



JICA assisted  
**Guwahati Water Supply Project**  
Loan Agreement No. ID P-201



**IFB No.: GWSP/LCB/6A/2019-20/466 Date: 01.02.2020**

**Contract Package No. 6A**

Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under 43 DMAs of the Distribution Network in **Geeta Nagar & Lechu Bagan areas** of South Central Zone

**Bid Documents**

**Part 1 of 2**

**Local Competitive Bidding**

**01.02.2020**

**Project Implementation Unit, JICA assisted GWSP  
2<sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, G.S. Road,  
Guwahati – 781 005**

# Bid Document for Contract Package No. 6A

**Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under 43 DMAs of the Distribution Network in **Geeta Nagar & Lechu Bagan areas** of South Central Zone**

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**Project Implementation Unit**  
**JICA Assisted Guwahati Water Supply Project**  
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## Invitation for Bids under Local Competitive Bidding

IFB No.: GWSP/LCB/6A/2019-20/466

Date: 01.02.2020

**JICA Loan No. and Title: ID P-201 Guwahati Water Supply Project.**

Government of India has received loan from the Japan International Cooperation Agency (JICA) towards the cost of Guwahati Water Supply Project and it intends to apply part of the proceeds of this loan to payments under the contract for Procurement of Works (Item rate) for Contract **Package No. 6A**.

Project Director, JICA Assisted Guwahati Water Supply Project, Guwahati invites sealed Bids for construction and completion of the work as detailed below:

Sl. No.	Item	IFB No.: GWSP/LCB/6A/2019-20/466 Date: 01.02.2020
1	Work Description	<b>Contract Package No. 6A</b> - Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under 43 DMAs of the Distribution Network in Geeta Nagar & Lech Bagan areas of South Central Zone.
2	Time for Completion including Testing & Trial Run for 90 days and commissioning	18 Months
3	Duration for obtaining the Bid documents from the Employer or for downloading from the designated websites:	03.02.2020 to 15.03.2020 <a href="http://www.gmdwsb.assam.gov.in">www.gmdwsb.assam.gov.in</a> Amendments if any will be published in the above website only, apart from sending it to the bidders who have purchased the Bid Document from the Employer.
4	Bid document fee	<b>INR 5,000</b> if downloaded from the designated website; <b>INR 10,000</b> for purchase from the Employer; If required through post <b>additional cost of INR 1,000</b> .
5	Bid Security	<b>INR 20.00 Lakhs</b>
6	Joint Site Visit	<b>18.02.2020</b> at 10.00 Hours. Place: Office of the Project Director, JICA Assisted Guwahati Water Supply Project, 2 <sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati -781 005.

Sl. No.	Item	IFB No.: GWSP/LCB/6A/2019-20/466 Date: 01.02.2020
7	Pre-Bid Meeting	<b>18.02.2020; Time: 14.00 Hours</b> Place: Office of the Project Director, JICA Assisted Guwahati Water Supply Project, 2 <sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati-781 005.
8	Last Date & Time for Physical Submission of Bids	<b>16.03.2020; Time:15.00 Hours</b>
9	Date & Time for Opening Technical Bids	<b>16.03.2020; Time:16.00 Hours</b>

Bidding will be conducted through the Local Competitive Bidding procedures specified in the Guidelines for Procurement under JICA ODA Loans and are open to eligible Bidders from the Employer's country. Single-Stage, Two-Envelope, Local Competitive Bidding (LCB) procedure will be adopted.

The provisions in the Instructions to Bidders and General Conditions of Contract are the provisions of the Standard Bidding Documents under Japanese ODA Loans for the Procurement of Works.


Interested eligible Bidders may obtain further information from the Project Director, JICA assisted Guwahati Water Supply Project, Guwahati and inspect the Bidding Documents on the working days during 10 AM to 5 PM or seen on the website: [www.gmdwsb.assam.gov.in](http://www.gmdwsb.assam.gov.in)

The payment towards the Bid Document will be through Demand Draft in favour of "The Project Director, JICA Assisted Guwahati Water Supply Project" payable at Guwahati, Assam.

Bids received without Bid Security or the required Bid Document fee [in case of downloading the Bid documents from the website] shall be rejected out rightly. Bids delivered after the time and date noted above will be rejected.

The Employer will not be responsible for any costs or expenses incurred by Bidders relating to the preparation or delivery of Bids.

The Employer reserves the right to accept any bid, or reject any or all bids, without assigning any reason thereof and without thereby incurring any liability to the Bidder or Bidders.

  
 (Paul Barua)  
 Project Director,  
 JICA Assisted Guwahati Water Supply Project  
 Guwahati – 781 005.

**Section I: Instructions to Bidders**

# Section I. Instructions to Bidders

The Instructions to Bidders governing this bidding process are the “Instructions to Bidders included in Option B, Single-Stage Two-Envelope Bidding, Section I,” of the Standard Bidding Documents for “Procurement of Procurement of Works”. Those Instructions to Bidders are available on the JICA’s web site shown below:

[http://www.jica.go.jp/english/our\\_work/types\\_of\\_assistance/oda\\_loans/oda\\_op\\_info/guide/tender/index.html](http://www.jica.go.jp/english/our_work/types_of_assistance/oda_loans/oda_op_info/guide/tender/index.html)

**However, the Copy of the Instructions to Bidders is attached to these Bidding Documents.**

**The Instructions to Bidders will not be part of the Contract.**

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## A. General

1. **Scope of Bid**
  - 1.1 In connection with the Invitation for Bids **specified in Section II, Bid Data Sheet (BDS)**, the Employer, as **specified in the BDS**, issues these Bidding Documents (hereinafter referred to as “Bidding Documents”) for the procurement of Works as specified in Section VI, Works Requirements. The name, identification, and number of the lot(s) (contract(s)) comprising this International Competitive Bidding (ICB) process are **specified in the BDS**.
  - 1.2 Throughout these Bidding Documents:
    - (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 **specified in the BDS** has received or has applied for a Japanese ODA Loan from Japan International Cooperation Agency (hereinafter referred to as “JICA”), with the number, in the amount and on the signed date of the Loan Agreement **specified in the BDS**, towards the cost of the project **specified in the BDS**. The Borrower intends to apply a portion of the proceeds of the loan to payments under the contract(s) for which these Bidding Documents are issued.
  - 2.2 Disbursement of a Japanese ODA Loan by JICA will be subject, in all respects, to the terms and conditions of the Loan Agreement, including the disbursement procedures and the applicable Guidelines for Procurement under Japanese ODA Loans **specified in the BDS**. No party other than the Borrower shall derive any rights from the Loan Agreement or have any claim to the loan proceeds.
  - 2.3 The above Loan Agreement will cover only a part of the project cost. As for the remaining portion, the Borrower will take appropriate measures for finance.
3. **Corrupt and Fraudulent Practices**
  - 3.1 It is JICA’s policy to require that Bidders and Contractors, as well as Borrowers, under contracts funded with Japanese ODA Loans and other Japanese ODA, observe the highest standard of ethics during the procurement and execution of

such contracts. In pursuance of this policy, JICA:

- (a) will reject a proposal for award if it determines that the Bidder recommended for award has engaged in corrupt or fraudulent practices in competing for the contract in question;
- (b) will recognize a Bidder or Contractor as ineligible, for a period determined by JICA, to be awarded a contract funded with Japanese ODA Loans if it at any time determines that the Bidder or the Contractor has engaged in corrupt or fraudulent practices in competing for, or in executing, another contract funded with Japanese ODA Loans or other Japanese ODA; and
- (c) will recognize a Contractor as ineligible to be awarded a contract funded with Japanese ODA Loans if the Contractor or subcontractor, who has a direct contract with the Contractor, is debarred under the cross debarment decisions by the Multilateral Development Banks. Such period of ineligibility shall not exceed three (3) years from (and including) the date on which the cross debarment is imposed.

“Cross debarment decisions by the Multilateral Development Banks” is a corporate sanction in accordance with the agreement among the African Development Bank Group, Asian Development Bank, European Bank for Reconstruction and Development, Inter-American Development Bank Group and the World Bank Group signed on 9 April, 2010 (as amended from time to time). JICA will recognize the World Bank Group’s debarment of which period exceeds one year, imposed after 19 July, 2010, the date on which the World Bank Group started cross debarment, as “cross debarment decisions by the Multilateral Development Banks.” The list of debarred firms and individuals is available at the electronic address **specified in the BDS**.

JICA will recognize a Bidder or Contractor as ineligible to be awarded a contract funded with Japanese ODA Loans if the Bidder or Contractor is debarred by the World Bank Group for the period starting from the date of the Invitation for Bid, if prequalification has not been conducted, or the date of the Advertisement for Prequalification, if prequalification has been conducted, up to the signing of the contract, unless (i) such debarment period does not exceed one year, or (ii) three

(3) years have passed since such debarment decision.

If it is revealed that the Contractor was ineligible to be awarded a contract according to above, JICA will, in principle, impose sanctions against the Contractor.

If it is revealed that the subcontractor, who has a direct contract with the Contractor, was debarred by the World Bank Group on the subcontract date, JICA will, in principle, require the Borrower to have the Contractor cancel the subcontract immediately, unless (i) such debarment period does not exceed one year, or (ii) three (3) years have passed since such debarment decision. If the Contractor refuses, JICA will require the Borrower to declare invalidity or cancellation of the contract and demand the refund of the relevant proceeds of the loan or any other remedies on the grounds of contractual violation.

3.2 Furthermore, Bidders shall be aware of the provision stated in Sub-Clause 15.6 of the General Conditions.

#### **4. Eligible Bidders**

4.1 A Bidder may be a firm that is a single entity or any combination of such entities in the form of a joint venture (JV) under an existing agreement or with the intent to enter into such an agreement supported by a letter of intent. In the case of a JV, all members shall be jointly and severally liable for the execution of the Contract in accordance with the Contract terms. The JV shall nominate a Representative who shall have the authority to conduct all business for and on behalf of any and all the members of the JV during the bidding process and, in the event the JV is awarded the Contract, during contract execution.

4.2 A Bidder shall not have a conflict of interest. A Bidder shall not be employed under any of the circumstances set forth below, where it is determined to have a conflict of interest throughout the bidding/selection process and/or the execution of the contract unless the conflict has been resolved in a manner acceptable to JICA.

(a) A firm shall be disqualified from providing goods or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of a project that it provided or were provided by any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm. This provision does not apply to the

various firms (consultants, contractors, or suppliers) only due to the reason that those firms together are performing the Contractor's obligations under a turnkey or design and build contract.

(b) A firm that has a close business relationship with the Borrower's professional personnel, who are directly or indirectly involved in any part of: (i) the preparation of the Bidding Documents for the contract, (ii) the Bid evaluation, or (iii) the supervision of such contract, shall be disqualified.

(c) Based on the "One Bid Per Bidder" principle, which is to ensure fair competition, a firm and any affiliate that directly or indirectly controls, is controlled by, or is under common control with that firm shall not be allowed to submit more than one Bid, either individually as a Bidder or as a member of a JV. A firm (including its affiliate), if acting in the capacity of a subcontractor in one Bid, may participate in other Bids, only in that capacity.

(d) A firm having any other form of conflict of interest other than (a) through (c) above shall be disqualified.

4.3 A Bidder, and all members constituting the Bidder, shall be from any of the eligible source countries as indicated in Section V, Eligible Source Countries of Japanese ODA Loans.

4.4 A Bidder that has been determined to be ineligible by JICA in accordance with ITB 3.1 shall not be eligible to be awarded a contract.

4.5 This bidding is open only to prequalified Bidders unless **specified in the BDS.**

4.6 A Bidder shall provide such evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request.

## 5. Eligible Materials, Equipment, and Services

5.1 The materials, equipment and services to be supplied under the Contract and financed by JICA shall have their origin in any of the eligible source countries indicated in Section V, Eligible Source Countries of Japanese ODA Loans. 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 Documents**

### **6. Sections of Bidding Documents**

- 6.1 The Bidding Documents consist of Parts 1, 2, and 3, which include all the Sections specified below, and which should be read in conjunction with any addenda issued in accordance with ITB 8.

#### **PART 1 Bidding Procedures**

- Section I. Instructions to Bidders (ITB)
- Section II. Bid Data Sheet (BDS)
- Section III. Evaluation and Qualification Criteria
- Section IV. Bidding Forms
- Section V. Eligible Source Countries of Japanese ODA Loans

#### **PART 2 Works Requirements**

- Section VI. Works Requirements

#### **PART 3 Conditions of Contract and Contract Forms**

- Section VII. General Conditions (GC)
- Section VIII. Particular Conditions (PC)
- Section IX. Annex to the Particular Conditions - Contract Forms

- 6.2 The Invitation for Bids issued by the Employer is not part of the Bidding Documents.
- 6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the Bidding Documents, responses to requests for clarification, the minutes of the pre-bid meeting (if any), or addenda to the Bidding Documents in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer shall prevail.

- 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its Bid all information and documentation as is required by the Bidding Documents.
- 7. Clarification of Bidding Documents, Site Visit, Pre-Bid Meeting**
- 7.1 A Bidder requiring any clarification of the Bidding Documents shall contact the Employer in writing at the Employer's address **specified in the BDS** or raise its enquiries 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 no later than fourteen (14) days prior to the deadline for submission of Bids. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Documents in accordance with ITB 6.3, including a description of the inquiry but without identifying its source. If so **specified in the BDS**, the Employer shall also promptly publish its response at the web page **identified in the BDS**. Should the clarification result in changes to the essential elements of the Bidding Documents, the Employer shall amend the Bidding Documents 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 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 upon 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 If so **specified in the BDS**, the Bidder's designated representative is invited to attend a pre-bid meeting. 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 one (1) week before the

meeting.

- 7.6 Minutes of the pre-bid meeting, if applicable, including the text of the questions asked by Bidders, 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 Documents in accordance with ITB 6.3. Any modification to the Bidding Documents 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. Nonattendance at the pre-bid meeting will not be a cause for disqualification of a Bidder.

## 8. Amendment of Bidding Documents

- 8.1 At any time prior to the deadline for submission of Bids, the Employer may amend the Bidding Documents by issuing addenda.
- 8.2 Any addendum issued shall be part of the Bidding Documents and shall be communicated in writing to all who have obtained the Bidding Documents from the Employer in accordance with ITB 6.3. If so **specified in the BDS**, the Employer shall also promptly publish the addendum on the Employer's web page in accordance with ITB 7.1.
- 8.3 To give Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may 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 not 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 of Bid, in which case, for purposes of interpretation of the Bid, such translation shall govern.

### 11. Documents

- 11.1 The Bid shall comprise two envelopes submitted

**Comprising the Bid**

simultaneously, one called the Technical Bid containing the documents listed in ITB 11.2 and the other the Price Bid containing the documents listed in ITB 11.3, both envelopes enclosed together in an outer single envelope.

11.2 The Technical Bid shall comprise the following:

- (a) Letter of Technical Bid;
- (b) Bid Security, in accordance with ITB 19;
- (c) alternative bids, if permissible, in accordance with ITB 13;
- (d) written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;
- (e) documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the contract if its Bid is accepted;
- (f) Technical Proposal in accordance with ITB 16;
- (g) Acknowledgement of Compliance with Guidelines for Procurement under Japanese ODA Loans (Form ACK), which shall be signed and dated by the Bidder's authorized representative.
- (h) Any other document **required in the BDS.**

11.3 The Price Bid shall comprise the following:

- (a) Letter of Price Bid;
- (b) completed Price Schedules, in accordance with ITB 12 and 14;
- (c) alternative price bids, at Bidder's option and if permissible, in accordance with ITB 13;
- (d) Any other document **required in the BDS.**

11.4 In addition to the requirements under ITB 11.2, Bids submitted by a JV shall include a copy of the Joint Venture Agreement entered into by all members. Alternatively, a letter of intent to execute a Joint Venture Agreement in the event of a successful Bid shall be signed by all members and submitted with the Bid, together with a copy of the proposed Agreement.

**12. Letters of Bid and Schedules**

12.1 The Letters of Technical Bid and Price Bid and the Schedules, including the Bill of Quantities, shall be prepared using the relevant forms furnished in Section IV, Bidding Forms. The forms must be completed without any alterations to the text, and no substitutes shall be accepted except as



provided under ITB 20.2. All blank spaces shall be filled in with the information requested.

### **13. Alternative Bids**

- 13.1 **Unless otherwise specified 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 Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the Bidding Documents must first price the Employer's design as described in the Bidding Documents 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, and such parts **will be identified in the BDS**, as will the method for their evaluating, and described in Section VI, Works Requirements.

### **14. Bid Prices and Discounts**

- 14.1 The prices and discounts (including any price reduction) quoted by the Bidder in the Letter of Price Bid and in the Bill of Quantities shall conform to the requirements specified below.
- 14.2 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 shall be deemed covered by the rates for other items in the Bill of Quantities and will not be paid for separately by the Employer. An item not listed in the priced Bill of Quantities shall be assumed to be not included in the Bid, and provided that the Bid is determined substantially responsive notwithstanding this omission, the average price of the item quoted by substantially responsive Bidders will be added to the Bid Price and the equivalent total cost of the Bid so determined will be used for price comparison.
- 14.3 The price to be quoted in the Letter of Price Bid, in

accordance with ITB 12.1, shall be the total price of the Bid, excluding any discounts offered.

- 14.4 The Bidder shall quote any discounts and the methodology for their application in the Letter of Price Bid, in accordance with ITB 12.1.
- 14.5 **Unless otherwise specified in the BDS** and the Contract, the rates and 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. In such a case, the Bidder shall furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data and the Employer may require the Bidder to justify its proposed indices and weightings.
- 14.6 If so specified in BDS 1.1, Bids are being invited for individual lots (contracts) or for any combination of lots (packages). Bidders wishing to offer discounts for the award of more than one Contract shall specify in their Letter of Price Bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Discounts shall be submitted in accordance with ITB 14.4, provided the Bids for all lots (contracts) are opened at the same time.
- 14.7 **Unless otherwise provided in the BDS**, all duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the date twenty-eight (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 shall be **as specified in the BDS**. Payment of the contract price shall be made in the currency or currencies in which the Bid Price is expressed in the Bid of the successful Bidder.
- 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 unit rates and prices and shown in the Schedule of Adjustment Data are reasonable, in which case a detailed breakdown of the foreign currency requirements shall be provided by Bidders.
- 15.3 The foreign currency requirements generally include the

following:

- (a) expatriate staff and labour employed directly on the Works;
- (b) social, insurance, medical and other charges relating to such expatriate staff and labour, and foreign travel - expenses;
- (c) imported materials, both temporary and permanent, including fuels, oil and lubricants required for the Works;
- (d) depreciation and usage of imported Plant and Contractor's Equipment, including spare parts, required for the Works;
- (e) foreign insurance and freight charges for imported materials, Plant and Contractor's Equipment, including spare parts; and
- (f) overhead expenses, fees, profit, and financial charges arising outside the Employer's country in connection with the Works.

**16. Documents  
Comprising the  
Technical Proposal**

16.1 The Bidder shall furnish as part of the Technical Bid, a Technical Proposal including a statement of work methods, equipment, personnel, schedule, safety plan and any other information as stipulated in Section IV, Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidder's proposal to meet the work requirements and the completion time.

**17. Documents  
Establishing the  
Qualifications of  
the Bidder**

17.1 In accordance with Section III, Evaluation and Qualification Criteria, if the prequalification process was conducted prior to the bidding process, the Bidder shall provide in the corresponding information sheets included in Section IV, Bidding Forms, (i) updated information on any assessed aspect that changed from that time to establish that the Bidder continues to meet the criteria used at the time of prequalification and (ii) the requested information on the additional qualification criteria stated in Section III, Evaluation and Qualification Criteria, or if the assessment of qualification criteria was not conducted prior to the bidding process, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.

17.2 Any change in the structure or formation of a Bidder after

being prequalified and invited to bid (including, in the case of a JV, any change in the structure or formation of any member thereto) shall be subject to the written approval of the Employer prior to the deadline for submission of Bids. Such approval shall be denied if (i) such change has not taken place by the free choice of the firms involved; (ii) as a consequence of the change, the Bidder no longer substantially meets the qualification criteria set forth in the Prequalification Documents; or (iii) in the opinion of the Employer, the change may result in a substantial reduction in competition. Any such change should be submitted to the Employer not later than fourteen (14) days after the date of the Invitation for Bids.

### **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 in accordance with ITB 22.1. A Bid valid for a shorter period shall be rejected by the Employer as non-responsive.
- 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. The Bid Security shall also be extended for twenty-eight (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, except as provided in ITB 18.3.
- 18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial Bid validity, the Contract price shall be determined as follows:
- (a) In the case of fixed price contracts, the Contract price shall be the Bid Price adjusted by the factor **specified in the BDS**.
  - (b) In the case of adjustable price contracts, to determine the Contract price, the fixed portion of the Bid Price shall be adjusted by the factor **specified in the BDS**.
  - (c) In any case, Bid evaluation shall be based on the Bid Price without taking into consideration the applicable correction from those indicated above.

### **19. Bid Security**

- 19.1 The Bidder shall furnish as part of its Technical Bid, a Bid Security in the amount and currency **specified in the BDS**.

19.2 The Bid Security shall be a demand guarantee in any of the following forms at the Bidder's option:

- (a) an unconditional guarantee issued by a bank or financial institution (such as an insurance, bonding or surety company);
- (b) an irrevocable letter of credit;
- (c) a cashier's or certified check; or
- (d) another security **specified in the BDS**,

from a reputable source from an eligible source country. If the unconditional guarantee is issued by a financial institution located outside the Employer's Country, the issuing financial institution shall have a correspondent financial institution located in the Employer's Country to make it enforceable. In the case of a bank guarantee, the Bid Security shall be submitted either using the Bid Security Form included in Section IV, Bidding Forms, or in another substantially similar format approved by the Employer prior to Bid submission. In either case, the form must include the complete name of the Bidder. The Bid Security shall be valid for twenty-eight (28) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 18.2.

19.3 Any Bid not accompanied by a substantially responsive Bid Security shall be rejected by the Employer as non-responsive.

19.4 The Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the Contract and furnishing the Performance Security pursuant to ITB 42.

19.5 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.

19.6 The Bid Security may be forfeited:

- (a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder on the Letters of Technical Bid and Price Bid, or any extension thereto provided by the Bidder; or

(b) if the successful Bidder fails to:

- (i) sign the Contract in accordance with ITB 41; or
- (ii) furnish a Performance Security in accordance with ITB 42.

19.7 The Bid Security of a JV shall be in the name of the JV that submits the Bid. If the JV has not been legally constituted into a legally enforceable JV at the time of bidding, the Bid Security shall be in the names of all future members as named in the letter of intent referred to in ITB 4.1 and ITB 11.4.

## 20. Format and Signing of Bid

20.1 The Bidder shall prepare one original of the Technical Bid and one original of the Price Bid comprising the Bid as described in ITB 11 and clearly mark them "ORIGINAL – TECHNICAL BID" and "ORIGINAL – PRICE BID". Alternative Bids, if permitted in accordance with ITB 13, shall be clearly marked "ALTERNATIVE." In addition, the Bidder shall submit copies of the Technical and Price Bids, 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 where entries or amendments have been made shall be signed or initialed by the person signing the Bid.

20.3 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives.

20.4 Any inter-lineation, 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 The Bidder shall enclose the original of the Technical Bid, the original of the Price Bid, each copy of the Technical Bid and each copy of the Price Bid, including alternative Bids, if

permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as “ORIGINAL - TECHNICAL BID”, “ORIGINAL – PRICE BID”, “COPY– TECHNICAL BID”, “COPY – PRICE BID”, and “ALTERNATIVE”, as appropriate. These envelopes containing the original and the copies shall then be enclosed in one single envelope.

21.2 The inner and outer envelopes shall:

- (a) bear the name and address of the Bidder;
- (b) be addressed to the Employer in accordance with ITB 22.1; and
- (c) bear the specific identification of this bidding process specified in BDS 1.1.

21.3 The outer envelopes and the inner envelopes containing the Technical Bid shall bear a warning not to open before the time and date for the opening of Technical Bid, in accordance with ITB 25.1.

21.4 The inner envelopes containing the Price Bid shall bear a warning not to open until advised by the Employer, in accordance with ITB 25.7.

21.5 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 **specified in the BDS**.

22.2 The Employer may, at its discretion, extend the deadline for the submission of Bids by amending the Bidding Documents 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 – Technical or Price – 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 withdrawals 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 Letters of Technical Bid and Price Bid or any extension thereof.

## 25. Bid Opening

25.1 Except in the cases specified in ITB 23 and ITB 24, the Employer shall publicly open and read out in accordance with ITB 25.5 all Technical Bids received by the deadline, at the date, time and place **specified in the BDS**, in the presence of Bidders’ designated representatives and anyone who choose to attend. The Price Bids will remain unopened and will be held in custody of the Employer until the specified time of their opening in accordance with ITB 25.7.

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 the opening of Technical Bids.

25.3 Second, outer envelopes marked “SUBSTITUTION” shall be opened. The inner envelopes containing Substitution Technical Bid and/or Substitution Price Bid shall be exchanged for the corresponding envelopes being substituted, which are to be returned to the Bidder unopened. Only the Substitution Technical Bid, if any, shall be opened and read out. Substitution Price Bid will remain unopened in



accordance with ITB 25.1. No envelope substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at the opening of Technical Bids.

25.4 Next, outer envelopes marked "MODIFICATION" shall be opened. No Technical Bid and/or Price Bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at the opening of Technical Bids. Only the Technical Bids, both Original as well as Modification, are to be opened and read out at the opening of Technical Bids. Price Bids, both Original as well as Modification, will remain unopened in accordance with ITB 25.1.

25.5 All other envelopes holding the Technical Bids shall be opened one at a time, reading out:

- (a) the name of the Bidder;
- (b) whether there is a modification;
- (c) the presence or absence of a Bid Security; and
- (d) any other details as the Employer may consider appropriate.

Only Technical Bids and alternative Technical Bids read out at Bid opening shall be considered for evaluation. The Employer shall neither discuss the merits of any Bid nor reject any Bid (except for late Bids, in accordance with ITB 23.1).

25.6 The Employer shall prepare a record of the opening of Technical Bids that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; alternative proposals and the presence or absence of a Bid Security. 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.

25.7 At the end of the evaluation of the Technical Bids, the Employer will invite Bidders who have submitted substantially responsive Technical Bids and who have been determined as being qualified for award to attend the opening of the Price Bids. The date, time, and location of the opening of Price Bids will be advised in writing by the

Employer. The opening date should allow Bidders sufficient time to make arrangements for attending the opening of Price Bids.

25.8 The Employer will notify Bidders in writing who have been rejected on the grounds of their Technical Bids being substantially non-responsive to the requirements of the Bidding Document and return their Price Bids unopened.

25.9 The Employer shall conduct the opening of Price Bids of all Bidders who submitted substantially responsive Technical Bids, in the presence of Bidders' representatives who choose to attend at the address, date and time specified by the Employer. The Bidder's representatives who are present shall be requested to sign a register evidencing their attendance.

25.10 All envelopes containing Price Bids shall be opened one at a time, reading out:

- (a) the name of the Bidder;
- (b) whether there is a modification;
- (c) the Bid Prices, including any discounts and alternative Bids; and
- (d) any other details as the Employer may consider appropriate.

Only Price Bids discounts, and alternative Bids read out and recorded during the opening of Price Bids shall be considered for evaluation. No Bid shall be rejected at the opening of Price Bids.

25.11 The Employer shall prepare a record of the opening of Price Bids that shall include, as a minimum: the name of the Bidder, the Bid Price (per lot if applicable), any discounts, and alternative Bids. 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.

## **E. Evaluation and Comparison of Bids**

### **26. Confidentiality**

26.1 Information relating to the evaluation of Bids and recommendation of contract award shall not be disclosed to Bidders or any other persons not officially concerned with the bidding process until information on Contract award is

communicated to all Bidders in accordance with ITB 40.

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 a Bidder wishes to contact the Employer on any matter related to the bidding process, it shall do so in writing.

**27. Clarification of Bids**

27.1 To assist in the examination, evaluation, and comparison of the Technical and Price Bids, and qualification of the Bidders, the Employer may, at its discretion, ask any Bidder for a clarification of its Bid, giving a reasonable time for a response. 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 substance of the Technical Bid or prices in the Price Bid, including any voluntary increase or decrease in the prices, shall be sought, offered, or permitted, except to confirm the correction of arithmetic errors discovered by the Employer in the evaluation of the Price Bids, in accordance with ITB 33.

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 Documents;

(b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the Bidding Documents; and

(c) "Omission" is the failure to submit part or all of the information or documentation required in the Bidding Documents.

**29. Preliminary Examination of Technical Bids**

29.1 The Employer shall examine the Technical Bid to confirm that all documents and technical documentation requested in ITB 11.2 have been provided, and to determine the completeness of each document submitted.

29.2 The Employer shall confirm that the following documents

and information have been provided in the Technical Bid. If any of these documents or information is missing, the Bid shall be rejected.

- (a) Letter of Technical Bid;
- (b) written confirmation of authorization to commit the Bidder;
- (c) Bid Security; and
- (d) Technical Proposal in accordance with ITB 16;

**30. Qualification of the Bidder**

30.1 The Employer shall determine to its satisfaction whether Bidders meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria, during the evaluation of Technical Bids. However, if prequalification was carried out prior to the bidding process, the Employer may carry out the assessment of the qualification criteria specified in Section III, Evaluation and Qualification Criteria, for the Bidder who submitted the lowest evaluated and substantially responsive Bid only.

30.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant ITB 17.

30.3 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 if the assessment of the Bidder's qualification was conducted for the lowest evaluated Bidder only, in accordance with ITB 30.1, the Employer shall proceed to the next lowest evaluated Bid to make a similar determination.

**31. Determination of Responsiveness of Technical Bid**

31.1 The Employer's determination of a Technical Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11.2.

31.2 A substantially responsive Technical Bid is one that meets the requirements of the Bidding Documents 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 Documents, 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.

31.3 The Employer shall examine the Technical Bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section VI, Works Requirements have been met without any material deviation, reservation or omission.

31.4 If a Technical Bid is not substantially responsive to the requirements of the Bidding Documents, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

### **32. Nonmaterial Nonconformities**

32.1 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.

32.2 Provided that a Technical 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 Technical Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the Price Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

32.3 Provided that a Technical Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall 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 method specified in Section III, Evaluation and Qualification Criteria.

### **33. Correction of Arithmetical Errors**

33.1 Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:

- (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; and

(c) 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) and (b) above.

33.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 33.1, shall result in the rejection of the Bid.

#### **34. Conversion to Single Currency**

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

#### **35. Subcontractors**

35.1 **Unless otherwise stated in the BDS,** the Employer does not intend to execute any specific elements of the Works by subcontractors selected in advance by the Employer (nominated subcontractors).

35.2 In case Prequalification was not conducted prior to the bidding process, Bidders planning to subcontract any of the key activities indicated in Section III, Evaluation and Qualification Criteria, shall clearly identify the proposed specialist subcontractor(s) in Forms ELI-2 and EXP-2(b) in Section IV, Bidding Forms. Such proposed specialist subcontractors(s) shall meet the corresponding qualification requirements specified in Section III, Evaluation and Qualification Criteria.

35.3 In case Prequalification was conducted prior to the bidding process, the Bidder's Bid shall name the same specialist subcontractor(s) whose experience in the key activities was evaluated in the Prequalification, unless such change is explicitly approved by the Employer in accordance with ITB 17.2.

**36. Evaluation of Price Bids**

- 36.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted.
- 36.2 To evaluate a Price 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, but including Daywork items, where priced competitively;
  - (b) price adjustment for correction of arithmetic errors in accordance with ITB 33.1;
  - (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 34;
  - (e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 32.3;
  - (f) the additional evaluation factors specified in Section III, Evaluation and Qualification Criteria;
- 36.3 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.
- 36.4 If these Bidding Documents allow Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated price of the lot (contract) combinations, including any discounts offered in the Letter of Price Bid, is specified in Section III, Evaluation and Qualification Criteria.
- 36.5 If the Bid, which results in the lowest Evaluated Bid Price, is seriously unbalanced or front loaded 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.

- 37. Comparison of Bids** 37.1 The Employer shall compare the evaluated prices of all substantially responsive Bids established in accordance with ITB 36.2 to determine the lowest evaluated Bid.
- 38. Employer's Right to Accept Any Bid, and to Reject Any or All Bids** 38.1 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**

- 39. Award Criteria** 39.1 Subject to ITB 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 Documents, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily.
- 40. Notification of Award** 40.1 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. The notification letter (hereinafter and in the Conditions of Contract and Contract Forms called the "Letter of Acceptance") shall specify the sum that the Employer will pay the Contractor in consideration of the execution and completion of the Works (hereinafter and in the Conditions of Contract and Contract Forms called "the Accepted Contract Amount"). At the same time, the Employer shall also notify all other Bidders of the results of the bidding.
- 40.2 After a contract has been determined to be eligible for financing under Japanese ODA Loans, the following information may be made public by JICA:
- (a) name of each Bidder who submitted a Bid;
  - (b) Bid Prices as read out at Bid Opening;
  - (c) name and address of the successful Bidder;



- (d) name and address of supplier; and
- (e) award date and amount of the contract.

40.3 Until a formal contract is prepared and executed, the Letter of Acceptance shall constitute a binding Contract.

40.4 After notification of award, unsuccessful Bidders may request in writing to the Employer 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 notification of award in accordance with ITB 40.1, requests a debriefing.

#### **41. Signing of Contract**

41.1 Promptly upon notification, the Employer shall send the successful Bidder the Contract Agreement.

41.2 Within twenty-eight (28) days of receipt of the Contract Agreement, the successful Bidder shall sign, date, and return it to the Employer.

#### **42. Performance Security**

42.1 Within twenty-eight (28) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security in accordance with the General Conditions of Contract, subject to ITB 36.5, using for that purpose the Performance Security Form included in Section IX, Annex to the Particular Conditions - Contract Forms, or another form acceptable to the Employer. If the Performance Security furnished by the successful Bidder is in the form of a bond, it shall be issued by a bonding or insurance company that has been determined by the successful Bidder to be acceptable to the Employer. A foreign institution providing a bond shall have a correspondent financial institution located in the Employer's Country.

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



## **Section II: Bid Data Sheet**

## Bid Data Sheet

<b>A. General</b>	
<b>ITB 1.1</b>	Bid Invitation Number is: <b>IFB No.: GWSP/LCB/6A/2019-20/466 Date: 01.02.2020</b>
<b>ITB 1.1</b>	Employer is: <b>Project Director, Project Implementation Unit, JICA Assisted Guwahati Water Supply Project, Guwahati.</b>
<b>ITB 1.1</b>	Name, identification and number of the Contract comprising this LCB are: <b>Contract Package No. 6A</b> - Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under 43 DMAs of the Distribution Network in Geeta Nagar & Lechubagan areas of South Central Zone.
<b>ITB 2.1</b>	The Borrower is: <b>Government of India</b>
<b>ITB 2.1</b>	The number of the Loan Agreement is: <b>ID-P 201</b> The amount of a Japanese ODA Loan is: <b>29,453 million Japanese Yen</b> The signed date of the Loan Agreement is: <b>March 31, 2009</b>
<b>ITB 2.1</b>	Name of the Project is: <b>JICA Assisted Guwahati Water Supply Project</b>
<b>ITB 2.2</b>	The applicable Guidelines for Procurement under Japanese ODA Loans are those published in April 2012.
<b>ITB 3.1 (b)</b>	The list of ineligible firms and individuals is available at the JICA's website: <a href="http://www.jica.go.jp/english/our_work/compliance">www.jica.go.jp/english/our_work/compliance</a> .
<b>ITB 3.1(c)</b>	A list of debarred firms and individuals is available at the World Bank's website: <a href="http://www.worldbank.org/debarr">www.worldbank.org/debarr</a> .
<b>ITB 4.5</b>	<u>Amended as below:</u> The bidding is open to all eligible Bidders. No pre-qualification has been conducted. This is a two envelope bidding, where the bidder's qualifications included in the Technical Bid, shall be evaluated to determine the bidder's eligibility to participate in the bid. Only bidders who satisfy the eligibility requirements will be considered for further evaluation.
<b>ITB 6.1</b>	<b>Add the following:</b> <u>Add at the end of Part 1:</u> Section VI A: Project Brief & Scope of Work. Section VII : General Conditions of Contract (GC) Section VIII : Particular Conditions of Contract (PC) Section IX : Contract Forms (CF) <u>Part 2:</u> Employer's Requirements comprises of: Section VI B: Technical Specifications. Section VI B: Drawings <u>Appendix to Part 2</u> (in separate volumes) comprising: <ul style="list-style-type: none"> <li>- Standard Specifications (Civil works)</li> <li>- Quality Assurance and Quality Control Manual</li> <li>- Health and Safety Manual</li> <li>- Standard Operating Procedures (SOP) for pipe laying works</li> </ul>

<b>B. Bidding Documents</b>	
<b>ITB 7.1</b>	For <b>clarification purposes</b> only, the Employer's address is: Project Director, Project Implementation Unit, JICA Assisted Guwahati Water Supply Project, Guwahati, 2 <sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati - 781 005. Tele-Fax - +91-361-2340132; Email: md.gjb@nic.in.
<b>ITB 7.1</b>	Responses to any request for clarification, if any, will be sent to the bidders who have purchased the Bid Document.  The Employer shall also upload its responses including a description of enquiry but without identifying its source on website <a href="http://www.gmdwsb.assam.gov.in">www.gmdwsb.assam.gov.in</a> .
<b>ITB 7.4</b>	A Pre-bid meeting will take place at the following date, time and place: <b>Date: 18.02.2020; Time: 14.00 Hours</b> Place: Office of The Project Director, JICA Assisted Guwahati Water Supply Project, Guwahati, 2 <sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati - 781 005, Assam.  A site visit to the representative sites will be conducted on <b>18.02.2020 at 10.00 hours</b> .
<b>ITB 8.2</b>	Addenda, if any, will be sent to the bidders who have purchased the Bid Document and <i>will also</i> be published on the Employer's website: <a href="http://www.gmdwsb.assam.gov.in">www.gmdwsb.assam.gov.in</a> .
<b>C. Preparation of Bids</b>	
<b>ITB 10.1</b>	The language of the Bid is: <b>English</b>
<b>ITB 13.1</b>	Alternative Bids will not be permitted.
<b>ITB 13.2</b>	Alternative times for completion will not be permitted.
<b>ITB 13.4</b>	Alternative technical solutions are not permitted.
<b>ITB 14.5</b>	The prices quoted by the bidder shall be: <b>adjustable</b> ; consequently, the Bidder is required to furnish the indices and weightings for the price adjustment formulae in the Schedule of Adjustment Data
<b>ITB 14.7</b>	All taxes, duties, 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.  (i) The Bidders shall ascertain the tax and duty exemptions available as per the Government Notifications, avail all the benefits and shall quote their rate accordingly, while preparing their price bid.  (ii) Necessary certificates from the Authority concerned shall be arranged by the Employer as and when requested.  (iii) At present, the Deemed Exports Benefits are not available for this project. If the Government of India through its further notifications issue after submission of bid, for exempting any components of material from any tax or duty, the contractor shall avail the benefit of exemption and shall pass on the same to the Employer.

	However the responsibility for obtaining any such exemptions from the Competent Authority will remain with the Contractor and the Employer shall not in any way be responsible for admissibility of the claims or eligibility of the Contractor.
<b>ITB 15.1</b>	The currency(ies) of the Bid shall be as described below: As the Bidder is expected to provide all the inputs to the Works from within the Employer's country, the prices shall be quoted by the Bidder in the Bill of Quantities in <i>Indian Rupees (INR)</i> and further referred to as "the local currency".
<b>ITB 17.2</b>	Not Applicable
<b>ITB 18.1</b>	The Bid validity period shall be <b>120 days</b> .
<b>ITB 18.3 (a)</b>	The Bid Price quoted by the Bidder shall be adjustable. Hence Not Applicable.
<b>ITB 18.3 (b)</b>	The fixed portion of the Bid Price shall be adjusted from the Base Date to date 28 days prior to Letter of Acceptance in the following manner: <u>Local currency portion:</u> Based on the variation in Wholesale Price Index, as published by the Economic Adviser, Ministry of Commerce and Industry, Government of India.
<b>ITB 19.1</b>	Amount and currency of the Bid Security shall be <b>INR 20.50 Lakhs</b> .
<b>ITB 19.2 (a), (b) &amp; (c)</b>	<u>Amended as below:</u> Bid Security shall be in any of the forms mentioned below: issued by a nationalized/scheduled bank in India or a foreign Bank having its Branch in India. (a) An unconditional Bank Guarantee using the Bid Security Form included in Section IV- Bid Forms. The Bid Security shall be valid for twenty-eight (28) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 18.2. (b) an irrevocable letter of credit. (c) a cashier's or certified cheque.
<b>ITB 19.2 (d)</b>	Other types of acceptable securities: "None"
<b>ITB 20.1</b>	In addition to the <b>original</b> of the Bid, the number of copies is: <b>1 [one]</b>
<b>ITB 20.2</b>	All pages of submission shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation in the form of Registered / Notarized Power of Attorney issued by the appropriate authority / person who is empowered to delegate the powers to the signatory to the Bidder or others. The signature and/or initials <i>as the Power of Attorney chooses to sign</i> shall be attested by the person who is delegating the above power of Attorney.
<b>D. Submission and Opening of Bids</b>	
<b>ITB 22.1</b>	For <b><u>Bid submission purposes</u></b> only, the Employer's address is : The Project Director, JICA Assisted Guwahati Water Supply Project , 2 <sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati – 781 005, The deadline for bid submission is: <b><i>Date: 16.03.2020; Time: 15.00 Hours.</i></b>

<b>ITB 25.1</b>	The opening of the Technical Bid shall take place at: Office of The Project Director, JICA Assisted Guwahati Water Supply Project 2 <sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati-781005. Date: <b>16.03.2020; Time:16.00 Hours</b>
<b>E. Evaluation, and Comparison of Bids</b>	
<b>ITB 34.1</b>	Not Applicable.

## Bid Data Sheet

<b>A. General</b>	
<b>ITB 1.1</b>	Bid Invitation Number is: <b>IFB No.: GWSP/LCB/6A/2019-20/466 Date: 01.02.2020</b>
<b>ITB 1.1</b>	Employer is: <b>Project Director, Project Implementation Unit, JICA Assisted Guwahati Water Supply Project, Guwahati.</b>
<b>ITB 1.1</b>	Name, identification and number of the Contract comprising this LCB are: <b>Contract Package No. 6A</b> - Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under 43 DMAs of the Distribution Network in Geeta Nagar & Lechubagan areas of South Central Zone.
<b>ITB 2.1</b>	The Borrower is: <b>Government of India</b>
<b>ITB 2.1</b>	The number of the Loan Agreement is: <b>ID-P 201</b> The amount of a Japanese ODA Loan is: <b>29,453 million Japanese Yen</b> The signed date of the Loan Agreement is: <b>March 31, 2009</b>
<b>ITB 2.1</b>	Name of the Project is: <b>JICA Assisted Guwahati Water Supply Project</b>
<b>ITB 2.2</b>	The applicable Guidelines for Procurement under Japanese ODA Loans are those published in April 2012.
<b>ITB 3.1(c)</b>	A list of debarred firms and individuals is available at the World Bank's website: <a href="http://www.worldbank.org/debarr">www.worldbank.org/debarr</a> .
<b>ITB 4.5</b>	<u>Amended as below:</u> The bidding is open to all eligible Bidders. No pre-qualification has been conducted. This is a two envelope bidding, where the bidder's qualifications included in the Technical Bid, shall be evaluated to determine the bidder's eligibility to participate in the bid. Only bidders who satisfy the eligibility requirements will be considered for further evaluation.
<b>ITB 6.1</b>	<b>Add the following:</b> <u>Add at the end of Part 1:</u> Section VI A: Project Brief & Scope of Work. Section VII : General Conditions of Contract (GC) Section VIII : Particular Conditions of Contract (PC) Section IX : Contract Forms (CF) <u>Part 2: Employer's Requirements</u> comprises of: Section VI B: Technical Specifications. Section VI B: Drawings <u>Appendix to Part 2</u> (in separate volumes) comprising: <ul style="list-style-type: none"> <li>- Standard Specifications (Civil works)</li> <li>- Quality Assurance and Quality Control Manual</li> <li>- Health and Safety Manual</li> <li>- Standard Operating Procedures (SOP) for pipe laying works</li> </ul>
<b>B. Bidding Documents</b>	
<b>ITB 7.1</b>	For <b>clarification purposes</b> only, the Employer's address is:



	<p>Project Director, Project Implementation Unit, JICA Assisted Guwahati Water Supply Project, Guwahati, 2<sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati - 781 005.</p> <p>Tele-Fax - +91-361-2340132; Email: md.gjb@nic.in.</p>
<b>ITB 7.1</b>	<p>Responses to any request for clarification, if any, will be sent to the bidders who have purchased the Bid Document.</p> <p>The Employer shall also upload its responses including a description of enquiry but without identifying its source on website <a href="http://www.gmdwsb.assam.gov.in">www.gmdwsb.assam.gov.in</a>.</p>
<b>ITB 7.4</b>	<p>A Pre-bid meeting will take place at the following date, time and place:</p> <p><b>Date: 18.02.2020; Time: 14.00 Hours</b></p> <p>Place: Office of The Project Director, JICA Assisted Guwahati Water Supply Project, Guwahati, 2<sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati - 781 005, Assam.</p> <p>A site visit to the representative sites will be conducted on <b>18.02.2020 at 10.00 hours</b>.</p>
<b>ITB 8.2</b>	<p>Addenda, if any, will be sent to the bidders who have purchased the Bid Document and <i>will also</i> be published on the Employer's website:</p> <p><a href="http://www.gmdwsb.assam.gov.in">www.gmdwsb.assam.gov.in</a>.</p>
<b>C. Preparation of Bids</b>	
<b>ITB 10.1</b>	The language of the Bid is: <b>English</b>
<b>ITB 13.1</b>	Alternative Bids will not be permitted.
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<b>ITB 13.4</b>	Alternative technical solutions are not permitted.
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<b>ITB 14.7</b>	<p>All taxes, duties, 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.</p> <p>(i) The Bidders shall ascertain the tax and duty exemptions available as per the Government Notifications, avail all the benefits and shall quote their rate accordingly, while preparing their price bid.</p> <p>(ii) Necessary certificates from the Authority concerned shall be arranged by the Employer as and when requested.</p> <p>(iii) At present, the Deemed Exports Benefits are not available for this project. If the Government of India through its further notifications issue after submission of bid, for exempting any components of material from any tax or duty, the contractor shall avail the benefit of exemption and shall pass on the same to the Employer.</p>
	However the responsibility for obtaining any such exemptions from the Competent Authority will remain with the Contractor and the Employer shall not in any way be responsible for admissibility of the claims or eligibility of the Contractor.

ITB 15.1	The currency(ies) of the Bid shall be as described below: As the Bidder is expected to provide all the inputs to the Works from within the Employer's country, the prices shall be quoted by the Bidder in the Bill of Quantities in <i>Indian Rupees (INR)</i> and further referred to as "the local currency".
ITB 17.2	Not Applicable
ITB 18.1	The Bid validity period shall be <b>120 days</b> .
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ITB 19.2 (a), (b) & (c)	<u>Amended as below</u> : Bid Security shall be in any of the forms mentioned below: issued by a nationalized/scheduled bank in India or a foreign Bank having its Branch in India. (a) An unconditional Bank Guarantee using the Bid Security Form included in Section IV- Bid Forms. The Bid Security shall be valid for twenty-eight (28) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 18.2. (b) an irrevocable letter of credit. (c) a cashier's or certified cheque.
ITB 19.2 (d)	Other types of acceptable securities: "None"
ITB 20.1	In addition to the <b>original</b> of the Bid, the number of copies is: <b>1 [one]</b>
ITB 20.2	All pages of submission shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation in the form of Registered / Notarized Power of Attorney issued by the appropriate authority / person who is empowered to delegate the powers to the signatory to the Bidder or others. The signature and/or initials <i>as the Power of Attorney chooses to sign</i> shall be attested by the person who is delegating the above power of Attorney.
<b>D. Submission and Opening of Bids</b>	
ITB 22.1	For <b>Bid submission purposes</b> only, the Employer's address is : The Project Director, JICA Assisted Guwahati Water Supply Project , 2 <sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati – 781 005, The deadline for bid submission is: <b>Date: 16.03.2020; Time: 15.00 Hours</b> .
ITB 25.1	The opening of the Technical Bid shall take place at: Office of The Project Director, JICA Assisted Guwahati Water Supply Project 2 <sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati-781005.

	Date: <b>16.03.2020</b> ; Time: <b>16.00</b> Hours
<b>E. Evaluation, and Comparison of Bids</b>	
<b>ITB 34.1</b>	Not Applicable.

## **Section: III - Evaluation and Qualification Criteria**

## Section III: Evaluation and Qualification Criteria

### 1. EVALUATION

#### 1.1 Evaluation of Technical Bids:

##### Assessment of adequacy of Technical Proposal with Requirements:

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 VI – Employer's Requirements. In addition, the following factors shall apply.

##### 1.1.1 Personnel:

The Bidder must demonstrate that it has the personnel for the key positions that meet the following requirements:

No.	Position	Qualification	Total Work Experience (years)	Experience in Similar Works (years)
1	Project Manager	BE [Civil/Mech.]	10 years	8 years
2	Resident Engineer	BE [Civil/Mech.]	8 years	5 years
3	Planning Engineer	BE [Civil]	5 years	3 years
4	QA & QC Manager	BE [Civil]	5 years	3 years
5	Health & Safety (Accident Prevention) Officer	Diploma in occupational Safety & Health	5 years	3 years

**Note:** The Bidder shall provide details of the proposed personnel and their experience records in Form PER-1 and Form PER-2 in Section IV, Bidding Forms.

##### 1.1.2 Equipment:

The Bidder must demonstrate that it has the key equipment listed hereafter:

No.	Equipment Type and Characteristics	Minimum Number required
1	Crawler Mounted Crane	2
2	Excavator	2
3	Jacking frame, capable of handling pipes of 700 mm dia.	1
4	Concrete Mixing machine	1
5	Plate Compactor	6
6	Roller Compactor- 3 T capacity	1

**Note:** The Bidder shall provide further details of the proposed items of equipment using Form EQU in Section IV, Bidding Forms.

#### 1.2. Evaluation of Price Bids:

In addition to the criteria listed in ITB 36.2 (a) – (d), the following criteria shall apply:

##### 1.2.1 Quantifiable nonmaterial nonconformities

Pursuant to ITB 32.3, the cost of all quantifiable nonmaterial nonconformities or omissions shall be evaluated. 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, except for the omissions stated in ITB 14.2 which shall be treated in accordance with said clause.

**1.2.2. Award Criteria for Multiple Contracts (ITB 36.4):** Not Applicable.

**1.3. Alternative Completion Times (ITB 13.2):**

Bids offering a completion date beyond the designated period shall be rejected.

**1.4. Alternative Technical Solutions for Specified Parts (ITB 13.4):**

Not permitted.

## **2. Qualification**

### **(i) Exchange Rate for Qualification Criteria**

Wherever a Form in Section IV, Bidding Forms, requires a Bidder to state a monetary amount, Bidders should indicate the INR equivalent using the rate of exchange determined as follows:

- (a) For construction turnover or financial data required for each year - Exchange rate prevailing on the last day of the respective calendar year with documentary evidence of exchange rate.
- (b) Value of single contract - Exchange rate prevailing on the date of the contract with documentary evidence of exchange rate.

Exchange rates shall be taken from the publicly available source, [www.rbi.org.in](http://www.rbi.org.in) of Reserve Bank of India or, in case such rates are not available in the source identified above, any other publicly available source acceptable to the Employer. Any error in determining the exchange rates may be corrected by the Employer.

### **(ii) Qualification Criteria for Multiple Contracts**

*Not used.*

### **(iii) Qualifying Criteria:**

The Bidder shall meet all the criteria regarding Eligibility, Historical Contract Non Performance, Financial Situation and Experience. To demonstrate that the Bidder meets the criteria, the Bidder shall submit the information in the relevant Forms in Section IV with updated / final or recent dated certificates.

The financial figures mentioned in FIN-1 and FIN-2 shall be supported by the specific Auditor's Certificate.

Qualification Criteria			Compliance Requirements			Documentation	
No.	Factor	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>2.1. Eligibility</b>							
2.1.1	<b>Nationality</b>	In accordance with ITB Sub Clause 4.3.	Must meet requirement	N/A	Must meet requirement	N/A	Forms ELI – 1 and 2, with attachments
2.1.2	<b>Conflict of Interest</b>	No conflicts of interest in ITB Sub-Clauses 4.2.	Must meet requirement	N/A	Must meet requirement	N/A	Letter of Bid
2.1.3	<b>JICA Ineligibility</b>	Not having been declared ineligible by JICA, as described in ITB Sub-Clause 4.4	Must meet requirement	N/A	Must meet requirement	N/A	Letter of Bid Form ACK

Qualification Criteria			Compliance Requirements			Documentation	
No.	Factor	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>2.2. Historical Contract Non-Performance</b>							
2.2.1	<b>History of Non-Performing Contracts</b>	Non-performance of a contract <sup>(i)</sup> , did not occur as a result of contractor’s default since 1 <sup>st</sup> January 2018.	Must meet requirement <sup>(ii)</sup>	N/A	Must meet requirement <sup>(ii)</sup>	N/A	Form CON
2.2.2	<b>Pending Litigation</b>	All pending litigation shall in total not represent more than 75% of the Applicant’s net worth and shall be treated as resolved against the Bidder.	Must meet requirement <sup>(ii)</sup>	N/A	Must meet requirement <sup>(ii)</sup>	N/A	Form CON
2.2.3	<b>Litigation History</b>	No consistent history of court/arbitral award decisions against the Bidder <sup>(iii)</sup> , since 1 <sup>st</sup> January 2015.	Must meet requirement <sup>(ii)</sup>	N/A	Must meet requirement <sup>(ii)</sup>	N/A	Form CON
<p><u>Notes for the Bidder</u></p> <p>(i) Non-performance, as decided by the Employer, shall include all Contracts:</p> <p>(a) where non-performance was not challenged by the Contractor, including through referral to the dispute resolution mechanism under the respective Contract, and</p> <p>(b) that were so challenged but fully settled against the Contractor.</p> <p>Non-performance shall not include Contracts where Employer’s decision was overruled by the dispute resolution mechanism. Non-performance must be based on all information on fully settled disputes or litigation, i.e. dispute or litigation that has been resolved in accordance with the dispute resolution mechanism under the respective Contract and where all appeal instances available to the Bidder have been exhausted.</p> <p>(ii) This requirement also applies to Contracts executed by the Bidder as a JV member.</p> <p>(iii) The Bidder shall provide accurate information on the related Bidding Form about any litigation or arbitration resulting from Contracts completed or ongoing under its execution over the last five (5) years. A consistent history of awards against the Bidder or any member of a joint venture may result in rejection of the Bid.</p>							



Qualification Criteria			Compliance Requirements				Documentation
No.	Factor	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
<b>2.3. Financial Situation</b>							
2.3.1	<b>Financial Performance</b>	The audited balance sheets, or if not required by the law of the Bidder's country, other financial statements acceptable to the Employer, for the last five consecutive financial years shall be submitted and must demonstrate the current soundness of the Bidder's financial position and indicate its prospective long-term profitability. As the minimum requirement, a Bidder's Net Worth <sup>(i)</sup> should be positive.	Must meet requirement	N/A	Must meet the requirement	N/A	Form FIN – 1 with attachments
2.3.2	<b>Average Annual Construction Turnover</b>	Minimum Average Annual turnover <sup>(ii)</sup> of <b>INR 550 Million</b> , calculated as total certified payments received for contracts in progress and/ or completed, within the last 5 financial years divided by 5.	Must meet requirement	Must meet requirement	Must meet 25% of the requirement	Lead Partner must meet 40% of the requirement	Form FIN – 2
2.3.3	<b>Bidding Capacity</b>	Bidders who meet the minimum qualification criteria will be qualified only if their available Bid capacity on the date of NIT shall not be less than <b>INR 410 Million</b> . The available bid capacity will be calculated as under: Bidding capacity=2 X A X N - B where A = Maximum annual construction turnover of the bidder in last three financial years.	Must meet the requirement	Must meet requirement	Must meet 25% of the requirement	Lead Partner must meet 40% of the requirement	Form FIN - 3 with attachments

Qualification Criteria			Compliance Requirements			Documentation	
No.	Factor	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
		N = Stipulated period of execution of contract in years, and B = Liability of present works in hand during the contract period.					
<b>2.4. Financial Resources</b>							
2.4.1	<b>Financial Resources</b>	The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements of minimum <b>INR 137 Million</b> for the subject contract(s) net of the Bidders other commitments <sup>(iii)</sup> .	Must meet requirement	Must meet requirement	Must meet 25% of the requirement	Lead Partner must meet 40% of the requirement	Form FIR – 1
2.4.2		The Bidders shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments <sup>(iv)</sup> .	Must meet requirement	Must meet requirement	N/A	N/A	Form FIR – 1 and FIR – 2
2.4.3	<b>Financial Stability</b>	The Bidder(s) who have applied for Corporate Debt Restructuring (CDR) or undergoing Insolvency Resolution Process or Recovery proceedings from financial institutions or facing winding up proceedings	Must meet requirement	N/A	Must meet requirement	N/A	Form FIR-3

Qualification Criteria			Compliance Requirements			Documentation	
No.	Factor	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
		or those under BIFR in the last 3 financial years (2016-17 to 2018-19) and up to the date of bid submission shall be disqualified. The Bidder shall submit an affidavit <sup>(v)</sup> to this effect along with certificate from the Bidder's Chartered Accountant/Auditors.					
<p>Note: (i) to (iv) The Bidder shall submit certificate from its Chartered Accountant based on audited balance sheets for net worth, annual construction turn over, cash flow requirement for the subject contract and cash flow requirements on works currently in progress and for future contract commitments.</p> <p>(v) An affidavit by the Bidder along with Certificate from the Bidder's Chartered Accountant/Auditors should be submitted with the bid.</p>							
2.5.1	<b>General Construction Experience</b>	Experience under construction contracts in the role of prime contractor (single entity or JV member), subcontractor, or management contractor <sup>(i)</sup> for at least last five (5) years starting from 1 <sup>st</sup> April 2014. The Bidder shall submit year wise information of all completed and ongoing contracts.	Must meet requirement	N/A	Must meet requirement	N/A	Form EXP – 1

Qualification Criteria			Compliance Requirements			Documentation	
No.	Factor	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
2.5.2 (a)	<b>Specific Construction Experience</b>	<p>Experience in execution and successful commissioning<sup>(iii)</sup> of either of the following works as a prime contractor (single entity or JV member<sup>(iv)</sup>) between 1<sup>st</sup> April 2014 and Bid submission deadline:</p> <p>a) One similar<sup>(ii)</sup> completed<sup>(iii)</sup> work costing not less than the amount equal to <b>INR 330 Million OR</b></p> <p>b) Two similar completed works each costing not less than the amount equal to <b>INR 245 Million, OR</b></p> <p>c) Three similar completed works of each costing not less than the amount equal to <b>INR 165 Million.</b></p>	Must meet requirement	N/A	N/A	Lead Partner must meet the requirement	Form EXP – 2 (a)
2.5.2 (b)		<p>For the contracts successfully completed between 1<sup>st</sup> April 2014 and Bid submission deadline, a minimum construction experience in the following key activities, as a prime contractor (single entity or JV member), management contractor or sub-contractor<sup>(v)</sup>:</p> <p>a) Laying, jointing, testing &amp; commissioning of <b>MS pipeline of 1 km.</b></p> <p>b) Laying, jointing, testing &amp; commissioning of <b>DI pipeline of 33 km, of which Minimum dia. of 400 mm (ID) for a</b></p>	Must meet all the three criteria (a), (b) & (c)	Must meet all the three criteria (a), (b) & (c)	Must meet atleast one of the three criteria (a) or (b) or (c)	N/A	Form EXP – 2 (b)

Qualification Criteria			Compliance Requirements			Documentation	
No.	Factor	Requirement	Single Entity	Joint Venture (existing or intended)			Submission Requirements
				All Parties Combined	Each Member	One Member	
		<p><b>minimum length of 1 km.</b></p> <p>c) Laying, jointing, testing &amp; commissioning of HDPE pipeline with butt joint of <b>minimum dia. of 110 mm (OD) for a minimum length of 3 km.</b></p>					
<p><u>Notes for the Bidder</u></p> <p>(i) A management contractor is a firm which takes on the role of contract management as a “general” contractor of sort could do. It does not normally perform directly the work(s) associated with the Contract. Rather, it manages the work of other (sub) contractors while bearing full responsibility and risk for price, quality, and timely performance of the contract.</p> <p>(ii) The similar work for experience of the execution of works/scheme/project means execution of a scheme/project having (i) pipeline works similar to those included in the scope of the tender viz. Earth work, laying, jointing, testing &amp; commissioning of MS and/or DI pipeline work involving any size.</p> <p>(iii) The works which have been completed and commissioned during the period mentioned above, though may have commenced earlier, shall be considered for experience purposes. Experience should be substantiated with the completion and commissioning certificate of the entire works from the Employer not below the rank of Executive Engineer. If the work is executed in a JV, then the completion certificate should clearly specify physical and financial role of the Bidder, in absence of which such claim of experience will not be considered for evaluation.</p> <p>(iv) For contracts in which the Bidder participated as a JV member, only the Bidder’s share, by value (both physical and financial) shall be considered to meet the requirement.</p> <p>(v) For contracts under which the Bidder participated as a JV member or Sub contractor, only the Bidder’s share, by value (both physical and financial) shall be considered to meet the requirement.</p>							

## **Section IV: Bidding Forms - Technical**

## Bid Forms - Technical

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## A. Letter of Technical Bid

Date: *[insert date of Bid submission]*

Loan Agreement No.: ID-P201

IFB No.: GWSP/LCB/6A/2019-20/466/01.02.2020

To  
Project Director  
Project Implementation Unit  
JICA Assisted Guwahati Water Supply Project  
2<sup>nd</sup> Floor, Saikia Commercial Complex  
Christian Basti, Guwahati-781 005.

Name of work: Contract Package: 6A: Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under 43 DMAs of the Distribution Network in Geeta Nagar & Lechu Bagan areas of South Central Zone.

Sir,

We, the undersigned, declare that:

- (a) We have examined and hereby declare that we accept all the clauses, conditions, descriptions, drawings, etc., of the Bid documents and including addenda issued in accordance with the Instructions to Bidders (ITB 8), without any reservations or conditions. *[Insert the number and issuing date of each addendum]*;
- (b) We, including subcontractors meet the eligibility requirements in accordance with ITB 4 and ITB 5;
- (c) We, including subcontractors have no conflict of interest in accordance with ITB 4;
- (d) We offer to execute in conformity with the Bidding Documents the following Works:  
*Contract Package: 6A: Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under 43 DMAs of the Distribution Network in Geeta Nagar & Lechu Bagan areas of South Central Zone.*
- (e) Our Bid shall be valid for a period of **120 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) We are not participating, as a Bidder or as a subcontractor, in more than one Bid in this bidding process in accordance with ITB 4.3 and not submitting alternative Bids in accordance with ITB 13; and
- (g) We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption.

Name of the Bidder\**[insert complete name of person signing the Bid]*

Name of the person duly authorized to sign the Bid on behalf of the Bidder\*\**[insert complete name of person duly authorized to sign the Bid]*

Title of the person signing the Bid *[insert complete title of the person signing the Bid]*

Signature of the person named above *[insert signature of person whose name and capacity are shown above]*

Date signed *[insert date of signing]* day of *[insert month]*, *[insert year]*

\*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

\*\* : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid.



## **B. Technical Proposal**

1. Site Organization.
2. Method Statement
3. Mobilization Schedule
4. Construction Schedule
5. Safety Plan
6. Personnel
7. Equipment

## **Site Organization**

Insert Organization Information

## Method Statement

The package area has been divided into various DMAs, isolating the network based on the topography and system isolation facilities, which will be fed from the feeder mains from the Service Reservoirs located at Geeta nagar and Lechubagan.

Hence the successful Bidder/contractor shall give priority for laying feeder main and complete the works and do Testing & Trial Run and commissioning the system **DMAwise**, so that the work of providing Service Connections can be taken up by the Employer.

The Bidder shall insert Method Statement detailing the description of the works, the Bidder's proposed Approach & methodology for the Supply, Installation & Commissioning of the balance works including the Testing & Trial Run for 90 days and commissioning [within 18 Months] and remedying defects during the Defects Notification Period [12 Months], in sufficient detail to demonstrate their adequacy to achieve the requirements within the prescribed time.

## **Mobilization Schedule**

Insert Mobilization Schedule for (i) Personnel (ii) Equipment and (iii) labour in accordance with the Construction Schedule proposed.

## **Construction Schedule**

Insert Construction Schedule showing the schedule for mobilization of equipment, survey, procurement (vendor proposal, QAP, manufacturing, inspection, supply, etc.), installation / construction, test, trial run, commission, remedying defects during Defects notification period.

## **Safety Plan**

Insert Safety Plan

## Form PER -1: Proposed Personnel

[Insert day, month, year]

*Bidder's Legal Name:* [insert full name]

*IFB No.* GWSP/LCB/6A/2019-20/466/01.02.2020

*Page* [insert page number] *of* [insert total number] *page*

*[The Bidder shall provide the names of suitably qualified personnel to meet the specified requirements stated in Section III, Evaluation and Qualification Criteria, Clause 1.1.1.]*

<b>1.</b>	<b>Title of position*</b>
	<b>Name</b>
<b>2.</b>	<b>Title of position*</b>
	<b>Name</b>
<b>3.</b>	<b>Title of position*</b>
	<b>Name</b>
<b>4.</b>	<b>Title of position*</b>
	<b>Name</b>

*\*As listed in Section III.*





## Form EQU: Equipment

*[insert day, month, year]*

Bidder's Legal Name: *[insert full name]*

Joint Venture Party Legal Name: *[insert full name]*

IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020

Page *[insert page number]* of *[insert total number]* page

*[Bidder shall provide adequate information to demonstrate clearly that it has the capability to meet the requirements for the key equipment listed in Section III, Evaluation & Qualification Criteria, Clause 1.1.2. A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder. If the Bidder desires to hire the equipment, he shall submit the lease agreement with the owner.]*

<b>Item of equipment</b>		
<b>Equipment information</b>	<b>Name of manufacturer</b>	<b>Model and power rating</b>
	<b>Capacity</b>	<b>Year of manufacture</b>
<b>Current status</b>	<b>Current location</b>	
	<b>Details of current commitments</b>	
<b>Source</b>	<b>Indicate source of the equipment</b> <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.

<b>Owner</b>	<b>Name of owner</b>	
	<b>Address of owner</b>	
	<b>Telephone</b>	<b>Contact name and title</b>
	<b>Fax</b>	<b>E-mail</b>
<b>Agreements</b>	<b>Details of rental / lease / manufacture agreements specific to the project</b>	

## Bidders Qualification

To establish its qualifications to perform the contract in accordance with Section III, Evaluation and Qualification Criteria, the Bidder shall provide the information requested in the corresponding forms included hereunder:

1. Form ELI -1. Bidder Information Form
2. Form ELI -2. Bidder's Party Information Form
3. Form CON. Historical Contract Non-Performance
4. Form FIN -1. Financial Situation
5. Form FIN -2. Average Annual Construction Turnover
6. Form FIN -3. Bidding Capacity
7. Form FIR -1. Financial Resources
8. Form FIR -2. Current Contract Commitments
9. Form FIR -3. Affidavit for Financial Stability
10. Form EXP-1. General Construction Experience
11. Form EXP -2 (a). Specific Construction Experience
12. Form EXP- 2 (b). Construction Experience in key Activities
13. Form ACK - Acknowledgement of Compliance with Guidelines for Procurement under Japanese ODA Loans
14. Form of Bid Security

## Form ELI -1: Bidder Information Form

Date: *[insert day, month, year]*

IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020

Page *[insert page number]* of *[insert total number]* pages

*[Bidders shall provide the following information:]*

Bidder's legal name

*[insert full name]*

In case of a JV, legal name of the representative member and of each member:

*[Insert full name of each member in the JV and specify the representative member.]*

Bidder's actual or intended country of registration:

*[insert country of registration]*

Bidder's actual or intended year of incorporation:

*[insert year of incorporation]*

Bidder's legal address in country of registration:

*[insert street/ number/ town or city/ country]*

Bidder's authorized representative information

Name: *[insert full name]*

Address: *[inset street/ number/ town or city/ country]*

Telephone/Fax numbers: *[insert telephone/fax numbers, including country and city codes]*

E-mail address: *[insert E-mail address]*

1. Attached are copies of original documents of

- Articles of Incorporation (or equivalent documents of constitution or association), and/or documents of registration of the legal entity named above, in accordance with ITB 4.3.
- In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1.

2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

## Form ELI -2: Bidder's Party Information Form

Date: *[insert day, month, year]*

IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020

Page *[insert page number]* of *[insert total number]* pages

*[The following form is additional to Form ELI-1, and shall be completed to provide information relating to each JV member (in case the Bidder is a JV) as well as any specialist subcontractor proposed to be used by the Bidder for any part of the Contract resulting from this process.]*

Bidder's legal name: <i>[insert full name]</i>
Bidder's Party legal name: <i>[insert full name of Bidder's party]</i>
Bidder's Party country of registration: <i>[insert country of registration]</i>
Bidder's Party year of incorporation: <i>[insert year of incorporation]</i>
Bidder's Party legal address in country of registration: <i>[insert street/ number/ town or city/ country]</i>
Bidder's Party authorized representative information Name: <i>[insert full name]</i> Address: <i>[insert street/ number/ town or city/ country]</i> Telephone/Fax numbers: <i>[insert telephone/fax numbers, including country and city codes]</i> E-mail address: <i>[insert E-mail address]</i>
1. Attached are copies of original documents of <input type="checkbox"/> Articles of Incorporation (or equivalent documents of constitution or association), and/or registration documents of the legal entity named above, in accordance with ITB 4.3. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

## Form CON: Historical Contract Non-Performance

Date: *[insert day, month, year]*

Bidder's Legal Name: *[insert full name]*

Bidder's Party Legal Name: *[insert full name]*

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Page *[insert page number]* of *[insert total number]* pages

*[The following table shall be filled in for the Bidder and for each member of a JV]*

### 1. History of Non-Performing Contracts

Non-Performing Contracts			
<input type="checkbox"/> Contract non-performance did not occur since 1 <sup>st</sup> January 2018, in accordance with the Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.1, as appropriate.			
<input type="checkbox"/> Contract(s) not performed since 1 <sup>st</sup> January 2018, in accordance with the Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.1, as appropriate, is(are) indicated below:			
Year	Non- performed portion of contract	Contract Identification	Total Contract Amount (current value, currency, exchange rate and INR equivalent)
<i>[insert year]</i>	<i>[insert amount and percentage]</i>	Contract Identification: <i>[insert complete contract name, number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Reason(s) for non-performance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

**2. Pending Litigation**

<b>Pending Litigation</b>				
<input type="checkbox"/> No pending litigation since 1 <sup>st</sup> January 2015 in accordance with the Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.2, as appropriate.				
<input type="checkbox"/> Pending litigation since 1 <sup>st</sup> January 2015 in accordance with the Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.2, as appropriate, is indicated below:				
Year of dispute	Amount in dispute (currency)	Outcome as Percentage of Net Worth	Contract Identification	Total Contract Amount (current value, currency, exchange rate and INR equivalent)
<i>[insert year]</i>	<i>[insert amount]</i>	<i>[insert percentage]</i>	Contract Identification: <i>[indicate complete contract name, number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/ city/ country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i>	<i>[insert amount]</i>

**3. Litigation History**

<b>Litigation History</b>		
<input type="checkbox"/> No court/arbitral award decisions against the Bidder since 1 <sup>st</sup> January 2015, in accordance with the Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.3, as appropriate.		
<input type="checkbox"/> Court/ arbitral award decisions against the Bidder since 1 <sup>st</sup> January 2015, in accordance with the Section III, Evaluation and Qualification Criteria, Sub-Factor 2.2.3, as appropriate, are indicated below:		
<b>Year of award</b>	<b>Contract Identification</b>	<b>Total Contract Amount (current value, currency, exchange rate and INR equivalent)</b>
<i>[insert year]</i>	Contract Identification: <i>[indicate complete contract name, number, and any other identification]</i> Name of Employer: <i>[insert full name]</i> Address of Employer: <i>[insert street/city/country]</i> Matter in dispute: <i>[indicate main issues in dispute]</i> Party who initiated the dispute: <i>[indicate "Employer" or "Contractor"]</i> Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i>	<i>[insert amount]</i>

### Form FIN -1: Financial Situation

[The following table shall be filled in for the Bidder and for each member of a JV.]

Date: [insert day, month, year]  
 Bidder's Legal Name: [insert full name]  
 Bidder's Party Legal Name:[insert full name]  
 IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020  
 Page [insert page number] of [insert total number] page

**1. Financial data**

Type of Financial information in (currency)	Historic information for previous [insert number] years (amount in currency, currency, exchange rate, INR equivalent)				
	Year 1	Year 2	Year 3	Year 4	Year 5
<b>Statement of Financial Position (Information from Balance Sheet)</b>					
Total Assets (TA)					
Total Liabilities (TL)					
Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
<b>Information from Income Statement</b>					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Profits After Taxes (PAT)					



## 2. Financial documents

The Bidder and its parties shall provide copies of the financial statements for *five* years pursuant the Prequalification criteria or Section III, Evaluation and Qualification Criteria Sub-Factor 2.3.1, as appropriate. The financial statements shall:

- (a) reflect the financial situation of the Bidder or in case of JV, of each member, and not of an affiliated entity (such as parent company or group member).
  - (b) be independently audited or certified in accordance with local legislation.
  - (c) be complete, including all notes to the financial statements.
  - (d) correspond to accounting periods already completed and audited.
- Attached are copies of financial statements\* for the *five* years required above; and complying with the requirements.

The financial figures mentioned in FIN-1 and FIN-2 shall be supported by both the Auditor's Certificate and Audited Annual financial statements, in which clear distinctive reference is marked.

\* If the most recent set of financial statements is for a period earlier than 12 months from the date of bid, the reason for this should be justified.

## Form FIN -2: Average Annual Construction Turnover

*[The following table shall be filled in for the Bidder and for each member of a JV]*

Date: *[insert day, month, year]*

Bidder's Legal Name: *[insert full name]*

Bidder's Party Legal Name: *[insert full name]*

IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020

Page *[insert page number]* of *[insert total number]* page

<b>Annual Turnover Data (Construction only)</b>				
Year	Amount and Currency	Exchange rate to INR	INR equivalent	Amount in INR
<i>[indicate year]</i>	<i>[insert amount and indicate currency]</i>	<i>[insert applicable exchange rate]</i>	<i>[insert amount in INR equivalent]</i>	[after applying weightage as in the Note (vi) in Page EQC-8]
<b>Average Annual Construction Turnover *</b>				

\* Total INR equivalent for all years divided by the total number of years (5), in accordance with the Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.2, as appropriate.

## Form FIN - 3 - Bidding Capacity

The following table shall be filled in for the Bidder and for each member of a JV.

Date: [insert day, month, year]  
 Bidder's Legal Name: [insert full name]  
 Joint Venture Party Legal Name: [insert full name]  
 IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020  
 Page [insert page number] of [insert total number] pages

Bidders and each member of a JV 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 accordance with Section III, Evaluation and Qualification Criteria, Clause 2.3.3.

INR									
S. No	Contract Name	Name of Employer, Address, tel/fax and email	Value of contract	Date of award	Completion period (months)	Time left for completion of works after Dec 2019	Payment received till Dec 2019	Balance cost of unexecuted work after Dec 2019	Remaining cost of work to be executed in 18 months on proportional basis
1	2(a)	2(b)	3	4	5	6	7	8= (3-7)	Col. 9=Col. 8, for Col. 6<18 months Col. 9=Col. 8 x 18/ Col. 6 for col. 6> 18 months
1									
2									
3									
4									
5									
Etc.									

Total of Column 9, as "B" for calculating Bidding Capacity

Note; The Exchange Rate for Column 3, 7 and 8 shall be last day of Dec 2019 as published by RBI

All claims shall be supported with documentary evidence.

Bidder shall not hide any information; otherwise it will lead to the disqualification of the Bidder.

## Form FIR -1: Financial Resources

*[The following table shall be filled in for the Bidder and for each member of a JV]*

Date: *[insert day, month, year]*

Bidder's Legal Name: *[insert full name]*

Bidder's Party Legal Name: *[insert full name]*

IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020

Page *[insert page number]* of *[insert total number]* page

*[Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.1 & 2.4.2.]*

Financial Resources		
No.	Source of financing	Amount (INR equivalent)
1		
2		
3		

## Form FIR -2: Current Contract Commitments

*[The following table shall be filled in for the Bidder and for each member of a JV]*

Date: *[insert day, month, year]*  
 Bidder's Legal Name: *[insert full name]*  
 Bidder's Party Legal Name: *[insert full name]*  
 IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020  
 Page *[insert page number]* of *[insert total number]* page

*Bidders and each member to a JV 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 accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.2*

Current Contract Commitments					
No.	Name of Contract	Employer's Contact Address, Tel, Fax	Value of Outstanding Work [Current INR Equivalent]	Estimated Completion Date	Average Monthly Invoicing Over Last Six Months [INR/month]
(1)	(2)	(3)	(4)	(5)	(6)
1					
2					
3					
4					
5					

## Form FIR -3: Financial Stability

To demonstrate their financial stability, the Bidder shall submit an Affidavit in the following format along with the certificate from the Bidder's Auditor / Chartered Accountant.

### AFFIDAVIT

I/We ....., having my/our registered office at .....  
....., submitting my/our Bid for the work of *“Contract Package No. 6A - Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under the 43 DMAs of the Distribution Network in Geeta Nagar & Lechu Bagan areas of South Central Zone.”* certify that my/our firm have not applied for Corporate Debt Restructuring (CDR) or undergoing Insolvency Resolution Process or Recovery proceedings from financial institutions or facing winding up proceedings or those under BIFR in the last 3 financial years (2016-17 to 2018-19) and up to the date of bid submission.

Signature of the Authorized Signatory to the Bidder

Name of the Authorized Signatory to the Bidder

Name & Address of the Bidder

Date:

## Form EXP -1: General Construction Experience

*[The following table shall be filled in for the Bidder and for each member of a JV]*

Date: *[insert day, month, year]*  
 Bidder's Legal Name: *[insert full name]*  
 Bidder's Party Legal Name: *[insert full name]*  
 IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020  
 Page *[insert page number]* of *[insert total number]* page

*[Identify contracts that demonstrate continuous construction work over the past [number] years pursuant to Section III, Evaluation and Qualification Criteria Sub-Factor 2.5.1. List contracts chronologically, according to their commencement (starting) dates.]*

General Construction Experience			
Starting Year	Ending Year	Contract Identification	Role of Bidder
<i>[indicate year]</i>	<i>[indicate year]</i>	Contract name: <i>[insert full name]</i> Brief description of the Works performed by the Bidder: <i>[describe Works performed briefly]</i> Amount of contract: <i>[insert amount in currency, mention currency used, exchange rate and INR equivalent]</i> Name of Employer: <i>[indicate full name]</i> Address: <i>[indicate street/number/town or city/country]</i>	<i>[insert "Prime Contractor (single entity or JV member)" or "Subcontractor" or "Management Contractor"]</i>

## Form EXP -2(a): Specific Construction Experience

[The following table shall be filled in for the Bidder and for each member of a JV]

Date: [insert day, month, year]  
 Bidder's Legal Name: [insert full name]  
 Bidder's Party Legal Name: [insert full name]  
 IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020  
 Page [insert page number] of [insert total number] page

[Fill out one (1) form per contract, in accordance with Section III, Evaluation and Qualification Criteria Sub-Factor 2.5.2(a).]

Contract of Similar Size and Nature		
Similar Contract No. <i>[insert number] of [insert number of similar contracts required]</i>	Information	
Contract Identification	<i>[insert contract name and reference identification number, if applicable]</i>	
Award Date	<i>[insert day, month, year, e.g., 15 June, 2014]</i>	
Completion Date	<i>[insert day, month, year, e.g., 03 October, 2016]</i>	
Role in Contract <i>[check the appropriate box]</i>	Prime Contractor	
	Single entity <input type="checkbox"/>	JV member <input type="checkbox"/>
Total Contract Amount- INR	<i>[insert total contract amount and currency(ies)]</i>	
If member in a JV, specify participation in total Contract amount	<i>[insert a percentage amount]</i>	<i>[insert total contract amount and currency(ies)]</i>
Employer's Name:	<i>[insert full name]</i>	
Address:	<i>[indicate street / number / town or city / country]</i>	
Telephone/fax number	<i>[insert telephone/fax numbers, including country and city area codes]</i>	
E-mail:	<i>[insert E-mail address, if available]</i>	



<b>Similar Contract No.</b> <i>[insert number] of [insert number of similar contracts required]</i>	<b>Information</b>
Description of the similarity in accordance with Sub-Factor 2.5.2(a) of Section III:	
1. Physical size of required works items	<i>[insert physical size of items]</i>
2. Complexity	<i>[insert description of complexity]</i>
3. Methods/Technology	<i>[insert specific aspects of the methods/ technology involved in the contract]</i>
4. Other Characteristics	<i>[insert other characteristics as described in Section VI, Works Requirements]</i>

## Form EXP -2(b): Construction Experience in Key Activities

Date: *[insert day, month, year]*  
 Bidder's Legal Name: *[insert full name]*  
 Bidder's Party Legal Name: *[insert full name]*  
 Subcontractor's Legal Name *[insert full name]*  
 IFB No. GWSP/LCB/6A/2019-20/466/01.02.2020  
 Page *[insert page number]* of *[insert total number]* pages

*[Fill out one (1) form per contract, in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.5.2(b).]*

1. Key Activity No (1): **2.5.2 (a):** *[insert brief description of the Activity, emphasizing its specificity]*

Total Quantity of Activity under the contract: \_\_\_\_\_

Contract with Similar Key Activities			
Item	Information		
Contract Identification	<i>[insert contract name and number, if applicable]</i>		
Award Date	<i>[insert day, month, year, e.g., 15 June, 2014]</i>		
Completion Date	<i>[insert day, month, year, e.g., 03 October, 2016]</i>		
Role in Contract <i>[check the appropriate box]</i>	Prime Contractor		Management Contractor
	Single entity <input type="checkbox"/>	JV member <input type="checkbox"/>	<input type="checkbox"/>
Total Contract Amount	<i>[insert total contract amount and currency(ies)]</i>		
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year <i>[Insert extent of participation indicating actual quantity of key activity successfully completed in the role performed]</i>	Total quantity in the contract (i)	Percentage participation (ii)	Actual Quantity Performed (i) x (ii)
Year 1			
Year 2			
Year 3			
Year 4			
Employer's Name:	<i>[insert full name]</i>		

Address:	<i>[indicate street / number / town or city / country]</i>
Telephone/fax number	<i>[insert telephone/fax numbers, including country and city area codes]</i>
E-mail:	<i>[insert E-mail address, if available]</i>

***Provide similar details using the format as above, for:***

2. Key Activity No. (2) **2.5.2(b) (a)** \_\_\_\_\_
3. Key Activity No. (2) **2.5.2(b) (b)** \_\_\_\_\_
4. Key Activity No. (3) **2.5.2(b) (c)** \_\_\_\_\_

## Form ACK

### Acknowledgement of Compliance with Guidelines for Procurement under Japanese ODA Loans

A) I, *[insert name and position of authorized signatory]*, being duly authorized by *[insert name of Bidder/members of joint venture ("JV")]* (hereinafter referred to as the "Bidder") to execute this Acknowledgement of Compliance with Guidelines for Procurement under Japanese ODA Loans, hereby certify on behalf of the Bidder and myself that all information provided in the Bid submitted by the Bidder for "Contract Package No. 6A - Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under the 43 DMAs of the Distribution Network in *Geeta Nagar & Lechu Bagan* areas of South Central Zone." is true, correct and accurate to the best of the Bidder's and my knowledge and belief. I further certify, on behalf of the Bidder, that:

- (i) the Bid has been prepared and submitted in full compliance with the terms and conditions set forth in the Guidelines for Procurement under Japanese ODA Loans (hereinafter referred to as the "Guidelines"); and
- (ii) the Bidder has not, directly or indirectly, taken any action which is or constitutes a corrupt, fraudulent, collusive or coercive act or practice in violation of the Guidelines and is not subject to any conflict of interest as stipulated in the relevant section of the Guidelines.

*<If debarment for more than one year by the World Bank Group is NOT imposed, use the following sentence B).>*

B) I certify that the Bidder has NOT been debarred by the World Bank Group for more than one year since the date of issuance of Invitation for Bids.<sup>1</sup>

*<If debarment for more than one year by the World Bank Group has been imposed BUT three (3) years have passed since the date of such debarment decision, use the following sentence B').>*

B') I certify that the Bidder has been debarred by the World Bank Group for a period more than one year BUT that on the date of issuance of Invitation for Bids at least three (3) years had passed since the date of such debarment decision. Details of the debarment are as follows:

name of the debarred firm	starting date of debarment	ending date of debarment	reason for debarment

C) I certify that the Bidder will not enter into a subcontract with a firm which has been debarred by the World Bank Group for a period more than one year, unless on the date of the subcontract at least three (3) years have passed since the date of such debarment decision.

D) I certify, on behalf of the Bidder, that if selected to undertake services in connection with the Contract, the Bidder shall carry out such services in continuing compliance with the terms and conditions of the Guidelines.

E) I further certify, on behalf of the Bidder, that if the Bidder is requested, directly or indirectly, to

\_\_\_\_\_

engage in any corrupt or fraudulent action under any applicable law, such as the payment of a rebate, at any time during a process of public procurement, negotiations, execution or implementation of contract (including amendment thereof), the Bidder shall report all relevant facts regarding such request to the relevant section in JICA (details of which are specified below) in a timely manner.

JICA's information desk on fraud and corruption (A report can be made to either of the offices identified below.)

(1) JICA Headquarters: Legal Affairs Division, General Affairs Department

URL: <https://www2.jica.go.jp/en/odainfo/index.php>

Tel: +81 (0)3 5226 8850

(2) JICA New Delhi office

Tel: +91 11 476 85500

The Bidder acknowledges and agrees that the reporting obligation stated above shall NOT in any way affect the Bidder's responsibilities, obligations or rights, under relevant laws, regulations, contracts, guidelines or otherwise, to disclose or report such request or other information to any other person(s) or to take any other action, required to or allowed to, be taken by the Bidder. The Bidder further acknowledges and agrees that JICA is not involved in or responsible for the procurement process in any way.

- F) If any of the statements made herein is subsequently proven to be untrue or incorrect based on facts subsequently determined, or if any of the warranties or covenants made herein is not complied with, the Bidder will accept, comply with, and not object to any remedies taken by the Employer and any sanctions imposed by or actions taken by JICA.

\_\_\_\_\_  
**Authorized Signatory**

*[Insert name of signatory; title]*

**For and on behalf of** *[Insert name of the Bidder]*

## Form of Bid Security (Bank Guarantee)

*[Guarantor letterhead or SWIFT identifier code]*

**Beneficiary:** Project Director, JICA Assisted Guwahati Water Supply Project, 2<sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, Guwahati-781 005..

**IFB No.:** GWSP/LCB/6A/2019-20/XX/XX.02.2020

**Date:** *[Insert date of issue]*

**BID GUARANTEE No.:** *[Insert guarantee reference number]*

**Guarantor:** *[Insert name and address of place of issue, unless indicated in the letterhead]*

We have been informed that [insert name of the Bidder, which in the case of a joint venture shall be the name of the joint venture (whether legally constituted or prospective) or the names of all members thereof] (hereinafter called "the Applicant") has submitted or will submit to the Beneficiary its Bid (hereinafter called "the Bid") for the execution of "Contract Package No. 6A - Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under the 43 DMAs of the Distribution Network in Geeta Nagar & Lechu Bagan areas of South Central Zone."

Furthermore, we understand that, according to the Beneficiary's conditions, Bids must be supported by a bid guarantee.

At the request of the Applicant, we, as Guarantor, hereby irrevocably undertake to pay the Beneficiary any sum or sums not exceeding in total an amount of *[insert amount in words]* (*[insert amount in figures]*) upon receipt by us of the Beneficiary's complying demand, supported by the Beneficiary's statement, whether in the demand itself or a separate signed document accompanying or identifying the demand, stating that either the Applicant:

- (a) has withdrawn its Bid during the period of bid validity set forth in the Applicant's Letter of Bid ("the Bid Validity Period"), or any extension thereto provided by the Applicant; or
- (b) having been notified of the acceptance of its Bid by the Beneficiary during the Bid Validity Period or any extension thereto provided by the Applicant, (i) has failed to execute the contract agreement, or (ii) has failed to furnish the Performance Security, in accordance with the Instructions to Bidders of the Beneficiary's bidding documents.

This guarantee will expire and shall be returned: (a) if the Applicant is the successful Bidder, upon our receipt of copies of the contract agreement signed by the Applicant and the Performance Security issued to the Beneficiary in relation to such contract agreement; or (b) if the Applicant is not the successful Bidder, upon the earlier of (i) our receipt of a copy of the Beneficiary's notification to the Applicant of the results of the bidding process; or (ii) twenty-eight days after the end of the Bid Validity Period.

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

This guarantee is subject to the Uniform Rules for Demand Guarantees (URDG) 2010 Revision, ICC Publication No. 758.

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*[signature(s)]*

## **Section IV: Bidding Forms: Financial**



## **Bid Forms - Financial**

<b>Letter of Price Bid</b> .....	<b>2</b>
<b>Schedule of Adjustment Data</b> .....	<b>4</b>
<b>Preamble to Price Schedule</b> .....	<b>5</b>
<b>Bill of Quantities</b> .....	<b>7</b>

## Letter of Price Bid

Date: *[insert date of Bid submission]*

Loan Agreement No.: *[insert No of Loan]*

IFB No.: GWSP/LCB/6A/2019-20/XX/XX.02.2020

To  
Project Director  
Project Implementation Unit  
JICA Assisted Guwahati Water Supply Project  
2<sup>nd</sup> Floor, Saikia Commercial Complex  
Christian Basti, Guwahati-781 005.

Name of work: Contract Package: 6A: Procurement of Works (Item rate) for Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under the 43 DMAs of the Distribution Network in *Geeta Nagar & Lechu Bagan* areas of South Central Zone.

Sir,

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 8). *[Insert the number and issuing date of each addendum]*;
- (b) We offer to execute in conformity with the Bidding Documents and Technical Bid the following Works: "Procurement of Works (Item rate) for Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under the 43 DMAs of the Distribution Network in *Geeta Nagar & Lechu Bagan* areas of South Central Zone under the Contract Package No. 6A"
- (c) The total price of our Bid, excluding any discounts offered in item (d) below is:  
*[Insert the total price of the Bid in words and figures, indicating the various amounts and the respective currencies]*
- (d) The discounts offered and the methodology for their application are:  
The discounts offered are: *[specify in detail each discount offered.]*  
The exact method of calculations to determine the net price after application of discounts is shown below: *[specify in detail the method that shall be used to apply the discounts.]* ;
- (e) Our Bid shall be valid for a period of **120 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 Documents;

- (g) We understand that this Bid, together with your written acceptance thereof included in your Letter of Acceptance, shall constitute a binding contract between us, until a formal contract is prepared and executed; and
- (h) We understand that you are not bound to accept the lowest evaluated Bid or any other Bid that you may receive.

Name of the Bidder\**[insert complete name of person signing the Bid]*

Name of the person duly authorized to sign the Bid on behalf of the Bidder\*\**[insert complete name of person duly authorized to sign the Bid]*

Title of the person signing the Bid *[insert complete title of the person signing the Bid]*

Signature of the person named above *[insert signature of person whose name and capacity are shown above]*

Date signed *[insert date of signing]* day of *[insert month]*, *[insert year]*

\*: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder

\*\* : Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid.

## Schedule of Adjustment Data

### Local Currency – Indian Rupee

The Bidder shall specify a value in column (f), which shall be within the ranges given in column (e) for B, C, D, E, F and G, so that the total weighting equals 1.00.

Index code	Index description	Source of index	Base value and date	Weightage	Bidder's proposed Weightage
(a)	(b)	(c)	(d)	(e)	(f)
A	Nonadjustable			0.25	0.25
B	Labour	CPI for 'Industrial Workers for Guwahati' for the Month published by Labour Bureau, Ministry of Labour, Government of India <a href="http://labourbureau.nic.in/indnum.htm">http://labourbureau.nic.in/indnum.htm</a>	Base year 2001 = 100	0.18 – 0.25	
C	MS Pipes & specials	WPI for 'Mild Steel- Flats & Sheets' for the Month published by the Economic Advisor, Ministry of Commerce & Industry, Government of India <a href="http://eaindustry.nic.in/">http://eaindustry.nic.in/</a>	Base year 2011-12 = 100	0.01 – 0.02	
D	DI Pipes& specials	WPI for 'Pig Iron' for the Month published by the Economic Advisor, Ministry of Commerce & Industry, Government of India <a href="http://eaindustry.nic.in/">http://eaindustry.nic.in/</a>	Base year 2011-12 = 100	0.01 – 0.02	
E	HDPE Pipes & specials	WPI for 'Polyethylene' for the Month published by the Economic Advisor, Ministry of Commerce & Industry, Government of India <a href="http://eaindustry.nic.in/">http://eaindustry.nic.in/</a>	Base year 2011-12 = 100	0.01-0.02	
F	CI Valves	WPI for 'Alloy steel castings' for the Month published by the Economic Advisor, Ministry of Commerce & Industry, Government of India <a href="http://eaindustry.nic.in/">http://eaindustry.nic.in/</a>	Base year 2011-12 = 100	0.01-0.03	
G	Other Materials	WPI for 'All Commodities' for the Month published by the Economic Advisor, Ministry of Commerce & Industry, Government of India <a href="http://eaindustry.nic.in/">http://eaindustry.nic.in/</a>	Base year 2011-12 = 100	0.48-0.55	
<b>Total</b>					<b>1.00</b>

## PREAMBLE TO PRICE SCHEDULE

**Bill of Quantities for Procurement of Works (Item rate) for Procurement of Works (Item rate) for Supply, Installation & Commissioning of MS & HDPE Pipes and Installation & Commissioning of the Employer furnished DI Pipes for the balance works under the 43 DMAs of the Distribution Network in Geeta Nagar & Lechu Bagan areas of South Central Zone under the Contract Package No. 6A**

The Bill of quantities are composed of different items of works for Distribution system including supply, installation, construction and commissioning of MS Pipes and HDPE Pipes, & installation and commissioning of DI Pipes, supply and installation of all specials and appurtenances and including all civil works of excavations, RCC works, ancillary works of pipe installation works such as river crossing, road re-instatement, Electro Mechanical works, etc.

The Bill of Quantities comprises of the above work items, principal quantities and the summary of schedules. The Bidder shall complete to fill the bill of quantities in accordance with the provisions below described.

- 1) The Bill of quantities shall be read in conjunction with the Scope of Works, Technical Specifications, conditions of contract and Drawings.
- 2) The Bidder is advised to examine all instructions, terms, specifications and other information in the Bid documents and consider and evaluate fully the price implications therein contained before filling the contract amount.
- 3) Bidder should acquaint himself with the site conditions including the access to Work site.
- 4) There are, however, several minor items not specifically mentioned in the break-up (BOQ items), but shall be required to complete the job as per scope and specification of works stipulated in the tender document. The cost of such items shall deem to be distributed among the rates and prices entered for the related items.
- 5) The quoted rates in the Bill of Quantities shall, except insofar as it is otherwise provided under the Contract, include all Construction, labour, supervision, materials, erection, maintenance , insurance, profit, taxes and duties together with all general risks, liabilities and obligations set out or implied in the contract.
- 6) It shall be deemed that Bidder has included likely expenditure in his quoted price i.e., provision for field investigations, site clearance and final removal of all temporary works of whatsoever nature required for construction including, dewatering and availability of material of required quality etc., for the proper execution of works. The rates shall also be deemed to include any works and setting out that may be required to be carried out for all the works involved.
- 7) However, while hydro stating and trial run of the already laid pipelines, if any defects are noticed, cost of its rectification will be paid from the Day works schedule for the Labour and Equipment and for the materials from the Provisional sum.
- 8) 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 Engineer (accepted by contractor) and valued at the rates and prices quoted in the priced bill of quantities.
- 9) A rate shall be entered against each item in the Bill of Quantities, whether quantities are stated or not. The cost of items against which the contractor has failed to enter a rate shall be deemed to be covered under other rates and prices entered in the Bill of Quantities.
- 10) The rates and prices shall be quoted by the bidder separately in local currency (INR) only. The unit rates and amounts shall be quoted in two decimal.

- 11) Any arithmetic errors in computation or summation will be corrected by the Employer as follows:

Where there is a discrepancy between amounts in figures and in words, the amount in words will govern; and

Where there is a discrepancy between the unit rate and the total amount derived from the multiplication of the unit price and the quantity, the unit rate as quoted will govern, unless in the opinion of the Employer, there is an obviously gross misplacement of the decimal point in the unit price, in which event the total amount as quoted will govern and the unit rate will be corrected.

- 12) All costs associated with testing, commissioning, inspection (except the Pre-delivery Inspection at the manufacturers' works by a Third Party) shall be deemed to be included in the items for the works, supply and installation.
- 13) The pipes, specials, fittings and valves shall be inspected by a Third Party Inspection Agency to be nominated by the Employer, at the manufacturers' premises. The inspection charges of the Third Party Testing Agency at the rates fixed by the Employer shall be initially paid by the Contractor, which will be reimbursed to the Contractor by the Employer, from out of the provisional sum.
- 14) The available DI Pipes & fittings and valves will be supplied by the Employer from the stockyard located at Changsari in North Guwahati and the Bidders' scope is limited to installation only. The MS Pipes & Specials, HDPE Pipes & Specials, DI Pipes required for Reservoir connection, Electro Mechanical items, Valves & Flow meters and the other materials to be supplied by the Bidder are included in this Bill of Quantities.
- 15) The rates entered by the Bidder under the "Rate- Basic & Taxes" and "Amount- Basic & Taxes" columns in the Price Schedule, shall be the Bidder's estimated Rates and Taxes & Duties for the item. The amount quoted by the Bidder including the taxes & duties will be considered for evaluation.
- 16) The Engineer may, if in his opinion it is necessary or desirable, issue an instruction that any varied work shall be executed on a day work basis. The Contractor shall then be paid for such varied work under the terms set out in the day work schedule included in the Contract and at the rates and prices affixed thereto by him in the Tender.  
  
The Contractor shall furnish to the Engineer such receipts or other vouchers as may be necessary to prove the amount paid and, before ordering materials, shall submit to the Engineer quotations for the same for his approval.
- 17) In respect of such of the Works executed on a day work basis, the Contractor shall, during the continuance of such work, deliver each day to the Engineer an exact list in duplicate of the names, occupation and time of all workmen employed on such work and a statement, showing the description and quantity of all materials and Contractor's Equipment used thereon or therefor other than Contractor's which is included in the percentage addition in accordance with such a day work schedule.
- 18) Provisional Sums included in the Bill of Quantities, shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with the General Conditions. The amount entered here is for the purpose of bidding only, and may vary considerably from the actual quantities and prices requiring during construction.
- 19) Incomplete Bids shall be summarily rejected.
- 20) The price bid shall be submitted computer typed and hand written is not acceptable.

Package 6A									
Supply, Installation and Commissioning of MS pipes and HDPE pipes & installation and commissioning of DI pipes for the Balance of 43 DMA works under the Distribution Network in Geeta Nagar & Leechubagan Zone									
BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
1	<b>SURVEY AND INVESTIGATION WORK</b>								
1.1	Geotechnical survey and investigation for the works as directed by employers representative .	Per bore hole	4.00						
1.2	Preparation of Working drawing including carrying out necessary survey and investigation as per specification and directed by Employer's Representative.	km	7.83						
	<b>Sub Total (1)</b>								
2	<b>EARTHWORK</b>								
2.1	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, masonry work, etc. in all kinds of ordinary soils such as murum, sand, sandy silt, clay, kankar etc. or in combination. Excavation shall include the removal of WBM roadway surfaces, brick surfacing, including dressing, compaction of the bottoms of the excavation, shoring and strutting wherever required, dewatering whenever required, removal of the excavated soil, stockpiling and disposal of surplus excavated soil off-site as directed by the Employer's Representative.								
	Excavation will be paid for in the following segments:								
(a)	0 to 1.5 m from GL	m <sup>3</sup>	81,718.44						
(b)	above 1.5 m to 3.0 m depth from GL	m <sup>3</sup>	23,142.90						
(c)	above 3.0 m to 4.5 m depth from GL	m <sup>3</sup>	12,000.00						
2.2	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks, masonry work, etc. in all kinds of <b>ordinary rock</b> , Excavation shall include the removal of asphalt and concrete road surfacing, including dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.								
	Excavation will be paid for in the following segments:								
(a)	0 to 1.5 m from GL	m <sup>3</sup>	9,630.04						
2.3	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks etc. in all kinds of <b>hard rock requiring blasting</b> , Excavation shall include dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.								
(a)	0 to 1.5 m from GL	m <sup>3</sup>	2,800.00						
(b)	above 1.5 m to 3.0 m depth from GL	m <sup>3</sup>	320.00						
(c)	above 3.0 m to 4.5 m depth from GL	m <sup>3</sup>	160.00						
2.4	Earth work for excavation of foundations, pipe trenches, valve chambers, thrust blocks etc. in all kinds of <b>hard rock (blasting prohibited)</b> . Excavation shall include dressing, compaction of the bottoms, shoring and strutting wherever required, dewatering whenever required, removal of the excavated rock, stockpiling and disposal of surplus excavated rock off-site as directed by the Employer's Representative.								

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
(a)	0 to 1.5 m from GL	m <sup>3</sup>	24,404.16						
(b)	above 1.5m to 3.0 m depth from GL	m <sup>3</sup>	3,000.00						
(c)	above 3.0 m to 4.5 m depth from GL	m <sup>3</sup>	1,500.00						
2.5	Backfilling of pipe trenches, foundations, etc. with approved graded excavated soil (excluding rock), including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and as directed by the Employer's Representative.	m <sup>3</sup>	1,03,832.69						
2.6	Backfilling of pipe trenches, foundations, etc. with Contractor's supplied approved graded sand, including placing in layers not exceeding 20 cm in depth each and compacting each layer, complete as per the specification and as directed by the Employer's Representative.	m <sup>3</sup>	11,745.95						
2.7	Backfilling of pipe trenches, foundations, etc. with Contractors supplied approved graded gravel, including placing in layers not exceeding 20 cm in depth each, and compacting each layer, complete as per the specification and standard drawings and as directed by the Employer's Representative.	m	522.77						
2.8	Providing and backfilling excavated pipeline trench with <b>crusher dust</b> including watering, ramming, consolidating using portable vibratory compactor and dressing complete as per drawing, specifications around pipe and as well as above pipe and as per the instructions of the Employer's representative .	m <sup>3</sup>	8,766.33						
	<b>Sub Total (2)</b>								
3	<b>PIPELINES, SPECIALS AND APPURTENANCES</b>								
3.1	Supplying spirally welded <b>MS pipe</b> with internal lining and external coating as per the specification of the following internal diameters and wall thicknesses. The rate shall include third party inspection, transportation, freight charges, loading, unloading and stacking at the project site, with the cost of all labor, material, taxes and duties.								
(a)	100 mm ID 5 mm thick	m	1,309.00						
(b)	150 mm ID 5 mm thick	m	87.00						
(c)	200 mm ID 5 mm thick	m	220.00						
(d)	250 mm ID 5 mm thick	m	132.00						
(e)	300 mm ID 6 mm thick	m	96.00						
(f)	400 mm ID 6 mm thick	m	65.00						
(g)	500 mm ID 6 mm thick	m	55.00						
(h)	600 mm ID 6 mm thick	m	66.00						
(i)	700 mm ID 6 mm thick	m	26.57						
3.2	Supplying all types of MS Specials plain ended, socket ended and flanged as required with internal lining and external coating as per the specification, such as bends, tees, tapers, spool pieces, blind flanges, pieces for pipe connection, valve connections, dismantling joints, anchor bolts, straps, air vent pipe, etc. of different diameters, manufactured from Fe 410 grade steel. This item includes loading, transportation to the project site, unloading and stacking, etc. complete with cost of third party inspection, material, labor, taxes and duties.	MT	0.70						



BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
3.3	Handling, aligning, <b>laying and jointing MS pipes and specials</b> to correct line and level in trenches. The item includes transportation of pipes and specials from the store yard to the project site, stacking of pipe as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports, lining and coating at joints etc. for pipe of the following diameters and thicknesses. The rate also shall include radiography of field joints, field testing, etc. as specified and shown on the drawings and specification.								
(a)	100 mm ID 5 mm thick	m	1,309.00						
(b)	150 mm ID 5 mm thick	m	87.00						
(c)	200 mm ID 5 mm thick	m	220.00						
(d)	250 mm ID 5 mm thick	m	132.00						
(e)	300 mm ID 6 mm thick	m	49.00						
(f)	400 mm ID 6 mm thick	m	53.00						
(g)	500 mm ID 6 mm thick	m	55.00						
(h)	600 mm ID 6 mm thick	m	66.00						
(i)	700 mm ID 6 mm thick	m	900.00						
3.4	Supplying DI Specials and fittings with plain, double socket, socket & flanged and double flanged end connections as required, with lining and coating as per the specification, and IS 9523 with EPDM rubber gaskets as per IS 5382 as required for successful completion of the work. This item includes third party inspection, transportation, freight, loading and unloading, stacking etc. all complete for various sizes of DI specials and fittings as noted with the following end connections.								
(a)	Tee's, Socket, collar, tail pieces, flanged tapers, socketed tapers, flanged spigot short pipes, flanged socket short piece, all bends, end caps, barrel piece, dismantling joints etc. required for suitable completion of the works. Double flange pipe pieces required for suitable completion of works.	MT	6.02						
3.5	Handling, aligning, laying and jointing of K-9 DI pipe to other pipe and to fittings and specials, with EPDM rubber O-rings (as per IS 5382) and flange gaskets (as per IS 12288) as per specifications. This item includes transportation of pipes, specials and fittings from the store yard to the project site, stacking of pipe and fittings as per BIS requirements, loading, unloading, hoisting, lowering, marginal cutting and grinding wherever necessary, assembling, jointing, providing temporary supports etc., all complete with approved equipment, for pipe of the following diameters.								
(a)	100 mm DN DI - K9 pipe	m	23,634.67						
(b)	150 mmDN DI - K9 pipe	m	4,564.75						
(c)	200 mm DN DI - K9 pipe	m	1,046.27						
(d)	250 mmDN DI - K9 pipe	m	1,686.19						
(e)	300 mmDN DI - K9 pipe	m	258.37						
(f)	400 mm DN DI - K9 pipe	m	1,588.16						
(g)	500 mmDN DI - K9 pipe	m	15.68						
(h)	600 mm DN DI - K9 pipe	m	284.76						

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
3.6	Supplying of HDPE (PE80) pipe including all specials confirming to IS 4984 and the specifications, including third party inspection, all taxes and duties, transportation, freight charges, loading and unloading, conveyance to the project site and stacking with cost of all labor and material for following pipe diameters.								
(a)	110 mm OD HDPE PE-80 PN10	m	3,544.00						
(b)	125 mm OD HDPE PE100 PN 16 (for trenchless pipe laying),	m	46.00						
3.7	Handling, aligning, <b>laying and jointing</b> of <b>HDPE (PE80) pipes</b> with specials by butt welding / spigot joints confirming to IS and specifications for pipes of following diameters.								
(a)	110 mm OD HDPE PE-80 PN6	m	4,379.70						
(b)	110 mm OD HDPE PE-80 PN10	m	8,826.33						
	<b>Sub Total (3)</b>								
4	<b>PIPE JACKING</b>								
4.1	Laying of pipe and jointing by trenchless technology including construction of pit with required accessories, all civil and mechanical works, disposal of excess earth, etc. all complete as per specification and instruction of Employer's representative.								
(a)	125 mm OD HDPE PE100 PN 16 (for trenchless pipe laying)	m	45.80						
	<b>Sub Total (4)</b>								
5	<b>VALVES AND APPURTENANCES</b>								
5.1	Supplying of following diameters <b>Cast iron double flanged ends Sluice valve</b> as per IS 14864 with end cap and all accessories required for fixing and jointing, and shall include anti-corrosive painting etc. all complete. The rate shall include all local and centre! taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to store yard and stacking the same, with cost of all labour and material. The item shall be as per specification, drawing and as directed.								
(a)	100mm dia PN 1.0	Nos.	21						
(b)	150 mm dia PN 1.0	Nos.	7						
(c)	250mm dia PN1.0	Nos.	1						
(d)	80 mm dia (for Fire hydrant) PN1.6	Nos.	7						
(e)	100 mm dia PN1.6	Nos.	61						
(f)	150 mm dia PN1.6	Nos.	15						
(g)	250 mm dia PN1.6	Nos.	7						
(h)	300 mm dia PN1.6	Nos.	3						
5.2	Handling, aligning and installing in true to line and level cast iron double flanged Sluice Valves (IS 14864) of the following diameters. This item includes transportation of valves and accessories from the store yard to the project site, loading, unloading, hoisting, lowering, assembling and jointing including the cost of all jointing materials such as rubber gaskets, nuts, bolts, etc., also installation of valves in already constructed chambers and providing temporary supports, as per the specifications and drawings.								
(a)	100mm dia PN 1.0	Nos.	90						

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
(b)	150 mm dia PN 1.0	Nos.	9						
(c)	200 mm dia PN 1.0	Nos.	1						
(d)	250mm dia PN1.0	Nos.	5						
(e)	80 mm dia (for Fire hydrant) PN1.6	Nos.	11						
(f)	100 mm dia PN1.6	Nos.	163						
(g)	150 mm dia PN1.6	Nos.	17						
(h)	200 mm dia PN1.6	Nos.	9						
(i)	250 mm dia PN1.6	Nos.	8						
(j)	300 mm dia PN1.6	Nos.	6						
5.3	Supplying of following diameters double flanged <b>Butterfly valves</b> (manually operated) as per IS 13095 with all accessories, including approved anti-corrosive painting. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading, unloading, conveyance to store yard and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.								
(a)	400 mm dia PN1.0	Nos.	1						
(b)	400 mm dia PN1.6	Nos.	2						
5.4	Handling, aligning, and fixing in true to line and level following diameters and rating double flanged Butterfly valves PN 1.0 & 1.6 (manually operated as per IS 13095) including cost of required jointing material such as rubber packing, nuts bolts etc. The item includes transportation of valves and accessories from store yard to site, loading, unloading, hoisting, lowering, grinding wherever necessary, assembling and jointing, providing temporary supports etc., all complete with approved equipment, for valves of following diameters, for all lead and lift. The item shall be as per specification, drawing and as directed.								
(a)	400 mm dia	Nos.	4						
5.5	Supplying of following diameters of <b>Double chamber Air valves</b> with in built sluice valve with flanged ends as per IS 14845, with all accessories required, including anti-corrosive painting etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to store yard and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.								
(a)	80 mmdia PN1.0	Nos.	50						
(b)	80 mm dia PN1.6	Nos.	34						
5.6	Handling, aligning, and installing in true to line and level following diameters <b>Double chamber Air valves</b> with in built sluice valve with all accessories and as per specifications and drawings. This item includes transportation of valves and accessories from the store yard to the project site, loading, unloading, hoisting, assembling and jointing, including the cost of jointing materials such as rubber packing, nuts, bolts, etc., as per the specifications and drawings.								
(a)	80mmdia	Nos.	118						
(b)	100 mmdia	Nos.	2						

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
(c)	150 mmdia	Nos.	1						
5.7	Supplying of following diameters <b>Pressure Reducing valve</b> with double flanged ends and shall including anti-corrosive painting etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to store yard and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.								
(a)	100mm dia PN1.6	Nos.	1						
(b)	150mm dia PN1.6	Nos.	2						
(c)	200mm dia PN1.6	Nos.	1						
(d)	250mm dia PN1.6	Nos.	2						
(e)	300mm dia PN1.6	Nos.	1						
(f)	400mm dia PN1.6	Nos.	1						
5.8	Handling, aligning, and <b>fixing</b> in true to line and level following diameters <b>Pressure Reducing valve</b> double flanged ends. The item includes transportation of valves and accessories from store yard to site, loading, unloading, hoisting, lowering, grinding wherever necessary, assembling and jointing, including cost of jointing materials such as rubber packing, nuts bolts etc., providing temporary supports, all complete with approved equipment, for all leads and lifts. The item shall be as per specification, drawing and as directed.								
(a)	100mm dia PN1.6	Nos.	1						
(b)	150mm dia PN1.6	Nos.	2						
(c)	200mm dia PN1.6	Nos.	1						
(d)	250mm dia PN1.6	Nos.	2						
(e)	300mm dia PN1.6	Nos.	1						
(f)	400mm dia PN1.6	Nos.	1						
5.9	Providing and <b>supplying Fire hydrants</b> as per IS 909, consisting single flanged outlet oblique type hydrant valve, and shall include cost of anti-corrosive painting etc. all complete. The rate shall include all local and central taxes, third party inspection, transportation, freight charges, loading and unloading, conveyance to site and stacking the same, with cost of all labour, and material. The item shall be as per specification, drawing and as directed.								
(a)	80mmdia PN1.6	Nos.	18						
5.10	Handling, aligning, and fixing Fire hydrants true to line and level. The item includes transportation of valves and accessories from store yard to site, loading, unloading, hoisting, lowering, grinding wherever necessary, assembling and jointing with cost of jointing material such as rubber packing, nuts bolts, providing temporary supports etc., all complete with approved equipment, for all leads and lifts. The item shall be as per specification, drawing and as directed.								
(a)	80mmdiaPN1.6	Nos.	11						

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
5.11	Supply & installation of Electromagnetic flowmeter ,manufacturer should have ISO 9001:2008 certification and flow meter testing confirming to ISO 17025; Flow meter tube:SS304;Flanges:carbon steel as per DIN PN10 or higher rating as per requirement ;Liner hard rubber or PTFE suitable for drinking water application ;Grounding: Grounding rings SS 304/Grounding electrodes of material SS316 :coil housing and junction box :SS304/Die cast aluminium /carbon steel with anticorrosive epoxy coating of minimum thickness 150 microns /equivalent as per EN ISO-12944 standard (as per site condition);Ingress protection :IP68 for sensor and IP67 for Transmitter ;Flow transmitter accuracy ;+/-0.5% of the measured value for velocities 0.5m/sec or above;Display:Digital LCD/LED (Back lit LCD/LED)Display, Instantaneous flow ,Bi directional flow and totalized flow ;Cable between flow head and Transmitter :maximum 25 meters including PVC conduit ;Surge arrester : To be provided ;Power supply & output :230V AC or 24V DC as applicable to site condition &4-20 mA HART; Compatible to SCADA/WEB Based data acquisition system; Flow meter test lab certification should be provided from NABL approved lab/FCRI;Excluding all taxes with 5 years warranty(Make:M/s Krohne Marshal / Endress+Hauser / Yokogawa / Siemens / Emerson / ABB / or equivalent make) Including required fittings complete as directed by the employers representative.								
(a)	100mm-PN1.6	Nos.	1						
(b)	150mm-PN1.6	Nos.	13						
(c)	200mm-PN1.6	Nos.	15						
(d)	250mm-PN1.6	Nos.	9						
(e)	300mm-PN1.6	Nos.	4						
	<b>Sub Total (5)</b>								
6	<b>VALVE CHAMBERS</b>								
6.1	Construction of RCC and Brick masonry chambers for valves, hydrants, flow meters etc, including cost of PCC and RCC work, cost of supply and bending and binding of steel with required shuttering, cost of brick work with plaster from inside and outside, cost of precast slabs and supply and installation of SFRC frame and covers wherever required, including ail the miscellaneous items of work, but excluding the supply and installation of pipes and specials, valves etc. The item shall be as per specification, drawing and as directed.								
(a)	Chamber for Sluice valve TYPE S1	Nos.	77.00						
(b)	Chamber for Sluice valve TYPE S2	Nos.	16						
(c)	Chamber for Wash out valve TYPE W1	Nos.	74						
(d)	Chamber for Wash out valve TYPE W2	Nos.	44						
(e)	Chamber for Butterfly valve TYPE B1	Nos.	4						
(f)	Chamber for Air valve TYPE A1	Nos.	118						
(g)	Chamber for Air valve TYPE A2	Nos.	2						
(h)	Chamber for Air valve TYPE A3	Nos.	1						
(i)	Chamber for Fire hydrant TYPE F1	Nos.	18						
(j)	Chamber for Pressure reducing valve/ Flowmeter TYPE P1	Nos.	2						

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
(k)	Chamber for Pressure reducing valve/ Flowmeter TYPE P3	Nos.	3						
(l)	Chamber for Pressure reducing valve/ Flowmeter TYPE P5	Nos.	37						
	<b>Sub Total (6)</b>								
7	<b>MISCELLANEOUS CIVIL WORK</b>								
7.1	<b>Plain Cement Concrete Work</b>								
	Providing and placing plain cement concrete (PCC) of one of the following grades for thrust blocks, anchor blocks, floatation blocks, etc. with 20-40mm stone aggregate (crusher broken) including finishing the surface, shuttering and staging, curing etc. as per the specifications and drawings and as directed by the Employer's Representative. This Work is not included in Item 6.								
(a)	Grade M15 concrete	m <sup>3</sup>	1,631.00						
(b)	Grade M20 concrete	m <sup>3</sup>	12.59						
7.2	<b>Reinforced Cement Concrete Work</b> Providing and placing reinforced cement concrete (RCC) of one of the following grades with 10-20 mm stone aggregate (crusher broken) including shuttering and staging, curing etc. as per the specifications and drawings and as directed by the Employer's Representative. This Work is not included in Item 6.								
(a)	Grade M20 concrete	m <sup>3</sup>	162.83						
(b)	Grade M25 concrete	m <sup>3</sup>	20.00						
7.3	<b>Reinforcement Steel</b>								
	Providing and fabricating steel reinforcement with Fe 415 grade steel for RCC work including straightening, cutting, bending, placing in position and tying (including cost of tie wire) .taxes and duties, transportation etc. all complete, as per specifications and drawings and as directed by the Employer's Representative. This Work is not included in Item 6.	kg	3,731.62						
7.4	<b>Brick Masonry and Size Stone masonry Work</b>								
(a)	Construction of Brick Masonry for sub/superstructure of 230/350 mm thick walls using cement mortar with a cement to sand ratio of 1:6. This item includes the cost of transportation of all materials, labor, scaffolding, curing etc. as per specifications and drawings and as directed by the Employer's Representative. This Work is not included in Item 6.	m <sup>3</sup>	25.00						
(b)	Providing and constructing <b>Size Stone masonry</b> in CM 1:3 below and above ground level including cost and conveyance of all materials curing etc., with all lead and lifts, complete as per specifications and as directed by the Employers representative. This Work is not included in Item 6.	Cum	390.00						
(c)	Providing weep holes in brick masonry / plain / reinforced concrete abutment, wing wall with 100 mm dia AC pipe through the full width of structure with slope 1V: 20H towards drawing force complete as per drawing and Technical Specifications.	Nos.	60.00						
7.5	<b>Plastering Work</b>								
(a)	Providing and applying cement sand plaster 12 mm thick in a single coat using cement mortar with a cement to sand ratio of 1:4 without neeru finish to concrete or brick surfaces including scaffolding and curing as directed by the Employer's Representative. This Work is not included in Item 6.	m <sup>2</sup>	15.00						

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
(b)	Providing and applying cement sand plaster 20 mm thick in a single coat using cement mortar with a cement to sand ratio of 1:4 without neeru finish to concrete or brick surfaces including scaffolding and curing as directed by the Employer's Representative. This is Work not included in Item 6.	m <sup>2</sup>	20.00						
7.6	Providing and laying boulder soling with boulders 100-200mm size in foundation, packing with locally available mooram and sand, including watering, dressing and levelling, all complete as per drawing and specification and as directed.	m <sup>3</sup>	34.68						
7.7	Providing and laying 100 mm thick brick soling for foundations and under flooring with best quality jhama brick, sand packed and laid to level after preparing the subgrade including all labor and materials and dewatering if necessary, complete and as per the specifications and drawings and as directed by the Employer's Representative. This work is not included in Item 6.	m <sup>2</sup>	100.00						
7.8	<b>Pipe carrying Bridge across the River</b>								
(a)	Providing and Construction of Steel bridge for river crossings of pipe lines, including all the civil works and providing and fabricating structural steel work in rolled sections including joists, channels, angles, beams, etc. including cutting, fabricating, grinding, hoisting, erecting, fixing in position making bolted/welded connections, applying coatings etc., as per the specifications and drawings and as directed by the Engineer.	LS	3						
(b)	Providing and DI pie laying for crossings of Oil India Limited (OIL) pipe lines, for crossing the RoW of OIL pipe line by Distribution Line including all the works including thrust blocks, cement concreting, etc. as per the specifications and drawings and as directed by the Engineer.	No	5						
	<b>Sub Total (7)</b>								
8	<b>ROAD RESTORATION</b>								
8.1	<b>Reconstruction of Bituminous Asphalt Roads</b>								
(a)	Providing and laying of Granular sub base (GSB), as per specification drawing and as directed.	m <sup>3</sup>	19,710.77						
(b)	Providing and laying of Prime Coat, as per specification drawing and as directed.	m <sup>2</sup>	41,818.74						
(c)	Providing and laying of Semi dense bituminous concrete (SDBC), as per specification drawing and as directed	m <sup>3</sup>	256.79						
(d)	Providing and laying of Tack coat (TC), as per specification drawing and as directed.	m <sup>2</sup>	44,079.74						
(f)	Providing and laying of Bituminous macadam (BM), as per specification drawing and as directed.	m <sup>3</sup>	1,340.14						
(g)	Providing and laying of Premix carpet (PC), as per specification drawing and as directed.	m <sup>2</sup>	49,144.52						
8.2	<b>Reconstruction of WBM Roads</b>								
	Providing , laying ,spreading and compacting stone aggregates of specific sizes as per specification and drawing to water bound macadam including spreading in uniform thickness, hand packing, roiling with vibratory roller 8-10 tonnes in stages to proper grade and camber, applying and brooming requisite type of stone screenings & binding material, and completer as per specification drawing and as directed.	m <sup>3</sup>	23,483.74						
8.3	<b>Reconstruction of Concrete Roads</b>								
	Providing, placing and finishing Cement Concrete roads to match the existing roadway which was removed, if directed by the Employer's Representative . Grade M20 concrete shaii be used and placed.to the same depth as the existing roadway surface, A screeded finish shall be applied.	m <sup>3</sup>	943.93						

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
8.4	<b>Reconstruction of Brick Roads</b>								
	Providing and laying of bricks on edge for road restoration on earth subgrade. The bricks shall be on edge, diagonally placed, and gap filled up with sand, all complete, as per specification and drawings.	m <sup>2</sup>	823.27						
8.4	<b>Reconstruction of Paver blocks(ICBP) roads</b>								
(a)	Providing and laying of Interlocking Concrete Block Pavement (ICBP) having thickness 80mm as per IS 15658-2006 (Compressive Strength 47.20N/mm2), all complete, as per specification and drawings.	m <sup>2</sup>	6,675.00						
(b)	Removal/dismantling of existing Interlocking Paver Block pavement using manual/ mechanical means and stacking properly on the road side, without, affecting the traffic and Relaying including all required material after work completion during road restoration and Providing the wastage and loss quantity from the PWD approved vendors, all complete, as per specification and drawings.	m <sup>2</sup>	3,432.10						
	<b>Sub Total (8)</b>								
9	<b>TESTING, DISINFECTION, TRIAL RUNS AND COMMISSIONING</b>								
9.1	Hydraulic testing of the distribution system piping of the following diameters in segments at the required test pressures. This item includes the costs of water, labor, pumping, etc. all complete, as per the specifications and as directed by the Employer's Representative.								
(a)	80 mm - 200mm internal diameter	km	42.498						
(b)	Above 200 mm - 300 mm internal diameter	km	1.944						
(c)	Above 300 mm - 500 mm internal diameter	km	1.603						
(d)	Above 500 mm - 800 mm internal diameter	km	1.185						
			<b>47.230</b>						
9.2	Hydraulic testing of the left out (by previous contractor) portion of distribution system piping of the following diameters in segments at the required test pressures. This item includes the costs of water, labor, pumping, etc. all complete, as per the specifications and as directed by the Employer's Representative.								
(a)	80 mm - 200mm internal diameter	km	19.106						
(b)	Above 200 mm - 300 mm internal diameter	km	2.680						
(c)	Above 300 mm - 500 mm internal diameter	km	1.757						
(d)	Above 500 mm - 800 mm internal diameter	km	0.506						
			<b>24.049</b>						
9.3	Disinfecting and flushing of pipeline complete as per specification	km	177.515						
9.4	Trial Runs and Commissioning including the cost of labor, electricity, etc., all complete as per specification and as directed by the Employer's Representative.	km	177.515						
	<b>Sub Total (9)</b>								
10	<b>Daywork - Labor</b>								
10.01	Skilled Labor	man days	300						



BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
10.02	Unskilled Labor	man days	300						
10.03	Carpenter	man days	20						
10.04	Mason	man days	200						
10.05	Pipelayer / Fitter	man days	150						
10.06	Welder	man days	100						
	<b>Sub Total (10)</b>								
11	<b>Daywork - Material</b>								
11.01	Cement - ordinary Portland type (43 Grade) in 50 kg bags	bags	100						
11.02	Provide Fe 415 steel reinforcing bars up to 20 mm diameter as per the specification	kg	2,000						
11.03	Fine aggregate for concrete as per the specification	m <sup>3</sup>	25.00						
11.04	Coarse aggregate for concrete as per the specification	m <sup>3</sup>	40						
11.05	First class bricks as per the specification	No.	3,000						
11.06	Primer paint as per the specification	liters	5						
11.07	Epoxy paint as per the specification	liters	5						
11.08	Welding rods	packs	25						
	<b>Sub Total (11)</b>								
12	<b>Day work - Equipment</b>								
12.01	Dump Truck (min capacity 4 m <sup>3</sup> )	days	50						
12.02	Water tank truck ( min capacity 11,000 liters)	days	20						
12.03	Mobile crane ( up to 10 ton capacity)	days	30						
12.04	Wheeled bucket excavator (min capacity 0.45 m <sup>3</sup> )	days	25						
12.05	Wheeled front-end loader (min capacity 0.75 m <sup>3</sup> )	days	25						
12.06	Compressor (at least 3.2 m <sup>3</sup> /minute capacity)	days	30						
12.07	Generator (at least 15 kw capacity)	days	30						
12.08	Dewatering Pump (at least 60 m <sup>3</sup> /hour capacity and 100 mm diameter discharge) with piping and valving	days	30						
12.09	Concrete Mixer (at least 0.25 m <sup>3</sup> capacity )	days	30						
12.10	Portable vibratory plate or ramming compactor	days	30						
	<b>Sub Total (12)</b>								
	<b>TOTAL (Items 1-12)</b>								

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
13	15 Nos. of Booster Pumping station at Geeta Nagar and Leechubagan								
	GEETA NAGAR - ZONE								
13.1	One number of Booster Pumping station Size [6.0 x 3.5 x 4.5 m] - GEETA NAGAR								
	supply , erection / installation and Construction of inline booster pumping station [distribution line from BPS to Geeta Nagar II- inlet having a size of DI 200 mm Dia of 470 m length Laying and Jointing is included in Item no 3.5 (c)] as per the specifications, drawings 1) 3 nos. - Vertical multistage centrifugal pump, each cap.- 24.3 LPS, Head - 99m 2) 3 nos. - 150 mm dia Lugged B/F valve - Suction line 3) 3 nos.- 150 mm dia Lugged B/F valve - Delivery line 4) 3 nos.- 150 mm dia NRV - Delivery line 5) 1 no.- 200 mm dia Lugged B/F valve - Suction header line 6) 1 Lot - D.I 150 mm dia - Suction & delivery line with fittings. Panel Room Size [ 6 x 6 x 4.5 ] as directed by engineer	LS	1						
	A. CIVIL WORKS								
1.01	Site clearance by cleaning and grubbing Reservoir area including uprooting rank vegetation including grass, shrubs, bushes, removing temporary structure, removing all trees coming in the alignment with all contractor's machinery, labour, tools & plants, including obtaining permission from concerned departments with all lead and lift complete as directed by Engineer and as per standard specification in the entire proposed area.	LS	1						
1.02	Excavation for foundation / pipe trenches in earth, soils of all types, sand, gravel and soft murum, including removing the excavated material from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation etc. complete.								
a	Up to all lift	m <sup>3</sup>	800						
1.03	Excavation for foundation / pipe trenches in soft rock or rippable rock at all levels and depth below ground including removing the excavated materials from the site and stacking and spreading as directed, including dewatering where necessary, preparing the bed for foundation etc. complete.								
a	Up to all lift	m <sup>3</sup>	200						
1.04	Excavation for foundation / pipe trenches in hard rock or non rippable rock at all levels and depth below ground including removing the excavated materials from the site and stacking and spreading as directed including dewatering where necessary, preparing the bed for foundation etc. complete.								
a	Up to all lift	m <sup>3</sup>	50						
1.05	Providing and laying cement concrete (M-20) including curing, compaction etc. using hard broken stone aggregate 20 mm nominal size under the foundation and plinth, including cost of shuttering, complete. (For all Non structural Concrete)	m <sup>3</sup>	20						
1.06	Providing and laying in position compacted gravel bedding All work up to plinth level for Reservoir and Service building as per drawing and specifications.	m <sup>3</sup>	120						
1.07	Filling with excavated soil including watering, ramming, consolidating and dressing complete and disposal of surplus excavated materials to a place identified by the Contractor and approved by the Engineer including loading, unloading, stacking etc complete as per drawing and specifications.	m <sup>3</sup>	150						

BILL OF QUANTITIES									
Item No.	Description	Units	Estimated Quantity	Rate (Rs.)		Amount (Rs.)			Remarks
				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
1.08	Providing and laying in position machine batched, machine mixed and machine vibrated design mix cement concrete of specified grade for reinforced cement concrete structural elements, including the cost of centering, Shuttering, including curing, compaction, finishing and making good the joints and admixtures in recommended proportions as per IS 9103. <b>M-30grade reinforced cement concrete.</b> (For all structural Concrete)								
i	<b>Foundation base slab, Sump Walls up to base slab of reservoir</b>								
a	For Reservoir	m <sup>3</sup>	120						
b	For Control Room	m <sup>3</sup>	30						
ii	<b>In walls, columns, roof slab, beams, lintels, chajjas, ventilators and stair etc.</b>								
a	For Reservoir	m <sup>3</sup>	350						
b	For Control Room	m <sup>3</sup>	100						
1.09	Providing and fixing in position steel bar reinforcement (Tor Steel Fe-415 Grade) of various diameters for RCC footings, foundations, slabs, beams, columns, Retaining wall, newels, chajjas, lintels, copings, chairs and accessories, rebars in service building, Brick work etc. as per specification and drawings; including cutting, bending, hooking the bars, binding with wires or tack welding and supporting as required, etc. complete. (including cost of binding wire).								
a	For Reservoir	Kg.	42,000						
b	For Control Room	Kg.	11,000						
1.10	<b>B/W in Control room</b>								
	Providing & Construction of Brick masonry for super structure of 300 mm thick walls in CM (1:6) prop. Using first class best quality table moulded bricks including cost and conveyance of all materials, labour, scaffolding, Curing etc., complete for finished item of work as per specification and drawing and as directed by the Engineer-in-Charge								
	For Control Room	m <sup>3</sup>	20						
1.11	<b>Plastering work</b>								
	Providing and applying plaster of 12mm thick in CM(1:4) prop. to ceiling, internal and external walls of control building, including cost and conveyance of all materials to site, scaffolding, screening of sand curing and labour charges etc, complete for finished item of work as per specification and drawing and as directed by the Engineer-in-charge.	m <sup>2</sup>	120						
1.12	Providing and placing in position suitable PVC water Stops conforming to IS:12200 for construction joints between two RCC members.	m	190						
1.13	<b>Flooring</b>								
a	Providing and laying ceramic tile over concrete flooring with M:30 concrete laid to proper level and slope including compacting, finishing smooth and curing complete as per specification and drawing and as directed by the Engineer-in-charge.	m <sup>2</sup>	27						
1.14	Providing and fixing steel frame 14 inch Roof ventilator including complete in all respect including welding, painting, finishing etc. complete and as per specification and as directed by the Engineer-in-charge.	No.	10						

BILL OF QUANTITIES									
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				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
1.15	Providing and erecting 3.0 m. high chain link fencing with chain link having hole size 65 mm x 65 mm supported on M.S.angle post of size 50 mm x 50 mm x 6 mm at 2.40 m c/c including excavating pits for foundation fixing post in M 20 concrete of size 45 cm x 45 cm x 45 cm fixing chain link with 3.25 mm ( 10 gauge ) G.I. wire at top and bottom and with oil paint etc. complete and Providing and fixing steel frame 4.0 m wide Double leaf Entrance gate (exterior) complete in all respect including welding, painting, finishing etc. complete and as per drawings and specification..	m	630						
1.16	<b>Water proofing on Roof</b>								
	Providing and laying three layers of cold bituminous paint with two layers of polyester felt and gravel to roof and parapet walls for water proofing.								
a	For Reservoir	m <sup>2</sup>	200						
b	For Control Room	m <sup>2</sup>	30						
1.17	<b>Painting</b>								
a	Providing and applying priming coat on concrete/masonry/ surfaces including scaffolding if necessary, preparing the surface by thoroughly cleaning oil, grease, dirt and other foreign matter and sand papering as required as per specification.	m <sup>2</sup>	250						
b	Providing and applying Two coat waterproof cement based paint of approved make and shade over primer coat external surface to give an uniform shade including scaffolding, etc. complete.	m <sup>2</sup>	250						
c	Providing and applying Two coat Oil bond distemper of approved make and shade over primer coat internal surface to give an uniform shade including scaffolding, etc. complete.	m <sup>2</sup>	60						
d	Providing painting two coats over a primary coat with synthetic enamel paint of first quality of approved make to iron work including cost and conveyance of all materials like primer, synthetic enamel paint, sand paper, brushes etc, to site including all taxes, all labour charges for preparation of the surface, painting etc., complete for finished item of work and as directed by the Engineer-in-charge.	m <sup>2</sup>	20						
1.18	<b>Door and Window</b>								
a	Providing and fixing steel frame 4.0 m wide Double leaf Entrance gate (exterior) complete in all respect including welding, painting, finishing etc. complete and as per drawings and specification..	m <sup>2</sup>	12						
b	Providing and fixing steel frame of door (Internal like Bathroom ) including complete in all respect and size as per drawings and specification .	m <sup>2</sup>	5						
c	a) Providing and fixing in position steel windows with openable / sliding aluminium frame, 5 mm thick plain sheet glass shutter, glazing clips / neoprene / rubber / PVC Gasket of approved quality, chromium plated brass wigs, other aluminium fixture and fastenings, handle, stopper etc. complete and as per drawings and specification.	m <sup>2</sup>	3						
1.19	<b>Ladder and Hand rail</b>								
a	Providing, fabricating and fixing in position Stainless Steel ladder inside the reservoir including cost of material and labour involved, welding, cages, anchoring and applying with 2 coats of enamel paint over a cost of primer complete and as per drawings and specification and as directed by engineer- in-charge.	No.	1						
b	Providing, fabricating and fixing in position stainless Hand rail (Horizontal as well as vertical poles) as per drawings and specification, fabricating and welding, grinding corners, fixing in position by making holes in the concreting and grouting in position with cement concrete M20 as per drawing and finishing for the exposed face with 2 coats of enamel paint over a cost of primer.	No.	1						

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				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
1.20	<b>Paved area</b>								
a	Providing, Laying, compacting Subgrade with selected job excavated material in paved area and access road within the fence line from existing subgrade to the underside of the base course as per drawings and specification.	m <sup>3</sup>	130						
b	Providing, Laying, compacting Base course 500 mm thick in paved area and access road within fence line as per drawings and specification.	m <sup>3</sup>	120						
c	Providing, Laying, compacting asphalt concrete binder course 50 mm thick of paved area as per drawings and specification.	m <sup>3</sup>	15						
d	Providing, Laying, compacting Asphalt concrete surface course 30 mm thick of paved area as per drawings and specification.	m <sup>3</sup>	10						
1.21	Providing, Fixing and installation of all sanitary fixtures related Plumbing for the bath room / sanitation facilities with all accessories ISI marked fittings and Connections including cost of labour and material and preparation of plumbing shop drawings as per specification.	LS	1						
1.22	Providing, Fixing and installation of local water supply from the inlet valve chamber for the bathroom and reservoir cleaning. Inlet to Reservoir will be established on site.	LS	1						
1.23	Providing, Fixing and installation of Waste water pipe and manholes from the bathroom to the septic tank including cost of labour and material as per drawings and specifications.	LS	1						
1.24	Providing, Fixing and installation of Septic tank and absorption pit as per drawings and specification including cost of labour and material.	LS	1						
1.25	Providing and laying Storm water / roof drain system of the reservoir including Manholes. Rates also include excavation, concreting, shuttering, steel, specials, pipes, fittings, etc complete in all respect as per drawings and specification.	LS	1						
1.26	Providing and laying 300 mm dia Pipe to washout and headwall including labour, material etc complete in all respect as per drawings and specification.	LS	1						
1.27	To Clean reservoir, supply Potable water, including Transportation, Equipment, Manpower, Level measuring device fill reservoir and perform leakage testing of Reservoir (Hydro test) as per specification for water tightness including cleaning Reservoir full after disinfection.								
a	Reservoir	LS	1						
b	All yard piping	LS	1						
1.28	To supply manpower, equipment, chemicals, testing and disinfect the reservoir including all inlet, outlet, piping according as per specification.								
a	Reservoir	LS	1						
b	All yard piping	LS	1						
1.29	Supplying all materials etc. and constructing culvert crossing including boulders at inlet and outlet but excluding asphalt surface per drawing and specification and as directed by Engineer- in-charge.	LS	1						
1.30	Supply and install polyethylene sheeting between gravel and PCC under reservoir (sump) and control building.	m <sup>3</sup>	230						
1.31	Supply and install building paper/bond breaker between reservoir (sump) and service building	m <sup>3</sup>	14						
1.32	Supply and install Type A traffic barrier	m	20						
1.33	Supply and install polyurethane joint sealant between reservoir (sump) and control building.	m	8						
1.34	Supply and install external access ladder (steel) pre standard drawings, with two coats (minimum) anticorrosion paint and final decorative coat – colour to be agreed with client.	LS	1						

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				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
1.35	Supply and install roof vent per standard drawings	LS	4						
1.36	Supply and install 6mm steel plate bolted in place over slots for future pumps	LS	2						
1.37	Supply and install access hatch to sump per standard drawings	LS	1						
	<b>SUB TOTAL - Civil Works</b>								
	<b>B. MECHANICAL WORKS</b>								
	<b>supplying &amp; installing Mechanical Equipment</b> including, but no limited to, safe storage, protection, erection, installation, pre-commissioning & commissioning testing as per specification and drawing for following items.								
2.01	<b>Pump &amp; Motor</b>								
	Providing, Fixing, installation and commissioning & third party inspection of Vertical Turbine pump including Motor in all respect as per specification and drawings.	Nos	3						
2.02	<b>Inlet pipes</b>								
	Supplying, installing, commissioning & third party inspection of 300Ø DI inlet pipe from fence line to the bell mouth inside the Reservoir , Butterfly valve, pipe supports, bell mouth, sleeve coupling etc complete in all respect and as per specification and Drawings.	LS	1						
2.03	<b>Out let pipes</b>								
	supplying, installing, commissioning & third party inspection of 300Ø DI Outlet pipe from bell mouth in Reservoir to fence line including fittings, Butterfly valve, specials like EMF Meter, Wall piece, Well mouth, Tee, pipe support , Reducer Sleeve coupling etc complete in all respect and as per specification and drawings.	LS	1						
2.04	<b>Wash out pipes</b>								
	supplying, installing, commissioning of Wash out pipe from Washout sump in the Reservoir to Washout manhole including all fittings, conc. encasement etc complete in all respect and as per specification and drawings.	LS	1						
2.05	<b>Over Flow</b>								
	supplying, installing, commissioning of Reservoir over flow from inside Reservoir to Manhole including all fittings etc complete in all respect and as per specification and drawings.	LS	1						
2.06	<b>Inlet valve chamber</b>								
	Supplying , fixing and installation in position true to line and level, inlet valve chamber and its contents and related fitting and associated valves, ball valve, sleeve couplings, excavation, concreting, shuttering, steel and specials and pipe support , rungs, etc complete in all respect and as per drawing and specification.	LS	1						
2.07	Supplying, installing, commissioning of Wash out/Overflow/Storm water pipe from fence line to offsite disposal point including all fittings, conc. encasement etc complete in all respect and as per specification. (See site plan for pipe size)	m	100						
	<b>SUB TOTAL - Mechanical Works</b>								
	<b>C. ELECTRICAL SYSTEM</b>								
	<b>Service Buildings Internal Lighting System</b>								
3.01	Manufacturing, inspection, delivery, installation, testing, commissioning of Lighting Distribution Board (DB)								
a	4 Way	Nos	1.00						

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				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
b	12 Way	Nos	1.00						
3.02	Providing & Fixing , Testing and commissioning of industrial fluorescent tube fitting with reflector fabricated from CRCA sheet and finished with powder coating / stove enamelled paint complete with accessories like Electronic Ballast, starter, terminal block duly prewired with copper conductor including making connection, testing etc. as required.								
a	2 X 28 Watts T5 lamp	Nos.	10						
b	1 X 28 Watts T5 lamp	Nos.	9						
c	Providing & Fixing , Testing and commissioning of Bulk Head fittings along with 100 W lamp	Nos.	6						
d	Providing & Fixing , Testing and commissioning of Switches, Junction boxes, Ceiling rose, modular fittings for switches & sockets, Receptacles etc on as required basis	Lot	1						
3.03	Providing & Fixing , Testing and commissioning of double ball bearing capacitor start ceiling fan of approved make complete with regulator and other accessories as required.								
a	1200 mm sweep	Nos.	2						
b	1400 mm sweep	Nos.	1						
3.04	Point Wiring along with heavy duty PVC conduit complete with fittings, clamps, nut bolts, etc.								
a	(a) Short point (up to 3m)	Per Point	20						
b	(b) Medium point (up to 6m)	Per Point	12						
3.05	Pipe Earthing for SB's as per IS:3043 with perforated 3.0 Mtr. Long, 40 mm dia. ' B ' class G.I. Pipe including all accessories like nut, bolts, reducer, nipple, wire meshed funnel, and C.C. finished chamber covered with hinged type with locking arrangement C.I. Cover, C.I. Frame of size 300mm x 300 mm and embodying the pipe complete with alternate layers salt and coke/ charcoal, testing of earth resistance as required.	Nos.	1						
3.06	Supply & Laying following size earth wire/strip in horizontal or vertical run in ground/surface/recess including riveting, soldering, saddles, making connection etc. as required.								
a	8 SWG G.I. Wire	m	150						
3.07	Providing & Fixing , Testing and commissioning of metal clad industrial plug top & socket unit with pin and sleeve type contact on porcelain/ Bakelite base in sheet steel enclosure with MCB including making connections with lugs, testing etc.as required for use as welding socket.								
a	Three phase (Five pin) 20A	Nos.	1						
<b>Service Buildings Out-Side Lighting System</b>									
3.08	Supply, erection, Testing and commissioning of 7 Mtr high Mild steel swaged tubular pole conforming to IS: 2713-1980 (part I to II) with galvanised base plate of size 400mm x 400mm x 7mm in position including excavation of the pit and filling the same with C.C. of M-10 grade (1:3:6) from base plate to 50cm above ground level, with the help of steel frame not less than 40 cm dia up to 114.3mm outer dia and 50 cm beyond 114.3mm outer dia around the pole. Duly finished with cement plaster, earthing terminals , cable entry, Gi cable sleeve complete as required. The pole shall be galvanised using ISI mark seamless tube for structural purpose.	Nos.	8						

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				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
3.09	Supply, erection, Testing and commissioning of IP-54 protected street light luminaire suitable for HPSV/ MH lamp, made out from powder coated single piece die cast aluminium housing, electrochemically brightened and anodized POT optics aluminium reflector, UV stabilised acrylic bowl cover/toughened glass cover and accessories like copper ballast, electronic ignitor, capacitor, holder prewired up to terminal block etc. as required including making connection testing etc. as required.								
a	70 Watt HPSV	Nos.	6						
b	150 Watt HPSV	Nos.	2						
3.10	Supply, erection, Testing and commissioning IP65 protected decorative lighting luminaire Post top suitable for following lamps, made of powder coated cast aluminium housing, moulded acrylic lamp compartment with built in anodized aluminium louvers for lamp shielding and glare control, metallic lid top cover, including the cost of control gear complete in all respect. Bollards are including cost of decorative base pipe/ plate.								
a	70 Watt HPSV	Nos.	2						
3.11	Supply & Laying XLPE insulated & P.V.C. sheathed cable of 1.1 KV grade with aluminium conductor armoured of IS:7098-I approved make in ground as per IS:1255 including excavation of 30cmx75cm size trench, 25 cm thick under layer of sand, 11nd class bricks covering, refilling earth, compaction of earth, making necessary connection, testing etc. as required of size								
a	4/CX 25 mm <sup>2</sup>	m	200						
b	4/CX 16 mm <sup>2</sup>	m	600						
3.12	Supplying and making end terminations with heavy duty single compression brass gland SIBG type, aluminium lugs duly crimped with crimping tool, PVC tape etc for following size of Armoured PVC insulated & PVC sheathed/ XLPE aluminium conductor cable of 1100 volt grade as required of size.								
a	4/CX 25 mm <sup>2</sup>	Nos.	4						
b	4/CX 16 mm <sup>2</sup>	Nos.	18						
3.13	Feeder Pillar	Nos.	1						
	<b>SUB TOTAL - Electrical system</b>								
	<b>TOTAL 13.1 [ civil+mechanical+electrical]</b>								
13.2	Supply , erection / installation and Construction of inline booster pump station [distribution line size DI with various diameter of distribution pipeline] as per the specifications, drawings for the different sizes of booster pumps and as directed by Employer representative. 1 number of Booster Pumping station Size [4.5 x 2.5 x 3.5 m] 13 numbers of Booster Pumping station Size [4.0 x 2.5 x 3.5 m] [Total 14 Nos.]	LS	14.00						
13.2.1	Site clearance by cleaning and grubbing area including uprooting rank vegetation including grass,shrubs,removing temporary structure ,removing all trees coming in the alignment with all contractor's machinery, labour, tools & plants, including obtaining permission from concerned departments and taking out all cut materials by the agency with all lead and lift complete as directed by the Engineer and as per standard specification in the entire proposed pumping station area.	Nos.	14						



BILL OF QUANTITIES									
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				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
13.2.2	Earthwork excavation of foundation of structures by mechanical means as per drawing and technical specification, including setting out, construction of shoring and bracing, removal of stumps and other deleterious matter, dressing of sides and bottom, backfilling the excavated earth etc. all complete mass excavation- In Ordinary / Hard Soil	Cum	363.75						
13.2.3	Providing and laying in position plain cement concrete M15 grade with granite graded metal of 20 mm and down size and clean sieved river sand for foundation and levelling course, machine mixed, concrete laid, well compacted, including cost and conveyance of all materials, all leads and lifts, loading and unloading, labour, hire charges of machinery, T&P., providing & removing form work, curing and all other incidental items of work required for successful completion of the work and as directed by the Engineer -in-charge of the work etc. complete. (dewatering if required)	Cum	120						
13.2.4	Providing and constructing <b>Size Stone masonry</b> in CM 1:3 below and above ground level including cost and conveyance of all materials curing etc., with all lead and lifts, complete as per specifications and as directed by the Employers representative.	Cum	147.06						
13.2.5	Providing and laying in position reinforced cement concrete of design mix M25 with OPC @ 340 kgs, 20 mm and down size graded granite metal coarse aggregate @ 0.70 cum and fine aggregates @ 0.47 cum, with super plasticiser @ 3 litres conforming to IS 9103-1999 reaffirmed-2008, machine mixed, concrete laid in layers not exceeding 15 cms thick, vibrated for RCC beams, columns of all sizes in foundation for footings, pedestals, retaining walls, return walls, including attached pilasters, columns pillars, posts, struts, buttresses, bed blocks, anchor blocks & plinths etc. including cost of all materials, labour, HOM of machinery, providing & removing form work, curing, complete as per specifications, as per direction of Engineer etc. Complete.	Cum	140.63						
13.2.6	Providing and laying in position reinforced cement concrete of design mix M25 with OPC cement@340kgs,with 20mm and down size graded granite metal coarse aggregate @0.70 cum and fine aggregate @0.47cum, with super plasticiser @ 3 litres conforming to IS 9103-1999 reaffirmed-2008, machine mixed, concrete land in layers not exceeding 15 cms thick, vibrated for all works in RCC for roof slab, stair case ,lintels and beams, retaining walls return walls any thickness including attached pilasters columns pillars posts, struts, buttresses, string or lacing courses parapets coping, bed blocks, anchor blocks, plain window cills,fillets etc. Including cost of all materials,labour,HOM of machinery, providing & removing form work, curing complete as per specifications.	Cum	112.50						
13.2.7	Brick work in cement mortar with 1st class brick including racking out joints and curing complete as directed by the employers representatives.	Sqm	217.50						
13.2.8	Providing <b>up to 10mm thick cement plaster in single coat</b> with cement mortar 1:3 <b>to ceiling, canopy, chajjas etc.</b> including rounding off corners wherever required smooth rendering, finishing to plumb, Providing & removing scaffolding, including cost of all materials, with all leads and lifts,HOM etc. complete as per specifications and as directed by the engineer in charge of the work.	Sqm	427.50						
13.2.9	Providing <b>15mm thick internal cement plaster in single coat</b> with cement mortar 1:4 to brick and concrete surface including rounding off corners wherever required smooth rendering, finishing to plumb, Providing & removing scaffolding, including cost of all materials, with all leads and lifts,HOM etc. complete as per specifications and as directed by the engineer in charge of the work.	Sqm	772.50						
13.2.10	Providing <b>20mm thick cement plaster in two coat</b> with cement mortar 1:4 and water proofing compound to brick and concrete surface including rounding off corners wherever required smooth rendering, finishing to plumb, Providing & removing scaffolding, including cost of all materials, with all leads and lifts,HOM etc. complete as per specifications and as directed by the engineer in charge of the work.	Sqm	1,438.13						

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				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
13.2.11	Supplying and fixing rolling shutters of approved make, made of required size M.S. laths, interlocked together through their entire length and jointed together at the end by end locks, mounted on specially designed pipe shaft with brackets, side guides and arrangements for inside and outside locking with push and pull operation complete, including the cost of providing and fixing necessary 27.5 cm long wire springs manufactured from high tensile steel wire of adequate strength conforming to IS: 4454 - part 1 and M.S. top cover of required thickness for rolling shutters. (80x0.90 mm M.S. laths with 0.90 mm thick top cover)	Sqm	112.50						
13.2.12	Providing, fitting and fixing steel windows/ ventilators (openable) of standard rolled steel sections as per relevant I.S. Code-1038 joints mitred and welded with 15mmx3mmx100mm lugs embedded in cement concrete block of M-10 grade including providing and fixing of projecting hinges (not more than 65mm and not less than 15mm wide) bolting device and steel handles, peg stays of 300mm long etc. complete as per drawing including applying a priming coat of red-lead paint.	Sqm	108.00						
13.2.13	25 mm thick cement concrete topping 1:2:4 (1cement : 2 coarse sand : 4 coarse aggregate of 12 mm nominal size) finished with a floating coat of neat cement finish to be laid in panels including curing complete as directed. For Pump House Floor.	Sqm	32.40						
13.2.14	Providing and laying IPS cement concrete flooring (with iron filling and falkes in flooring)50mm thick M:20 concrete laid to proper level and slope in alternate bays ,including compacting ,PVC/glass /Aluminium strips at joints ,marking lines to give appearance of tiles of 70X70 cm or other size laid diagonally /square etc. Finishing smooth and curing complete. For Pump House Floor	Sqm	208.13						
13.2.15	Providing oil bound distemper <b>Painting to Internal walls</b> over one coat of primer painting of approved colour and make successively after drying each coat and finishing, with all lead and lifts, complete as per specifications and as directed by the Engineer.	Sqm	208.13						
13.2.16	Providing & applying 2 coats of plastic emulsion of approved brand and shade on wall surface including priming coat and whitening after thoroughly brooming the surface to remove all dirt, dust, mortar drops and other foreign matter including preparing the surface even and sand paper smooth, cost of materials, labour, complete as per specifications. for ceiling	Sqm	772.50						
13.2.17	Providing and finishing External walls in two coats with Waterproof cement paint including primer coat of approved brand and shade to give an even shade after thoroughly brooming the surface to remove all dirt and loose powdered material, free from mortar drops and other foreign matter including cost of materials, labour, necessary scaffolding, curing etc., with all lead and lifts, complete as per the specification and as directed by the Engineer.	Sqm	1,438.13						
13.2.18	Providing and fabricating steel reinforcement with Fe 415 grade steel for RCC work including straightening, cutting, bending, placing in position and tying (including cost of tie wire) .taxes and duties, transportation etc. all complete, for all lead and lift as per specifications and drawings and as directed by the Employer's Representative.	Kg	37,500						
13.2.19	Filling available excavated earth (excluding rock) in sides of foundations up to plinth in layers not exceeding 20 cms. in depth, compacting each deposited layer by ramming after watering with all lead and lifts, complete as per specification and as directed by the Engineer	Cum	40.61						
13.2.20	Providing and fixing to wall surface 4.0 kg/sq.cm UPVC rain down water pipes 110 mm outside diameter approved make and brand with necessary specials like shoes, bends and offsets fixed with iron clamps, wall plugs, screws,including cost of materials, labour, complete as per specifications.	m	300						
	<b>Sub Total (Items 13.2)</b>								
	<b>Sub Total 13</b>								

BILL OF QUANTITIES									
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				Basic	Taxes	Basic	Taxes	Total	
				(1)	(2)	(3)	(4) = (1) x (2)	(5) = (1) x (3)	
14	<b>AS- BUILT DRAWINGS:</b>								
a	<p><b>Preparation and Submission of the As Built Drawings for the already laid pipelines and the pipelines that are to be laid under this package:</b></p> <p>(i) Examining Feasibility &amp; establishment of 1 Primary &amp; 20 no's secondary Ground Control Points around package project area using dual frequency based DGPS, including fixing of permanent benchmark plate of 15 CM diameter at Location.</p> <p>(ii) Transfer of existing topographical Survey data (pkg C#06) layers including the Asset, Households etc., layers to new Coordinates. This Assignment includes Georeferencing, Orthorectification, other related processes including Software arrangement for High Resolution Satellite Imagery, as directed by the Engineer.</p> <p>(iii) Onsite Visual Inspection to validate the Laid Assets (204.551 km) using the Tablet/Smart GPS with As built drawings preparation of 204.551 km as directed by Employer representative.</p> <p>(iv) Preparation &amp; Submission of As-Built Drawings of the 47.231 km of pipelines that are to be laid under this package.</p>	km	254.60						
	<b>Sub Total (14)</b>								
15	<b>Provisional Sums</b>								
15.1	<p><b>For each Provisional Sum, the Engineer may instruct:</b></p> <p>1) Towards utility shifting of Pipes, fittings, cables, transformers, etc., payment of fee to various authorities for crossing of roads, railways, etc., as directed by the Engineer.</p> <p>2) Supply of DI Pipes, Fittings, Specials, Valves if required for the pipe network laid by the previous contractor for rectification during the hydro testing and trial run, trail pit for the existing laid pipe lines, etc.</p> <p>3) Fee for the Third Party Inspection Agency empanelled by the Employer for the pre-delivery inspection of the materials at the manufacturers' premises.</p>					1,00,00,000.00		1,00,00,000.00	
	<b>TOTAL (Items 15)</b>					<b>1,00,00,000.00</b>	<b>-</b>	<b>1,00,00,000.00</b>	
	<b>TOTAL (Items 1-15)</b>								
	Amount in Words.....								
	<b>Bidder's Sign &amp; Seal</b>								

**Section: V - Eligible Source Countries of  
Japanese ODA Loans**

## **Section: V - Eligible Source Countries of Japanese ODA Loans**

*All Countries are eligible*

## **Section VI A: Project Brief and Scope of Works**

## Section VI A: Project Brief and Scope of Works

### Project Background

The Guwahati Metropolitan Area [GMA] has been divided into four distribution zones for water supply, namely (1) South East, (2) South Central, (3) South West, all located south of the Brahmaputra River and (4) North Guwahati on the northern bank of the Brahmaputra River.

At present, there are three agencies which provide water supply in the City of Guwahati, namely the Guwahati Municipal Corporation [GMC], Public Health and Engineering Department [PHED], and Assam Urban Water Supply & Sewerage Board [AUWSSB]. Of the three agencies the GMC covers about 30% of the population in this city. Most of the water treatment and supply facilities have outlived their lives as a result of a budget deficiency for repair or replacement.

The Master Plan for the Guwahati Metropolitan Area 2025 sets the target of “100% houses will be supplied with piped filtered water by the year 2025”. The on-going water supply project for the South West Zone is being taken up under Jawaharlal Nehru National Urban Renewal Mission [JNNURM] funding. The water supply for South East Zone is being planned under the Asian Development Bank’s [ADB’s] assistance.

The water supply zones under the Japanese International Cooperation Agency (JICA) funding for this Contract (ID-P 201) are the South Central and North Zones. The South-Central Zone is the center of the city with the highest population among the four zones. This project will receive a loan assistance of 29,453 million Japanese Yen. The loan will fund civil works for constructing water supply facilities, procurement of machinery and equipment, and consulting services.

This Guwahati Water Supply Project (GWSP) aims to construct water treatment, conveyance and storage facilities in the South Central and Northern parts of the city to activate a potable water supply system with 100% coverage of the citizens within the above areas and thus leading to upgrading the citizen’s living standard.

### Project Objectives

This project intends to improve living conditions in the rapidly growing Guwahati area, by providing new water supply facilities.

The main objective of Japanese loan assistance is to support India in establishing physical infrastructure to boost and sustain economic growth. At the same time, Japanese assistance seeks to support India’s efforts to alleviate poverty. In keeping with these goals, the loan package strategically covers this water supply project.

### Project Description

The Guwahati Water Supply Project, (JICA Loan No.ID-P 201) has been structured to progressively develop the water supply facilities in a phased manner in order to meet the ever-increasing water demands of the South Central and North Zones. The GWSP has been planned to be implemented in two (2) phases. Phase 1 will be designed to accommodate the projected year 2025 water demands and Phase 2 the projected year 2040 water demands. The transmission and distribution piping works under Phase 1 will be implemented to accommodate the demand of Phase 2.

Works under Contract Package C-01 and C-03 include: Intake, Water Treatment Plant and Clear Water Reservoir cum Pumping Station for North zone and South-Central zone respectively.

Works under the Contract Package (C-04) for the South-Central Zone facilities include: the construction of a main and seven service reservoirs, service buildings with booster chlorination facilities at all of the reservoir sites, the construction of booster pump stations, the supply and installation of MS and DI transmission mains etc.

The installation of the distribution network is included under Contract Packages No’s. 2, 5, 6 & 7.

The DI pipes to be installed under these Contracts (C- 02, 05, 06 & 07) will be supplied by the PIU.

The entire South-Central Water Supply Zone is composed of six (6) subzones, each served primarily by their own transmission system reservoirs. The service area for this portion (Contract No. C-06A) of the Guwahati Water Supply Project is on the southern side of the Brahmaputra River in South Central Guwahati.

The scope under the Package C#06 was for the supply (except DI pipes), installation, construction, testing and commissioning of the facilities included in Contract Package No. C-6A. The scope is confined under 2 zones – **Geeta Nagar [16 DMA] and Lechubagan Zone [27 DMA]**.

The project area is within India Seismic Zone V. Design of structures and their components will be dictated by the requirements of Indian Standard IS 1893 criteria.

The pipe details and alignment shall be constructed in accordance with the Drawings.

### Scope of Works

The earlier contract for the works under the original package C#05 [24 DMAs of the Geeta Nagar & 27 DMAs of the Lechubagan] has been terminated and the contractor has left the works incomplete.

Of the 44 DMAs, the works of 8 DMAs are taken away from the scope of this Bid, in order to partially commission the project. The remaining 43 DMAs, ie., the works under 16 DMAs of Geeta Nagar & 27 DMAs of the Lechubagan will be under the scope of this Package 6A.

This is a single–point responsibility Item Rate type Contract for the supply, laying and jointing, testing, commissioning of a water supply distribution system. Supply of DI K9 pipes only are excluded from the scope of this contract. The DI pipes will be procured by the Employer under the separate Contract (Package No. 8A & 8B). As per the requirement, procurements are included under this **Contact Package 6A**.

It is the intent of the Employer to have a project constructed which utilizes the highest standards for construction and supply of plant and equipment to enable a sustained, reliable system for performance over the next 50 years.

The Employer has carried out surveys, investigations and detailed designs of components. Suitable water distribution network and the alignment of the proposed pipelines are broadly under the scope of work. The details of the same have been presented in the subsequent subsections and elsewhere in this document.

The parameters and specifications delineated in this document shall form the framework of the Contractor’s execution of the work. The Contractor shall be responsible for ensuring that the Project fulfills the objectives for which it has been designed.

Scope of Work shall be read in conjunction to General Requirements and other Subsections of the document.

### Project Components under the original Contract Package C#06 and the present Bid for the Pkg. 6A:

**Table 1-1 Project Components**

Components	Works completed under C#06 and proposed under the scope of Pkg. 6A
1. Construction Booster pump station with panel room at Geeta Nagar-II	Construction of Booster Pump with panel Room as per approved drawing including all required specials, pipes, valves, necessary fixtures, staircase etc. complete as direction of Engineer incharge of works, now included under the scope of Package 6A.
2. Construction of 14 Nos. of Booster pump station in	Construction of inline / online Booster Pump station as per approved drawing including all required specials, pipes, valves, necessary fixtures,



Components	Works completed under C#06 and proposed under the scope of Pkg. 6A
Distribution sytem for the Geeta Nagar and Lechubagan Zones.	staircase etc. complete as direction of Engineer incharge of works, now included under the scope of Package 6A.
Water Distribution Pipelines (MS Pipe line)	Laying of MS pipeline of 700 mm Dia for a length of 900m, of MS pipes, fittings, specials and valves are under the scope of Package 6A.
Water Distribution Pipelines (DI-K9)	Out of 224.745 km of pipe line 191.666 km have been either completed or taken away from the scope. The balance portion of pipeline of approximately 33.08 km is under the scope of Package 6A. The DI pipes of 100 to 600 mm dia. are provided by the Employer and the required fittings, specials and valves are to be supplied and installed by the Contractor.
Water Distribution Pipelines (HDPE pipe lines)	Out of 28.949km pipeline, 15.698 have been either completed or taken away from the scope. The balance length of 13.251 km are to be laid under the scope of Package 6A. Supply of HDPE pipes of 110 to 125 mm, fittings, specials and valves are to be supplied and installed by the Contractor.
Preparation of As Built Drawings of completed Pipe line (204.552 KM) & Proposed (47.230 KM)	<p>Out of 254.595 km of pipe line 204.552 km have been either completed or in progress and balance portion of pipeline of approximately 47.230 km is under the scope of Package 6A.</p> <p>The Working drawings/ pipeline data , documents etc., for 246.78 KM will be provided to the contractor for the preparation of As-built Drawings in the prescribed format. The asbuilt format will be provided to the successful bidder / contractor. For the remaining length of 50.04 km, the working drawings are to be prepared by the sucessful Bidder / Contractor.</p> <p>The existing topographical data need to be rectified/aligned with original cordinates before the preparation of As Built Drawings. For same the Satellite Imagery procured by GMDW&amp;SB need to be Georeferenced &amp; orthorectified for the alignment of existing topographical features &amp; other available layers on the rectified Imagery.</p> <p>Onsite validation of laid Assets of 204.552 km through visual inspections is highly required to capture the Cordinates/Photograph &amp; missing attributes etc., of laid Assets using Tablets/Smart GPS's for the preparation of As built Drawings in prescribed format.</p> <p>As built Drawings of proposed 47.23 KM need to prepared by the successful Bidder , as per the BOQ item</p>

#### Works Proposed under this Contract Package 6A:

The Package 6A includes the Distribution network of 47.23 km length of MS, DI and HDPE pipes in the various stretches, installation of valves, PRVs, Fire Hydrants , Electromagnetic Flow Meters & construction of valve chambers, hydro testing of pipeline [including 24.05 km length laid by the previous contractor], road restoration, whichever necessary, construction of **pipe carrying bridge 3 nos.**, including trail run and commissioning for the period of 90 days, etc.,.

**Details of works:**

Details of the diameter wise length of the pipes proposed in the network are as given below.

Material and Size of Pipe	UoM	Scope under Package C#06	Completed under Package C#06	Under Package 6B & 6C	Balance scope of Pkg.6A
MS 700 mm Dia. - 6 mm Tk.	m	900.00	-	-	900.00
<b>Sub Total (a)</b>	<b>m</b>	<b>900.00</b>	<b>-</b>	<b>-</b>	<b>900.00</b>
DI 100 mm - K9	m	1,71,433.02	1,46,402.15	1,396.20	23,634.67
DI 150 mm - K9	m	24,586.02	19,493.77	527.50	4,564.75
DI 200 mm - K9	m	9,027.67	7,807.40	174.00	1,046.27
DI 250 mm - K9	m	9,100.26	7,254.07	160.00	1,686.19
DI 300 mm - K9	m	3,500.29	3,170.92	71.00	258.37
DI 400 mm - K9	m	4,468.95	2,781.79	99.00	1,588.16
DI 500 mm - K9	m	2,200.00	2,133.32	51.00	15.68
DI 600 mm - K9	m	429.40	144.64	-	284.76
<b>Sub Total (b)</b>	<b>m</b>	<b>2,24,745.61</b>	<b>1,89,188.06</b>	<b>2,478.70</b>	<b>33,078.85</b>
HDPE 110 mm OD PE80 PN6	m	6,216.80	1,837.10	-	4,379.70
HDPE 110 mm OD PE80 PN10	m	19,454.60	10,482.27	146.00	8,826.33
HDPE 125 mm OD PE100 PN16	m	1,534.00	1,488.20	-	45.80
HDPE 200 mm OD PE100 PN16	m	1,040.00	1,001.70	38.30	-
HDPE 250 mm OD PE100 PN16	m	414.50	264.50	150.00	-
HDPE 315 mm OD PE100 PN16	m	290.00	290.00	-	-
<b>Sub Total (c)</b>	<b>m</b>	<b>28,949.90</b>	<b>15,363.77</b>	<b>334.30</b>	<b>13,251.83</b>
<b>Total (a+b+c)</b>	<b>m</b>	<b>2,54,595.51</b>	<b>2,04,551.83</b>	<b>2,813.00</b>	<b>47,230.68</b>

**Supply of Sluice valves:**

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	100 mm - PN1.0	Nos.	21
2	150 mm - PN1.0	Nos.	7
3	250 mm - PN1.0	Nos.	1
4	80 mm - PN1.6	Nos.	7
5	100 mm - PN1.6	Nos.	61
6	150 mm - PN1.6	Nos.	15
7	250 mm - PN1.6	Nos.	7
8	300 mm - PN1.6	Nos.	3
	<b>Total</b>		<b>122</b>

**Installation of Sluice Valves:**

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	100 mm - PN1.0	Nos.	90
2	150 mm - PN1.0	Nos.	9
3	200 mm - PN 1.0	Nos.	1
4	250 mm - PN1.0	Nos.	5
	<b>Sub Total</b>	<b>Nos.</b>	<b>105</b>

1	80 mm - PN1.6	Nos.	11
2	100 mm - PN1.6	Nos.	163
3	150 mm - PN1.6	Nos.	17
4	200 mm - PN 1.6	Nos.	9
5	250 mm - PN1.6	Nos.	8
6	300 mm - PN1.6	Nos.	6
	Sub Total	Nos.	214
	Total	Nos.	319

**Supply of Butterfly valves:**

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	400 mm - PN1.0	Nos.	1
2	400 mm - PN1.6	Nos.	2
	Total		3

**Installation of Butterfly valves:**

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	400 mm	Nos.	4

**Supply of Air release valves:**

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	80 mm - PN1.0	Nos.	50
2	80 mm - PN1.6	Nos.	34
	Total		84

**Installation of Air release valves:**

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	80 mm	Nos.	118
2	100mm	Nos.	2
3	150mm	Nos.	1
	Total		121

**Supply of Pressure reducing valves:**

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	100mm- PN1.6	Nos.	1
2	150mm- PN1.6	Nos.	2
3	200mm- PN1.6	Nos.	1
4	250 mm- PN1.6	Nos.	2
5	300mm-PN1.6	Nos.	1
6	400mm-PN1.6	Nos.	1
	Total		8

**Installation of Pressure reducing valves:**

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	100mm- PN1.6	Nos.	1
2	150mm- PN1.6	Nos.	2
3	200mm- PN1.6	Nos.	1
4	250 mm- PN1.6	Nos.	2

Sl. No	Diameter (ID) & Rating	Unit	Qty.
5	300mm-PN1.6	Nos.	1
6	400mm-PN1.6	Nos.	1
	Total		8

#### Supply and installation of Fire Hydrants

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	80mm-PN1.6	Nos.	18

#### Supply and installation of Flow meters:

Sl. No	Diameter (ID) & Rating	Unit	Qty.
1	100 mm - PN1.6	Nos.	1
2	150 mm - PN1.6	Nos.	13
3	200 mm - PN1.6	Nos.	15
4	250 mm - PN1.6	Nos.	9
5	300 mm - PN1.6	Nos.	4
	Total		42

#### Construction of Valve Chambers

According to the standard drawings for various types of valves, Flowmeters type of chambers to be constructed shall be as specified below.

Sl. No	Type of Chambers	Unit	Qty.
1	Chamber for Sluice valve TYPE S1	Nos.	77
2	Chamber for Sluice valve TYPE S2	Nos.	16
3	Chamber for Wash out valve TYPE W1	Nos.	74
4	Chamber for Wash out valve TYPE W2	Nos.	44
5	Chamber for Butter fly valve TYPE B1	Nos.	4
6	Chamber for Air valve TYPE A1	Nos.	118
7	Chamber for Air valve TYPE A2	Nos.	2
8	Chamber for Air valve TYPE A3	Nos.	1
9	Chamber for Fire hydrant TYPE F1	Nos.	18
10	Chamber for PRV/Flowmeter TYPE P1	Nos.	2
11	Chamber for PRV/Flowmeter TYPE P3	Nos.	3
12	Chamber for PRV/Flowmeter TYPE P5	Nos.	37
	Total		396

#### Hydro Testing

Hydraulic testing of the pipeline shall be carried out in sections as specified in Technical specifications

Sl. No	Descriptions	Unit	Length in km
1	80 mm – 200 mm internal diameter	km	42.498
2	Above 200 mm - 300 mm internal diameter	km	1.944
3	Above 300 mm - 500 mm internal diameter	km	1.603
4	Above 500 mm - 800 mm internal diameter	km	1.185
	Total		47.230

**Hydro testing of already laid pipeline:**

Sl. No	Descriptions	Unit	Length in km
1	80 mm – 200 mm internal diameter	km	19.106
2	Above 200 mm - 300 mm internal diameter	km	2.680
3	Above 300 mm - 500 mm internal diameter	km	1.757
4	Above 500 mm - 800 mm internal diameter	km	0.506
	Total		24.050

**Disinfection of pipeline, flushing and Trail run** of the whole Distribution network of **43 DMA's [177.528km]** shall be carried out.

**Road Restoration**

Restoration of surface as per BOQ and as per site condition to be done including the balance portion of works, left out by the previous contractor.

**General Scope of Work**

Scope of Work shall be read in conjunction with the Employer's Requirements and other Sections of the Bid document.

The Scope of Work under this Contract includes the supply and construction of all facilities for the water supply system in the Contract Package-6A of South-Central Zone as described in subsequent paragraphs. Except for the supply of DI pipes and the available fittings, valves and specials, which will be furnished by the Employer, this Contract will consist of the works listed herein and any other work necessary to achieve the above objective and complete the system as per the specifications and Employer's Requirements.

The available DI Pipes & fittings and valves will be supplied by the Employer from the stockyard located at Changsari in North Guwahati and the Bidders' scope is limited to installation only.

The MS Pipes & Specials, HDPE Pipes & Specials, DI Pipes required for Reservoir connection, Electro Mechanical items, Valves & Flow meters and the other materials to be supplied by the Bidder are included in this Bill of Quantities.

The pipes, specials, fittings and valves shall be inspected by a third-party inspection agency to be nominated by the employer, at the manufacturer's premises. The inspections charges of the third-party testing agency at the rates fixed by the employer shall be initially paid by the contractor, which will be reimbursed to the contractor by the employer, from out of the provisional sum.

While hydro stating and trial run of the already laid pipelines, if any defects are noticed, cost of its rectification will be paid from the Day works schedule for the Labour and Equipment and for the materials from the Provisional sum.

For the shifting of utilities that the contractor may come across, while laying the pipelines, the payment towards the labour, equipment and materials will be made from the Provisional sums.

Provisional Sums included in the Bill of Quantities, shall be expended in whole or in part at the direction and discretion of the Engineer in accordance with the General Conditions. The amount entered by the Employer for the purpose of bidding only, and may vary considerably from the actual quantities and prices requiring during construction.

For providing the CGP, DGPs, Electro-mechanical items that are required for the 14 Booster Pumping stations will be paid, based on the 'Rate Analysis' from the Provisional sums.

For providing pipe carrying bridge across the river, for a span of about 25 m, in 3 locations are proposed as per the Drawings enclosed.

Generally, the following activities shall be carried out by the Contractor for each component of this Contract.

**Pre-construction Submittals:**

The Employer has performed the water supply network design and detailed designs of the system components. The alignments of the proposed pipelines have been shown on the network drawings and the Contractor shall submit the Detailed Working Drawings to the Engineer, for approval, before commencing the works.

The contractor is required to submit and obtain the approval of the Engineer for the Vendors and Quality Assurance Plan before procuring any materials under the Contract.

**Submittals of samples for Materials:**

Samples of materials requiring prior approval such as cement, aggregates, Asphalt, cement and back fill materials shall be furnished by the Contractor to the Employer's representative with description of data in required quantity. Samples shall be submitted at least 14 days before their usage in the work to permit inspection and testing. Only upon approval by the Employer's representative, shall be the materials be brought to the Project Site.

**Project Implementation:**

- (a) Submittal of an initial work program and schedule and updating the same every month for approval by the Employer's Representative.
- (b) Development of suitable storage spaces, for construction materials, piping, specials, appurtenances and equipment for the work.
- (c) Identification of suitable quarries and other sources for construction materials and have them approved by the Employer's Representative.
- (d) Making arrangements for equipment and materials required for maintaining the safety of the sites and the workmen at the sites (helmets, boots, jackets, safety belts, gloves, scaffolding, barricading, etc.), as described elsewhere in the document.
- (e) Development and submittal of a Traffic Control Plan prior to the start of pipeline installation along any route. This plan shall identify detour routes for roads that will be closed, where there is not a second traffic lane and the means of access of residences where the access to them has been blocked by construction activities.
- (f) Site clearance and leveling of the work sites. Layout of the works shall be as per the drawings.
- (g) Disposal of surplus soil and construction waste as directed by Employer's Representative, and maintaining the construction sites in orderly manner.
- (h) Performing tests on materials received and for the finished works and maintaining complete records and registers required on site as per the QA/QC Manual.
- (i) Participating in weekly progress meetings with the Employer and Employer's Representative to review the schedule and other pertinent issues.
- (j) Remedying any defects identified during the Contract period.
- (k) Site clearance and restoration of the premises after completion of the work.

**Water Distribution System:**

The scope of work is broadly listed below and shall include, but not be limited to:

- (a) Supply of DI fittings, specials, Flow meters and Valves
- (b) Earthwork (including road cutting)

- (c) Laying and jointing, of DI (K9) pipes, fittings, specials
- (d) Installation of Air valves, Sluice valves, PRVs and Flow meters
- (e) Installation of pipes across culverts River crossings
- (f) Construction of Valve chambers
- (g) Backfilling and compaction of trenches
- (h) Hydro test and rectification of leakage
- (i) Construction of PCC thrust blocks, anchor blocks, pipe encasing, etc.
- (j) Hydraulic testing of the pipelines to the specified test pressures.
- (k) Rectification of leakages if any during hydraulic testing
- (l) Site clearing
- (m) Restoration of roads to its original condition
- (n) Trial run and rectification defects in distribution network
- (o) Flushing and disinfection of Distribution system
- (p) Commissioning and Handing over of Distribution system

**Safety Assurance:**

The Contractor will take all measures required to maintain the highest industry recognized safety standards on the project site. The measures taken shall include all but not be limited to the relevant provisions of the Indian Standards (IS).

The Contractor shall be responsible for the safety of all workmen and other persons entering or in the work areas and shall take all measures necessary to ensure their safety at his own expense. Such measures shall include the provisions of helmets (hardhats), the provision of gum-boots to workers engaged in cement concrete, and eye protection (goggles). Scaffolding or other measures required for working at a height shall be load rated and rigid and be provided with suitable and convenient access. Shoring required for deep excavation must be adequate and rigidly braced and strutted. Other safety measures that the Employer's Representative may direct, depending on the exigencies of the location and nature of work and other relevant factors, shall be provided by the Contractor. The Contractor is responsible for all security, watch and ward arrangements at site till handing over of the system.

**Hydro testing of Distribution System:**

The Contractor is responsible for conducting hydro testing of distribution pipeline including pipelines laid by the earlier Contractor at required sections as per the instructions of the Engineer. The Contractor's scope includes mobilization and fixing of dummy, pressure gauges, filling water and rising pressure in the pipeline to the required test pressure and carryout the hydraulic test as per standard specifications and directions of the Engineer. Contractor quoted rate should include cost of providing and fixing dummies, filling water, arrangement of necessary equipment for rising pressure in the pipeline and measurement of pressure including labourers. Any failure of hydraulic test in any particular section due to leakage in the laid distribution pipeline by the earlier Contractor, cost of rectification of such leakages shall be paid under Provisional Sum and Day works for the materials and Labour & equipment respectively.

**Trial Run and Defects Rectification**

The Contractor is responsible for Trial Run and rectification of defects in the distribution system upon successful completion of the hydro test and Gap closing in the distribution network. For Trial Run and Commissioning, water shall be provided by the Employer. During Trial run, distribution system will be flushed and cleaned to remove all the debris and mud from the distribution system. Upon cleaning

and closing the end caps of dead end of the pipelines, the contractor would fill up the distribution system by opening the outlet valve and checkup the system for any cross connections left to be done, operate the online valves to ascertain proper opening and closing, remove the observed leakages in the system and ascertain that the water reaches all the pipelines and pipeline dead ends at full system pressure. System shall be allowed to stabilize for a minimum period of 15 days keenly observed for visible leakages in the distribution system; any defects found during this process shall be rectified by the Contractor. Any rectification is required in the pipelines laid earlier by the previous Contractor, the required materials like DI pipes, specials & fittings etc., and unforeseen items cost will be met from provisional sum and labour and equipment cost will be paid from the Day works. Upon satisfactory completion of stabilization period, distribution line to be disinfected and disinfected water to be disposed safely with all care. House service connections should be given only after successful completion of stabilization period and disinfection of distribution system. The trial run and commissioning period shall be for period of 90 days. In the event that any system or facilities do not satisfactorily achieve the required performance standards during this period, with a continuous run, the trial run period shall be extended until such time as the Contractor has satisfactorily rectified any deficiencies as may be necessary to satisfy the performance requirements, at the risk and cost to the Contractor.

During trial run period, Contractor shall co-operate and facilitate with the House service connection contractor in providing house service connections. If necessary, the Employer may extend the trial run period beyond 90 days, allowing payment at the rate quoted by the Contractor for the trial run, as a variation to the Contract. The contractor can give the trial run DMA wise by isolating the network based on the topography and system isolation facilities and as instructed by the Engineer.

The costs associated for the Contractor's and other operating non-Employer personnel during the period of the trial run, along with costs of tools etc., which are required for operation and maintenance of the distribution system during the trial run period shall also be borne by the Contractor and shall be included in the Contract Price.

#### **Commissioning and Handing Over of the System**

After the successful completion of the trial run and Tests on completion, the network shall be treated as commissioned. Upon Commissioning, the Employer will take over control of the facilities.

#### **Taking over Certificate:**

Taking over certificate for the distribution system will be issued by the Employer to the Contractor, upon taking over the works completed in all respects, subject to the Compliance of the requirements mentioned below:

- (a) Rectification of the deficiencies pointed out in the "Punch List" have been carried out satisfactorily.
- (b) All the test records including works tests and field tests are submitted as per the requirements specified elsewhere.



**Section: VII – General Conditions (GC)**

## **GENERAL CONDITIONS OF CONTRACT**

The General Conditions of Contract are the Standard General Conditions of Contract set forth in Part 3, Section VII of the Standard Bidding Documents for Procurement of Works (version 1.0) published by JICA in October, 2012” are the MDB Harmonized Edition of the Conditions of Contract for Construction prepared and copyrighted by the International Federation of Consulting Engineers, FIDIC 2010, all rights reserved.

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**However the General Conditions is attached to these Bidding Documents.**

# Conditions of Contract for **CONSTRUCTION**

FOR BUILDING AND ENGINEERING WORKS  
DESIGNED BY THE EMPLOYER

Multilateral Development Bank Harmonised Edition  
June 2010

## General Conditions

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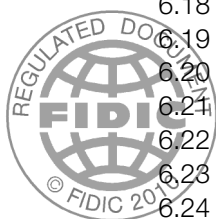
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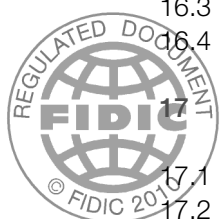
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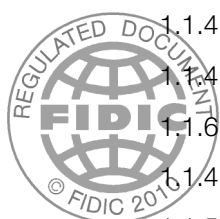
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## Definitions listed alphabetically

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# General Conditions

## 1 General Provisions

### 1.1

#### Definitions

In the Conditions of Contract (“these Conditions”), which include Particular Conditions, Parts A and B, and these General Conditions, the following words and expressions shall have the meanings stated. Words indicating persons or parties include corporations and other legal entities, except where the context requires otherwise.

#### 1.1.1

##### The Contract

1.1.1.1 “**Contract**” means the Contract Agreement, the Letter of Acceptance, the Letter of Tender, these Conditions, the Specification, the Drawings, the Schedules, and the further documents (if any) which are listed in the Contract Agreement or in the Letter of Acceptance.

1.1.1.2 “**Contract Agreement**” means the contract agreement referred to in Sub-Clause 1.6 [*Contract Agreement*].

1.1.1.3 “**Letter of Acceptance**” means the letter of formal acceptance, signed by the Employer, of the Letter of Tender, including any annexed memoranda comprising agreements between and signed by both Parties. If there is no such letter of acceptance, the expression “Letter of Acceptance” means the Contract Agreement and the date of issuing or receiving the Letter of Acceptance means the date of signing the Contract Agreement.

1.1.1.4 “**Letter of Tender**” means the document entitled letter of tender or letter of bid, which was completed by the Contractor and includes the signed offer to the Employer for the Works.

1.1.1.5 “**Specification**” means the document entitled specification, as included in the Contract, and any additions and modifications to the specification in accordance with the Contract. Such document specifies the Works.

1.1.1.6 “**Drawings**” means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract.

1.1.1.7 “**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.

1.1.1.8 “**Tender**” means the Letter of Tender and all other documents which the Contractor submitted with the Letter of Tender, as included in the Contract.



1.1.1.9 “**Bill of Quantities**”, “**Daywork Schedule**” and “**Schedule of Payment Currencies**” mean the documents so named (if any) which are comprised in the Schedules.

1.1.1.10 “**Contract Data**” means the pages completed by the Employer entitled contract data which constitute Part A of the Particular Conditions.

**1.1.2  
Parties and Persons**

- 1.1.2.1 **“Party”** means the Employer or the Contractor, as the context requires.
- 1.1.2.2 **“Employer”** means the person named as employer in the Contract Data and the legal successors in title to this person.
- 1.1.2.3 **“Contractor”** means the person(s) named as contractor in the Letter of Tender accepted by the Employer and the legal successors in title to this person(s).
- 1.1.2.4 **“Engineer”** means the person appointed by the Employer to act as the Engineer for the purposes of the Contract and named in the Contract Data, or other person appointed from time to time by the Employer and notified to the Contractor under Sub-Clause 3.4 [*Replacement of the Engineer*].
- 1.1.2.5 **“Contractor’s Representative”** means the person named by the Contractor in the Contract or appointed from time to time by the Contractor under Sub-Clause 4.3 [*Contractor’s Representative*], who acts on behalf of the Contractor.
- 1.1.2.6 **“Employer’s Personnel”** means the Engineer, the assistants referred to in Sub-Clause 3.2 [*Delegation by the Engineer*] and all other staff, labour and other employees of the Engineer and of the Employer; and any other personnel notified to the Contractor, by the Employer or the Engineer, as Employer’s Personnel.
- 1.1.2.7 **“Contractor’s Personnel”** means the Contractor’s Representative and all personnel whom the Contractor utilises on Site, who may include the staff, labour and other employees of the Contractor and of each Subcontractor; and any other personnel assisting the Contractor in the execution of the Works.
- 1.1.2.8 **“Subcontractor”** means any person named in the Contract as a subcontractor, or any person appointed as a subcontractor, for a part of the Works; and the legal successors in title to each of these persons.
- 1.1.2.9 **“DB”** means the person or three persons appointed under Sub-Clause 20.2 [*Appointment of the Dispute Board*] or Sub-Clause 20.3 [*Failure to Agree on the Composition of the Dispute Board*].
- 1.1.2.10 **“FIDIC”** means the Fédération Internationale des Ingénieurs-Conseils, the international federation of consulting engineers.
- 1.1.2.11 **“Bank”** means the financing institution (if any) named in the Contract Data.
- 1.1.2.12 **“Borrower”** means the person (if any) named as the borrower in the Contract Data.

**1.1.3  
Dates, Tests, Periods  
and Completion**

- 1.1.3.1 **“Base Date”** means the date 28 days prior to the latest date for submission of the Tender.
- 1.1.3.2 **“Commencement Date”** means the date notified under Sub-Clause 8.1 [*Commencement of Works*].
- 1.1.3.3 **“Time for Completion”** means the time for completing the Works or a Section (as the case may be) under Sub-Clause 8.2 [*Time for Completion*], as stated in the Contract Data (with any extension under Sub-Clause 8.4 [*Extension of Time for Completion*]), calculated from the Commencement Date.



- 1.1.3.4 “**Tests on Completion**” means the tests which are specified in the Contract or agreed by both Parties or instructed as a Variation, and which are carried out under Clause 9 [*Tests on Completion*] before the Works or a Section (as the case may be) are taken over by the Employer.
- 1.1.3.5 “**Taking-Over Certificate**” means a certificate issued under Clause 10 [*Employer’s Taking Over*].
- 1.1.3.6 “**Tests after Completion**” means the tests (if any) which are specified in the Contract and which are carried out in accordance with the Specification after the Works or a Section (as the case may be) are taken over by the Employer.
- 1.1.3.7 “**Defects Notification Period**” means the period for notifying defects in the Works or a Section (as the case may be) under Sub-Clause 11.1 [*Completion of Outstanding Work and Remedying Defects*], which extends over 365 days except if otherwise stated in the Contract Data (with any extension under Sub-Clause 11.3 [*Extension of Defects Notification Period*]), calculated from the date on which the Works or Section is completed as certified under Sub-Clause 10.1 [*Taking Over of the Works and Sections*].
- 1.1.3.8 “**Performance Certificate**” means the certificate issued under Sub-Clause 11.9 [*Performance Certificate*].
- 1.1.3.9 “**day**” means a calendar day and “**year**” means 365 days.

#### 1.1.4

#### Money and Payments

- 1.1.4.1 “**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.
- 1.1.4.2 “**Contract Price**” means the price defined in Sub-Clause 14.1 [*The Contract Price*], and includes adjustments in accordance with the Contract.
- 1.1.4.3 “**Cost**” means all expenditure reasonably incurred (or to be incurred) by the Contractor, whether on or off the Site, including overhead and similar charges, but does not include profit.
- 1.1.4.4 “**Final Payment Certificate**” means the payment certificate issued under Sub-Clause 14.13 [*Issue of Final Payment Certificate*].
- 1.1.4.5 “**Final Statement**” means the statement defined in Sub-Clause 14.11 [*Application for Final Payment Certificate*].
- 1.1.4.6 “**Foreign Currency**” means a currency in which part (or all) of the Contract Price is payable, but not the Local Currency.
- 1.1.4.7 “**Interim Payment Certificate**” means a payment certificate issued under Clause 14 [*Contract Price and Payment*], other than the Final Payment Certificate.
- 1.1.4.8 “**Local Currency**” means the currency of the Country.
- 1.1.4.9 “**Payment Certificate**” means a payment certificate issued under Clause 14 [*Contract Price and Payment*].
- 1.1.4.10 “**Provisional Sum**” means a sum (if any) which is specified in the Contract as



a provisional sum, for the execution of any part of the Works or for the supply of Plant, Materials or services under Sub-Clause 13.5 [*Provisional Sums*].

1.1.4.11 “**Retention Money**” means the accumulated retention moneys which the Employer retains under Sub-Clause 14.3 [*Application for Interim Payment Certificates*] and pays under Sub-Clause 14.9 [*Payment of Retention Money*].

1.1.4.12 “**Statement**” means a statement submitted by the Contractor as part of an application, under Clause 14 [*Contract Price and Payment*], for a payment certificate.

### 1.1.5

#### Works and Goods

1.1.5.1 “**Contractor’s Equipment**” means all apparatus, machinery, vehicles and other things required for the execution and completion of the Works and the remedying of any defects. However, Contractor’s Equipment excludes Temporary Works, Employer’s Equipment (if any), Plant, Materials and any other things intended to form or forming part of the Permanent Works.

1.1.5.2 “**Goods**” means Contractor’s Equipment, Materials, Plant and Temporary Works, or any of them as appropriate.

1.1.5.3 “**Materials**” means things of all kinds (other than Plant) intended to form or forming part of the Permanent Works, including the supply-only materials (if any) to be supplied by the Contractor under the Contract.

1.1.5.4 “**Permanent Works**” means the permanent works to be executed by the Contractor under the Contract.

1.1.5.5 “**Plant**” means the apparatus, machinery and vehicles intended to form or forming part of the Permanent Works, including vehicles purchased for the Employer and relating to the construction or operation of the Works.

1.1.5.6 “**Section**” means a part of the Works specified in the Contract Data as a Section (if any).

1.1.5.7 “**Temporary Works**” means all temporary works of every kind (other than Contractor’s Equipment) required on Site for the execution and completion of the Permanent Works and the remedying of any defects.

1.1.5.8 “**Works**” mean the Permanent Works and the Temporary Works, or either of them as appropriate.

### 1.1.6

#### Other Definitions

1.1.6.1 “**Contractor’s Documents**” means the calculations, computer programs and other software, drawings, manuals, models and other documents of a technical nature (if any) supplied by the Contractor under the Contract.

1.1.6.2 “**Country**” means the country in which the Site (or most of it) is located, where the Permanent Works are to be executed.



1.1.6.3 “**Employer’s Equipment**” means the apparatus, machinery and vehicles (if any) made available by the Employer for the use of the Contractor in the execution of the Works, as stated in the Specification; but does not include Plant which has not been taken over by the Employer.

1.1.6.4 “**Force Majeure**” is defined in Clause 19 [*Force Majeure*].

- 1.1.6.5 “**Laws**” means all national (or state) legislation, statutes, ordinances and other laws, and regulations and by-laws of any legally constituted public authority.
- 1.1.6.6 “**Performance Security**” means the security (or securities, if any) under Sub-Clause 4.2 [*Performance Security*].
- 1.1.6.7 “**Site**” means the places where the Permanent Works are to be executed, including storage and working areas, and to which Plant and Materials are to be delivered, and any other places as may be specified in the Contract as forming part of the Site.
- 1.1.6.8 “**Unforeseeable**” means not reasonably foreseeable by an experienced contractor by the Base Date.
- 1.1.6.9 “**Variation**” means any change to the Works, which is instructed or approved as a variation under Clause 13 [*Variations and Adjustments*].
- 1.1.6.10 “**Notice of Dissatisfaction**” means the notice given by either Party to the other under Sub-Clause 20.4 [*Obtaining Dispute Board’s Decision*] indicating its dissatisfaction and intention to commence arbitration.

## 1.2

### Interpretation

In the Contract, except where the context requires otherwise:

- (a) words indicating one gender include all genders;
- (b) words indicating the singular also include the plural and words indicating the plural also include the singular;
- (c) provisions including the word “agree”, “agreed” or “agreement” require the agreement to be record in writing;
- (d) “written” or “in writing” means hand-written, type-written, printed or electronically made, and resulting in a permanent record; and
- (e) the word “tender” is synonymous with “bid”, and “tenderer” with “bidder” and the words “tender documents” with “bidding documents”.

The marginal words and other headings shall not be taken into consideration in the interpretation of these Conditions.

In these Conditions, provisions including the expression “Cost plus profit” require this profit to be one-twentieth (5%) of this Cost unless otherwise indicated in the Contract Data.

## 1.3

### Communications

Wherever these Conditions provide for the giving or issuing of approvals, certificates, consents, determinations, notices, requests and discharges, these communications shall be:

- (a) in writing and delivered by hand (against receipt), sent by mail or courier, or transmitted using any of the agreed systems of electronic transmission as stated in the Contract Data; and delivered, sent or transmitted to the address for the recipient’s communications as stated in the Contract Data. However:
  - (i) if the recipient gives notice of another address, communications shall thereafter be delivered accordingly; and
  - (ii) if the recipient has not stated otherwise when requesting an approval or



consent, it may be sent to the address from which the request was issued.

Approvals, certificates, consents and determinations shall not be unreasonably withheld or delayed. When a certificate is issued to a Party, the certifier shall send a copy to the other Party. When a notice is issued to a Party, by the other Party or the Engineer, a copy shall be sent to the Engineer or the other Party, as the case may be.

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#### 1.4

##### **Law and Language**

The Contract shall be governed by the law of the country or other jurisdiction stated in the Contract Data.

The ruling language of the Contract shall be that stated in the Contract Data.

The language for communications shall be that stated in the Contract Data. If no language is stated there, the language for communications shall be the ruling language of the Contract.

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#### 1.5

##### **Priority of Documents**

The documents forming the Contract are to be taken as mutually explanatory of one another. For the purposes of interpretation, the priority of the documents shall be in accordance with the following sequence:

- (a) the Contract Agreement (if any),
- (b) the Letter of Acceptance,
- (c) the Letter of Tender,
- (d) the Particular Conditions - Part A,
- (e) the Particular Conditions - Part B,
- (f) these General Conditions,
- (g) the Specification,
- (h) the Drawings, and
- (i) the Schedules and any other documents forming part of the Contract.

If an ambiguity or discrepancy is found in the documents, the Engineer shall issue any necessary clarification or instruction.

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#### 1.6

##### **Contract Agreement**

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 form annexed to the Particular Conditions. 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.

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#### 1.7

##### **Assignment**

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 favour of a bank or financial institution, assign its right to any moneys due, or to become due, under the Contract.

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#### 1.8

##### **Care and Supply of Documents**

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.

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.

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.

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.

## 1.9

### Delayed Drawings or Instructions

The Contractor shall give notice to the Engineer whenever the Works are likely to be delayed or disrupted if any necessary drawing or instruction is not issued to the Contractor within a particular time, which shall be reasonable. The notice shall include details of the necessary drawing or instruction, details of why and by when it should be issued, and the nature and amount of the delay or disruption likely to be suffered if it is late.

If the Contractor suffers delay and/or incurs Cost as a result of a failure of the Engineer to issue the notified drawing or instruction within a time which is reasonable and is specified in the notice with supporting details, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus profit, which shall be included in the Contract Price.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

However, if and to the extent that the Engineer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

## 1.10

### Employer's Use of Contractor's Documents

As between the Parties, the Contractor shall retain the copyright and other intellectual property rights in the Contractor's Documents and other design documents made by (or on behalf of) the Contractor.

The Contractor shall be deemed (by signing the Contract) to give to the Employer a non-terminable transferable non-exclusive royalty-free licence to copy, use and communicate the Contractor's Documents, including making and using modifications of them. This licence shall:

- (a) apply throughout the actual or intended working life (whichever is longer) of the relevant parts of the Works,





- (b) entitle any person in proper possession of the relevant part of the Works to copy, use and communicate the Contractor's Documents for the purposes of completing, operating, maintaining, altering, adjusting, repairing and demolishing the Works, and
- (c) in the case of Contractor's Documents which are in the form of computer programs and other software, permit their use on any computer on the Site and other places as envisaged by the Contract, including replacements of any computers supplied by the Contractor.

The Contractor's Documents and other design documents made by (or on behalf of) the Contractor shall not, without the Contractor's consent, be used, copied or communicated to a third party by (or on behalf of) the Employer for purposes other than those permitted under this Sub-Clause.

## 1.11

### Contractor's Use of Employer's Documents

As between the Parties, the Employer shall retain the copyright and other intellectual property rights in the Specification, the Drawings and other documents made by (or on behalf of) the Employer. The Contractor may, at his cost, copy, use, and obtain communication of these documents for the purposes of the Contract. They shall not, without the Employer's consent, be copied, used or communicated to a third party by the Contractor, except as necessary for the purposes of the Contract.

## 1.12

### Confidential Details

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 compliance with the Contract and allow its proper implementation.

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.

## 1.13

### Compliance with Laws

The Contractor shall, in performing the Contract, comply with applicable Laws. Unless otherwise stated in the Particular Conditions:

- (a) the Employer shall have obtained (or shall obtain) the planning, zoning, building permit or similar permission for the Permanent Works, and any other permissions described in the Specification as having been (or to be) obtained by the Employer; and the Employer shall indemnify and hold the Contractor harmless against and from the consequences of any failure to do so; and
- (b) the Contractor shall give all notices, pay all taxes, duties and fees, and obtain all permits, licences and approvals, as required by the Laws in relation to the execution and completion of the Works and the remedying of any defects; and the Contractor shall indemnify and hold the Employer harmless against and from the consequences of any failure to do so, unless the Contractor is impeded to accomplish these actions and shows evidence of its diligence.

## 1.14

### Joint and Several Liability

If the Contractor constitutes (under applicable Laws) a joint venture, consortium or other unincorporated grouping of two or more persons:



- (a) these persons shall be deemed to be jointly and severally liable to the Employer for the performance of the Contract;
- (b) these persons shall notify the Employer of their leader who shall have authority to bind the Contractor and each of these persons; and
- (c) the Contractor shall not alter its composition or legal status without the prior consent of the Employer.

**1.15  
Inspections and Audit  
by the Bank**

The Contractor shall permit the Bank and/or persons appointed by the Bank to inspect the Site and/or the Contractor's accounts and records relating to the performance of the Contract and to have such accounts and records audited by auditors appointed by the Bank if required by the Bank.

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## The **2** Employer

**2.1  
Right of Access to  
the Site**

The Employer shall give the Contractor right of access to, and possession of, all parts of the Site within the time (or times) stated in the Contract Data. The right and possession may not be exclusive to the Contractor. If, under the Contract, the Employer is required to give (to the Contractor) possession of any foundation, structure, plant or means of access, the Employer shall do so in the time and manner stated in the Specification. However, the Employer may withhold any such right or possession until the Performance Security has been received.

If no such time is stated in the Contract Data, the Employer shall give the Contractor right of access to, and possession of, the Site within such times as required to enable the Contractor to proceed without disruption in accordance with the programme submitted under Sub-Clause 8.3 [*Programme*].

If the Contractor suffers delay and/or incurs Cost as a result of a failure by the Employer to give any such right or possession within such time, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

However, if and to the extent that the Employer's failure was caused by any error or delay by the Contractor, including an error in, or delay in the submission of, any of the Contractor's Documents, the Contractor shall not be entitled to such extension of time, Cost or profit.

**2.2**

**Permits, Licences or  
Approvals**

The Employer shall provide, at the request of the Contractor, such reasonable assistance as to allow the Contractor to obtain properly:

- (a) copies of the Laws of the Country which are relevant to the Contract but are not readily available, and
- (b) any permits, licences or approvals required by the Laws of the Country:



- (i) which the Contractor is required to obtain under Sub-Clause 1.13 [*Compliance with Laws*],
- (ii) for the delivery of Goods, including clearance through customs, and
- (iii) for the export of Contractor's Equipment when it is removed from the Site.

## 2.3

### Employer's Personnel

The Employer shall be responsible for ensuring that the Employer's Personnel and the Employer's other contractors on the Site:

- (a) co-operate with the Contractor's efforts under Sub-Clause 4.6 [*Co-operation*], and
- (b) take actions similar to those which the Contractor is required to take under subparagraphs (a), (b) and (c) of Sub-Clause 4.8 [*Safety Procedures*] and under Sub-Clause 4.18 [*Protection of the Environment*].

## 2.4

### Employer's Financial Arrangements

The Employer shall submit, before the Commencement Date and thereafter within 28 days after receiving any request from the Contractor, reasonable evidence that financial arrangements have been made and are being maintained which will enable the Employer to pay the Contract Price punctually (as estimated at that time) in accordance with Clause 14 [*Contract Price and Payment*]. Before the Employer makes any material change to his financial arrangements, the Employer shall give notice to the Contractor with detailed particulars.

In addition, if the Bank has notified to the Borrower that the Bank has suspended disbursements under its loan, which finances in whole or in part the execution of the Works, the Employer shall give notice of such suspension to the Contractor with detailed particulars, including the date of such notification, with a copy to the Engineer, within 7 days of the Borrower having received the suspension notification from the Bank. If alternative funds will be available in appropriate currencies to the Employer to continue making payments to the Contractor beyond a date 60 days after the date of Bank notification of the suspension, the Employer shall provide reasonable evidence in his notice of the extent to which such funds will be available.

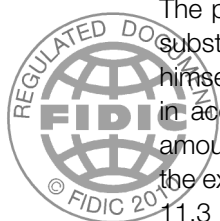
## 2.5

### Employer's Claims

If the Employer considers himself to be entitled to any payment under any Clause of these Conditions or otherwise in connection with the Contract, and/or to any extension of the Defects Notification Period, the Employer or the Engineer shall give notice and particulars to the Contractor. However, notice is not required for payments due under Sub-Clause 4.19 [*Electricity, Water and Gas*], under Sub-Clause 4.20 [*Employer's Equipment and Free-Issue Materials*], or for other services requested by the Contractor.

The notice shall be given as soon as practicable and no longer than 28 days after the Employer became aware, or should have become aware, of the event or circumstances giving rise to the claim. A notice relating to any extension of the Defects Notification Period shall be given before the expiry of such period.

The particulars shall specify the Clause or other basis of the claim, and shall include substantiation of the amount and/or extension to which the Employer considers himself to be entitled in connection with the Contract. The Engineer shall then proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine (i) the amount (if any) which the Employer is entitled to be paid by the Contractor, and/or (ii) the extension (if any) of the Defects Notification Period in accordance with Sub-Clause 11.3 [*Extension of Defects Notification Period*].



This amount may be included as a deduction in the Contract Price and Payment Certificates. The Employer shall only be entitled to set off against or make any deduction from an amount certified in a Payment Certificate, or to otherwise claim against the Contractor, in accordance with this Sub-Clause.

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## The Engineer

### 3.1

#### Engineer's Duties and Authority

The Employer shall appoint the Engineer who shall carry out the duties assigned to him in the Contract. The Engineer's staff shall include suitably qualified engineers and other professionals who are competent to carry out these duties.

The Engineer shall have no authority to amend the Contract.

The Engineer may exercise the authority attributable to the Engineer as specified in or necessarily to be implied from the Contract. If the Engineer is required to obtain the approval of the Employer before exercising a specified authority, the requirements shall be as stated in the Particular Conditions. The Employer shall promptly inform the Contractor of any change to the authority attributed to the Engineer.

However, whenever the Engineer exercises a specified authority for which the Employer's approval is required, then (for the purposes of the Contract) the Employer shall be deemed to have given approval.

Except as otherwise stated in these Conditions:

- (a) whenever carrying out duties or exercising authority, specified in or implied by the Contract, the Engineer shall be deemed to act for the Employer;
- (b) the Engineer has no authority to relieve either Party of any duties, obligations or responsibilities under the Contract;
- (c) any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by the Engineer (including absence of disapproval) shall not relieve the Contractor from any responsibility he has under the Contract, including responsibility for errors, omissions, discrepancies and non-compliances; and
- (d) any act by the Engineer in response to a Contractor's request except as otherwise expressly specified shall be notified in writing to the Contractor within 28 days of receipt.

The following provisions shall apply:

The Engineer shall obtain the specific approval of the Employer before taking action under the following Sub-Clauses of these Conditions:

- (A) Sub-Clause 4.12: agreeing or determining an extension of time and/or additional cost.
- (B) Sub-Clause 13.1: instructing a Variation, except;
  - (i) in an emergency situation as determined by the Engineer, or
  - (ii) if such a Variation would increase the Accepted Contract Amount by less than the percentage specified in the Contract Data.



Sub-Clause 13.3: approving a proposal for Variation submitted by the Contractor in accordance with Sub-Clause 13.1 or 13.2.

- (D) Sub-Clause 13.4: specifying the amount payable in each of the applicable currencies.

Notwithstanding the obligation, as set out above, to obtain approval, if, in the opinion of the Engineer, an emergency occurs affecting the safety of life or of the Works or of adjoining property, he may, without relieving the Contractor of any of his duties and responsibility under the Contract, instruct the Contractor to execute all such work or to do all such things as may, in the opinion of the Engineer, be necessary to abate or reduce the risk. The Contractor shall forthwith comply, despite the absence of approval of the Employer, with any such instruction of the Engineer. The Engineer shall determine an addition to the Contract Price, in respect of such instruction, in accordance with Clause 13 and shall notify the Contractor accordingly, with a copy to the Employer.

### 3.2

#### Delegation by the Engineer

The Engineer may from time to time assign duties and delegate authority to assistants, and may also revoke such assignment or delegation. These assistants may include a resident engineer, and/or independent inspectors appointed to inspect and/or test items of Plant and/or Materials. The assignment, delegation or revocation shall be in writing and shall not take effect until copies have been received by both Parties. However, unless otherwise agreed by both Parties, the Engineer shall not delegate the authority to determine any matter in accordance with Sub-Clause 3.5 [*Determinations*].

Assistants shall be suitably qualified persons, who are competent to carry out these duties and exercise this authority, and who are fluent in the language for communications defined in Sub-Clause 1.4 [*Law and Language*].

Each assistant, to whom duties have been assigned or authority has been delegated, shall only be authorised to issue instructions to the Contractor to the extent defined by the delegation. Any approval, check, certificate, consent, examination, inspection, instruction, notice, proposal, request, test, or similar act by an assistant, in accordance with the delegation, shall have the same effect as though the act had been an act of the Engineer. However:

- (a) any failure to disapprove any work, Plant or Materials shall not constitute approval, and shall therefore not prejudice the right of the Engineer to reject the work, Plant or Materials;
- (b) if the Contractor questions any determination or instruction of an assistant, the Contractor may refer the matter to the Engineer, who shall promptly confirm, reverse or vary the determination or instruction.

### 3.3

#### Instructions of the Engineer

The Engineer may issue to the Contractor (at any time) instructions and additional or modified Drawings which may be necessary for the execution of the Works and the remedying of any defects, all in accordance with the Contract. The Contractor shall only take instructions from the Engineer, or from an assistant to whom the appropriate authority has been delegated under this Clause. If an instruction constitutes a Variation, Clause 13 [*Variations and Adjustments*] shall apply.

The Contractor shall comply with the instructions given by the Engineer or delegated assistant, on any matter related to the Contract. Whenever practicable, their instructions shall be given in writing. If the Engineer or a delegated assistant:

- (a) gives an oral instruction,
- (b) receives a written confirmation of the instruction, from (or on behalf of) the Contractor, within two working days after giving the instruction, and



- (c) does not reply by issuing a written rejection and/or instruction within two working days after receiving the confirmation,

then the confirmation shall constitute the written instruction of the Engineer or delegated assistant (as the case may be).

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### 3.4

#### Replacement of the Engineer

If the Employer intends to replace the Engineer, the Employer shall, not less than 21 days before the intended date of replacement, give notice to the Contractor of the name, address and relevant experience of the intended replacement Engineer. If the Contractor considers the intended replacement Engineer to be unsuitable, he has the right to raise objection against him by notice to the Employer, with supporting particulars, and the Employer shall give full and fair consideration to this objection.

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### 3.5

#### Determinations

Whenever these Conditions provide that the Engineer shall proceed in accordance with this Sub-Clause 3.5 to agree or determine any matter, the Engineer shall consult with each Party in an endeavour to reach agreement. If agreement is not achieved, the Engineer shall make a fair determination in accordance with the Contract, taking due regard of all relevant circumstances.

The Engineer shall give notice to both Parties of each agreement or determination, with supporting particulars, within 28 days from the receipt of the corresponding claim or request except when otherwise specified. Each Party shall give effect to each agreement or determination unless and until revised under Clause 20 [*Claims, Disputes and Arbitration*].

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## 4 The Contractor

### 4.1

#### Contractor's General Obligations

The Contractor shall design (to the extent specified in the Contract), execute and complete the Works in accordance with the Contract and with the Engineer's instructions, and shall remedy any defects in the Works.

The Contractor shall provide the Plant and Contractor's Documents specified in the Contract, and all Contractor's Personnel, Goods, consumables and other things and services, whether of a temporary or permanent nature, required in and for this design, execution, completion and remedying of defects.

All equipment, material, and services to be incorporated in or required for the Works shall have their origin in any eligible source country as defined by the Bank.

The Contractor shall be responsible for the adequacy, stability and safety of all Site operations and of all methods of construction. Except to the extent specified in the Contract, the Contractor (i) shall be responsible for all Contractor's Documents, Temporary Works, and such design of each item of Plant and Materials as is required for the item to be in accordance with the Contract, and (ii) shall not otherwise be responsible for the design or specification of the Permanent Works.

The Contractor shall, whenever required by the Engineer, submit details of the arrangements and methods which the Contractor proposes to adopt for the execution of the Works. No significant alteration to these arrangements and methods shall be made without this having previously been notified to the Engineer.



If the Contract specifies that the Contractor shall design any part of the Permanent Works, then unless otherwise stated in the Particular Conditions:

- (a) the Contractor shall submit to the Engineer the Contractor's Documents for this part in accordance with the procedures specified in the Contract;
- (b) these Contractor's Documents shall be in accordance with the Specification and Drawings, shall be written in the language for communications defined in Sub-Clause 1.4 [*Law and Language*], and shall include additional information required by the Engineer to add to the Drawings for co-ordination of each Party's designs;
- (c) the Contractor shall be responsible for this part and it shall, when the Works are completed, be fit for such purposes for which the part is intended as are specified in the Contract; and
- (d) prior to the commencement of the Tests on Completion, the Contractor shall submit to the Engineer the "as-built" documents and, if applicable, operation and maintenance manuals in accordance with the Specification and in sufficient detail for the Employer to operate, maintain, dismantle, reassemble, adjust and repair this part of the Works. Such part shall not be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [*Taking Over of the Works and Sections*] until these documents and manuals have been submitted to the Engineer.

## 4.2

### Performance Security

The Contractor shall obtain (at his cost) a Performance Security for proper performance, in the amount stated in the Contract Data and denominated in the currency(ies) of the Contract or in a freely convertible currency acceptable to the Employer. If an amount is not stated in the Contract Data, this Sub-Clause shall not apply.

The Contractor shall deliver the Performance Security to the Employer within 28 days after receiving the Letter of Acceptance, and shall send a copy to the Engineer. The Performance Security shall be issued by a reputable bank or financial institution selected by the Contractor, and shall be in the form annexed to the Particular Conditions, as stipulated by the Employer in the Contract Data, or in another form approved by the Employer.

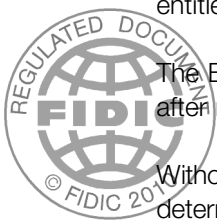
The Contractor shall ensure that the Performance Security is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects. If the terms of the Performance Security specify its expiry date, and the Contractor has not become entitled to receive the Performance Certificate by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the Performance Security until the Works have been completed and any defects have been remedied.

The Employer shall not make a claim under the Performance Security, except for amounts to which the Employer is entitled under the Contract.

The Employer shall indemnify and hold the Contractor harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from a claim under the Performance Security to the extent to which the Employer was not entitled to make the claim.

The Employer shall return the Performance Security to the Contractor within 21 days after receiving a copy of the Performance Certificate.

Without limitation to the provisions of the rest of this Sub-Clause, whenever the Engineer determines an addition or a reduction to the Contract Price as a result of a change in



cost and/or legislation, or as a result of a Variation amounting to more than 25 percent of the portion of the Contract Price payable in a specific currency, the Contractor shall at the Engineer's request promptly increase, or may decrease, as the case may be, the value of the Performance Security in that currency by an equal percentage.

#### 4.3

##### Contractor's Representative

The Contractor shall appoint the Contractor's Representative and shall give him all authority necessary to act on the Contractor's behalf under the Contract.

Unless the Contractor's Representative is named in the Contract, the Contractor shall, prior to the Commencement Date, submit to the Engineer for consent the name and particulars of the person the Contractor proposes to appoint as Contractor's Representative. If consent is withheld or subsequently revoked in terms of Sub-Clause 6.9 [*Contractor's Personnel*], or if the appointed person fails to act as Contractor's Representative, the Contractor shall similarly submit the name and particulars of another suitable person for such appointment.

The Contractor shall not, without the prior consent of the Engineer, revoke the appointment of the Contractor's Representative or appoint a replacement.

The whole time of the Contractor's Representative shall be given to directing the Contractor's performance of the Contract. If the Contractor's Representative is to be temporarily absent from the Site during the execution of the Works, a suitable replacement person shall be appointed, subject to the Engineer's prior consent, and the Engineer shall be notified accordingly.

The Contractor's Representative shall, on behalf of the Contractor, receive instructions under Sub-Clause 3.3 [*Instructions of the Engineer*].

The Contractor's Representative may delegate any powers, functions and authority to any competent person, and may at any time revoke the delegation. Any delegation or revocation shall not take effect until the Engineer has received prior notice signed by the Contractor's Representative, naming the person and specifying the powers, functions and authority being delegated or revoked.

The Contractor's Representative shall be fluent in the language for communications defined in Sub-Clause 1.4 [*Law and Language*]. If the Contractor's Representative's delegates are not fluent in the said language, the Contractor shall make competent interpreters available during all working hours in a number deemed sufficient by the Engineer.

#### 4.4

##### Subcontractors

The Contractor shall not subcontract the whole of the Works.

The Contractor shall be responsible for the acts or defaults of any Subcontractor, his agents or employees, as if they were the acts or defaults of the Contractor. Unless otherwise stated in the Particular Conditions:

- (a) the Contractor shall not be required to obtain consent to suppliers solely of Materials, or to a subcontract for which the Subcontractor is named in the Contract;
- (b) the prior consent of the Engineer shall be obtained to other proposed Subcontractors;
- (c) the Contractor shall give the Engineer not less than 28 days' notice of the intended date of the commencement of each Subcontractor's work, and of the commencement of such work on the Site; and





- (d) each subcontract shall include provisions which would entitle the Employer to require the subcontract to be assigned to the Employer under Sub-Clause 4.5 [*Assignment of Benefit of Subcontract*] (if or when applicable) or in the event of termination under Sub-Clause 15.2 [*Termination by Employer*].

The Contractor shall ensure that the requirements imposed on the Contractor by Sub-Clause 1.12 [*Confidential Details*] apply equally to each Subcontractor.

Where practicable, the Contractor shall give fair and reasonable opportunity for contractors from the Country to be appointed as Subcontractors.

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#### 4.5

##### Assignment of Benefit of Subcontract

If a Subcontractor's obligations extend beyond the expiry date of the relevant Defects Notification Period and the Engineer, prior to this date, instructs the Contractor to assign the benefit of such obligations to the Employer, then the Contractor shall do so. Unless otherwise stated in the assignment, the Contractor shall have no liability to the Employer for the work carried out by the Subcontractor after the assignment takes effect.

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#### 4.6

##### Co-operation

The Contractor shall, as specified in the Contract or as instructed by the Engineer, allow appropriate opportunities for carrying out work to:

- (a) the Employer's Personnel,
- (b) any other contractors employed by the Employer, and
- (c) the personnel of any legally constituted public authorities,

who may be employed in the execution on or near the Site of any work not included in the Contract.

Any such instruction shall constitute a Variation if and to the extent that it causes the Contractor to suffer delays and/or to incur Unforeseeable Cost. Services for these personnel and other contractors may include the use of Contractor's Equipment, Temporary Works or access arrangements which are the responsibility of the Contractor.

If, under the Contract, the Employer is required to give to the Contractor possession of any foundation, structure, plant or means of access in accordance with Contractor's Documents, the Contractor shall submit such documents to the Engineer in the time and manner stated in the Specification.

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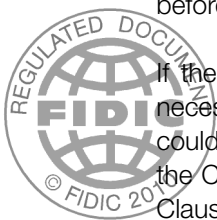
#### 4.7

##### Setting Out

The Contractor shall set out the Works in relation to original points, lines and levels of reference specified in the Contract or notified by the Engineer. The Contractor shall be responsible for the correct positioning of all parts of the Works, and shall rectify any error in the positions, levels, dimensions or alignment of the Works.

The Employer shall be responsible for any errors in these specified or notified items of reference, but the Contractor shall use reasonable efforts to verify their accuracy before they are used.

If the Contractor suffers delay and/or incurs Cost from executing work which was necessitated by an error in these items of reference, and an experienced contractor could not reasonably have discovered such error and avoided this delay and/or Cost, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:



- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine (i) whether and (if so) to what extent the error could not reasonably have been discovered, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

#### 4.8

##### Safety Procedures

The Contractor shall:

- (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 obstruction so as to avoid danger to these persons,
- (d) provide fencing, lighting, guarding and watching of the Works until completion and taking over under Clause 10 [*Employer's 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.

#### 4.9

##### Quality Assurance

The Contractor shall institute a quality assurance system to demonstrate compliance with the requirements of the Contract. The system shall be in accordance with the details stated in the Contract. The Engineer shall be entitled to audit any aspect of the system.

Details of all procedures and compliance documents shall be submitted to the Engineer for information before each design and execution stage is commenced. When any document of a technical nature is issued to the Engineer, evidence of the prior approval by the Contractor himself shall be apparent on the document itself.

Compliance with the quality assurance system shall not relieve the Contractor of any of his duties, obligations or responsibilities under the Contract.

#### 4.10

##### Site Data

The Employer shall have made available to the Contractor for his information, prior to the Base Date, all relevant data in the Employer's possession on sub-surface and hydrological conditions at the Site, including environmental aspects. The Employer shall similarly make available to the Contractor all such data which come into the Employer's possession after the Base Date. The Contractor shall be responsible for interpreting all such data.

To the extent which was practicable (taking account of cost and time), the Contractor shall be deemed to have obtained all necessary information as to risks, contingencies and other circumstances which may influence or affect the Tender or Works. To the same extent, the Contractor shall be deemed to have inspected and examined the Site, its surroundings, the above data and other available information, and to have been satisfied before submitting the Tender as to all relevant matters, including (without limitation):

- (a) the form and nature of the Site, including sub-surface conditions,
- (b) the hydrological and climatic conditions,
- (c) the extent and nature of the work and Goods necessary for the execution and completion of the Works and the remedying of any defects,



- (d) the Laws, procedures and labour practices of the Country, and
- (e) the Contractor's requirements for access, accommodation, facilities, personnel, power, transport, water and other services.

#### 4.11

##### Sufficiency of the Accepted Contract Amount

The Contractor shall be deemed to:

- (a) have satisfied himself as to the correctness and sufficiency of the Accepted Contract Amount, and
- (b) have based the Accepted Contract Amount on the data, interpretations, necessary information, inspections, examinations and satisfaction as to all relevant matters referred to in Sub-Clause 4.10 [*Site Data*].

Unless otherwise stated in the Contract, the Accepted Contract Amount covers all the Contractor's obligations under the Contract (including those under Provisional Sums, if any) and all things necessary for the proper execution and completion of the Works and the remedying of any defects.

#### 4.12

##### Unforeseeable Physical Conditions

In this Sub-Clause, "physical conditions" means natural physical conditions and man-made and other physical obstructions and pollutants, which the Contractor encounters at the Site when executing the Works, including sub-surface and hydrological conditions but excluding climatic conditions.

If the Contractor encounters adverse physical conditions which he considers to have been Unforeseeable, the Contractor shall give notice to the Engineer as soon as practicable.

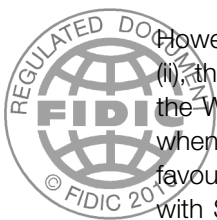
This notice shall describe the physical conditions, so that they can be inspected by the Engineer, and shall set out the reasons why the Contractor considers them to be Unforeseeable. The Contractor shall continue executing the Works, using such proper and reasonable measures as are appropriate for the physical conditions, and shall comply with any instructions which the Engineer may give. If an instruction constitutes a Variation, Clause 13 [*Variations and Adjustments*] shall apply.

If and to the extent that the Contractor encounters physical conditions which are Unforeseeable, gives such a notice, and suffers delay and/or incurs Cost due to these conditions, the Contractor shall be entitled subject to notice under Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost, which shall be included in the Contract Price.

Upon receiving such notice and inspecting and/or investigating these physical conditions, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine (i) whether and (if so) to what extent these physical conditions were Unforeseeable, and (ii) the matters described in sub-paragraphs (a) and (b) above related to this extent.

However, before additional Cost is finally agreed or determined under sub-paragraph (ii), the Engineer may also review whether other physical conditions in similar parts of the Works (if any) were more favourable than could reasonably have been foreseen when the Contractor submitted the Tender. If and to the extent that these more favourable conditions were encountered, the Engineer may proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine the reductions in Cost



which were due to these conditions, which may be included (as deductions) in the Contract Price and Payment Certificates. However, the net effect of all adjustments under sub-paragraph (b) and all these reductions, for all the physical conditions encountered in similar parts of the Works, shall not result in a net reduction in the Contract Price.

The Engineer shall take account of any evidence of the physical conditions foreseen by the Contractor when submitting the Tender, which shall be made available by the Contractor, but shall not be bound by the Contractor's interpretation of any such evidence.

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#### 4.13

##### **Rights of Way and Facilities**

Unless otherwise specified in the Contract the Employer shall provide effective access to and possession of the Site including special and/or temporary rights-of-way which are necessary for the Works. The Contractor shall obtain, at his risk and cost, any additional rights of way or facilities outside the Site which he may require for the purposes of the Works.

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#### 4.14

##### **Avoidance of Interference**

The Contractor shall not interfere unnecessarily or improperly with:

- (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.

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.

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#### 4.15

##### **Access Route**

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.

Except as otherwise stated in these Conditions:

- (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.

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#### 4.16

##### **Transport of Goods**

Unless otherwise stated in the Particular Conditions:

- (a) the Contractor shall give the Engineer not less than 21 days' notice of the date on which any Plant or a major item of other Goods will be delivered to the Site;
- (b) the Contractor shall be responsible for packing, loading, transporting, receiving,



- unloading, storing and protecting all Goods and other things required for the Works; and
- (c) the Contractor shall indemnify and hold the Employer harmless against and from all damages, losses and expenses (including legal fees and expenses) resulting from the transport of Goods, and shall negotiate and pay all claims arising from their transport.

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#### 4.17

##### **Contractor's Equipment**

The Contractor shall be responsible for all Contractor's Equipment. When brought on to the Site, Contractor's Equipment shall be deemed to be exclusively intended for the execution of the Works. The Contractor shall not remove from the Site any major items of Contractor's Equipment without the consent of the Engineer. However, consent shall not be required for vehicles transporting Goods or Contractor's Personnel off Site.

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#### 4.18

##### **Protection of the Environment**

The Contractor shall take all reasonable steps to protect the environment (both on and off the Site) and to limit damage and nuisance to people and property resulting from pollution, noise and other results of his operations.

The Contractor shall ensure that emissions, surface discharges and effluent from the Contractor's activities shall not exceed the values stated in the Specification or prescribed by applicable Laws.

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#### 4.19

##### **Electricity, Water and Gas**

The Contractor shall, except as stated below, be responsible for the provision of all power, water and other services he may require for his construction activities and to the extent defined in the Specifications, for the tests.

The Contractor shall be entitled to use for the purposes of the Works such supplies of electricity, water, gas and other services as may be available on the Site and of which details and prices are given in the Specification. The Contractor shall, at his risk and cost, provide any apparatus necessary for his use of these services and for measuring the quantities consumed.

The quantities consumed and the amounts due (at these prices) for such services shall be agreed or determined by the Engineer in accordance with Sub-Clause 2.5 [*Employer's Claims*] and Sub-Clause 3.5 [*Determinations*]. The Contractor shall pay these amounts to the Employer.

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#### 4.20

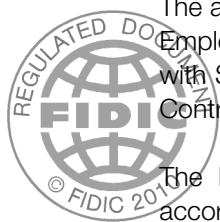
##### **Employer's Equipment and Free-Issue Materials**

The Employer shall make the Employer's Equipment (if any) available for the use of the Contractor in the execution of the Works in accordance with the details, arrangements and prices stated in the Specification. Unless otherwise stated in the Specification:

- (a) the Employer shall be responsible for the Employer's Equipment, except that
- (b) the Contractor shall be responsible for each item of Employer's Equipment whilst any of the Contractor's Personnel is operating it, driving it, directing it or in possession or control of it.

The appropriate quantities and the amounts due (at such stated prices) for the use of Employer's Equipment shall be agreed or determined by the Engineer in accordance with Sub-Clause 2.5 [*Employer's Claims*] and Sub-Clause 3.5 [*Determinations*]. The Contractor shall pay these amounts to the Employer.

The Employer shall supply, free of charge, the "free-issue materials" (if any) in accordance with the details stated in the Specification. The Employer shall, at his risk



and cost, provide these materials at the time and place specified in the Contract. The Contractor shall then visually inspect them, and shall promptly give notice to the Engineer of any shortage, defect or default in these materials. Unless otherwise agreed by both Parties, the Employer shall immediately rectify the notified shortage, defect or default.

After this visual inspection, the free-issue materials shall come under the care, custody and control of the Contractor. The Contractor's obligations of inspection, care, custody and control shall not relieve the Employer of liability for any shortage, defect or default not apparent from a visual inspection.

#### 4.21 Progress Reports

Unless otherwise stated in the Particular Conditions, monthly progress reports shall be prepared by the Contractor and submitted to the Engineer in six copies. The first report shall cover the period up to the end of the first calendar month following the Commencement Date. Reports shall be submitted monthly thereafter, each within 7 days after the last day of the period to which it relates.

Reporting shall continue until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

Each report shall include:

- (a) charts and detailed descriptions of progress, including each stage of design (if any), Contractor's Documents, procurement, manufacture, delivery to Site, construction, erection and testing; and including these stages for work by each nominated Subcontractor (as defined in Clause 5 [*Nominated Subcontractors*]),
- (b) photographs showing the status of manufacture and of progress on the Site;
- (c) for the manufacture of each main item of Plant and Materials, the name of the manufacturer, manufacture location, percentage progress, and the actual or expected dates of:
  - (i) commencement of manufacture,
  - (ii) Contractor's inspections,
  - (iii) tests, and
  - (iv) shipment and arrival at the Site;
- (d) the details described in Sub-Clause 6.10 [*Records of Contractor's Personnel and Equipment*];
- (e) copies of quality assurance documents, test results and certificates of Materials;
- (f) list of notices given under Sub-Clause 2.5 [*Employer's Claims*] and notices given under Sub-Clause 20.1 [*Contractor's Claims*];
- (g) safety statistics, including details of any hazardous incidents and activities relating to environmental aspects and public relations; and
- (h) comparisons of actual and planned progress, with details of any events or circumstances which may jeopardise the completion in accordance with the Contract, and the measures being (or to be) adopted to overcome delays.

#### 4.22 Security of the Site

Unless otherwise stated in the Particular Conditions:

- (a) the Contractor shall be responsible for keeping unauthorised persons off the Site, and



- (b) authorised persons shall be limited to the Contractor's Personnel and the Employer's Personnel; and to any other personnel notified to the Contractor, by the Employer or the Engineer, as authorised personnel of the Employer's other contractors on the Site.

#### 4.23

##### Contractor's Operations on Site

The Contractor shall confine his operations to the Site, and to any additional areas which may be obtained by the Contractor and agreed by the Engineer as additional working areas. The Contractor shall take all necessary precautions to keep Contractor's Equipment and Contractor's Personnel within the Site and these additional areas, and to keep them off adjacent land.

During the execution of the Works, the Contractor shall keep the Site free from all unnecessary obstruction, and shall store or dispose of any Contractor's Equipment or surplus materials. The Contractor shall clear away and remove from the Site any wreckage, rubbish and Temporary Works which are no longer required.

Upon the issue of a Taking-Over Certificate, the Contractor shall clear away and remove, from that part of the Site and Works to which the Taking-Over Certificate refers, all Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works. The Contractor shall leave that part of the Site and the Works in a clean and safe condition. However, the Contractor may retain on Site, during the Defects Notification Period, such Goods as are required for the Contractor to fulfil obligations under the Contract.

#### 4.24

##### Fossils

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.

The Contractor shall, upon discovery of any such finding, promptly give notice to the Engineer, who shall issue instructions for dealing with it. If the Contractor suffers delay and/or incurs Cost from complying with the instructions, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

## 5 Nominated Subcontractors

### 5.1

#### Definition of "nominated Subcontractor"

In the Contract, "nominated Subcontractor" means a Subcontractor:

- (a) who is stated in the Contract as being a nominated Subcontractor, or
- (b) whom the Engineer, under Clause 13 [*Variations and Adjustments*], instructs the Contractor to employ as a Subcontractor subject to Sub-Clause 5.2 [*Objection to Notification*].



## 5.2 Objection to Nomination

The Contractor shall not be under any obligation to employ a nominated Subcontractor against whom the Contractor raises reasonable objection by notice to the Engineer as soon as practicable, with supporting particulars. An objection shall be deemed reasonable if it arises from (among other things) any of the following matters, unless the Employer agrees in writing to indemnify the Contractor against and from the consequences of the matter:

- (a) there are reasons to believe that the Subcontractor does not have sufficient competence, resources or financial strength;
- (b) the nominated Subcontractor does not accept to indemnify the Contractor against and from any negligence or misuse of Goods by the nominated Subcontractor, his agents and employees; or
- (c) the nominated Subcontractor does not accept to enter into a subcontract which specifies that, for the subcontracted work (including design, if any), the nominated Subcontractor shall:
  - (i) undertake to the Contractor such obligations and liabilities as will enable the Contractor to discharge his obligations and liabilities under the Contract,
  - (ii) indemnify the Contractor against and from all obligations and liabilities arising under or in connection with the Contract and from the consequences of any failure by the Subcontractor to perform these obligations or to fulfil these liabilities, and
  - (iii) be paid only if and when the Contractor has received from the Employer payments for sums due under the Subcontract referred to under Sub-Clause 5.3 [*Payment to nominated Subcontractors*].

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## 5.3 Payments to nominated Subcontractors

The Contractor shall pay to the nominated Subcontractor the amounts shown on the nominated Subcontractor's invoices approved by the Contractor which the Engineer certifies to be due in accordance with the subcontract. These amounts plus other charges shall be included in the Contract Price in accordance with sub-paragraph (b) of Sub-clause 13.5 [*Provisional Sums*], except as stated in Sub-Clause 5.4 [*Evidence of Payments*].

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## 5.4 Evidence of Payments

Before issuing a Payment Certificate which includes an amount payable to a nominated Subcontractor, the Engineer may request the Contractor to supply reasonable evidence that the nominated Subcontractor has received all amounts due in accordance with previous Payment Certificates, less applicable deductions for retention or otherwise. Unless the Contractor:

- (a) submits this reasonable evidence to the Engineer, or
- (b)
  - (i) satisfies the Engineer in writing that the Contractor is reasonably entitled to withhold or refuse to pay these amounts, and
  - (ii) submits to the Engineer reasonable evidence that the nominated Subcontractor has been notified of the Contractor's entitlement,

then the Employer may (at his sole discretion) pay, direct to the nominated Subcontractor, part or all of such amounts previously certified (less applicable deductions) as are due to the nominated Subcontractor and for which the Contractor has failed to submit the evidence described in sub-paragraphs (a) or (b) above. The Contractor shall then repay, to the Employer, the amount which the nominated Subcontractor was directly paid by the Employer.





# 6 Staff and Labour

## 6.1

### Engagement of Staff and Labour

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.

The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labour with appropriate qualifications and experience from sources within the Country.

## 6.2

### Rates of Wages and Conditions of Labour

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 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.

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.

## 6.3

### Persons in the Service of Employer

The Contractor shall not recruit, or attempt to recruit, staff and labour from amongst the Employer's Personnel.

## 6.4

### Labour Laws

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.

The Contractor shall require his employees to obey all applicable Laws, including those concerning safety at work.

## 6.5

### Working Hours

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:

- (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.

## 6.6

### Facilities for Staff and Labour

Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. The Contractor shall also provide facilities for the Employer's Personnel as stated in the Specification.

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.



## 6.7 Health and Safety

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, sick bay and ambulance service 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.

The Contractor shall appoint an accident prevention officer at the Site, responsible for maintaining safety and protection against accidents. This person shall be qualified for this responsibility, and shall have the authority to issue instructions and take protective measures to prevent accidents. Throughout the execution of the Works, the Contractor shall provide whatever is required by this person to exercise this responsibility and authority.

The Contractor shall send, to the Engineer, details of any accident as soon as practicable after its occurrence. The Contractor shall maintain records and make reports concerning health, safety and welfare of persons, and damage to property, as the Engineer may reasonably require.

HIV-AIDS Prevention. The Contractor shall conduct an HIV-AIDS awareness programme via an approved service provider, and shall undertake such other measures as are specified in this Contract to reduce the risk of the transfer of the HIV virus between and among the Contractor's Personnel and the local community, to promote early diagnosis and to assist affected individuals.

The Contractor shall throughout the contract (including the Defects Notification Period): (i) conduct Information, Education and Communication (IEC) campaigns, at least every other month, addressed to all the Site staff and labour (including all the Contractor's employees, all Subcontractors and any other Contractor's or Employer's personnel, and all truck drivers and crew making deliveries to Site for construction activities) and to the immediate local communities, concerning the risks, dangers and impact, and appropriate avoidance behaviour with respect to, of Sexually Transmitted Diseases (STD) - or Sexually Transmitted Infections (STI) in general and HIV/AIDS in particular; (ii) provide male or female condoms for all Site staff and labour as appropriate; and (iii) provide for STI and HIV/AIDS screening, diagnosis, counselling and referral to a dedicated national STI and HIV/AIDS programme, (unless otherwise agreed) of all Site staff and labour.

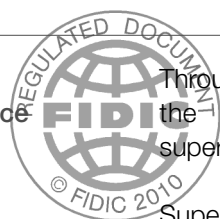
The Contractor shall include in the programme to be submitted for the execution of the Works under Sub-Clause 8.3 an alleviation programme for Site staff and labour and their families in respect of Sexually Transmitted Infections (STI) and Sexually Transmitted Diseases (STD) including HIV/AIDS. The STI, STD and HIV/AIDS alleviation programme shall indicate when, how and at what cost the Contractor plans to satisfy the requirements of this Sub-Clause and the related specification. For each component, the programme shall detail the resources to be provided or utilised and any related sub-contracting proposed. The programme shall also include provision of a detailed cost estimate with supporting documentation. Payment to the Contractor for preparation and implementation this programme shall not exceed the Provisional Sum dedicated for this purpose.

## 6.8

### Contractor's Superintendence

Throughout the execution of the Works, and as long thereafter as is necessary to fulfil the Contractor's obligations, the Contractor shall provide all necessary superintendence to plan, arrange, direct, manage, inspect and test the work.

Superintendence shall be given by a sufficient number of persons having adequate



knowledge of the language for communications (defined in Sub-Clause 1.4 [*Law and Language*]) and of the operations to be carried out (including the methods and techniques required, the hazards likely to be encountered and methods of preventing accidents), for the satisfactory and safe execution of the Works.

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## 6.9

### **Contractor's Personnel**

The Contractor's Personnel shall be appropriately qualified, skilled and experienced in their respective trades or occupations. The Engineer may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Contractor's Representative if applicable, who:

- (a) persists in any misconduct or lack of care,
- (b) carries out duties incompetently or negligently,
- (c) fails to conform with any provisions of the Contract, or
- (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment.

If appropriate, the Contractor shall then appoint (or cause to be appointed) a suitable replacement person.

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## 6.10

### **Records of Contractor's Personnel and Equipment**

The Contractor shall submit, to the Engineer, details showing the number of each class of Contractor's Personnel and of each type of Contractor's Equipment on the Site. Details shall be submitted each calendar month, in a form approved by the Engineer, until the Contractor has completed all work which is known to be outstanding at the completion date stated in the Taking-Over Certificate for the Works.

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## 6.11

### **Disorderly Conduct**

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.

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## 6.12

### **Foreign Personnel**

The Contractor may bring in to the Country any foreign personnel who are necessary for the execution of the Works to the extent allowed by the applicable Laws. The Contractor shall ensure that these personnel are provided with the required residence visas and work permits. The Employer will, if requested by the Contractor, use his best endeavours in a timely and expeditious manner to assist the Contractor in obtaining any local, state, national, or government permission required for bringing in the Contractor's personnel.

The Contractor shall be responsible for the return of these personnel to the place where they were recruited or to their domicile. In the event of the death in the Country of any of these personnel or members of their families, the Contractor shall similarly be responsible for making the appropriate arrangements for their return or burial.

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## 6.13

### **Supply of Foodstuffs**

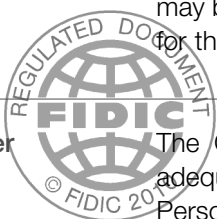
The Contractor shall arrange for the provision of a sufficient supply of suitable food as may be stated in the Specification at reasonable prices for the Contractor's Personnel for the purposes of or in connection with the Contract.

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## 6.14

### **Supply of Water**

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.



- 6.15 Measures against Insect and Pest Nuisance** The Contractor shall at all times take the necessary precautions to protect the Contractor's Personnel employed on the Site from insect and pest nuisance, and to reduce the danger to their health. The Contractor shall comply with all the regulations of the local health authorities, including use of appropriate insecticide.
- 
- 6.16 Alcoholic Liquor or Drugs** The Contractor shall not, otherwise than in accordance with the Laws of the Country, import, sell, give, barter or otherwise dispose of any alcoholic liquor or drugs, or permit or allow importation, sale, gift, barter or disposal thereto by Contractor's Personnel.
- 
- 6.17 Arms and Ammunition** The Contractor shall not give, barter, or otherwise dispose of, to any person, any arms or ammunition of any kind, or allow Contractor's Personnel to do so.
- 
- 6.18 Festivals and Religious Customs** The Contractor shall respect the Country's recognized festivals, days of rest and religious or other customs.
- 
- 6.19 Funeral Arrangements** 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.
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- 6.20 Forced Labour** The Contractor shall not employ forced labour, which consists of any work or service, not voluntarily performed, that is exacted from an individual under threat of force or penalty, and includes any kind of involuntary or compulsory labour, such as indentured labour, bonded labour or similar labour-contracting arrangements.
- 
- 6.21 Child Labour** 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 the relevant labour laws of the Country 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.
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- 6.22 Employment Records of Workers** The Contractor shall keep complete and accurate records of the employment of labour at the Site. The records shall include the names, ages, genders, hours worked and wages paid to all workers. These records shall be summarised on a monthly basis and submitted to the Engineer. These records shall be included in the details to be submitted by the Contractor under Sub-Clause 6.10 [*Records of Contractor's Personnel and Equipment*].
- 
- 6.23 Workers' Organisations** In countries where the relevant labour laws recognise workers' rights to form and to join workers' organisations of their choosing without interference and to bargain collectively, the Contractor shall comply with such laws. Where the relevant labour laws substantially restrict workers' organisations, 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 the relevant labour laws are silent, the Contractor shall not discourage the Contractor's Personnel from forming or joining workers' organisations 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 organisations and bargain collectively. The Contractor shall engage with such workers' representatives. Workers' organisations are expected to fairly represent the workers in the workforce.

6.24

**Non-Discrimination and Equal Opportunity**

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 the relevant labour laws provide for non-discrimination in employment, the Contractor shall comply with such laws. When the relevant labour laws are silent on non-discrimination 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.

## 7 Plant, Materials and Workmanship

7.1

**Manner of Execution**

The Contractor shall carry out the manufacture of Plant, the production and manufacture of Materials, and all other execution of the Works:

- (a) in the manner (if any) specified in the Contract,
- (b) in a proper workmanlike and careful manner, in accordance with recognised good practice, and
- (c) with properly equipped facilities and non-hazardous Materials, except as otherwise specified in the Contract.

7.2

**Samples**

The Contractor shall submit the following samples of Materials, and relevant information, to the Engineer for consent prior to using the Materials in or for the Works:

- (a) manufacturer's standard samples of Materials and samples specified in the Contract, all at the Contractor's cost, and
- (b) additional samples instructed by the Engineer as a Variation.

Each sample shall be labelled as to origin and intended use in the Works.

7.3

**Inspection**

The Employer's Personnel shall at all reasonable times:

- (a) have full access to all parts of the Site and to all places from which natural Materials are being obtained, and
- (b) during production, manufacture and construction (at the Site and elsewhere), be entitled to examine, inspect, measure and test the materials and workmanship, and to check the progress of manufacture of Plant and production and manufacture of Materials.

The Contractor shall give the Employer's Personnel full opportunity to carry out these activities, including providing access, facilities, permissions and safety equipment. No such activity shall relieve the Contractor from any obligation or responsibility.



The Contractor shall give notice to the Engineer whenever any work is ready and before it is covered up, put out of sight, or packaged for storage or transport. The Engineer shall then either carry out the examination, inspection, measurement or testing without unreasonable delay, or promptly give notice to the Contractor that the Engineer does not require to do so. If the Contractor fails to give the notice, he shall, if and when required by the Engineer, uncover the work and thereafter reinstate and make good, all at the Contractor's cost.

## 7.4

### Testing

This Sub-Clause shall apply to all tests specified in the Contract, other than the Tests after Completion (if any).

Except as otherwise specified in the Contract, the Contractor shall provide all apparatus, assistance, documents and other information, electricity, equipment, fuel, consumables, instruments, labour, materials, and suitably qualified and experienced staff, as are necessary to carry out the specified tests efficiently. The Contractor shall agree, with the Engineer, the time and place for the specified testing of any Plant, Materials and other parts of the Works.

The Engineer may, under Clause 13 [*Variations and Adjustments*], vary the location or details of specified tests, or instruct the Contractor to carry out additional tests. If these varied or additional tests show that the tested Plant, Materials or workmanship is not in accordance with the Contract, the cost of carrying out this Variation shall be borne by the Contractor, notwithstanding other provisions of the Contract.

The Engineer shall give the Contractor not less than 24 hours' notice of the Engineer's intention to attend the tests. If the Engineer does not attend at the time and place agreed, the Contractor may proceed with the tests, unless otherwise instructed by the Engineer, and the tests shall then be deemed to have been made in the Engineer's presence.

If the Contractor suffers delay and/or incurs Cost from complying with these instructions or as a result of a delay for which the Employer is responsible, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus profit, which shall be included in the Contract Price.

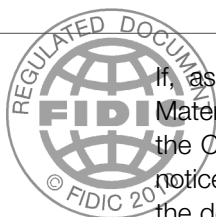
After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

The Contractor shall promptly forward to the Engineer duly certified reports of the tests. When the specified tests have been passed, the Engineer shall endorse the Contractor's test certificate, or issue a certificate to him, to that effect. If the Engineer has not attended the tests, he shall be deemed to have accepted the readings as accurate.

## 7.5

### Rejection

If, as a result of an examination, inspection, measurement or testing, any Plant, Materials or workmanship is found to be defective or otherwise not in accordance with the Contract, the Engineer may reject the Plant, Materials or workmanship by giving notice to the Contractor, with reasons. The Contractor shall then promptly make good the defect and ensure that the rejected item complies with the Contract.



If the Engineer requires this Plant, Materials or workmanship to be retested, the tests shall be repeated under the same terms and conditions. If the rejection and retesting cause the Employer to incur additional costs, the Contractor shall subject to Sub-Clause 2.5 [*Employer's Claims*] pay these costs to the Employer.

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## 7.6

### Remedial Work

Notwithstanding any previous test or certification, the Engineer may instruct the Contractor to:

- (a) remove from the Site and replace any Plant or Materials which is not in accordance with the Contract,
- (b) remove and re-execute any other work which is not in accordance with the Contract, and
- (c) execute any work which is urgently required for the safety of the Works, whether because of an accident, unforeseeable event or otherwise.

The Contractor shall comply with the instruction within a reasonable time, which shall be the time (if any) specified in the instruction, or immediately if urgency is specified under sub-paragraph (c).

If the Contractor fails to comply with the instruction, the Employer shall be entitled to employ and pay other persons to carry out the work. Except to the extent that the Contractor would have been entitled to payment for the work, the Contractor shall subject to Sub-Clause 2.5 [*Employer's Claims*] pay to the Employer all costs arising from this failure.

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## 7.7

### Ownership of Plant and Materials

Except as otherwise provided in the Contract, each item of Plant and Materials shall, to the extent consistent with the Laws of the Country, become the property of the Employer at whichever is the earlier of the following times, free from liens and other encumbrances:

- (a) when it is incorporated in the Works;
- (b) when the Contractor is paid the corresponding value of the Plant and Materials under Sub-Clause 8.10 [*Payment for Plant and Materials in Event of Suspension*].

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## 7.8

### Royalties

Unless otherwise stated in the Specification, the Contractor shall pay all royalties, rents and other payments for:

- (a) natural Materials obtained from outside the Site, and
  - (b) the disposal of material from demolitions and excavations and of other surplus material (whether natural or man-made), except to the extent that disposal areas within the Site are specified in the Contract.
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# 8 Commencement, Delays and Suspension

## 8.1

**Commencement of Works** Except as otherwise specified in the Particular Conditions of Contract, the Commencement Date shall be the date at which the following precedent conditions have all been fulfilled and the Engineer's notification recording the agreement of both Parties on such fulfilment and instructing to commence the Work is received by the Contractor:



- (a) signature of the Contract Agreement by both Parties, and if required, approval of the Contract by relevant authorities of the Country;
- (b) delivery to the Contractor of reasonable evidence of the Employer's Financial arrangements (under Sub-Clause 2.4 [*Employer's Financial Arrangements*]);
- (c) except if otherwise specified in the Contract Data, effective access to and possession of the Site given to the Contractor together with such permission(s) under (a) of Sub-Clause 1.13 [*Compliance with Laws*] as required for the commencement of the Works;
- (d) receipt by the Contractor of the Advance Payment under Sub-Clause 14.2 [*Advance Payment*] provided that the corresponding bank guarantee has been delivered by the Contractor.

If the said Engineer's instruction is not received by the Contractor within 180 days from his receipt of the Letter of Acceptance, the Contractor shall be entitled to terminate the Contract under Sub-Clause 16.2 [*Termination by Contractor*].

The Contractor shall commence the execution of the Works as soon as is reasonably practicable after the Commencement Date, and shall then proceed with the Works with due expedition and without delay.

## 8.2

### Time for Completion

The Contractor shall complete the whole of the Works, and each Section (if any), within the Time for Completion for the Works or Section (as the case may be), including:

- (a) achieving the passing of the Tests on Completion, and
- (b) completing all work which is stated in the Contract as being required for the Works or Section to be considered to be completed for the purposes of taking-over under Sub-Clause 10.1 [*Taking Over of the Works and Sections*].

## 8.3

### Programme

The Contractor shall submit a detailed time programme to the Engineer within 28 days after receiving the notice under Sub-Clause 8.1 [*Commencement of Works*]. The Contractor shall also submit a revised programme whenever the previous programme is inconsistent with actual progress or with the Contractor's obligations. Each programme shall include:

- (a) the order in which the Contractor intends to carry out the Works, including the anticipated timing of each stage of design (if any), Contractor's Documents, procurement, manufacture of Plant, delivery to Site, construction, erection and testing,
- (b) each of these stages for work by each nominated Subcontractor (as defined in Clause 5 [*Nominated Subcontractors*]),
- (c) the sequence and timing of inspections and tests specified in the Contract, and
- (d) a supporting report which includes:
  - (i) a general description of the methods which the Contractor intends to adopt, and of the major stages, in the execution of the Works, and
  - (ii) details showing the Contractor's reasonable estimate of the number of each class of Contractor's Personnel and of each type of Contractor's Equipment, required on the Site for each major stage.

Unless the Engineer, within 21 days after receiving a programme, gives notice to the Contractor stating the extent to which it does not comply with the Contract, the Contractor shall proceed in accordance with the programme, subject to his other obligations under the Contract. The Employer's Personnel shall be entitled to rely upon the programme when planning their activities.





The Contractor shall promptly give notice to the Engineer of specific probable future events or circumstances which may adversely affect the work, increase the Contract Price or delay the execution of the Works. The Engineer may require the Contractor to submit an estimate of the anticipated effect of the future event or circumstances, and/or a proposal under Sub-Clause 13.3 [*Variation Procedure*].

If, at any time, the Engineer gives notice to the Contractor that a programme fails (to the extent stated) to comply with the Contract or to be consistent with actual progress and the Contractor's stated intentions, the Contractor shall submit a revised programme to the Engineer in accordance with this Sub-Clause.

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## 8.4

### Extension of Time for Completion

The Contractor shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to an extension of the Time for Completion if and to the extent that completion for the purposes of Sub-Clause 10.1 [*Taking-Over of the Works and Sections*] is or will be delayed by any of the following causes:

- (a) a Variation (unless an adjustment to the Time for Completion has been agreed under Sub-Clause 13.3 [*Variation Procedure*]) or other substantial change in the quantity of an item of work included in the Contract,
- (b) a cause of delay giving an entitlement to extension of time under a Sub-Clause of these Conditions,
- (c) exceptionally adverse climatic conditions,
- (d) Unforeseeable shortages in the availability of personnel or Goods caused by epidemic or governmental actions, or
- (e) any delay, impediment or prevention caused by or attributable to the Employer, the Employer's Personnel, or the Employer's other contractors.

If the Contractor considers himself to be entitled to an extension of the Time for Completion, the Contractor shall give notice to the Engineer in accordance with Sub-Clause 20.1 [*Contractor's Claims*]. When determining each extension of time under Sub-Clause 20.1, the Engineer shall review previous determinations and may increase, but shall not decrease, the total extension of time.

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## 8.5

### Delays Caused by Authorities

If the following conditions apply, namely:

- (a) the Contractor has diligently followed the procedures laid down by the relevant legally constituted public authorities in the Country,
- (b) these authorities delay or disrupt the Contractor's work, and
- (c) the delay or disruption was Unforeseeable,

then this delay or disruption will be considered as a cause of delay under subparagraph (b) of Sub-Clause 8.4 [*Extension of Time for Completion*].

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## 8.6

### Rate of Progress

If, at any time:

- (a) actual progress is too slow to complete within the Time for Completion, and/or
- (b) progress has fallen (or will fall) behind the current programme under Sub-Clause 8.3 [*Programme*],

other than as a result of a cause listed in Sub-Clause 8.4 [*Extension of Time for Completion*], then the Engineer may instruct the Contractor to submit, under Sub-Clause 8.3 [*Programme*], a revised programme and supporting report describing the



revised methods which the Contractor proposes to adopt in order to expedite progress and complete within the Time for Completion.

Unless the Engineer notifies otherwise, the Contractor shall adopt these revised methods, which may require increases in the working hours and/or in the numbers of Contractor's Personnel and/or Goods, at the risk and cost of the Contractor. If these revised methods cause the Employer to incur additional costs, the Contractor shall subject to notice under Sub-Clause 2.5 [*Employer's Claims*] pay these costs to the Employer, in addition to delay damages (if any) under Sub-Clause 8.7 below.

Additional costs of revised methods including acceleration measures, instructed by the Engineer to reduce delays resulting from causes listed under Sub-Clause 8.4 [*Extension of Time for Completion*] shall be paid by the Employer, without generating, however, any other additional payment benefit to the Contractor.

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## 8.7

### Delay Damages

If the Contractor fails to comply with Sub-Clause 8.2 [*Time for Completion*], the Contractor shall subject to notice under Sub-Clause 2.5 [*Employer's Claims*] pay delay damages to the Employer for this default. These delay damages shall be the sum stated in the Contract Data, which shall be paid for every day which shall elapse between the relevant Time for Completion and the date stated in the Taking-Over Certificate. However, the total amount due under this Sub-Clause shall not exceed the maximum amount of delay damages (if any) stated in the Contract Data.

These delay damages shall be the only damages due from the Contractor for such default, other than in the event of termination under Sub-Clause 15.2 [*Termination by Employer*] prior to completion of the Works. These damages shall not relieve the Contractor from his obligation to complete the Works, or from any other duties, obligations or responsibilities which he may have under the Contract.

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## 8.8

### Suspension of Work

The Engineer may at any time instruct the Contractor to suspend progress of part or all of the Works. During such suspension, the Contractor shall protect, store and secure such part or the Works against any deterioration, loss or damage.

The Engineer may also notify the cause for the suspension. If and to the extent that the cause is notified and is the responsibility of the Contractor, the following Sub-Clauses 8.9, 8.10 and 8.11 shall not apply.

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## 8.9

### Consequences of Suspension

If the Contractor suffers delay and/or incurs Cost from complying with the Engineer's instructions under Sub-Clause 8.8 [*Suspension of Work*] and/or from resuming the work, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

The Contractor shall not be entitled to an extension of time for, or to payment of the Cost incurred in, making good the consequences of the Contractor's faulty design, workmanship or materials, or of the Contractor's failure to protect, store or secure in accordance with Sub-Clause 8.8 [*Suspension of Work*].



**8.10 Payment for Plant and Materials in Event of Suspension** The Contractor shall be entitled to payment of the value (as at the date of suspension) of Plant and/or Materials which have not been delivered to Site, if:

- (a) the work on Plant or delivery of Plant and/or Materials has been suspended for more than 28 days, and
- (b) the Contractor has marked the Plant and/or Materials as the Employer's property in accordance with the Engineer's instructions.

**8.11 Prolonged Suspension** If the suspension under Sub-Clause 8.8 [*Suspension of Work*] has continued for more than 84 days, the Contractor may request the Engineer's permission to proceed. If the Engineer does not give permission within 28 days after being requested to do so, the Contractor may, by giving notice to the Engineer, treat the suspension as an omission under Clause 13 [*Variations and Adjustments*] of the affected part of the Works. If the suspension affects the whole of the Works, the Contractor may give notice of termination under Sub-Clause 16.2 [*Termination by Contractor*].

**8.12 Resumption of Work** After the permission or instruction to proceed is given, the Contractor and the Engineer shall jointly examine the Works and the Plant and Materials affected by the suspension. The Contractor shall make good any deterioration or defect in or loss of the Works or Plant or Materials, which has occurred during the suspension after receiving from the Engineer an instruction to this effect under Clause 13 [*Variations and Adjustments*].

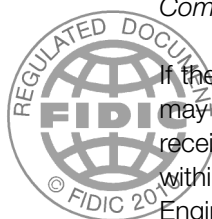
## 9 Tests on Completion

**9.1 Contractor's Obligations** The Contractor shall carry out the Tests on Completion in accordance with this Clause and Sub-Clause 7.4 [*Testing*], after providing the documents in accordance with subparagraph (d) of Sub-Clause 4.1 [*Contractor's General Obligations*].

The Contractor shall give to the Engineer not less than 21 days' notice of the date after which the Contractor will be ready to carry out each of the Tests on Completion. Unless otherwise agreed, Tests on Completion shall be carried out within 14 days after this date, on such day or days as the Engineer shall instruct.

In considering the results of the Tests on Completion, the Engineer shall make allowances for the effect of any use of the Works by the Employer on the performance or other characteristics of the Works. As soon as the Works, or a Section, have passed any Tests on Completion, the Contractor shall submit a certified report of the results of these Tests to the Engineer.

**9.2 Delayed Tests** If the Tests on Completion are being unduly delayed by the Employer, Sub-Clause 7.4 [*Testing*] (fifth paragraph) and/or Sub-Clause 10.3 [*Interference with Tests on Completion*] shall be applicable.



If the Tests on Completion are being unduly delayed by the Contractor, the Engineer may by notice require the Contractor to carry out the Tests within 21 days after receiving the notice. The Contractor shall carry out the Tests on such day or days within that period as the Contractor may fix and of which he shall give notice to the Engineer.

If the Contractor fails to carry out the Tests on Completion within the period of 21 days, the Employer's Personnel may proceed with the Tests at the risk and cost of the Contractor. The Tests on Completion shall then be deemed to have been carried out in the presence of the Contractor and the results of the Tests shall be accepted as accurate.

### 9.3

#### Retesting

If the Works, or a Section, fail to pass the Tests on Completion, Sub-Clause 7.5 [*Rejection*] shall apply, and the Engineer or the Contractor may require the failed Tests, and Tests on Completion on any related work, to be repeated under the same terms and conditions.

### 9.4

#### Failure to Pass Tests on Completion

If the Works, or a Section, fail to pass the Tests on Completion repeated under Sub-Clause 9.3 [*Retesting*], the Engineer shall be entitled to:

- (a) order further repetition of Tests on Completion under Sub-Clause 9.3;
- (b) if the failure deprives the Employer of substantially the whole benefit of the Works or Section, reject the Works or Section (as the case may be), in which event the Employer shall have the same remedies as are provided in sub-paragraph (c) of Sub-Clause 11.4 [*Failure to Remedy Defects*]; or
- (c) issue a Taking-Over Certificate, if the Employer so requests.

In the event of sub-paragraph (c), the Contractor shall proceed in accordance with all other obligations under the Contract, and the Contract Price shall be reduced by such amount as shall be appropriate to cover the reduced value to the Employer as a result of this failure. Unless the relevant reduction for this failure is stated (or its method of calculation is defined) in the Contract, the Employer may require the reduction to be (i) agreed by both Parties (in full satisfaction of this failure only) and paid before this Taking-Over Certificate is issued, or (ii) determined and paid under Sub-Clause 2.5 [*Employer's Claims*] and Sub-Clause 3.5 [*Determinations*].

## 10 Employer's Taking Over

### 10.1

#### Taking Over of the Works and Sections

Except as stated in Sub-Clause 9.4 [*Failure to Pass Tests on Completion*], the Works shall be taken over by the Employer when (i) the Works have been completed in accordance with the Contract, including the matters described in Sub-Clause 8.2 [*Time for Completion*] and except as allowed in sub-paragraph (a) below, and (ii) a Taking-Over Certificate for the Works has been issued, or is deemed to have been issued in accordance with this Sub-Clause.

The Contractor may apply by notice to the Engineer for a Taking-Over Certificate not earlier than 14 days before the Works will, in the Contractor's opinion, be complete and ready for taking over. If the Works are divided into Sections, the Contractor may similarly apply for a Taking-Over Certificate for each Section.

The Engineer shall, within 28 days after receiving the Contractor's application:



- (a) issue the Taking-Over Certificate to the Contractor, stating the date on which the Works or Section were completed in accordance with the Contract, except for any minor outstanding work and defects which will not substantially affect the use of the Works or Section for their intended purpose (either until or whilst this work is completed and these defects are remedied); or

- (b) reject the application, giving reasons and specifying the work required to be done by the Contractor to enable the Taking-Over Certificate to be issued. The Contractor shall then complete this work before issuing a further notice under this Sub-Clause.

If the Engineer fails either to issue the Taking-Over Certificate or to reject the Contractor's application within the period of 28 days, and if the Works or Section (as the case may be) are substantially in accordance with the Contract, the Taking-Over Certificate shall be deemed to have been issued on the last day of that period.

## 10.2

### Taking Over of Parts of the Works

The Engineer may, at the sole discretion of the Employer, issue a Taking-Over Certificate for any part of the Permanent Works.

The Employer shall not use any part of the Works (other than as a temporary measure which is either specified in the Contract or agreed by both Parties) unless and until the Engineer has issued a Taking-Over Certificate for this part. However, if the Employer does use any part of the Works before the Taking-Over Certificate is issued:

- (a) the part which is used shall be deemed to have been taken over as from the date on which it is used,
- (b) the Contractor shall cease to be liable for the care of such part as from this date, when responsibility shall pass to the Employer, and
- (c) if requested by the Contractor, the Engineer shall issue a Taking-Over Certificate for this part.

After the Engineer has issued a Taking-Over Certificate for a part of the Works, the Contractor shall be given the earliest opportunity to take such steps as may be necessary to carry out any outstanding Tests on Completion. The Contractor shall carry out these Tests on Completion as soon as practicable before the expiry date of the relevant Defects Notification Period.

If the Contractor incurs Cost as a result of the Employer taking over and/or using a part of the Works, other than such use as is specified in the Contract or agreed by the Contractor, the Contractor shall (i) give notice to the Engineer and (ii) be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to payment of any such Cost plus profit, which shall be included in the Contract Price. After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine this Cost and profit.

If a Taking-Over Certificate has been issued for a part of the Works (other than a Section), the delay damages thereafter for completion of the remainder of the Works shall be reduced. Similarly, the delay damages for the remainder of the Section (if any) in which this part is included shall also be reduced. For any period of delay after the date stated in this Taking-Over Certificate, the proportional reduction in these delay damages shall be calculated as the proportion which the value of the part so certified bears to the value of the Works or Section (as the case may be) as a whole. The Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these proportions. The provisions of this paragraph shall only apply to the daily rate of delay damages under Sub-Clause 8.7 [*Delay Damages*], and shall not affect the maximum amount of these damages.

## 10.3

### Interference with Tests on Completion

If the Contractor is prevented, for more than 14 days, from carrying out the Tests on Completion by a cause for which the Employer is responsible, the Employer shall be



deemed to have taken over the Works or Section (as the case may be) on the date when the Tests on Completion would otherwise have been completed.

The Engineer shall then issue a Taking-Over Certificate accordingly, and the Contractor shall carry out the Tests on Completion as soon as practicable, before the expiry date of the Defects Notification Period. The Engineer shall require the Tests on Completion to be carried out by giving 14 days' notice and in accordance with the relevant provisions of the Contract.

If the Contractor suffers delay and/or incurs Cost as a result of this delay in carrying out the Tests on Completion, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

#### 10.4

##### Surfaces Requiring Reinstatement

Except as otherwise stated in a Taking-Over Certificate, a certificate for a Section or part of the Works shall not be deemed to certify completion of any ground or other surfaces requiring reinstatement.

## 11 Defects Liability

#### 11.1

##### Completion of Outstanding Work and Remedying Defects

In order that the Works and Contractor's Documents, and each Section, shall be in the condition required by the Contract (fair wear and tear excepted) by the expiry date of the relevant Defects Notification Period or as soon as practicable thereafter, the Contractor shall:

- (a) complete any work which is outstanding on the date stated in a Taking-Over Certificate, within such reasonable time as is instructed by the Engineer, and
- (b) execute all work required to remedy defects or damage, as may be notified by (or on behalf of) the Employer on or before the expiry date of the Defects Notification Period for the Works or Section (as the case may be).

If a defect appears or damage occurs, the Contractor shall be notified accordingly, by (or on behalf of) the Employer.

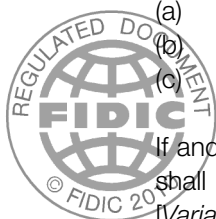
#### 11.2

##### Cost of Remedying Defects

All work referred to in sub-paragraph (b) of Sub-Clause 11.1 [*Completion of Outstanding Work and Remedying Defects*] shall be executed at the risk and cost of the Contractor, if and to the extent that the work is attributable to:

- (a) any design for which the Contractor is responsible,
- (b) Plant, Materials or workmanship not being in accordance with the Contract, or
- (c) failure by the Contractor to comply with any other obligation.

If and to the extent that such work is attributable to any other cause, the Contractor shall be notified promptly by (or on behalf of) the Employer, and Sub-Clause 13.3 [*Variation Procedure*] shall apply.



**11.3**  
**Extension of Defects**  
**Notification Period**

The Employer shall be entitled subject to Sub-Clause 2.5 [*Employer's Claims*] to an extension of the Defects Notification Period for the Works or a Section if and to the extent that the Works, Section or a major item of Plant (as the case may be, and after taking over) cannot be used for the purposes for which they are intended by reason of a defect or by reason of damage attributable to the Contractor. However, a Defects Notification Period shall not be extended by more than two years.

If delivery and/or erection of Plant and/or Materials was suspended under Sub-Clause 8.8 [*Suspension of Work*] or Sub-Clause 16.1 [*Contractor's Entitlement to Suspend Work*], the Contractor's obligations under this Clause shall not apply to any defects or damage occurring more than two years after the Defects Notification Period for the Plant and/or Materials would otherwise have expired.

**11.4**  
**Failure to Remedy**  
**Defects**

If the Contractor fails to remedy any defect or damage within a reasonable time, a date may be fixed by (or on behalf of) the Employer, on or by which the defect or damage is to be remedied. The Contractor shall be given reasonable notice of this date.

If the Contractor fails to remedy the defect or damage by this notified date and this remedial work was to be executed at the cost of the Contractor under Sub-Clause 11.2 [*Cost of Remedying Defects*], the Employer may (at his option):

- (a) carry out the work himself or by others, in a reasonable manner and at the Contractor's cost, but the Contractor shall have no responsibility for this work; and the Contractor shall subject to Sub-Clause 2.5 [*Employer's Claims*] pay to the Employer the costs reasonably incurred by the Employer in remedying the defect or damage;
- (b) require the Engineer to agree or determine a reasonable reduction in the Contract Price in accordance with Sub-Clause 3.5 [*Determinations*]; or
- (c) if the defect or damage deprives the Employer of substantially the whole benefit of the Works or any major part of the Works, terminate the Contract as a whole, or in respect of such major part which cannot be put to the intended use. Without prejudice to any other rights, under the Contract or otherwise, the Employer shall then be entitled to recover all sums paid for the Works or for such part (as the case may be), plus financing costs and the cost of dismantling the same, clearing the Site and returning Plant and Materials to the Contractor.

**11.5**  
**Removal of Defective**  
**Work**

If the defect or damage cannot be remedied expeditiously on the Site and the Employer gives consent, the Contractor may remove from the Site for the purposes of repair such items of Plant as are defective or damaged. This consent may require the Contractor to increase the amount of the Performance Security by the full replacement cost of these items, or to provide other appropriate security.

**11.6**  
**Further Tests**

If the work of remedying of any defect or damage may affect the performance of the Works, the Engineer may require the repetition of any of the tests described in the Contract. The requirement shall be made by notice within 28 days after the defect or damage is remedied.

These tests shall be carried out in accordance with the terms applicable to the previous tests, except that they shall be carried out at the risk and cost of the Party liable, under Sub-Clause 11.2 [*Cost of Remedying Defects*], for the cost of the remedial work.



**11.7**  
**Right of Access** Until the Performance Certificate has been issued, the Contractor shall have such right of access to the Works as is reasonably required in order to comply with this Clause, except as may be inconsistent with the Employer's reasonable security restrictions.

**11.8**  
**Contractor to Search** The Contractor shall, if required by the Engineer, search for the cause of any defect, under the direction of the Engineer. Unless the defect is to be remedied at the cost of the Contractor under Sub-Clause 11.2 [*Cost of Remedying Defects*], the Cost of the search plus profit shall be agreed or determined by the Engineer in accordance with Sub-Clause 3.5 [*Determinations*] and shall be included in the Contract Price.

**11.9**  
**Performance Certificate** Performance of the Contractor's obligations shall not be considered to have been completed until the Engineer has issued the Performance Certificate to the Contractor, stating the date on which the Contractor completed his obligations under the Contract.

The Engineer shall issue the Performance Certificate within 28 days after the latest of the expiry dates of the Defects Notification Periods, or as soon thereafter as the Contractor has supplied all the Contractor's Documents and completed and tested all the Works, including remedying any defects. A copy of the Performance Certificate shall be issued to the Employer.

Only the Performance Certificate shall be deemed to constitute acceptance of the Works.

**11.10**  
**Unfulfilled Obligations** After the Performance Certificate has been issued, each Party shall remain liable for the fulfilment of any obligation which remains unperformed at that time. For the purposes of determining the nature and extent of unperformed obligations, the Contract shall be deemed to remain in force.

**11.11**  
**Clearance of Site** Upon receiving the Performance Certificate, the Contractor shall remove any remaining Contractor's Equipment, surplus material, wreckage, rubbish and Temporary Works from the Site.

If all these items have not been removed within 28 days after receipt by the Contractor of the Performance Certificate, the Employer may sell or otherwise dispose of any remaining items. The Employer shall be entitled to be paid the costs incurred in connection with, or attributable to, such sale or disposal and restoring the Site.

Any balance of the moneys from the sale shall be paid to the Contractor. If these moneys are less than the Employer's costs, the Contractor shall pay the outstanding balance to the Employer.

## 12 Measurement and Evaluation

**12.1**  
**Works to be Measured** The Works shall be measured, and valued for payment, in accordance with this Clause. The Contractor shall show in each application under Sub-Clauses 14.3 [*Application for Interim Payment Certificates*], 14.10 [*Statement on Completion*] and 14.11 [*Application for Final Payment Certificate*] the quantities and other particulars detailing the amounts which he considers to be entitled under the Contract.



Whenever the Engineer requires any part of the Works to be measured, reasonable notice shall be given to the Contractor's Representative, who shall:

- (a) promptly either attend or send another qualified representative to assist the Engineer in making the measurement, and
- (b) supply any particulars requested by the Engineer.

If the Contractor fails to attend or send a representative, the measurement made by (or on behalf of) the Engineer shall be accepted as accurate.

Except as otherwise stated in the Contract, wherever any Permanent Works are to be measured from records, these shall be prepared by the Engineer. The Contractor shall, as and when requested, attend to examine and agree the records with the Engineer, and shall sign the same when agreed. If the Contractor does not attend, the records shall be accepted as accurate.

If the Contractor examines and disagrees the records, and/or does not sign them as agreed, then the Contractor shall give notice to the Engineer of the respects in which the records are asserted to be inaccurate. After receiving this notice, the Engineer shall review the records and either confirm or vary them and certify the payment of the undisputed part. If the Contractor does not so give notice to the Engineer within 14 days after being requested to examine the records, they shall be accepted as accurate.

## 12.2

**Method of Measurement** Except as otherwise stated in the Contract and notwithstanding local practice:

- (a) measurement shall be made of the net actual quantity of each item of the Permanent Works, and
- (b) the method of measurement shall be in accordance with the Bill of Quantities or other applicable Schedules.

## 12.3

**Evaluation**

Except as otherwise stated in the Contract, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine the Contract Price by evaluating each item of work, applying the measurement agreed or determined in accordance with the above Sub-Clauses 12.1 and 12.2 and the appropriate rate or price for the item.

For each item of work, the appropriate rate or price for the item shall be the rate or price specified for such item in the Contract or, if there is no such item, specified for similar work.

Any item of work included in the Bill of Quantities for which no rate or price was specified shall be considered as included in other rates and prices in the Bill of Quantities and will not be paid for separately.

However, a new rate or price shall be appropriate for an item of work if:

- (a) (i) the measured quantity of the item is changed by more than 25% from the quantity of this item in the Bill of Quantities or other Schedule,
- (ii) this change in quantity multiplied by such specified rate for this item exceeds 0.25% of the Accepted Contract Amount,
- (iii) this change in quantity directly changes the Cost per unit quantity of this item by more than 1%, and
- (iv) this item is not specified in the Contract as a "fixed rate item";



or

- (b)
  - (i) the work is instructed under Clause 13 [*Variations and Adjustments*],
  - (ii) no rate or price is specified in the Contract for this item, and
  - (iii) no specified rate or price is appropriate because the item of work is not of similar character, or is not executed under similar conditions, as any item in the Contract.

Each new rate or price shall be derived from any relevant rates or prices in the Contract, with reasonable adjustments to take account of the matters described in sub-paragraph (a) and/or (b), as applicable. If no rates or prices are relevant for the derivation of a new rate or price, it shall be derived from the reasonable Cost of executing the work, together with profit, taking account of any other relevant matters.

Until such time as an appropriate rate or price is agreed or determined, the Engineer shall determine a provisional rate or price for the purposes of Interim Payment Certificates as soon as the concerned work commences.

## 12.4

### Omissions

Whenever the omission of any work forms part (or all) of a Variation, the value of which has not been agreed, if:

- (a) the Contractor will incur (or has incurred) cost which, if the work had not been omitted, would have been deemed to be covered by a sum forming part of the Accepted Contract Amount;
- (b) the omission of the work will result (or has resulted) in this sum not forming part of the Contract Price; and
- (c) this cost is not deemed to be included in the evaluation of any substituted work;

then the Contractor shall give notice to the Engineer accordingly, with supporting particulars. Upon receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine this cost, which shall be included in the Contract Price.

# 13 Variations and Adjustments

## 13.1

### Right to Vary

Variations may be initiated by the Engineer at any time prior to issuing the Taking-Over Certificate for the Works, either by an instruction or by a request for the Contractor to submit a proposal.

The Contractor shall execute and be bound by each Variation, unless the Contractor promptly gives notice to the Engineer stating (with supporting particulars) that (i) the Contractor cannot readily obtain the Goods required for the Variation, or (ii) such Variation triggers a substantial change in the sequence or progress of the Works. Upon receiving this notice, the Engineer shall cancel, confirm or vary the instruction.

Each Variation may include:



- (a) changes to the quantities of any item of work included in the Contract (however, such changes do not necessarily constitute a Variation),
- (b) changes to the quality and other characteristics of any item of work,
- (c) changes to the levels, positions and/or dimensions of any part of the Works,
- (d) omission of any work unless it is to be carried out by others,

- (e) any additional work, Plant, Materials or services necessary for the Permanent Works, including any associated Tests on Completion, boreholes and other testing and exploratory work, or
- (f) changes to the sequence or timing of the execution of the Works.

The Contractor shall not make any alteration and/or modification of the Permanent Works, unless and until the Engineer instructs or approves a Variation.

## 13.2

### Value Engineering

The Contractor may, at any time, submit to the Engineer a written proposal which (in the Contractor's opinion) will, if adopted, (i) accelerate completion, (ii) reduce the cost to the Employer of executing, maintaining or operating the Works, (iii) improve the efficiency or value to the Employer of the completed Works, or (iv) otherwise be of benefit to the Employer.

The proposal shall be prepared at the cost of the Contractor and shall include the items listed in Sub-Clause 13.3 [*Variation Procedure*].

If a proposal, which is approved by the Engineer, includes a change in the design of part of the Permanent Works, then unless otherwise agreed by both Parties:

- (a) the Contractor shall design this part,
- (b) sub-paragraphs (a) to (d) of Sub-Clause 4.1 [*Contractor's General Obligations*] shall apply, and
- (c) if this change results in a reduction in the contract value of this part, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine a fee, which shall be included in the Contract Price. This fee shall be half (50%) of the difference between the following amounts:
  - (i) such reduction in contract value, resulting from the change, excluding adjustments under Sub-Clause 13.7 [*Adjustments for Changes in Legislation*] and Sub-Clause 13.8 [*Adjustments for Changes in Cost*], and
  - (ii) the reduction (if any) in the value to the Employer of the varied works, taking account of any reductions in quality, anticipated life or operational efficiencies.

However, if amount (i) is less than amount (ii), there shall not be a fee.

## 13.3

### Variation Procedure

If the Engineer requests a proposal, prior to instructing a Variation, the Contractor shall respond in writing as soon as practicable, either by giving reasons why he cannot comply (if this is the case) or by submitting:

- (a) a description of the proposed work to be performed and a programme for its execution,
- (b) the Contractor's proposal for any necessary modifications to the programme according to Sub-Clause 8.3 [*Programme*] and to the Time for Completion, and
- (c) the Contractor's proposal for evaluation of the Variation.

The Engineer shall, as soon as practicable after receiving such proposal (under Sub-Clause 13.2 [*Value Engineering*] or otherwise), respond with approval, disapproval or comments. The Contractor shall not delay any work whilst awaiting a response.

Each instruction to execute a Variation, with any requirements for the recording of Costs, shall be issued by the Engineer to the Contractor, who shall acknowledge receipt.



Each Variation shall be evaluated in accordance with Clause 12 [*Measurement and Evaluation*], unless the Engineer instructs or approves otherwise in accordance with this Clause.

### 13.4

#### Payment in Applicable Currencies

If the Contract provides for payment of the Contract Price in more than one currency, then whenever an adjustment is agreed, approved or determined as stated above, the amount payable in each of the applicable currencies shall be specified. For this purpose, reference shall be made to the actual or expected currency proportions of the Cost of the varied work, and to the proportions of various currencies specified for payment of the Contract Price.

### 13.5

#### Provisional Sums

Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer's instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Engineer shall have instructed. For each Provisional Sum, the Engineer may instruct:

- (a) work to be executed (including Plant, Materials or services to be supplied) by the Contractor and valued under Sub-Clause 13.3 [*Variation Procedure*]; and/or
- (b) Plant, Materials or services to be purchased by the Contractor, from a nominated Subcontractor (as defined in Clause 5 [*Nominated Subcontractors*] or otherwise; and for which there shall be included in the Contract Price:
  - (i) the actual amounts paid (or due to be paid) by the Contractor, and
  - (ii) a sum for overhead charges and profit, calculated as a percentage of these actual amounts by applying the relevant percentage rate (if any) stated in the appropriate Schedule. If there is no such rate, the percentage rate stated in the Contract Data shall be applied.

The Contractor shall, when required by the Engineer, produce quotations, invoices, vouchers and accounts or receipts in substantiation.

### 13.6

#### Daywork

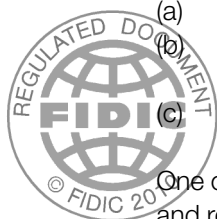
For work of a minor or incidental nature, the Engineer may instruct that a Variation shall be executed on a daywork basis. The work shall then be valued in accordance with the Daywork Schedule included in the Contract, and the following procedure shall apply. If a Daywork Schedule is not included in the Contract, this Sub-Clause shall not apply.

Before ordering Goods for the work, the Contractor shall submit quotations to the Engineer. When applying for payment, the Contractor shall submit invoices, vouchers and accounts or receipts for any Goods.

Except for any items for which the Daywork Schedule specifies that payment is not due, the Contractor shall deliver each day to the Engineer accurate statements in duplicate which shall include the following details of the resources used in executing the previous day's work:

- (a) the names, occupations and time of Contractor's Personnel,
- (b) the identification, type and time of Contractor's Equipment and Temporary Works, and
- (c) the quantities and types of Plant and Materials used.

One copy of each statement will, if correct, or when agreed, be signed by the Engineer and returned to the Contractor. The Contractor shall then submit priced statements of



these resources to the Engineer, prior to their inclusion in the next Statement under Sub-Clause 14.3 [*Application for Interim Payment Certificates*].

### 13.7

#### Adjustments for Changes in Legislation

The Contract Price shall be adjusted to take account of any increase or decrease in Cost resulting from a change in the Laws of the Country (including the introduction of new Laws and the repeal or modification of existing Laws) or in the judicial or official governmental interpretation of such Laws, made after the Base Date, which affect the Contractor in the performance of obligations under the Contract.

If the Contractor suffers (or will suffer) delay and/or incurs (or will incur) additional Cost as a result of these changes in the Laws or in such interpretations, made after the Base Date, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

Notwithstanding the foregoing, the Contractor shall not be entitled to an extension of time if the relevant delay has already been taken into account in the determination of a previous extension of time and such Cost shall not be separately paid if the same shall already have been taken into account in the indexing of any inputs to the table of adjustment data in accordance with the provisions of Sub-Clause 13.8 [*Adjustments for Changes in Cost*].

### 13.8

#### Adjustments for Changes in Cost

In this Sub-Clause, "table of adjustment data" means the completed table of adjustment data for local and foreign currencies included in the Schedules. If there is no such table of adjustment data, this Sub-Clause shall not apply.

If this Sub-Clause applies, the amounts payable to the Contractor shall be adjusted for rises or falls in the cost of labour, Goods and other inputs to the Works, by the addition or deduction of the amounts determined by the formulae prescribed in this Sub-Clause. To the extent that full compensation for any rise or fall in Costs is not covered by the provisions of this or other Clauses, the Accepted Contract Amount shall be deemed to have included amounts to cover the contingency of other rises and falls in costs.

The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate Schedule and certified in Payment Certificates, shall be determined from formulae for each of the currencies in which the Contract Price is payable. No adjustment is to be applied to work valued on the basis of Cost or current prices. The formulae shall be of the following general type:

$$P_n = a + b \frac{L_n}{L_o} + c \frac{E_n}{E_o} + d \frac{M_n}{M_o} + \dots$$



"P<sub>n</sub>" is the adjustment multiplier to be applied to the estimated contract value in the relevant currency of the work carried out in period "n", this period being a month unless otherwise stated in the Contract Data;

“a” is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;

“b”, “c”, “d”, ... are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labour, equipment and materials;

“Ln”, “En”, “Mn”, ... are the current cost indices or reference prices for period “n”, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the date 49 days prior to the last day of the period (to which the particular Payment Certificate relates); and

“Lo”, “Eo”, “Mo”, ... are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.

The cost indices or reference prices stated in the table of adjustment data shall be used. If their source is in doubt, it shall be determined by the Engineer. For this purpose, reference shall be made to the values of the indices at stated dates for the purposes of clarification of the source; although these dates (and thus these values) may not correspond to the base cost indices.

In cases where the “currency of index” is not the relevant currency of payment, each index shall be converted into the relevant currency of payment at the selling rate, established by the central bank of the Country, of this relevant currency on the above date for which the index is required to be applicable.

Until such time as each current cost index is available, the Engineer shall determine a provisional index for the issue of Interim Payment Certificates. When a current cost index is available, the adjustment shall be recalculated accordingly.

If the Contractor fails to complete the Works within the Time for Completion, adjustment of prices thereafter shall be made using either (i) each index or price applicable on the date 49 days prior to the expiry of the Time for Completion of the Works, or (ii) the current index or price, whichever is more favourable to the Employer.

The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be adjusted if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations.

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# 14 Contract Price and Payment

## 14.1

### The Contract Price

Unless otherwise stated in the Particular Conditions:

- (a) the Contract Price shall be agreed or determined under Sub-Clause 12.3 [Evaluation] and be subject to adjustments in accordance with the Contract; the Contractor shall pay all taxes, duties and fees required to be paid by him under the Contract, and the Contract Price shall not be adjusted for any of these costs except as stated in Sub-Clause 13.7 [Adjustments for Changes in Legislation];
- (b) any quantities which may be set out in the Bill of Quantities or other Schedule are estimated quantities and are not to be taken as the actual and correct quantities;



- (i) of the Works which the Contractor is required to execute, or
  - (ii) for the purposes of Clause 12 [*Measurement and Evaluation*]; and
- (d) the Contractor shall submit to the Engineer, within 28 days after the Commencement Date, a proposed breakdown of each lump sum price in the Schedules. The Engineer may take account of the breakdown when preparing Payment Certificates, but shall not be bound by it.

Notwithstanding the provisions of subparagraph (b), Contractor's Equipment, including essential spare parts therefor, imported by the Contractor for the sole purpose of executing the Contract shall be exempt from the payment of import duties and taxes upon importation.

## 14.2

### Advance Payment

The Employer shall make an advance payment, as an interest-free loan for mobilisation and cash flow support, when the Contractor submits a guarantee in accordance with this Sub-Clause. The total advance payment, the number and timing of instalments (if more than one), and the applicable currencies and proportions, shall be as stated in the Contract Data.

Unless and until the Employer receives this guarantee, or if the total advance payment is not stated in the Contract Data, this Sub-Clause shall not apply.

The Engineer shall deliver to the Employer and to the Contractor an Interim Payment Certificate for the advance payment or its first instalment after receiving a Statement (under Sub-Clause 14.3 [*Application for Interim Payment Certificates*]) and after the Employer receives (i) the Performance Security in accordance with Sub-Clause 4.2 [*Performance Security*] and (ii) a guarantee in amounts and currencies equal to the advance payment. This guarantee shall be issued by a reputable bank or financial institution selected by the Contractor, and shall be in the form annexed to the Particular Conditions or in another form approved by the Employer.

The Contractor shall ensure that the guarantee is valid and enforceable until the advance payment has been repaid, but its amount shall be progressively reduced by the amount repaid by the Contractor as indicated in the Payment Certificates. If the terms of the guarantee specify its expiry date, and the advance payment has not been repaid by the date 28 days prior to the expiry date, the Contractor shall extend the validity of the guarantee until the advance payment has been repaid.

Unless stated otherwise in the Contract Data, the advance payment shall be repaid through percentage deductions from the interim payments determined by the Engineer in accordance with Sub-Clause 14.6 [*Issue of Interim Payment Certificates*], as follows:

- (a) deductions shall commence in the next interim Payment Certificate following that in which the total of all certified interim payments (excluding the advance payment and deductions and repayments of retention) exceeds 30 percent (30%) of the Accepted Contract Amount less Provisional Sums; and
- (b) deductions shall be made at the amortisation rate stated in the Contract Data of the amount of each Interim Payment Certificate (excluding the advance payment and deductions for its repayments as well as deductions for retention money) in the currencies and proportions of the advance payment until such time as the advance payment has been repaid; provided that the advance payment shall be completely repaid prior to the time when 90 percent (90%) of the Accepted Contract Amount less Provisional Sums has been certified for payment.



If the advance payment has not been repaid prior to the issue of the Taking-Over Certificate for the Works or prior to termination under Clause 15 [*Termination by Employer*], Clause 16 [*Suspension and Termination by Contractor*] or Clause 19.6 [*Force Majeure*] (as the case may be), the whole of the balance then outstanding shall immediately become due and in case of termination under Clause 15 [*Termination by Employer*], except for Sub-Clause 15.5 [*Employer's Entitlement to Termination for Convenience*], payable by the Contractor to the Employer.

### 14.3

#### Application for Interim Payment Certificates

The Contractor shall submit a Statement in six copies to the Engineer after the end of each month, in a form approved by the Engineer, showing in detail the amounts to which the Contractor considers himself to be entitled, together with supporting documents which shall include the report on the progress during this month in accordance with Sub-Clause 4.21 [*Progress Reports*].

The Statement shall include the following items, as applicable, which shall be expressed in the various currencies in which the Contract Price is payable, in the sequence listed:

- (a) the estimated contract value of the Works executed and the Contractor's Documents produced up to the end of the month (including Variations but excluding items described in sub-paragraphs (b) to (g) below);
- (b) any amounts to be added and deducted for changes in legislation and changes in cost, in accordance with Sub-Clause 13.7 [*Adjustments for Changes in Legislation*] and Sub-Clause 13.8 [*Adjustments for Changes in Cost*];
- (c) any amount to be deducted for retention, calculated by applying the percentage of retention stated in the Contract Data to the total of the above amounts, until the amount so retained by the Employer reaches the limit of Retention Money (if any) stated in the Contract Data;
- (d) any amounts to be added for the advance payment (if more than one instalment) and to be deducted for its repayments in accordance with Sub-Clause 14.2 [*Advance Payment*];
- (e) any amounts to be added and deducted for Plant and Materials in accordance with Sub-Clause 14.5 [*Plant and Materials intended for the Works*];
- (f) any other additions or deductions which may have become due under the Contract or otherwise, including those under Clause 20 [*Claims, Disputes and Arbitration*]; and
- (g) the deduction of amounts certified in all previous Payment Certificates.

### 14.4

#### Schedule of Payments

If the Contract includes a schedule of payments specifying the instalments in which the Contract Price will be paid, then unless otherwise stated in this schedule:

- (a) the instalments quoted in this schedule of payments shall be the estimated contract values for the purposes of sub-paragraph (a) of Sub-Clause 14.3 [*Application for Interim Payment Certificates*];
- (b) Sub-Clause 14.5 [*Plant and Materials intended for the Works*] shall not apply; and
- (c) if these instalments are not defined by reference to the actual progress achieved in executing the Works, and if actual progress is found to be less or more than that on which this schedule of payments was based, then the Engineer may proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine revised instalments, which shall take account of the extent to which progress is less or more than that on which the instalments were previously based.



If the Contract does not include a schedule of payments, the Contractor shall submit non-binding estimates of the payments which he expects to become due during each



quarterly period. The first estimate shall be submitted within 42 days after the Commencement Date. Revised estimates shall be submitted at quarterly intervals, until the Taking-Over Certificate has been issued for the Works.

## 14.5

### **Plant and Materials intended for the Works**

If this Sub-Clause applies, Interim Payment Certificates shall include, under sub-paragraph (e) of Sub-Clause 14.3, (i) an amount for Plant and Materials which have been sent to the Site for incorporation in the Permanent Works, and (ii) a reduction when the contract value of such Plant and Materials is included as part of the Permanent Works under sub-paragraph (a) of Sub-Clause 14.3 [*Application for Interim Payment Certificates*].

If the lists referred to in sub-paragraphs (b)(i) or (c)(i) below are not included in the Schedules this Sub-Clause shall not apply.

The Engineer shall determine and certify each addition if the following conditions are satisfied:

- (a) the Contractor has:
  - (i) kept satisfactory records (including the orders, receipts, Costs and use of Plant and Materials) which are available for inspection, and
  - (ii) submitted a statement of the Cost of acquiring and delivering the Plant and Materials to the Site, supported by satisfactory evidence;

and either:

- (b) the relevant Plant and Materials:
  - (i) are those listed in the Schedules for payment when shipped,
  - (ii) have been shipped to the Country, en route to the Site, in accordance with the Contract; and
  - (iii) are described in a clean shipped bill of lading or other evidence of shipment, which has been submitted to the Engineer together with evidence of payment of freight and insurance, any other documents reasonably required, and a bank guarantee in a form and issued by an entity approved by the Employer in amounts and currencies equal to the amount due under this Sub-Clause: this guarantee may be in a similar form to the form referred to in Sub-Clause 14.2 [*Advance Payment*] and shall be valid until the Plant and Materials are properly stored on Site and protected against loss, damage or deterioration;

or

- (c) the relevant Plant and Materials:
  - (i) are those listed in the Schedules for payment when delivered to the Site, and
  - (ii) have been delivered to and are properly stored on the Site, are protected against loss, damage or deterioration, and appear to be in accordance with the Contract.

The additional amount to be certified shall be the equivalent of eighty percent (80%) of the Engineer's determination of the cost of the Plant and Materials (including delivery to Site), taking account of the documents mentioned in this Sub-Clause and of the contract value of the Plant and Materials.



The currencies for this additional amount shall be the same as those in which payment will become due when the contract value is included under sub-paragraph (a) of Sub-Clause 14.3 [*Application for Interim Payment Certificates*]. At that time, the Payment Certificate shall include the applicable reduction which shall be equivalent to, and in the same currencies and proportions as, this additional amount for the relevant Plant and Materials.

## 14.6

### Issue of Interim Payment Certificates

No amount will be certified or paid until the Employer has received and approved the Performance Security. Thereafter, the Engineer shall, within 28 days after receiving a Statement and supporting documents, deliver to the Employer and to the Contractor an Interim Payment Certificate which shall state the amount which the Engineer fairly determines to be due, with all supporting particulars for any reduction or withholding made by the Engineer on the Statement if any.

However, prior to issuing the Taking-Over Certificate for the Works, the Engineer shall not be bound to issue an Interim Payment Certificate in an amount which would (after retention and other deductions) be less than the minimum amount of Interim Payment Certificates (if any) stated in the Contract Data. In this event, the Engineer shall give notice to the Contractor accordingly.

An Interim Payment Certificate shall not be withheld for any other reason, although:

- (a) if any thing supplied or work done by the Contractor is not in accordance with the Contract, the cost of rectification or replacement may be withheld until rectification or replacement has been completed; and/or
- (b) if the Contractor was or is failing to perform any work or obligation in accordance with the Contract, and had been so notified by the Engineer, the value of this work or obligation may be withheld until the work or obligation has been performed.

The Engineer may in any Payment Certificate make any correction or modification that should properly be made to any previous Payment Certificate. A Payment Certificate shall not be deemed to indicate the Engineer's acceptance, approval, consent or satisfaction.

## 14.7

### Payment

The Employer shall pay to the Contractor:

- (a) the first instalment of the advance payment within 42 days after issuing the Letter of Acceptance or within 21 days after receiving the documents in accordance with Sub-Clause 4.2 [*Performance Security*] and Sub-Clause 14.2 [*Advance Payment*], whichever is later;
- (b) the amount certified in each Interim Payment Certificate within 56 days after the Engineer receives the Statement and supporting documents; or, at a time when the Bank's loan or credit (from which part of the payments to the Contractor is being made) is suspended, the amount shown on any statement submitted by the Contractor within 14 days after such statement is submitted, any discrepancy being rectified in the next payment to the Contractor; and  
the amount certified in the Final Payment Certificate within 56 days after the Employer receives this Payment Certificate; or, at a time when the Bank's loan or credit (from which part of the payments to the Contractor is being made) is suspended, the undisputed amount shown in the Final Statement within 56 days after the date of notification of the suspension in accordance with Sub-Clause 16.2 [*Termination by Contractor*].



Payment of the amount due in each currency shall be made into the bank account, nominated by the Contractor, in the payment country (for this currency) specified in the Contract.

## 14.8

### Delayed Payment

If the Contractor does not receive payment in accordance with Sub-Clause 14.7 [Payment], the Contractor shall be entitled to receive financing charges compounded monthly on the amount unpaid during the period of delay. This period shall be deemed to commence on the date for payment specified in Sub-Clause 14.7 [Payment], irrespective (in the case of its sub-paragraph (b)) of the date on which any Interim Payment Certificate is issued.

Unless otherwise stated in the Particular Conditions, these financing charges shall be calculated at the annual rate of three percentage points above the discount rate of the central bank in the country of the currency of payment, or if not available, the interbank offered rate, and shall be paid in such currency.

The Contractor shall be entitled to this payment without formal notice or certification, and without prejudice to any other right or remedy.

## 14.9

### Payment of Retention Money

When the Taking-Over Certificate has been issued for the Works, the first half of the Retention Money shall be certified by the Engineer for payment to the Contractor. If a Taking-Over Certificate is issued for a Section or part of the Works, a proportion of the Retention Money shall be certified and paid. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section or part, by the estimated final Contract Price.

Promptly after the latest of the expiry dates of the Defects Notification Periods, the outstanding balance of the Retention Money shall be certified by the Engineer for payment to the Contractor. If a Taking-Over Certificate was issued for a Section, a proportion of the second half of the Retention Money shall be certified and paid promptly after the expiry date of the Defects Notification Period for the Section. This proportion shall be half (50%) of the proportion calculated by dividing the estimated contract value of the Section by the estimated final Contract Price.

However, if any work remains to be executed under Clause 11 [Defects Liability], the Engineer shall be entitled to withhold certification of the estimated cost of this work until it has been executed.

When calculating these proportions, no account shall be taken of any adjustments under Sub-Clause 13.7 [Adjustments for Changes in Legislation] and Sub-Clause 13.8 [Adjustments for Changes in Cost].

Unless otherwise stated in the Particular Conditions, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment by the Engineer, the Contractor shall be entitled to substitute a guarantee, in the form annexed to the Particular Conditions or in another form approved by the Employer and issued by a reputable bank or financial institution selected by the Contractor, for the second half of the Retention Money. The Contractor shall ensure that the guarantee is in the amounts and currencies of the second half of the Retention Money and is valid and enforceable until the Contractor has executed and completed the Works and remedied any defects, as specified for the Performance Security in Sub-Clause 4.2. On receipt by the Employer of the required guarantee, the Engineer shall certify and the Employer shall pay the second half of the Retention Money. The release of the second half of the Retention Money



against a guarantee shall then be in lieu of the release under the second paragraph of this Sub-Clause. The Employer shall return the guarantee to the Contractor within 21 days after receiving a copy of the Performance Certificate.

If the Performance Security required under Sub-Clause 4.2 is in the form of a demand guarantee, and the amount guaranteed under it when the Taking-Over Certificate is issued is more than half of the Retention Money, then the Retention Money guarantee will not be required. If the amount guaranteed under the Performance Security when the Taking-Over Certificate is issued is less than half of the Retention Money, the Retention Money guarantee will only be required for the difference between half of the Retention Money and the amount guaranteed under the Performance Security.

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#### 14.10

**Statement at Completion** Within 84 days after receiving the Taking-Over Certificate for the Works, the Contractor shall submit to the Engineer six copies of a Statement at completion with supporting documents, in accordance with Sub-Clause 14.3 [*Application for Interim Payment Certificates*], showing:

- (a) the value of all work done in accordance with the Contract up to the date stated in the Taking-Over Certificate for the Works,
- (b) any further sums which the Contractor considers to be due, and
- (c) an estimate of any other amounts which the Contractor considers will become due to him under the Contract. Estimated amounts shall be shown separately in this Statement at completion.

The Engineer shall then certify in accordance with Sub-Clause 14.6 [*Issue of Interim Payment Certificates*].

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#### 14.11

**Application for Final Payment Certificate** Within 56 days after receiving the Performance Certificate, the Contractor shall submit, to the Engineer, six copies of a draft final statement with supporting documents showing in detail in a form approved by the Engineer:

- (a) the value of all work done in accordance with the Contract, and
- (b) any further sums which the Contractor considers to be due to him under the Contract or otherwise.

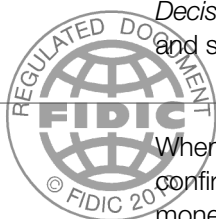
If the Engineer disagrees with or cannot verify any part of the draft final statement, the Contractor shall submit such further information as the Engineer may reasonably require within 28 days from receipt of said draft and shall make such changes in the draft as may be agreed between them. The Contractor shall then prepare and submit to the Engineer the final statement as agreed. This agreed statement is referred to in these Conditions as the "Final Statement".

However if, following discussions between the Engineer and the Contractor and any changes to the draft final statement which are agreed, it becomes evident that a dispute exists, the Engineer shall deliver to the Employer (with a copy to the Contractor) an Interim Payment Certificate for the agreed parts of the draft final statement. Thereafter, if the dispute is finally resolved under Sub-Clause 20.4 [*Obtaining Dispute Board's Decision*] or Sub-Clause 20.5 [*Amicable Settlement*], the Contractor shall then prepare and submit to the Employer (with a copy to the Engineer) a Final Statement.

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#### 14.12

**Discharge** When submitting the Final Statement, the Contractor shall submit a discharge which confirms that the total of the Final Statement represents full and final settlement of all moneys due to the Contractor under or in connection with the Contract. This



discharge may state that it becomes effective when the Contractor has received the Performance Security and the outstanding balance of this total, in which event the discharge shall be effective on such date.

#### 14.13

##### Issue of Final Payment Certificate

Within 28 days after receiving the Final Statement and discharge in accordance with Sub-Clause 14.11 [*Application for Final Payment Certificate*] and Sub-Clause 14.12 [*Discharge*], the Engineer shall deliver, to the Employer and to the Contractor, the Final Payment Certificate which shall state:

- (a) the amount which he fairly determines is finally due, and
- (b) after giving credit to the Employer for all amounts previously paid by the Employer and for all sums to which the Employer is entitled, the balance (if any) due from the Employer to the Contractor or from the Contractor to the Employer, as the case may be.

If the Contractor has not applied for a Final Payment Certificate in accordance with Sub-Clause 14.11 [*Application for Final Payment Certificate*] and Sub-Clause 14.12 [*Discharge*], the Engineer shall request the Contractor to do so. If the Contractor fails to submit an application within a period of 28 days, the Engineer shall issue the Final Payment Certificate for such amount as he fairly determines to be due.

#### 14.14

##### Cessation of Employer's Liability

The Employer shall not be liable to the Contractor for any matter or thing under or in connection with the Contract or execution of the Works, except to the extent that the Contractor shall have included an amount expressly for it:

- (a) in the Final Statement and also
- (b) (except for matters or things arising after the issue of the Taking-Over Certificate for the Works) in the Statement at completion described in Sub-Clause 14.10 [*Statement at Completion*].

However, this Sub-Clause shall not limit the Employer's liability under his indemnification obligations, or the Employer's liability in any case of fraud, deliberate default or reckless misconduct by the Employer.

#### 14.15

##### Currencies of Payment

The Contract Price shall be paid in the currency or currencies named in the Schedule of Payment Currencies. If more than one currency is so named, payments shall be made as follows:

- (a) if the Accepted Contract Amount was expressed in Local Currency only:
  - (i) the proportions or amounts of the Local and Foreign Currencies, and the fixed rates of exchange to be used for calculating the payments, shall be as stated in the Schedule of Payment Currencies, except as otherwise agreed by both Parties;
  - (ii) payments and deductions under Sub-Clause 13.5 [*Provisional Sums*] and Sub-Clause 13.7 [*Adjustments for Changes in Legislation*] shall be made in the applicable currencies and proportions; and
  - (iii) other payments and deductions under sub-paragraphs (a) to (d) of Sub-Clause 14.3 [*Application for Interim Payment Certificates*] shall be made in the currencies and proportions specified in sub-paragraph (a)(i) above;



payment of the damages specified in the Contract Data shall be made in the currencies and proportions specified in the Schedule of Payment currencies;

- (c) other payments to the Employer by the Contractor shall be made in the currency in which the sum was expended by the Employer, or in such currency as may be agreed by both Parties;
- (d) if any amount payable by the Contractor to the Employer in a particular currency exceeds the sum payable by the Employer to the Contractor in that currency, the Employer may recover the balance of this amount from the sums otherwise payable to the Contractor in other currencies; and
- (e) if no rates of exchange are stated in the Schedule of Payment Currencies, they shall be those prevailing on the Base Date and determined by the central bank of the Country.

## 15 Termination by Employer

### 15.1

#### Notice to Correct

If the Contractor fails to carry out any obligation under the Contract, the Engineer may by notice require the Contractor to make good the failure and to remedy it within a specified reasonable time.

### 15.2

#### Termination by Employer

The Employer shall be entitled to terminate the Contract if the Contractor:

- (a) fails to comply with Sub-Clause 4.2 [*Performance Security*] or with a notice under Sub-Clause 15.1 [*Notice to Correct*],
- (b) abandons the Works or otherwise plainly demonstrates the intention not to continue performance of his obligations under the Contract,
- (c) without reasonable excuse fails:
  - (i) to proceed with the Works in accordance with Clause 8 [*Commencement, Delays and Suspension*], or
  - (ii) to comply with a notice issued under Sub-Clause 7.5 [*Rejection*] or Sub-Clause 7.6 [*Remedial Work*], within 28 days after receiving it,
- (d) subcontracts the whole of the Works or assigns the Contract without the required agreement,
- (e) becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events, or
- (f) gives or offers to give (directly or indirectly) to any person any bribe, gift, gratuity, commission or other thing of value, as an inducement or reward:
  - (i) for doing or forbearing to do any action in relation to the Contract, or
  - (ii) for showing or forbearing to show favour or disfavour to any person in relation to the Contract,

or if any of the Contractor's Personnel, agents or Subcontractors gives or offers to give (directly or indirectly) to any person any such inducement or reward as is described in this sub-paragraph (f). However, lawful inducements and rewards to Contractor's Personnel shall not entitle termination.

In any of these events or circumstances, the Employer may, upon giving 14 days' notice to the Contractor, terminate the Contract and expel the Contractor from the



Site. However, in the case of sub-paragraph (e) or (f), the Employer may by notice terminate the Contract immediately.

The Employer's election to terminate the Contract shall not prejudice any other rights of the Employer, under the Contract or otherwise.

The Contractor shall then leave the Site and deliver any required Goods, all Contractor's Documents, and other design documents made by or for him, to the Engineer. However, the Contractor shall use his best efforts to comply immediately with any reasonable instructions included in the notice (i) for the assignment of any subcontract, and (ii) for the protection of life or property or for the safety of the Works.

After termination, the Employer may complete the Works and/or arrange for any other entities to do so. The Employer and these entities may then use any Goods, Contractor's Documents and other design documents made by or on behalf of the Contractor.

The Employer shall then give notice that the Contractor's Equipment and Temporary Works will be released to the Contractor at or near the Site. The Contractor shall promptly arrange their removal, at the risk and cost of the Contractor. However, if by this time the Contractor has failed to make a payment due to the Employer, these items may be sold by the Employer in order to recover this payment. Any balance of the proceeds shall then be paid to the Contractor.

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### 15.3

#### Valuation at Date of Termination

As soon as practicable after a notice of termination under Sub-Clause 15.2 [*Termination by Employer*] has taken effect, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine the value of the Works, Goods and Contractor's Documents, and any other sums due to the Contractor for work executed in accordance with the Contract.

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### 15.4

#### Payment after Termination

After a notice of termination under Sub-Clause 15.2 [*Termination by Employer*] has taken effect, the Employer may:

- (a) proceed in accordance with Sub-Clause 2.5 [*Employer's Claims*],
- (b) withhold further payments to the Contractor until the costs of execution, completion and remedying of any defects, damages for delay in completion (if any), and all other costs incurred by the Employer, have been established, and/or
- (c) recover from the Contractor any losses and damages incurred by the Employer and any extra costs of completing the Works, after allowing for any sum due to the Contractor under Sub-Clause 15.3 [*Valuation at Date of Termination*]. After recovering any such losses, damages and extra costs, the Employer shall pay any balance to the Contractor.

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### 15.5

#### Employer's Entitlement to Termination for Convenience

The Employer shall be entitled to terminate the Contract, at any time for the Employer's convenience, by giving notice of such termination to the Contractor. The termination shall take effect 28 days after the later of the dates on which the Contractor receives this notice or the Employer returns the Performance Security. The Employer shall not terminate the Contract under this Sub-Clause in order to execute the Works himself or to arrange for the Works to be executed by another contractor or to avoid a termination of the Contract by the Contractor under Clause 16.2 [*Termination by Contractor*].

After this termination, the Contractor shall proceed in accordance with Sub-Clause 16.3 [*Cessation of Work and Removal of Contractor's Equipment*] and shall be paid in accordance with Sub-Clause 16.4 [*Payment on Termination*].



## 15.6 Corrupt or Fraudulent Practices

If the Employer determines, based on reasonable evidence, that the Contractor has engaged in corrupt, fraudulent, collusive or coercive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days notice to the Contractor, terminate the Contract and expel him from the Site, and the provisions of Clause 15 shall apply as if such termination had been made under Sub-Clause 15.2 [*Termination by Employer*].

Should any employee of the Contractor be determined, based on reasonable evidence, to have engaged in corrupt, fraudulent or coercive practice during the execution of the work then that employee shall be removed in accordance with Sub-Clause 6.9 [*Contractor's Personnel*].

[*For contracts financed by the African Development Bank:*]

For the purposes of this Sub-Clause:

- (a) "corrupt practice" means the offering, giving, receiving or soliciting of any thing of value to influence the action of a public official in the procurement process or in the contract execution; and
- (b) "fraudulent practice" means a misrepresentation of facts in order to influence a procurement process or the execution of the Contract to the detriment of the borrower, and includes collusive practice among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the borrower of the benefits of free and open competition.

# 16

## Suspension and Termination by Contractor

### 16.1 Contractor's Entitlement to Suspend Work

If the Engineer fails to certify in accordance with Sub-Clause 14.6 [*Issue of Interim Payment Certificates*] or the Employer fails to comply with Sub-Clause 2.4 [*Employer's Financial Arrangements*] or Sub-Clause 14.7 [*Payment*], the Contractor may, after giving not less than 21 days' notice to the Employer, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.

Notwithstanding the above, if the Bank has suspended disbursements under the loan or credit from which payments to the Contractor are being made, in whole or in part, for the execution of the Works, and no alternative funds are available as provided for in Sub-Clause 2.4 [*Employer's Financial Arrangements*], the Contractor may by notice suspend work or reduce the rate of work at any time, but not less than 7 days after the Borrower having received the suspension notification from the Bank.

The Contractor's action shall not prejudice his entitlements to financing charges under Sub-Clause 14.8 [*Delayed Payment*] and to termination under Sub-Clause 16.2 [*Termination by Contractor*].

If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall





**15.6  
Corrupt or Fraudulent  
Practices**

If the Employer determines, based on reasonable evidence, that the Contractor has engaged in corrupt, fraudulent, collusive or coercive practices, in competing for or in executing the Contract, then the Employer may, after giving 14 days notice to the Contractor, terminate the Contract and expel him from the Site, and the provisions of Clause 15 shall apply as if such termination had been made under Sub-Clause 15.2 [*Termination by Employer*].

Should any employee of the Contractor be determined, based on reasonable evidence, to have engaged in corrupt, fraudulent or coercive practice during the execution of the work then that employee shall be removed in accordance with Sub-Clause 6.9 [*Contractor's Personnel*].

[*For contracts financed by The World Bank:*]

In pursuance of this policy, the Bank:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) "corrupt practice" is the offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;

*In this context, "another party" refers to a public official acting in relation to the procurement process or contract execution]. In this context, "public official" includes World Bank staff and employees of other organisations taking or reviewing procurement decisions.*

(ii) "fraudulent practice" is 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;

*In this context, "party" refers to a public official; the terms "benefit" and "obligation" relate to the procurement process or contract execution; and the "act or omission" is intended to influence the procurement process or contract execution.*

(iii) "collusive practice" is an arrangement between two or more parties designed to achieve an improper purpose, including to influence improperly the actions of another party;

*In this context, "parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.*

(iv) "coercive practice" is 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;

*In this context, "parties" refers to participants in the procurement process (including public officials) attempting to establish bid prices at artificial, non competitive levels.*



- (v) “obstructive practice” is:
  - (A) deliberately destroying, falsifying, altering or concealing of evidence material to the investigation or making false statements to investigators in order to materially impede a Bank investigation into allegations of a corrupt, fraudulent, coercive or collusive practice; and/or 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
  - (B) acts intended to materially impede the exercise of the Bank’s inspection and audit rights.

*In this context, “party” refers to a participant in the procurement process or contract execution.*

# 16

## Suspension and Termination by Contractor

### 16.1

#### Contractor’s Entitlement to Suspend

If the Engineer fails to certify in accordance with Sub-Clause 14.6 [*Issue of Interim Payment Certificates*] or the Employer fails to comply with Sub-Clause 2.4 [*Employer’s Financial Arrangements*] or Sub-Clause 14.7 [*Payment*], the Contractor may, after giving not less than 21 days’ notice to the Employer, suspend work (or reduce the rate of work) unless and until the Contractor has received the Payment Certificate, reasonable evidence or payment, as the case may be and as described in the notice.

Notwithstanding the above, if the Bank has suspended disbursements under the loan or credit from which payments to the Contractor are being made, in whole or in part, for the execution of the Works, and no alternative funds are available as provided for in Sub-Clause 2.4 [*Employer’s Financial Arrangements*], the Contractor may by notice suspend work or reduce the rate of work at any time, but not less than 7 days after the Borrower having received the suspension notification from the Bank.

The Contractor’s action shall not prejudice his entitlements to financing charges under Sub-Clause 14.8 [*Delayed Payment*] and to termination under Sub-Clause 16.2 [*Termination by Contractor*].

If the Contractor subsequently receives such Payment Certificate, evidence or payment (as described in the relevant Sub-Clause and in the above notice) before giving a notice of termination, the Contractor shall resume normal working as soon as is reasonably practicable.

If the Contractor suffers delay and/or incurs Cost as a result of suspending work (or reducing the rate of work) in accordance with this Sub-Clause, the Contractor shall give notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor’s Claims*] to:



- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) payment of any such Cost plus profit, which shall be included in the Contract Price.

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

## 16.2

### Termination by Contractor

The Contractor shall be entitled to terminate the Contract if:

- (a) the Contractor does not receive the reasonable evidence within 42 days after giving notice under Sub-Clause 16.1 [*Contractor's Entitlement to Suspend Work*] in respect of a failure to comply with Sub-Clause 2.4 [*Employer's Financial Arrangements*],
- (b) the Engineer fails, within 56 days after receiving a Statement and supporting documents, to issue the relevant Payment Certificate,
- (c) the Contractor does not receive the amount due under an Interim Payment Certificate within 42 days after the expiry of the time stated in Sub-Clause 14.7 [*Payment*] within which payment is to be made (except for deductions in accordance with Sub-Clause 2.5 [*Employer's Claims*]),
- (d) the Employer substantially fails to perform his obligations under the Contract in such manner as to materially and adversely affect the economic balance of the Contract and/or the ability of the Contractor to perform the Contract,
- (e) the Employer fails to comply with Sub-Clause 1.6 [*Contract Agreement*] or Sub-Clause 1.7 [*Assignment*],
- (f) a prolonged suspension affects the whole of the Works as described in Sub-Clause 8.11 [*Prolonged Suspension*],
- (g) the Employer becomes bankrupt or insolvent, goes into liquidation, has a receiving or administration order made against him, compounds with his creditors, or carries on business under a receiver, trustee or manager for the benefit of his creditors, or if any act is done or event occurs which (under applicable Laws) has a similar effect to any of these acts or events,
- (h) the Contractor does not receive the Engineer's instruction recording the agreement of both Parties on the fulfilment of the conditions for the Commencement of Works under Sub-Clause 8.1 [*Commencement of Works*].

In any of these events or circumstances, the Contractor may, upon giving 14 days' notice to the Employer, terminate the Contract. However, in the case of subparagraph (f) or (g), the Contractor may by notice terminate the Contract immediately.

In the event the Bank suspends the loan or credit from which part or whole of the payments to the Contractor are being made, if the Contractor has not received the sums due to him upon expiration of the 14 days referred to in Sub-Clause 14.7 [*Payment*] for payments under Interim Payment Certificates, the Contractor may, without prejudice to the Contractor's entitlement to financing charges under Sub-Clause 14.8 [*Delayed Payment*], take one of the following actions, namely (i) suspend work or reduce the rate of work under Sub-Clause 16.1 above, or (ii) terminate the Contract by giving notice to the Employer, with a copy to the Engineer, such termination to take effect 14 days after the giving of the notice.

The Contractor's election to terminate the Contract shall not prejudice any other rights of the Contractor, under the Contract or otherwise.



[For contracts financed by The World Bank:]

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**16.3**  
**Cessation of Work and**  
**Removal of Contractor's**  
**Equipment**

After a notice of termination under Sub-Clause 15.5 [*Employer's Entitlement to Termination for Convenience*], Sub-Clause 16.2 [*Termination by Contractor*] or Sub-Clause 19.6 [*Optional Termination, Payment and Release*] has taken effect, the Contractor shall promptly:

- (a) cease all further work, except for such work as may have been instructed by the Engineer for the protection of life or property or for the safety of the Works,
- (b) hand over Contractor's Documents, Plant, Materials and other work, for which the Contractor has received payment, and
- (c) remove all other Goods from the Site, except as necessary for safety, and leave the Site.

**16.4**

**Payment on Termination**

After a notice of termination under Sub-Clause 16.2 [*Termination by Contractor*] has taken effect, the Employer shall promptly:

- (a) return the Performance Security to the Contractor,
- (b) pay the Contractor in accordance with Sub-Clause 19.6 [*Optional Termination, Payment and Release*], and
- (c) pay to the Contractor the amount of any loss or damage sustained by the Contractor as a result of this termination.

## 17 Risk and Responsibility

**17.1**

**Indemnities**

The Contractor shall indemnify and hold harmless the Employer, the Employer's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of:

- (a) bodily injury, sickness, disease or death, of any person whatsoever arising out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and
- (b) damage to or loss of any property, real or personal (other than the Works), to the extent that such damage or loss arises out of or in the course of or by reason of the Contractor's design (if any), the execution and completion of the Works and the remedying of any defects, unless and to the extent that any such damage or loss is attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, their respective agents, or anyone directly or indirectly employed by any of them.

The Employer shall indemnify and hold harmless the Contractor, the Contractor's Personnel, and their respective agents, against and from all claims, damages, losses and expenses (including legal fees and expenses) in respect of (1) bodily injury, sickness, disease or death, which is attributable to any negligence, wilful act or breach of the Contract by the Employer, the Employer's Personnel, or any of their respective agents, and (2) the matters for which liability may be excluded from insurance cover, as described in sub-paragraphs (d)(i), (ii) and (iii) of Sub-Clause 18.3 [*Insurance Against Injury to Persons and Damage to Property*].

**17.2**

**Contractor's Care**  
**of the Works**

The Contractor shall take full responsibility for the care of the Works and Goods from the Commencement Date until the Taking-Over Certificate is issued (or is deemed to be



issued under Sub-Clause 10.1 [*Taking Over of the Works and Sections*]) for the Works, when responsibility for the care of the Works shall pass to the Employer. If a Taking-Over Certificate is issued (or is so deemed to be issued) for any Section or part of the Works, responsibility for the care of the Section or part shall then pass to the Employer.

After responsibility has accordingly passed to the Employer, the Contractor shall take responsibility for the care of any work which is outstanding on the date stated in a Taking-Over Certificate, until this outstanding work has been completed.

If any loss or damage happens to the Works, Goods or Contractor's Documents during the period when the Contractor is responsible for their care, from any cause not listed in Sub-Clause 17.3 [*Employer's Risks*], the Contractor shall rectify the loss or damage at the Contractor's risk and cost, so that the Works, Goods and Contractor's Documents conform with the Contract.

The Contractor shall be liable for any loss or damage caused by any actions performed by the Contractor after a Taking-Over Certificate has been issued. The Contractor shall also be liable for any loss or damage which occurs after a Taking-Over Certificate has been issued and which arose from a previous event for which the Contractor was liable.

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### 17.3

#### Employer's Risks

The risks referred to in Sub-Clause 17.4 [*Consequences of Employer's Risks*] below, insofar as they directly affect the execution of the Works in the Country, are:

- (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, within the Country,
- (c) riot, commotion or disorder within the Country by persons other than the Contractor's Personnel,
- (d) munitions of war, explosive materials, ionising radiation or contamination by radio-activity, within the Country, except as may be attributable to the Contractor's use of such munitions, explosives, radiation or radio-activity,
- (e) pressure waves caused by aircraft or other aerial devices travelling at sonic or supersonic speeds,
- (f) use or occupation by the Employer of any part of the Permanent Works, except as may be specified in the Contract,
- (g) design of any part of the Works by the Employer's Personnel or by others for whom the Employer is responsible, and
- (h) any operation of the forces of nature which is Unforeseeable or against which an experienced contractor could not reasonably have been expected to have taken adequate preventive precautions.

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### 17.4

#### Consequences of Employer's Risks

If and to the extent that any of the risks listed in Sub-Clause 17.3 above results in loss or damage to the Works, Goods or Contractor's Documents, the Contractor shall promptly give notice to the Engineer and shall rectify this loss or damage to the extent required by the Engineer.

If the Contractor suffers delay and/or incurs Cost from rectifying this loss or damage, the Contractor shall give a further notice to the Engineer and shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and



- (b) payment of any such Cost, which shall be included in the Contract Price. In the case of sub-paragraphs (f) and (g) of Sub-Clause 17.3 [*Employer's Risks*], Cost plus profit shall be payable.

After receiving this further notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

## 17.5

### Intellectual and Industrial Property Rights

In this Sub-Clause, "infringement" means an infringement (or alleged infringement) of any patent, registered design, copyright, trade mark, trade name, trade secret or other intellectual or industrial property right relating to the Works; and "claim" means a claim (or proceedings pursuing a claim) alleging an infringement.

Whenever a Party does not give notice to the other Party of any claim within 28 days of receiving the claim, the first Party shall be deemed to have waived any right to indemnity under this Sub-Clause.

The Employer shall indemnify and hold the Contractor harmless against and from any claim alleging an infringement which is or was:

- (a) an unavoidable result of the Contractor's compliance with the Contract, or
- (b) a result of any Works being used by the Employer:
  - (i) for a purpose other than that indicated by, or reasonably to be inferred from, the Contract, or
  - (ii) in conjunction with any thing not supplied by the Contractor, unless such use was disclosed to the Contractor prior to the Base Date or is stated in the Contract.

The Contractor shall indemnify and hold the Employer harmless against and from any other claim which arises out of or in relation to (i) the manufacture, use, sale or import of any Goods, or (ii) any design for which the Contractor is responsible.

If a Party is entitled to be indemnified under this Sub-Clause, the indemnifying Party may (at its cost) conduct negotiations for the settlement of the claim, and any litigation or arbitration which may arise from it. The other Party shall, at the request and cost of the indemnifying Party, assist in contesting the claim. This other Party (and its Personnel) shall not make any admission which might be prejudicial to the indemnifying Party, unless the indemnifying Party failed to take over the conduct of any negotiations, litigation or arbitration upon being requested to do so by such other Party.

## 17.6

### Limitation of Liability

Neither Party shall be liable to the other Party for loss of use of any Works, loss of profit, loss of any contract or for any indirect or consequential loss or damage which may be suffered by the other Party in connection with the Contract, other than as specifically provided in Sub-Clause 8.7 [*Delay Damages*]; Sub-Clause 11.2 [*Cost of Remedying Defects*]; Sub-Clause 15.4 [*Payment after Termination*]; Sub-Clause 16.4 [*Payment on Termination*]; Sub-Clause 17.1 [*Indemnities*]; Sub-Clause 17.4(b) [*Consequences of Employer's Risks*] and Sub-Clause 17.5 [*Intellectual and Industrial Property Rights*].

The total liability of the Contractor to the Employer, under or in connection with the Contract other than under Sub-Clause 4.19 [*Electricity, Water and Gas*], Sub-Clause 4.20 [*Employer's Equipment and Free-Issue Materials*], Sub-Clause 17.1 [*Indemnities*] and Sub-Clause 17.5 [*Intellectual and Industrial Property Rights*], shall not exceed the sum resulting from the application of a multiplier (less or greater than



one) to the Accepted Contract Amount, as stated in the Contract Data, or (if such multiplier or other sum is not so stated), the Accepted Contract Amount.

This Sub-Clause shall not limit liability in any case of fraud, deliberate default or reckless misconduct by the defaulting Party.

## 17.7

### Use of Employer's Accommodation/Facilities

The Contractor shall take full responsibility for the care of the Employer-provided accommodation and facilities, if any, as detailed in the Specification, from the respective dates of hand-over to the Contractor until cessation of occupation (where hand-over or cessation of occupation may take place after the date stated in the Taking-Over Certificate for the Works).

If any loss or damage happens to any of the above items while the Contractor is responsible for their care arising from any cause whatsoever other than those for which the Employer is liable, the Contractor shall, at his own cost, rectify the loss or damage to the satisfaction of the Engineer.

# 18 Insurance

## 18.1

### General Requirements for Insurances

In this Clause, "insuring Party" means, for each type of insurance, the Party responsible for effecting and maintaining the insurance specified in the relevant Sub-Clause.

Wherever the Contractor is the insuring Party, each insurance shall be effected with insurers and in terms approved by the Employer. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

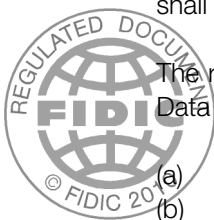
Wherever the Employer is the insuring Party, each insurance shall be effected with insurers and in terms acceptable to the Contractor. These terms shall be consistent with any terms agreed by both Parties before the date of the Letter of Acceptance. This agreement of terms shall take precedence over the provisions of this Clause.

If a policy is required to indemnify joint insured, the cover shall apply separately to each insured as though a separate policy had been issued for each of the joint insured. If a policy indemnifies additional joint insured, namely in addition to the insured specified in this Clause, (i) the Contractor shall act under the policy on behalf of these additional joint insured except that the Employer shall act for Employer's Personnel, (ii) additional joint insured shall not be entitled to receive payments directly from the insurer or to have any other direct dealings with the insurer, and (iii) the insuring Party shall require all additional joint insured to comply with the conditions stipulated in the policy.

Each policy insuring against loss or damage shall provide for payments to be made in the currencies required to rectify the loss or damage. Payments received from insurers shall be used for the rectification of the loss or damage.

The relevant insuring Party shall, within the respective periods stated in the Contract Data (calculated from the Commencement Date), submit to the other Party:

- (a) evidence that the insurances described in this Clause have been effected, and
- (b) copies of the policies for the insurances described in Sub-Clause 18.2





[*Insurance for Works and Contractor's Equipment*] and Sub-Clause 18.3 [*Insurance against Injury to Persons and Damage to Property*].

When each premium is paid, the insuring Party shall submit evidence of payment to the other Party. Whenever evidence or policies are submitted, the insuring Party shall also give notice to the Engineer.

Each Party shall comply with the conditions stipulated in each of the insurance policies. The insuring Party shall keep the insurers informed of any relevant changes to the execution of the Works and ensure that insurance is maintained in accordance with this Clause.

Neither Party shall make any material alteration to the terms of any insurance without the prior approval of the other Party. If an insurer makes (or attempts to make) any alteration, the Party first notified by the insurer shall promptly give notice to the other Party.

If the insuring Party fails to effect and keep in force any of the insurances it is required to effect and maintain under the Contract, or fails to provide satisfactory evidence and copies of policies in accordance with this Sub-Clause, the other Party may (at its option and without prejudice to any other right or remedy) effect insurance for the relevant coverage and pay the premiums due. The insuring Party shall pay the amount of these premiums to the other Party, and the Contract Price shall be adjusted accordingly.

Nothing in this Clause limits the obligations, liabilities or responsibilities of the Contractor or the Employer, under the other terms of the Contract or otherwise. Any amounts not insured or not recovered from the insurers shall be borne by the Contractor and/or the Employer in accordance with these obligations, liabilities or responsibilities. However, if the insuring Party fails to effect and keep in force an insurance which is available and which it is required to effect and maintain under the Contract, and the other Party neither approves the omission nor effects insurance for the coverage relevant to this default, any moneys which should have been recoverable under this insurance shall be paid by the insuring Party.

Payments by one Party to the other Party shall be subject to Sub-Clause 2.5 [*Employer's Claims*] or Sub-Clause 20.1 [*Contractor's Claims*], as applicable.

The Contractor shall be entitled to place all insurances relating to the Contract (including, but not limited to the insurance referred to Clause 18) with insurers from any eligible source country.

## 18.2

### **Insurance for Works and Contractor's Equipment**

The insuring Party shall insure the Works, Plant, Materials and Contractor's Documents for not less than the full reinstatement cost including the costs of demolition, removal of debris and professional fees and profit. This insurance shall be effective from the date by which the evidence is to be submitted under sub-paragraph (a) of Sub-Clause 18.1 [*General Requirements for Insurances*], until the date of issue of the Taking-Over Certificate for the Works.

The insuring Party shall maintain this insurance to provide cover until the date of issue of the Performance Certificate, for loss or damage for which the Contractor is liable arising from a cause occurring prior to the issue of the Taking-Over Certificate, and for loss or damage caused by the Contractor in the course of any other operations (including those under Clause 11 [*Defects Liability*]).

The insuring Party shall insure the Contractor's Equipment for not less than the full replacement value, including delivery to Site. For each item of Contractor's Equipment,



the insurance shall be effective while it is being transported to the Site and until it is no longer required as Contractor's Equipment.

Unless otherwise stated in the Particular Conditions, insurances under this Sub-Clause:

- (a) shall be effected and maintained by the Contractor as insuring Party,
- (b) shall be in the joint names of the Parties, who shall be jointly entitled to receive payments from the insurers, payments being held or allocated to the Party actually bearing the costs of rectifying the loss or damage,
- (c) shall cover all loss and damage from any cause not listed in Sub-Clause 17.3 [*Employer's Risks*],
- (d) shall also cover, to the extent specifically required in the bidding documents of the Contract, loss or damage to a part of the Works which is attributable to the use or occupation by the Employer of another part of the Works, and loss or damage from the risks listed in sub-paragraphs (c), (g) and (h) of Sub-Clause 17.3 [*Employer's Risks*], excluding (in each case) risks which are not insurable at commercially reasonable terms, with deductibles per occurrence of not more than the amount stated in the Contract Data (if an amount is not so stated, this sub-paragraph (d) shall not apply), and
- (e) may however exclude loss of, damage to, and reinstatement of:
  - (i) a part of the Works which is in a defective condition due to a defect in its design, materials or workmanship (but cover shall include any other parts which are lost or damaged as a direct result of this defective condition and not as described in sub-paragraph (ii) below),
  - (ii) a part of the Works which is lost or damaged in order to reinstate any other part of the Works if this other part is in a defective condition due to a defect in its design, materials or workmanship,
  - (iii) a part of the Works which has been taken over by the Employer, except to the extent that the Contractor is liable for the loss or damage, and
  - (iv) Goods while they are not in the Country, subject to Sub-Clause 14.5 [*Plant and Materials intended for the Works*].

If, more than one year after the Base Date, the cover described in sub-paragraph (d) above ceases to be available at commercially reasonable terms, the Contractor shall (as insuring Party) give notice to the Employer, with supporting particulars. The Employer shall then (i) be entitled subject to Sub-Clause 2.5 [*Employer's Claims*] to payment of an amount equivalent to such commercially reasonable terms as the Contractor should have expected to have paid for such cover, and (ii) be deemed, unless he obtains the cover at commercially reasonable terms, to have approved the omission under Sub-Clause 18.1 [*General Requirements for Insurances*].

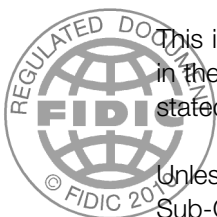
### 18.3

#### **Insurance against Injury to Persons and Damage to Property**

The insuring Party shall insure against each Party's liability for any loss, damage, death or bodily injury which may occur to any physical property (except things insured under Sub-Clause 18.2 [*Insurance for Works and Contractor's Equipment*]) or to any person (except persons insured under Sub-Clause 18.4 [*Insurance for Contractor's Personnel*]), which may arise out of the Contractor's performance of the Contract and occurring before the issue of the Performance Certificate.

This insurance shall be for a limit per occurrence of not less than the amount stated in the Contract Data, with no limit on the number of occurrences. If an amount is not stated in the Contract Data, this Sub-Clause shall not apply.

Unless otherwise stated in the Particular Conditions, the insurances specified in this Sub-Clause:



- (a) shall be effected and maintained by the Contractor as insuring Party,
- (b) shall be in the joint names of the Parties,
- (c) shall be extended to cover liability for all loss and damage to the Employer's property (except things insured under Sub-Clause 18.2) arising out of the Contractor's performance of the Contract, and
- (d) may however exclude liability to the extent that it arises from:
  - (i) the Employer's right to have the Permanent Works executed on, over, under, in or through any land, and to occupy this land for the Permanent Works,
  - (ii) damage which is an unavoidable result of the Contractor's obligations to execute the Works and remedy any defects, and
  - (iii) a cause listed in Sub-Clause 17.3 [*Employer's Risks*], except to the extent that cover is available at commercially reasonable terms.

## 18.4

### Insurance for Contractor's Personnel

The Contractor shall effect and maintain insurance against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel.

The insurance shall cover the Employer and the Engineer against liability for claims, damages, losses and expenses (including legal fees and expenses) arising from injury, sickness, disease or death of any person employed by the Contractor or any other of the Contractor's Personnel, except that this insurance may exclude losses and claims to the extent that they arise from any act or neglect of the Employer or of the Employer's Personnel.

The insurance shall be maintained in full force and effect during the whole time that these personnel are assisting in the execution of the Works. For a Subcontractor's employees, the insurance may be effected by the Subcontractor, but the Contractor shall be responsible for compliance with this Clause.

# 19

## Force Majeure

### 19.1

#### Definition of Force Majeure

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.

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:



- (i) war, hostilities (whether war be declared or not), invasion, act of foreign enemies,
- (ii) rebellion, terrorism, sabotage by persons other than the Contractor's Personnel, revolution, insurrection, military or usurped power, or civil war,
- (iii) riot, commotion, disorder, strike or lockout by persons other than the Contractor's Personnel,

- (iv) munitions of war, explosive materials, ionising 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
- (v) natural catastrophes such as earthquake, hurricane, typhoon or volcanic activity.

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## 19.2

### Notice of Force Majeure

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.

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

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.

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## 19.3

### Duty to Minimise Delay

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

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

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## 19.4

### Consequences of Force Majeure

If the Contractor is prevented from performing its substantial obligations under the Contract by Force Majeure of which notice has been given under Sub-Clause 19.2 [*Notice of Force Majeure*], and suffers delay and/or incurs Cost by reason of such Force Majeure, the Contractor shall be entitled subject to Sub-Clause 20.1 [*Contractor's Claims*] to:

- (a) an extension of time for any such delay, if completion is or will be delayed, under Sub-Clause 8.4 [*Extension of Time for Completion*], and
- (b) if the event or circumstance is of the kind described in sub-paragraphs (i) to (iv) of Sub-Clause 19.1 [*Definition of Force Majeure*] and, in the case of sub-paragraphs (ii) to (iv), 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 Sub-Clause 18.2 [*Insurance for Works and Contractor's Equipment*].

After receiving this notice, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine these matters.

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## 19.5

### Force Majeure Affecting Subcontractor

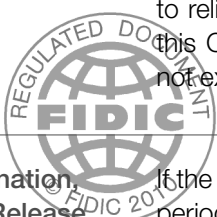
If any Subcontractor is entitled under any contract or agreement relating to the Works to relief from force majeure on terms additional to or broader than those specified in this Clause, such additional or broader force majeure events or circumstances shall not excuse the Contractor's non-performance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

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## 19.6

### Optional Termination, Payment and Release

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



Sub-Clause 19.2 [*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 Sub-Clause 16.3 [*Cessation of Work and Removal of Contractor's Equipment*].

Upon such termination, the Engineer 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 labour employed wholly in connection with the Works at the date of termination.

## 19.7

### Release from Performance

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 fulfil 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 Sub-Clause 19.6 [*Optional Termination, Payment and Release*] if the Contract had been terminated under Sub-Clause 19.6.

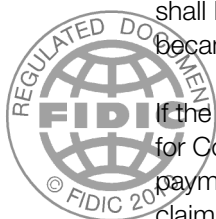
# 20 Claims, Disputes and Arbitration

## 20.1

### Contractor's Claims

If the Contractor considers himself to be entitled to any extension of the Time for Completion and/or any additional payment, under any Clause of these Conditions or otherwise in connection with the Contract, the Contractor shall give notice to the Engineer, describing the event or circumstance giving rise to the claim. The notice shall be given as soon as practicable, and not later than 28 days after the Contractor became aware, or should have become aware, of the event or circumstance.

If the Contractor fails to give notice of a claim within such period of 28 days, the Time for Completion shall not be extended, the Contractor shall not be entitled to additional payment, and the Employer shall be discharged from all liability in connection with the claim. Otherwise, the following provisions of this Sub-Clause shall apply.



The Contractor shall also submit any other notices which are required by the Contract, and supporting particulars for the claim, all as relevant to such event or circumstance.

The Contractor shall keep such contemporary records as may be necessary to substantiate any claim, either on the Site or at another location acceptable to the Engineer. Without admitting the Employer's liability, the Engineer may, after receiving any notice under this Sub-Clause, monitor the record-keeping and/or instruct the Contractor to keep further contemporary records. The Contractor shall permit the Engineer to inspect all these records, and shall (if instructed) submit copies to the Engineer.

Within 42 days after the Contractor became aware (or should have become aware) of the event or circumstance giving rise to the claim, or within such other period as may be proposed by the Contractor and approved by the Engineer, the Contractor shall send to the Engineer a fully detailed claim which includes full supporting particulars of the basis of the claim and of the extension of time and/or additional payment claimed. If the event or circumstance giving rise to the claim has a continuing effect:

- (a) this fully detailed claim shall be considered as interim;
- (b) the Contractor shall send further interim claims at monthly intervals, giving the accumulated delay and/or amount claimed, and such further particulars as the Engineer may reasonably require; and
- (c) the Contractor shall send a final claim within 28 days after the end of the effects resulting from the event or circumstance, or within such other period as may be proposed by the Contractor and approved by the Engineer.

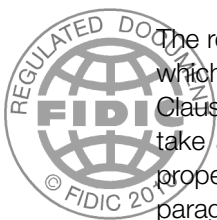
Within 42 days after receiving a claim or any further particulars supporting a previous claim, or within such other period as may be proposed by the Engineer and approved by the Contractor, the Engineer shall respond with approval, or with disapproval and detailed comments. He may also request any necessary further particulars, but shall nevertheless give his response on the principles of the claim within the above defined time period.

Within the above defined period of 42 days, the Engineer shall proceed in accordance with Sub-Clause 3.5 [*Determinations*] to agree or determine (i) the extension (if any) of the Time for Completion (before or after its expiry) in accordance with Sub-Clause 8.4 [*Extension of Time for Completion*], and/or (ii) the additional payment (if any) to which the Contractor is entitled under the Contract.

Each Payment Certificate shall include such additional payment for any claim as has been reasonably substantiated as due under the relevant provision of the Contract. Unless and until the particulars supplied are sufficient to substantiate the whole of the claim, the Contractor shall only be entitled to payment for such part of the claim as he has been able to substantiate.

If the Engineer does not respond within the timeframe defined in this Clause, either Party may consider that the claim is rejected by the Engineer and any of the Parties may refer to the Dispute Board in accordance with Sub-Clause 20.4 [*Obtaining Dispute Board's Decision*].

The requirements of this Sub-Clause are in addition to those of any other Sub-Clause which may apply to a claim. If the Contractor fails to comply with this or another Sub-Clause in relation to any claim, any extension of time and/or additional payment shall take account of the extent (if any) to which the failure has prevented or prejudiced proper investigation of the claim, unless the claim is excluded under the second paragraph of this Sub-Clause.



## 20.2 Appointment of the Dispute Board

Disputes shall be referred to a DB for decision in accordance with Sub-Clause 20.4 [*Obtaining Dispute Board's Decision*]. The Parties shall appoint a DB by the date stated in the Contract Data.

The DB shall comprise, as stated in the Contract Data, either one or three suitably qualified persons ("the members"), each of whom shall be fluent in the language for communication defined in the Contract and shall be a professional experienced in the type of construction involved in the Works and with the interpretation of contractual documents. If the number is not so stated and the Parties do not agree otherwise, the DB shall comprise three persons.

If the Parties have not jointly appointed the DB 21 days before the date stated in the Contract Data and the DB is to comprise three persons, each Party shall nominate one member for the approval of the other Party. The first two members shall recommend and the Parties shall agree upon the third member, who shall act as chairman.

However, if a list of potential members has been agreed by the Parties and is included in the Contract, the members shall be selected from those on the list, other than anyone who is unable or unwilling to accept appointment to the DB.

The agreement between the Parties and either the sole member or each of the three members shall incorporate by reference the General Conditions of Dispute Board Agreement contained in the Appendix to these General Conditions, with such amendments as are agreed between them.

The terms of the remuneration of either the sole member or each of the three members, including the remuneration of any expert whom the DB consults, shall be mutually agreed upon by the Parties when agreeing the terms of appointment. Each Party shall be responsible for paying one-half of this remuneration.

If at any time the Parties so agree, they may jointly refer a matter to the DB for it to give its opinion. Neither Party shall consult the DB on any matter without the agreement of the other Party.

If a member declines to act or is unable to act as a result of death, disability, resignation or termination of appointment, a replacement shall be appointed in the same manner as the replaced person was required to have been nominated or agreed upon, as described in this Sub-Clause.

The appointment of any member may be terminated by mutual agreement of both Parties, but not by the Employer or the Contractor acting alone. Unless otherwise agreed by both Parties, the appointment of the DB (including each member) shall expire when the discharge referred to in Sub-Clause 14.12 [*Discharge*] shall have become effective.

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## 20.3

### Failure to Agree on the Composition of the Dispute Board

If any of the following conditions apply, namely:

- (a) the Parties fail to agree upon the appointment of the sole member of the DB by the date stated in the first paragraph of Sub-Clause 20.2 [*Appointment of the Dispute Board*],
- (b) either Party fails to nominate a member (for approval by the other Party), or fails to approve a member nominated by the other Party, of a DB of three persons by such date,
- (c) the Parties fail to agree upon the appointment of the third member (to act as chairman) of the DB by such date, or



- (d) the Parties fail to agree upon the appointment of a replacement person within 42 days after the date on which the sole member or one of the three members declines to act or is unable to act as a result of death, disability, resignation or termination of appointment,

then the appointing entity or official named in the Contract Data shall, upon the request of either or both of the Parties and after due consultation with both Parties, appoint this member of the DB. This appointment shall be final and conclusive. Each Party shall be responsible for paying one-half of the remuneration of the appointing entity or official.

## 20.4

### Obtaining Dispute Board's Decision

If a dispute (of any kind whatsoever) arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works, including any dispute as to any certificate, determination, instruction, opinion or valuation of the Engineer, either Party may refer the dispute in writing to the DB for its decision, with copies to the other Party and the Engineer. Such reference shall state that it is given under this Sub-Clause.

For a DB of three persons, the DB shall be deemed to have received such reference on the date when it is received by the chairman of the DB.

Both Parties shall promptly make available to the DB all such additional information, further access to the Site, and appropriate facilities, as the DB may require for the purposes of making a decision on such dispute. The DB shall be deemed to be not acting as arbitrator(s).

Within 84 days after receiving such reference, or within such other period as may be proposed by the DB and approved by both Parties, the DB shall give its decision, which shall be reasoned and shall state that it is given under this Sub-Clause. The decision shall be binding on both Parties, who shall promptly give effect to it unless and until it shall be revised in an amicable settlement or an arbitral award as described below. Unless the Contract has already been abandoned, repudiated or terminated, the Contractor shall continue to proceed with the Works in accordance with the Contract.

If either Party is dissatisfied with the DB's decision, then either Party may, within 28 days after receiving the decision, give a Notice of Dissatisfaction to the other Party indicating its dissatisfaction and intention to commence arbitration. If the DB fails to give its decision within the period of 84 days (or as otherwise approved) after receiving such reference, then either Party may, within 28 days after this period has expired, give a Notice of Dissatisfaction to the other Party.

In either event, this Notice of Dissatisfaction shall state that it is given under this Sub-Clause, and shall set out the matter in dispute and the reason(s) for dissatisfaction. Except as stated in Sub-Clause 20.7 [*Failure to Comply with Dispute Board's Decision*] and Sub-Clause 20.8 [*Expiry of Dispute Board's Appointment*], neither Party shall be entitled to commence arbitration of a dispute unless a Notice of Dissatisfaction has been given in accordance with this Sub-Clause.

If the DB has given its decision as to a matter in dispute to both Parties, and no Notice of Dissatisfaction has been given by either Party within 28 days after it received the DB's decision, then the decision shall become final and binding upon both Parties.

## 20.5

### Amicable Settlement

## 68



Where a Notice of Dissatisfaction has been given under Sub-Clause 20.4 above, both Parties shall attempt to settle the dispute amicably before the commencement of



arbitration. However, unless both Parties agree otherwise, the Party giving a Notice of Dissatisfaction in accordance with Sub-Clause 20.4 above should move to commence arbitration after the fifty-sixth day from the day on which a Notice of Dissatisfaction was given, even if no attempt at an amicable settlement has been made.

## 20.6

### Arbitration

Any dispute between the Parties arising out of or in connection with the Contract not settled amicably in accordance with Sub-Clause 20.5 above and in respect of which the DB's decision (if any) has not become final and binding shall be finally settled by arbitration. Arbitration shall be conducted as follows:

- (a) if the Contract is with foreign contractors,
  - (i) for contracts financed by all participating Banks except under subparagraph (a)(ii) below:

international arbitration (1) with proceedings administered by the arbitration institution designated in the Contract Data, and conducted under the rules of arbitration of such institution; or, if so specified in the Contract Data, (2) international arbitration in accordance with the arbitration rules of the United Nations Commission on International Trade Law (UNCITRAL); or (3) if neither an arbitration institution nor UNCITRAL arbitration rules are specified in the Contract Data, with proceedings administered by the International Chamber of Commerce (ICC) and conducted under the ICC Rules of Arbitration; by one or more arbitrators appointed in accordance with said arbitration rules.

- (ii) for contracts financed by the Asian Development Bank:

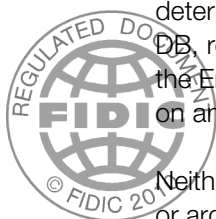
international arbitration (1) with proceedings administered by the arbitration institution specified in the Contract Data and conducted under the rules of arbitration of such institution unless it is specified in the Contract Data that the arbitration shall be conducted under the rules of the United Nations Commission on International Trade Law (UNCITRAL) and if UNCITRAL Rules are so specified then the named arbitration institution shall be the appointing authority and shall administer the arbitration); or (2) if an arbitration institution is not specified in the Contract Data, with proceedings administered by the Singapore International Arbitration Centre (SIAC) and conducted under the SIAC Rules, by one or more arbitrators appointed in accordance with the said arbitration rules.

- (b) if the Contract is with domestic contractors, arbitration with proceedings conducted in accordance with the laws of the Employer's country.

The place of arbitration shall be the neutral location specified in the Contract Data; and the arbitration shall be conducted in the language for communications defined in Sub-Clause 1.4 [*Law and Language*].

The arbitrators shall have full power to open up, review and revise any certificate, determination, instruction, opinion or valuation of the Engineer, and any decision of the DB, relevant to the dispute. Nothing shall disqualify representatives of the Parties and the Engineer from being called as a witness and giving evidence before the arbitrators on any matter whatsoever relevant to the dispute.

Neither Party shall be limited in the proceedings before the arbitrators to the evidence or arguments previously put before the DB to obtain its decision, or to the reasons for



dissatisfaction given in its Notice of Dissatisfaction. Any decision of the DB shall be admissible in evidence in the arbitration.

Arbitration may be commenced prior to or after completion of the Works. The obligations of the Parties, the Engineer and the DB shall not be altered by reason of any arbitration being conducted during the progress of the Works.

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## 20.7

### **Failure to Comply with Dispute Board's Decision**

In the event that a Party fails to comply with a final and binding DB decision, then the other Party may, without prejudice to any other rights it may have, refer the failure itself to arbitration under Sub-Clause 20.6 [*Arbitration*]. Sub-Clause 20.4 [*Obtaining Dispute Board's Decision*] and Sub-Clause 20.5 [*Amicable Settlement*] shall not apply to this reference.

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## 20.8

### **Expiry of Dispute Board's Appointment**

If a dispute arises between the Parties in connection with, or arising out of, the Contract or the execution of the Works and there is no DB in place, whether by reason of the expiry of the DB's appointment or otherwise:

- (a) Sub-Clause 20.4 [*Obtaining Dispute Board's Decision*] and Sub-Clause 20.5 [*Amicable Settlement*] shall not apply, and
  - (b) the dispute may be referred directly to arbitration under Sub-Clause 20.6 [*Arbitration*].
- 



# APPENDIX

## General Conditions of Dispute Board Agreement

### 1 Definitions

Each "Dispute Board Agreement" is a tripartite agreement by and between:

- (a) the "Employer";
- (b) the "Contractor"; and
- (c) the "Member" who is defined in the Dispute Board Agreement as being:
  - (i) the sole member of the "DB" and, where this is the case, all references to the "Other Members" do not apply, or
  - (ii) one of the three persons who are jointly called the "DB" (or "Dispute Board") and, where this is the case, the other two persons are called the "Other Members".

The Employer and the Contractor have entered (or intend to enter) into a contract, which is called the "Contract" and is defined in the Dispute Board Agreement, which incorporates this Appendix. In the Dispute Board Agreement, words and expressions which are not otherwise defined shall have the meanings assigned to them in the Contract.

### 2 General Provisions

Unless otherwise stated in the Dispute Board Agreement, it shall take effect on the latest of the following dates:

- (a) the Commencement Date defined in the Contract,
- (b) when the Employer, the Contractor and the Member have each signed the Dispute Board Agreement, or
- (c) when the Employer, the Contractor and each of the Other Members (if any) have respectively each signed a dispute board agreement.

This employment of the Member is a personal appointment. At any time, the Member may give not less than 70 days' notice of resignation to the Employer and to the Contractor, and the Dispute Agreement shall terminate upon the expiry of this period.

### 3 Warranties

The Member warrants and agrees that he/she is and shall be impartial and independent of the Employer, the Contractor and the Engineer. The Member shall promptly disclose, to each of them and to the Other Members (if any), any fact or circumstance which might appear inconsistent with his/her warranty and agreement of impartiality and independence.

When appointing the Member, the Employer and the Contractor relied upon the Member's representations that he/she is:

- (a) experienced in the work which the Contractor is to carry out under the Contract,
- (b) experienced in the interpretation of contract documentation, and
- (c) fluent in the language for communications defined in the Contract.

### 4 General Obligations of the Member

The Member shall:



- (a) have no interest financial or otherwise in the Employer, the Contractor or Engineer, nor any financial interest in the Contract except for payment under the Dispute Board Agreement;
- (b) not previously have been employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except in such circumstances as were disclosed in writing to the Employer and the Contractor before they signed the Dispute Board Agreement;
- (c) have disclosed in writing to the Employer, the Contractor and the Other Members (if any), before entering into the Dispute Board Agreement and to his/her best knowledge and recollection, any professional or personal relationships with any director, officer or employee of the Employer, the Contractor or the Engineer, and any previous involvement in the overall project of which the Contract forms part;
- (d) not, for the duration of the Dispute Board Agreement, be employed as a consultant or otherwise by the Employer, the Contractor or the Engineer, except as may be agreed in writing by the Employer, the Contractor and the Other Members (if any);
- (e) comply with the annexed procedural rules and with Sub-Clause 20.4 of the Conditions of Contract;
- (f) not give advice to the Employer, the Contractor, the Employer's Personnel or the Contractor's Personnel concerning the conduct of the Contract, other than in accordance with the annexed procedural rules;
- (g) not while a Member enter into discussions or make any agreement with the Employer, the Contractor or the Engineer regarding employment by any of them, whether as a consultant or otherwise, after ceasing to act under the Dispute Board Agreement;
- (h) ensure his/her availability for all site visits and hearings as are necessary;
- (i) become conversant with the Contract and with the progress of the Works (and of any other parts of the project of which the Contract forms part) by studying all documents received which shall be maintained in a current working file;
- (j) treat the details of the Contract and all the DB's activities and hearings as private and confidential, and not publish or disclose them without the prior written consent of the Employer, the Contractor and the Other Members (if any); and
- (k) be available to give advice and opinions, on any matter relevant to the Contract when requested by both the Employer and the Contractor, subject to the agreement of the Other Members (if any).

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### General Obligations of the Employer and the Contractor

The Employer, the Contractor, the Employer's Personnel and the Contractor's Personnel shall not request advice from or consultation with the Member regarding the Contract, otherwise than in the normal course of the DB's activities under the Contract and the Dispute Board Agreement. The Employer and the Contractor shall be responsible for compliance with this provision, by the Employer's Personnel and the Contractor's Personnel respectively.

The Employer and the Contractor undertake to each other and to the Member that the Member shall not, except as otherwise agreed in writing by the Employer, the Contractor, the Member and the Other Members (if any):



- (a) be appointed as an arbitrator in any arbitration under the Contract;
- (b) be called as a witness to give evidence concerning any dispute before arbitrator(s) appointed for any arbitration under the Contract; or
- (c) be liable for any claims for anything done or omitted in the discharge or purported discharge of the Member's functions, unless the act or omission is shown to have been in bad faith.

The Employer and the Contractor hereby jointly and severally indemnify and hold the Member harmless against and from claims from which he is relieved from liability under the preceding paragraph.

Whenever the Employer or the Contractor refers a dispute to the DB under Sub-Clause 20.4 of the Conditions of Contract, which will require the Member to make a site visit and attend a hearing, the Employer or the Contractor shall provide appropriate security for a sum equivalent to the reasonable expenses to be incurred by the Member. No account shall be taken of any other payments due or paid to the Member.

6

## Payment

The Member shall be paid as follows, in the currency named in the Dispute Board Agreement:

- (a) a retainer fee per calendar month, which shall be considered as payment in full for:
  - (i) being available on 28 days' notice for all site visits and hearings;
  - (ii) becoming and remaining conversant with all project developments and maintaining relevant files;
  - (iii) all office and overhead expenses including secretarial services, photocopying and office supplies incurred in connection with his duties; and
  - (iv) all services performed hereunder except those referred to in sub-paragraphs (b) and (c) of this Clause.

The retainer fee shall be paid with effect from the last day of the calendar month in which the Dispute Board Agreement becomes effective; until the last day of the calendar month in which the Taking-Over Certificate is issued for the whole of the Works.

With effect from the first day of the calendar month following the month in which the Taking-Over Certificate is issued for the whole of the Works, the retainer fee shall be reduced by one third. This reduced fee shall be paid until the first day of the calendar month in which the Member resigns or the Dispute Board Agreement is otherwise terminated.

- (b) a daily fee which shall be considered as payment in full for:
  - (i) each day or part of a day up to a maximum of two days' travel time in each direction for the journey between the Member's home and the site, or another location of a meeting with the Other Members (if any);
  - (ii) each working day on Site visits, hearings or preparing decisions; and
  - (iii) each day spent reading submissions in preparation for a hearing.
- (c) all reasonable expenses including necessary travel expenses (air fare in less than first class, hotel and subsistence and other direct travel expenses) incurred in connection with the Member's duties, as well as the cost of telephone calls, courier charges, faxes and telexes: a receipt shall be required for each item in excess of five percent of the daily fee referred to in sub-paragraph (b) of this Clause;
- (d) any taxes properly levied in the Country on payments made to the Member (unless a national or permanent resident of the Country) under this Clause 6.



The retainer and daily fees shall be as specified in the Dispute Board Agreement. Unless it specifies otherwise, these fees shall remain fixed for the first 24 calendar

months, and shall thereafter be adjusted by agreement between the Employer, the Contractor and the Member, at each anniversary of the date on which the Dispute Board Agreement became effective.

If the parties fail to agree on the retainer fee or the daily fee, the appointing entity or official named in the Contract Data shall determine the amount of the fees to be used.

The Member shall submit invoices for payment of the monthly retainer and air fares quarterly in advance. Invoices for other expenses and for daily fees shall be submitted following the conclusion of a site visit or hearing. All invoices shall be accompanied by a brief description of activities performed during the relevant period and shall be addressed to the Contractor.

The Contractor shall pay each of the Member's invoices in full within 56 calendar days after receiving each invoice and shall apply to the Employer (in the Statements under the Contract) for reimbursement of one-half of the amounts of these invoices. The Employer shall then pay the Contractor in accordance with the Contract.

If the Contractor fails to pay to the Member the amount to which he/she is entitled under the Dispute Board Agreement, the Employer shall pay the amount due to the Member and any other amount which may be required to maintain the operation of the DB; and without prejudice to the Employer's rights or remedies. In addition to all other rights arising from this default, the Employer shall be entitled to reimbursement of all sums paid in excess of one-half of these payments, plus all costs of recovering these sums and financing charges calculated at the rate specified in Sub-Clause 14.8 of the Conditions of Contract.

If the Member does not receive payment of the amount due within 70 days after submitting a valid invoice, the Member may (i) suspend his/her services (without notice) until the payment is received, and/or (ii) resign his/her appointment by giving notice under Clause 7.

7

## Termination

At any time: (i) the Employer and the Contractor may jointly terminate the Dispute Board Agreement by giving 42 days' notice to the Member; or (ii) the Member may resign as provided for in Clause 2.

If the Member fails to comply with the Dispute Board Agreement, the Employer and the Contractor may, without prejudice to their other rights, terminate it by notice to the Member. The notice shall take effect when received by the Member.

If the Employer or the Contractor fails to comply with the Dispute Board Agreement, the Member may, without prejudice to his other rights, terminate it by notice to the Employer and the Contractor. The notice shall take effect when received by them both.

Any such notice, resignation and termination shall be final and binding on the Employer, the Contractor and the Member. However, a notice by the Employer or the Contractor, but not by both, shall be of no effect.

8

## Default of the Member

If the Member fails to comply with any of his obligations under Clause 4 (a) - (d) above, he shall not be entitled to any fees or expenses hereunder and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses received by the Member and the Other Members (if any), for



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proceedings or decisions (if any) of the DB which are rendered void or ineffective by the said failure to comply.

If the Member fails to comply with any of his obligations under Clause 4 (e) - (k) above, he shall not be entitled to any fees or expenses hereunder from the date and to the extent of the non-compliance and shall, without prejudice to their other rights, reimburse each of the Employer and the Contractor for any fees and expenses already received by the Member, for proceedings or decisions (if any) of the DB which are rendered void or ineffective by the said failure to comply.

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## Disputes

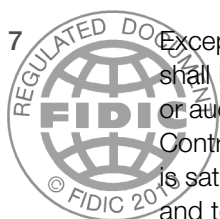
Any dispute or claim arising out of or in connection with this Dispute Board Agreement, or the breach, termination or invalidity thereof, shall be finally settled by institutional arbitration. If no other arbitration institute is agreed, the arbitration shall be conducted under the Rules of Arbitration of the International Chamber of Commerce by one arbitrator appointed in accordance with these Rules of Arbitration.

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## Annex PROCEDURAL RULES

- 1 Unless otherwise agreed by the Employer and the Contractor, the DB shall visit the Site at intervals of not more than 140 days, including times of critical construction events, at the request of either the Employer or the Contractor. Unless otherwise agreed by the Employer, the Contractor and the DB, the period between consecutive visits shall not be less than 70 days, except as required to convene a hearing as described below.
- 2 The timing of and agenda for each Site visit shall be as agreed jointly by the DB, the Employer and the Contractor, or in the absence of agreement, shall be decided by the DB. The purpose of Site visits is to enable the DB to become and remain acquainted with the progress of the Works and of any actual or potential problems or claims, and, as far as reasonable, to endeavour to prevent potential problems or claims from becoming disputes.
- 3 Site visits shall be attended by the Employer, the Contractor and the Engineer and shall be co-ordinated by the Employer in co-operation with the Contractor. The Employer shall ensure the provision of appropriate conference facilities and secretarial and copying services. At the conclusion of each Site visit and before leaving the site, the DB shall prepare a report on its activities during the visit and shall send copies to the Employer and the Contractor.
- 4 The Employer and the Contractor shall furnish to the DB one copy of all documents which the DB may request, including Contract documents, progress reports, variation instructions, certificates and other documents pertinent to the performance of the Contract. All communications between the DB and the Employer or the Contractor shall be copied to the other Party. If the DB comprises three persons, the Employer and the Contractor shall send copies of these requested documents and these communications to each of these persons.
- 5 If any dispute is referred to the DB in accordance with Sub-Clause 20.4 of the Conditions of Contract, the DB shall proceed in accordance with Sub-Clause 20.4 and these Rules. Subject to the time allowed to give notice of a decision and other relevant factors, the DB shall:
  - (a) act fairly and impartially as between the Employer and the Contractor, giving each of them a reasonable opportunity of putting his case and responding to the other's case, and
  - (b) adopt procedures suitable to the dispute, avoiding unnecessary delay or expense.
- 6 The DB may conduct a hearing on the dispute, in which event it will decide on the date and place for the hearing and may request that written documentation and arguments from the Employer and the Contractor be presented to it prior to or at the hearing.
- 7 Except as otherwise agreed in writing by the Employer and the Contractor, the DB shall have power to adopt an inquisitorial procedure, to refuse admission to hearings or audience at hearings to any persons other than representatives of the Employer, the Contractor and the Engineer, and to proceed in the absence of any party who the DB is satisfied received notice of the hearing; but shall have discretion to decide whether and to what extent this power may be exercised.





- 8 The Employer and the Contractor empower the DB, among other things, to:
- (a) establish the procedure to be applied in deciding a dispute,
  - (b) decide upon the DB's own jurisdiction, and as to the scope of any dispute referred to it,
  - (c) conduct any hearing as it thinks fit, not being bound by any rules or procedures other than those contained in the Contract and these Rules,
  - (d) take the initiative in ascertaining the facts and matters required for a decision,
  - (e) make use of its own specialist knowledge, if any,
  - (f) decide upon the payment of financing charges in accordance with the Contract,
  - (g) decide upon any provisional relief such as interim or conservatory measures, and
  - (h) open up, review and revise any certificate, decision, determination, instruction, opinion or valuation of the Engineer, relevant to the dispute.
- 9 The DB shall not express any opinions during any hearing concerning the merits of any arguments advanced by the Parties. Thereafter, the DB shall make and give its decision in accordance with Sub-Clause 20.4, or as otherwise agreed by the Employer and the Contractor in writing. If the DB comprises three persons:
- (a) it shall convene in private after a hearing, in order to have discussions and prepare its decision;
  - (b) it shall endeavour to reach a unanimous decision: if this proves impossible the applicable decision shall be made by a majority of the Members, who may require the minority Member to prepare a written report for submission to the Employer and the Contractor; and
  - (c) if a Member fails to attend a meeting or hearing, or to fulfil any required function, the other two Members may nevertheless proceed to make a decision, unless:
    - (i) either the Employer or the Contractor does not agree that they do so, or
    - (ii) the absent Member is the chairman and he/she instructs the other Members not to make a decision.
- 



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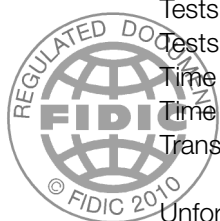
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## **Section: VIII - Particular Conditions (PC)**

## Particular Conditions (PC)

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

### Part A - Contract Data

Conditions	Sub-Clause	Data
Employer's name and address	1.1.2.2 & 1.3	Project Director, Project Implementation Unit JICA Assisted Guwahati Water Supply Project 2 <sup>nd</sup> Floor, Saikia Commercial Complex, Christian Basti, G.S. Road, Guwahati – 781 005 Tele-Fax - +91-361-2340132; Email: <a href="mailto:md.gjb@nic.in">md.gjb@nic.in</a>
Engineer's name and address	1.1.2.4 & 1.3	Project Management Consultant (PMC), 3 <sup>rd</sup> Floor, Saikia Commercial Complex, Christian Basti, G.S. Road, Guwahati – 781 005
Bank's name	1.1.2.11	Japan International Cooperation Agency (JICA)
Borrower's name	1.1.2.12	Government of India
Time for Completion	1.1.3.3	The whole of the Works, including Testing & Trial Run for 90 days and commissioning shall be completed within the period of <b>18 (Eighteen) months</b> from the Effective Date as described in the Contract Agreement.
Defects Notification Period	1.1.3.7	Rectify all defects during the Defects Notification Period of <b>12 Months</b> , from the Date of issuing Taking over Certificate [GC 10].
Sections	1.1.5.6	<i>Not used</i>
Electronic transmission systems	1.3 (a)	<u>Amended as below:</u> "in writing, signed and delivered by hand (against receipt), sent by mail or courier or transmitted through electronic mail to the designated email address of the Employer and/or Engineer.".
Governing Law	1.4	The Contract shall be governed by the laws of Assam and India.
Ruling language	1.4	English
Language for communications	1.4	English
Time for the Parties entering into a Contract Agreement	1.6	14 days
Time for access to and possession of all parts of the Site	2.1	14 days after Commencement Date
Engineer's Duties and Authority	3.1(B)(ii)	Variations resulting in an increase of the Accepted Contract Amount in excess of five percent (5%) shall require approval of the Employer.

Conditions	Sub-Clause	Data
<b>Performance Security</b>	4.2	<p>The Performance Security will be for a value of 10% of the Accepted Contract Amount, excluding the provisional sum.</p> <p>Initially, before signing the contract, the Contractor shall furnish the Performance Security for a value of 2.50% of the contract price, excluding provisional sum, in the form of the unconditional Guarantee attached hereto in the section IX- Contract Forms, issued by a Scheduled or Nationalized bank located in the Employer's Country, or by a foreign bank having its office in Employer's Country and acceptable to the Employer.</p> <p>The remaining 7.50% will be deducted from each running Bill, till total deduction reaches 7.50% of the contract price, excluding provisional sum.</p>
<b>Normal working hours</b>	6.5	<p><b>Normal working hour shall be:</b> 8 AM to 6 PM, which may suitably be adjusted as per local weather conditions at site under intimation to the Engineer.</p> <p>Night working with the permission of the Engineer.</p>
<b>Commencement of Works</b>	8.1	<p>Sub clause 8.1(c): 14 days from the Commencement Date and in phased manner based on the requirement for the Works as per agreed Work Plan.</p> <p>Sub clause 8.1 (d) is deleted</p>
<b>Delay damages for the Works</b>	8.7	0.05% of the Contract Price per day.
<b>Maximum amount of delay damages</b>	8.7	10% of the final Contract Price.
<b>Provisional Sums</b>	13.5	<p><u>Amended as below:</u></p> <p>Each Provisional Sum shall only be used, in whole or in part, in accordance with the Engineer's instructions, and the Contract Price shall be adjusted accordingly. The total sum paid to the Contractor shall include only such amounts, for the work, supplies or services to which the Provisional Sum relates, as the Engineer shall have instructed. For each Provisional Sum, the Engineer may instruct:</p> <ol style="list-style-type: none"> <li>1) Towards the utility shifting of Pipes, fittings, cables, transformers, etc., payment of fee to various authorities for crossing of roads, railways, etc., as directed by the Engineer.</li> </ol>

Conditions	Sub-Clause	Data
		<p>2) Supply of DI Pipes, Fittings, Specials, Valves if required for the pipe network laid by the previous contractor, for rectification during the hydro testing and trial run, trail pit for the existing laid pipe lines, etc.</p> <p>3) Fee for the Third Party Inspection Agency, empanelled by the Employer for the pre-delivery inspection of the materials at the manufacturers' premises, at the rates already fixed by the Employer.</p> <p>The Contractor shall produce invoice / demand note and actual receipt of payment in substantiation.</p>
Provisional Sums	13.5(b)(ii)	15 %
Adjustments for Changes in Cost	13.8	<p>The Contract Price shall be adjusted in accordance with the Schedules of cost indexation as contained in the Schedule of Adjustment Data.</p> <p>Period "n" applicable to the adjustment multiplier "Pn" is three (3) months.</p> <p>Price adjustment shall not be payable on Advance Payment and Provisional Sums.</p> <p>The date of adjustment shall be the mid-point of the period of manufacture or installation of component or Plant and Equipment.</p> <p>Price adjustment will be applied only if the resulting increase or decrease is more than two percent (2%) of the Contract Price</p>
The Contract Price	14.1	<u>Last Paragraph</u> : Deleted.
Advance payment	14.2	<p><u>Amended as below:</u></p> <p>The Employer shall make an advance payment, as an interest-free loan for mobilisation and design, at 10% of total cost excluding provisional sum in two instalments of 5% each, ie., (i) after initial mobilization and (ii) after achieving 20% financial progress, against receipt of an unconditional Bank Guarantee from the Contractor for an equivalent amount, in the format attached.</p>

Conditions	Sub-Clause	Data
<b>Repayment amortization rate of advance payment</b>	14.2(b)	<p><u>Schedule of Repayment of Advance</u></p> <p>The advance (if availed by the contractor) shall be repaid through percentage deductions in the Interim payment Certificate [IPC], which shall commence in the next IPC following that the total certified interim payments exceeds 30% of the Accepted Contract Amount, at the amortization rate of 20% of the amount of each IPC, provided that it shall be completely repaid prior to the time when 80% of the Accepted Contract Amount has been certified for payment and that the advance shall be completely repaid prior to the expiry of the Intended Completion Date. The Bank Guarantee shall remain effective until the advance payment has been fully repaid.</p> <p>Provided that, if the advance payments have not been fully repaid prior to:</p> <p>(i) the time when the total amount of all running payment reaches ninety percent (80%) of that portion of the Accepted Contract Amount, excluding Provisional Sums, or  Time for Completion as per Sub-Clause 8.2 [Time for Completion], or</p> <p>(ii) Issue of Taking over Certificate [clause 10], or</p> <p>(iii) Termination under Clause 15 [Termination by Employer], Clause 16 [Suspension and Termination by Contractor] or Clause 19 [Force Majeure] (as the case may be).</p> <p>Whichever, event occurs first as listed above; the whole of the balance outstanding recovery of Advance payment shall immediately become due and payable by the Contractor to the Employer. If the Contractor fails to pay such dues to the Employer within a reasonable time, as directed by the Employer, the Employer shall encash the Bank Guarantee towards Performance security for such Advance.</p>
<b>Percentage of Retention</b>	14.3(c)	5 %
<b>Limit of Retention Money</b>	14.3(c)	5 % of the Accepted Contract Amount
<b>Schedule of Payments Plant and Materials</b>	14.4	As per Annexure- 1
	14.5(b)(i)	NA
	14.5(c)	Plant and Materials for payment when delivered to the Site: Pipes, valves, and specials, pumps and motors.
<b>Minimum Amount of Interim Payment Certificates</b>	14.6	1% of the Accepted Contract Amount.

Conditions	Sub-Clause	Data
<b>Delayed Payment</b>	14.8	Financing charges of 4% per annum is payable if the disbursement of payment is delayed beyond 56 days.
<b>Maximum total liability of the Contractor to the Employer</b>	17.6	The product of 1.1 times the Accepted Contract Amount
<b>Periods for submission of insurance:</b>	18.1	
a. evidence of insurance.		28 days
b. relevant policies		28 days
<b>Maximum amount of deductibles for insurance of the Employer's risks</b>	18.2(d)	Nil
<b>Minimum amount of third party insurance</b>	18.3	INR 1 Million
<b>Date by which the DB shall be appointed</b>	20.2	DB shall be appointed on an ad-hoc basis, if and when any dispute arises during Contract period. The DB would be appointed when a dispute arises and would cease its appointment on the issue of its decision in respect of such dispute. Should a new dispute arise, a new ad-hoc DB would be appointed. The DB shall be appointed within 42 days after the notice to appoint a DB by either Party.
<b>The DB shall be comprised of</b>	20.2	One Member
<b>List of potential DB sole members</b>	20.2	None
<b>Appointment (if not agreed) to be made by</b>	20.3	Chairperson, Institution of Engineers (India), Assam Center, Guwahati.
<b>Rules of arbitration</b>	20.6	Any dispute not settled amicably and in respect of which the decision by DB (if any) has not become final and binding shall be finally settled by arbitration. The aggrieved party may approach the Indian Council of Arbitration, within 90 days from the date of the decision by DB, for settlement of dispute or difference by the sole arbitrator to be appointed by the appropriate authority of the said council. The settlement of dispute by arbitration shall be in accordance with the following provisions:

Conditions	Sub-Clause	Data
		<p>1. <b><u>Selection of Arbitrators:</u></b> Each dispute submitted by a Party to arbitration shall be heard by a sole arbitrator or an arbitration panel composed of three arbitrators, in accordance with the following provisions:</p> <ul style="list-style-type: none"> <li>a. Where the Parties agree that the dispute concerns a technical matter, they may agree to appoint a sole arbitrator.</li> <li>b. Where the Parties do not agree that the dispute concerns a technical matter, the Employer and the Consultants shall each appoint one arbitrator, and these two arbitrator shall jointly appoint a third arbitrator, who shall chair the arbitration panel.</li> </ul> <p>2. <b><u>Substitute Arbitrators:</u></b> If for any reason an arbitrator is unable to perform his function, a substitute shall be appointed in the same manner as the original arbitrator.</p>
		<p>3. <b><u>Qualifications of Arbitrators:</u></b> The sole arbitrator or the third arbitrator appointed pursuant to paragraphs (a) and (b) of Clause 20.6-1 hereof shall be an internationally recognized legal or technical expert with extensive experience in relation to the matter in dispute.</p> <p><b><u>Miscellaneous:</u></b> In any arbitration proceeding hereunder:</p> <ul style="list-style-type: none"> <li>a. Proceedings shall, unless otherwise agreed by the Parties, be held in Guwahati;</li> <li>b. The English language shall be the official language for all purposes; and</li> </ul> <p>The decision of the sole arbitrator or of a majority of the arbitrators (or of the third arbitrator if there is no such majority) shall be final and binding and shall be enforceable in any court of competent jurisdiction, and the Parties hereby waive any objections to or claims of immunity in respect of such enforcement.</p>



## Specific Provisions

**Sub-Clause 1.15  
Inspections and Audit by  
the Bank**

This Sub-Clause is deleted entirely.

**Sub-Clause 2.4  
Employer's Financial  
Arrangements**

Financial arrangement is Japanese ODA Loan of amount 29,453 million Japanese Yen. The loan Agreement was signed on March 31, 2009

**Sub-Clause 4.1  
Contractor's General  
Obligations**

Replace in the third paragraph: "as defined by the Bank" *with* "as defined by the Loan Agreement between the Bank and the Borrower".

**Sub-Clause 16.2  
Termination by Contractor**

Sub-paragraph (a) is deleted].

**Annexure -1****Terms and Procedures of Payment****Payment Schedule for Interim Valuations**

In accordance with the provisions of GC Clause 14 (Contract Price and Payment), the Employer shall pay the Contractor in the following manner and at the following times, on the basis of the price Breakdown given in the section on Price Schedule. Payments will be made in the currencies quoted by the Bidder unless otherwise agreed between the parties. Application for payment in respect of part deliveries may be made by the Contractor as work proceeds.

All payments shall be treated as advances till settlement of Final Account & Billing and in the event of any over payments or wrong payments are noticed the same shall be adjusted or recovered forthwith, from the Contractor, from any amount due to him.

**(A) Terms of Payment****Advance Payment & Amortization Rate:**

Advance payment of 10% of the Accepted Contract Amount, excluding Provisional Sums shall be paid in two equal instalments of 5% each in the currency of contract, against irrevocable advance payment security.

The payment details and the amortization rate are as in sub-clause 14.2(a) and 14.2(b) of Particular Conditions.

**1. Earthwork**

- a) Ninety Five percent (95%) of the total accepted price of the item upon the progress achieved for the relevant item.
- b) Five percent (5%) of the total accepted price of the item upon completion of clean-up, removal of debris and Contractor's equipment and materials, final grading and restoration of the site(s).

**2a. D.I. Pipeline (Employer Furnished)**

One Hundred percent (100%) of the total accepted price of the item upon successful completion of the relevant item and commissioning.

**2b. MS Pipeline, HDPE Pipeline, Mechanical/ Electrical Equipment (if any) and All Specials (Contractor Furnished)**

- a) Eighty five percent (85%) of the total accepted price for the item upon supply, delivery to the site, proper storage and acceptance of the relevant item.
- b) Fifteen percent (15%) of the total accepted price of the item upon successful completion of the installation of the relevant item, and commissioning.

**3. Valves and Appurtenances (Contractor Furnished)**

- a) Eighty five percent (85%) of the total accepted price for the item upon supply, delivery to the site, proper storage and acceptance of the relevant item.
- b) Fifteen percent (15%) of the total accepted price of the item upon successful completion of the installation of the relevant item, and commissioning.

**4. Valve Chamber**

- a) Ninety Five percent (95%) of the total accepted price of the item upon the progress achieved for the relevant item.

- b) Five percent (5%) of the total accepted price of the item upon completion of clean-up, removal of debris and Contractor's equipment and materials, final grading and restoration of the site(s).

#### **5. Pipe Jacking**

- a) Fifty percent (50%) of the total accepted price for the item upon construction of the Jacking pits, the set-up of Jacking Equipment and supply, delivery and storage of the M.S. Casing Pipe.
- b) Fifty percent (50%) of the total accepted price of the item upon successful completion of pipe jacking, removal of the Jacking Equipment, and all other activities as per item description.

#### **6. Testing, Trial Runs and Commissioning**

- a) Hundred percent (100%) of the total accepted price of the item upon progress achieved for the relevant item.

#### **7. Road Restoration**

- a) Ninety Five percent (95%) of the total accepted price of the item upon the progress achieved for the relevant item.
- b) Five percent (5%) of the total accepted price of the item upon completion of clean-up, removal of debris and Contractor's equipment and materials, final grading and restoration of the site(s).

#### **8. Sump and Miscellaneous Civil Works**

- a) Ninety Five percent (95%) of the total accepted price of the item upon the progress achieved for the relevant item.
- b) Five percent (5%) of the total accepted price of the item upon completion of clean-up, removal of debris and Contractor's equipment and materials, final grading and restoration of the site(s).

#### **9. Survey Work**

- a) Eighty percent (80%) of the total accepted price for the item upon submission and approval by the Employer's Representative of the preliminary survey drawings and CADD files.
- b) Twenty percent (20%) of the total accepted price of the item upon submission and approval by Employer's Representative of the final survey drawings and CADD files.

#### **10. Retention**

Monthly payment in accordance with the work progress measured and approved by the Employer's Representative with reduction of Five percentage (5%) for retention money, till such deduction reaches 5 % of the Accepted Contract Amount.

Releasing Payment of Retention money will be as per GC 14.9.

#### **11. Provisional Sum Items**

As per Requirement

100%-Payment in full upon production of receipts for any approved expenditures

#### **12. Day work**

As per Requirement

100% - Payment in full upon the providing of labour, materials and equipment as requested and witnessed by the Employer's Representative.

## **Section IX. Contract Forms**

## Section IX. Contract Forms

### Table of Forms

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<b>Retention Money Security.....</b>	<b>Error! Bookmark not defined.</b>

## Letter of Acceptance

*[insert date]*

To: *[insert name and address of the Contractor]*

This is to notify you that your Bid dated *[insert date]* for execution of the *[insert name of the Contract and identification number, as given in the Contract Data]* for the Accepted Contract Amount of the equivalent of *[insert amount in numbers and words] [insert 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 one of the Performance Security Forms included in Section IX, Annex to the Particular Conditions - Contract Forms, of the Bidding Document.

Authorized Signature: \_\_\_\_\_

Name and Title of Signatory: \_\_\_\_\_

Name of Agency: \_\_\_\_\_

**Attachment: Contract Agreement**

## Contract Agreement

THIS AGREEMENT made the \_\_\_\_\_ day of \_\_\_\_\_, \_\_\_\_\_, between *[insert name of the Employer]* (hereinafter "the Employer"), of the one part, and *[insert name of the Contractor]* (hereinafter "the Contractor"), of the other part:

WHEREAS the Employer desires that the Works known as *[name of the Contractor]* 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.
  - (i) the Letter of Acceptance;
  - (ii) the Letter of Technical Bid;
  - (iii) the Letter of Price Bid;
  - (iv) the addenda Nos *[insert addenda numbers if any]* (if any);
  - (v) the Particular Conditions;
  - (vi) the General Conditions;
  - (vii) the Specification;
  - (viii) the Drawings;
  - (ix) the completed Schedules; and
  - (x) Acknowledgment of Compliance with Guidelines for Procurement under Japanese ODA Loans
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 *[insert name of the borrowing country]* on the day, month and year indicated above.

Signed by \_\_\_\_\_

for and on behalf of the Employer

in the presence of

Witness, Name, Signature, Address, Date

Signed by \_\_\_\_\_

for and on behalf the Contractor

in the presence of

Witness, Name, Signature, Address, Date

## Performance Security

### Bank Guarantee

*[insert Bank's Name, and Address of Issuing Branch or Office]*

**Beneficiary:**     **The Project Director,**  
                           Project Implementation Unit,  
                           JICA Assisted Guwahati Water Supply Project,  
                           2nd Floor, Saikia Commercial Complex,  
                           Christian Basti, G.S. Road, Guwahati – 781 005  
                           Tele-Fax - +91-361-2340132;  
                           Email: [md.gjb@nic.in](mailto:md.gjb@nic.in)

Date: \_\_\_\_\_

**PERFORMANCE GUARANTEE No.:** \_\_\_\_\_

We have been informed that *[insert name of Contractor]* (hereinafter called "the Contractor") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date of the contract]* with you, for the execution of *[insert 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 *[insert name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[insert amount in figures]* (*[amount in words]*),<sup>1</sup> such sum being payable in the types and proportions of currencies in which the Contract Price is payable, upon receipt by our office/branch *[Name of Issuing Bank of Guwahati, Assam, India where this guarantee is encashable/payable, 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 ....<sup>2</sup>, 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.

\_\_\_\_\_  
*[signature(s)]*

[Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.]

<sup>1</sup> *The Guarantor shall insert an amount representing the percentage of the Contract Price specified in the Contract and denominated either in the currency(cies) of the Contract or a freely convertible currency acceptable to the Employer.*

<sup>2</sup> *Insert the date twenty-eight days after the expected date of receiving Performance Certificate. The Employer should note that in the event of an extension of the Time for Completion and/or Defects Notification Period, 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 [six months][one 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."*



## Advance Payment Security

### Demand Guarantee

*[insert Bank's Name, and Address of Issuing Branch or Office]*

**Beneficiary:**       **The Project Director,**  
                           Project Implementation Unit,  
                           JICA Assisted Guwahati Water Supply Project,  
                           2nd Floor, Saikia Commercial Complex,  
                           Christian Basti, G.S. Road, Guwahati – 781 005  
                           Tele-Fax - +91-361-2340132;  
                           Email: [md.gjb@nic.in](mailto:md.gjb@nic.in)

**Date:** \_\_\_\_\_

**ADVANCE PAYMENT GUARANTEE No.:** \_\_\_\_\_

We have been informed that *[insert name of Contractor]* (hereinafter called "the Contractor") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date of the contract]* with you, for the execution of *[insert 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 *[insert amount in figures]* (*[amount in words]*) is to be made against an advance payment guarantee.

At the request of the Contractor, we *[insert name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[insert amount in figures]* (*[amount in words]*)<sup>1</sup> upon receipt by our office/branch [Name of Issuing Bank of Guwahati, Assam, India where this guarantee is encashable/payable, of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract.

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 *[insert account number]* at *[insert name and address of 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 ninety (90) percent of the Contract Price has been certified for payment, or on the \_\_\_ day of \_\_\_,<sup>2</sup> 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.

\_\_\_\_\_  
*[signature(s)]* [Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product

<sup>1</sup> The Guarantor shall insert an amount representing the amount of the advance payment and 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.

<sup>2</sup> 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, 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 [six months][one 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."

## Retention Money Security

### Demand Guarantee

*[insert Bank's Name, and Address of Issuing Branch or Office]*

**Beneficiary:**     **The Project Director,**  
                           Project Implementation Unit,  
                           JICA Assisted Guwahati Water Supply Project,  
                           2nd Floor, Saikia Commercial Complex,  
                           Christian Basti, G.S. Road, Guwahati – 781 005  
                           Tele-Fax - +91-361-2340132;  
                           Email: md.gjb@nic.in

**Date:** \_\_\_\_\_

**RETENTION MONEY GUARANTEE No.:** \_\_\_\_\_

We have been informed that *[insert name of Contractor]* (hereinafter called "the Contractor") has entered into Contract No. *[insert reference number of the contract]* dated *[insert date of the contract]* with you, for the execution of *[insert name of contract and brief description of Works]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, when the first half of the Retention money is certified for payment to the contractor, when the financial progress reaches 50% of the contract value, it is to be made against a Retention Money guarantee.

At the request of the Contractor, we *[insert name of Bank]* hereby irrevocably undertake to pay you any sum or sums not exceeding in total an amount of *[insert amount in figures]* (*[amount in words]*)<sup>1</sup> upon receipt by our office/branch [Name of Issuing Bank of Guwahati, Assam, India where this guarantee is encashable/payable, of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract.

It is a condition for any claim and payment under this guarantee to be made that the payment of the second half of the Retention Money referred to above must have been received by the Contractor on its account number *[insert account number]* at *[insert name and address of Bank]*.

This guarantee shall expire, at the latest, 21 days after the date when the Employer has received a copy of the Performance Certificate issued by the Engineer. 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.

\_\_\_\_\_  
*[signature(s)]*

[Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.]

<sup>1</sup> *The Guarantor shall insert an amount representing the amount of the second half of the Retention Money or if the amount guaranteed under the Performance Guarantee when the Taking-Over Certificate is issued is less than half of the Retention Money, the difference between half of the Retention Money and the amount guaranteed under the Performance Security and denominated either in the currency(ies) of the second half of the Retention Money as specified in the Contract, or in a freely convertible currency acceptable to the Employer.*