1)	_____	_____	_____	≥	A(%) of Requirement
_____ (Name of Partner 2)	_____	_____	_____	≥	A(%) of Requirement
_____ (Name of Partner 3)	_____	_____	_____	≥	A(%) of Requirement
All partners combined			$\Sigma (C-D)^b =$	≥	100% of Requirement from Section 3 - 2.3.3(b)

- Note -

Form FIN - 5 is made available for use by the bidder as a self-assessment tool, and by the employer as evaluation work sheet, to determine compliance with financial resources.

^a Requirement for the subject contract is defined in Criterion 2.3.3(b) of Section 3. Value A is the required percentage of the subject contract, which each partner must meet; and value B is the required percentage of the subject contract, which one partner must meet. A and B values are defined in Criterion 2.3.3 of Section 3 (Evaluation and Qualification Criteria).

^b $\Sigma (C - D)$ = sum of available financial resources net of current contract commitments (CCC) for all partners.

Form EXP – 1: Contracts of Similar Size and Nature

Fill up one (1) form per contract.

Contract of Similar Size and Nature			
Contract No of	Contract Identification		
Award Date	Completion Date		
Total Contract Amount			
If partner in a Joint Venture or subcontractor, specify participation of total contract amount	<table border="1" style="width: 100%;"> <tr> <td style="width: 50%;">Percent of Total</td> <td>Amount</td> </tr> </table>	Percent of Total	Amount
Percent of Total	Amount		
Employer's Name Address Telephone/Fax Number E-mail			
Description of the similarity in accordance with Criterion 2.4.1 of Section 3			

Form EXP - 2: Construction Experience in Key Activities

Fill up one (1) form per contract.

Contract with Similar Key Activities		
Contract No of	Contract Identification	
Award Date	Completion Date	
Total Contract Amount		
If partner in a Joint Venture or subcontractor, specify participation of total contract amount	Percent of Total	Amount
Employer's Name Address Telephone Number Fax Number E-mail		
Description of the key activities in accordance with Criterion 2.4.2 of Section 3		

Section 5 - Eligible Countries

This section contains the list of eligible countries.

The current listing of all ADB member countries can be found at <http://www.adb.org/about/members>

Regional Member Countries

Afghanistan
 Armenia
 Australia
 Azerbaijan
 Bangladesh
 Bhutan
 Brunei Darussalam
 Cambodia
 China, People's Republic of
 Cook Islands
 Fiji
 Georgia
 Hong Kong, China
 India
 Indonesia
 Japan
 Kazakhstan
 Kiribati
Lao People's Democratic Republic
 Kyrgyz Republic
 Lao People's Democratic Republic
 Malaysia
 Maldives
 Marshall Islands
Federated States of Micronesia
 Mongolia
 Myanmar
 Nauru
 Nepal
 Niue
 New Zealand
 Pakistan
 Palau
 Papua New Guinea
People's Republic of China

Philippines
Republic of Korea
 Samoa
 Singapore
 Solomon Islands
 Sri Lanka
 Taipei, China
 Tajikistan
 Thailand
 Timor-Leste
 Tonga
 Turkmenistan
 Tuvalu
 Uzbekistan
 Vanuatu
 Viet Nam

Non-Regional Countries

Austria
 Belgium
 Canada
 Denmark
 Finland
 France
 Germany
 Ireland
 Italy
 Luxembourg
 The Netherlands
 Norway
 Portugal
 Spain
 Sweden
 Switzerland
 Turkey
 United Kingdom
 United States

SECTION – 6

Employer's Requirement

Technical Specification

Islamic Republic of Afghanistan

National Water Affairs

Regulation Authority

April 2021

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TECHNICAL SPECIFICATIONS

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The Contractor shall respect the Country's recognized festivals, days of rest and religious customs.34

The Contractor shall not employ any child under 15 year of age to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or

PART 1

1. GENERAL

1.01 Preamble

The general Specifications shall form a part of the contract and shall be read in conjunction with the other Bidding Documents. At the time of issuing the Bidding Documents, the Engineer may issue Special Specifications modifying, amending supplementing the requirements spelt out in the general specifications. In such a case, in case of conflict, the provisions in the Special Specifications shall prevail over those in the general Specifications. Any clause in this specification which relates to work or materials not required by the Bills of Quantities or subsequently by a variation or extra works order shall be deemed not to apply. The SI system shall be the official system of units.

1.02 Workmanship and Materials

All workmanship shall be of the best quality appropriate to each category of work. Except where otherwise stated or approved by the Engineer, all materials used in the Works shall be of the best quality of their respective kinds as specified or described in the Specification, Drawings and Bills of Quantities and shall comply wherever possible with the current issue of the appropriate standard published by the American Standard Institution, British, India Standards Institutions, or other equivalent national standard proposed by the Contractor and approved by the Engineer.

The Contractor shall use locally produced materials in preference to imported materials provided that they comply with the Specification and are available in sufficient and timely quantities Temporary Works and Care during Construction The contractor shall construct and maintain all necessary channels, diversions and other temporary works necessary to ensure that irrigation water supplies are not interrupted during rehabilitation construction works; shall furnish all materials required therefore; and shall furnish, install, maintain and operate all necessary pumping and other equipment (if necessary) for maintaining water supplies around the rehabilitation works.

After having served their purpose, all temporary works at the construction site shall be removed in a manner approved by the Engineer, and such areas after those are removed shall be levelled and graded to the extent required to prevent obstruction in any degree whatever and maintaining the designed function of the structure.

The contractor shall be responsible for and shall repair at his expense any damage to the foundations, structures, or any other part of the works caused by floods, water or failure of any part of the temporary diversion or protective works.

1.03 Survey Datum

The levels shown on the Drawings are with reference to a specific benchmark in the project area, and whose location and value are shown on the Drawings. It shall be the Contractor's responsibility before commencing the Contract to confirm with the Engineer, the location and value of the established benchmarks. The Contractor shall establish within the project area benchmark and reference points for use during the construction work. The Engineer shall approve the location of each benchmarks and reference point.

1.04 Setting Out of the Work

The contractor shall be entirely responsible for accurate setting out of the works including staking of canal centre lines, check dam's axis and reference pegs based on the information supplied from the drawings and the instruction given by the Engineer. Before commencement of the work in the site, the contractor is responsible to re-work all the elevations, lines, coordinates etc. to confirm the structure's actual location or re-establish it in case of geographical changes on the site. For such parts of the Works where no setting

out details are given in the drawings, the Engineer will supply setting out data or show the exact location on site during the course of the Contract.

1.05 Cleaning and Grubbing

Site clearance shall be carried out only over the minimum area required by the Contractor to carry out the works and the extent of all clearing, whether to be paid for under items in the bill of quantities or not, shall be agreed with the Engineer before the work is commenced. The Contractor shall give written notice to the Engineer at least ten days in advance, of his intention to commence site clearance to enable arrangement to be reached, and for the engineer to ensure that any compensation arrangements are completed. Work shall commence only with the written authority of the Engineer.

The Contractor shall remove buildings, walls, gates, fences and other structures and obstructions, grub up and remove trees, hedges, bushes and shrubs and clear the size of the works at such time and to the extent required by the Engineer. The materials so obtained shall so far as suitable be reserved and stacked for further use. All rubbish and material unsuitable for use shall be destroyed or removed from the site. In areas of bulk excavation where top soil has to be excavated this shall be removed and stacked on site. After completion of construction, it shall be spread over the disturbed ground; any surplus being disposed of as directed by the Engineer.

No allowance will be made for cutting and removal of crops, grass, weeds and similar vegetation. The cost of all such works will be held to be included in rates entered in the Bills of Quantities for site clearance.

During the Contractor's operations, the removal of certain trees and shrubs may be required, in which case, the Contractor shall remove such trees and shrubs to remain after seeking prior approval from the Engineer. All trees and shrubs to remain in place shall be protected from damage. Where clearing is required, all combustible materials from clearing operations shall be burned or removed from the Site for otherwise disposed of as directed by the Engineer. The Contractor shall at all times take special precautions to prevent fire from spreading.

1.06 Safety of Adjacent Structures or Works

The Contractor shall at his own expense provide and erect to the approval of the Engineer such supports as may be required to protect efficiently all structures or works which may be endangered by the execution of the Works and shall remove such supports on completion of the Works or otherwise take such permanent measures as may be required by the Engineer to protect the structures or works.

1.07 Work Programme

The Contractor shall submit to the Engineer a work programme showing how he proposes to carry out the Works by the intended Completion Date. The programme shall show the start and completion dates of the various activities, in order to complete the entire project by the Intended Completion Date. The Contractor will not start any activity, or part thereof, until and unless the Engineer has given his written approval. The Contractor shall submit a written request at least 48 hrs before concrete pour.

1.08 Medical Arrangements

The Contractor shall make arrangements for treatment on the Site of casualties and sick persons in first-aid units or in such other wards as may be necessary in accordance with the appropriate Regulations.

Notwithstanding the minimum requirements prescribed above, the Contractor shall be responsible for the adequacy of all the arrangements made.

1.09 Transportation of Plant and Equipment

All cost incurred by the Contractor of transportation and subsequent removal of the construction plant and equipment shall be deemed to be included in the unit prices.

1.10 Reports and Photographs

No separate payment shall be made for preparation of all documents, correspondence, returns and reports, photographs, etc. to be prepared by the Contractor and submitted to the Engineer in accordance with the provisions of the contract. The Contractor will be required to provide the Engineer with photographs of the various stages of the work, particularly those relating to approval of the works. These photographs should be taken at the same location and from the same angle for different stages of the same work and scale rules (staff gauge) should be used to indicate depths where required.

1.11 Maintenance of Flow

The Contractor shall at his own expense maintain the flow in all canals, drains, streams, water courses and rivers which may be encountered during the construction of the works.

1.12 Dewatering

The Contractor shall take all risks regarding surface and sub soil water from whatever source and shall so deal with and dispose of such water in a manner approved by the Engineer to ensure that the excavations are kept dry. The Contractor shall provide all necessary plant, labour and materials required and all costs incurred shall be deemed to be included in his rates.

The Contractor shall be responsible for damage to the Works or other property arising from insufficient or excessive dewatering and shall make good the same as soon as possible to the complete satisfaction of the Engineer and other relevant authorities at his own expense.

1.13 Units of Measurement

Unless specifically stated to the contrary, the units of measurement to be used throughout the Contract shall be based on the SI. System. Abbreviations, whether singular or plural, shall be as follows:

Kilometre	km
Metre	m
Millimetre	mm
Hectare	ha
Square meter	m ²
Cubic metre	m ³
Litre	l
Millilitre	ml
Tonne	t
Kilogram	kg
Gram	g

1.14 Method of Measurement

All measurements shall be made according to the description of the methods of measurement contained in the CPMO standard documents relating to the preparation of Bills of Quantities.

1.15 Survey of Completed Structures and preparation of “As built drawings”

The Contractor in coordination with the Engineer shall carry out survey of all completed structures to determine their final location for the purpose of preparing “as-built” drawings.

1.16 Mobilization:

Mobilization shall include all activities and associated tasks for transportation of contractor's personnel, equipment, and operating supplies to the site; establishment of offices, buildings, and other necessary general facilities for the contractor's operations at the construction site

1.17 Site Cleaning and Demobilization:

Site cleaning and demobilization shall include all activities and costs for transportation of personnel, equipment, and supplies not required or included in the contract from the site; including the disassembly, removal, and site clean-up of offices, buildings, and other facilities assembled on the site

1.18 Contractor's Offices

The Contractor shall make his own arrangements, at his own expense, for all local accommodation he may require for offices, yards stores labour camps etc. and all buildings and all services in connection therewith which are required for the efficient execution of the Works

PART 2

2. EARTHWORKS

2.01 Definitions

The following definitions of earthworks materials shall apply to this and other clauses of the Specification in which reference is made to the defined materials:

"Suitable material" shall comprise all material which arises from excavations within the Site and which is approved by the Engineer as acceptable for use in the Works.

"Unsuitable material" shall mean other than suitable material and shall comprise:

- material from swamps, marshes and bogs;
- logs, stumps and perishable materials;
- material susceptible to spontaneous combustion; and
- Clay of liquid limit exceeding ninety (90) and/or plasticity index exceeding sixty-five (65).

"Common" material shall mean all material other than that defined as "rock".

"Rock" shall mean any hard natural or artificial material requiring the use of approved pneumatic or hydraulic breakers and tools for its removal but excluding individual masses less than 1.0 m³.

2.02 Classification of Excavation

Following classes of excavation shall apply:

Common excavation: this comprises all excavation made in all kinds of soil or soil and sand mixed with pebbles, boulders in the river/seasonal stream bed or banks or canal profiles.

Rock Excavation: Rock will include any hard material complying, in the opinion of the Engineer, with the definition given in Clause 2.01.

Borrow Excavation: shall be limited to excavation taken from borrow pits and cut areas.

2.03 Excavation

All excavation shall be carried out to the lines and levels shown on the drawings or to such lines and levels as the Engineer may direct. The Contractor shall trim all permanent excavation to the lines and levels shown on the drawings. Excavation shall generally be executed in such a manner as to ensure that the side slopes, as shown on the drawings, are not in any way endangered by undercutting.

In case where the U/S floor level of the structure is lower than the natural bed level, the excavated line should join the natural bed level line in a smooth fashion (gentle slope) to the satisfaction of the engineer on the U/S side.

As far as practicable, all suitable materials from the excavations shall be used in embankment and backfill for structures. The Contractor shall dispose of unsuitable or excess soil of the excavated materials in a place that is acceptable to the local community and so that they do not interfere with proper functioning of the works.

All necessary precautions shall be taken to preserve the material below and beyond the lines of all excavation in the soundest possible condition. Any damage to the work due to the Contractor's operations, including shuttering to the material beyond the required excavation lines, shall be repaired at the expense of and by the Contractor. Any and all excess excavation or over excavation performed by the Contractor for any purpose or reason, except as may be directed in writing by the Engineer, and whether or not due to fault of the Contractor, shall be at the expense of the Contractor. Excavation taken out to a greater depth than is necessary shall be filled to the required level with concrete of appropriate class or other material

approved by the Engineer. All such excess excavation and over excavation shall be filled at the expense of and by the Contractor.

The bottom and side slopes of excavation against which concrete is to be placed shall be finished accurately to the dimension shown on the drawings or as prescribed by the Engineer and the surface so prepared shall be moistened with water and tamped or rolled with suitable tools or equipment for the purpose of securing a firm foundation. If at any point the natural foundation material is disturbed during the excavation process or otherwise, it shall be compacted in place, or it shall be removed and replaced with suitable earth materials or concrete at the expense of the Contractor.

2.04 Removal of topsoil

Immediately after clearing operations and before excavation commences, topsoil shall be removed, where and to such depth as directed, from the surfaces of borrow area, the stockpile sites, the areas to be back-filled and the areas of the Works where surface excavation is required. Removal of topsoil from disposal areas will not be required. Topsoil shall be removed within 2m outside the limits of required excavation and the surface shall not be disturbed beyond these limits. Topsoil is defined as the surface or top layer of soil, including find roots, the herbaceous vegetation and overlying grass and is characterised by the presence of organic matter.

2.05 Embankment Earth-filling

Material for filling shall be obtained from approved sources or selected from excavations and shall contain no organic, plastic or undesired perishable matter. It shall be graded to ensure a dense, stable and homogeneous fill when compacted. All embankments shall be constructed to the lines and levels shown on the drawings or as directed by the Engineer.

During placing and spreading, the materials should be thoroughly compacted by hand tampers or mechanical compactors. The distribution of the materials shall be such that the tamped materials will be homogenous and free from lenses, pockets, streaks or other discontinuities.

2.06 Trench Excavation

Trenches for all pipe lines and culverts shall be excavated to required lines and bottoms taken out to the exact gradients using profiles and boning rods or other suitable devices. The trench shall be of sufficient width to enable the pipes to be properly laid and jointed. No excavation shall be filled in or covered with concrete until the Engineer has inspected it and the Contractor has been authorised to proceed with the works. All surplus excavated materials from such excavation not required for refilling shall be carted away to tips or otherwise disposed of, as directed. All excavations shall be kept dry and all bating and pumping timbering shoring and supporting of sides that may be required, and any refilling, ramming and disposal of surplus materials necessary in carrying out the excavations and back filling of trenches shall be included in the prices of excavations. Special care shall be taken to provide a solid bed for the barrels of the pipes and where a concrete bed is not specified, the floor of the trench shall be properly shaped to receive the socket. The length of the trench opens ahead of pipe laying shall not exceed 200 m.

Trenches shall have a width not less than that shown on the drawings and shall have vertical sides unless the Engineer has approved the use of sloping sides in lieu of timbering. The bottom 50 mm of trench shall be left undisturbed until immediately before the pipe is to be laid when it shall be trimmed accurately by hand to the correct grade. If no bedding is required joint holes shall be formed as necessary so that the pipe, when laid is bedded on the entire length of its barrel on the firm and undisturbed bottom of the trench.

2.07 Rock cutting in trenches for pipes

Where solid rock is met within trenches, it shall be cut up to a depth of 150 mm below the intended levels of the bottom of the pipes and replaced with 150 mm of concrete of the appropriate class or suitable bedding material as specified or otherwise directed by the Engineer. In measuring such rock excavation, the contractor will be allowed a width of 300 mm more than the external diameter of the pipes to a level of 150 mm below the bottom of the pipes. The prices inserted in Bills of Quantities shall be held to cover all

expenses in connection with excavating the rock, back filling after laying of pipes and disposing of surplus materials as directed by the Engineer.

2.08 Refilling of slips, over excavation, etc.

The Contractor shall fill with approved material and consolidate all voids formed by over excavation, slips, rain, flooding or any other cause whatsoever at his own expense and to the satisfaction of the Engineer.

2.09 Back filling

In all excavations where the excavated material is required to be returned to the excavation as backfill, suitable material shall be set aside during excavation and shall be kept free from contamination with top soil, vegetable matter or other unsuitable material, failing which the Contractor shall at his own expense import suitable material from elsewhere. Back filling shall not be placed in waterlogged excavations. Backfill material which is in the opinion of the Engineer too wet, shall be used until it has dried out sufficiently. Excessively dry backfill material shall be watered during backfill. The Contractor's rates shall allow for any additional costs these measures any may entail.

No back filling shall be carried out without the permission of the Engineer that will normally only be given when the Work has been inspected, tested and approved. After such permission has been given back filling shall be carried out as soon as possible. The utmost care shall be taken to ensure that no damage occurs to the Works and compaction methods employed shall be approved by the Engineer and shall ensure that excessive loads are not placed on pipes or structures upon or around which the backfill is being placed.

Unless specified otherwise all back filling shall be carried out in layers not exceeding 150 mm, such layers being brought up evenly around and above the work and well consolidated before the next layer is placed. Where compaction is carried out by hand, rammers of not less than 4 kg in weight shall be used and the ratio of men employed in ramming and filling shall be two to one.

2.10 Back filling of trenches

Back filling of all structures like check dams, trenches... up to a level of 150 mm above the pipe shall be carried out with suitable fine material with a maximum particle size of 20 mm and shall be placed in layers not exceeding half the diameter of the pipe, kept at the same level on each side of the pipe, and carefully rammed under and around it to a density of 90% Modified AASHTO.

Where embankments are required to ensure sufficient cover to the pipes they shall be constructed to the dimensions shown on the drawings or indicated by the Engineer. They shall be built up evenly over their full width in layers not exceeding 150 mm and consolidated using tampers or mechanical compacting equipment. The cost of trimming the sides to shape and forming drainage ditches at the toe shall be included in the rates.

2.11 Borrow Pits

If because of an insufficiency of suitable material for use in back filling of trenches, road formation or if because of other circumstances the Engineer so agrees or orders, the Contractor shall supply such materials from borrow pits. The Contractor shall obtain the approval of the Engineer to the location of borrow pits and shall adhere to instructions in regard to the area, width, depth and slope of the borrow pits and also to the depth of overburden if any, which has to be removed. Prior to excavating materials from borrow pits, the Contractor shall strip all unsuitable overburden and lay it aside. The use as fill of this and other unsuitable material will not be permitted.

After the use of a borrow pit has been finally discontinued, the overburden and any other unsuitable material previously laid aside shall be replaced in the pits, spread and levelled as required. The sides of the borrow pits shall be graded and the whole area shall be left in a tidy, regular and self-draining state, all to satisfaction of the Engineer. In case of payment for imported fill such fill will be measured solid, after compaction net as shown on Drawings. Supply of material from borrow pits shall, except where otherwise specified, be deemed to cover supply, spreading and compaction of the fill in the works and any other

costs the Contractor might have including negotiations with owners, stripping and handling of overburden and the satisfactory reinstatement after completion.

2.12 Disposal of Surplus Material

The Contractor shall not, during the construction of the works, allow any accumulation of surplus earth, rock, clay or other material removed from the excavations and not required for refilling. As trenches are refilled or work is completed the surplus material from excavations, bricks and other rubbish or waste matter shall at once be removed, the surface properly restored and sites, roadways and footways left clear.

In general, and if approved of by the Engineer surplus soil, but not rubbish or rock, from excavations shall, without extra cost over schedule rates, be spread evenly over areas adjacent to such excavations to form a layer not exceeding 100 mm thick, provided always that such spreading does not interfere with other work under this Contract, the work of other Contractors, with the natural flow of storm water, or with the cultivation or other use of the land.

On no account shall the Contractor start making dumps of surplus materials except at places approved of by the Engineer.

2.13 Compaction

Compaction shall be carried out using suitable equipment or hand rammers. Earth shall be slightly moist at the time of compaction and compacted in layers not exceeding 150 mm thick where machinery is used and 100 mm thick where hand-held equipment is used. Granular fill shall be compacted to ensure that it has reached minimum volume. Filling around structures shall be carried out carefully to avoid damage.

2.14 Random backfill at 95%

Random backfill at 95% shall be deposited in horizontal layers not more than 150 mm thick after being compacted, and shall be brought to the moisture content required for the purpose of compaction as instructed by the Engineer and the moisture content shall be uniform throughout each layer. The density of compacted random backfill shall not be less than 95 per cent of the maximum dry density obtained by compaction or, where the backfill is a cohesion less, granular material to a field dry density not less than 1950 kg/m³. Random backfill shall be placed carefully in the vicinity of any structure so as not to damage the structure.

2.15 Measurement of and Payment for Earthworks

The tendered prices for earthworks shall include for all associated work such as setting out in plan and in level, side sloping, timbering, shoring strutting, storm water protection, dewatering, draining, trimming to line and level or grade, removing tree roots and obstructions as specified disposal of soil and surplus material, testing to confirm compliance with the specification and all other contingent works not billed specifically.

All excavations shall be measured net to the lines and levels specified on the drawings or otherwise by the Engineer. Where not specified by the Engineer to the contrary sides of excavations shall be taken as vertical. The depth of excavation shall be taken as the depth from the actual cleared ground level to the formation level specified by the Engineer or, in the case of trench excavation for sewer, water, drainage or other pipes or culverts to the invert level specified by the Engineer. The Contractor shall be deemed to have allowed in his rates for any additional excavation:

- Necessary to accommodate the thickness of pipes or culverts and the specified bedding.
- Necessary to accommodate the joints of check dams or culverts...
- Due to inadvertent over break.
- Due to over break in rock specified elsewhere for trench, foundation excavations for structures.

PART 3

3. CONCRETE WORKS

3.01 Concrete General

Concrete shall consist of cement, graded aggregate and water thoroughly mixed, placed and compacted as specified.

Before starting concreting the Contractor shall obtain formal written permission for concreting from the Engineer or his representative on site. The Engineer or his representative shall allow concreting after ascertaining the required lines and levels, suitability of formwork, availability of required plant and labour, proper fabrication and spacing of the steel bars and quality and quantity of cement and aggregates. Further, air-entraining admixture (AEA) to be added during mixing of concrete according to ASTM C260. In-place, air content shall range 5 to 6 percent of the volume of concrete. For all concrete works (PCC/RCC/Mass) crushed aggregates should be used.

3.02 Cement

All cement shall be from reputable manufacturers and conform to international standards. Cement shall be stored where it cannot be damaged by rain or moisture and shall be free of lumps when used. Sulphate-resisting cement shall be used for foundations and ordinary Portland cement for other works or as directed by Engineer or his representative.

3.03 Concrete Aggregates

All concrete aggregates (sand & gravel) shall be furnished by the Contractor from any source approved by the Engineer. They shall be free from organic material, lumps of soft material, clay, chalk, lime, peat, loam, soft clayey shale or decomposed stone, vegetable and other impurities that may be harmful to concrete.

Sand for concrete shall be free of stones larger than 2 mm and not include significant amounts of silt and clay. If sand, when dried after wetting, adheres together then it shall be considered unsuitable.

Gravel for concrete shall be uniformly graded and consist of hard and dense rock. The gravel shall be free of materials finer than 5 mm and the surface shall be clean. Gravel for use in reinforced concrete shall be crushed rock. Generally, natural gravel and/or crushed rock particles shall be spherical or cubical in shape. The maximum nominal size of the gravel shall be eighty (80) mm in mass concrete, forty (40) mm in structural concrete and twenty (20) mm in other thin concrete structures like slabs.

3.04 Water for Concrete

Clean fresh water is to be used for the mixing of all concrete and mortar. Water that is safe to drink shall be considered suitable for making concrete.

3.05 Steel Reinforcing Bars

Steel reinforcement shall be steel bars manufactured to international standards with a minimum yield stress of 250N/mm² or high yield steel grade 4501425 as indicated in the Drawings and Bill of Quantities or as directed and must comply with BS 4449, BS 4461 or another approved standard. Steel fabrics shall comply with BS 4483.

The Contractor shall be responsible for the accuracy of the cutting, bending and placing of the reinforcement. Reinforcement will be inspected for compliance with the requirements as to grade, size, and shape, length, splicing locations, position and amount after it has been placed.

Reinforcing bars or fabric shall be accurately placed and secured in position so that there will be a clear distance of at least 25 mm between the bars or fabric and any adjacent embedded metal work and so that the bars and fabric will not be displaced during the placing of concrete, and the Contractor shall ensure that there is no disturbance of the reinforcing bars or fabric in concrete that has already been placed.

Chairs, hangers, spacers and other acceptable metal, plastic or concrete supports may be furnished and used by the Contractor for supporting reinforcing bars or fabric.

All reinforcement bars shall, immediately prior to placing, be free from loose mill scale, loose rust, oil, grease, dirt or other foreign matter. Reinforcement is to be placed and secured in the exact position as indicated on the drawings and kept in the correct position in the forms without displacement during the process of vibrating, tamping and ramming the concrete in place. All free ends of the plain round bars shall have hook as shown on the drawings or as directed by the Engineer. Bars shall be bound together with best mild steel wire which shall be twisted tight with proper pliers. The free ends of the binding wire shall be bent inward.

Minimum concrete cover for reinforcement, mass concrete, PCC should be 50 mm measured from the outside of the bar, unless shown on the drawings or directed by the Engineer.

The Contractor must inform the Engineer of the completion of any reinforcement in time, in order to facilitate its inspection and check of conformity with the Working Drawings well before the concrete is placed. Relevant formalities shall be agreed upon between the Contractor and the Engineer at the appropriate time.

3.06 Drawings and Bar Lists

Steel reinforcing bars or fabric shall be placed in concrete where shown on the Drawings or directed.

A bar bending schedule may be provided for the Contractor's convenience, but does not constitute a Contract Document the Contractor shall prepare for additional structures, in an approved manner, reinforcement detail drawings showing reinforcement bar lists, bar placement details and bar bending details for each structure, if not provided by the Engineer.

All reinforcing bars shown on the reinforcement detail drawings shall be identified on the bar lists in accordance with the standard reinforcing bar shapes as shown on the Drawings.

All bar lists shall be identified with the relevant reinforcement detail drawing and all bars scheduled on the bar lists shall be defined and dimensioned in a manner approved by the Engineer.

3.07 Concrete Classes

The classes of concrete to be used in the Works shall be as shown on the Drawings, Bills of Quantities or as directed by the Engineer. The concrete is classified on the basis of its compressive strength at twenty eight (28) days as well as the maximum size of the aggregate as shown below and nominal mix proportions shall be used only as a guide.

Concrete Max Slump(mm)	Concrete Class	Characteristic Cube Strength at 28 days (kg/cm ²)	Maximum Aggregate size(mm)	Maximum water/ cement ratio (%)	Approx. cement content	Nominal Mix proportions (Kg/m ³)
75	M25	250	20	45	400	1 : 1 : 2
75	M20	200	20	45	400	1 : 1.5 : 3
75	M15	150	40	50	310	1 : 2 : 4
100	M10	100	80	55	220	1 : 3 : 6
100	M5	50	20	60	170	1 : 4 : 8

Type	Description
	Reinforced concrete for all RCC, Mass concrete and PCC works, etc.

3.08 Consistency

The concrete shall be of such consistency that it can be readily transported, placed and compacted in the Works without segregation of the materials. The resulting concrete shall be uniform and free from honey-combing. The consistency of the concrete as determined by the slump test shall be within the range of 5 cm to 7.5 cm. Samples for slump determination will be taken from the concrete during placing in the formwork.

3.09 Mixing Concrete by Machine

Unless otherwise authorized by the Engineer, concrete shall be machine mixed at site.

Where the concrete is to be mixed in machines, these shall be of the batch mixing or other approved type. The machines shall ensure that all the concreting materials including the water are thoroughly mixed together before any portion of the mixture is discharged. The machines must be capable of discharging their contents while running.

All classes of concrete shall be mixed for a period not less than 1½ minutes after all materials, including water, are in the mixer. All mixing water shall be introduced before one-fourth of the mixing time has elapsed. The mixers shall not be loaded beyond their rated capacity, nor be operated at a speed in excess of that recommend by the manufacturer, generally between 15 to 20 revolutions per minute. The mixer shall produce a concrete of uniform consistency and appearance. All mixing equipment's shall be cleaned before commencing mixing and shall be kept free from set concrete.

Concrete for All Mass Concrete works, RCC works, & Stone Mortars shall be mixed by Machine, Hand Mixing is not allowed.

3.10 Mixing Concrete by Hand

Where concrete is mixed by hand, this shall be done as near as practicable to the site where it is to be deposited. Clean mixing bankers of platforms of sufficient areas for the proper execution of the work shall be provided. These platforms if constructed of timber shall consist of planks closely jointed so as to avoid the loss of any grout or liquid from the wet concrete. The whole of the aggregate and cement shall be turned over on the banker in a dry state at least three (3) times. The water shall then be added gradually through a rose head, after which the materials shall again be entirely turned over in a wet state at least three (3) times before leaving the banker.

Mixing Concrete by hand is allowed only for small quantity works of less than 1M3

3.11 Foundation Preparation for Concrete

Before placing concrete on foundations, the Contractor shall remove from all such surface oil, objectionable coatings, loose or unsound fragment of earth mud, debris and standing water, to the satisfaction of the Engineer and he shall keep such surfaces clean and free from standing water during concreting operations. Where new concrete is to be deposited on or against rock, the surface of the rock shall be toothed to form an adequate bond

3.12 Placing of Concrete

The arrangements for placing concrete are to be such that in all cases the material may be conveniently handled and placed in the required position without re-handling or segregation. Except where otherwise directed, concrete shall not be placed unless the Engineer or his representative is present and has previously examined and approved the positioning, fixing and condition of reinforcement and any other

items to be embedded and the cleanliness, alignment and suitability of the containing surfaces or formwork.

In placing concrete through reinforcement, care shall be taken that no segregation of the coarse aggregate occurs. On the bottom of beams or slabs, where the congestion of steel near the forms makes placing difficult, a layer of mortar of a composition compatible with the required concrete strength as directed shall be first deposited to cover the surface to a depth of approximately 3 cm.

Concrete shall not be placed in or in contact with standing or running water unless so specified or approved. Concrete shall not be placed against placed concrete which has been in position for more than 30 minutes unless a construction joint is formed as hereafter specified. When stoppage of concreting operations occurs for any reason, construction joints shall be placed. Before concreting operations are resumed, the surface of the concrete shall be cut or chipped to remove all laitance and to expose the aggregate.

Concrete as reinforced concrete work shall be deposited in small quantities in a plastic state with a water cement ratio such to give the specified strength. The depositing of concrete in individual members shall be continued without stoppage up to an approved pre-arranged construction joint or until the member is completed and shall be finished off in such a manner that the junction of members shall be monolithic unless otherwise specified.

3.13 Concreting in High or Low Ambient Temperature

Where the ambient temperature exceeds thirty-two degrees Celsius (32°C), the Contractor shall take special measures in the mixing, placing and curing of concrete. The temperature of the concrete when deposited shall not exceed thirty degrees Celsius (30°C). The Contractor shall carry out all necessary special measures to ensure that the maximum concrete temperature after placing shall not exceed thirty degrees Celsius (30°C) at the time of placing. During placing suitable means shall be provided to prevent premature stiffening of the concrete placed in contact with hot surfaces. The Contractor shall not mix and place concrete when the ambient temperature falls below three degrees Celsius (3°C).

3.14 Concreting in Adverse Weather

No concreting will be allowed to take place in the open during storms or heavy rains/ snowfall. Where strong winds are likely to be experienced additional precautions to ensure protection from driving rain and dust shall also be taken. The Engineer may withhold approval of commencement of concreting until he is satisfied that full and adequate arrangements have been made.

3.15 Vibration of Concrete

Except where otherwise permitted by the Engineer, concrete shall be fully compacted throughout the full extent of the layer and shall be brought up in level layers of such depth that each layer is readily and properly incorporated with the layer below with the use of internal vibrators or by spading, slicing or ramming. It shall be thoroughly worked against formwork and around any reinforcement or embedded items without displacement.

The duration of vibration shall be limited to that required to produce satisfactory consolidation, without causing segregation. Vibration shall, on no account, be continued after water or excess grout (if any) appears on the surface.

3.16 Curing and Protection

The Contractor shall take adequate measures to ensure that the concrete shall be kept damp continuously for a minimum of three (3) days after casting or for such other time as the Engineer may direct. After removal of this covering (layer of sacking, canvas, Hessian, straw mats or similar absorbent material or a layer of sand), the concrete shall then be sprayed with water for minimum period of a further fourteen (14) days.

All concrete liable to be affected by running water or wave action shall be adequately protected from damage during the setting period and all temporary protection works shall be to the satisfaction of the Engineer.

3.17 Joints in Concrete

Joints in concrete shall be provided in manner and position as shown on contract drawings. In the case of water retaining structures, joints shall be made water-tight by the provision of a continuous water stopper, with suitable water resistant filler material and sealant as approved by the Engineer.

The expansion joints in mass concrete should not be exceeded than 10m or according to the drawings and the contraction joints should be varying in 2-4m interval in both directions.

3.18 Construction Joints

Definition: Concrete surfaces, upon or against which concrete is to be placed and to which new concrete is to adhere, that have become so rigid that the new concrete cannot be incorporated integrally with that previously placed, are defined as construction joints.

Location of Construction Joints: The Contractor shall submit for approval, drawings showing his proposed location of construction joints not less than 30 days before placing concrete.

Forming Construction Joints: Construction joints shall be approximately horizontal or vertical unless otherwise shown on the Drawings or directed and shall be given the prescribed shape by the use of forms, where required, or by other means that will ensure suitable jointing with subsequent work; provided that unless otherwise shown on the Drawings, key-ways will not be required at construction joints. All intersections of construction joints with concrete surfaces which will be exposed to view shall be made straight and level or plumb.

3.19 Joint Sealer

The joint sealing material must be resistant to oil, the most common chemicals and sunlight. It shall be of permanent elasticity, be suitable to carry the structural deformations and must possess an outstanding adhesion to the concrete. The elastic extension must be at least 150 % and the resistance to heat shall be between 50 degrees Centigrade and +120 degrees. Centigrade, which are to be confirmed by submission of verified test certificates.

Joint sealer shall be the make of a recognised manufacturer. Joint sealer shall be supplied with primer coats, backing material and/or bond breakers to the joint fitter, as required by the manufactures recommendations.

The Contractor shall submit to the Engineer a statement from the manufacturer(s) of the joint filler and sealing materials, that these materials are suitable under the prevailing local and structural conditions.

3.20 Water stopper

Size and Material: Water stopper, nominally 225 mm wide, shall be placed in joints of concrete structures as shown on the Drawings or as directed. The water stopper shall be of extruded polyvinyl chloride complying with BS 2571: Class 3, Compound Type G4. The water stopper shall be of sufficient stiffness so that they remain in their correct position during concreting. The type shall suit the particular location in the structure in which the water stop is to be placed and the pattern shall be such that concrete can be placed all around it with complete consolidation and no voids or crevices.

Water stopper used in each location shall include at least on approved nailing strip so located that the efficiency of the water stop is not impaired, shall have a minimum thickness of 5 mm and shall be as approved. The width of the water stop shall be within a tolerance of 10 mm of the nominal width exclusive during storage. The Contractor shall store the water stopper in such a way that the material does not deteriorate during storage.

Joints: The number of joints in the water stopper shall be the minimum practicable and all joints and bends shall be made as approved by the Engineer. The number of straight field joints shall be kept to a minimum and all 'Tee' and 'Cross' joints shall be factory produced. The Contractor shall protect the water stopper against perforation or damage during the progress of the work. All joints shall be made in such a manner as to ensure:

- that the material is not damaged by heat, searing or by the application of cementing materials:
- that the splices have a tensile strength not less than 80 per cent of that required of the specified material;
- that the splice is watertight and free of air bubbles, and

3.21 Form Work

Formworks for concrete shall be constructed from materials of sufficient strength and supported to ensure that there is no deflection when concrete is placed. The formwork shall conform to the shapes, lines and dimensions of structures shown on the drawings. Where the concrete finished surface is exposed, the formwork shall be of good quality and free of gaps. Formwork shall not be removed until the concrete has obtained sufficient strength. Normally, formwork can be removed from walls after 2 days and from beneath slabs after 2 weeks.

The minimum periods between concreting and the removal of forms shall be as follows:

- | | |
|--|----------|
| ▪ Sides of beams, walls, columns and piles | 24 hours |
| ▪ Soffits of secondary slabs (props left in) | 4 days |
| ▪ Soffits of main slabs (props left in) | 8 days |
| ▪ Soffits of beams (props left in) | 8 days |
| ▪ Removal of props - secondary slabs | 10 days |
| ▪ Removal of props - beams and main slabs | 21 days |
| ▪ Arch centres, wedges eased | 8 days |
| ▪ Arch centres, struck | 21 days |

The times in the above table are given as a guide and are based on average weather conditions and the use of Ordinary Cement. They may be changed if other types of cement are used, subject to the Engineer's agreement. Formwork shall be constructed so that it can be removed without undue shock or vibration and so that side shutters of members can be removed without disturbing the soffit shutters; if the contractor wishes to leave some of the props in place when the soffit shutters are removed, these props shall not be disturbed during the striking. The detailed arrangements of the props shall be submitted in advance to the Engineer. In the case of heavy loading, folding wedges shall be provided. For pre-stressed units the side shutters shall be eased as early as possible and the soffit shutters shall permit movement of the units when the pre-stress is applied. All formwork must be removed without damage to the concrete.

3.22 Concrete Surface Finish

The concrete surface shall be thoroughly worked during the operation of placing by means of a broad tined fork or concrete spade of an approved type. The working shall be such as to force all coarse aggregate from the surface by scree ding and trowelling with a wood float to produce a smooth finish free from water and air pockets or honey comb. Scree ding shall be carried out, following compaction of the concrete, by the slicing and tamping action of a screed board running on the top edges of the formwork or scree ding guides to give a dense concrete skin true to line and level. Wood float trowelling shall be carried out after the concrete has stiffened and the film moisture has disappeared.

3.23 Pre-Cast Concrete

With the approval of the Engineer the Contractor may pre-cast members which were specified to be constructed in-situ. Pre-cast concrete units shall be of concrete strength as indicated on contract drawings or as indicated by the Engineer. The concrete pre-cast units shall be cast in horizontal position, unless otherwise directed by the Engineer. In general, same concrete quality measures should be applied as for other concrete component. Generally, members which are structurally dependent on a rigid fixing with adjoining structures will not be permitted to be constructed by pre-casting.

Pre-cast units shall be jointed with cement mortar as specified or other jointing system as shown on the Drawings, or as directed by the Engineer. The mortar shall be packed in layers between the units with steel tools until the whole of the joint is solidly filled and the exposed surfaces of the joint shall be raked out to a depth of 6 mm and flush pointed with similar mortar, but of pointing consistency.

3.24 Cement Mortar

Cement mortar shall be machine mixed and unless otherwise specified, consist of three (3) parts of sand to one (1) part of Ordinary Portland cement mixed and thoroughly incorporated together. Just enough water will be added to give a workability appropriate to its use. The above proportions are by volume. Mortar shall be used whilst freshly mixed and no softening or re-tempering will be allowed.

3.25 Gravel Boulder under PCC:

Gravel boulder under PCC on the bottom of the foundation should be laid and compacted as per drawings and should consist of base course material (Crush aggregates) size(5mm,10mm,20mm) as per design drawings, technical specification and complete Satisfaction of Field Supervisor/engineer.

PART 4

4. STONE WORKS

4.01 Stone

Stone for all purposes shall be the best of its kind, sound and durable, free from flaws and from soft, weathered or decomposed parts. In general, the stones should be of uniform size to avoid voids between stones. The stone and the quarry from which it is obtained shall be subject to the approval of the Engineer before being used or placed. All the stone shall have a specific gravity of not less than 2.5.

Sites where suitable stones are available can be used in the project as per drawings after the approval of the engineer.

Rock used for stone pitching shall be sound durable rock selected from the harder rock from the required excavations or other approved sources. The rock shall not be less than 150 mm thick and shall be properly bedded to a uniform surface on an approved bedding material. The exposed surface of each stone shall be approximately flat and of an area not less than 0.03 m².

4.02 Mass concrete and Stone Masonry

Stone used in masonry shall be regular field, river or quarry stone of approved quality, free from seams and other defect. All masonry stone shall be kept slightly moist at the time of use. Stone used for masonry shall be two-thirds of the wall thickness. Round stone will be permitted only in limited amount in combination with angular stone and shall not be used in walls having a thickness less than forty (40) cm.

Mass concrete should be supplied, placed, adding boulders, compacted and cured mass concrete M-20 (1:1.5:3) including formworks and expansion joints sealing works as per relevant drawing, specification and to the complete satisfaction of the site engineer. (Percentage of boulder in the mass concrete should be (25-40) % of total volume, also the sizes of the boulder should not be neither more than 1/5th of the lateral dimension of the structural element, nor 20 cm, whichever is less). Slump for mass concrete shall be (2.5 - 4) cm. Further, air-entraining admixture (AEA) to be added during mixing of concrete according to ASTM C260. In-place, air content shall range 5 to 6 percent of the volume of concrete. For all concrete works including mass concrete, clean crushed aggregates should be used. Stones should be spread in layers such that half of stone height is embedded in adjacent layers. The mass concrete should be laid in layers not more than 25cm-30cm in thickness. When cold joints occur in between layers of mass concrete, the stone grubbing should be done prior to placing new layers for proper bond between the layers. Cracks other than the hair line cracks are not acceptable. When foundation or banks of the structure face to hard rock materials, drilling, dowel bar 20mm with full epoxy should be used according to the contract drawings and satisfaction of engineer.

4.03 Types of Masonry

The stone masonry will be divided into two (2) types, Type A and Type B, according to cement mortar used for jointing. The cement-sand ratio by volume is given in the following table:

Type of stone masonry	Ratio of cement-sand
Type A	One part of Portland cement to three sand (1:3)
Type B	One part of Portland cement to four sand (1:4)

Type A stone masonry shall be used for protection work against abrasion and attack by boulder and gravel. Type B stone masonry shall be used for all stone masonry structure such as flumes, walls, piers, transition of canal structures, etc.

4.04 Laying of Stones

In laying the first course a full mortar bed shall be placed on the foundation to the full thickness of the wall. The stones shall be laid by hand with specified mix of mortar in between two stones and a 12 cm layer of mortar on the bottom of the new layer. The finished surface of the masonry shall be made as the shape and size of the stones will permit varying not more than 4 cm from the required contour. Each course is carefully plumbed and checked for vertical alignment. All alignment and plumbing of each unit to final position must be done while the mortar is soft.

4.05 Surfacing and Pointing

Joints on the face of all stone masonry exposed to view shall be neatly finished. The mortar in the joints of the stone masonry shall first be removed to a depth of three (3) cm. The joint shall then be cleaned thoroughly with a wire brush of all loose materials and filled with cement mortar with a mix proportion of one port-land cement and two part of sand by volume (1:3). The surface of the face stone shall be cleaned of all mortar upon completion of the finishing operation.

4.06 Contraction Joints

Contraction joints shall be provided at intervals of (2-4) meters or less except as otherwise mentioned on the drawings or as directed by the Engineer. The contraction joint shall be a straight line perpendicular to the flow direction and, where it is necessary on such horizontal surfaces as floors, shall be parallel to the flow direction.

4.07 Weep Holes

Weep holes of sizes 150 mm x 150 mm are to be left in the body of masonry walls if shown on the drawings. These weep (drainage) holes are to be covered with inverted filters on the backfill side in an area of 400 mm x 400 mm with a thickness of 400 mm. They are to be located at 1m intervals both vertically and horizontally in a staggered way

4.08 Riprap / Stone Pitching Protection

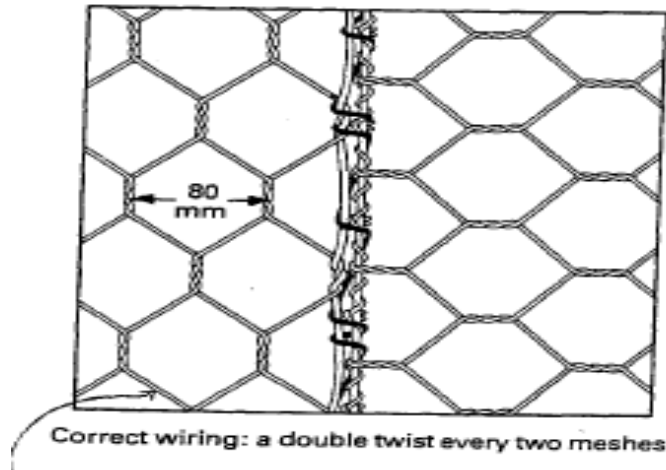
The quality of stone shall be as specified in Clause 4.01. The stones for rip-rap shall be a natural, big size, of irregular shape having a minimum weight of 30 kg each and minimum thickness of 20 cm when measured at the thinnest section. At least 60% of the stones shall have a minimum weight of 40 kg each, with minimum volume of 0.03 M³.

The stone shall be laid by hand, to the required lines and grades and to the thickness shown on the Drawings and placed so that it will thoroughly tamped, or driven into place. The space between the larger stone shall be filled with spalls of suitable size driven to face, varying not more than 60 mm from the required contour. Before placing riprap rocks, the bedding which consists of well-graded sand shall be provided with the required thickness shown on the drawings or as directed by the Engineer. Such sand bedding shall be compacted thoroughly by mechanical tampers. The rocks in the riprap shall then be dumped and graded off on such sand bedding.

Pitching will be used where a finished horizontal or inclined surface is required. It shall consist of hand placed stones, with spalls wedged into the interstices to produce an even surface, without projection above the neat lines shown on the Drawings. Care shall be taken to ensure that the stones are well bedded and the percentage of spalls shall not exceed forty percent (40%) of the total rock volume. Pitching on slopes shall be built upwards from the toe, unless otherwise directed by the Engineer. A coping consisting of large flat stones shall be laid along the top of stone pitching on slopes to produce a firm edge.

4.09 Gabion Works

The quality of stone for gabion shall be as specified in Clause 4.01. The stone size ranges from 150 mm to 250 mm. Small stones should be avoided. The stones used should have a minimum size of not less than "D" (mesh width) and not greater than 3.5 times "D", where D is the specified mesh width as given below. Larger stones can be used provided that their total volume does not exceed 5% of the cell volume.



3mm

Gabions shall be of the types and sizes shown on the Drawings. The cages shall be constructed from mild steel wire complying with BS 1052, "Specification for mild steel wire for general engineering purposes", galvanised in accordance with BS 443, "Specification for testing zinc coatings on steel wire and for quality requirements". Wire used for the formation of the mesh panel will have a diameter of 3.0 mm.

4.10 Filling and Placement

The foundation for each gabion and mattress shall be prepared by the Contractor to the satisfaction of the Engineer. Irregularities in the foundation shall be excavated or tightly filled with gravel to produce a surface which has no protrusions or cavities in excess of 100 mm.

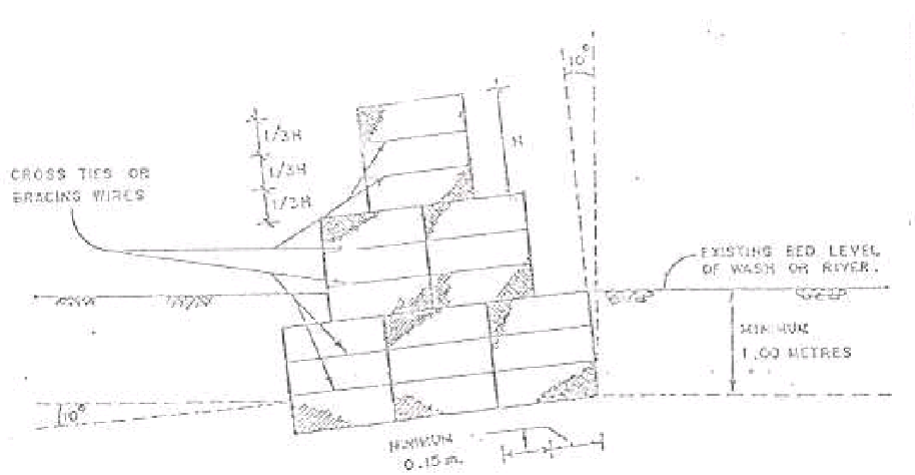
The gabions and mattresses shall be flexible galvanised gabions of the size shown on the Drawings and shall be fabricated from wire mesh. Each gabion and mattress shall be divided by diaphragms into cells, whose length shall not be greater than the width of the gabions or mattresses plus 100 mm. The gabion and mattress boxes shall be fabricated 'Maccaferri' type or equivalent supplied by an approved manufacturer.

The prefabricated gabions and mattresses shall be obtained complete with sufficient suitable galvanised wire for completing the wiring of the gabions and mattresses on Site.

The wire in the gabions and mattresses shall be galvanised similar to or stronger than that used in 'Maccaferri' galvanised gabions. The wires in the gabions and mattresses shall be arranged so that the spacing between the wires is similar to or smaller than in 'Maccaferri' gabions and mattresses.

The empty gabions shall be placed to line and level as shown on the Drawings or as directed by the Engineer and then stretched so that the gabions regain their shape on being filled. Diaphragms shall be provided at no more than one metre (1 m) intervals for baskets and not more than 1.2 metre intervals for mattresses. A gabion shall not be completely filled until the adjacent basket or mattress has been half filled, unless otherwise directed, in order not to cause displacements from bulging during filling.

Because of small horizontal movements associated with the settlement or consolidation, gabion walls must not be constructed with a vertical front face as it subsequently tilts forward slightly. All gabion walls must be constructed with the front face at the slight angle to the vertical (10:1 – vertical: Horizontal). This should be achieved by sloping the foundation accordingly as shown in the diagram below:



Before filling, adjacent baskets should be secured together using steel lacing wire provided for the purpose and conforming to the specification. The sides must be secured in straight lines with no gaps left between the sides of adjacent baskets. Where more than one layer of baskets is laid, they must be placed as shown on the Drawings or as directed by the Engineer with a minimum step of 0.15 m between the faces of the lower and upper gabion boxes.

All gabions must be connected to each other along corners with the same lacing operation. For correct lacing operation, the wire should be passed through each mesh, making a double twist every other mesh.

Careful attention must be given to the filling operation to ensure that the stones are placed evenly in the baskets with minimum voids in between. Smaller stones can be used to fill the central voids of the boxes, but all external stones must be at least $1.5 D$ where D is the diameter of the mesh.

The stones selected for the top layer of gabion baskets must have a flat surface to ensure that the wire that does not rest on sharp corners. They must have a minimum dimension of $1.5 D$ in all directions and be placed to ensure a minimum number of voids.

Bracing wires must be fixed at depths of $1/3H$ where " H " is the height of the gabion box. The horizontal distance between the bracing wires should also be $1/3H$ thus for a gabion basket of $2m \times 1m \times 1m$ dimension, eight bracing wires are provided. For the gabion boxes used on the project the bracing wires should be placed at the following depths and spacing.

Gabion Dimensions			Depth of Bracing Wire from bottom of gabion		Horizontal Distance Between Bracing (meters)			
Length (m)	Width (m)	Depth (m)	1 st Brace	2 nd Brace				
2.00	1.00	1.00	0.35	0.70	0.40	0.80	1.20	1.60
1.00	1.00	1.00	0.35	0.70	0.35	0.70	-	-
2.00	1.00	0.50	0.25	-	0.40	0.80	1.20	1.60
1.00	1.00	0.50	0.25	-	0.35	0.70	-	-

Stones should be filled to the depth of the first brace and then the bracing wires placed directly above the level of the stone making sure the wire passes around at least two mesh widths. The procedure should then be followed for the next layer.

In aprons downstream of weirs and similar places where water falls directly on to the gabions, vertical bracing wires between the top and bottom mesh must be provided. Additional horizontal bracing must be used at the corners of structure.

4.11 Gabion Wire Protection

A concrete layer will be provided on the crest of wires as shown in the Drawings or directed by the Engineer to protect the gabion mesh against damage. This should be of minimum thickness of 0.10 meter and should be provided once the structure has been completed and any initial settlement has taken place. Contraction joints should be provided at regular intervals, which should not exceed 3 meters.

A rigid capping of concrete to gabions walls is not to be provided as this restricts the flexibility of the gabion structure. When the Engineer recommends protection of such walls, as in the case of protection of theft of wire, a thickness of 0.05 m should be provided. Where greater thickness is recommended, a flexible protection material must be used.

4.12 Measurement and payment of Pitching and Gabions

Stone Pitching: Measurement, for payment, of constructing stone pitching will be made of the actual area of stone pitching in place to the lines, grades and dimensions shown on the Drawings or directed. Payment for constructing stone pitch will be made at the rate per square metre tendered in the priced Bill of Quantities.

Gabions and Mattresses: Measurement, for payment, of furnishing and placing gabions and mattresses will be made of the volume of completed gabions and mattresses in place to the lines, grades and dimensions shown on the Drawings or as directed. Payment for furnishing and placing gabions and mattresses will be made at the applicable rate tendered thereof in the priced Bill of Quantities. These rates shall include the cost of all freight, labour, fabrication, erection, filling and placing of gabions and mattresses required to complete the work.

4.13 Curing:

All mortar works and PCC capping works should be sprayed with potable water at constant interval or straw mats or similar absorbent material or a layer of sand should be used to the satisfaction of the engineer, for a minimum period of a fourteen (14) days.

4.14 Steering Gates, Fence and Railing:

Steering gate: Supply/fabrication and installation of Steel Gate including three coats of enamel paint (one coat of red-oxide + two coat of enamel paint), labour and material as per relevant drawing, technical specification and with satisfaction of Field Supervisor/engineer. The iron gate materials should be high quality.

Fences and railing: steel box materials should be high quality, with three coats of enamel paint (one coat of red-oxide + two coat of enamel paint), labour and materials as per relevant drawings, technical specification and complete satisfaction of field supervisor/engineer. Fence box thickness should not be less than 3mm (see the drawings)

Fence, railing steels should be square/rectangular cold formed hollow section EN 10219:2006 GRADE S235 / S355, LENGTH 7.6-12.2 M, weight per length should not be less than 1.24 Kg/m

(Part 5). Environment and Social Mitigation Measures:

<p>1. General</p>	<p>The Contractor shall observe and comply with all National Laws, Government Regulations, Presidential Decrees, and Ministerial Regulations pertaining to environmental protection, pollution control, waste management and biodiversity protection, labour laws and land laws.</p> <p>In conducting his construction activities, the Contractor shall take all necessary precautions to minimize environmental disturbance to the project area and surroundings and to prevent the escape of polluting substances into streams, water courses, and groundwater. The Contractor shall also utilize all necessary practicable methods and devices as are available to prevent and otherwise minimize atmospheric emissions or discharges of air contaminants.</p>
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<p>2. Pollution of Water Courses and Streams</p>	<p>The discharge of polluting liquids, solid waste or other waste into drains, water courses, or groundwater shall not be permitted. No concrete or cement washings from the works or drainage from the Contractor's concrete batching and mixing areas, asphalt (hot mix) plants, or other manufacturing or production facilities shall be allowed to discharge into streams or drains without passing through an adequate system of settling ponds.</p> <p>Storage of fuels, fuelling and maintenance of plant and vehicles, etc. shall take place only on sites and under conditions that that do not allow spilt fuels to be discharged to water bodies. Fuel storage and fuelling areas shall be equipped with adequate protective measures to confine and retain accidental spillages. No drainage from fuel store and plant maintenance depots shall be allowed to be discharged without passing through an adequate arrangement of oil traps and separators.</p> <p>Washing of vehicles shall not be permitted in streams but only in specially designated and equipped areas.</p> <p>The Contractor shall be responsible for installation, operation and maintenance of a comprehensive liquid and solid waste system to all areas of the works, site office and worker's camp. The system shall be constructed such that no discharges of sewage, oil, cement, silt or other liquid or solid waste matter can enter the streams and water courses at the site; and it shall have all necessary solid waste and sediment traps, settling ponds, oil separators, etc., required to ensure that pollution of streams watercourses and natural bodies of water does not occur. The Contractor shall be responsible for maintaining the system to the satisfaction of the Site Engineer.</p>
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<p>3. Air Pollution</p>	<p>The Contractor shall take all necessary steps to minimize air pollution resultant from his operations. Except where stipulated in these Specifications for the disposal of natural vegetation and organic materials from clearing operations, the burning of waste materials for disposal, particularly oil and petroleum wastes, rubber, plastics and similar materials will not be permitted.</p> <p>During the performance of the work required under the Contract or of any operations appurtenant thereto, whether on the Project Site or elsewhere, the Contractor shall take all steps necessary, and shall furnish all labor, equipment, materials and means, required to reduce dust nuisance from the Works, and to prevent dust originating from his operations from damaging crops, orchards, cultivated fields, and dwellings; or causing a nuisance to persons. The Contractor shall be held liable for any damage resulting from dust originating from his operations including on Government roads, rights-of-way or elsewhere. The emission of dust into the atmosphere shall not be permitted during the manufacture, handling and storage and handling of cement and of concrete aggregates, and the Contractor shall use such methods and equipment as are necessary for the prevention, or the collection and disposal, of dust during such operations.</p> <p>All truckloads of loose materials shall be covered during transportation.</p> <p>Concrete batching and mixing areas, asphalt (hot mix) plants, or other manufacturing or production facilities shall be sited at least 500 m away from the nearest habitation. Emission outlets shall be fitted with pollution control devices in compliance with relevant current emission control legislation.</p> <p>In order to reduce the formation of dust on haul roads, access roads, government roads, aggregate stockpiles, etc.; water spraying or any other methods shall be used by the contractor to maintain the works areas, adjacent areas, and roads, in a dustless condition.</p>
<p>4. Noise Pollution</p>	<p>The Contractor shall take all necessary precautions to minimize the amount of noise and vibrations coming from construction activities. The Contractor shall ensure that all plant and equipment is properly maintained in good operating condition, and that noisy construction activities shall be effectively sound-reduced by means of silencers, mufflers, acoustic linings or shields, acoustic sheds or screens or other means, to avoid disturbance to any nearby noise sensitive receivers. All plant and equipment shall comply with relevant legislation covering sound emissions.</p> <p>Quarry operations and blasting shall be undertaken so as to minimize blasting and disturbance during the night.</p> <p>Operation of trucks and heavy vehicles and machinery shall be restricted to the night hours of 06:30 to 19:00. All necessary measures shall be undertaken to protect schools, hospitals and other adjacent noise sensitive receptors, including the use of noise barriers.</p>
<p>5. Damage to Property, Crops and Vegetation</p>	<p>The Contractor shall limit the movement of his employees and, vehicles and equipment within the project area and on adjacent land, including access routes approved by the Site Engineer, so as to minimize damage to natural vegetation, crops and property, and shall endeavour to avoid any damage to land.</p> <p>The Contractor shall strictly ensure employees and, vehicles and equipment do not enter any sensitive environmental areas that are demarcated as “no-entry” zones.</p>

	<p>The Contractor shall preserve existing trees, plants and other vegetation that are to remain within or adjacent to the Works and shall use every precaution necessary to prevent damage or injury thereto. Trees or shrubs shall only be felled or removed where such impinge directly on the permanent works and in case of necessary temporary works areas; double the quantity of so cut trees should be planted by the contractor. The contractor should provide for each area or location a detailed tree list and/or site map which records each individual tree to be cut. The contractor shall not proceed to cut any tree, particularly of fruit trees without approval from the employer/owner.</p> <p>On completion of the Works all areas disturbed by the Contractor's construction activities shall be restored by the Contractor to their original condition, or as may be acceptable to the Employer.</p> <p>The Contractor shall be responsible directly to the Employer for any excessive or unnecessary damage to crops or lands arising from his operations, whether within the project area, on lands adjacent thereto, or adjacent to approved access roads. Deductions will be made from the payment due to the Contractor to cover the cost of such excessive or unnecessary damage, as determined by the Employer.</p> <p>The contractor is responsible for compensation for lost assets, including effects on fruit trees, crop, structure, temporary loss of livelihood and other productive income, if this loss is caused by contractor. Compensation should be calculated as replacement cost based on current market price.</p>
<p>6. Safety Procedures</p>	<p>The Contractor shall:</p> <ul style="list-style-type: none"> (a) comply with all applicable safety regulations, (b) take care for the safety of all persons entitled to be on the Site, (c) use reasonable efforts to keep the Site and Works clear of unnecessary obstructions so as to avoid danger to these persons, (d) provide fencing, lighting, guarding and watching of the Works until completion and taking over, and (e) Provide any Temporary Works (including roadways, footways, guards and fences) which may be necessary, because of the execution of the Works, for the use and protection of the public and of owners and occupiers of adjacent land.
<p>7. Avoidance of Interference</p>	<p>The Contractor shall not interfere unnecessarily or improperly with:</p> <ul style="list-style-type: none"> (a) the convenience of the public, or (b) The access to and use and occupation of all roads and footpaths, irrespective of whether they are public or in the possession of the Employer or of others. <p>The Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from any such unnecessary or improper interference.</p>
<p>8. Access Routes</p>	<p>The Contractor shall be deemed to have been satisfied as to the suitability and availability of access routes to the Site at Base Date. The Contractor shall use reasonable efforts to prevent any road or bridge from being damaged by the Contractor's traffic or by the Contractor's Personnel. These efforts shall include the proper use of appropriate vehicles and routes.</p>

	<p>Except as otherwise stated in these Conditions:</p> <ul style="list-style-type: none"> (a) the Contractor shall (as between the Parties) be responsible for any maintenance which may be required for his use of access routes; (b) the Contractor shall provide all necessary signs or directions along access routes, and shall obtain any permission which may be required from the relevant authorities for his use of routes, signs and directions; (c) the Employer shall not be responsible for any claims which may arise from the use or otherwise of any access route; (d) the Employer does not guarantee the suitability or availability of particular access routes; and (e) costs due to non-suitability or non-availability for the use required by the Contractor of access routes shall be borne by the Contractor (f) the contractor should also ensure uninterrupted traffic of humans and animals by providing temporary access bridge across canal. (g) the contractor's site camp should be in a significant distance from the nearby community to avoid any interference. (h) the contractor shall bring the camp site back to normal physical status once the construction work has been done.
<p>9. Cultural Resources</p>	<p>All moveable and Immovable historical and cultural artifacts and heritage items that are discovered or remain buried and not discovered/excavated in Afghanistan are the property of the Islamic Republic of Afghanistan and any kind of trafficking of such items is considered theft and is illegal under Law on the Preservation of Afghanistan's Historical and Cultural Heritages and Artifacts (Official Gazette, April 16, 2004. These include monuments, structures, works of art, or sites of "outstanding universal value" from the historical, aesthetic, scientific, ethnological, or anthropological point of view, including unrecorded graveyards and burial sites.</p> <p>All fossils, coins, articles of value or antiquity, and structures and other remains or items of geological or archaeological interest found on the Site shall be placed under the care and authority of the Employer. The Contractor shall take reasonable precautions to prevent Contractor's Personnel or other persons from removing or damaging any of these findings, moveable and immovable historical and cultural artifacts and heritage items</p> <p>The Contractor shall, upon discovery of any such finding, give notice to the Engineer no later than seven (7) days if he/she lives in the capital city of Kabul, and no later than fourteen (14) days in case of provinces. The Engineer shall issue instructions for dealing with it.</p> <p>If the Contractor do not report such discoveries within the specified period, they will be incarcerated for a minimum of one (1) month but not more than a maximum of three (3) months.(Art. 75)</p>

Part-6

6 Staff and Labor

<p>1. Engagement of Staff and Labor</p>	<p>Except as otherwise stated in the Specification, the Contractor shall make arrangements for the engagement of all staff and labour, local or otherwise, and for their payment, feeding, transport, and, when appropriate, housing.</p> <p>The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within the Country.</p>
<p>2. Rates of Wages and Conditions of Labor</p>	<p>The Contractor shall pay rates of wages, and observe conditions of labour, which are not lower than those established for the trade or industry where the work is carried out. If no established rates or conditions are applicable, the Contractor shall follow the principle of “equal pay for equal work” and pay rates of wages and observe conditions which are not lower than the general level of wages and conditions observed locally by employers whose trade or industry is similar to that of the Contractor.</p> <p>The wage of the youths (age 15-18) would be paid in an amount equal to the wage of the workers of 18 years of age and more, with due regard to rank and grade, but regardless of the reduced working time contained in article 31 of the labour law (Article 129, labour law). The wage and other rights of the work-related disabled worker cannot be less than the wage that he/she earned previously (Article 117, labour law).</p> <p>The Contractor shall inform the Contractor’s Personnel about their liability to pay personal income taxes in the Country in respect of such of their salaries, wages, allowances and any benefits as are subject to tax under the Laws of the Country for the time being in force, and the Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such Laws.</p>
<p>3. Labor Laws</p>	<p>The Contractor shall comply with all the relevant labour Laws applicable to the Contractor’s Personnel, including Laws relating to their employment, health, safety, welfare, immigration and emigration, and shall allow them all their legal rights.</p> <p>The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.</p>
<p>4. Working Hours</p>	<p>No work shall be carried out on the Site on locally recognised days of rest, or outside the normal working hours stated in the Contract Data, unless:</p> <ul style="list-style-type: none"> (a) otherwise stated in the Contract, (b) the Engineer gives consent, or (c) the work is unavoidable, or necessary for the protection of life or property or for the safety of the Works, in which case the Contractor shall immediately advise the Engineer (d) the working hours for youths between 15 and 18 year of age, should not exceed the limit of 35 hours per week.
<p>5. Facilities for Staff and Labor</p>	<p>Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor’s Personnel.</p> <p>The Contractor shall not permit any of the Contractor’s Personnel to maintain any temporary or permanent living quarters within the structures forming part of the Permanent Works.</p>

<p>6. Health and Safety</p>	<p>The Contractor shall at all times take all reasonable precautions to maintain the health and safety of the Contractor's Personnel. In collaboration with local health authorities, the Contractor shall ensure that medical staff, first aid facilities are available at all times at the Site and at any accommodation for Contractor's and Employer's Personnel, and that suitable arrangements are made for all necessary welfare and hygiene requirements and for the prevention of epidemics.</p> <p>In the event that untoward accidents and unexpected diseases occur at the worksite, the contractor would be obliged, as the case may be , to:</p> <ol style="list-style-type: none"> 1. provide first aid services and conditions, 2. transfer the worker concerned to medical centres and provide for treatment conditions, 3. when the worker is cured, transfer him to his/her place of residence, (Article 114, labour law). <p>The contractor has the responsibility to provide job for the employees who have become disabled while performing their jobs. After their disability is confirmed, according to their capability, they have to be provided with job opportunities (Article 117, labour law).</p>
<p>7. Disorderly Conduct</p>	<p>The Contractor shall at all times take all reasonable precautions to prevent any unlawful, riotous or disorderly conduct by or amongst the Contractor's Personnel, and to preserve peace and protection of persons and property on and near the Site.</p>
<p>8. Supply of Water</p>	<p>The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.</p>
<p>9. Festivals and Religious Customs</p>	<p>The Contractor shall respect the Country's recognized festivals, days of rest and religious customs.</p>
<p>10. Funeral Arrangements</p>	<p>The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of his local employees who may die while engaged upon the Works.</p> <p>The contractor shall provide financial aid for the deceased employee's family for burial ceremony equal to 10 months wage along with its benefits as per the last salary (Article 134, labor law).</p>
<p>11. Prohibition of Forced or Compulsory Labour</p>	<p>The contractor shall not employ "forced or compulsory labour" in any form. "Forced or compulsory labour" consists of all work or service, not voluntarily performed, that is extracted from an individual under threat of force or penalty.</p>
<p>12. Prohibition of Harmful Child Labour</p>	<p>The Contractor shall not employ any child under 15 year of age to perform any work that is economically exploitative, or is likely to be hazardous to, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development.</p>
<p>13. soil Erosion</p>	<p>Plantation of appropriate vegetation on hill slopes and other potentially erodible places along the embankment.</p> <p>Appropriate earth compaction and in construction of access roads , restriction of vehicular and construction machinery movements very close to the canal/river banks</p>

<p>14. Degradation of borrow pits</p>	<p>Replace stockpiled soil cover. Replant grass/ shrubs. Install sediment runoff control devices. Ensure ongoing erosion monitoring and restore the area back to normal condition by filling the borrow pit in the source area.</p>
<p>15. Increase inequities between 16. downstream and upstream communities:</p>	<p>Contractor to ensure that employment opportunities are equally available to downstream and upstream communities.</p> <p>Contractor to be aware of and pay particular attention to equity issues where different ethnic or tribal groups are located upstream and down stream</p>
<p>17. Contractor Environmental and Social Focal Point</p>	<p>The Contractor shall designate one of their staff member as the Environmental and Social Focal Point (ESFP) who is familiar with Environmental and Social aspects of irrigation projects and will be responsible for the Environmental and Social Management</p>

Drawings

(Drawing is attached)

Personnel Requirements

Using Form PER - 1 and PER - 2 in Section 4 (Bidding Forms), the Bidder must demonstrate that it has personnel who meet the following requirements:

No.	Position	Total Work Experience [years]	Experience in Similar Work [years]
1	Project Manager (Civil Engineer)	5	3
2	Surveyor	3	3
3	Safety Officer	3	3
4	Site supervisor	3	3

Equipment Requirements

Using Form EQU in Section 4 (Bidding Forms), the Bidder must demonstrate that it has the key equipment listed below:

No.	Equipment Type and Characteristics	Minimum Number Required
1	Excavator	1
2	Compactor	1
3	Mixer	1
4	Vibrator	1
5	Dump truck	2

PART III
CONDITIONS OF CONTRACT AND CONTRACT FORMS

Section 7 - General Conditions of Contract

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General Conditions of Contract

A. General

1. Definitions

- 1.1 Boldface type is used to identify defined terms.
- (a) The **Accepted Contract Amount** means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.
 - (b) The **Activity Schedule** is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump sum contract. It includes a lump sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.
 - (c) The **Adjudicator** is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 29.1[Appointment of Adjudicator] hereunder.
 - (d) **Bank** means the financing institutions named in the **Particular Conditions of Contract (PCC)**.
 - (e) **Bill of Quantities** means the priced and completed Bill of Quantities forming part of the Bid.
 - (f) **Compensation Events** are those defined in GCC 51.1[Compensation Events]hereunder.
 - (g) The **Completion Date** is the date of completion of the Works as certified by the Project Manager, in accordance with GCC 69.1 [Completion].
 - (h) The **Contract** is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC 2.3 below.
 - (i) The **Contractor** is the party whose Bid to carry out the Works has been accepted by the Employer.
 - (j) The **Contractor's Bid** is the completed bidding document submitted by the Contractor to the Employer.
 - (k) The **Contract Price** is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.
 - (l) **Days** are calendar days; months are calendar months.
 - (m) **Day works** are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.
 - (n) A **Defect** is any part of the Works not completed in accordance with the Contract.
 - (o) The **Defects Liability Certificate** is the certificate issued by the Project Manager upon correction of defects by the Contractor.

- (p) The **Defects Liability Period** is the period calculated from the Completion Date where the Contractor remains responsible for remedying defects.
- (q) **Drawings** include calculations and other information provided or approved by the Project Manager for the execution of the Contract.
- (r) The **Employer** is the party who employs the Contractor to carry out the Works, as specified in the **PCC**.
- (s) **Equipment** is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.
- (t) **Force Majeure** means an exceptional event or circumstance: which is beyond a Party's control; which such Party could not reasonably have provided against before entering into the Contract; which, having arisen, such Party could not reasonably have avoided or overcome; and, which is not substantially attributable to the other Party.
- (u) **In writing** or **written** means hand-written, typewritten, printed or electronically made, and resulting in a permanent record.
- (v) The **Initial Contract Price** is the Contract Price listed in the Employer's Letter of Acceptance.
- (w) The **Intended Completion Date** is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is specified in the **PCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order.
- (x) **Letter of Acceptance** means the formal acceptance by the Employer of the Bid and denotes the formation of the Contract at the date of acceptance.
- (y) **Materials** are all supplies, including consumables, used by the Contractor for incorporation in the Works.
- (z) **Party** means the Employer or the Contractor, as the context requires.
- (aa) **PCC** means Particular Conditions of Contract.
- (bb) **Plant** is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.
- (cc) The **Project Manager** is the person named in the **PCC** (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.
- (dd) **Retention Money** means the aggregate of all monies retained by the Employer pursuant to GCC 55.1 [Retention].
- (ee) **Schedules** means the document(s) entitled schedules, completed by the Contractor and submitted with the Letter of Tender, as included in the Contract. Such document may include the Bill of Quantities, data, lists, and schedules of rates and/or prices.

- (ff) The **Site** is the area defined as such in the **PCC**.
- (gg) **Site Investigation Reports** are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site.
- (hh) **Specification** means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.
- (ii) The **Start Date** is given in the **PCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.
- (jj) A **Subcontractor** is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.
- (kk) **Temporary Works** are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.
- (ll) A **Variation** is an instruction given by the Project Manager, which varies the Works.
- (mm) The **Works** are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the **PCC**.

2. Interpretation

- 2.1 In interpreting these GCC, singular also means plural, male also means female or neuter, and the other way around. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.
- 2.2 If sectional completion is specified in the **PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).
- 2.3 The documents forming the Contract shall be interpreted in the following order of priority:
 - (a) Contract Agreement,
 - (b) Letter of Acceptance,
 - (c) Letter of Bid,
 - (d) Particular Conditions of Contract,
 - (e) the List of Eligible Countries that was specified in Section 5 of the bidding document,
 - (f) General Conditions of Contract,
 - (g) Specifications,
 - (h) Drawings,
 - (i) Completed Activity Schedules or Bill of Quantities, and

- (j) any other document listed in the **PCC** as forming part of the Contract.
- 3. Language and Law**
 - 3.1 The language of the Contract and the law governing the Contract are stated in the **PCC**.
 - 3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when
 - (a) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from, or any payments to, a particular country, person, or entity. Where the borrower's country prohibits payments to a particular firm or for particular goods by such an act of compliance, that firm may be excluded.
- 4. Contract Agreement**
 - 4.1 The Parties shall enter into a Contract Agreement within 28 days after the Contractor receives the Letter of Acceptance, unless the Particular Conditions establish otherwise. The Contract Agreement shall be based upon the attached Contract forms in Section 8. The costs of stamp duties and similar charges (if any) imposed by law in connection with entry into the Contract Agreement shall be borne by the Employer.
- 5. Assignment**
 - 5.1 Neither Party shall assign the whole or any part of the Contract or any benefit or interest in or under the Contract. However, either Party
 - (a) may assign the whole or any part with the prior agreement of the other Party, at the sole discretion of such other Party; and
 - (b) may, as security in favor of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.
- 6. Care and Supply of Documents**
 - 6.1 The Specification and Drawings shall be in the custody and care of the Employer. Unless otherwise stated in the Contract, two copies of the Contract and of each subsequent Drawing shall be supplied to the Contractor, who may make or request further copies at the cost of the Contractor.
 - 6.2 Each of the Contractor's Documents shall be in the custody and care of the Contractor, unless and until taken over by the Employer. Unless otherwise stated in the Contract, the Contractor shall supply to the Engineer six copies of each of the Contractor's Documents.
 - 6.3 The Contractor shall keep, on the Site, a copy of the Contract, publications named in the Specification, the Contractor's Documents (if any), the Drawings and Variations and other communications given under the Contract. The Employer's Personnel shall have the right of access to all these documents at all reasonable times.
 - 6.4 If a Party becomes aware of an error or defect in a document which was prepared for use in executing the Works, the Party shall promptly give notice to the other Party of such error or defect.
- 7. Confidential Details**
 - 7.1 The Contractor's and the Employer's Personnel shall disclose all such confidential and other information as may be reasonably required in order to verify the Contractor's compliance with the Contract and allow

its proper implementation.

- 7.2 Each of them shall treat the details of the Contract as private and confidential, except to the extent necessary to carry out their respective obligations under the Contract or to comply with applicable Laws. Each of them shall not publish or disclose any particulars of the Works prepared by the other Party without the previous agreement of the other Party. However, the Contractor shall be permitted to disclose any publicly available information, or information otherwise required to establish his qualifications to compete for other projects.
- 7.3 Notwithstanding the above, the Contractor may furnish to its Subcontractor(s) such documents, data and other information it receives from the Employer to the extent required for the Subcontractor(s) to perform its work under the Contract, in which event the Contractor shall obtain from such Subcontractor(s) an undertaking of confidentiality similar to that imposed on the Contractor under this Clause.

8. Compliance with Laws

- 8.1 The Contractor shall, in performing the Contract, comply with applicable Laws.
- 8.2 Unless otherwise stated in the Particular Conditions,
- (a) the Employer shall acquire and pay for all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings in the [Employer's Country or country where the Site is located] which (i) such authorities or undertakings require the Employer to obtain in the Employer's name, and (ii) are necessary for the execution of the Contract, including those required for the performance by both the Contractor and the Employer of their respective obligations under the Contract;
 - (b) the Contractor shall acquire and pay for all permits, approvals, and/or licenses from all local, state, or national government authorities or public service undertakings in the [Employer's Country or country where the Site is located] which such authorities or undertakings require the Contractor to obtain in its name and which are necessary for the performance of the Contract, including, without limitation, visas for the Contractor's and Subcontractor's personnel and entry permits for all imported Contractor's Equipment. The Contractor shall acquire all other permits, approvals, and/or licenses that are not the responsibility of the Employer under Sub-clause 8.2(a) hereof and that are necessary for the performance of the Contract. The Contractor shall indemnify and hold harmless the Employer from and against any and all liabilities, damages, claims, fines, penalties, and expenses of whatever nature arising or resulting from the violation of such laws by the Employer or its personnel, including the Subcontractors and their personnel, but without prejudice to Sub-clause 8.1 hereof.

9. Joint and Several Liability

- 9.1 If the Contractor is a joint venture of two or more persons, all such persons shall be jointly and severally liable to the Employer for the fulfillment of the provisions of the Contract, and shall designate one of such persons to act as a leader with authority to bind the joint venture.

- The composition or the constitution of the joint venture shall not be altered without the prior consent of the Employer.
- 10. Project Manager's Decisions** 10.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
- 11. Delegation** 11.1 The Project Manager may delegate any of his duties and responsibilities to other people except to the Adjudicator, after notifying the Contractor, and may cancel any delegation after notifying the Contractor.
- 12. Communications** 12.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.
- 13. Subcontracting** 13.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations.
- 14. Other Contractors** 14.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as referred to in the **PCC**. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.
- 15. Personnel and Equipment** 15.1 The Contractor shall employ the key personnel and use the equipment identified in its Bid to carry out the functions stated in the Schedule or other personnel and equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of key personnel and equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.
- 15.2 If the Project Manager asks the Contractor to remove a person who is a member of the Contractor's staff or work force, stating the reasons, the Contractor shall ensure that the person leaves the Site within 7 days and has no further connection with the work in the Contract.
- 15.3 If the Employer, Project Manager, or Contractor determines, that any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or other prohibited practices during the execution of the Works, then that employee shall be removed in accordance with Clause 15.2 above.
- 16. Employer's and Contractor's Risks** 16.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.
- 17. Employer's Risks** 17.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:
- (a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to

- (i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works, or
 - (ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.
 - (b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.
- 17.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer's risk except loss or damage due to
- (a) a Defect which existed on the Completion Date,
 - (b) an event occurring before the Completion Date, which was not itself an Employer's risk, or
 - (c) the activities of the Contractor on the Site after the Completion Date.
- 18. Contractor's Risks**
- 18.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks, are Contractor's risks.
- 19. Insurance**
- 19.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles stated in the **PCC** for the following events, which are due to the Contractor's risks:
- (a) loss of or damage to the Works, Plant, and Materials;
 - (b) loss of or damage to Equipment;
 - (c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and
 - (d) personal injury or death.
- 19.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.
- 19.3 If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance, which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.
- 19.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.

- 19.5 Both parties shall comply with any conditions of the insurance policies.
- 20. Site Investigation Reports** 20.1 The Contractor, in preparing the Bid, shall rely on any Site Investigation Reports referred to in the **PCC**, supplemented by any information available to the Contractor.
- 21. Contractor to Construct the Works** 21.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.
- 22. The Works to Be Completed by the Intended Completion Date** 22.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.
- 23. Designed by Contractor and Approval by the Project Manager** 23.1 The Contractor shall carry out design to the extent specified in the **PCC**. The Contractor shall promptly submit to the Employer all designs prepared by him. Within 14 days of receipt, the Employer shall notify any comments. The Contractor shall not construct any element of the permanent work designed by him within 14 days after the design has been submitted to the Employer or where the design for that element has been rejected. Design that has been rejected shall be promptly amended and resubmitted. The Contractor shall resubmit all designs commented on, taking these comments into account as necessary.
- 23.2 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, who is to approve them if they comply with the Specifications and Drawings..
- 23.3 The Contractor shall be responsible for design of Temporary Works.
- 23.4 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.
- 23.5 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.
- 23.6 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.
- 24. Safety** 24.1 The Contractor shall be responsible for the safety of all activities on the Site.
- 25. Discoveries** 25.1 Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.
- 26. Possession of the Site** 26.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date stated in the **PCC**, the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.

- 27. Access to the Site**
- 27.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.
- 28. Instructions, Inspections, and Audits**
- 28.1 The Contractor shall carry out all instructions of the Project Manager, which comply with the applicable laws where the Site is located.
- 28.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub consultants to keep accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.
- 28.3 The Contractor shall permit ADB to inspect the Contractor's accounts, records, and other documents relating to the submission of bids and contract performance and to have them audited by auditors appointed by ADB. The Contractor shall maintain all documents and records related to the Contract for a period of three (3) years after completion of the Works. The Contractor shall provide any documents necessary for the investigation of allegations of fraud, collusion, coercion, or corruption and require its employees or agents with knowledge of the Contract to respond to questions from ADB.
- 29. Appointment of the Adjudicator**
- 29.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the **PCC**, to appoint the Adjudicator within 14 days of receipt of such request.
- 29.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority at the request of either party, within 14 days of receipt of such request.
- 30. Procedure for Disputes**
- 30.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.
- 30.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.
- 30.3 The Adjudicator shall be paid by the hour at the rate specified in the **PCC**, together with reimbursable expenses of the types specified in the **PCC**, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.

30.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place specified in the **PCC**.

B. Staff and Labor

- 31. Forced Labor** 31.1 The Contractor shall not employ forced labor, which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty. This covers any kind of involuntary or compulsory labor, such as indentured labor, bonded labor, or similar labor–contracting arrangements.
- 32. Child Labor** 32.1 The Contractor shall not employ children in a manner that is economically exploitative, or is likely to be hazardous, or to interfere with, the child's education, or to be harmful to the child's health or physical, mental, spiritual, moral, or social development. Where national laws have provisions for employment of minors, the Contractor shall follow those laws applicable to the Contractor. Children below the age of 18 years shall not be employed in dangerous work.
- 33. Workers' Organizations** 33.1 In countries where national law recognizes workers' rights to form and to join workers' organizations of their choosing without interference and to bargain collectively, the Contractor shall comply with national law. Where national law substantially restricts workers' organizations, the Contractor shall enable alternative means for the Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. In either case described above, and where national law is silent, the Contractor shall not discourage the Contractor's Personnel from forming or joining workers' organizations of their choosing or from bargaining collectively, and shall not discriminate or retaliate against the Contractor's Personnel who participate, or seek to participate, in such organizations and bargain collectively. The Contractor shall engage with such workers representatives. Worker organizations are expected to fairly represent the workers in the workforce.
- 34. Nondiscrimination and Equal Opportunity** 34.1 The Contractor shall not make employment decisions on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment relationship on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, promotion, termination of employment or retirement, and discipline. In countries where national law provides for non-discrimination in employment, the Contractor shall comply with national law. When national laws are silent on nondiscrimination in employment, the Contractor shall meet this Sub-clause's requirements. Special measures of protection or assistance to remedy past discrimination or selection for a particular job based on the inherent requirements of the job shall not be deemed discrimination.

C. Time Control

- 35. Program**
- 35.1 Within the time stated in the **PCC**, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump sum contract, the activities in the Program shall be consistent with those in the Activity Schedule.
- 35.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.
- 35.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period stated in the **PCC**. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount stated in the **PCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of a lump sum contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.
- 35.4 The Project Manager's approval of the Program shall not alter the Contractor's obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.
- 36. Extension of the Intended Completion Date**
- 36.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.
- 36.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.
- 37. Acceleration**
- 37.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.
- 37.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.
- 38. Delays Ordered by the Project**
- 38.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.

Manager

- 39. Management Meetings**
- 39.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.
- 39.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.
- 40. Early Warning**
- 40.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.
- 40.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.

D. Quality Control

- 41. Identifying Defects**
- 41.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.
- 42. Tests**
- 42.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.
- 43. Correction of Defects**
- 43.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is defined in the **PCC**. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.
- 43.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.
- 44. Uncorrected Defects**
- 44.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this

amount.

E. Cost Control

- 45. Contract Price**
- 45.1 In the case of an admeasurement contract, the Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.
- 45.2 In the case of a lump sum contract, the Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for Materials on Site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.
- 46. Changes in the Contract Price**
- 46.1 In the case of an admeasurement contract:
- (a) If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25%, provided the change exceeds 1% of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change.
 - (b) The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15%, except with the prior approval of the Employer.
 - (c) If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.
- 46.2 In the case of a lump sum contract, the Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.
- 47. Variations**
- 47.1 All Variations shall be included in updated Programs, and, in the case of a lump sum contract, also in the Activity Schedule, produced by the Contractor.
- 47.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.
- 47.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.
- 47.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying

the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.

47.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.

47.6 In the case of an admeasurement contract, if the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in GCC46.1 [Changes in the Contract Price] or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.

48. Cash Flow Forecasts

48.1 When the Program, or, in the case of a lump sum contract, the Activity Schedule, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.

49. Payment Certificates

49.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.

49.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.

49.3 The value of work executed shall be determined by the Project Manager.

49.4 The value of work executed shall comprise,

- (a) in the case of an admeasurement contract, the value of the quantities of work in the Bill of Quantities that have been completed; or
- (b) in the case of a lump sum contract, the value of work executed shall comprise the value of completed activities in the Activity Schedule.

49.5 The value of work executed shall include the valuation of Variations and Compensation Events.

49.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.

50. Payments

50.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be

calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.

- 50.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.
- 50.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.
- 50.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.

51. Compensation Events

- 51.1 The following shall be Compensation Events:
- (a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC 26.1 [Possession of the Site].
 - (b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.
 - (c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.
 - (d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.
 - (e) The Project Manager unreasonably does not approve a subcontract to be let.
 - (f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to Bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site.
 - (g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.
 - (h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.
 - (i) The advance payment is delayed.
 - (j) The effects on the Contractor of any of the Employer's Risks.
 - (k) The Project Manager unreasonably delays issuing a Certificate of Completion.

51.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.

51.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.

51.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.

52. Tax

52.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC 54.1 [Price Adjustment].

53. Currencies

53.1 Where payments are made in currencies other than the currency of the Employer's country specified in the **PCC**, the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.

54. Price Adjustment

54.1 Prices shall be adjusted for fluctuations in the cost of inputs only if provided for in the **PCC**. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type indicated below applies to each Contract currency:

$$P_c = A_c + B_c I_{mc}/I_{oc}$$

where:

P_c is the adjustment factor for the portion of the Contract Price payable in a specific currency "c."

A_c and B_c are coefficients¹ specified in the **PCC**, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and

¹ The sum of the two coefficients A_c and B_c should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulas for all currencies, since coefficient A_c , for the nonadjustable portion of the payments, is a

Imc is a consolidated index prevailing at the end of the month being invoiced and loc is the same consolidated index prevailing 28 days before Bid opening for inputs payable; both in the specific currency "c."

54.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.

55. Retention

55.1 The Employer shall retain from each payment due to the Contractor the proportion stated in the **PCC** until Completion of the whole of the Works.

55.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 69.1 [Completion], half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period have been corrected. The Contractor may substitute retention money with an "on demand" bank guarantee.

56. Liquidated Damages

56.1 The Contractor shall pay liquidated damages to the Employer at the rate per day stated in the **PCC** for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount defined in the **PCC**. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor's liabilities.

56.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC 50.1 [Payments].

57. Bonus

57.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day stated in the **PCC** for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.

58. Advance Payment

58.1 The Employer shall make advance payment to the Contractor of the amounts stated in the **PCC** by the date stated in the **PCC**, against provision by the Contractor of an unconditional bank guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The guarantee shall remain effective until the advance payment has been repaid, but the amount of the guarantee shall be progressively reduced by the amounts repaid

very approximate figure (usually 0.10 – 0.20) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency is added to the Contract Price.

by the Contractor. Interest shall not be charged on the advance payment.

58.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.

58.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.

59. Securities

59.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount specified in the **PCC**, by a bank acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a bank guarantee.

60. Day works

60.1 If applicable, the Day works rates in the Contractor's Bid shall be used for small additional amounts of work only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.

60.2 All work to be paid for as Day works shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within 2 days of the work being done.

60.3 The Contractor shall be paid for Day works subject to obtaining signed Day works forms.

61. Cost of Repairs

61.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.

F. Force Majeure

62. Definition of Force Majeure

62.1 In this Clause, "Force Majeure" means an exceptional event or circumstance,

- (a) which is beyond a Party's control;
- (b) which such Party could not reasonably have provided against before entering into the Contract;
- (c) which, having arisen, such Party could not reasonably have avoided or overcome; and

(d) which is not substantially attributable to the other Party.

62.2 Force Majeure may include, but is not limited to, exceptional events or circumstances of the kind listed below, so long as conditions (a) to (d) above are satisfied:

- (a) war, hostilities (whether war be declared or not), invasion, act of foreign enemies;
- (b) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war;
- (c) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel;
- (d) munitions of war, explosive materials, ionizing radiation or contamination by radio-activity, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity; and
- (e) natural catastrophes such as earthquake, hurricane, typhoon, or volcanic activity.

63. Notice of Force Majeure

63.1 If a Party is or will be prevented from performing its substantial obligations under the Contract by Force Majeure, then it shall give notice to the other Party of the event or circumstances constituting the Force Majeure and shall specify the obligations, the performance of which is or will be prevented. The notice shall be given within 14 days after the Party became aware, or should have become aware, of the relevant event or circumstance constituting Force Majeure.

63.2 The Party shall, having given notice, be excused performance of its obligations for so long as such Force Majeure prevents it from performing them.

63.3 Notwithstanding any other provision of this Clause, Force Majeure shall not apply to obligations of either Party to make payments to the other Party under the Contract.

64. Duty to Minimize Delay

64.1 Each Party shall at all times use all reasonable endeavors to minimize any delay in the performance of the Contract as a result of Force Majeure.

64.2 A Party shall give notice to the other Party when it ceases to be affected by the Force Majeure.

65. Consequences of Force Majeure

65.1 If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under GCC Sub-clause 63 [Notice of Force Majeure], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to GCC Sub-clause 30.1 [Procedure for Disputes] to

- (a) an extension of time for any such delay, if completion is or will be delayed, under GCC Sub-clause 36 [Extension of the Intended Completion Date]; and

- (b) if the event or circumstance is of the kind described in subparagraphs (a) to (d) of GCC Sub-clause 62.2 [Definition of Force Majeure] and, in the case of subparagraphs (b) to (d), occurs in the Country, payment of any such Cost, including the costs of rectifying or replacing the Works and/or Goods damaged or destroyed by Force Majeure, to the extent they are not indemnified through the insurance policy referred to in GCC Sub-clause 19 [Insurance].

65.2 After receiving this notice, the Project Manager shall proceed in accordance with GCC Sub-clause 10 [Project Manager's Decisions] to agree or determine these matters.

66. Force Majeure Affecting Subcontractor

66.1 If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader Force Majeure events or circumstances shall not excuse the Contractor's nonperformance or entitle him to relief under this Clause.

67. Optional Termination, Payment and Release

67.1 If the execution of substantially all the Works in progress is prevented for a continuous period of 84 days by reason of Force Majeure of which notice has been given under GCC Sub-clause 63 [Notice of Force Majeure], or for multiple periods which total more than 140 days due to the same notified Force Majeure, then either Party may give to the other Party a notice of termination of the Contract. In this event, the termination shall take effect 7 days after the notice is given, and the Contractor shall proceed in accordance with GCC Sub-clause 73.5 [Termination].

67.2 Upon such termination, the Project Manager shall determine the value of the work done and issue a Payment Certificate, which shall include

- (a) the amounts payable for any work carried out for which a price is stated in the Contract;
- (b) the Cost of Plant and Materials ordered for the Works which have been delivered to the Contractor, or of which the Contractor is liable to accept delivery: this Plant and Materials shall become the property of (and be at the risk of) the Employer when paid for by the Employer, and the Contractor shall place the same at the Employer's disposal;
- (c) other Costs or liabilities which in the circumstances were reasonably and necessarily incurred by the Contractor in the expectation of completing the Works;
- (d) the Cost of removal of Temporary Works and Contractor's Equipment from the Site and the return of these items to the Contractor's works in his country (or to any other destination at no greater cost); and
- (e) the Cost of repatriation of the Contractor's staff and labor employed wholly in connection with the Works at the date of termination.

68. Release from Performance

68.1 Notwithstanding any other provision of this Clause, if any event or circumstance outside the control of the Parties (including, but not limited to, Force Majeure) arises, which makes it impossible or

unlawful for either or both Parties to fulfill its or their contractual obligations or which, under the law governing the Contract, entitles the Parties to be released from further performance of the Contract, then upon notice by either Party to the other Party of such event or circumstance,

- (a) the Parties shall be discharged from further performance, without prejudice to the rights of either Party in respect of any previous breach of the Contract; and
- (b) the sum payable by the Employer to the Contractor shall be the same as would have been payable under GCC Sub-clause 67 [Optional Termination, Payment and Release] if the Contract had been terminated under GCC Sub-clause 67.

G. Finishing the Contract

- | | |
|--|---|
| 69. Completion | 69.1 The Contractor shall request the Project Manager to issue a certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the work is completed. |
| 70. Taking Over | 70.1 The Employer shall take over the Site and the Works within 7 days of the Project Manager is issuing a certificate of Completion. |
| 71. Final Account | 71.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate. |
| 72. Operating and Maintenance Manuals | <p>72.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates stated in the PCC.</p> <p>72.2 If the Contractor does not supply the Drawings and/or manuals by the dates stated in the PCC pursuant to GCC 72.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount stated in the PCC from payments due to the Contractor.</p> |
| 73. Termination | <p>73.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.</p> <p>73.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:</p> <ul style="list-style-type: none"> (a) the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager; |

- (b) the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;
- (c) the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;
- (d) a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate;
- (e) the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;
- (f) the Project Manager gives two consecutive Notices to update the Program and accelerate the works to ensure compliance with GCC Sub clause 22.1 [The Works to be Completed by the Intended Completion Date] and the Contractor fails to update the Program and demonstrate acceleration of the works within a reasonable period of time determined by the Project Manager;
- (g) the Contractor does not maintain a Security, which is required;
- (h) the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as defined in the **PCC**; and
- (i) if the Contractor, in the judgment of the Employer has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC 74.1 [Fraud and Corruption].

73.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC 73.2 above, the Project Manager shall decide whether the breach is fundamental or not.

73.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.

73.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.

74. Fraud and Corruption

74.1 ADB's Anticorruption Policy requires Borrowers (including beneficiaries of ADB-financed activity), as well as Contractors, Subcontractors, Manufacturers, and Consultants under ADB-financed contracts, observe the highest standard of ethics during the procurement and execution of such contracts. In pursuance of this policy, the ADB

- (a) defines, for the purposes of this provision, the terms set forth below as follows:
 - (i) "corrupt practice" means the offering, giving, receiving, or soliciting, directly or indirectly, anything of value to influence improperly the actions of another party;
 - (ii) "fraudulent practice" means any act or omission, including a misrepresentation, that knowingly or recklessly misleads,

or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;

- (iii) "coercive practice" means impairing or harming, or threatening to impair or harm, directly or indirectly, any party or the property of the party to influence improperly the actions of a party;
 - (iv) "collusive practice" means an arrangement between two or more parties designed to achieve an improper purpose, including influencing improperly the actions of another party;
 - (v) "obstructive practice" means (a) deliberately destroying, falsifying, altering, or concealing of evidence material to an ADB investigation; (b) making false statements to investigators in order to materially impede an ADB investigation; (c) failing to comply with requests to provide information, documents, or records in connection with an Office of Anticorruption and Integrity (OAI) investigation; (d) threatening, harassing, or intimidating any party to prevent it from disclosing its knowledge of matters relevant to the investigation or from pursuing the investigation, or (e) materially impeding ADB's contractual rights of audit or access to information; and
 - (vi) "integrity violation" is any act which violates ADB's Anticorruption Policy, including (i) to (v) above and the following: abuse, conflict of interest, violations of ADB sanctions, retaliation against whistleblowers or witnesses, and other violations of ADB's Anticorruption Policy, including failure to adhere to the highest ethical standard.
- (b) will reject a proposal for award if it determines that the Bidder recommended for award has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations in competing for the Contract;
 - (c) will cancel the portion of the financing allocated to a contract if it determines at any time that representatives of the borrower or of a beneficiary of ADB-financing engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations during the procurement or the execution of that contract, without the borrower having taken timely and appropriate action satisfactory to ADB to remedy the situation; and
 - (d) will impose remedial actions on a firm or an individual, at any time, in accordance with ADB's Anticorruption Policy and Integrity Principles and Guidelines (both as amended from time to time), including declaring ineligible, either indefinitely or for a stated period of time, to participate² in ADB-financed, -

² Whether as a Contractor, Nominated Subcontractor, Consultant, Manufacturer or Supplier, or Service Provider; or in any other capacity (different names are used depending on the particular Bidding Document). A Nominated Subcontractor is one which either has been (i) included by the Bidder in its prequalification application or bid because it brings specific and

administered, or -supported activities or to benefit from an ADB-financed, -administered, or -supported contract, financially or otherwise, if it at any time determines that the firm or individual has, directly or through an agent, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices or other integrity violations.

- 75. Payment upon Termination**
- 75.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as indicated in the **PCC**. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.
- 75.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.
- 76. Property**
- 76.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.
- 77. Release from Performance**
- 77.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterward to which a commitment was made.
- 78. Suspension of ADB Loan or Credit**
- 78.1 In the event that ADB suspends the Loan or Credit to the Employer, from which part of the payments to the Contractor are being made,
- (a) the Employer is obligated to notify the Contractor, with copy to the Project Manager, of such suspension within 7 days of having received ADB's suspension notice.
 - (b) if the Contractor has not received sums due it within the 28 days for payment provided for in GCC50.1 [Payments], the Contractor may immediately issue a 14-day termination notice.
- 79. Eligibility**
- 79.1 The Contractor shall have the nationality of an eligible country as specified in Section 5 [Eligible Countries] of the bidding document. The Contractor shall be deemed to have the nationality of a country if

critical experience and know-how that are accounted for in the evaluation of the Bidder's prequalification application or the bid; or (ii) appointed by the Employer.

the Contractor is a citizen or is constituted, incorporated, or registered, and operates in conformity with the provisions of the laws of that country. This criterion shall also apply to the determination of the nationality of proposed subcontractors or suppliers for any part of the Contract including related services.

- 79.2 The materials, equipment, and services to be supplied under the Contract shall have their origin in eligible source countries as specified in Section 5 [Eligible Countries] of the bidding document and all expenditures under the Contract will be limited to such materials, equipment, and services. At the Employer's request, the Contractor may be required to provide evidence of the origin of materials, equipment, and services.
- 79.3 For purposes of GCC 79.2, "origin" means the place where the materials and equipment are mined, grown, produced, or manufactured, and from which the services are provided. Materials and equipment are produced when, through manufacturing, processing, or substantial or major assembling of components, a commercially recognized product results that differs substantially in its basic characteristics or in purpose or utility from its components.

Section 8 - Particular Conditions of Contract

The following Particular Conditions of Contract shall supplement the GCC. Whenever there is a conflict, the provisions herein shall prevail over those in the GCC.

A. General	
GCC 1.1 (d)	The financing institutions is Asian Development Bank
GCC 1.1 (r)	The Employer is: National Water Affairs Regulation Authority (NWARA)
GCC 1.1 (w)	The Intended Completion Date for the whole of the Works shall be: 6 Months (180 calendar days from the start date as mentioned in GCC.1.1(ii)) .
GCC 1.1 (cc)	The Project Manager is: Rafiullah "Reshad" E-mail: rreshad@cpmo-nwara.org
GCC 1.1 (ff)	The Sites are located in Kando and Zali Valleys in Paryan District of Panjsher Province
GCC 1.1 (ii)	The Start Date shall be 7 (seven) days from the date of notice to proceed (NTP).
GCC 1.1 (mm)	The Works consist of Kando and Zali (Sar-e-Kamar) Check Dam The identification number of the bidding process is: NWARA/P-ARBP-Addf/NCB001
GCC 2.2	Sectional Completions are: Not Applicable
GCC 2.3(j)	The following documents also form part of the Contract: Quality Control Plan, Safety Plan and Site Specific Environmental Management Plan (SSEMP) .
GCC 3.1	The language of the contract is: English The law that applies to the Contract is the law of the law of Islamic Republic of Afghanistan
GCC 10.1	Project Manager's Decisions: Add the following at the end of the Sub-clause: "Notwithstanding anything contained hereinabove, the Project Manager is required to obtain approval of the Employer before exercising specific authorities as listed below: (i) Extension of the Intended Completion Date in accordance with Sub-Clauses 36.1 and 36.2. (ii) Instructing or approving Variations pursuant to Clause 47 if such Variation results in increase of Contract price by more than 0.5% in a single instance, and combined with all previously issued Variations results in increase of the Accepted Contract Amount by more than 2%.
GCC 11.1	The Project Manager may delegate any of his duties and responsibilities.

GCC 14.1	Schedule of other contractors: Not Applicable
GCC 19.1	<p>The minimum insurance amounts and deductibles shall be:</p> <p>(a) for loss or damage to the Works, Plant and Materials USD 237,390.60</p> <p>(b) for loss or damage to Equipment: USD50,000</p> <p>(c) for loss or damage to property (except the Works, Plant, Materials, and Equipment) in connection with Contract USD50,000</p> <p>(d) for personal injury or death:</p> <p>(i) of the Contractor's employees: per Afghanistan's law</p> <p>(ii) of other people per Afghanistan's law</p> <p>Note: If the insurance is not available, the contractor may self-insure as above. An affidavit to be provided with details in letter pad of the company</p>
GCC 20.1	Site Investigation Reports are: can be inspected in CPMO
GCC 23.1	The following shall be designed by the Contractor: Not Applicable
GCC 24.1	<p>Under GCC 24.1 we added the following;</p> <p>Security of the Site:</p> <p>The Contractor shall be responsible for the security of the Works, the Contractor's personnel, materials and equipment for the duration of the project in accordance with the Employer's Requirements. The Contractor shall employ a full-time Security Coordinator on Site in charge of all security matters. The Security Officer shall be English speaking and shall have at least 5 years' experience in a similar role.</p> <p>The Contractor shall prepare the Security Plan and submit to the Employer and Project Manager for their information.</p> <p>The Contractor shall make available a budget for all such security measures. It shall be deemed that any security related costs are included in the unit prices for other items in the Bill of Quantities.</p>
GCC 26.1	The Site Possession Date(s) shall be: 14 days after the signing of contract
GCC 29.1	Appointing Authority for the Adjudicator: Ministry of Justice
GCC 30.3	<p>The Adjudicator shall be paid by the hour at the rate of: as per Afghanistan Laws</p> <p>The reimbursable expenses are: as per Afghanistan Laws.</p>
GCC 30.4	<p>Institution whose arbitration procedures shall be used: <i>[select from below]</i></p> <p>(a) Contracts with foreign contractors:</p> <p>International arbitration shall be conducted in accordance with the rules of Singapore International Arbitration Centre (SIAC).</p> <p>Arbitration shall be administered by SIAC</p> <p>The place of arbitration shall be: the place of the institution administering the arbitration.</p>

	<p>(b) Contracts with domestic contractors:</p> <p>Arbitration shall be conducted in accordance with the laws of the Employer's country.</p>
GCC 34.2	<p>The following sentence shall apply:</p> <p>Respectful Work Environment</p> <p>The Contractor shall ensure that its employees and sub-contractors observe the highest ethical standards and refrain from any form of bullying, discrimination, misconduct and harassment, including sexual harassment and shall, at all times, behave in a manner that creates an environment free of unethical behavior, bullying, misconduct and harassment, including sexual harassment. The Contractor shall take appropriate action against any employees or sub-contractors, including suspension or termination of employment or sub-contract, if any form of unethical or inappropriate behavior is identified.</p> <p>The Contractor shall conduct training programs for its employees and sub-contractors to raise awareness on and prevent any form of bullying, discrimination, misconduct and harassment including sexual harassment, and to promote a respectful work environment. The Contractor shall keep an up to date record of its employees and subcontractors who have attended and completed such training programs and provide such records to the Employer or the Engineer at their first written request.</p>

C. Time Control	
GCC 35.1	The Contractor shall submit for approval a Program for the Works within 5 days from the date of the Letter of Acceptance.
GCC 35.3	<p>The period between Program updates is Thirty (30) days.</p> <p>The amount to be withheld for late submission of an updated Program is 5% of the Payment Due.</p>
D. Quality Control	
GCC 43.1	The Defects Liability Period is: Three Hundred and Sixty-Five (365) days.
E. Cost Control	
GCC 53.1	The currency of the Employer's country is: Afghani
GCC 54.1	Not Applicable
GCC 55.1	The proportion of payments retained is: Ten (10) percent
GCC 56.1	<p>The liquidated damages for the whole of the Works are 0.1% per day.</p> <p>The maximum amount of liquidated damages for the whole of the Works is Ten Percent (10%) of the final Contract Price.</p>

GCC 58.1	The Advance Payments shall be Fifteen Percent (15%) and shall be paid to the Contractor against presenting with the same value of Bank Grantee, no later than Thirty (30) days after the date of signing of the contract.
GCC 58.3	The advance payment shall be repaid by deducting proportionate amounts of ten percent (10%) from each payment certificate.
GCC 59.1	The Performance Security amount is Five percent(5%) of the Contract Amount.
G. Finishing the Contract	
GCC 72.1	The date by which operating and maintenance manuals are required is: Not Applicable The date by which "as built" drawings are required is at the date of Issuance of Certificate of Completion.
GCC 72.2	The amount to be withheld for failing to produce "as built" drawings and/or operating and maintenance manuals by the date required in GCC 72.1 is five (5) percent of Progress Payment due.
GCC 73.2 (h)	The maximum number of days is: 100 days
GCC 75.1	The percentage to apply to the value of the work not completed, representing the Employer's additional cost for Completing the Works, is five (5%) percent.

Section 9 - Contract Forms

This section contains forms which, once completed, will form part of the Contract. The forms for Performance Security and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

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Letter of Acceptance

---- on letterhead paper of the employer ----

..... date.

To: name and address of the contractor

Subject: Notification of Award Contract No.

This is to notify you that your Bid dated date for execution of thename of the contract and identification number, as given in the Bid Data Sheet for the Accepted Contract Amount of the equivalent ofamount in numbers and words and name of currency, as corrected and modified in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security within 28 days in accordance with the Conditions of Contract, using for that purpose the Performance Security Form included in Section 9 (Contract Forms) of the Bidding Document.

[Choose one of the following statements:]

We accept that _____[insert the name of adjudicator proposed by the bidder] be appointed as the Adjudicator.

[or]

We do not accept that _____[insert the name of the adjudicator proposed by the bidder] be appointed as the Adjudicator, and by sending a copy of this Letter of Acceptance to _____[insert name of the appointing authority], the Appointing Authority, we are hereby requesting such Authority to appoint the Adjudicator in accordance with GCC 29.1.

Authorized Signature:

Name and Title of Signatory:

Name of Agency:

Attachment: Contract Agreement

Contract Agreement

THIS AGREEMENT made theday of,, between *name of the employer*. (hereinafter "the Employer"), of the one part, and *name of the contractor*.(hereinafter "the Contractor"), of the other part:

WHEREAS the Employer desires that the Works known as *name of the contract*.should be executed by the Contractor, and has accepted a Bid by the Contractor for the execution and completion of these Works and the remedying of any defects therein,

The Employer and the Contractor agree as follows:

1. In this Agreement, words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
 - (a) the Contract Agreement,
 - (b) the Letter of Acceptance,
 - (c) the Letter of Bid,
 - (d) the Particular Conditions of Contract,
 - (e) the List of Eligible Countries that was specified in Section 5 of the bidding document,
 - (f) the General Conditions of Contract,
 - (g) the Specification,
 - (h) the Drawings,
 - (i) the Completed Activity Schedules or Bill of Quantities, and
 - (j) any other documents shall be added here.¹
3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.
4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

IN WITNESS whereof the parties hereto have caused this Agreement to be executed in accordance with the laws of *name of the borrowing country*.on the day, month and year indicated above.

¹ Tables of Adjustment Data may be added if the contract provides for price adjustment (see GCC 54.1).

Signed by
for and on behalf of the Employer

Signed by.....
for and on behalf the Contractor

in the presence of:

in the presence of:

Witness, Name, Signature, Address, Date

Witness, Name, Signature, Address, Date

Performance Security

*Bank's name, and address of issuing branch or office*¹

Beneficiary: *Name and address of employer*

Date:

Performance Guarantee No.:

We have been informed that *name of the contractor*. (hereinafter called "the Contractor") has entered into Contract No. *reference number of the contract*. datedwith you, for the execution of *name of contract and brief description of works*. (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, a performance guarantee is required.

At the request of the Contractor, we *name of the bank*. hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *name of the currency and amount in figures* ². (*amount in words*.) such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation(s) under the Contract, without your needing to prove or to show grounds for your demand or the sum specified therein.

This guarantee shall expire, no later than the Day of, ³, and any demand for payment under it must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458, except that subparagraph (ii) of Sub-article 20(a) is hereby excluded. ⁴

.....
Seal of Bank and Signature(s)

-- Note to Bidder --

If the institution issuing the performance security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer to make it enforceable.

- ¹ All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.
- ² The guarantor shall insert an amount representing the percentage of the contract price specified in the contract and denominated either in the currency(ies) of the contract or a freely convertible currency acceptable to the employer. If the bank issuing the performance security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer.
- ³ Insert the date 28 days after the expected completion date. The employer should note that in the event of an extension of the time for completion of the contract, the employer would need to request an extension of this guarantee from the guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [6 months][1 year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."
- ⁴ Or the same or similar to this clause specified in the Uniform Rules for Demand Guarantees, ICC Publication No. 758 where applicable.

Advance Payment Security

Bank's name, and address of issuing branch or office¹

Beneficiary: *Name and address of employer*
Date:
Advance Payment Guarantee No.:

We have been informed that *name of the contractor*. (hereinafter called "the Contractor") has entered into Contract No. *reference number of the contract*. datedwith you, for the execution of *name of contract and brief description of works*. (hereinafter called "the Contract").

Furthermore, we understand that, according to the Conditions of the Contract, an advance payment in the sum *name of the currency and amount in figures* ². (*amount in words*.) is to be made against an advance payment guarantee.

At the request of the Contractor, we *name of the bank*. hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *name of the currency and amount in figures*³. (*amount in words*.) upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract because the Contractor used the advance payment for purposes other than the costs of mobilization in respect of the Works.

It is a condition for any claim and payment under this guarantee to be made that the advance payment referred to above must have been received by the Contractor on its account number *contractor's account number*. at *name and address of the bank*.

The maximum amount of this guarantee shall be progressively reduced by the amount of the advance payment repaid by the Contractor as indicated in copies of interim statements or payment certificates which shall be presented to us. This guarantee shall expire, at the latest, upon our receipt of a copy of the interim payment certificate indicating that eighty percent (80%) of the Contract Price has been certified for payment, or on the ... day of,⁴, whichever is earlier. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

This guarantee is subject to the Uniform Rules for Demand Guarantees, ICC Publication No. 458 (*or ICC Publication No. 758 as applicable*).

.....
Seal of Bank and Signature(s)

- Note to Bidder -

If the institution issuing the advance payment security is located outside the country of the employer, it shall have a correspondent financial institution located in the country of the employer to make it enforceable.

¹ All italicized text is for guidance on how to prepare this demand guarantee and shall be deleted from the final document.
² The guarantor shall insert an amount representing the amount of the advance payment denominated either in the currency(ies) of the advance payment as specified in the Contract, or in a freely convertible currency acceptable to the employer.
³ Footnote 2.
⁴ Insert the expected expiration date of the time for completion. The employer should note that in the event of an extension of the time for completion of the contract, the employer would need to request an extension of this guarantee from the guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [6 months][1 year], in response to the Employer's written request for such extension, such request to be presented to the Guarantor before the expiry of the guarantee."