



**GOVERNMENT OF ASSAM**  
**ASSAM STATE SECONDARY HEALTHCARE INITIATIVE FOR**  
**SERVICE DELIVERY TRANSFORMATION PROJECT**  
**(ASSIST)**

**NATIONAL OPEN COMPETITIVE PROCUREMENT**  
**(Two-Envelope Bidding Process with e-Procurement)**

**Time Schedule for the Bids**

Bid Reference	<b>IN-AHIDMS-530159-CW-RFB</b>
Date of commencement of downloading of bid document	06/01/2026 at 5.00 PM
Start date for seeking clarification if any.	07/01/2026 at 5.00 PM
Last date for seeking clarification if any.	14/01/2026 at 5.00 PM
Pre-bid meeting	16/01/2026 at 3.00 PM
Bid submission start date	31/01/2026 at 2.00 PM
Last date for downloading of bid document from the E-procurement platform: <a href="https://assamtenders.gov.in">https://assamtenders.gov.in</a>	07/02/2026 at 2.00 PM
Last date and time for online bid submission/uploading of bid in E-procurement platform	07/02/2026 at 2.00 PM
Last Date and Time for hard* copy submission (*bid security, power of attorney etc.)	07/02/2026 at 2.00 PM
Time and date of online opening of technical bids	07/02/2026 at 3.00 PM
Place of opening of bids and address for communication	Online ( <a href="https://assamtenders.gov.in">https://assamtenders.gov.in</a> )

**Note:**

- (1) In the event of the specified date of opening of bids being declared a holiday for the Purchaser, the bids shall be opened on the next working day at the same time and venue.
- (2) Completed bids shall be uploaded on the e-procurement platform by the Bidders using their user ID and addressed to the Directorate of Accounts and Treasuries in the manner described under Instructions to Bidders Section II of Bid Documents on or before the stipulated last date& time.

**Essential Requirements for Bid submission**

1. Tender documents can be downloaded from the website <https://assamtenders.gov.in>
2. To participate in this tender process through e-procurement document, bidder should have valid Digital Signature Certificate (DSC) of Class-III signing (minimum) and have to register in the portal <https://assamtenders.gov.in>
3. The tender processing fee and Bid Security will be paid online as per Finance Department Office Memorandum No.FEB.269/2017/27 dated 21.08.2019 (copy enclosed for ready reference). In case, the Bid Security is the form of Bank Guarantee, it is to be submitted in hard copy and Power of Attorney is to be submitted in hard copy. All other documents along with prices shall be submitted online only on the e-procurement portal.
4. Bids submitted through any other mode shall not be accepted.

**Purchaser:**

**Project Director, AHIMDS  
Sixmile, Nayantara Building 4<sup>th</sup> Floor,  
Guwahati-21**

## **REQUEST FOR BIDS**

(RFB)

**GOVERNMENT OF ASSAM**  
**PROJECT: ASSAM STATE SECONDARY HEALTHCARE INITIATIVE**  
**FOR SERVICE DELIVERY TRANSFORMATION (ASSIST) PROJECT**

-----

**INVITATION FOR BIDS (RFB)**  
**(Two-Envelope Bidding Process with e-Procurement)**

**Name of the work:** Repair and renovation works in Hojai Civil Hospital, Hojai, Assam and Nagaon Medical College & Hospital, Nagaon, Assam under ASSIST project

**Loan No./Credit No./ Grant No.:** 95700-IN

**RFB Reference No.:** IN-AHIDMS-530159-CW-RFB

**Date:** 06.01.2026

1. The Government of India has received financing from the World Bank toward the cost of the **Assam State Secondary Healthcare Initiative for Service Delivery Transformation (ASSIST) Project** and intends to apply part of the proceeds toward eligible payments under the contract for repair and renovation of works as detailed below.
2. Bidding will be conducted through national Open Competitive Bidding procurement using a Request for Bids (RFB) as specified in the World Bank's "Procurement Regulations for IPF Borrowers, July 2016, \_Revised August 2018", Revised November 2020 and Revised February 2025 ("Procurement Regulations"), and is open to all Bidders as defined in the Procurement Regulations.
3. Bidders from India should, however, be registered as Class I Civil Contractor with the Government of Assam or other State Governments/Government of India, or State/Central Government Undertakings. Bidders from India, who are not registered as above, on the date of bidding, can also participate provided they get themselves registered by the time of contract signing if they become successful bidders.

4. The Project Director, ASSIST now invites online Bids from eligible Bidders for the following works:

<b><i>SN</i></b>	<b><i>Name of The Work</i></b>	<b><i>Estimated Amount</i></b>	<b><i>Bid Security</i></b>
<b><i>1.</i></b>	<b><i>Repair and renovation works in Hojai Civil Hospital, Hojai, Assam and Nagaon Medical College &amp; Hospital, Nagaon, Assam under ASSIST project</i></b>	<b><i>INR. 16.66 Crore (excluding Contingency)</i></b>	<b><i>INR 33,32,000</i></b>

The bidders may submit bids for all or any of the works indicated therein. Interested bidders may obtain further information and inspect the bidding document at the address given below during office hours. Bidders are advised to note the clauses on eligibility (Section I Clause 4) and minimum qualification criteria (Section III – Evaluation and Qualification Criteria), to qualify for the award of the contract. In addition, please refer to paragraphs 3.14 and 3.15 of the “Procurement Regulations” setting forth the World Bank’s policy on conflict of interest.

5. The bidding document is available online on <https://assamtenders.gov.in> (website) from 06.01.2026 to 07.02.2026 for a non-refundable fee as indicated in the above, pay through online in the e-procurement portal (Payment documents are to be submitted as per the procedure described in paragraph 9 below). Bidders will be required to register on the website. The bidders would be responsible for ensuring that any addenda available on the website is also downloaded and incorporated.
6. For submission of the bid, the bidder is required to have Digital Signature Certificate (Class-3 digital signature) from one of the Certifying Authorities authorized by Government of India for issuing DSC. Aspiring bidders who have not obtained the user ID and password for participating in e-procurement in this Project, may obtain the same from the website: [www.assamtenders.gov.in](http://www.assamtenders.gov.in)
7. Bids comprise two Parts, namely the Technical Part and the Financial Part, and both parts must be submitted simultaneously (in two separate envelopes) online on <https://assamtenders.gov.in> (website) on or before 1400 hours on 07.02.2026 and the ‘Technical Part’ of the bids will be publicly opened online on the same day at 1500 hours, in the presence of the bidders designated representatives who wish to attend. The “Financial Part” shall remain unopened in the e-procurement system until the second public Bid opening for the financial part. Any bid or modifications to bid (including discount) received outside e-procurement system will not be considered. If the office happens to be closed on the date of opening of the bids as specified, the bids will be opened on the next working day at the same time and venue. The electronic bidding system would not allow any late submission of bids.

8. Procedure for submission of bid security is described below:

Bid Security: The bidders are required to submit ₹ 33,32,000/- (**Thirty Three Lacs Thirty Two Thousand Only**). Bid security will have to be in any one of the forms as specified in the bidding document and shall have to be valid for 45 days beyond the validity of the bid. Procedure for submission of bid security is described in Para 9.

Cost of Bid Document: ₹ 20000/- (**₹ Twenty Thousand Only**) (To be deposited through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019)

9. Bid Security may either be remitted through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019 OR submitted through any of following mode:

**Bank Guarantee/ Fixed Deposit/Time Deposit certificate** issued by a Nationalized or Scheduled Bank located in India for equivalent or higher values are acceptable provided it is pledged in favour of **Assam Health Infrastructure Development and Management Society (AHIDMS)** (Implementing agency) and such pledging has been noted and suitably endorsed by the bank issuing the certificate.

**In case bidder(s) opt to submit bid security in the form of Bank Guarantee/ Fixed Deposit/Time Deposit certificate, please comply the following instructions:**

- a. Bidder has to submit the **ORIGINAL** Bank Guarantee/ Fixed Deposit/Term Deposit certificate before the bid submission end date & time, failing to which bid of the bidder shall be rejected outrightly and bid shall not be opened. **ORIGINAL** Bank Guarantee/ Fixed Deposit/Time Deposit certificate shall be submitted in the address mentioned in ITB/BDS 21.3.
- b. Only to accommodate the submission of Bank Guarantee/ Fixed Deposit/Term Deposit certificate, Option of “**BID SECURITY/EMD EXEMPTION**” provision is enabled in the e-procurement portal. Bidder has to select/click the 100% exemption option to proceed further for submission of bid. The scanned copy of Bank Guarantee/ Fixed Deposit/Time Deposit certificate needs to be submitted under Technical Folder along with other qualification documents.
- c. Bidder to note that there is otherwise no **BID SECURITY/EMD EXEMPTION** for any bidder whosoever. This option is only enabled to submit Bank Guarantee/ Fixed Deposit/Term Deposit certificate as bid

security. Bidder who does not submit the ORIGINAL Bank Guarantee/ Fixed Deposit/Time Deposit certificate before the bid submission end date & time, bid of the bidder shall be rejected outrightly even if scanned copy of Bank Guarantee/ Fixed Deposit/Term Deposit certificate submitted under Technical Folder along with other qualification documents.

- d. In case bidder(s) opt to submit bid security in the form of Bank Guarantee, the following bank details of AHIDM Society may be used while obtaining Bank Guarantee:

Account Name -Assam Health Infra Development & Mgt Society World

Bank ASSIST Project Account

Number- 245601002420 IFSC - ICIC0002456

Bank Name- ICICI Bank Ltd.

Branch Name- Downtown, Guwahati

(Bidder should note that this Bank Account should not be used for remitting cost for bid document or for Bid Security may be remitted through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019. The above-mentioned account details only be used while obtaining Bank Guarantee).

10. A pre-bid meeting will be held on 16/01/2026 at 1500 hours at the office of Project Director, Assam Health Infrastructure Development & Management Society, Dept. of Medical Education & Research, GOA, 4th floor, Nayantara Supermarket Complex, Six Mile , Khanapara, Guwahati, Assam to clarify the issues and to answer questions on any matter that may be raised at that stage as stated in ITB Clause 7.4 of 'Instructions to Bidders' of the bidding document. Bidders are advised to download the bidding document prior to the pre-bid meeting for bidders to have a good understanding of the scope of work under this contract for discussion and clarification at the pre-bid meeting
11. Other details can be seen in the bidding document. The Employer shall not be held liable for any delays due to system failure beyond its control. Even though the system will attempt to notify the bidders of any bid updates, the Employer shall not be liable for any information not received by the bidder. It is the bidders' responsibility to verify the website for the latest information related to this bid.

**Project Director, AHIDMS  
4<sup>th</sup> Floor, Nayantara Building,  
Khanapara, Guwahati-22**

---

## Table of Contents

<b>PART 1 – Bidding Procedures .....</b>	<b>9</b>
Section I - Instructions to Bidders.....	10
Section II - Bid Data Sheet (BDS) .....	40
Section III - Evaluation and Qualification Criteria .....	47
Section IV - Bidding Forms .....	63
Section V - Eligible Countries .....	194
Section VI - Fraud and Corruption.....	195
 <b>PART 2 – Works’ Requirements .....</b>	 <b>197</b>
Section VII - Works’ Requirement .....	198
 <b>PART 3 – Conditions of Contract and Contract Forms.....</b>	 <b>243</b>
Section VIII - General Conditions of Contract .....	244
Section IX - Particular Conditions of Contract .....	288



## **PART 1 – Bidding Procedures**

---

## Section I - Instructions to Bidders

### A. General

#### 1. Scope of Bid

1.1 In connection with the Specific Procurement Notice - Request for Bids (RFB), **specified in the Bid Data Sheet (BDS)**, the Employer, as **specified in the BDS**, issues this bidding document for the provision of Works as specified in Section VII, Works' Requirements. The name, identification and number of lots (contracts) of this RFB are **specified in the BDS**.

1.2 Throughout this bidding document:

- (a) the term “in writing” means communicated in written form (e.g. by mail, e-mail, and fax, including if **specified in the BDS**, distributed or received through the electronic-procurement system used by the Employer) with proof of receipt;
- (b) if the context so requires, “singular” means “plural” and vice versa;
- (c) “Day” means calendar day, unless otherwise specified as “Business Day”. A Business Day is any day that is a working day of the Borrower. It excludes the Borrower's official public holidays;
- (d) the term “**ES**” means environmental and social (including Sexual Exploitation, and Abuse (SEA), and Sexual Harassment (SH));
- (e) “**Sexual Exploitation and Abuse**” “(SEA)” means the following:
  - (i) “**Sexual Exploitation**” is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another.
  - (ii) “**Sexual Abuse**” is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;

- 
- (f) **“Sexual Harassment” “(SH)”** is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the Contractor’s Personnel with other Contractor’s or Employer’s Personnel;
  - (g) **“Contractor’s Personnel”** is as defined in Sub-Clause 1 (ii) of the General Conditions of Contract; and
  - (h) **“Employer’s personnel”** is as defined in GCC Sub-Clause 1 (nn) of the General Conditions of Contract.

A non-exhaustive list of (i) behaviors which constitute SEA and (ii) behaviors which constitute SH is attached to the Code of Conduct form in Section IV.

## 2. Source of Funds

- 2.1 The Borrower or Recipient (hereinafter called “Borrower”) **specified in the BDS** has received or has applied for financing (hereinafter called “funds”) from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called “the Bank”) in an amount **specified in the BDS**, toward the project **named in the BDS**. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this bidding document is issued.
- 2.2 Payment by the Bank will be made only at the request of the Borrower and upon approval by the Bank, and will be subject, in all respects, to the terms and conditions of the Loan (or other financing) Agreement. The Loan (or other financing) Agreement prohibits a withdrawal from the loan account for the purpose of any payment to persons or entities, or for any import of goods, equipment, plant, or materials, if such payment or import is prohibited by a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations. No party other than the Borrower shall derive any rights from the Loan (or other financing) Agreement or have any claim to the proceeds of the Loan (or other financing).

## 3. Fraud and Corruption

- 3.1 The Bank requires compliance with the Bank’s Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG’s Sanctions Framework, as set forth in Section VI.

- 3.2 In further pursuance of this policy, bidders shall permit and shall cause their agents (whether declared or not), subcontractors, sub-consultants, service providers, suppliers, and personnel, to permit the Bank to inspect all accounts, records and other documents relating to any initial selection process, prequalification process, bid submission, proposal submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank.

#### 4. Eligible Bidders

- 4.1 A Bidder may be a firm that is a private entity, or a state-owned enterprise or institution subject to ITB 4.6, or any combination of them 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, unless otherwise **specified in the BDS**. In the case of a joint venture, all members shall be jointly and severally liable for the execution of the entire 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. This authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all members. Unless **specified in the BDS**, there is no limit on the number of members in a JV. The joint venture agreement shall be registered in the place **specified in BDS** so as to be legally valid and binding on members.
- 4.2 A Bidder shall not have a conflict of interest. All Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to have a conflict of interest for the purpose of this Bidding process, if the Bidder:
- (a) directly or indirectly controls, is controlled by or is under common control with another Bidder; or
  - (b) receives or has received any direct or indirect subsidy from another Bidder; or
  - (c) has the same legal representative as another Bidder; or has a relationship with another Bidder, directly or through common third parties, that puts it in a position to influence the Bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or

- (d) any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the works that are the subject of the Bid; or
- (e) any of its affiliates has been hired (or is proposed to be hired) by the Employer or Borrower as Project Manager (Engineer) for the Contract implementation;
- (f) would be providing goods, works, or non-consulting services resulting from or directly related to consulting services for the preparation or implementation of the project specified in the BDS ITB 2.1 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;
- (g) has a close business or family relationship with a professional staff of the Borrower (or of the project implementing agency, or of a recipient of a part of the loan) who: (i) are directly or indirectly involved in the preparation of the bidding document or specifications of the contract, and/or the Bid evaluation process of such contract; or (ii) would be involved in the implementation or supervision of such contract unless the conflict stemming from such relationship has been resolved in a manner acceptable to the Bank throughout the procurement process and execution of the contract.

4.3 A firm that is a Bidder (either individually or as a JV member) shall not participate in more than one Bid, except for permitted alternative Bids. This includes participation as a Subcontractor in other Bids. Such participation shall result in the disqualification of all Bids in which the firm is involved. A firm that is not a Bidder or a JV member may participate as a subcontractor in more than one Bid.

4.4 A Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.8. A Bidder shall be deemed to have the nationality of a country if the Bidder is constituted, incorporated or registered in and operates in conformity with the provisions of the laws of that country, as evidenced by its articles of incorporation (or equivalent documents of constitution or association) and its registration documents, as the case may be. This criterion also shall

---

apply to the determination of the nationality of proposed subcontractors or sub-consultants for any part of the Contract including related Services.

- 4.5 A Bidder that has been sanctioned by the Bank, pursuant to the Bank's Anti-Corruption Guidelines, in accordance with its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework as described in Section VI paragraph 2.2 d., shall be ineligible to be prequalified for, initially selected for, bid for, propose for, or be awarded a Bank-financed contract or benefit from a Bank-financed contract, financially or otherwise, during such period of time as the Bank shall have determined. The list of debarred firms and individuals is available at the electronic address **specified in the BDS**.
- 4.6 Bidders that are state-owned enterprises or institutions in the Employer's Country may be eligible to compete and be awarded a Contract(s) only if they can establish, in a manner acceptable to the Bank, that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not under supervision of the Employer.
- 4.7 A Bidder shall not be under suspension from Bidding by the Employer as the result of the operation of a Bid-Securing or Proposal-Securing Declaration.
- 4.8 Firms and individuals may be ineligible if so indicated in Section V and (a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country, provided that the Bank is satisfied that such exclusion does not preclude effective competition for the supply of goods or the contracting of works or services required; or (b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's country prohibits any import of goods or contracting of works or services from that country, or any payments to any country, person, or entity in that country. When the Works are implemented across jurisdictional boundaries (and more than one country is a Borrower, and is involved in the procurement), then exclusion of a firm or individual on the basis of ITB 4.8 (a) above by any country may be applied to that procurement across other countries involved, if the Bank and the Borrowers involved in the procurement agree.

4.9 A Bidder shall provide such documentary 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 the Bank may have their origin in any country subject to the restrictions specified in Section V, Eligible Countries, and all expenditures under the Contract will not contravene such restrictions. At the Employer's request, Bidders may be required to provide evidence of the origin of materials, equipment and services.

**B. Contents of Bidding Document**

**6. Sections of Bidding Document**

6.1 The bidding document consists 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 Countries
- Section VI - Fraud and Corruption

**PART 2 Works' Requirements**

- Section VII - Works' Requirements

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

- Section VIII - General Conditions of Contract (GCC)
- Section IX - Particular Conditions of Contract (PCC)
- Section X - Contract Forms

6.2 The Specific Procurement Notice - Request for Bids (RFB) issued by the Employer is not part of this bidding document.

6.3 Unless obtained directly from the Employer or downloaded from the official website specified in the 'E-Procurement

---

Notice', the Employer is not responsible for the completeness of the bidding document, responses to requests for clarification, the minutes of the pre-Bid meeting (if any), or Addenda to the bidding document in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer or downloaded from the official website specified in the 'E-Procurement Notice' shall prevail.

6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the bidding document and to furnish with its Bid all information and documentation as is required by the bidding document.

**7. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting**

7.1 The electronic bidding system **specified in the BDS** provides for online clarifications. A Bidder requiring any clarification on the bidding document may notify the Employer online or raise its inquiries during the pre-Bid meeting if provided for in accordance with ITB 7.4. Clarifications requested through any other mode shall not be considered by the Employer. The Employer will respond to any request for clarification, provided that such request is received prior to the deadline for submission of Bids within a period **specified in the BDS**. Description of clarification sought and the response of the Employer shall be uploaded for information of all Bidders without identifying the source of request for clarification. Should the clarification result in changes to the essential elements of the bidding document, the Employer shall amend the bidding document following the procedure under ITB 8 and ITB 22.2. It is the bidder's responsibility to check on the e-procurement system, for any addendum/ amendment/ corrigendum to the bidding document.

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 and/or a Site of Works visit. 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 only through the e-procurement portal, not later than one week before the meeting. Clarifications requested through any other mode shall not be considered by the Employer.
- 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 uploaded online on e-procurement system. Any modification to the bidding document that may become necessary as a result of the pre-Bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-Bid meeting. It is the bidder's responsibility to check on the e-procurement system, for any addendum/ amendment/ corrigendum to the bidding document. Nonattendance at the pre-Bid meeting will not be a cause for disqualification of a Bidder.

## **8. Amendment of Bidding Document**

- 8.1 At any time prior to the deadline for submission of bids, the Employer may amend the bidding document by issuing addenda.
- 8.2 Any addendum issued shall be part of the bidding document and shall be deemed to have been communicated to all the bidders. The addenda will appear on the e-procurement system under "Latest Corrigendum", and Email notification is also automatically sent to those bidders who have started working on the tender, unless otherwise **specified in the BDS**. The Employer shall not be liable for any information not received by the bidder. It is the bidders' responsibility to verify the website for the latest information related to this bid.

- 8.3 To give prospective Bidders reasonable time in which to take an addendum into account in preparing their Bids, the Employer may, at its discretion, extend the deadline for the submission of Bids, pursuant to ITB 22.2.

### **C. Preparation of Bids**

- |   |  |
|---|--|
| <b>9. Cost of Bidding</b>                       | 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the Bidding process.  |
| <b>10. Language of Bid</b>                      | 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 English. 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 English, in which case, for purposes of interpretation of the Bid, such translation shall govern.  |
| <b>11. Documents<br/>Comprising the<br/>Bid</b> | <p>11.1 The Bid shall comprise two Parts, namely the Technical Part and the Financial Part. These two Parts shall be submitted simultaneously.</p> <p>11.2 The Technical Part shall contain the following:</p> <ul style="list-style-type: none"> <li>(a) <b>Letter of Bid– Technical Part</b> prepared in accordance with ITB 12 and ITB 14;</li> <li>(b) <b>Bid Security or Bid-Securing Declaration</b> in accordance with ITB 19.1;</li> <li>(c) <b>Alternative Bid – Technical Part</b>, if permissible, in accordance with ITB 13, the Technical Part of any Alternative Bid;</li> <li>(d) <b>Authorization:</b> written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.3, and in accordance with ITB 20.4 in case of a JV;</li> <li>(e) <b>Bidder’s Eligibility:</b> documentary evidence in accordance with ITB 17 establishing the Bidder’s eligibility to Bid;</li> </ul> |

- (f) **Qualifications:** documentary evidence in accordance with ITB 17 establishing the Bidder's qualifications to perform the contract if its Bid is accepted;
- (g) **Conformity:** a technical proposal in accordance with ITB 16;
- (h) **Construction methodology** as detailed in Para 1.1 of Section III Evaluation Criteria;
- (i) Contractor Registration certificate (as per RFB); and
- (j) any other document **required in the BDS.**

11.3 The **Financial Part** shall contain the following:

- (a) **Letter of Bid – Financial Part:** prepared in accordance with ITB 12 and ITB 14;
- (b) **Completed Schedules** including priced Bill of Quantities in accordance with ITB 12 and ITB 14, as **specified in BDS;**
- (c) **Alternative Bid - Financial Part:** if permissible in accordance with ITB 13; and
- (d) any other document required **in the BDS.**

11.4 The Technical Part shall not include any information related to the Bid price. Where material financial information related to the Bid price is contained in the Technical Part the Bid shall be declared non-responsive.

11.5 In addition to the requirements under ITB 11.2, Bids submitted by a JV (where permitted) 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.

11.6 The Bidder shall furnish in the Letter of Bid – Financial Part information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid.

## 12. Process of Bid Submission

12.1 The Letter of Bid – Technical Part, Letter of Bid – Financial Part, Schedules including Bill of Quantities, and all documents listed under Clause 11, 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 20.3. All blank spaces shall be filled in with the information requested.

12.2 Entire Bid including the Letters of Bid, Schedules and filled-up Bill of Quantities shall be submitted online on e-procurement system specified in ITB 7.1. Details and process of online submission of the tender and relevant documents are given in the website mentioned above. Scanned copies of documents listed in ITB Clauses 11 and 12.3 should also be uploaded on this website.

12.3 **Submission of Original Documents:** The bidders are required to separately submit (i) original payment documents towards the cost of bid document; and registration on e-procurement website (if applicable); (ii) original bid security or Bid-Securing Declaration in approved form; and (iii) original affidavit regarding correctness of information furnished with bid document, with the office **specified in the BDS**, before the Bid submission deadline, either by registered/speed post/courier or by hand, failing which the bids will be declared non-responsive and will not be opened. Hard copy of rest of the bid or any other document are not to be submitted.

### 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** and the method of evaluating different alternative times for completion will be described in Section III, Evaluation and Qualification Criteria.

13.3 Except as provided under ITB 13.4 below, Bidders wishing to offer technical alternatives to the requirements of the bidding document must first price the Employer's design as described in the bidding document and shall further provide all information necessary for a complete evaluation of the alternative by the Employer, including drawings, design calculations, technical specifications, breakdown of prices, and proposed construction methodology and other relevant details. Only the technical alternatives, if any, of the Bidder

with the Most Advantageous Bid conforming to the basic technical requirements shall be considered by the Employer.

- 13.4 When specified **in the BDS**, Bidders are permitted to submit alternative technical solutions for specified parts of the Works. Such parts will be identified **in the BDS** and described in Section VII, Works' Requirements. The method for their evaluation will be stipulated in Section III, Evaluation and Qualification Criteria.

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

- 14.1 The prices and discounts quoted by the Bidder in the Letter of Bid –Financial Part and in the Schedules including Bill of Quantities shall conform to the requirements specified below.
- 14.2 The Bidder shall submit a Bid for the whole of the Works described in ITB 1.1 by filling in prices for all items of the Works, as identified in Section IV - Bidding Forms along with the total bid price (both in figures and words). The Bidder shall fill in rates and prices for all items of the Works described in the Bill of Quantities. Items against which no rate or price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed covered by the rates for other items and prices in the Bill of Quantities. Corrections if any, in the bid can be carried out by editing the information before electronic submission on e-procurement portal.
- 14.3 The price to be quoted in the Letter of Bid – Financial Part, 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 indicate the methodology for their application in the Letter of Bid – Financial Part in accordance with ITB 12.1.
- 14.5 Unless otherwise **specified in the BDS** and the Conditions of Contract, the prices quoted by the Bidder shall be fixed.
- 14.6 If so specified in ITB 1.1, Bids are 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 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 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as of the deadline for submission of Bids, shall be included in the rates and prices and the total Bid price submitted by the Bidder.
- 14.8 Bidders may like to ascertain availability of tax/duty exemption benefits available in India. They are solely responsible for obtaining such benefits which they have considered in their bid and in case of failure to receive such benefits for reasons whatsoever, the Employer will not compensate the bidder (Contractor). The bidder shall furnish along with his bid a declaration to this effect in the Declaration Format provided in Section IV of the bidding document.

Where the bidder has quoted taking into account such benefits, it must give all information required for issue of certificates in terms of the Government of India's relevant Notifications as per the declaration format. In case the bidder has not provided the required information or has indicated to be furnished later on in the Declaration Format, the same shall be construed that the goods/construction equipment for which certificate is required is Nil.

To the extent the Employer determines the quantities indicated therein are reasonable keeping in view the quantities in bill of quantities, construction program and methodology, the certificates will be issued within 60 days of signing of the contract and no subsequent changes will be permitted. In case of materials pertaining to Variation items and quantities, the certificate shall be issued only on request from the Contractor when in need and duly certified by the Project Manager.

No certificate will be issued for items where no quantity/capacity of equipment is indicated in the statement.

If the bidder has considered the tax/duty exemption for materials/construction equipment to be bought for the work, the bidder shall confirm and certify that the Employer will not be required to undertake any responsibilities of the Government of India Scheme or the said exemptions being available during the contract execution, except issuing the

required certificate. The bids which do not conform to the above provisions or any condition by the bidder which makes the bid subject to availability of tax/duty exemption for materials/construction equipment or compensation on withdrawal of any variations to the said exemptions will be treated as non-responsive and rejected.

Any delay in procurement of the construction equipment/machinery/goods as a result of the above shall not be a cause for granting any extension of time.

- |  |  |
|--|--|
| <b>15. Currencies of Bid and Payment</b>   | 15.1 The unit rates and prices shall be quoted by the Bidder and shall be paid for, entirely in Indian Rupees.   |
| <b>16. Documents Comprising the Technical Proposal</b>                             | 16.1 The Bidder shall furnish a technical proposal in the Technical Part of the Bid, including a statement of work methods, equipment, personnel, schedule and any other information as stipulated in Section IV, Bidding Forms, in sufficient detail to demonstrate the adequacy of the Bidders' proposal to meet the work's requirements and the completion time.  |
| <b>17. Documents Establishing the Eligibility and Qualifications of the Bidder</b> | <p>17.1 To establish Bidder's eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid – Technical Part, included in Section IV, Bidding Forms.</p> <p>17.2 In accordance with Section III, Evaluation and Qualification Criteria, to establish its qualifications to perform the Contract, the Bidder shall provide the information requested in the corresponding information sheets included in Section IV, Bidding Forms.</p>  |
| <b>18. Period of Validity of Bids</b>  | <p>18.1 Bids shall remain valid for 90 days or for the Bid Validity period <b>specified in the BDS</b>. The Bid Validity period starts from the date fixed for the Bid submission deadline (as prescribed by the Employer in accordance with ITB 22.1). A Bid valid for a shorter period shall be rejected by the Employer as nonresponsive.</p> <p>18.2 In exceptional circumstances, prior to the expiration of the Bid validity period, the Employer may request Bidders to extend the period of validity of their Bids. The request and the responses shall be made in writing. If a Bid Security is requested in accordance with ITB 19, it shall also be extended for forty-five (45) days beyond the deadline of the extended validity period. A Bidder may refuse the request without forfeiting its Bid Security. A Bidder granting the</p> |

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 period, 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, no adjustment shall be made; or
- (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 the Technical Part of its Bid, either a Bid-Securing Declaration or a Bid Security as **specified in the BDS**, in original form and, in the case of a Bid security, for the amount **specified in the BDS**.

19.2 A Bid Securing Declaration shall use the form included in Section IV, Bidding Forms.

19.3 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security shall be a demand guarantee in any of the following forms at the Bidder's option:

- (a) an unconditional bank guarantee issued by a Nationalized or Scheduled bank located in India;
- (b) an irrevocable letter of credit issued by a Nationalized or Scheduled bank located in India;
- (c) a cashier's or certified check or demand draft issued by a Nationalized or Scheduled bank located in India;
- (d) another security **specified in the BDS**,

In the case of a bank guarantee, the Bid Security shall be submitted using the Bid Security Form included in Section IV, Bidding Forms. The form must include the complete name of the Bidder. The Bid Security shall be valid for forty-five (45) days beyond the original validity period of the Bid, or beyond any period of extension if requested under ITB 18.2.



- 
- 19.4 If a Bid Security or Bid Securing Declaration is specified pursuant to ITB 19.1, any Bid not accompanied by a substantially responsive Bid Security or Bid Securing Declaration shall be rejected by the Employer as non-responsive.
- 19.5 If a Bid Security is specified pursuant to ITB 19.1, the Bid Security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's signing the Contract and furnishing the Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security pursuant to ITB 50.
- 19.6 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 and if required in the BDS, the Environmental and Social (ES) Performance Security.
- 19.7 The Bid Security may be forfeited or the Bid-Securing Declaration executed:
- (a) if a Bidder withdraws/modifies/substitutes its Bid during the period of Bid validity specified by the Bidder on the Letter of Bid - Technical Part and repeated in Letter of Bid - Financial Part, or any extension thereto provided by the Bidder; or
  - (b) if the Bidder does not accept the correction of its Bid Price pursuant to ITB 36; or
  - (c) if the successful Bidder fails to:
    - (i) sign the Contract in accordance with ITB 49; or
    - (ii) furnish a Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 50.
- 19.8 The Bid Security or the Bid-Securing Declaration of a JV shall be in the name of the JV that submits the Bid. If the JV has not been constituted into a legally enforceable JV, at the time of Bidding, the Bid Security or the Bid-Securing Declaration shall be in the names of all future members as named in the letter of intent mentioned in ITB 4.1 and ITB 11.2.

19.9 If a Bid Security is not required in the BDS, pursuant to ITB 19.1, and:

- (a) if a Bidder withdraws its Bid during the period of Bid validity specified by the Bidder in the Letters of Bid or any extended date provided by the Bidder; or
- (b) if the successful Bidder fails to: sign the Contract in accordance with ITB 49; or furnish a Performance Security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB 50;

the Borrower may, if provided for **in the BDS**, declare the Bidder ineligible to be awarded a contract by the Employer for a period of time as **stated in the BDS**.

## 20. Format and Signing of Bid

- 20.1 The Bidder shall prepare the Bid as per details given in ITB 21.
- 20.2 Bidders shall mark as “CONFIDENTIAL” information in their Bids which is confidential to their business.
- 20.3 The Bid 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 uploaded along with the Bid. The name and position held by each person signing the authorization must be typed or printed below the signature.
- 20.4 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. Documents establishing authority to sign the bid on behalf of the JV shall be uploaded along with the bid.
- 20.5 Any interlineations, erasures, or overwriting shall be valid only if they are signed or initialed by the person signing the Bid.

## D. Online Submission and Opening of Bids

## 21. Preparation of Bids

- 21.1 Bids, both Technical and Financial Parts, shall be submitted online on the e-procurement system specified in BDS 7.1. Detailed guidelines for viewing bids and submission of online bids are given on the website. The Request for Bids

under this Project is published on this website. Any citizen or prospective bidder can logon to this website and view the Request for Bids and can view the details of works for which bids are invited. A prospective bidder can submit its bid online; however, the bidder is required to have enrolment/registration in the website, and should have valid Digital Signature Certificate (DSC) in the form of smart card/e-token obtained from any certifying agency authorised by the Government of India (for class of DSC **specified in BDS**). The bidder should register in the website using the relevant option available. Then the Digital Signature registration has to be done with the e-token, after logging into the website. The bidder can then login the website through the secured login by entering the password of the e-token & the user id/ password chosen during registration. After getting the bid schedules, the Bidder should go through them carefully and submit the specified documents, along with the bid, otherwise the bid will be rejected.

- 21.2 The completed bid comprising of documents indicated in ITB 12, should be uploaded on the e-procurement portal along with scanned copies of requisite certificates as are mentioned in different sections in the bidding document and scanned copy of the bid security.
- 21.3 All the documents are required to be signed digitally by the bidder. After electronic online bid submission, the system generates a unique bid identification number which is time stamped as per server time. This shall be treated as acknowledgement of bid submission.
- 21.4 Physical, e-mail, Telex, Cable or Facsimile bids will be rejected as non-responsive.

## **22. Deadline for Submission of Bids**

- 22.1 Bids, both Technical and Financial Parts, must be uploaded online 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 document in accordance with ITB 8, in which case all rights and obligations of the Employer and Bidders previously subject to the deadline shall thereafter be subject to the deadline as extended.

- 23. Late Bids** 23.1 The electronic bidding system would not allow any late submission of bids after due date & time as per server time.
- 24. Withdrawal, Substitution, and Modification of Bids** 24.1 Bidders may modify their bids by using the appropriate option for bid modification on e-procurement portal, before the deadline for submission of bids. For this the bidder need not make any additional payment towards the cost of bid document. For bid modification and consequential re-submission, the bidder is not required to withdraw his bid submitted earlier. The last modified bid submitted by the bidder within the bid submission time shall be considered as the bid. For this purpose, modification/withdrawal by other means will not be accepted. In online system of bid submission, the modification and consequential re-submission of bids is allowed any number of times. A bidder may withdraw his bid by using the appropriate option for bid withdrawal, before the deadline for submission of bids, however, if the bid is withdrawn, re-submission of the bid is not allowed (or allowed **if specified in BDS**).
- 24.2 Bids requested to be withdrawn in accordance with ITB 24.1 shall not be opened.
- 24.3 No Bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of Bids and the expiration of the period of Bid validity specified by the Bidder on the Letter of Bid or any extension thereof. This will result in the forfeiture of the Bid Security pursuant to ITB 19.7.

#### **E. Public Opening of Technical Parts of Bids**

- 25. Public Opening of Technical Parts of Bids** 25.1 The Employer shall publicly open Technical Parts of all 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 chooses to attend, and this could also be viewed by the bidders online. The Financial Parts of the bids shall remain unopened in the e-procurement system, until the subsequent public opening, following the evaluation of the Technical Parts of the Bids. In all cases, original documents submitted as specified in ITB 12.3 shall be first scrutinized, and Bids that do not comply with the provisions of ITB 12.3 will be declared non-responsive and will not be opened. Thereafter, bidders' names, the presence or absence of a Bid Security or Bid Securing Declaration, if one was required, alternative bids – technical parts, if any,

and such other details as the Employer may consider appropriate will be notified, online by the Employer at the time of bid opening.

In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

- 25.2 The electronic summary of the bid opening will be generated and uploaded online. The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. Only Technical Parts of Bids, and technical parts of Alternative Bids if any, that are opened at technical Bid opening shall be considered further for evaluation.

## **F. Evaluation of Bids – General Provisions**

### **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 Intention to Award the Contract is transmitted to all Bidders in accordance with ITB 45. In cases where ITB 45 is not applicable, such information shall not be disclosed until Notification of Award is transmitted in accordance with ITB 47.
- 26.2 Any effort 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 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, including any voluntary increase or decrease in the prices or substance of the Bid shall be sought, offered, or permitted, except to confirm the

correction of arithmetic errors discovered by the Employer in the evaluation of the Bids, in accordance with ITB 36.

27.2 If a Bidder does not provide clarifications of its Bid by the date and time set in the Employer's request for clarification, its Bid may be rejected.

## **28. Deviations, Reservations, and Omissions**

28.1 During the evaluation of Bids, the following definitions apply:

- (a) "Deviation" is a departure from the requirements specified in the bidding document;
- (b) "Reservation" is the setting of limiting conditions or withholding from complete acceptance of the requirements specified in the bidding document; and
- (c) "Omission" is the failure to submit part or all of the information or documentation required in the bidding document.

## **29. Nonmaterial Nonconformities**

29.1 Provided that a Bid is substantially responsive, the Employer may waive any nonconformities in the Bid which do not constitute a material deviation, reservation or omission.

29.2 Provided that a Bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the Bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price or substance of the Bid. Failure of the Bidder to comply with the request may result in the rejection of its Bid.

29.3 Provided that a Bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price shall be adjusted, for comparison purposes only, to reflect the price of a missing or nonconforming item or component in the manner **specified in the BDS**.

## **G. Evaluation of Technical Parts of Bids**

## **30. Evaluation of Technical Parts**

30.1 In evaluating the Technical Parts of each Bid, the Employer shall use the criteria and methodologies listed in this ITB and

Section III, Evaluation and Qualification Criteria. No other evaluation criteria or methodologies shall be permitted.

**31. Determination of Responsiveness**

- 31.1 The Employer's determination of a Bid's responsiveness is to be based on the contents of the Bid itself, as defined in ITB 11.
- 31.2 A substantially responsive Bid is one that meets the requirements of the bidding document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that:
- (a) if accepted, would:
    - (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or
    - (ii) limit in any substantial way, inconsistent with the bidding document, the Employer's rights or the Bidder's obligations under the proposed Contract; or
  - (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive Bids.
- 31.3 The Employer shall examine the technical aspects of the Bid submitted in accordance with ITB 16, in particular, to confirm that all requirements of Section VII, Works' Requirements have been met without any material deviation, reservation or omission.
- 31.4 If a Bid is not substantially responsive to the requirements of the bidding document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

**32. Qualification of the Bidder**

- 32.1 The Employer shall determine to its satisfaction whether the eligible Bidders that have submitted substantially responsive Bid - Technical Parts meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria.
- 32.2 The determination shall be based upon an examination of the documentary evidence of the Bidder's qualifications submitted by the Bidder, pursuant to ITB 17. The determination shall not take into consideration the qualifications of other firms such as the Bidder's

subsidiaries, parent entities, affiliates, subcontractors (other than Specialized Subcontractors if permitted in the bidding document), or any other firm different from the Bidder.

32.3 If a Bidder does not meet the qualifying criteria specified in Section III, Evaluation and Qualification Criteria, its Bid shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviation, reservation, or omission.

32.4 Only Bids that are both substantially responsive to the bidding document, and meet all Qualification Criteria shall have the Financial Parts of their Bids opened at the second public opening.

### 33. Subcontractors

33.1 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.

33.2 The subcontractor's qualifications shall not be used by the Bidder to qualify for the Works unless their specialized parts of the Works were previously designated by the Employer **in the BDS** as can be met by subcontractors referred to hereafter as 'Specialized Subcontractors', in which case, the qualifications of the Specialized Subcontractors proposed by the Bidder may be added to the qualifications.

33.3 Bidders may propose subcontracting up to the percentage of total value of contracts or the volume of works as **specified in the BDS**. Subcontractors proposed by the Bidder shall be fully qualified for their parts of the Works.

### H. Public Opening of Financial Parts of Bids

### 34. Public Opening of Financial Parts

34.1 Following the completion of the evaluation of the Technical Parts of the Bids, and the Bank has issued its no objection (if applicable), the Employer shall notify in writing those Bidders whose Bids were considered non-responsive to the bidding document or failed to meet the Qualification Criteria, advising them of the following information:

- (a) the grounds on which their Technical Part of Bid failed to meet the requirements of the bidding document;
- (b) their Financial Part of Bid shall not be opened; and



- (c) notify them of the date, time, and location for public opening of Financial Parts of the Bids.

34.2 The Employer shall, simultaneously, notify in writing those Bidders whose Technical Part have been evaluated as substantially responsive to the bidding document and met all Qualifying Criteria, advising them of the following information:

- (a) their Bid has been evaluated as substantially responsive to the bidding document and met the Qualification Criteria;

- (b) their Financial Part of Bid will be opened at the public opening of the Financial Parts; and

- (c) notify them of the date, time and location for public opening of the Financial Parts of the Bids, **as specified in the BDS.**

34.3 The opening date should allow Bidders sufficient time to make arrangements for attending the opening. The Financial Part of the Bids shall be opened publicly in the presence of Bidders designated representatives and anyone who chooses to attend, and this could also be viewed by the bidders online. The bidder's names, the Bid prices, per lot (contract) if applicable, including any discounts and Alternative Bid - Financial Part if any, and such other details as the Employer may consider appropriate, will be notified online by the Employer at the time of bid opening.

In the event of the specified date of bid opening being declared a holiday for the Employer, the bids will be opened at the appointed time and location on the next working day.

34.4 The electronic summary of the bid opening will be generated and uploaded online. The Employer will also prepare minutes of the Bid opening, including the information disclosed and upload the same for viewing online. Only Financial Parts of Bids, Financial Parts of Alternative Bids, and discounts that are opened at Bid opening shall be considered further for evaluation.

## **I. Evaluation of Financial Parts of Bids**

### **35. Evaluation of Financial Parts**

35.1 To evaluate the Financial Part, the Employer shall consider the following:

- (a) the Bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities for admeasurement contracts, but including Daywork<sup>1</sup> items, where priced competitively;
- (b) price adjustment for correction of arithmetic errors in accordance with ITB 36.1;
- (c) price adjustment due to discounts offered in accordance with ITB 14.4;
- (d) Not used;
- (e) price adjustment due to quantifiable nonmaterial nonconformities in accordance with ITB 29.3; and
- (f) the additional evaluation factors are specified in Section III, Evaluation and Qualification Criteria.

35.2 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.

35.3 If this bidding document allows Bidders to quote separate prices for different lots (contracts), the methodology to determine the lowest evaluated cost of the contract combinations, including any discounts offered in the Letter of Bid – Financial Part, is specified in Section III, Evaluation and Qualification Criteria

### **36. Correction of Arithmetical Errors**

- 36.1 In evaluating the Financial Part of each Bid, the Employer shall correct arithmetical errors on the following basis:
- (a) only for admeasurement contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected;

---

<sup>1</sup> Daywork is work carried out following instructions of the Project Manager and paid for on the basis of time spent by workers, and the use of materials and the Contractor's equipment, at the rates quoted in the Bid. For Daywork to be priced competitively for Bid evaluation purposes, the Employer must list tentative quantities for individual items to be costed against Daywork (e.g., a specific number of tractor driver staff-days, or a specific tonnage of Portland cement), to be multiplied by the Bidders quoted rates and included in the total Bid price.

(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.

36.2 Bidders shall be requested to accept correction of arithmetical errors. Failure to accept the correction in accordance with ITB 36.1, shall result in the rejection of the Bid and the Bid Security may be forfeited in accordance with ITB Sub-Clause 19.7.

**37. Conversion to Single Currency**

37.1 Not used.

**38. Margin of Preference**

38.1 Not applicable.

**39. Comparison of Financial Parts**

39.1 The Employer shall compare the evaluated costs of all responsive and qualified Bids to determine the Bid that has the lowest evaluated cost.

**40. Abnormally Low Bids**

40.1 An Abnormally Low Bid is one where the Bid price, in combination with other constituent elements of the Bid, appears unreasonably low to the extent that the Bid price raises material concerns as to the capability of the Bidder to perform the Contract for the offered Bid price.

40.2 In the event of identification of a potentially Abnormally Low Bid, the Employer, unless otherwise **specified in the BDS**, shall seek written clarifications from the Bidder, including detailed price analyses of its Bid price in relation to the subject matter of the contract, scope, proposed methodology, schedule, allocation of risks and responsibilities and any other requirements of the bidding document.

40.3 After evaluation of the price analyses, in the event that the Employer determines that the Bidder has failed to demonstrate its capability to perform the Contract for the offered Bid Price, the Employer shall reject the Bid.

- |  |  |
|--|--|
| <b>41. Unbalanced or Front-Loaded Bids</b>                                   | <p>41.1 If the Bid for an admeasurement contract, which results in the lowest evaluated cost is, in the Employer's opinion, seriously unbalanced or, front-loaded, the Employer may require the Bidder to provide written clarifications. Clarifications may include detailed price analyses (with breakdown of unit rates) to demonstrate the consistency of the Bid prices with the scope of works, proposed methodology, schedule and any other requirements of the bidding document.</p> <p>41.2 After the evaluation of the information and detailed price analysis presented by the Bidder, the Employer may as appropriate:</p> <ul style="list-style-type: none"> <li>(a) accept the Bid without any additional Performance Security; or</li> <li>(b) require that the amount of the Performance Security be increased at the expense of the Bidder to a level not exceeding twenty percent (20%) of the Contract Price to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract; or</li> <li>(c) reject the Bid if the risk cannot be mitigated through additional performance security.</li> </ul> |
| <b>42. Most Advantageous Bid</b>   | <p>42.1 Having compared the evaluated costs of Bids, the Employer shall determine the Most Advantageous Bid. The Most Advantageous Bid is the Bid of the Bidder that meets the Qualification Criteria and whose Bid has been determined to be:</p> <ul style="list-style-type: none"> <li>(a) substantially responsive to the bidding document; and</li> <li>(b) the lowest evaluated cost.</li> </ul>   |
| <b>43. Employer's Right to Accept Any Bid, and to Reject Any or All Bids</b> | <p>43.1 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 documents submitted and specifically, bid securities, shall be promptly returned to the Bidders.</p>  |
| <b>44. Standstill Period</b>   | <p>44.1 Standstill Period shall not apply.</p>   |

**45. Notice of  
Intention to  
Award**

45.1 Not used.

**J. Award of Contract**

**46. Award Criteria**

46.1 Subject to ITB 43, the Employer shall award the Contract to the successful Bidder. This is the Bidder whose Bid has been determined to be the Most Advantageous Bid as specified in ITB 42.

**47. Notification of  
Award**

47.1 Prior to the expiration of the Bid Validity Period, the Employer shall transmit the Letter of Acceptance to the successful Bidder. The Letter of Acceptance shall specify the sum that the Employer will pay the Contractor in consideration of the execution of the contract (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”).

47.2 Within ten (10) Business Days after the date of transmission of the Letter of Acceptance, the Employer shall publish the Contract Award Notice which shall contain, at a minimum, the following information:

- (a) name and address of the Employer;
- (b) name and reference number of the contract being awarded, and the selection method used;
- (c) names of all Bidders that submitted Bids, and their Bid prices as read out at Bid opening, and as evaluated;
- (d) names of all Bidders whose Bids were rejected either as nonresponsive or as not meeting qualification criteria, or were not evaluated, with the reasons therefor; and
- (e) the name of the successful Bidder, the final total contract price, the contract duration and a summary of its scope.

47.3 The Contract Award Notice shall be published on Assam Tender website (<https://assamtenders.gov.in/nicgep/app>) or on the Employer’s website, and on the e-procurement system.

- 
- 47.4 Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract.
- 48. Debriefing by the Employer**
- 48.1 Not used.
- 49. Signing of Contract**
- 49.1 Promptly upon Notification of Award, the Employer shall prepare the Contract Agreement, and keep it ready in the office of the Employer for the signature of the Employer and the successful Bidder, within 21 days following the date of Letter of Acceptance. The Contract Agreement shall incorporate all agreements between the Employer and the successful Bidder.
- 49.2 Within twenty-one (21) days of receipt of the Letter of Acceptance, the successful Bidder shall (a) furnish the performance security and if required in the BDS, the Environmental and Social (ES) Performance Security in accordance with ITB Clause 50 and revised construction methodology; (b) if the successful bidder is a JV, it shall also furnish the JV agreement duly signed by all the members, if it had submitted only a letter of intent to execute the JV agreement along with the bid; and (c) shall sign, date and return the Agreement to the Employer along with the documents stated at (a) and (b) above.
- 50. Performance Security**
- 50.1 Within twenty-one (21) days of the receipt of the Letter of Acceptance from the Employer, the successful Bidder shall furnish the Performance Security and the Environmental and Social (ES) Performance Security in accordance with the General Conditions of Contract, subject to ITB 41.2 (b), using for that purpose the Performance Security and ES Performance Security Forms included in Section X, Contract Forms. The performance security and the Environmental and Social (ES) Performance Security of a Joint Venture shall be in the name of the Joint Venture specifying the names of all members.
- 50.2 Failure of the successful Bidder to submit the above-mentioned Performance Security and the Environmental and Social (ES) Performance Security or to sign the Contract Agreement 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 Bidder offering the next Most Advantageous Bid.

---

50.3 Upon the successful Bidder's signing the Agreement and furnishing of the Performance Security and the Environmental and Social (ES) Performance Security pursuant to ITB Clause 50.1, the Employer shall promptly notify the name of the winning bidder to each unsuccessful bidder and shall discharge the Bid Securities of the bidders pursuant to ITB Clause 19.5 and 19.6.

## **51. Adjudicator**

51.1 The Employer proposes the person **named in the BDS** to be appointed as Adjudicator under the Contract, at the daily fee **specified in the BDS**, plus reimbursable expenses (actual boarding, lodging, travel and other incidental expenses). If the Bidder disagrees with this proposal, the Bidder should so state in his Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority designated in the Particular Conditions of Contract (PCC) pursuant to Clause 23.1 of the General Conditions of Contract (GCC), to appoint the Adjudicator.

## Section II - Bid Data Sheet (BDS)

The following specific data for the Works to be procured shall complement, supplement, or amend the provisions in the Instructions to Bidders (ITB). Whenever there is a conflict, the provisions herein shall prevail over those in ITB.

ITB Reference	<b>A. General</b>				
<b>ITB 1.1</b>	<p>The number of the Request for Bids is: IN-AHIDMS-530159-CW-RFB</p> <p>The Employer is: Project Director, Assam Health Infrastructure Development and Management Society (AHIDMS), Government of Assam</p> <p>The name of the RFB is as below:</p> <table border="1" data-bbox="423 772 1373 1014"> <thead> <tr> <th data-bbox="423 772 594 852">Package No</th><th data-bbox="594 772 1373 852">Name of Work</th></tr> </thead> <tbody> <tr> <td data-bbox="423 852 594 1014" style="text-align: center;">I</td><td data-bbox="594 852 1373 1014"><i>Repair and renovation works in Hojai Civil Hospital, Hojai, Assam and Nagaon Medical College &amp; Hospital, Nagaon, Assam under ASSIST project</i></td></tr> </tbody> </table>	Package No	Name of Work	I	<i>Repair and renovation works in Hojai Civil Hospital, Hojai, Assam and Nagaon Medical College &amp; Hospital, Nagaon, Assam under ASSIST project</i>
Package No	Name of Work				
I	<i>Repair and renovation works in Hojai Civil Hospital, Hojai, Assam and Nagaon Medical College &amp; Hospital, Nagaon, Assam under ASSIST project</i>				
<b>ITB 1.2</b>	The Employer shall use the e-procurement system specified in BDS 7.1.				
<b>ITB 2.1</b>	<p>The Borrower is: Government of India. The sub-Borrower is Government of Assam</p> <p>The Employer is: Project Director, AHIDMS</p> <p>Loan or Financing Agreement amount of ASSIST is: \$251.03 million</p> <p>The name of the Project is: <b>Assam State Secondary Healthcare Initiative for Service Delivery Transformation (ASSIST) project</b></p>				
<b>ITB 4.1</b>	<b>JV is Not allowed</b>				
<b>ITB 4.5</b>	A list of debarred firms and individuals is available on the Bank's external website: <a data-bbox="667 1514 1143 1545" href="http://www.worldbank.org/debarr.">http://www.worldbank.org/debarr.</a>				
<b>ITB 4.7</b>	Deleted.				
<b>B. Contents of Bidding Document</b>					
<b>ITB 7.1</b>	<p>Electronic – Procurement System</p> <p>The Employer shall use the following electronic-procurement system to manage this Bidding process:</p>				



	<p><i>eProcurement System Government of Assam:</i>  <a href="https://assamtenders.gov.in/nicgep/app">https://assamtenders.gov.in/nicgep/app</a></p> <p>Requests for clarification should be received by the Employer no later than: 14/01/2026</p> <p>For clarification of bid purposes only: Project Director, Assam Health Infrastructure Development and Management Society (AHIDMS),</p> <p><b><i>The employer address is: Assam Health Infrastructure Development &amp; Management Society (AHIDMS), 4th floor, Nayantara Supermarket Complex, Six Mile, Khanapara, Guwahati, Assam, 781006,</i></b>  <b><i>Phone: 03613501033,</i></b>  <b><i>Email: <a href="mailto:pmu.ahidms@gmail.com">pmu.ahidms@gmail.com</a></i></b></p>
<b>ITB 7.4</b>	<p>A Pre-Bid meeting “shall” take place at Assam Health Infrastructure Development &amp; Management Society, Dept. of Medical Education &amp; Research, GOA, 4th floor, Nayantara Supermarket Complex, Six Mile, Khanapara, Guwahati, Assam.</p> <p>Date: 15/01/2026</p> <p>Time: 3 PM</p> <p>Place: Office of the Project director, AHIDMS  Nayantara Building, 4<sup>th</sup> floor, Sixmile, Guwahati-21</p>
<b>C. Preparation of Bids</b>	
<b>ITB 11.2</b>	<p>The following schedule s shall be submitted with the bid:</p> <ol style="list-style-type: none"> <li>a) <b>Letter of Bid</b> prepared in accordance with ITB 12 and ITB 14;</li> <li>b) Completed Schedules including priced Bill of Quantities, in accordance with ITB 12 and ITB 14, as specified in BDS; 40</li> <li>c) <b>Bid Security</b></li> <li>d) <b>Authorization:</b> written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.3, and in accordance with ITB 20.4 in case of a JV;</li> <li>e) <b>Bidder’s Eligibility:</b> documentary evidence in accordance with ITB 17 establishing the Bidder’s eligibility to Bid;</li> <li>f) <b>Qualifications:</b> documentary evidence in accordance with ITB 17 establishing the Bidder’s qualifications to perform the contract if its Bid is accepted;</li> <li>g) <b>Conformity:</b> a technical proposal in accordance with ITB 16;</li> <li>h) <b>Construction methodology</b> as detailed in Para 1.1 of Section III Evaluation Criteria;</li> <li>i) <b>Contractor Registration certificate</b> (as per RFB); and</li> </ol>

	<p>j) <b>GST</b> k) <b>PAN Card</b></p>
<b>ITB 11.2 (j)</b>	<p>The Bidder shall submit the following additional documents in its Bid:</p> <ul style="list-style-type: none"> <li>i. Contractor Registration certificate on e-procurement system as per RFB if applicable</li> <li>ii. <b>Code of Conduct for Contractor's Personnel (ES)</b> The Bidder shall submit its Code of Conduct that will apply to Contractor's Personnel (as defined in Sub-Clause 1 (ii) of the General Conditions of Contract), to ensure compliance with the Contractor's Environmental and Social (ES) obligations under the Contract. The Bidder shall use for this purpose the Code of Conduct form provided in Section IV. No substantial modifications shall be made to this form, except that the Bidder may introduce additional requirements, including as necessary to take into account specific Contract issues/risks.</li> <li>iii. <b>Management Strategies and Implementation Plans (MSIP) to manage the Environment and Social (ES) risks</b> The Bidder shall submit Management Strategies and Implementation Plans (MSIPs) to manage the following key Environmental and Social (ES) risks that will apply to its employees and subcontractors, to ensure compliance with its Environmental, and social obligations including compliance with applicable Laws/ Rules/ Regulations for protection of environment, public health and safety, regulatory compliances and the applicable parts of the Environment Management Plan, of the project under the contract</li> <li>iv. Letter of agreement for sub-contractor, (details shall include percentage of works for sub-contracting) if applicable</li> </ul>
<b>ITB 11.3 (d)</b>	<p>Not Applicable.</p> <p><b>Important:</b> The Financial Bid Submission Form must be filled up and submitted /uploaded on the e-procurement portal (<a href="http://www.assamtenders.gov.in">www.assamtenders.gov.in</a>) with the BOQ. The Financial Bid Submission Form shall be the part of Commercial Bid and if the bidder fails to submit Financial Bid Submission Form, the bid shall be deemed non-responsive.</p>
<b>ITB 12</b>	<p><b>Note for Bidders:</b> Bidders have to submit the bids on the e-procurement portal along with the relevant required documents. For this purpose, the bidders shall fill up online, the forms that are available for online filling on the e-portal. The rest of the forms shall be downloaded by the bidders and filled up. The filled-up pages shall</p>

	then be scanned and uploaded on the e- procurement portal along with the scanned copies of the supporting documents.
<b>ITB 12.3</b>	For submission of original documents, the Employer's address is: Attention: Project Director, AHIDMS Address: Office of the AHIDMS Nayantara Building, 4 <sup>th</sup> Floor, Sixmile, Guwahati, Kamrup Metropolitan District Pin-781021 State: Assam Email- <a href="mailto:pmu.ahidms@gmail.com">pmu.ahidms@gmail.com</a>
<b>ITB 13.1</b>	Alternative Bids <i>shall not be</i> permitted.
<b>ITB 13.2</b>	Alternative times for completion <i>shall not be</i> permitted.
<b>ITB 13.3</b>	Not Applicable
<b>ITB 13.4</b>	Not Applicable
<b>ITB 14.5</b>	The prices quoted by the Bidder " <i>shall not be</i> " subject to adjustment during the performance of the Contract.
<b>ITB 18.1</b>	The Bid validity period shall be 150 days.
<b>ITB 18.3 (a)</b>	Not applicable
<b>ITB 19.1</b>	A Bid Security Shall be required. The Bid Security amount is Rs. 33,32,000/-
<b>ITB 19.3 (d)</b>	<p>Bid Security may either be remitted through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019OR submitted through any of following mode:</p> <p>Bank Guarantee/ Fixed Deposit/Term Deposit certificate issued by a Nationalized or Scheduled Bank located in India for equivalent or higher values are acceptable provided it is pledged in favour of Assam Health Infrastructure Development and Management Society (AHIDMS) (implementing agency) and such pledging has been noted and suitably endorsed by the bank issuing the certificate.</p> <p>In case bidder(s) opt to submit bid security in the form of Bank Guarantee/ Fixed Deposit/Time Deposit certificate, please comply the following instructions:</p> <p>a. Bidder has to submit the ORIGINAL Bank Guarantee/ Fixed Deposit/Term Deposit certificate before the bid submission end</p>

	<p>date &amp; time, failing to which bid of the bidder shall be rejected outrightly and bid shall not be opened.</p> <p>b. Only to accommodate the submission of Bank Guarantee/ Fixed Deposit/Term Deposit certificate, Option of “BID SECURITY/EMD EXEMPTION” provision is enabled in the e-procurement portal. Bidder has to select/click the 100% exemption option to proceed further for submission of bid. The scanned copy of Bank Guarantee/ Fixed Deposit/Time Deposit certificate needs to be submitted under Technical Folder along with other qualification documents.</p> <p>c. Bidder to note that there is otherwise no BID SECURITY/EMD EXEMPTION for any bidder whatsoever. This option is only enabled to submit Bank Guarantee/ Fixed Deposit/Term Deposit certificate as bid security. Bidder who does not submit the ORIGINAL Bank Guarantee/ Fixed Deposit/Term Deposit certificate before the bid submission end date &amp; time, bid of the bidder shall be rejected outrightly even if scanned copy of Bank Guarantee/ Fixed Deposit/Term Deposit certificate submitted under Technical Folder along with other qualification documents.</p> <p>d. In case bidder(s) opt to submit bid security in the form of Bank Guarantee, the following bank details of AHIDM Society may be used while obtaining Bank Guarantee:</p> <p>Account Name -Assam Health Infra Development &amp;Mgt Society World Bank ASSIST Project Account</p> <p>Number- 245601002420 IFSC - ICIC0002456</p> <p>Bank Name- ICICI Bank Ltd.</p> <p>Branch Name- Downtown, Guwahati</p> <p>(Bidder should note that this Bank Account should not be used for remitting cost for bid document or for Bid Security may remitted through net banking or RTGS/NEFT as per office memorandum no.FEB.269/2017/27 Dtd.21/08/2019 OR. The abovementioned account details only be used while obtaining Bank Guarantee.).</p>
<b>ITB 19.9</b>	Deleted.
<b>ITB 20.3</b>	The written confirmation of authorization to sign on behalf of the Bidder shall consist of: Legally valid Power of Attorney is required to demonstrate the authority of the signatory to sign the Bid.
<b>D. Online Submission and Opening of Bids</b>	
<b>ITB 21.1</b>	Class of DSC required is: III

<b>ITB 22.1</b>	The deadline for uploading the Bids is as follows: <b>Date: 07.02.2026</b> <b>Time:1400 hours</b>
<b>ITB 24.1</b>	Re-submission of the bid is <b><i>“not allowed”</i></b> if withdrawn.
<b>E. Public Opening of Technical Parts of Bids</b>	
<b>ITB 25.1</b>	The Bid opening of Technical Parts of Bids will open online only in the e-procurement portal i.e. <a href="https://assamtenders.gov.in">https://assamtenders.gov.in</a> <b>Date: 07.02.2026</b> <b>Time:1500 hours</b> <i>Office of the Project Director, AHIDMS</i> <i>Nayantara Building, Sixmile, Guwahati-21</i>
<b>F. Evaluation of Bids – General Provisions</b>	
<b>ITB 29.3</b>	Deleted.
<b>G. Evaluation of Bids - Technical Parts</b>	
<b>ITB 33.1</b>	At this time the Employer <b><i>“does not intend”</i></b> to execute certain specific parts of the Works by subcontractors selected in advance.
<b>ITB 33.2</b>	<i>Not Applicable.</i>
<b>ITB 33.3</b>	<i>Upto 10%</i>
<b>H. Public Opening of Financial Parts</b>	
<b>ITB 34.2 (c)</b>	Following the completion of the evaluation of the Technical Parts of the Bids, the Employer will notify all Bidders of the location, date and time of the public opening of Financial Parts.  In addition to the above the Employer shall publish a notice of the public opening of the Financial Parts of the Bid on its website <a href="http://www.assamtenders.gov.in">http://www.assamtenders.gov.in</a>
<b>I. Evaluation of Bids - Financial Parts</b>	
<b>ITB 35</b>	Provision for contingency: INR 49.98 Lakh
<b>ITB 40.2</b>	Bid Price quoted by the Bidder if less than 10% of the estimated amount, provisions made related to Abnormally Low Bids will apply.
<b>J. Award of Contract</b>	
<b>ITB 50.1 and 50.2</b>	The successful Bidder shall be required to submit an Environmental, Social, Health and Safety (ES) Performance Security @1% of the

	<p>accepted tender amount in addition to the Performance Security @5% of the accepted tender amount. Moreover, additional Performance Security @1% of the accepted tender amount for every 1% below 10% of the estimated amount upto 15% of the estimated amount and additional Performance Security @2% of the accepted tender amount for every 1% below 15% of the estimated amount up to 20% of the estimated amount shall be required to mitigate the risk of unbalanced bid and abnormally low bid. The additional Performance Security is maximum of 20% of the accepted tender amount.</p> <p>Throughout this bidding document the term 'performance security,' unless the context clearly indicates otherwise, means and includes both 'the performance security and the ES performance security' to be submitted by the successful bidder in the amounts specified in GCC/PCC 54.</p>
<b>ITB 51</b>	<p>The Adjudicator proposed by the Employer is: to be nominated at the time of contract award.</p> <p>The daily fee for this proposed Adjudicator shall be: <b><i>Rs 10,000/-</i></b></p>

## Section III - Evaluation and Qualification Criteria

*This section contains all the criteria that the Employer shall use to evaluate Bids and qualify Bidders through post-qualification. No other factors, methods or criteria shall be used other than specified in this bidding document. The Bidder shall provide all the information requested in the forms included in Section IV, Bidding Forms.*

### Table of Criteria

**(i) Technical Part**

**(ii) Financial Part**

## **1. Technical Part**

### **1.1 Adequacy of Technical Proposal**

Evaluation: Evaluation of the Bidder's Technical Proposal will include

- i. 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, material sourcing, and quality control/ assurance in sufficient detail and fully in accordance with the requirements stipulated in Section VII, Works' Requirements. For this purpose, the Bidder should also submit:

A detailed note outlining its proposed methodology and program of construction including Contractor's Environmental and Social, Health Management Strategies and Implementation Plans (ES-MSIP), backed with equipment, materials and manpower planning and deployment, duly supported with broad calculations and quality control system/assurance procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones.

- ii. an assessment of the details of subcontracting elements of works amounting to not more than 10% of the bid price; for each element proposed to be sub-contracted furnish details whether the identified Sub-contractor possesses the required qualifications and experiences to execute that element satisfactorily. [Work should not be split into small parts and sub-contracted].
- iii. Bidders shall submit an undertaking from each proposed subcontractor to confirm that they have read, understand and will comply with the ES obligations and code of conduct for Contractor's Personnel.

### **1.2 Multiple Contracts -Not Applicable**

Pursuant to ITB 35.3 of the Instructions to Bidders, if Works are grouped in multiple contracts, evaluation will be as follows:

#### **a. Award Criteria for Multiple Contracts [ITB 35.3]:**

Bidders have the option to bid for all the three lots. Bids will be evaluated all together taking into account discounts offered, if any, after considering all possible combination of lots. The contract(s) will be awarded to the Bidder or Bidders offering the lowest evaluated cost to the Employer for each lot, subject to the selected Bidder(s) meeting the required qualification criteria for lot or combination of lots as the case may be.



---

**Sustainable procurement (Section VII - Specifications) – Not Applicable**

**1.4** Alternative Completion Times (ITB 13.2) - Not Applicable

**1.5** Alternative Technical Solutions for specified parts of the Works (ITB 13.4) -  
Not Applicable

**1.6** Other criteria (if permitted under ITB 35.1(f)): Not Applicable

**1.7 Specialized Subcontractors: Not Applicable**

**2. Qualification Criteria**

Pursuant to ITB 32.1, the Employer shall assess each Bid against the following Qualification Criteria. Requirements not included in the text below shall not be used in the evaluation of the Bidder's qualifications.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
1.1	Nationality	Nationality in accordance with ITB 4.4	Must meet requirement	N/A	N/A	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.2	Conflict of Interest	No conflicts of interest in accordance with ITB 4.2	Must meet requirement	N/A	N/A	N/A	Letter of Bid
1.3	Bank Eligibility	Not having been declared ineligible by the Bank, as described in ITB 4.5.	Must meet requirement	N/A	N/A	N/A	Letter of Bid
1.4	State-owned enterprise or institution of the Borrower country	Meets conditions of ITB 4.6	Must meet requirement	N/A	N/A	N/A	Forms ELI – 1.1 and 1.2, with attachments
1.5	United Nations resolution or Borrower’s	Not having been excluded as a result of prohibition in the	Must meet requirement	N/A	N/A	N/A	Forms ELI – 1.1 and 1.2, with

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
	<b>country law</b>	Borrower's country laws or official regulations against commercial relations with the Bidder's country, or by an act of compliance with UN Security Council resolution, both in accordance with ITB 4.8 and Section V.					attachments
2.1	<b>History of Non-Performing</b>	Non-performance of a contract <sup>2</sup> did not occur as a result	Must meet requirement <sup>7</sup> & <sup>8</sup>	Must meet requirements	N/A	N/A	Form CON-2

<sup>2</sup> Non-performance, as decided by the Employer, shall include all contracts where (a) non-performance was not challenged by the contractor, including through referral to the dispute resolution mechanism under the respective contract, and (b) contracts that were so challenged but fully settled against the contractor. Non-performance shall not include contracts where Employers 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.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
	<b>Contracts</b>	of contractor default since 1 <sup>st</sup> January, 2025					
2.2	<b>Suspension Based on Execution of Bid/ Proposal Securing Declaration by the Employer or withdrawal of the Bid within Bid validity period</b>	Not under suspension based on execution of a Bid/ Proposal Securing Declaration pursuant to ITB 4.7 or withdrawal of the Bid pursuant ITB 19.9	Must meet requirement	Must meet requirement	N/A	N/A	Letter of Bid
2.3	<b>Pending Litigation</b>	Bidder's financial position and prospective long-term profitability sound according to criteria established in 3.1 below and assuming that all pending litigation	Must meet requirement	N/A	N/A	N/A	Form CON – 2

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		will be resolved against the Bidder					
2.4	<b>Litigation History</b>	No consistent history of court/arbitral award decisions against the Bidder <sup>3</sup> since <b>1<sup>st</sup> January 2019.</b>	Must meet requirement	N/A	N/A	N/A	Form CON – 2
2.5	<b>Declaration: Environmental and Social (ES) past performance</b>	Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for reasons of breach of environmental, or social safeguard	Must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-	N/A	N/A	N/A	Form CON-3 ES Performance Declaration

<sup>3</sup> The Bidder shall provide accurate information on the Letter of Bid about any litigation or arbitration resulting from contracts completed or ongoing under its execution over the last five years. A consistent history of court/arbitral awards against the Bidder or any member of a joint venture may result in disqualifying the Bidder.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		compliances (including violation of Environmental Laws & Acts, violation of safety norms, Labour Laws, Sexual Exploitation, and Abuse) contractual obligations in the past five years <sup>4</sup> .	contractor/s must also make the declaration.				
3.1	<b>Financial Capabilities</b>	(i) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of	Must meet requirement	Must meet Requirement	N/A	N/A	Form FIN – 3.1, with attachments

<sup>4</sup>The Employer may use this information to seek further information or clarifications in carrying out its due diligence.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		credit <sup>5</sup> , and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as <b>INR 4.25 Cr</b> for the subject contract(s) net of the Bidder's other commitments					
		(ii) The audited balance sheets or, if not required by the laws of the Bidder's country, other financial statements acceptable to the	Must meet requirement	N/A	N/A	N/A	

<sup>5</sup> In case the bidder submits a letter of intent from a commercial bank with the bid, firm commitment from the bank to provide line of credit shall be required before contract signing.

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		Employer, for the last three years (FY-21-22, FY-22-23, FY-23-24) shall be submitted.					
<b>Note:</b> The construction cash flow requirement should be for a number of months determined as the total time needed to pay contractor invoice by the employer. The cash flow should not normally exceed 3 months peak contract requirements and availability should be certified by Bank (Nationalized or Scheduled Bank in India) in form Fin 3.3							
3.2	<b>Average Annual Construction Turnover</b>	Minimum average annual construction turnover of Rs. 17 Cr. (Rupees Seventeen Crore) calculated as total certified payments received for contracts in progress and/or completed within the last three financial years ( FY 2021-22, 2022-23,	Must meet requirement	N/A	N/A	N/A	Form FIN – 3.2



Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		<b>FY 2023-24)</b> divided by three (3) years.					
4.1 (a)	<b>General Construction Experience</b>	Experience of undertaking construction contracts related to Repair, Renovation or new constructions of any Govt. Building in the role of prime contractor at least the last three years, starting 1st April 2021 to 31st March, 2024 i.e. ( FY-21-22, 22-23, and FY 23-24) having contract value of following :	Must meet requirement	N/A	N/A	N/A	Form EXP – 4.1

Eligibility and Qualification Criteria			Compliance Requirements				Documentation
No.	Subject	Requirement	Single Entity	Joint Venture (existing or intended) where permitted			Submission Requirements
				All members Combined	Each Member	At least one Member	
		1) At least 2 contracts of at least INR 14 Cr. each <b>or</b> 2) At least 3 contracts of At least INR 11 Cr. each <b>or</b> 3) At least 4 contracts of At least INR 7 Cr. each					





### 3.Key Personnel

The Bidder must demonstrate that it will have suitably qualified (and in adequate numbers) minimum Key Personnel, as described in the Table below, that are required to perform the Contract.

The Bidder shall provide details of the Key Personnel and such other Key Personnel that the Bidder considers appropriate, together with their academic qualifications and work experience. The Bidder shall complete the relevant Forms in Section IV, Bidding Forms.

The Contractor shall require the Employer's consent to substitute or replace the Key Personnel (reference the Particular Conditions of Contract 9.1).

#### Key Personnel

Item No.	Position/ specialization	Relevant academic qualifications	Minimum years of relevant work experience
1	Project Manager- One	BE/B. Tech/Eqv. (Civil Engineering)	8 Years
2	Dy. Project Manager - One	BE/B. Tech/Eqv. (Civil Engineering)	6 Years
3	Construction Supervision-Two	Diploma in Civil Engineering	3 years
<b><u>Suitable experts in the following specializations</u></b>			
4	Environment, Health and Safety Officer	Any Degree with Diploma in EHS/SHE	3 Years

### 4. Equipment

The Bidder must demonstrate that it will have access to the key Contractor's equipment listed hereafter. The minimum requirements are listed below:

No.	Equipment Type and Characteristics	Minimum Number required
1	Excavator	1
2	Road Roller	1
3	Concrete Mixers	2
4	Dump Trucks	1
5	Wheel Barrows	2
6	Jack Hammers	1
7	Cutting Tools (Angle Grinders, Concrete Saws)	As per requirements
7	Personal Protective Equipment (PPE)	As per requirements
8	Mobile Generators	1

**NOTE:**

- *Bidders are requested to verify latest position in respect of “Duties on Contractor’s Equipment” from Department of Revenue, Ministry of Finance, Government of India.*
- *The equipment listed above should not be older than 05 years of age.*
- *Based on their own studies of the equipment required, the Bidders shall furnish details of the above equipment and such other equipment that the Bidder considers appropriate, using Form EQU included in Section IV*

**5. Multiple Contracts – Not Applicable**

## **Section IV - Bidding Forms**

## Letter of Bid – Technical Part

**INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT**

*The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.*

*Note: All italicized text is to help Bidders in preparing these forms.*

**Date of this Bid submission:** <Insert Date of submission>

**RFB No.:** [Insert RFB No>

**Alternative No<sup>1</sup>.** [insert identification No. if this is a Bid for an alternative]

To:

**Project Director, AHIDMS**

**4<sup>th</sup> Floor, Nayantara Building, Sixmile**

**Guwahati-21**

We, the undersigned, hereby submit our Bid, in two parts, namely:

- (a) the Technical Part, and
- (b) the Financial Part

In submitting our Bid, we make the following declarations:

- (a) **No reservations:** We have examined and have no reservations to the bidding document, including Addenda issued in accordance with ITB 8;
- (b) **Eligibility:** We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
- (c) **Bid-Securing Declaration:** We have not been suspended nor declared ineligible by the Employer based on execution of a Bid-Securing Declaration or Proposal-Securing Declaration in the Employer's Country in accordance with ITB 4.7

**Conformity:** We offer to execute in conformity with the bidding document the following Works: <insert brief description of the works>

- (d) **Bid Validity Period:** Our Bid shall be valid for a period specified in BDS ITB 18.1 (or as amended if applicable) from the date fixed for the Bid submission deadline specified in BDS 22.1 (or as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (e) **Performance Security:** If our Bid is accepted, we commit to obtain a performance security in accordance with the bidding document;

---

<sup>1</sup> Delete if not applicable



- (f) **One Bid Per Bidder:** We are not submitting any other Bid(s) as an individual Bidder or as a subcontractor, and we are not participating in any other Bid(s) as a Joint Venture member, and meet the requirements of ITB 4.3, other than alternative Bids submitted in accordance with ITB 13;
- (g) **Suspension and Debarment:** We, along with any of our subcontractors, suppliers, consultants, manufacturers, or service providers for any part of the contract, are not subject to, and not controlled by any entity or individual that is subject to, a temporary suspension or a debarment imposed by the World Bank Group or a debarment imposed by the World Bank Group in accordance with the Agreement for Mutual Enforcement of Debarment Decisions between the World Bank and other development banks. Further, we are not ineligible under the Employer's Country laws or official regulations or pursuant to a decision of the United Nations Security Council;
- (h) **State-owned enterprise or institution:** We are not a state-owned enterprise or institution/ We are a state-owned enterprise or institution but meet the requirements of ITB 4.6<sup>2</sup>;
- (i) **Binding Contract:** 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;
- (j) **Not Bound to Accept:** We understand that you are not bound to accept the lowest evaluated cost Bid, the Most Advantageous Bid or any other Bid that you may receive; and
- (k) **Fraud and Corruption:** We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf engages in any type of Fraud and Corruption; and
- (l) **Adjudicator:** We accept the appointment of *[insert name proposed in Bid Data Sheet]* as the Adjudicator.

[or]

We do not accept the appointment of *[insert name proposed in Bid Data Sheet]* as the Adjudicator, and propose instead that *[insert name]* be appointed<sup>3</sup> as Adjudicator, whose daily fees and biographical data are attached.

**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]*

<sup>2</sup> Use one of the two options as appropriate

<sup>3</sup> In case appointment of Adjudicator was proposed from the list provided by an Institution in ITB 51, the replacement should also be proposed from the list of same institution.

**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

## **Technical Proposal Technical Proposal Forms**

- **Key Personnel Schedule**
- **Equipment**
- **Site Organization**
- **Method Statement**
- **Mobilization Schedule**
- **Construction Schedule**
- **Environmental, Social, Health, and Safety (ESHS) Management Strategies and Implementation Plans**
- **Code of Conduct (CoC)**
- **Others**
- **Bidder's Qualification**

*Note: Work should not be split into small parts and sub-contracted; but sub-contracting specialized elements of works is acceptable.*

## Appendix to Technical Part: Personnel Forms for Personnel

### Form PER – 1: Key Personnel Schedule

Bidders should provide the names and details of the suitably qualified Key Personnel to perform the Contract. The data on their experience should be supplied using the Form PER-2 below for each candidate.

#### Key Personnel

<b>1.</b>	<b>Title of position:</b>	
	<b>Name of candidate:</b>	
	<b>Duration of appointment:</b>	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	<b>Time commitment: for this position:</b>	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	<b>Expected time schedule for this position:</b>	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
<b>2.</b>	<b>Title of position:</b> <i>[Environmental Specialist]</i>	
	<b>Name of candidate:</b>	
	<b>Duration of appointment:</b>	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	<b>Time commitment: for this position:</b>	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	<b>Expected time schedule for this position:</b>	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
<b>3.</b>	<b>Title of position:</b> <i>[Health and Safety Specialist]</i>	
	<b>Name of candidate:</b>	
	<b>Duration of appointment:</b>	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>

	<b>Time commitment: for this position:</b>	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	<b>Expected time schedule for this position:</b>	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>
<b>4.</b>	<b>Title of position:</b>	
	<b>Name of candidate</b>	
	<b>Duration of appointment:</b>	<i>[insert the whole period (start and end dates) for which this position will be engaged]</i>
	<b>Time commitment: for this position:</b>	<i>[insert the number of days/week/months/ that has been scheduled for this position]</i>
	<b>Expected time schedule for this position:</b>	<i>[insert the expected time schedule for this position (e.g. attach high level Gantt chart)]</i>

## Appendix to Technical Part

### Form PER-2:

### Resume and Declaration

### Key Personnel

<b>Name of Bidder</b>
-----------------------

<b>Position [#1]:</b> <i>[title of position from Form PER-1]</i>		
<b>Personnel information</b>	<b>Name:</b>	<b>Date of birth:</b>
	<b>Address:</b>	<b>E-mail:</b>
	<b>Professional qualifications:</b>	
	<b>Academic qualifications:</b>	
	<b>Language proficiency:</b> <i>[language and levels of speaking, reading and writing skills]</i>	
<b>Details</b>		
	<b>Address of employer:</b>	
	<b>Telephone:</b>	<b>Contact (manager / personnel officer):</b>
	<b>Fax:</b>	
	<b>Job title:</b>	<b>Years with present employer:</b>

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

<b>Project</b>	<b>Role</b>	<b>Duration of involvement [From - To]</b>	<b>Relevant experience</b>
<i>[main project details]</i>	<i>[role and responsibilities on the project]</i>	<i>[time in role]</i>	<i>[describe the experience relevant to this position]</i>

### **Declaration**

I, the undersigned Key Personnel, certify that to the best of my knowledge and belief, the information contained in this Form PER-2 correctly describes myself, my qualifications and my experience.

I confirm that I am available as certified in the following table and throughout the expected time schedule for this position as provided in the Bid:

<b>Commitment</b>	<b>Details</b>
<b>Commitment to duration of contract:</b>	<i>[insert period (start and end dates) for which this Key Personnel is available to work on this contract]</i>
<b>Time commitment:</b>	<i>[insert the number of days/week/months/ that this Key Personnel will be engaged]</i>

I understand that any misrepresentation or omission in this Form may:

- (a) be taken into consideration during Bid evaluation;
- (b) result in my disqualification from participating in the Bid;
- (c) result in my dismissal from the contract.

**Name of Key Personnel:** *[insert name]*

Signature: \_\_\_\_\_

Date: (day month year): \_\_\_\_\_

**Countersignature of authorized representative of the Bidder:**

Signature: \_\_\_\_\_

Date: (day month year): \_\_\_\_\_

## Appendix to Technical Part: Equipment Forms for Equipment

The 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 and Qualification Criteria). A separate Form shall be prepared for each item of equipment listed, or for alternative equipment proposed by the Bidder. The Bidder shall provide all the information requested below, to the extent possible. Fields with asterisk (\*) shall be used for evaluation.

<b>Type 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> <div style="display: flex; justify-content: space-between; align-items: center;"> <span><input type="checkbox"/> Owned</span> <span><input type="checkbox"/> Rented</span> <span><input type="checkbox"/> Leased</span> <span><input type="checkbox"/> Specially manufactured</span> </div>	

The following information shall be provided only for equipment not 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>Telex</b>
<b>Agreements</b>	<b>Details of rental / lease / manufacture agreements specific to the project</b>	



**Appendix to Technical Part**  
**Site Organization**

*[insert Site Organization information]*

## **Appendix to Technical Part Method Statement**

*[insert method Statement – A detailed note should be submitted outlining bidders proposed methodology and program of construction including Contractor's Environmental and Social, Health Management Strategies and Implementation Plans (ES-MSIP), backed with equipment, materials and manpower planning and deployment, duly supported with broad calculations and quality control system/assurance procedures proposed to be adopted, justifying their capability of execution and completion of the work as per technical specifications within the stipulated period of completion as per milestones]*

## **Appendix to Technical Part Mobilization Schedule**

***[insert Mobilization Schedule]***

In accordance with the Particular Conditions, Sub-Clause 16.2, the Contractor shall not carry out mobilization to Site unless the Project manager gives consent that appropriate measures are in place to address environmental and social risks and impacts, which as a minimum shall include applying the Management Strategies and Implementation Plans (MSIPs) and Code of Conduct for Contractor's Personnel, submitted as part of the Bid and agreed as part of the Contract.

**Appendix to Technical Part**  
**Construction Schedule**  
***[insert Construction Schedule]***

*The construction schedule shall include the following key milestone - No-objection to the Code of Conduct for Contractor's Personnel and Contractor's MSIPs, which collectively form the C-ESMP, in accordance with the Particular Conditions of Contract Sub-Clause 16.2.*

---

## **Appendix to Technical Part Environmental and Social, Health Management Strategies and Implementation Plans**

### **(ES-MSIP)**

The Bidder shall submit comprehensive and concise Environmental and Social Management Strategies and Implementation Plans (ES-MSIP) as required by ITB 11.2 (j) of the Bid Data Sheet. These strategies and plans shall describe in detail the actions, materials, equipment, management processes etc. that will be implemented by the Contractor, and its subcontractors.

In developing these strategies and plans, the Bidder shall have regard to the ESHS provisions of the contract including those as may be more fully described in the Environmental and Social Management Framework (ESMF)]; and Environmental Clearance as well as Consent Conditions (regulatory authority conditions attached to any permits or approvals)]

In developing these strategies and plans, the Bidder shall have regard to the ES provisions of the contract including those as may be more fully described in the Works Requirements in Section VII.

## Appendix to Technical Part

### Code of Conduct for Contractor's Personnel (ES) Form

#### ***Note to the Employer:***

*The following minimum requirements shall not be modified. The Employer may add additional requirements to address identified issues, informed by relevant environmental and social assessment.*

*The types of issues identified could include risks associated with: labour influx, spread of communicable diseases, and Sexual Exploitation and Abuse(SEA), Sexual Harassment (SH) etc.*

***Delete this Box prior to issuance of the bidding document.***

#### **Note to the Bidder:**

**The minimum content of the Code of Conduct form as set out by the Employer shall not be substantially modified.** However, the Bidder may add requirements as appropriate, including to take into account Contract-specific issues/risks.

The Bidder shall initial and submit the Code of Conduct form as part of its bid.

### **CODE OF CONDUCT FOR CONTRACTOR'S PERSONNEL**

We are the Contractor, [enter name of Contractor]. We have signed a contract with [enter name of Employer] for [enter description of the Works]. These Works will be carried out at [enter the Site and other locations where the Works will be carried out]. Our contract requires us to implement measures to address environmental and social risks related to the Works, including the risks of sexual exploitation, sexual abuse and sexual harassment.

This Code of Conduct is part of our measures to deal with environmental and social risks related to the Works. It applies to all our staff, laborers and other employees at the Works Site or other places where the Works are being carried out. It also applies to the personnel of each subcontractor and any other personnel assisting us in the execution of the Works. All such persons are referred to as “**Contractor's Personnel**” and are subject to this Code of Conduct.

This Code of Conduct identifies the behavior that we require from all Contractor's Personnel.

Our workplace is an environment where unsafe, offensive, abusive or violent behavior will not be tolerated and where all persons should feel comfortable raising issues or concerns without fear of retaliation.

## REQUIRED CONDUCT

Contractor's Personnel shall:

1. carry out his/her duties competently and diligently;
2. comply with this Code of Conduct and all applicable laws, regulations and other requirements, including requirements to protect the health, safety and well-being of other Contractor's Personnel and any other person;
3. maintain a safe working environment including by:
  - a. ensuring that workplaces, machinery, equipment and processes under each person's control are safe and without risk to health;
  - b. wearing required personal protective equipment;
  - c. using appropriate measures relating to chemical, physical and biological substances and agents; and
  - d. following applicable emergency operating procedures.
4. report work situations that he/she believes are not safe or healthy and remove himself/herself from a work situation which he/she reasonably believes presents an imminent and serious danger to his/her life or health;
5. treat other people with respect, and not discriminate against specific groups such as women, people with disabilities, migrant workers or children;
6. not engage in Sexual Harassment, which means unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature with other Contractor's or Employer's Personnel;
7. not engage in Sexual Exploitation, which means any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;
8. not engage in Sexual Abuse, which means the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions;
9. not engage in any form of sexual activity with individuals under the age of 18, except in case of pre-existing marriage;
10. complete relevant training courses that will be provided related to the environmental and social aspects of the Contract, including on health and safety matters, and Sexual Exploitation, and Abuse (SEA) and Sexual Harassment (SH);
11. report violations of this Code of Conduct; and
12. not retaliate against any person who reports violations of this Code of Conduct, whether to us or the Employer, or who makes use of the grievance mechanism for Contractor's Personnel or the project's Grievance Redress Mechanism.

## RAISING CONCERNS

If any person observes behavior that he/she believes may represent a violation of this Code of Conduct, or that otherwise concerns him/her, he/she should raise the issue promptly. This can be done in either of the following ways:

1. Contact [*enter name of the Contractor's Social Expert with relevant experience in handling gender-based violence, or if such person is not required under the Contract, another individual designated by the Contractor to handle these matters*] in writing at this address [ ] or by telephone at [ ] or in person at [ ]; or
2. Call [ ] to reach the Contractor's hotline (*if any*) and leave a message.

The person's identity will be kept confidential, unless reporting of allegations is mandated by the country law. Anonymous complaints or allegations may also be submitted and will be given all due and appropriate consideration. We take seriously all reports of possible misconduct and will investigate and take appropriate action. We will provide warm referrals to service providers that may help support the person who experienced the alleged incident, as appropriate.

There will be no retaliation against any person who raises a concern in good faith about any behavior prohibited by this Code of Conduct. Such retaliation would be a violation of this Code of Conduct.

## CONSEQUENCES OF VIOLATING THE CODE OF CONDUCT

Any violation of this Code of Conduct by Contractor's Personnel may result in serious consequences, up to and including termination and possible referral to legal authorities.

### FOR CONTRACTOR'S PERSONNEL:

I have received a copy of this Code of Conduct written in a language that I comprehend. I understand that if I have any questions about this Code of Conduct, I can contact [*enter name of Contractor's contact person with relevant experience*] requesting an explanation.

Name of Contractor's Personnel: [insert name]

Signature: \_\_\_\_\_

Date: (day month year): \_\_\_\_\_

Countersignature of authorized representative of the Contractor:

Signature: \_\_\_\_\_

Date: (day month year): \_\_\_\_\_



**ATTACHMENT-1 TO THE CODE OF CONDUCT FORM**  
**BEHAVIORS CONSTITUTING SEXUAL EXPLOITATION AND ABUSE**  
**(SEA) AND BEHAVIORS CONSTITUTING SEXUAL HARASSMENT (SH)**

The following non-exhaustive and non-limiting list is intended to illustrate types of prohibited behaviors:

**(1) Examples of sexual exploitation and abuse** include, but are not limited to:

- A Contractor's Personnel tells a member of the community that he/she can get them jobs related to the work site (e.g. cooking and cleaning) in exchange for sex.
- A Contractor's Personnel that is connecting electricity input to households says that he can connect women headed households to the grid in exchange for sex.
- A Contractor's Personnel rapes, or otherwise sexually assaults a member of the community.
- A Contractor's Personnel denies a person access to the Site unless he/she performs a sexual favor.
- A Contractor's Personnel tells a person applying for employment under the Contract that he/she will only hire him/her if he/she has sex with him/her.

**(2) Examples of sexual harassment in a work context**

- Contractor's Personnel comment on the appearance of another Contractor's Personnel (either positive or negative) and sexual desirability.
- When a Contractor's Personnel complains about comments made by another Contractor's Personnel on his/her appearance, the other Contractor's Personnel comment that he/she is "asking for it" because of how he/she dresses.
- Unwelcome touching of a Contractor's or Employer's Personnel by another Contractor's Personnel.
- A Contractor's Personnel tells another Contractor's Personnel that he/she will get him/her a salary raise, or promotion if he/she sends him/her naked photographs of himself/herself.

---

**Appendix to Technical Part  
Sub-Contracting**

**SCHEDULE OF SUBCONTRACTORS**

<b>Item</b>	<b>Element of work</b>	<b>% of bid price</b>	<b>Name and address of sub-contractor</b>	<b>Qualification and experience of sub-contractor on similar works of the elements executed</b>

The Bidder shall enter in this schedule a list of the major sections and appropriate value of the work for which he proposed to use subcontractors [*for those costing more than 10% of the bid price for each element*], together with the names, addresses and experiences of the proposed subcontractors.

The capability of the sub-contractor will also be assessed (on the same lines as for the main Contractor) before according approval to him.

*(Work should not be split into small parts and sub-contracted; but sub-contracting specialized elements of works is acceptable).*

## **Appendix to Technical Part Others**

**Appendix to Technical Part  
Bidder's 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 Information Sheets included hereunder

**Appendix to Technical Part**  
**Form ELI -1.1: Bidder Information Form**

Date: \_\_\_\_\_  
RFB No. and title: \_\_\_\_\_

Bidder's legal name
In case of Joint Venture (JV), legal name of each member:
Bidder's actual or intended country of registration: <i>[indicate country of Constitution]</i>
Bidder's actual or intended year of incorporation:
Bidder's legal address [in country of registration]:
Bidder's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
1. Attached are copies of original documents of <input type="checkbox"/> 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 4.4. <input type="checkbox"/> Authorization to represent the firm or JV named in above, in accordance with ITB 20. <input type="checkbox"/> In case of JV, letter of intent to form JV or JV agreement, in accordance with ITB 4.1. <input type="checkbox"/> In case of state-owned enterprise or institution, in accordance with ITB 4.6 documents establishing: <ul style="list-style-type: none"> <li>• Legal and financial autonomy</li> <li>• Operation under commercial law</li> <li>• Establishing that the Bidder is not under the supervision of the Employer</li> </ul> 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

**Appendix to Technical Part**  
**Form ELI -1.2: Information Form for JV Bidders**  
 (Where permitted as per BDS ITB 4.1)  
 (to be completed for each member of Joint Venture)

Date: \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

<b>JV Information</b>
Bidder's Joint Venture legal name:
JV member's legal name:
JV member's country of registration:
JV member's year of constitution:
JV member's legal address in country of constitution:
JV member's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
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 4.4. <input type="checkbox"/> Authorization to represent the firm or JV named in above, in accordance with ITB 20. <input type="checkbox"/> In case of a state-owned enterprise or institution, documents establishing legal and financial autonomy, operation in accordance with commercial law, and is not under the supervision of the Employer, in accordance with ITB 4.6. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership.

## Appendix to Technical Part

### Form ELI -1.2 A

#### Specialized Subcontractor's Information Form (to be completed for each Specialized Subcontractor)

Date: \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Bidder's legal name:

Specialized Subcontractor's legal name:
Specialized Subcontractor's country of registration:
Specialized Subcontractor's year of constitution:
Specialized Subcontractor's legal address in country of constitution:
Specialized Subcontractor's authorized representative information Name: _____ Address: _____ Telephone/Fax numbers: _____ E-mail address: _____
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 4.4.  <input type="checkbox"/> Authorization to represent the Specialized Subcontractor.

**Appendix to Technical Part**  
**DETAILS OF PARTICIPATION IN THE JOINT VENTURE**

<b>PARTICIPATION DETAILS</b>	<b>FIRM 'A' (Lead Member)</b>	<b>FIRM 'B'</b>	<b>FIRM 'C'</b>
Financial			
Name of the Banker(s)			
Planning			
Construction Equipment			
Key Personnel			
Execution of Work (Give details on proposed contribution of each)			

The Joint Venture should indicate the details of participation as above.



## Appendix to Technical Part

### Form CON – 2: Historical Contract Non-Performance, Pending Litigation and Litigation History

*[to be completed for the Bidder and for each member of a Joint Venture]*

Bidder's Name: \_\_\_\_\_

Date: \_\_\_\_\_

Joint Venture Member's Name

RFB No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Non-Performed Contracts in accordance with Section III, Evaluation and Qualification Criteria

- ☐ Contract non-performance did not occur since 1<sup>st</sup> January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, Sub-Factor 2.1.
- ☐ Contract(s) not performed since 1<sup>st</sup> January *[insert year]* specified in Section III, Evaluation and Qualification Criteria, requirement 2.1

Year	Non-performed portion of contract	Contract Identification	Total Contract Amount (Rs.)
<i>[insert year]</i>	<i>[insert amount and 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> Reason(s) for non-performance: <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

Pending Litigation, in accordance with Section III, Evaluation and Qualification Criteria

- ☐ No pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3.
- ☐ Pending litigation in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.3 as indicated below.

<b>Year of dispute</b>	<b>Amount in dispute (Rs.)</b>	<b>Contract Identification</b>	<b>Total Contract Amount (Rs.)</b>
<i>[insert year]</i>	<i>[insert amount]</i>	<p>Contract Identification: [indicate complete contract name, number, and any other identification]  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></p> <p>Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i></p>	<i>[insert amount]</i>
<i>[insert year]</i>	<i>[insert amount]</i>	<p>Contract Identification: [indicate complete contract name, number, and any other identification]  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></p> <p>Status of dispute: <i>[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]</i></p>	<i>[insert amount]</i>
Litigation History in accordance with Section III, Evaluation and Qualification Criteria			
<input type="checkbox"/> No Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4.			

<input type="checkbox"/> Litigation History in accordance with Section III, Evaluation and Qualification Criteria, Sub-Factor 2.4 as indicated below.			
<b>Year of award</b>	<b>Outcome as percentage of Net Worth</b>	<b>Contract Identification</b>	<b>Total Contract Amount (Rs.)</b>
<i>[insert year]</i>	<i>[insert percentage]</i>	Contract Identification: [indicate complete contract name, number, and any other identification] 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> Reason(s) for Litigation and award decision <i>[indicate main reason(s)]</i>	<i>[insert amount]</i>

**Appendix to Technical Part**  
**Form CON – 3: Environmental and Social (ES) Performance Declaration**

*[The following table shall be filled in for the Bidder, each member of a Joint Venture and each Specialized Subcontractor]*

Bidder's Name: \_\_\_\_\_ *[insert full name]*  
 Date: \_\_\_\_\_ *[insert day, month, year]*  
 Joint Venture Member's or Specialized Subcontractor's Name: \_\_\_\_\_ *[insert full name]*  
 RFB No. and title: \_\_\_\_\_ *[insert RFB number and title]*  
 Page \_\_\_\_\_ *[insert page number]* of \_\_\_\_\_ *[insert page number]* pages

Environmental and Social Performance Declaration in accordance with Section III, Qualification Criteria, and Requirements			
<input type="checkbox"/> <b>No suspension or termination of contract:</b> An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental or Social (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5.			
<input type="checkbox"/> <b>Declaration of suspension or termination of contract:</b> The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental or Social (ES) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5. Details are described below:			
Year	Suspended or terminated portion of contract	Contract Identification	Total Contract Amount (Rs.)
<i>[insert year]</i>	<i>[insert amount and 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>  Reason(s) for suspension or termination: <i>[indicate main reason(s) e.g. for gender-based violence; sexual exploitation and abuse &amp; sexual harassment breaches]</i>	<i>[insert amount]</i>
<i>[insert year]</i>	<i>[insert amount and 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>	<i>[insert amount]</i>

		Reason(s) for suspension or termination: <i>[indicate main reason(s)]</i>	
...	...	<i>[list all applicable contracts]</i>	...
<b>Performance Security called by an employer(s) for reasons related to ES performance</b>			
Year	Contract Identification		Total Contract Amount (Rs.)
<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> Reason(s) for calling of performance security: <i>[indicate main reason(s) e.g. for gender-based violence; abuse &amp; sexual harassment breaches]</i>		<i>[insert amount]</i>

**Appendix to Technical Part**  
**Form CCC: Current Contract Commitments / Works in Progress**

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.

(A) Existing commitments and on-going works:

Description of Work	Place & State	Contract No. & Date	Name and Address of Employer	Value of Contract (Rs. equivalent in million)	Stipulated period of completion	Value of works <sup>1</sup> remaining to be completed (Rs. equivalent in million)	Anticipated date of completion	Average Monthly Invoicing Over Last Six Months (Rs./month) Equivalent in millions)
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

---

<sup>1</sup>Attach certificate(s) from the Engineer(s)-in-Charge.

(B) Works for which bids already submitted and likely to be awarded – expected additional commitment.

Description of Work	Place & State	Name and Address of Employer	Estimated value of Works (Rs. equivalent in million)	Stipulated period of completion	Date when decision is expected	Remarks, if any
(1)	(2)	(3)	(4)	(5)	(6)	(7)

**Appendix to Technical Part**  
**Form FIN – 3.1: Financial Situation and Performance**

*[To be completed by the Bidder and by each member of a Joint Venture]*

Bidder's Legal Name: \_\_\_\_\_

Date: \_\_\_\_\_

Joint Venture Member's Legal Name \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

**1. Financial data**

Type of Financial information in (Rs.)	Historic information for previous _____ years, (Amount in Rs.)				
	Year 1	Year 2	Year 3	Year 4	Year 5
Statement of Financial Position (Information from Balance Sheet)					
Total Assets (TA)					
Total Liabilities (TL)					
Total Equity/Net Worth (NW)					
Current Assets (CA)					
Current Liabilities (CL)					
Working Capital (WC)					
Information from Income Statement					
Total Revenue (TR)					
Profits Before Taxes (PBT)					
Cash Flow Information					
Cash Flow from Operating Activities					



This information should be extracted from the Annual Financial Statements/ Balance sheets, which should be enclosed. Year 1 will be the latest year for which audited financial statements are available. Year 2 shall be the year immediately preceding year 1 and year 3 shall be the year immediately preceding Year 2.

## 2. Sources of Finance

Specify sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments.

No.	Source of finance	Amount (Rs.)
1		
2		
3		

## 3. Financial documents

The Bidder and its parties shall provide copies of financial statements for \_\_\_\_\_ years pursuant Section III, Evaluation and Qualifications Criteria, Sub-factor 3.2. The financial statements shall:

- (a) reflect the financial situation of the Bidder or in case of JV member, and not an affiliated entity (such as parent company or group member).
- (b) be independently audited or certified in accordance with local legislation. In case of Indian bidders, the financial statements shall be audited by a certified chartered accountant.
- (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<sup>10</sup> (balance sheets, including all related notes, and income statements) for the \_\_\_\_\_ years required above; and complying with the requirements.

<sup>10</sup> 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.

**Appendix to Technical Part**  
**Form FIN - 3.2: Average Annual Construction Turnover**  
*[To be completed by the Bidder and by each member of a Joint Venture]*

Bidder's Legal Name: \_\_\_\_\_

Date: \_\_\_\_\_

Joint Venture Member's Legal Name \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

<b>Annual turnover data (construction only)</b>	
<b>Year</b>	<b>Amount in Rs.</b>
<i>[indicate year]</i>	<i>[insert amount]</i>
Average Annual Construction Turnover *	

\*See Section III, Evaluation and Qualification Criteria, Sub-Factor 3.2. Annual construction turnover calculated as total certified payments received for work in progress or completed, for 5 years. This should be certified by a Chartered Accountant.

### Appendix to Technical Part JOINT VENTURE

<b>Names of all members of a joint venture</b>
<b>1. Member in charge</b>
<b>2. Member</b>
<b>3. Member</b>

**Total value of annual construction turnover, in terms of work billed to clients, in Rupees**

Annual Turnover Data (construction only; in Rs. *)							
Member	Form 3.2 page no.	Year 1	Year 2	Year 3	Year 4	Year 5	Average
1. Member in charge							
2. Member							
3. Member							
<b>TOTALS</b>							

**\* To be certified by a chartered accountant**

#### **Name and address of Bankers to the Joint Venture**

Provide details regarding financial responsibility and participation (percentage share in the total) of each firm in the Joint Venture. Attach a Memorandum of Understanding for the Proposed Agreement of joint Venture which should lay down responsibility regarding work and financial arrangements in respect of each of the firm in the Joint Venture (Refer also ITB Clause 4.1).

## Appendix to Technical Part

**Form FIN - 3.3: Financial Resources**

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.

Source of financing	Amount (Rs.)
1.	
2.	
3.	
4.	

## **FORMAT FOR EVIDENCE OF ACCESS TO OR AVAILABILITY OF CASH FLOW**

*[To be given from a Nationalized or Scheduled Bank in India]*

### **Clause 3.1(ii) of Section III – Qualification Criteria**

#### **(1) AVAILABILITY OF CASH FLOW (WORKING CAPITAL)**

This is to certify that M/s. \_\_\_\_\_ is a reputed company with a good financial standing.

If the contract for the works, namely \_\_\_\_\_ [funded by the World Bank] is awarded to the above firm, we shall be able to provide overdraft/credit facilities to the extent of Rs. equivalent \_\_\_\_\_ to meet their capital requirements for executing the above contract.

-- Sd. --

Name of Bank Manager

Senior Bank Manager

Address of the Bank

#### **\* Change the text as follows for Joint venture:**

*This is to certify that M/s. .... who has formed a JV with M/s. .... and M/s. .... for participating in this bid, is a reputed company with a good financial standing.*

*If the contract for the work, namely ..... [funded by the World Bank] is awarded to the above Joint Venture, we shall be able to provide overdraft/credit facilities to the extent of Rs. .... to meet the working capital requirements for executing the above contract.*

*[This should be given by the JV members in proportion to their financial participation.]*

**Appendix to Technical Part**  
**Form EXP - 4.1: General Construction Experience**

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

Bidder's Legal Name: \_\_\_\_\_

Date: \_\_\_\_\_

Joint Venture Member's Legal Name \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

*[Identify contracts that demonstrate continuous construction work over the past [5] years pursuant to Section III, Qualification Criteria and Requirements, Sub-Factor 4.1. List contracts chronologically, according to their commencement (starting) dates.]*

Starting Month/ Year	Ending Month/ Year	Contract Identification	Role of Bidder  <i>[“Contractor” or “JV Member” or “Subcontractor” or “Contract</i>
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	
		Contract name: _____ Brief Description of the Works performed by the Bidder: _____ Amount of contract: _____ Name of Employer: _____ Address: _____	

### Appendix to Technical Part

#### Form EXP - 4.2(a): Specific Construction and Contract Management Experience

*[The following table shall be filled in for contracts performed by the Bidder, each member of a Joint Venture, and specialist sub-contractors]*

Bidder's Legal Name: \_\_\_\_\_

Date: \_\_\_\_\_

Joint Venture Member's Legal Name \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Work performed as prime Contractor or JV Member or Sub-Contractor or Management Contractor (in the same name and style) on construction works of a similar nature and volume over the last five years<sup>11</sup>. *[Attach certificate from the Engineer-in-charge.]*

Similar Contract No.	Information			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	Rs. *			
If member in a JV or subcontractor, specify participation in total Contract amount			*	
Employer's Name:				
Address:				
Telephone/fax number				
E-mail:				

<sup>11</sup> Immediately preceding the financial year in which bids are received.

**Appendix to Technical Part**  
**Form EXP - 4.2(a) (cont.)**  
**Specific Construction and Contract Management Experience (cont.)**

<b>Similar Contract No.</b>	<b>Information</b>
Description of the similarity in accordance with Sub-Factor 4.2(a) of Section III:	
1. Amount	
2. Physical size of required works items	
3. Complexity	
4. Methods/Technology	
5. Construction rate for key activities	
6. Other Characteristics	



**Appendix to Technical Part**  
**Form EXP - 4.2(b): Construction Experience in Key Activities**

Bidder's Legal Name: \_\_\_\_\_

Date: \_\_\_\_\_

Joint Venture Member's Legal Name \_\_\_\_\_

Subcontractor's Legal Name<sup>12</sup> (as per ITB 33.2 and 33.3): \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

Subcontractor's Name (as per ITB 33.2 and 33.3): \_\_\_\_\_

All subcontractors for key activities must complete the information in this form as per ITB 33.2 and 33.3 and Section III, Qualification Criteria and Requirements, Sub-Factor 4.2.

1. Key Activity No One: \_\_\_\_\_

	<b>Information</b>			
Contract Identification				
Award date				
Completion date				
Role in Contract	Prime Contractor <input type="checkbox"/>	Member in JV <input type="checkbox"/>	Management Contractor <input type="checkbox"/>	Sub-contractor <input type="checkbox"/>
Total Contract Amount	Rs.			
Quantity (Volume, number or rate of production, as applicable) performed under the contract per year or part of the year in the last 5 years	Total quantity in the contract (i)	Percentage participation (ii)	Actual Quantity Performed (i) x (ii)	
Year 1				
Year 2				
Year 3				
Year 4				
Year 5				

<sup>12</sup> If applicable.

	<b>Information</b>
Employer's Name <sup>13</sup> :	
Address:	
Telephone/fax number	
E-mail:	

2. Activity No. Two

3. ....

	<b>Information</b>
Description of the key activities in accordance with Sub-Factor 4.2(b) of Section III:	

---

<sup>13</sup> Attach certificate from the Engineer-in-charge

## Appendix to Technical Part

### Form EXP - 4.2(c)

#### Specific Experience in Managing ES aspects

*[The following table shall be filled in for contracts performed by the Bidder, and each member of a Joint Venture]*

Bidder's Name: \_\_\_\_\_

Date: \_\_\_\_\_

Bidder's JV Member Name: \_\_\_\_\_

RFB No. and title: \_\_\_\_\_

Page \_\_\_\_\_ of \_\_\_\_\_ pages

1. Key Requirement no 1 in accordance with 4.2 (c): \_\_\_\_\_

Contract Identification				
Award date				
Completion date				
Role in Contract	<b>Prime Contractor</b> <input type="checkbox"/>	<b>Member in JV</b> <input type="checkbox"/>	<b>Management Contractor</b> <input type="checkbox"/>	<b>Subcontractor</b> <input type="checkbox"/>
Total Contract Amount			Rs.	
Details of relevant experience				

2. Key Requirement no 2 in accordance with 4.2 (c): \_\_\_\_\_

3. Key Requirement no 3 in accordance with 4.2 (c): \_\_\_\_\_

...

## Appendix to Technical Part

Form.....

(Name of the Project)

**(Declaration regarding tax/duty exemption for materials/construction equipment bought for the work)**

(Bidder's Name and Address)

To: .....  
(Name of the Employer & address)

Dear Sir:

Re: [Name of Work] .....

Certificate for Import/Procurement of Goods/Construction Equipment

Government Order/Circular Number under which tax/duty Exemption is being sought: ...

1. We confirm that we are solely responsible for obtaining tax/duty waivers which we have considered in our bid and in case of failure to receive such waivers for reasons whatsoever, the employer will not compensate us.
2. We are furnishing below the information required by the Employer for issue of the necessary certificates in terms of the Government of India's relevant Notifications.
3. The goods/construction equipment for which certificates are required are as under:

Items (modify the list suitably for each specific work)*	Make/Brand Name	Capacity [where applicable]	Quantity	Value	State whether it will be procured locally or imported [if so from which country]	Remarks regarding justification for the quantity and their usage in works.
<b>Goods</b>						
[a] Bitumen						
[b] Cement						
[c] Steel						
<b>Construction Equipment</b>						

4. We agree that no modification to the above list is permitted after bids are opened.
5. We agree that the certificate will be issued only to the extent considered reasonable by the Employer for the work, based on the Bill of Quantities and the construction program and methodology as furnished by us along with the bid.
6. We confirm that the above goods and construction equipment will be exclusively used for the construction of the above work and the construction equipment will not be sold or otherwise disposed of in any manner for a period of five years from the date of acquisition.

Date: \_\_\_\_\_

(Signature)\_\_\_\_\_

Place:\_\_\_\_\_

(Printed Name)\_\_\_\_\_

(Designation)\_\_\_\_\_

(Common Seal) \_\_\_\_\_

***[This certificate will be issued within 60 days of signing of contract and no subsequent changes will be permitted.]***

***\* Modify the above to suit the requirements given in Government of India's Notifications as current of date of bidding.***

**Appendix to Technical Part: Bid Security**  
**Form of Bid Security - Bank Guarantee**  
*[Guarantor letterhead or SWIFT identifier code]*

Bank Guarantee No.....[insert guarantee reference number]  
 Date.....[insert date of issue of the guarantee]

WHEREAS, \_\_\_\_\_ [name of Bidder]<sup>14</sup> (hereinafter called "the Applicant") has submitted his Bid dated \_\_\_\_\_ [date] or will submit his Bid for the construction of \_\_\_\_\_ [name of Contract] (hereinafter called "the Bid") under Request for Bids No.....[insert number] (hereinafter called "the RFB")

KNOW ALL PEOPLE by these presents that We \_\_\_\_\_ [name of bank] of \_\_\_\_\_ [name of country] having our registered office at \_\_\_\_\_ (hereinafter called "the Bank") are bound unto \_\_\_\_\_ [name of Employer] (hereinafter called "the Employer") in the sum of \_\_\_\_\_<sup>15</sup> for which payment well and truly to be made to the said Employer the Bank binds itself, his successors and assigns by these presents.

SEALED with the Common Seal of the said Bank this \_\_\_\_\_ day of \_\_\_\_\_ 20\_\_\_\_.

THE CONDITIONS of this obligation are:

(1) If after Bid opening the Applicant (a) withdraws his bid during the period of Bid validity specified in the Letter of Bid, or any extended date provided by the Applicant ("the Bid Validity Period"); or (b) does not accept the correction of the Bid Price pursuant to ITB 36;

Or

(2) If the Applicant having been notified of the acceptance of his bid by the Employer during the period of Bid validity:

(a) fails or refuses to execute the Contract Agreement in accordance with the Instructions to Bidders, if required; or

<sup>14</sup>Insert name of the Bidder, which in the case of a joint venture shall be (a) the name of the joint venture that submits the bid if the JV has been constituted into a legally enforceable JV, or (b) the names of all future members of the JV as named in the letter of intent to execute the JV Agreement submitted by the bidder along with its bid.

<sup>15</sup>The Applicant should insert the amount of the guarantee in words and figures denominated in Indian Rupees. This figure should be the same as shown in Clause 19.1 of the Instructions to Bidders.

- (b) fails or refuses to furnish the Performance Security and if required, the Environmental and Social (ES) Performance Security, in accordance with the Instruction to Bidders.

we undertake to pay to the Employer up to the above amount upon receipt of his first written demand, without the Employer having to substantiate his demand, provided that in his demand the Employer will note that the amount claimed by him is due to him owing to the occurrence of one or any of the four conditions, specifying the occurred condition or conditions.

This Guarantee will remain in force up to and including the date \_\_\_\_\_  
<sup>16</sup>days after the deadline for submission of Bids as such deadline is stated in the Instructions to Bidders or as it may be extended by the Employer, notice of which extension(s) to the Bank is hereby waived. Any demand in respect of this guarantee should reach the Bank not later than the above date.

DATE \_\_\_\_\_ SIGNATURE OF THE BANK \_\_\_\_\_

WITNESS \_\_\_\_\_ SEAL \_\_\_\_\_

\_\_\_\_\_  
 [signature, name, and address]

*Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.*

\_\_\_\_\_  
<sup>16</sup>45 days after the end of the validity period of the Bid.

## Letter of Bid - Financial Part

***INSTRUCTIONS TO BIDDERS: DELETE THIS BOX ONCE YOU HAVE COMPLETED THE DOCUMENT***

*The Bidder must prepare this Letter of Bid on stationery with its letterhead clearly showing the Bidder's complete name and business address.*

*Note: All italicized text is to help Bidders in preparing this form.*

**Date of this Bid submission:** *[insert date (as day, month and year) of Bid submission]*

**Request for Bid No.:** *[insert identification]*

**Alternative No.<sup>17</sup>:** *[insert identification No if this is a Bid for an alternative]*

**To:** *[insert complete name of Employer]*

We, the undersigned, hereby submit the second part of our Bid, the Bid Price and Bill of Quantities. This accompanies the Letter of Bid - Technical Part.

In submitting our Bid, we make the following additional declarations:

- (a) **Bid Validity Period:** Our Bid shall be valid for a period specified in BDS 18.1 (or as amended if applicable) from the date fixed for the Bid submission deadline specified in BDS 22.1 (or as amended if applicable), and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
- (b) **Bid Price:** The total price of our Bid, excluding any discounts offered in item (c) below is:  
*[Insert one of the options below as appropriate]*

*[Option 1, in case of one lot:]* Total price is: *[insert the total price of the Bid in Rs. in words and figures]*;

Or

*[Option 2, in case of multiple lots:]* (a) Total price of each lot *[insert the total price of each lot in Rs. in words and figures]*; and (b) Total price of all lots (sum of all lots) *[insert the total price of all lots in Rs. words and figures]*;

---

<sup>17</sup> Delete if not applicable



- (c) **Discounts:** The discounts offered and the methodology for their application are:
- (i) The discounts offered are: *[Specify in detail each discount offered]*
  - (ii) 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];*
- (d) **Commissions, gratuities and fees:** We have paid, or will pay the following commissions, gratuities, or fees with respect to the Bidding process or execution of the Contract: *[insert complete name of each Recipient, its full address, the reason for which each commission or gratuity was paid and the amount and currency of each such commission or gratuity].*

Name of Recipient	Address	Reason	Amount

(If none has been paid or is to be paid, indicate “none.”)

**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 a 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. The power of attorney shall be attached with the Bid Schedules

**Appendix to Financial Part: Schedules  
Sub-contracting**

**SCHEDULE OF SUBCONTRACTORS**

*[Note: Entries in this Schedule shall be the same as included in the same Schedule in the technical part of the bid, except for the column on 'Approximate value of subcontract' added in the table below]*

<b>Item</b>	<b>Element of work</b>	<b>Approximate value of subcontract</b>	<b>% of bid price</b>	<b>Name and address of sub-contractor</b>	<b>Qualification and experience of sub-contractor on similar works of the elements executed</b>

The Bidder shall enter in this schedule a list of the major sections and appropriate value of the work for which he proposed to use subcontractors *[for those costing more than 10% of the bid price for each element]*, together with the names, addresses and experiences of the proposed subcontractors.

*(Work should not be split into small parts and subcontracted; but subcontracting specialized elements of works is acceptable).*

### Appendix to Financial Part: Schedules

**Important: This Financial Bid Submission Form must be completed and submitted /uploaded on the e-procurement portal i.e. <https://assamtenders.gov.in> ) in Excel form in the Financial Envelope along with the BOQ. The Financial Bid Submission Form shall be the part of Commercial Bid and if the bidder fails to submit Financial Bid Submission Form, the bid shall be deemed non-responsive.**

#### Advisory to Bidder

Bidders are informed that most of the items included in the BoQ/Financial Bids are CPWD-DSR items. Accordingly, bidders are advised to refer to the applicable rates as per the CPWD-DSR approved by APWD. While bidders are free to quote their own rates in alignment with the CPWD-DSR approved by APWD, the rates quoted for individual items should not deviate significantly from the prescribed DSR rates. Bidders are further advised to conduct appropriate market due diligence while submitting their financial bids for both DSR and non-DSR items.

#### *BOQ – Hojai Civil Hospital, Hojai,*

S.No.	ITEM OF WORKS	UNIT	QUANTIT Y	BASIC RATE In Figures To be entered by the Bidder Rs. P	TOTAL AMOUNT Without Taxes
1	<b>Salvage</b>				
1.1	Credit for demolition of building structure etc. complete and taking away all fetched material out of campus within 30 days after completing demolition part except C&D waste kept for recycling and used the recycle product for non structural work such as in footh path, manhole, lean concrete, filling under plinth, re-filling foundation etc. or as approved by Engineer-in-charge complete in all respect. The serviceable material received from dismantling/demolishing to be kept with executing agency and take away from the site as per direction of engineer-in- charge. Quote the lump sum amount (in minus)	Job	1.00		-
2	<b>EARTHWORK</b>				

2.1	Earth work in excavation by mechanical means (Hydraulic excavator) / manual means in foundation trenches or drains (not exceeding 1.5 m in width or 10 sqm on plan), including dressing of sides and ramming of bottoms, lift upto 1.5 m, including getting out the excavated soil and disposal of surplus excavated soil as directed, within a lead of 50 m.				
2.1.1	All kinds of soil.	Cum	282.71		-
2.2	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m.				
2.2.1	All kinds of soil	Sqm	95.00		-
2.3	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	Sqm	25.00		-
2.4	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-in-charge.				
2.4.1	All kinds of soil	Cum	2,443.22		-
2.5	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	598.23		-
2.6	Excavating, supplying and filling of local earth (including royalty) by mechanical transport upto a lead of 5km also including ramming and watering of the earth in layers not exceeding 20 cm in trenches, plinth, sides of foundation etc. complete.	Cum	4,604.00		-
3	<b>SAND FILLING</b>				
3.1	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	Cum	31.56		-
4	<b>SOLING WORK</b>				
4.1	Dry brick on edge flooring in required pattern with bricks of class designation 7.5 on a bed of 12 mm mud mortar, including filling joints with Jamuna sand, with common burnt clay non modular bricks.	Sqm	244.54		-
5	<b>P.C.C WORKS</b>				
5.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
5.1.1	1:3:6 (1 Cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	27.23		-
5.1.2	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	Cum	153.59		-
6	<b>D.P.C work</b>				
6.1	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 12.5mm nominal size derived from natural sources)	Sqm	6.23		-
7	<b>RCC Work</b>				

7.1	Providing and laying in position specified grade of reinforced cement concrete, excluding the cost of centering, shuttering, finishing and reinforcement - All work up to plinth level :				
7.1.1	1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	147.42		-
7.2	All works above plinth and upto floor V level				
7.2.1	1:1.5:3 (1 cement : 1.5 coarse sand(zone-III) derived from natural sources : 3 graded stone aggregate 20 mm nominal size derived from natural sources)	Cum	37.28		-
7.3	Reinforced cement concrete work in beams, suspended floors, roofs having slope up to 15° landings, balconies, shelves, chajjas, lintels, bands, plain window sills, staircases and spiral stair cases above plinth level up to floor five level, excluding the cost of centering, shuttering, finishing and reinforcement with 1:1.5:3 (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size).	Cum	13.80		-
7.4	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
7.4.1	All works upto plinth level				
7.4.1.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	Cum	127.68		-
7.4.2	All works above plinth and upto floor V level				
7.4.2.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	Cum	17.35		-
7.5	Add for using extra cement in the items of design mix over and above the specified cement content therein.	Quintal	101.52		-
8	<b>FORMWORK</b>				
8.1	Centering and shuttering including strutting, propping etc. and removal of form for				
8.1.1	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	708.91		-
8.1.2	Suspended floors, roofs, landings, balconies and access platform	Sqm	113.21		-
8.1.3	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	736.47		-
8.1.4	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	735.11		-
9	<b>STEEL REINFORCEMENT</b>				
9.1	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				

9.1.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	46,578.58		-
9.2	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
9.2.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	3,900.32		-
10	<b>BRICKWORK</b>				
10.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
10.1.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	19.64		-
10.1.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	69.21		-
10.2	Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in:				
10.2.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	8.92		-
10.2.2	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	276.00		-
10.3	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.				
10.3.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Sqm	924.14		-
10.4	Providing and laying Autoclaved Aerated concrete (AAC) blocks masonry with 150mm/ 230mm/ 300 mm thick with Grade-I AAC blocks of density 551 to 650 kg/cum conforming to IS: 2185 (Part 3) in super structure above plinth level up to floor V level with RCC band at sill level and lintel level with approved block laying polymer modified adhesive mortar all complete as per direction of Engineer-in-Charge. (The payment of RCC band and reinforcement shall be made for separately).	Cum	36.20		-
11	<b>DOORS</b>				
11.1	Providing wood work in frames of doors, windows, clerestory windows and other frames, wrought framed and fixed in position with hold fast lugs or with dash fasteners of required dia & length (hold fast lugs or dash fastener shall be paid for separately).				
11.1.1	Second class teak wood	Cum	0.56		-
11.2	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
11.2.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	258.47		-
11.2.2	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	2.10		-
11.3	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) non-decorative type, core of block board construction with frame of 1st class hard wood and well matched commercial 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters				
11.3.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	25.50		-

11.4	Renewing glass panes, with wooden fillets wherever necessary:				
11.4.1	Float glass panes of nominal thickness 5 mm (weight not less than 12.5kg/sqm)	Sqm	332.44		-
12	<b>DOORS FITTINGS</b>				
12.1	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :				
12.1.1	300x16 mm	Each	2.00		-
12.1.2	250x16 mm	Each	15.00		-
12.2	Providing and fixing ISI marked oxidised M.S. tower bolt black finish, (Barrel type) with necessary screws etc. complete :				
12.2.1	100x10 mm	Each	19.00		-
12.3	Providing and fixing ISI marked oxidised M.S. handles conforming to IS:4992 with necessary screws etc. complete :				
12.3.1	125 mm	Each	19.00		-
12.4	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				
12.4.1	250x10 mm	Each	285.00		-
12.5	Providing and fixing bright finished brass door latch with necessary screws etc. complete :				
12.5.1	300x16x5 mm	Each	283.00		-
12.6	Providing and fixing bright finished brass handles with screws etc. complete:				
12.6.1	125 mm	Each	566.00		-
12.7	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	Each	284.00		-
12.8	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	Each	283.00		-
12.9	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	Each	284.00		-
12.10	Providing and fixing chromium plated brass handles with necessary screws etc. complete:				
12.10.1	125mm	Each	2.00		-
13	<b>STRUCTURAL STEEL WORKS</b>				
13.1	Structural steel work riveted, bolted or welded in built up sections, trusses and framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer all complete.	Kg	928.51		-
13.2	Steel work in built up tubular (round, square or rectangular hollow tubes etc.) trusses etc., including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer, including welding and bolted with special shaped washers etc. complete.				

13.2.1	Hot finished welded type tubes	Kg	4,129.88		-
13.3	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete.	Each	1.00		-
13.4	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
13.4.1	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	Kg	1,791.28		-
14	<b>ROOFING</b>				
14.1	Renewing wooden battens in roofs, including making good the holes in wall and painting with oil type wood preservative of approved brand and manufacture complete, including removal of rubbish to the dumping ground, all complete as per direction of Engineer-in-Charge.				
14.1.1	Sal wood battens	Cum	5.50		-
14.2	Providing corrugated G.S. sheet roofing including vertical / curved surface fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead, including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (up to any pitch in horizontal/ vertical or curved surfaces), excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.				
14.2.1	0.63 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	Sqm	70.25		-
14.3	Providing ridges or hips of width 60 cm overall width plain G.S. sheet fixed with polymer coated J or L hooks, bolts and nuts 8 mm dia G.I. limpet and bitumen washers complete.				
14.3.1	0.63 mm thick with zinc coating not less than 275 gm/m <sup>2</sup>	Metre	12.33		-
14.4	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer- in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	225.00		-
14.5	Providing and fixing precoated galvanised steel sheet roofing accessories 0.50 mm (+0.05 %) total coated thickness, Zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns using self drilling/ self tapping screws complete :				
14.5.1	Ridges plain (500 - 600mm)	Metre	50.00		-



15	<b>PLASTERING</b>				
15.1	20 mm cement plaster of mix :				
15.1.1	1:4 (1 cement: 4 fine sand)	Sqm	547.05		-
15.2	12 mm cement plaster of mix				
15.2.1	1:4 (1 cement: 4 coarse sand)	Sqm	1,014.26		-
15.2.2	1:6 (1 cement: 6 coarse sand)	Sqm	25.05		-
15.3	15 mm cement plaster on the rough side of single or half brick wall of mix :				
15.3.1	1:4 (1 cement: 4 coarse sand)	Sqm	1,438.97		-
15.3.2	1:6 (1 cement: 6 coarse sand)	Sqm	456.88		-
15.4	12 mm cement plaster finished with a floating coat of neat cement of mix:				
15.4.1	1:3 (1 cement: 3 fine sand)	Sqm	182.20		-
15.4.2	1:4 (1 cement: 4 fine sand)	Sqm	2,260.00		-
15.5	15 mm cement plaster on rough side of single or half brick wall finished with a floating coat of neat cement of mix :				
15.5.1	1:4 (1 cement: 4 fine sand)	Sqm	12.22		-
15.6	Cement plaster 1:3 (1 cement: 3 coarse sand) finished with a floating coat of neat cement.				
15.6.1	20 mm cement plaster	Sqm	322.02		-
16	<b>PUTTY AND PRIMER WORK</b>				
16.1	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	Sqm	12,948.65		-
16.2	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	14,412.14		-
16.3	Applying priming coats with primer of approved brand and manufacture, having low VOC (Volatile Organic Compound ) content.				
16.3.1	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	Sqm	14,412.14		-
17	<b>EXTERNAL PAINTING</b>				
17.1	Finishing walls with Acrylic Smooth exterior paint of required shade :				
17.1.1	New work (Two or more coat applied @ 1.67 ltr/10 sqm over and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	Sqm	3,190.30		-
18	<b>INTERNAL PAINTING</b>				
18.1	Wall painting with acrylic emulsion paint, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre, of approved brand and manufacture, including applying additional coats wherever required, to achieve even shade and colour.				
18.1.1	Two coats	Sqm	481.93		-

18.2	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
18.2.1	Two coats	Sqm	8,961.88		-
19	<b>OLD WOOD AND STEEL PAINTING</b>				
19.1	Applying priming coat				
19.1.1	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	Sqm	20.52		-
19.2	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
19.2.1	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	Sqm	20.52		-
19.3	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
19.3.1	One or more coats on old work	Sqm	587.68		-
19.4	Painting runway/taxi track/apron marking with adequate nos of coats to give uniform finish with road marking paint of superior make as approved by the engineer-in-charge, including cleaning the surface of all dirt, scales, oil, greas and other foreign materials etc. and lining out complete.				
19.4.1	New work (Two or more coats)	Sqm	300.00		-
20	<b>FLOORING &amp; SKIRTING/ DADO</b>				
20.1	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete.				
20.1.1	Size of Tile 600x600 mm	Sqm	1,112.95		-
20.2	62 mm thick cement concrete flooring with concrete hardener topping, under layer 50 mm thick cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) and top layer 12mm thick cement hardener consisting of mix 1:2 (1 cement hardener mix : 2 graded stone aggregate, 6mm nominal size) by volume, hardening compound mixed @ 2 litre per 50 kg of cement or as per manufacture's specifications. This includes cost of cement slurry, but excluding the cost of nosing of steps etc. complete	Sqm	49.56		-
21	<b>GRANITE FLOORING</b>				
21.1	Providing and laying Polished Granite stone flooring and tread of steps in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including				

	rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.				
21.1.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent	Sqm	25.00		-
22	<b>ANTISKID TILES</b>				
22.1	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only . Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily.				
22.1.1	Glazed Vitrified tiles Matt/Antiskid finish of size				
22.1.1.1	Size of Tile 600 x 600 mm	Sqm	423.59		-
23	<b>WALL TILES</b>				
23.1	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	Sqm	4,621.06		-
24	<b>ALUMINIUM DOORS, WINDOWS AND OTHER WORKS</b>				
24.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately)				
24.1.1	For fixed portion				
24.1.1.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	21.87		-
24.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				

24.2.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	21.87		-
24.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
24.3.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	Sqm	7.02		-
24.4	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineerin- charge complete.				
24.4.1	205x19mm	Each	6.00		-
24.5	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.				
24.5.1	Anodized (AC 15) aluminium tubular handle bar	Each	4.00		-
24.6	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	Kg	35.10		-
25	<b>PLINTH PROTECTION WORKS</b>				
25.1	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	Sqm	7.50		-
26	<b>FALSE CEILING</b>				

26.1	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main T at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main T runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x 1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.				
26.1.1	GI Metal Ceiling Lay in plain Tegular edge Global white color tiles of size 595x595 mm, and 0.5 mm thick with 8mm drop; made of G I sheet having galvanizing of 100 gms/sqm (both sides inclusive) and electro statically polyester powder coated of thickness 60 microns (minimum), including factory painted after bending	Sqm	819.54		-
26.1.2	12.5 mm thick fully Perforated Gypsum Board tile made from plasterboard having glass fibre conforming to IS: 2095 part I, of size 595x595 mm, having perforation of 9.7x9.7 mm at 19.4 mm c/c with center borders of 48 mm and the side borders of 30 mm, backed with non woven tissue on the back side, having an NRC (Noise Reduction Coefficient) of 0.79, with 50 mm resin bonded glass wool backing.	Sqm	1,318.64		-
27	<b>DISMANTALING WORKS</b>				
27.1	Demolishing cement concrete manually/ by mechanical means including disposal of material within 50 metres lead as per direction of Engineer - in - charge				
27.1.1	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	Cum	702.00		-
27.2	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	Cum	37.22		-
27.3	Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in- charge.	Cum	30.00		-
27.4	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineerin	Sqm	45.00		-
27.5	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				

27.5.1	In cement mortar	Cum	159.03		-
27.6	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
27.6.1	Of area 3 sq. metres and below	Each	298.00		-
27.7	Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.	Sqm	2,138.18		-
27.8	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	Kg	350.00		-
27.9	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	Sqm	1,438.97		-
27.10.	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
27.10.1	For thickness of tiles 10 mm to 25 mm	Sqm	6,150.95		-
27.11	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	Cum	2,670.00		-
28	<b>WIRE MESH</b>				
28.1	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.				
28.1.1	With 2nd class teak wood beading 62X19 mm	Sqm	355.29		-
29	<b>Pu Paint</b>				
29.1	Providing two coats of White cement putty, Epoxy based primer of Pro Epi Shield Floor Sealer (20 micron), Top coat Aqua green WB PU Finish White (60 micron) to finishing including scaffolding, Brush, Roller, Sand Paper, Silk Roller & Carring charges etc.	Sqm	1,498.31		-
30	<b>Hermeticallysealed HPL OT Door</b>				
30.1	Metaflex make Mak Health Manual Single Leaf sliding 100% Hermetically sealed HPL OT door, door panel 60 mm thick, 4 mm HPL on both sides of 52 mm thick pressure injected High Grade PIR (density 45 kg/m3) with Anodized Aluminium Door Profile and Rail with Special grade self- lubricating PA rollers, Bearings 2X per roller, Bulb & Lip design EPDM gasket with special lower sealing, 28 dB noise insulation with vision panel of 300 x 300 x 60 mm with 5 mm tempered glasson both sides, planks. Size: 1500 x 2100 mm	Each	8.00		-

30.2	Metaflex make Double Leaf HPL (Pre- Painted Galvanized Steel) Skin Insulated Clean Room Door with 44 mm Door thickness with HPL Skin on both sides with pressure injected High Grade PIR as Door Blade core material with Ano alu Door Frame, Rubber Gasket Non Particle Shredding Type Seal, Drop Seal, Double Insulated Glass Vison panel 300x300mm, Ball Bearing Hinges, Door Closer on active leaf, Door Lock and SS 304 Door Handle D-Type for smooth passage. Size : 1500x2100 mm	Each	29.00		-
31	<b>SIGNAGE</b>				
31.1	Steel Letter (Outdoor Quality) Specification: 304 Stainless Steel Letter with 20 Gauges. Thickness of the letter : 2.50 Inch Depth/ Raise Size Of Letter: 1.5 Inch (20" Height X125Nos=2500 Inch)	Run Inch	2,500.00		-
31.2	Supplying and installing of in position the following type of sign boards made out of 3mm thick "Opaque" PVC foam board with computer cut, PVC reflective self adhesive vinyl painted foam board, complete with mirror fasteners.				
31.2.1	Signage with printed "IN CASE OF FIRE, USE STAIRS UNLESS INSTRUCTED OTHERWISE" of 1.5cm height letters in red with white back ground. The size of the board shall be 25cm x 30 cm and shall be fixed at the height of 2 mts. from finished floor near Manual call points.	Each	100.00		-
31.3	Floor identification signage ( i.e., GROUND FLOOR ...etc.) at each stair enclosure on every floor, indicating the floor number in words, lettering size shall be 7.5 cm with contrasting color from back ground. Size shall be 15cm x 60cm.	Each	200.00		-
31.4	Fire Exit signage- Double sided: 150 x 400 Providing and fixing "Fire Exit" letters signage (with or without directional arrows as per signage plan, ref. by architect). Signage to be made of 3 mm thick foam board with edge to edhe self-adhesive, self luminiscent Forex or equivalent inyl stuck on it. Fix green vinyly to cover Forex vinyl leaving 6 mm border around edges with Exit letters cut-out. The exit letters shall be 150 mm height. Double side false ceiling suspended with chain look and hook. Unidirectional, printed both sides with sinle arrow or double arrow.	Each	200.00		-
31.5	Supplying and installing of in position the following type of sign boards made out of 3mm thick "Opaque" PVC foam board with computer cut, PVC reflective self adhesive vinyle painted foam board, complete with mirror fasteners.				
31.5.1	Department wise marking	Each	600.00		-
31.6	Staircase Arrow Sign - Imported Acrylic Sheet 4mm, grade 1 autoluminscent film, preplotted media with extra over laminate at the back. Size: 6'' x 4''	Each	200.00		-
32	<b>INTERNAL ROAD- PAVER BLOCK</b>				
32.1	Preparation and consolidation of sub grade with power road roller of 8 to 12 tonne capacity after excavating earth to an average of 22.5 cm depth, dressing to camber and consolidating with road roller including making good the undulations etc. and re-rolling the sub grade and disposal of surplus earth with lead upto 50 metres.	Sqm	2,500.00		-
32.2	Supplying and stacking at site.				

32.2.1	63 mm to 45 mm size stone aggregate	Cum	262.50		-
32.2.2	53 mm to 22.4 mm size stone aggregate	Cum	393.75		-
32.3	Laying, spreading and compacting stone aggregate of specified sizes to WBM specifications in uniform thickness, hand picking, rolling with 3 wheeled road/vibratory roller 8-10 tonne capacity in stages to proper grade and camber, applying and brooming requisite type of screening / binding material to fill up interstices of coarse aggregate, watering and compacting to the required density .	Cum	250.00		-
32.4	Construction of granular sub-base by providing close graded Material conforming to specifications, mixing in a mechanical mix plant at OMC, carriage of mixed material by tippers to work site, for all leads & lifts, spreading in uniform layers of specified thickness with motor grader on prepared surface and compacting with vibratory power roller to achieve the desired density, complete as per specifications and directions of Engineer-in-Charge.				
32.4.1	With material conforming to Grade-II (size range 53 mm to 0.075 mm ) having CBR Value-25	Cum	375.00		-
32.5	Providing and laying factory made chamfered edge Cement Concrete paver blocks in footpath, parks, lawns, drive ways or light traffic parking etc, of required strength, thickness & size/ shape, made by table vibratory method using PU mould, laid in required colour & pattern over 50mm thick compacted bed of sand, compacting and proper embedding/laying of inter locking paver blocks into the sand bedding layer through vibratory compaction by using plate vibrator, filling the joints with sand and cutting of paver blocks as per required size and pattern, finishing and sweeping extra sand. complete all as per direction of Engineer-in-Charge.				
32.5.1	80mm thick cement concrete paver block of M-35 grade with approved colour, design & pattern.	Sqm	2,500.00		-
32.6	Providing and laying at or near ground level factory made kerb stone of M-25 grade cement concrete in position to the required line, level and curvature, jointed with cement mortar 1:3 (1 cement: 3 coarse sand), including making joints with or without grooves (thickness of joints except at sharp curve shall not to more than 5mm), including making drainage opening wherever required complete etc. as per direction of Engineer-in-charge (length of finished kerb edging shall be measured for payment). (Precast C.C. kerb stone shall be approved by Engineer-in-charge).	Cum	50.00		-
33	<b>INTERNAL WIRING</b>				
33.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
33.1.1	Group C	Each	220.00		-



33.2	Wiring for group controlled (looped) light point/fan point/exhaust fan point/ call bell point (without independent switch etc.) with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable in surface/ recessed PVC conduit, and earthing the point with 1.5 sq. mm FRLS PVC insulated copper conductor single core cable etc. as required.				
33.2.1	Group C	Each	80.00		-
33.3	Wiring for circuit/ submain wiring along with earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				
33.3.1	2x2.5 sq.mm + 1 x 2.5 sq.mm earth wire (For 6A Power Point looping & Switch board to Switch board looping)	Metre	1,965.00		-
33.3.2	2 x 4 sq.mm + 1 x 4 sq.mm earth wire ((For 6/16A Power Point looping)	Metre	1,905.00		-
33.4	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Each	131.00		-
33.5	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 6 pin 5/6 & 15/16 A modular socket outlet and 15/16 A modular switch, connections etc. as required.	Each	125.00		-
33.6	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
33.6.1	20 mm	Metre	1,965.00		-
33.6.2	25 mm	Metre	1,875.00		-
33.7	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed steel conduit as required.				
33.7.1	2 X 2.5 sq. mm + 1 X 2.5 sq. mm earth wire	Metre	30.00		-
33.8	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed steel conduit, with piano type switch, phenolic laminated sheet, suitable size MS box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
33.8.1	Group A	Each	10.00		-
33.9	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
33.9.1	5/6 A switch	Each	14.00		-
33.9.2	3 pin 5/6 A socket outlet	Each	4.00		-
34	<b>DISTRIBUTION BOARDS &amp; MCB</b>				

34.1	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/ RCCB/Isolator)				
34.1.1	12way, Double door	Each	1.00		-
35	<b>HTPN DB</b>				
35.1	Supplying and fixing following way, horizontal type three pole and neutral, sheet steel, MCB distribution board, 415 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. (But without MCB/RCCB/Isolator)				
35.1.1	4 way (4 + 12), Double door For TERRACE FLOOR	Each	2.00		-
35.1.2	6 way (6 + 18), Double door	Each	1.00		-
35.1.3	8 way (4 + 24), Double door	Each	1.00		-
35.2	Supplying and fixing Cable End Box (Loose Wire Box) suitable for following triple pole and neutral, sheet steel, MCB distribution board, 415 Volts, on surface/ recess, complete with testing and commissioning etc.as required.				
35.2.1	4 way (4 + 12), Double door	Each	2.00		-
35.2.2	6 way (6 + 18), Double door	Each	1.00		-
35.2.3	8 way (4 + 24), Double door	Each	1.00		-
35.3	Supplying and fixing 5 A to 32 A rating, 240/415 V, 10 kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
35.3.1	Single Pole	Each	30.00		-
35.3.2	Double pole	Each	7.00		-
35.3.3	Triple pole	Each	6.00		-
35.4	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CM/M/W) minimum 6.00, Air delivery minimum 210 Cum/Min, 350 RPM (tolerance as per IS: 374-2019), THO less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required	Each	9.00		-
35.5	Supply and laying of 25mm X 5mm G.I. strip at 0.5 mtr below ground as strip earth electrode including connection/termination with GI Nut-Bolt & Spring Washer etc as required(Jointing Shall be done by overlapping and with 2sets of GI Nut-Bolt & spring washer spaced at 50mm)	Metre	2,679.00		-

35.6	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Metre	2,711.00		-
35.7	Providing and fixing 6 SWG dia. G.I. wire on surface or in recessed for loop earthing as required	Metre	2,757.00		-
35.8	Supplying, installation, testing & commissioning of exhaust fans 300 mm. sweep. 230volt, 50Hz single phase A/C supply and complete with all standard accessories s (As per make list / atrchitect choice)	Each	31.00		-
35.9	Supply, installation testing, commissioning of 20W LED TUBE LIGHT including Luminaire housing and all fixing accessories (As per make list / atrchitect choice)	Each	131.00		-
35.10.	Supply, installation testing, commissioning of 12W surface/ recess MOUNTED DOWN LIGHT including Luminaire housing and all fixing accessories (As per make list / atrchitect choice)	Each	52.00		-
36	<b>DIESEL GENERATOR</b>				
36.1	Supply, installation testing, commissioning of 170 KVA Silent DG set outdoor type complete with acoustic enclosure , fuel tank, fuel piping, engine directly coupled with alternator 3 - Phase 415V, 1500 rpm , 0.8 p.f. , 50Hz, engine control panel residential silencer, anti vibration mountings pad etc., charged battery with leads,earthing and first fill of oil and lubricants as per specifications . Including Liaison fees Necessary Statutory Approval from (NOC - POWER UTILITY, DOE & PCB). Also includes supply, fabrication and erection of DG exhaust 150/200 mm dia MS piping including necessary rock wool insullation (64kg/m3), Al. cladding over the insullaion including silencer and necessary support , scaffolding arrangement . DG AMF panel also included	Each	1.00		-
37	<b>UPS</b>				
37.1	Supply & Installation of 60 KVA , 3P+N in/out, 415V system, 50HZ, Modular UPS ( 25 x 3 nos), Input Voltage range 400V +15%/-20% - 230V +15%/-20% , Output Voltage range -380, 400, 415V selectable, Low THD Double conversion efficiency up to 96.8% Efficiency in ECO mode up to 99%. Output power factor = 1 Hot-swappable modules. Modular redundancy in N+1 configuration. Intelligence distributed between modules. UPS Power capacity upto 25KW x 3 module Decentralised by-pass. Reduced battery charging times. BMS compatible with open protocol communicable, remote monitoring interface, 30 mins backup ( for 50 KVA) with 12V SMF battery, built in redundancy with all accessories, Battery racks, interconnecting cables etc.	Each	1.00		-
38	<b>FIRE RISER SYSTEM &amp; INTERNAL HYDRANT SYSTEM</b>				

38.1	Providing and fixing TAC approved <b>fire hose cabinet</b> to house fire hydrant & hose, including all other related accessories fabricated from M.S. sheet (16 Gauge) of fully welded construction having front door with locking arrangement, partially glazed with 4 mm thick glass. Cabinet shall be powder coated & painted with post office red colour of size as shown in the drawing (or as approved by Architect) to house the hydrant valve, 15 mtr.x2 nos. hose & hose reel. The hose cabinet size is 1500 x 900 mm x 450 mm				
38.1.1	<b>Internal Hose Cabinet</b>	Each	8.00		-
38.2	Providing and fixing TAC approved <b>fire hose cabinet</b> to house fire hydrant & hose, including all other related accessories fabricated from M.S. sheet (16 Gauge) of fully welded construction having front door with locking arrangement, partially glazed with 4 mm thick glass. Cabinet shall be powder coated & painted with post office red colour of size as mentioned in drawing (or as approved by the Architect) to house 15 mtr.x2 nos. hoses. The hose box size is 750 mm x 600 mm x 300 mm				
38.2.1	<b>Hose Cabinet for External yard Hydrant</b>	Each	20.00		-
39	<b>EXTERNAL ELECTRICAL</b>				
39.1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, refilling the trench etc as required.				
39.1.1	3 x 4 sq. Mm ( upto 35 sqmm)	Metre	240.00		-
39.2	Laying of one number additional PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
39.2.1	3 x 4 sq. Mm ( upto 35 sqmm) additional cable	Metre	24.00		-
39.3	Supplying and fixing 5A to 32A rating, 240/415V, 10kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
39.3.1	single pole	Each	5.00		-
39.4	Earthing with G.I. earth pipe 4.5mtr long,40mm dia including accessories and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc.with charcoal or coke and salt complete as required (IS : 3043-1987), (Panel earthing + Lightning protection)	Each	2.00		-
39.5	Supply and laying of 25mm X 5mm G.I. strip at 0.5 mtr below ground as strip earth electrode including connection/termination with GI Nut-Bolt & Spring Washer etc as required(Jointing Shall be done by overlapping and with 2sets of GI Nut-Bolt & spring washer spaced at 50mm)	Metre	10.00		-
39.6	Erection of metallic pole of following length in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.				

39.6.1	Above 4.5 metre and upto 6.5 metre	Each	18.00		-
40	<b>LIGHTING FIXTURES</b>				
40.1	Supply & fixing of 30W LED street light Wipro LR02-331-XXX-57-XX or equivalent	Each	18.00		-
40.2	Supply of decorative hot dipped galvanised mild steel step pole 6mtrs. height with grey powder finish. Compatible for street light. Window - Plasma cut & duly chamfered opening window of 300x110 mm for terminal connections & mounting accessories. Window cover is fitted with allen screws to the pole ( Excluding civil work). Havells make or equivalent	Each	18.00		-
41	<b>SUPPLY OF MV CABLES</b>				
41.1	Supply of XLPE insulated power cable (conforming IS-7098 Part-I) 1100 Volt grade, 1 core/2 core/3½ core/4 core ISI marked with alu. stranded /solid conductor				
41.1.1	4 sq. mm. 3 core Cu. Arm. XLPE cable	Metre	264.00		-
42	<b>TERMINATION OF MV CABLES</b>				
42.1	Supplying and making end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 KV grade as required				
42.1.1	4 sq. mm. 3 core Cu. Arm.XLPE cable	Each	3.00		-
43	<b>SUPPLY OF FEEDER PILLAR, OUTDOOR</b>				
43.1	Supplying, installation, testing & commissioning of cubical Feeder Pillar type double door, floor mounted, IP65, suitable for 415V, 3 Phase, 4 Wire 50 Hz AC supply system of suitable size fabricated in compartmentalized design from CRCA sheet steel of 2 mm thick for frame work and covers, 3mm thick for gland plates i/c cleaning & finishing ,powder coating in approved shade, having 63 A capacity aluminium bus bars of high conductivity, Short circuit withstanding capacity of 16 KA, DMC / SMC bus bar supports, bottom base channel of MS section not less than 75 mm x 75 mm x 5 mm thick, entire panel shall have a common GI earth bar 25mm x 5mm at the rear with 2 Nos. earth stud, connections from main bus bar to switch gears with required size of copper conductor/single core cable and control wiring with 1.5 sq. mm. PVC insulated copper conductor S/C cable, cable alleys, cable gland plates in two half, i/c providing and fixing of following switchgear and components complete as required.				
43.1.1	(I)Incomer 1) 32 Amp, FP,10 kA MCB with -1 nos 2) LED type phase indicating lamps with 2 Amps SP MCBs for Instrument Protection  (II) Outgoing :- (i) ML 1.5 Contactor with control wiring and connector block etc. : 1 set (ii) Digital astronomical timer switch -1 No (iii) 10 Amp SP MCB, 10 KA - 12 Nos	Each	1.00		-
44	<b>INTERNAL PLUMBING</b>				

44.1	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
44.1.1	W.C. pan with ISI marked white solid plastic seat and lid	Each	48.00		-
44.2	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
44.2.1	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	Each	48.00		-
44.2.2	White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI Marked	Each	71.00		-
44.3	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	Each	119.00		-
44.4	Providing and fixing stainless steel A ISI : 304 (18/8) kitchen sink as per IS : 13983 with CI brackets and stainless steel plug 40mm including painting of fittings and brackets, cutting and making good the walls wherever required.				
44.4.1	Kitchen sink without drain board				
44.4.1.1	610 x 510 mm bowl depth 200 mm	Each	36.00		-
44.5	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.	Each	116.00		-
44.6	Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin: 32 mm dia	Each	36.00		-
44.7	15 mm C.P. brass tap with elbow operation lever	Each	36.00		-
44.8	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge. [for Basin / Urinal / Sink waste]				
44.8.1	40 mm dia	Each	155.00		-
44.8.2	50 mm dia	Each	155.00		-
44.9	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	Each	155.00		-
44.10.	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in - charge.	Each	36.00		-
44.11	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :	Each	48.00		-
44.12	Providing and fixing C.P. brass <b>angle valve</b> for basin mixer and geyser points of approved quality conforming to IS:8931	Each	200.00		-

44.13	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :	Each	9.00		-
44.14	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931.	Each	9.00		-
44.15	Providing and fixing soil, waste pipes : Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905				
44.15.1	100 mm dia	Metre	122.00		-
44.15.2	75 mm diameter : vent pipes :	Metre	170.00		-
44.16	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 : (For RWP)				
44.16.1	100 mm dia pipe	Metre	170.00		-
44.16.2	150 mm dia pipe	Metre	170.00		-
44.17	Providing and fixing M.S. holder-bat clamps of approved design to sand cast iron / cast iron (spun) pipes embedded in and including cement concrete blocks 10 x 10 x 10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls, etc.				
44.17.1	For 100mm diameter	Each	85.00		-
44.17.2	For 75mm diameter	Each	85.00		-
44.18	Providing and Fixing shielded coupling for Hubless centrifugally cast iron pipe.				
44.18.1	100 mm				
44.18.1.1	SS 304 grade coupling with EPDM Rubber gasket.	Each	36.00		-
44.19	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905				
44.19.1	100 mm dia	Each	241.00		-
44.20.	Providing and fixing plain bend of required degree.				
44.20.1	100 mm dia	Each	120.00		-
44.21	Providing and fixing double equal plain junction of required degree.				
44.21.1	100x100x100x100 mm	Each	72.00		-
44.22	Providing and fixing single equal plain junction of required degree :				
44.22.1	100x100x100 mm	Each	72.00		-
44.23	Providing and fixing double unequal plain junction of required degree :				
44.23.1	100x100x75x75 mm	Each	72.00		-
44.24	Providing and fixing single unequal plain junction of required degree :				
44.24.1	100x100x75 mm	Each	72.00		-
44.25	Providing and fixing double equal plain invert branch of required degree:				

44.25.1	100x100x100x100 mm	Each	72.00		-
44.26	Providing and fixing single equal plain invert branch of required degree :				
44.26.1	100x100x100 mm	Each	72.00		-
44.27	Providing and fixing Hubless centrifugally cast (spun) iron terminal guard (slotted cowl) -100 mm dia as per IS 15905	Each	72.00		-
44.28	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
44.28.1	100 mm inlet and 100 mm outlet				
44.28.1.1	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	Each	72.00		-
44.29	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.	Each	48.00		-
44.30.	Cutting chases in brick masonry walls for following diameter sand cast iron / centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 12.50 mm nominal size), including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand).				
44.30.1	100 mm	Each	48.00		-
44.30.2	50 mm	Each	48.00		-
44.31	Painting sand cast iron/centrifugally cast (spun) iron soil, waste vent pipes and fittings with paint of any colour such as chocolate, grey or buff, etc., over a coat of primer (of approved quality) for new work.				
44.31.1	100mm diameter pipe	Metre	122.00		-
44.32	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, including fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and testing of joints complete as per direction of Engineer in Charge				
44.32.1	15 mm nominal dia Pipes	Metre	15.00		-
44.32.2	50 mm nominal dia Pipes	Metre	20.00		-
44.33	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require: 17.7.1 White Vitreous China Wash basin size 630x450 mm with a pair of 15 mm C.P. brass pillar taps	Each	1.00		-
44.34	Providing and fixing PTMT bib cock of approved quality and colour. 15mm nominal bore, 86 mm long, weighing not less than 88 gms	Each	1.00		-
44.35	Providing and fixing ball valve (brass) of approved quality, High or low pressure, with plastic floats complete :25 mm nominal bore	Each	1.00		-



45	<b>WATER SUPPLY</b>				
45.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc.(Concealed Work)				
45.1.1	15 mm nominal outer dia Pipes	Metre	140.00		-
45.1.2	20 mm nominal outer dia Pipes	Metre	75.00		-
45.1.3	25 mm nominal outer dia Pipes	Metre	65.00		-
45.1.4	32 mm nominal outer dia Pipes	Metre	32.50		-
45.1.5	40 mm nominal outer dia Pipes	Metre	97.50		-
45.2	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.				
45.2.1	20 mm nominal dia Pipes	Metre	157.00		-
45.2.2	25 mm nominal dia Pipes	Metre	137.00		-
45.2.3	32 mm nominal dia Pipes	Metre	127.00		-
45.2.4	40 mm nominal dia Pipes	Metre	127.00		-
45.2.5	50 mm nominal dia Pipes	Metre	127.00		-
45.2.6	65 mm nominal dia Pipes	Metre	127.00		-
45.3	Providing and fixing ball valves (brass) of approved quality, High or Low pressure with plastic floats complete.				
45.3.1	15 mm nominal bore	Each	90.00		-
45.3.2	20 mm nominal bore	Each	90.00		-
45.3.3	25 mm nominal bore	Each	90.00		-
46	<b>DISMANTLING WORK FOR PLUMBING</b>				
46.1	Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace including shifting at ground level as per direction of Engineer-in-charge.	Each	36.00		-
46.2	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in Charge	Each	72.00		-
46.3	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer in-Charge.				
46.3.1	(a) Internal Work- Exposed on wall	Metre	1,800.00		-

46.4	Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :				
46.4.1	15 mm to 40 mm nominal bore	Metre	710.00		-
46.4.2	Above 40 mm nominal bore	Metre	425.00		-
46.5	Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge:				
46.5.1	Up to 150 mm diameter	Metre	425.00		-
46.5.2.	Above 150 mm dia up to 300 mm dia	Metre	565.00		-
46.6	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	Each	72.00		-
46.7	Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 metres				
46.7.1	Up to 150 mm diameter	Each	330.00		-
46.7.2	Above 150 mm diameter	Each	465.00		-
47	<b>EXTERNAL PLUMBING</b>				
47.1	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. [for Municipal and Bore Well supply to UGT/ UGR TO OHR]				
47.1.1	40 mm dia nominal bore	Metre	30.00		-
47.1.2	50 mm dia nominal bore	Metre	50.00		-
47.1.3	65 mm dia nominal bore	Metre	50.00		-
47.1.4	80 mm dia nominal bore	Metre	15.00		-
47.2	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep ( inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size ) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :				
47.2.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	10.00		-
47.3	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :				
47.3.1	50 mm diameter pipe	Metre	50.00		-
47.3.2	65 mm diameter pipe	Metre	30.00		-

47.3.3	80 mm diameter pipe	Metre	10.00		-
47.4	Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work :				
47.4.1	50 mm diameter pipe	Metre	60.00		-
47.4.2	65 mm diameter pipe	Metre	60.00		-
47.4.3	80 mm diameter pipe	Metre	8.00		-
47.5	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :				
47.5.1	25 mm nominal bore	Each	6.00		-
47.5.2	32 mm nominal bore	Each	10.00		-
47.5.3	40 mm nominal bore	Each	7.00		-
47.5.4	50 mm nominal bore	Each	6.00		-
47.5.5	65 mm nominal bore	Each	6.00		-
47.6	Providing and fixing gun metal gate valve with C.I wheel of approved quality (screwed end).				
47.6.1	32 mm nominal bore	Each	10.00		-
47.6.2	40 mm nominal bore	Each	8.00		-
47.6.3	50 mm nominal bore	Each	10.00		-
47.6.4	65 mm nominal bore	Each	6.00		-
47.7	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:				
47.7.1	100x100 mm size P type				
47.7.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	10.00		-
47.8	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W pipe including bed concrete as per standard design.				
47.8.1	150 mm Diameter S.W Pipe	Metre	30.00		-
47.8.2	200 mm Diameter S.W Pipe	Metre	5.00		-
47.8.3	300 mm Diameter S.W Pipe	Metre	5.00		-
47.9	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :				
47.9.1	For pipes 250 to 300 mm diameter	Each	20.00		-

48	<b>FIRE MCC PANEL</b>	Each	1.00		-
48.1	Supply, installation, testing and commissioning of 25 x 6 mm GI Equipotential bar of 500 mm length with suitable. junction box to connect earthing conductor from building earthing to the equipment. (With six knock outs for connecting the equipment earthing)	Each	2.00		-
49	<b>CABLE</b>				
49.1	Supply, laying testing and commissioning of L.T. XLPE armoured / unarmoured cable confirming to IS : 7098 Part - II as per the description given below: (Note: Qty may vary +/- 15% as per actual work at site)				
49.1.1	3.5 C x 95 Sq. MM. Al. XLPE ARM Cable (FIRE PANEL To Hydrant & Standby Pumps)	Metre	60.00		-
49.1.2	3.5 C x 2.5 Sq. MM. Cu. PVC Armored Cable (JOCKEY PUMP)	Metre	20.00		-
49.1.3	5 C x 2.5 Sq. MM. Cu. PVC Armored Cable	Metre	70.00		-
49.2	Installation of:				
49.2.1	3.5 C x 2.5 Sq. MM. Cu. PVC Armored Cable (JOCKEY PUMP)	Each	4.00		-
49.2.2	5 C x 2.5 Sq. MM. Cu. PVC Armoured Cable	Each	8.00		-
49.3	Providing and fixing Power wiring with 2 core x 1.5 sq.mm. PVC armoured copper cable for wiring pressure switches, etc. Including all required material and labour, terminations, etc. Complete.	Metre	80.00		-
49.4	<b>Providing, installing testing &amp; commissioning of Foot valve</b>				
49.4.1	<b>Size : 100 mm</b>	Each	1.00		-
49.5	100 mm dial Pressure gauge with Syphon tubing, isolation valve & mounting accessories complete Range: 0 - 10 kg/sq.cm.				
49.5.1	<b>Pressure Gauge : 0 - 10 kg/sq.cm.</b>	Each	12.00		-
49.6	Supply, installation, testing & commissioning of <b>Rubber Bellows</b> on discharge side of pump conforming to EJMA with all hardwares, companion flanges & gaskets, etc.				
49.6.1	<b>Size : 200 mm</b>	Each	3.00		-
49.6.2	<b>Size : 150 mm</b>	Each	3.00		-
49.6.3	<b>Size : 50 mm</b>	Each	2.00		-
49.6.4	<b>Size : 40 mm</b>	Each	2.00		-
49.7	Fire Man Axe with heavy insulated rubber handle tested to 20,000 volts as per IS:929 complete				
49.7.1	<b>Fire Man Axe</b>	Each	10.00		-
50	<b>DEEP TUBE WELL 2 NOS</b>				
50.1	Boring/drilling bore well of required dia for casing/ strainer pipe, by suitable method prescribed in IS: 2800 (part I), including collecting samples from different strata, preparing and submitting strata chart/ bore log, including hire & running charges of all equipments, tools, plants & machineries required for the job, all complete as per direction of Engineer -in-charge, beyond 90 metre & upto 150 metre depth below ground level.				
50.1.1	All types of soil				

50.1.1.1	300 mm dia	Metre	5.00		-
50.2	Supplying, assembling, lowering and fixing in vertical position in bore well, unplasticized PVC medium well casing (CM) pipe of required dia, conforming to IS: 12818, including required hire and labour charges, fittings & accessories etc. all complete, for all depths, as per direction of Engineer -in-charge.				
50.2.1	200 mm nominal size dia	Metre	90.00		-
50.3	Supplying, filling, spreading & leveling gravels of size range 5 mm to 10 mm, in the recharge pit, over the existing layer of boulders, in required thickness, for all leads & lifts, all complete as per direction of Engineer-in-charge.	Cum	10.00		-
50.4	Gravel packing in tubewell construction in accordance with IS: 4097, including providing gravel fine/ medium/ coarse, in required grading & sizes as per actual requirement, all complete as per direction of Engineer-in-charge	Cum	20.00		-
50.5	Providing and fixing factory made precast RCC perforated drain covers, having concrete of strength not less than M-25, of size 1000 x 450x50 mm, reinforced with 8 mm dia four nos longitudinal & 9 nos cross sectional T.M.T. hoop bars, including providing 50 mm dia perforations @ 100 to 125 mm c/c, including providing edge binding with M.S. flats of size 50 mm x 1.6 mm complete, all as per direction of Engineer in- charge.	Each	5.00		-
50.6	Supplying, assembling, lowering and fixing in vertical position in bore well, ERW (Electric Resistance Welded) FE 410 mild steel screwed and socketed/plain ended casing pipes of required dia, conforming to IS: 4270, of reputed & approved make, including painted with outside surface with two coats of anticorrosive paint of approved brand and manufacture, including required hire & labour charges, fittings & accessories, all complete, for all depths, as per direction of Engineer-in-charge.				
50.6.1	150 mm nominal size dia having minimum wall thickness 5.00 mm	Metre	90.00		-
50.7	Development of tube well in accordance with IS : 2800 (part I) and IS: 11189, to establish maximum rate of usable water yield without sand content (beyond permissible limit), with required capacity air compressor, running the compressor for required time till well is fully developed, measuring yield of well by "V" notch method or any other approved method, measuring static level & draw down etc. by step draw down method, collecting water samples & getting tested in approved laboratory, i/c disinfection of tubewell, all complete, including hire & labour charges of air compressor, tools & accessories etc., all as per requirement and direction of Engineer-in-charge.	Hour	20.00		-
50.8	Providing and fixing suitable size threaded mild steel cap or spot welded plate to the top of bore well housing/ casing pipe, removable as per requirement, all complete for borewell of:				
50.8.1	200 mm dia	Each	10.00		-
50.9	Providing and fixing M.S. clamp of required dia to the top of casing/ housing pipe of tubewell as per IS: 2800 (part I), including necessary bolts & nuts of required size complete.				

50.9.1	200 mm clamp	Each	46.00		-
50.10.	Providing and fixing Bail plug/ Bottom plug of required dia to the bottom of pipe assembly of tubewell as per IS:2800 (part I).				
50.10.1	150 mm dia	Each	23.00		-
51	<b>Pump for Overhead Tank</b>				
51.1	Supply, installation & commissioning of 2 Nos.vertical Inline Multi Stage Centrifugal Pump for Clear Water Transfer with 50Hz, 380-415V, 2 Pole IE3 efficiency class motor (As per IEC standard). Pump shall be CI with CED quoted- Head & Base, SS 316 -Shaft and all other components will be with SS 304, Mechanical Seal (SiC vs SiC face) . Pump should have minimum 70% efficiency. (Motor Make - Siemens/ ABB/Schneider)				
51.1.1	Pump controller suitable for 2 Pumps (1W+1S) with LCD screen displays, phase loss protection (incoming as well as for outgoing), Individual pump overload protection, individual pump under voltage protection, dryrunning protection without installing any float switch, memory function when power off and during recovery, visual and audio alarm for fault prompt, auto manual switch, and pump should operate based on the OHT water level and both pump should run together for high level. Panel should come with 2 Nos Float switch to work as per the sump water level.				
51.1.1.1	Flow Rate-17 m <sup>3</sup> /hr (1W+1S) Head-30m	Set	2.00		-
52	<b>Submersible Borewell Pump</b>				
52.1	Supply installation & Commissioning of submersible borewell pump with SS 304-Casing/Impeller/Shaft & Mechanical seal coupled with a 380-415V, 50Hz 2 Pole, Insulation Class-F, IP 68 Protected Rewindable Electric Motor. Pump efficiency should not be less than 65%.				
52.1.1	Pump controller suitable for 1 Pump with LCD screen displays, phase loss protection (incoming as well as for outgoing), Individual pump overload protection, individual pump under voltage protection, dryrunning protection without installing any float switch, memory function when power off and during recovery, visual and audio alarm for fault prompt, auto manual switch, and pump should operate based on the UGT water level. Panel should come with 1 No. Float switch to work as per the tank water level.				
52.1.1.1	Flow Rate Per Pump-13 m <sup>3</sup> /hr (1W+1S) Head-35m	Set	1.00		-
53	<b>PRIMARY RO PLANT</b>				
53.1	Supply ,Testing and Commissioning of Floor Mounted R.O. Plant capable to deliver Output water at TDS < 150 PPM . The Rate Should Include Complete items inclusive of Necessary PVC Storage Tanks, Valves, Membranes, Control Panels, Pippings, Pumps, Strainers, Supports and Other accessories .Backwash once a day. Vendor to consider pre filter requirement , if any, based on water test at their own cost. Vendor to submit design details, p&ID and plan /section drawings along with membrane calculations for approval. Vendor to submit technical datasheet including membrane details.				

53.1.1	<b>50 LPH WITH All Accessories and Pumps, Filters, for Fitting on Floor as per approved OEM drawings</b>	Each	8.00		-
54	<b>HVAC</b>				
54.1	<b>SUPPLY OF DX SPLIT TYPE AIRCONDITIONING SYSTEM</b>				
54.1.1	Air-Cooled Split Air-conditioners for cooling only of capacity given below suitable for operation on $230 \pm 10$ % volt, 50 Hz, 1 phase AC supply. The system shall full charge of refrigerant gas and oil. The unit shall be suitable for cordless remote operation and as per specifications. Each air-conditioner shall consist of one outdoor unit and one indoor unit and other accessories as listed below. Air-cooled condensing unit (outdoor) comprising of hermetically sealed Rotary / Scroll type compressor, condenser coil, propeller fan etc. 3 Star Inverter				
54.1.1.1	Basic Price for Split AC i/c accessories, fittings, supports, Outdoor Stand, Voltage Stabilizer, ITC etc. 1.5 TR, 3 star inverter type	Each	45.00		-
54.2	<b>REFRIGERATION PIPING SPLIT UNITS</b>				
54.2.1	Supply, Installation, testing and commissioning including vacuumization and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for Split AC system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation /with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :				
54.2.1.1	Copper Pipe for 6.4 mm dia (OD) (Soft drawn) with tube thickness .54 mm with 19 mm thick insulation	Metre	225.00		-
54.2.1.2	Copper Pipe for 12.7 mm dia (OD) (Soft drawn) with tube thickness .64 mm with 19 mm thick insulation	Metre	225.00		-
54.3	<b>CONDENSATE DRAIN PIPING SPLIT UNITS</b>				
54.3.1	Providing and fixing in position the following pipes cut to required lengths and necessary fittings with insulation.				
54.3.1.1	25 mm dia. PVC pipe	Metre	225.00		-
55	<b>70 KLD CAPACITY MBBR TYPE SEWAGE TREATMENT PLANT</b>				
55.1	Supply, Installation, Testing & Commissioning of 1 Nos. 70 KLD Packaged Sewage Treatment plant complete with Bar Screen, all Pumps, Valves, Tanks, Pippings and accessories and necessary associated Electrical Panel and Control and Monitoring system. (The Plant shall be semi automatic with a central Control panel fully pre/site wired and with all power and control cables to all pumps and equipment including all instrumentation, level switch				
55.1.1	<b>STP Water Tertiary Treatment Plant</b>				

55.1.2	Supplying, installation, testing & commissioning of Tertiary Plant . The Proposed WTP shall have following components in order to make the water reusable and pathogen free and safe for human and animals. Multi Grade Filter -7.5 Cum/Hr Activated Carbon Filter - 7.5 Cum/ Hr Treatiary Feed Pump of 7.5 m3/hr , 25 mts head Digital flow meter at the Final outlet				
55.1.3	<b>Mandatory Inclsuons in Quote</b> Intra Unit Pipings All Valves, Stariners, Electro mechanical accessories as per SLD / Plan submitted for approval. MCC Panel common for STP & TERTIARY TREATMENT				
55.1.4	Design, fabrication, assembling, wiring, supply, installation, testing and commissioning of motor control centre fabricated out of 14 gauge CRCA sheet steel. Cable gland plates shall be provided on top as well as at the bottom of the panels. Panels shall be treated with all anticorrosive process before painting as per specifications with 2 coats of red oxide primer and final approved shade of powder coated paint. 2 Nos. earthing terminals shall be provided for 3 phase, 4 wire, 50 Hz supply system. manual selection switches . Also , Supply, installation, testing & commissioning of PLC Panel to make the system Complete				
55.2	<b>Grand Total STP + TERTIARY</b>	Lot	1.00		-
56	<b>10 KLD CAPACITY TYPE EFFLUENT TREATMENT PLANT</b>				
56.1	Nature of Waste Water - Effluent from Labs etc Daily Effluent inflow at peak =10 M <sup>3</sup> /Day (Outlet of ETP is Discharged to STP Collection Tank) Influent Characteristic pH - 6.5 - 8.5 BOD - 500 mg/liter S. Solids - 250-450 mg/liter COD - 800-900 mg/liter Oil & Grease - 10 to 50 mg/liter Effluent discharge standard after STP Tertiary: pH - 6.5 - 7.5 BOD 5 - Less than 10 mg/liter S. Solids - Less than 20 mg/liter COD - Less than 50 mg/liter Oil and Grease - Traces only				
56.2	<b>Effluent Treatment Plant shall include the supply, installation, testing &amp; commissioning of the following items:</b>				
56.3	Supply, Installation, Testing & Commissioning of 1 Nos. Effluent treatment plant 10KLD having lime, alum and polyelectrolyte dozing tanks ,Bar screen,Blower . Outlet of ETP to be connected to STP inlet chamber.This is also include Raw effluent feed pump of 2 sets MCC Control panel with cables All piping & valves	Lot	1.00		-



57	<b>CCTV System</b>				
57.1	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.				
57.1.1	1 run of cable	Metre	3,230.00		-
57.2	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
57.2.1	25 mm	Metre	3,185.00		-
57.3	Supplying, installation, testing and commissioning of 32 channels CCTV NVR 2 SATAPORT Network Video Recorder with all accessories such as internet connection, 2x4tb Hard Disk etc. complete in all respect to use at site.	Set	2.00		-
57.4	Supplying, installation, testing and commissioning of 2MP full HD 1080p dome IP CCTV camera with all accessories complete in all respect to use at site.	Set	14.00		-
57.5	Supplying, installation, testing and commissioning of 2MP full HD 1080p bullet IP CCTV camera IP-66 with all accessories complete in all respect to use at site.	Set	8.00		-
57.6	Supplying, installation, testing and commissioning of 16 port rack mountable POE switch complete with all accessories .	Set	3.00		-
57.7	Supply, Installation, Testing & Commissioning of CAT6 UTP 24 port Patch Panel complete with all accessories complete.	Set	3.00		-
57.8	Supplying, installation, testing and commissioning of 42 inch LED Monitor with VGA and HDMI Ports complete with all accessories .	Set	4.00		-
57.9	Central Management Software for Viewing, Multi-DVR management, supporting all cameras at one single screen and maximum Devices management, auto search configuration and status monitoring.	Each	1.00		-
57.10	Supply, Installation, Testing & Commissioning of CAT6 patch cord factory crimp cable for connecting RJ 45 including all required like connection etc at site.				
57.10.1	1 metre	Each	50.00		-
58	<b>Public address system</b>				
58.1	Supplying, installation, testing & commissioning of 6 zone, voice alarm controller with USB, MP3 player (including 6 zone button paging station) with seamless integration facility with main fire alarm panel for voice evacuation complete as required.	Each	8.00		-
58.2	Supplying, installation, testing & commissioning of 1.5/3/6W metal box ceiling/wall speakers complete as required.	Each	40.00		-
58.3	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.				
58.3.1	speaker cable Single pair, 2-core, 1.5 sqmm	Metre	1,100.00		-

58.4	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
58.4.1	25 mm	Metre	1,560.00		-
58.5	Supplying installation, testing, programming and commissioning of Audio equipment, Reference Dynamic Vocal Microphone, highest audio Performance for stage and studio.	Each	3.00		-
59	<b>FIRE DETECTION SYSTEM</b>				
59.1	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required.	Each	100.00		-
59.2	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	Each	5.00		-
59.3	Supplying, installation, testing & commissioning of addressable fire control Module complete as required.	Each	5.00		-
59.4	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.	Metre	850.00		-
60	<b>Voice Network System.</b>				
60.1	Supplying including Fitting & Fixing of RJ45 Computer /Data Socket( Category 5 ( MK or equivalent Schneider/ RR /Legrand)	Each	20.00		-
60.2	Patch Cord Cat 6 UTP Gray 1m - Moulded SCHNEIDER/ LEGRAND or equivalent	Each	5.00		-
60.3	Patch Cord Cat 6 UTP Gray 2m - Moulded SCHNEIDER/LEGRAND or equivalent make as approved by the Deptt..	Each	5.00		-
60.4	DIGILINKL/ LEGRAND OR equivalent 24 Port 10/100/1000Mbps Layer 2 stackable Switch with 4 Gigabit Combo Ports	Set	3.00		-
61	<b>TV system</b>				
61.1	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
61.1.1	TV antenna socket outlet	Each	6.00		-
61.2	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.				
61.2.1	1 or 2 Module (75mmX75mm)	Each	6.00		-
61.3	Supplying installation, testing, programming and commissioning of video equipment, Mini Coax High-Resolution Cable , COAX CENTER CONDUCTOR: 28 AWG 7/36 tinned copper.	Metre	220.00		-
61.3.1	4K Ultra HD Smart LED TV	Each	6.00		-
62	<b>DATA Network System.</b>				
62.1	Supplying including Fitting & Fixing of RJ45 Computer /Data Socket( Category 5 ( MK or equivalent Schneider/ RR /Legrand)	Each	45.00		-
62.2	Patch Cord Cat 6 UTP Gray 1m - Moulded SCHNEIDER/ LEGRAND or equivalent	Each	33.00		-

62.3	Patch Cord Cat 6 UTP Gray 2m - Moulded SCHNEIDER/LEGRAND or equivalent make as approved by the Deptt..	Each	33.00		-
62.4	DIGILINKL/ LEGRAND OR equivalent 24 Port 10/100/1000Mbps Layer 2 stackable Switch with 4 Gigabit Combo Ports	Set	3.00		-
62.5	9U Rack Loaded SCHNEIDER/ LEGRAND or equivalent	Set	3.00		-
63	<b>MEDICAL GAS PIPELINE SYSTEM</b>				
63.1	SITC of 8 + 8 cylinder size main Oxygen manifold (header bar), complete with middle frame with chain for individual cylinder along with high pressure copper tail pipes, Non Return Valve for every cylinder. All header racks and cylinder tailpipes should be 230 bar rated. Cylinder header racks for oxygen service shall be provided with connections for bull nose cylinder connections. Cylinder racks shall be manufactured from powder coated steel and shall be designed to securely support cylinders of varying diameters. Tailpipes shall have gas specific connections to the manifold header with threaded connections. Manifold header racks shall incorporate hard-seat, polymer-free non-return integral with each cylinder connection point to maintain system in the event of tailpipe fracture and prevent backflow of gas into the high pressure cylinders as per specification. Flexible tail pipes should not be used.	Set	1.00		-
63.2	SITC of Fully Automatic Control Panel for Oxygen having constant flow output of over 1000 LPM or more at 55 to 60 psig Pressure as per specification	Each	1.00		-
63.3	SITC of 6 + 6 cylinder size <b>Emergency Back-up Oxygen manifold (header bar)</b> , complete with middle frame with chain for individual cylinder along with high pressure copper tail pipes, Non Return Valve for every cylinder. All header racks and cylinder tailpipes should be 230 bar rated. Cylinder header racks for oxygen service shall be provided with connections for bull nose cylinder connections. Cylinder racks shall be manufactured from powder coated steel and shall be designed to securely support cylinders of varying diameters. Tailpipes shall have gas specific connections to the manifold header with threaded connections. Manifold header racks shall incorporate hard-seat, polymer-free non-return integral with each cylinder connection point to maintain system in the event of tailpipe fracture and prevent backflow of gas into the high pressure cylinders as per specification. Flexible tail pipes should not be used.	Set	1.00		-
63.4	SITC of SEMI Automatic Control Panel for Emergency Oxygen Manifold having constant flow output of over 1000 LPM or more at 55 to 60 psig Pressure as per specification	Each	1.00		-
64	<b>Oxygen Flowmeter with Humidifier as per specification</b>				
64.1	Range: 0 to 15 LPM	Each	11.00		-
64.2	Range: 0 to 5 LPM	Each	9.00		-
64.3	BPC Adapter for Ventilator & Anesthesia Workstation	Each	12.00		-
64.4	Oxygen Kit Conversion for connecting Anaesthesia Machine with Oxygen Gas Outlet	Each	4.00		-
65	<b>NITROUS OXIDE SYSTEM</b>				

65.1	SITC of 1 + 1 size main Nitrous Oxide manifold (header bar), complete with middle frame with chain for individual cylinder along with high pressure copper tail pipes, Non Return Valve for every cylinder. All header racks and cylinder tailpipes should be 230 bar rated. Cylinder header racks for oxygen service shall be provided with connections for bull nose cylinder connections. Cylinder racks shall be manufactured from powder coated steel and shall be designed to securely support cylinders of varying diameters. Tailpipes shall have gas specific connections to the manifold header with threaded connections. Manifold header racks shall incorporate hard-seat, polymer-free non-return integral with each cylinder connection point to maintain system in the event of tailpipe fracture and prevent backflow of gas into the high pressure cylinders as per specification. Flexible tail pipes should not be used.	Set	1.00		-
65.2	SITC of Semi Automatic Control Panel for Nitrous Oxide having constant flow output of over 450 LPM or more at 55 to 60 psig Pressure as per specification	Each	1.00		-
65.3	SITC of 1 cylinder size emergency Nitrous Oxide back-up manifold (header bar), complete with middle frame with chain for individual cylinder along with high pressure copper tail pipes, Non Return Valve for every cylinder. All header racks and cylinder tailpipes should be 230 bar rated. Cylinder header racks for oxygen service shall be provided with connections for bull nose cylinder connections. Cylinder racks shall be manufactured from powder coated steel and shall be designed to securely support cylinders of varying diameters. Tailpipes shall have gas specific connections to the manifold header with threaded connections. Manifold header racks shall incorporate hard-seat, polymer-free non-return integral with each cylinder connection point to maintain system in the event of tailpipe fracture and prevent backflow of gas into the high pressure cylinders as per specification. Flexible tail pipes should not be used.	Set	1.00		-
65.4	SITC of Preset Nitrous Oxide Pressure Regulator for Emergency Nitrous Oxide Manifold having constant flow output of over 150 LPM or more at 55 to 60 psig Pressure as per specification	Each	1.00		-
65.5	Nitrous Oxide Kit Conversion for connecting Anaesthesia Machine with Nitrous Oxide Gas Outlet	Each	4.00		-
66	<b>SITC of MEDICAL VACUUM SYSTEM AS PER SPECIFICATION</b>				
66.1	Central Vacuum System Complete with Vacuum Pump, each having 110 cfm PD with <b>10 Hp motor</b> , Filter, Interconnecting Pipes, NRV, Auto Switch Gear Assembly, Exhaust Silencer and Line Filter etc.	Set	2.00		-
66.2	Vacuum Tank 2000 Liters	Each	1.00		-
66.3	Bacterial Filter with Drain Flask- 115 CFM FLOW RATE	Each	2.00		-
66.4	Ward Vacuum Unit with Regulator, Collection Jar of 600 ml with Bracket as per specification	Each	20.00		-
66.5	Theatre Vacuum Unit mounted on Trolley consisting of Vacuum Regulator with Gauge and 2 nos. of 2000 ml Polycarbonate Jar as per specification	Each	2.00		-
66.6	LP Tube	Metre	30.00		-
67	<b>SITC of COMPRESSED AIR SYSTEM AS PER SPECIFICATION</b>				

67.1	Compressed Air system complete with 2 nos. of Reciprocating Oil free, air cooled type, dust free, Base frame mounted Air Compressors with <b>10 HP Motors</b> with Air filter 2 sets (Pre, Post and Activated Carbon)	Set	1.00		-
67.2	Air receiver shall be of 1000 litres water capacity designed considering maximim working pressure of 10 bar(g).	Each	1.00		-
67.3	Medical Breathing Air Dryer	Each	1.00		-
67.4	Pressure Reducing Station for 4 Bar	Set	2.00		-
67.5	SITC of Common Electrical Power Distribution Panel for Compressed Air System & Vacuum System as per specification complete with plant room wiring.	Each	1.00		-
68	<b>SITC of Distribution Copper Pipe as per EN 13348 - Lloyds Certified as per specification</b>				
68.1	35 mm OD x 1.2 mm thick	Metre	144.00		-
68.2	28 mm OD x 1.2 mm thick	Metre	338.00		-
68.3	22 mm OD x 0.9 mm thick	Metre	409.00		-
68.4	15 mm OD x 0.9 mm thick	Metre	380.00		-
68.5	12 mm OD x 0.9 mm thick	Metre	111.00		-
69	<b>SITC of Medical Gas Outlets / Terminal Units for mounting on Wall, Bed Head Panel &amp; Ceiling Pendant as per specification</b>				
69.1	Front Loading Oxygen Outlets with probe	Each	26.00		-
69.2	Front Loading N2O Outlets with probe	Each	10.00		-
69.3	Front Loading Medical Air - 4 Bar Outlets with probe	Each	11.00		-
69.4	Front Loading Vacuum Outlets with probe	Each	20.00		-
69.5	SA7	Each	1.00		-
70	<b>SITC of Medical Gas Digital Area Alarm System as per specification</b>				
70.1	4 - Gas (O2,N2O, Med Air-4 Bar & Vacuum)	Each	3.00		-
70.2	3 Gas ( O2, Air, Vacuum)	Each	2.00		-
71	<b>Area Valve Service Unit with Valve &amp; Gauge as per specification</b>				
71.1	5 GAS Service	Each	2.00		-
71.2	4 Gas Service ( 35 x 28 x 28 x 22 mm)	Each	1.00		-
72	<b>SITC of Lockable Floor Isolation Valve with End Fittings as per specification</b>				
72.1	12 mm	Each	18.00		-
72.2	15 mm	Each	31.00		-
72.3	22 mm	Each	10.00		-
72.4	28 mm	Each	4.00		-

73	<b>SITC of Medical Gas Tubing color coded throughout their length for Oxygen, Medical Air &amp; Vacuum</b>	Metre	50.00		-
74	<b>FIRE RISER SYSTEM &amp; INTERNAL HYDRANT SYSTEM</b>				
74.1	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete				
74.1.1	Note : The piping installation has to be put to hydraulic test to 1.5 times the working pressure & as per latest applicable code & standard before applying paint etc. complete				
74.1.1.1	<b>150 mm (Wet Risers for Hydrant)</b>	Metre	160.00		-
74.1.1.2	<b>80 mm (For Internal Landing valve Connection)</b>	Metre	5.00		-
74.1.1.3	<b>50 mm (Drain Down Comer)</b>	Metre	140.00		-
74.1.1.4	<b>25 mm (For Internal Hose Reel Drum Conection)</b>	Metre	40.00		-
74.2	Supplying, fixing, testing and commissioning of <b>Butterfly Valve</b> of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required				
74.2.1	<b>150 mm (For Hydrant)</b>	Each	4.00		-
74.2.2	<b>80 mm (For Internal Landing Valve)</b>	Each	6.00		-
74.3	Providing, installation, testing and commissioning of <b>Non-Return Valve</b> of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required				
74.3.1	<b>Size : 150 mm</b>	Each	2.00		-
74.4	Supplying and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required				
74.4.1	<b>63mm Single headed Hydrant Valve or Internal Landing Valve</b>	Each	6.00		-
74.5	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required				
74.5.1	<b>63 mm RRL Hose 15mtr.length.</b>	Each	10.00		-
74.6	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.				
74.6.1	<b>Hose Reel Drum having 40 mtr. Hose Reel Length</b>	Each	10.00		-

74.7	Providing, fixing and testing forged brass <b>25 mm dia screwed inlet single acting air release valve with 25 mm dia Ball Valve</b> on inlet side and pressure gauge with 15 mm isolating cock / Valve.				
74.7.1	<b>25mm Air release valve as per IS:14845 ISI Marked</b>	Each	6.00		-
74.8	Supplying & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required				
74.8.1	<b>GM Branch Pipe with NOZZLE</b>	Each	6.00		-
74.9	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm <sup>2</sup> complete as required.				
74.9.1	<b>Orifice Plate</b>	Each	4.00		-
74.10	25 mm nominal bore <b>Ball Valve</b> (for Internal HRD & ARV)	Each	12.00		-
75	<b>EXTERNAL HYDRANT</b>				
75.1	Excavations for pipelines in trench and pit in open areas where disposal or surplus earth is done along the alignment, including trimming and dressing sides, leveling of beds of trenches to correct grades, cutting joint holes, refilling consolidation and dewatering of refilling in 15 cm layers & restoration & unmettalled or unpaved surface to it's original condition.				
75.1.1	The rate including the cost of necessary timbering dewatering of drain water, diversion of traffic, night signals, fixing caution boards, watching fencing etc.				
75.1.1.1	Upto 1.5m depth in all classes of soil	Cum	1,450.00		-
75.2	Supplying, installation testing and commissioning of the following 'C' class <b>MS Pipe</b> as per IS1239 for underground/over ground pipes with welded / flanged connection with saddles, supports (all with screwed/welded joints) as required including pipe of shorter lengths, tapering connecting pieces, short or long bends, specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. Complete to make the system operative as required by LFA / TAC authorities the pipes will have to be laid and fixed in trenches. The work includes excavation in all types of soils and back filling, dewatering, etc., making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for overheads pipes and providing and fixing pyp kote (corrosion protection tape) including supply and application of pipe coating and spiral Wrapping for underground piping (wrapping should have overlap of 15 to 20 mm) etc.				
75.2.1	Complete as per ASTM standards/IS: 10221 for corrosion protection of pipes for the underground installation. Note: The piping installation has to be put to hydraulic test to 1.5 times the working pressure & as per latest applicable codes & standard before applying paint or pipe coating or wrapping etc. complete.				

75.2.1.1	<b>OVER GROUND</b>				
75.2.1.1.i	150 mm dia.	Metre	30.00		-
75.2.1.1.ii	100 mm dia.	Metre	40.00		-
75.2.1.1.iii	80 mm dia.	Metre	20.00		-
75.2.1.2	<b>UNDER GROUND</b>				
75.2.1.2.i	150 mm dia.	Metre	550.00		-
75.3	Providing and fixing <b>hydrant stand posts of 80 mm dia.</b> With flanges and accessories and supply, fixing single headed 63 mm dia G.M. Hydrant Valve in the courtyard IS:5290 Including 2 coats of approved enamel paint (red) over a coat of primer, complete with 2.1/2" 'Morris' pattern instantaneous couplings, etc. complete.				
75.3.1	<b>Yard Hydrant : 63 mm</b>	Each	25.00		-
75.4	Providing & fixing 63mm dia <b>RRL hose pipe</b> as per IS 636 TYPE A TAC/ LFA approved of 15 mtr. standard length of approved pattern and size including gun metal male and female Coupling duly bound with copper wire etc. complete				
75.4.1	<b>63 mm RRL Hose 15mtr.length.</b>	Each	50.00		-
75.5	Supplying and fixing <b>4 way Fire Brigade service inlet</b> of size 150 mm dia. with 4 No. 63mm (2.1/2") size GM male outlets (bronze male coupling) including metallic cover of mild steel and glass front, indicator plates, 150mm BFV, etc. complete				
75.5.1	<b>4 Way Fire Brigade service inlet</b>	Each	2.00		-
75.6	SITC of <b>fire brigade draw out connection</b> with 100 mm MS suction pipe & 100 mm dia foot valve. The scope shall also include required valves, piping, M.S cabinet as required				
75.6.1	<b>2 Way Fire Brigade draw out connection</b>	Each	2.00		-
75.7	Constructing brick masonry manhole in cement mortar 1:4 (1 cement : 4 coarse sand) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
75.7.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : 19.7.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Job	4.00		-



75.8	Supply and installation, testing and commissioning of CI <b>Butterfly Valves</b> ( heavy ) conforming to BS 5155 ,PN1.0 tested to 1.5 times working pressure with necessary companion flanges, bolts, nuts, gasket packing, support and any other spares, including indicator for open and shut position as per fire practice etc complete.				
75.8.1	150 NB	Each	5.00		-
75.8.2	100 NB	Each	4.00		-
75.8.3	80 NB	Each	6.00		-
75.9	<b>Non-Return Valve</b> conforming to IS 5312 (swing type) or to API 594/598 (dual plate check type) with CI body & brass trim part, PN 1.0 having necessary companion flanges, CS hardwares. Gaskets, arrow indicating direction of flow, etc. complete. It shall be ISI Marked and approved make				
75.9.1	150 NB	Each	1.00		-
75.9.2	100 NB	Each	1.00		-
75.10	Supplying & fixing 63 mm dia <b>Gun Metal Short Branch Pipe</b> with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required	Each	7.00		-
75.11	Providing and laying non-pressure <b>NP2 class (light duty) R.C.C. Pipes</b> with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :				
75.11.1	Hume Pipe : 300 NB	Metre	50.00		-
76	<b>FIRE PUMPS &amp; RELATED ACCESSORIES</b>				
76.1	Supplying, installation, testing and commissioning of Electric driven Main Fire Pump suitable for automatic operation and consisting of following, complete in all respects, as required Horizontal type, multistage, centrifugal, split casing pump with bronze impeller stainless steel shaft, mechanical seal at a flow of 2280 lpm at 70 m head against all losses complete. conforming to IS 1520.Suitable HP Squirrel cage induction motor, TEFC, synchronous speed 1500 RPM, suitable for operation on 415 volts, 3 phase 50 Hz, AC supply with IP 55 protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS-325.M.S. fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required.Suitable cement concrete foundation duly plastered with anti vibration pads.				
76.1.1	<b>Pump - Motor : Discharge : 2280 LPM, Head : 70 mtr HYDRANT PUMPS+1 STAND BY</b>	Each	1.00		-

76.2	Supplying, installation, testing and commissioning of diesel engine driven stand-by fire pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Diesel Driven Pump) Horizontal type, multistage, centrifugal pump of cast of iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS 1520.Suitable HP, 1500 RPM water cooled with radiator, diesel engine conforming to relevant IS standard complete with auto starting mechanism, 12 /24 volts electric starting equipment, diesel tank, exhaust pipe extended upto 10 m outside pump house duly insulated with 50 mm thick glass wool with 1.0 mm thick aluminium sheet cladding, residential silencer, instruments and protection as per standard specification, stop solenoid for auto stop in the event of fault with audio indications, painted with post office red colour etc. as required.M.S fabricated, common base plate, coupling, coupling guard, foundation bolts etc. as required.Suitable cement concrete foundation duly plastered and with anti vibration pads.				
76.2.1	<b>Pump - Motor : Discharge : 2280 LPM, Head : 70mtr (FOR STAND -BY PUMP)</b>	Each	1.00		-
76.3	Supplying, installation, testing and commissioning of electric driven pressurisation pump suitable for automatic operation and consisting of following, complete in all respects, as required : (Jockey Pump) Horizontal type, multistage, centrifugal pump of cast iron body and bronze impeller with stainless steel shaft, mechanical seal conforming to IS : 1520. Suitable HP squirell cage induction motor TEFC type suitable for operation on 415 volts, 3 phase 50 Hz AC supply with IP 55 class of protection for enclosure, horizontal foot mounted type with Class-'F' insulation, conforming to IS : 325. M.S.fabricated Common base plate, coupling, coupling guard, foundation bolts etc. as required. Suitable cement concrete foundation duly plastered and with anti vibration pads.				
76.3.1	<b>Pump - Motor: Discharge : 180 LPM, Head : 70 mtr. (FOR JOCKEY PUMP)</b>	Each	2.00		-
77	<b>EARTHING</b>				
77.1	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	Each	10.00		-
77.2	Supply, laying, connection and testing bare earthing conductor for inter-connecting the earthing stations and various equipment in built up trenches, walls/ceiling, buried in ground generally as specified and shown on the drawing complete				
77.2.1	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Metre	40.00		-
78	<b>CABLE END TERMINATION</b>				
78.1	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
78.1.1	<b>3½ X 95 sq. mm (45mm)</b>	Each	4.00		-

78.2	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as				
78.2.1	Note: The piping installation has to be put to hydraulic test to 1.5 times the working pressure (for minimum 2 hrs.) before applying paint or pipe coating and wrapping etc. Complete				
78.2.1.1	<b>Size : 250mm ( 6.3 mm thk IS 3589)</b>	Metre	12.00		-
78.2.1.2	<b>Size : 200mm ( 6.3 mm thk IS 3589)</b>	Metre	16.00		-
78.2.1.3	<b>Size : 150mm</b>	Metre	32.00		-
78.2.1.4	<b>Size : 100 mm</b>	Metre	12.00		-
78.2.1.5	<b>Size : 50 mm</b>	Metre	12.00		-
78.2.1.6	<b>Size : 40 mm</b>	Metre	12.00		-
78.2.1.7	<b>Size : 25 mm</b>	Metre	9.00		-
78.3	Providing, installation, testing and commissioning of stainless steel <b>Y-Strainer</b> fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.				
78.3.1	<b>Size : 200 mm</b>	Each	2.00		-
78.4	Supplying, fixing, testing & commissioning of double flanged <b>Sluice Valve</b> of rating PN 1.6 with non rising spindle, bronze/gun metal seat, ISI marked complete with nuts, bolts, washers, gaskets and conforming to IS 780 of following sizes as required				
78.4.1	<b>Size : 200 mm</b>	Each	2.00		-
78.5	Supplying, fixing, testing and commissioning of <b>Butterfly Valve</b> of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required				
78.5.1	<b>Size : 200 mm</b>	Each	3.00		-
78.5.2	<b>Size : 150 mm</b>	Each	7.00		-
78.5.3	<b>Size : 100 mm</b>	Each	1.00		-
78.5.4	<b>Size : 50 mm</b>	Each	2.00		-
78.5.5	<b>Size : 40 mm</b>	Each	2.00		-
78.6	Providing, installation, testing and commissioning of <b>Non-Return Valve</b> of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required				
78.6.1	<b>Size : 200 mm</b>	Each	1.00		-
78.6.2	<b>Size : 150 mm</b>	Each	4.00		-
78.6.3	<b>Size : 40 mm</b>	Each	2.00		-

78.7	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.				
78.7.1	<b>Pressure Switch</b>	Each	6.00		-
78.8	Supplying and fixing <b>air vessel</b> made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade.	Each	1.00		-
79	<b>FIRE EXTINGUISHERS</b>				
79.1	Providing & Fixing of fire extinguishers with necessary accessories, stand, trolley, etc.				
79.1.1	<b>6 Kg ABC</b> (Powder Type) Fire Extinguisher. In HP Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC powder (Mono Ammonium Phosphate) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:15683	Each	30.00		-
79.1.2	ISI Marked portable fire extinguisher, <b>4.5kg CO2</b> type fire extinguishers complete in all respect including initial fill and wall suspension brackets & shall conform to IS 2878 or latest IS	Each	30.00		-
79.1.3	<b>6Kg DCP (Powder Type)</b> Fire Extinguisher. In HP Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC powder (Mono Ammonium Phosphate) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:15683	Each	20.00		-
79.1.4	ISI marked (IS:15683) <b>portable chemical fire extinguisher, Foam type capacity 9 liters</b> with gun metal cap and nozzle and complete in all respects including initial fill and wall suspension brackets	Each	4.00		-
79.1.5	Supplying and installing at approved location approved make fire buckets (3nos./set) of 24 gauge galvanized steel sheet, standard 9 litre capacity and of round bottom shape, painted white inside and black on the bottom, inscribed with letters " FIRE" in black and gold with dry clean fire sand. The scope shall also include the stand for mounting the sand bucket.	Set	10.00		-
79.1.6	<b>5Kg. Clean Agent Ceiling Mounted Type Fire Extinguisher</b> , Working Temperature -30°C to +60°C, Cylinder Testing Pressure 35 bar for 30sec., Operating Pressure 8 bar, Bulb Temp.68°C Standard, Area Coverage of 3x3 mtr., Propellant uses of Dry Nitrogen and type of Charge Clean Agent HFC-236fa ( <b>Including Internal Server &amp; Ups Room .</b> )	Each	4.00		-
<b>Total Amount</b>					-

## BoQ - Nagaon Medical College & Hospital, Nagaon

SN	ITEM OF WORKS	UNIT	QUANTIT Y	BASIC RATE In Figures To be entered by the Bidder Rs. P	TOTAL AMOUNT Without Taxes
1	<b>Salvage</b>				
1.1	Credit for demolition of building structure etc. complete and taking away all fetched material out of campus within 30 days after completing demolition part except C&D waste kept for recycling and used the recycle product for non structural work such as in footh path, manhole, lean concrete, filling under plinth, re-filling foundation etc. or as approved by Engineer-in-charge complete in all respect. The serviceable material received from dismanting/demolishing to be kept with executing agency and take away from the site as per direction of engineer-in- charge. Quote the lump sum amount <b>(in minus)</b>	Job	1.00		-
2	<b>EARTHWORK</b>				
2.1	Surface dressing of the ground including removing vegetation and inequalities not exceeding 15 cm deep and disposal of rubbish, lead up to 50 m and lift up to 1.5 m.				
2.1.1	All kinds of soil	Sqm	25.00		-
2.2	Clearing grass and removal of the rubbish up to a distance of 50 m outside the periphery of the area cleared.	Sqm	25.00		-
2.3	Earth work in excavation by mechanical means (Hydraulic excavator)/ manual means over areas (exceeding 30 cm in depth, 1.5 m in width as well as 10 sqm on plan) including getting out and disposal of excavated earth lead upto 50 m and lift upto 1.5 m, as directed by Engineer-incharge.				
2.3.1	All kinds of soil	Cum	522.73		-
2.4	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	215.32		-
2.5	Excavating, supplying and filling of local earth (including royalty) by mechanical transport upto a lead of 5km also including ramming and watering of the earth in layers not exceeding 20 cm in trenches, plinth, sides of foundation etc. complete.	Cum	1,698.00		-
3	<b>SAND FILLING</b>				

3.1	Supplying and filling in plinth with sand under floors, including watering, ramming, consolidating and dressing complete.	Cum	1.83		-
4	<b>SOLING WORK</b>				
4.1	Dry brick on edge flooring in required pattern with bricks of class designation 7.5 on a bed of 12 mm mud mortar, including filling joints with Jamuna sand, with common burnt clay non modular bricks.	Sqm	36.04		-
5	<b>P.C.C WORKS</b>				
5.1	Providing and laying in position cement concrete of specified grade excluding the cost of centering and shuttering - All work up to plinth level :				
5.1.1	1:4:8 (1 Cement : 4 coarse sand (zone-III) derived from natural sources : 8 graded stone aggregate 40 mm nominal size derived from natural sources)	Cum	48.00		-
6	<b>D.P.C work</b>				
6.1	Providing and laying damp-proof course 40mm thick with cement concrete 1:2:4 (1 cement : 2 coarse sand (zone-III) derived from natural sources : 4 graded stone aggregate 12.5mm nominal size derived from natural sources)	Sqm	6.23		-
7	<b>RCC Work with Shuttering</b>				
7.1	Providing and laying in position ready mixed or site batched design mix cement concrete for reinforced cement concrete work; using coarse aggregate and fine aggregate derived from natural sources, Portland Pozzolana / Ordinary Portland /Portland Slag cement, admixtures in recommended proportions as per IS: 9103 to accelerate / retard setting of concrete, to improve durability and workability without impairing strength; including pumping of concrete to site of laying, curing, carriage for all leads; but excluding the cost of centering, shuttering, finishing and reinforcement as per direction of the engineer-in-charge; for the following grades of concrete. Note: Extra cement up to 10% of the minimum specified cement content in design mix shall be payable separately. In case the cement content in design mix is more than 110% of the specified minimum cement content, the contractor shall have discretion to either re-design the mix or bear the cost of extra cement.				
7.1.1	All works upto plinth level				
7.1.1.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	Cum	8.62		-
7.2	All works above plinth and upto floor V level				
7.2.1	Concrete of M25 grade with minimum cement content of 330 kg /cum	Cum	17.35		-
7.3	Add for using extra cement in the items of design mix over and above the specified cement content therein.	Quintal	18.18		-
8	<b>FORMWORK</b>				
8.1	Centering and shuttering including strutting, propping etc. and removal of form for				
8.1.1	Foundations, footings, bases of columns, etc. for mass concrete	Sqm	9.90		-

8.1.2	Suspended floors, roofs, landings, balconies and access platform	Sqm	70.21		-
8.1.3	Lintels, beams, plinth beams, girders, bressumers and cantilevers	Sqm	95.85		-
8.1.4	Columns, Pillars, Piers, Abutments, Posts and Struts	Sqm	72.90		-
9	<b>BRICKWORK</b>				
9.1	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
9.1.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	0.87		-
9.2	Brick work with common burnt clay modular bricks of class designation 7.5 in foundation and plinth in:				
9.2.1	Cement mortar 1:6 (1 cement : 6 coarse sand)	Cum	82.80		-
9.3	Half brick masonry with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in superstructure above plinth level up to floor V level.				
9.3.1	Cement mortar 1:4 (1 cement :4 coarse sand)	Sqm	12.53		-
10	<b>STEEL WORKS/STRUCTURAL WORKS</b>				
10.1	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete upto plinth level.				
10.1.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	1,675.09		-
10.2	Steel reinforcement for R.C.C. work including straightening, cutting, bending, placing in position and binding all complete above plinth level.				
10.2.1	Thermo-Mechanically Treated bars of grade Fe-500D or more.	Kg	2,512.64		-
11	<b>DOORS</b>				
11.1	Providing and fixing ISI marked flush door shutters conforming to IS : 2202 (Part I) decorative type, core of block board construction with frame of 1st class hard wood and well matched teak 3 ply veneering with vertical grains or cross bands and face veneers on both faces of shutters.				
11.1.1	35 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	513.47		-
11.1.2	30 mm thick including ISI marked Stainless Steel butt hinges with necessary screws	Sqm	2.10		-
11.2	Float glass panes of nominal thickness 5 mm (weight not less than 12.5 kg/sqm)	Sqm	229.39		-
12	<b>DOORS FITTINGS</b>				
12.1	Providing and fixing ISI marked oxidised M.S. sliding door bolts with nuts and screws etc. complete :				
12.1.1	300x16 mm	Each	2.00		-
12.2	Providing and fixing bright finished brass tower bolts (barrel type) with necessary screws etc. complete :				
12.2.1	250x10 mm	Each	234.00		-
12.3	Providing and fixing bright finished brass door latch with necessary screws etc. complete :				

12.3.1	300x16x5 mm	Each	232.00		-
12.4	Providing and fixing bright finished brass handles with screws etc. complete:				
12.4.1	125 mm	Each	464.00		-
12.5	Providing and fixing chromium plated brass handles with necessary screws etc. complete:				
12.5.1	125mm	Each	2.00		-
12.6	Providing and fixing bright finished brass 100 mm mortice latch and lock with 6 levers and a pair of lever handles of approved quality with necessary screws etc. complete.	Each	233.00		-
12.7	Providing and fixing bright finished brass hanging type floor door stopper with necessary screws, etc. complete.	Each	232.00		-
12.8	Providing and fixing aluminium extruded section body tubular type universal hydraulic door closer (having brand logo with ISI, IS : 3564, embossed on the body, door weight upto 36 kg to 80 kg and door width from 701 mm to 1000 mm), with double speed adjustment with necessary accessories and screws etc. complete.	Each	233.00		-
13	<b>STRUCTURAL STEEL WORKS</b>				
13.1	Providing and fixing M.S. fan clamp type I or II of 16 mm dia M.S. bar, bent to shape with hooked ends in R.C.C. slabs or beams during laying, including painting the exposed portion of loop, all as per standard design complete.	Each	1.00		-
13.2	Steel work welded in built up sections/ framed work, including cutting, hoisting, fixing in position and applying a priming coat of approved steel primer using structural steel etc. as required.				
13.2.1	In gratings, frames, guard bar, ladder, railings, brackets, gates and similar works	Kg	612.19		-
14	<b>ROOFING</b>				
14.1	Providing and fixing precoated galvanised iron profile sheets (size, shape and pitch of corrugation as approved by Engineer-in-charge) 0.50 mm (+ 0.05 %) total coated thickness with zinc coating 120 grams per sqm as per IS: 277, in 240 mpa steel grade, 5-7 microns epoxy primer on both side of the sheet and polyester top coat 15-18 microns. Sheet should have protective guard film of 25 microns minimum to avoid scratches during transportation and should be supplied in single length upto 12 metre or as desired by Engineer-in-charge. The sheet shall be fixed using self drilling /self tapping screws of size (5.5x 55 mm) with EPDM seal, complete upto any pitch in horizontal/ vertical or curved surfaces, excluding the cost of purlins, rafters and trusses and including cutting to size and shape wherever required.	Sqm	369.97		-
14.2	Ridges plain (500 - 600mm)	Metre	75.00		-
15	<b>PLASTERING</b>				
15.1	12 mm cement plaster of mix				



15.1.1	1:4 (1 cement: 4 coarse sand)	Sqm	507.21		-
15.1.2	1:6 (1 cement: 6 coarse sand)	Sqm	25.05		-
15.2	15 mm cement plaster on the rough side of single or half brick wall of mix :				
15.2.1	1:4 (1 cement: 4 coarse sand)	Sqm	3,428.68		-
15.2.2	1:6 (1 cement: 6 coarse sand)	Sqm	260.74		-
15.3	12 mm cement plaster finished with a floating coat of neat cement of mix:				
15.3.1	1:4 (1 cement: 4 fine sand)	Sqm	904.00		-
16	<b>PUTTY AND PRIMER WORK</b>				
16.1	Removing dry or oil bound distemper, water proofing cement paint and the like by scrapping, sand papering and preparing the surface smooth including necessary repairs to scratches etc. complete.	Sqm	30,692.28		-
16.2	Providing and applying white cement based putty of average thickness 1 mm, of approved brand and manufacturer, over the plastered wall surface to prepare the surface even and smooth complete.	Sqm	30,978.07		-
16.3	With water thinnable cement primer on wall surface having VOC content less than 50 grams/litre	Sqm	30,978.07		-
17	<b>EXTERNAL PAINTING</b>				
17.1	Finishing walls with Acrylic Smooth exterior paint of required shade :				
17.1.1	New work (Two or more coat applied @ 1.67 ltr/10 sqmover and including priming coat of exterior primer applied @ 2.20 kg/10 sqm)	Sqm	13,886.15		-
18	<b>INTERNAL PAINTING</b>				
18.1	Wall painting with premium acrylic emulsion paint of interior grade, having VOC (Volatile Organic Compound ) content less than 50 grams/ litre of approved brand and manufacture, including applying additional coats wherever required to achieve even shade and colour.				
18.1.1	Two coats	Sqm	17,066.87		-
19	<b>OLD WOOD AND STEEL PAINTING</b>				
19.1	Applying priming coat				
19.1.1	With ready mixed red oxide zinc chromate primer of approved brand and manufacture on steel galvanised iron/ steel works	Sqm	12.00		-
19.2	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
19.2.1	Two or more coats on new work over an under coat of suitable shade with ordinary paint of approved brand and manufacture	Sqm	12.00		-
19.3	Painting with synthetic enamel paint of approved brand and manufacture of required colour to give an even shade :				
19.3.1	One or more coats on old work	Sqm	1,026.94		-
20	<b>FLOORING &amp; SKIRTING/ DADO</b>				

20.1	Providing and laying vitrified floor tiles in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS: 15622, of approved make, in all colours and shades, laid on 20mm thick cement mortar 1:4 (1 cement : 4 coarse sand), jointing with grey cement slurry @ 3.3 kg/ sqm including grouting the joints with white cement and matching pigments etc., complete.				
20.1.1	Size of Tile 600x600 mm	Sqm	2,681.62		-
20.2	Grouting the joints of flooring tiles having joints of 3 mm width, using epoxy grout mix of 0.70 kg of organic coated filler of desired shade (0.10 kg of hardener and 0.20 kg of resin per kg), including filling / grouting and finishing complete as per direction of Engineer-in-charge.				
20.2.1	Size of Tile 600x600 mm	Sqm	4,290.04		-
21	<b>GRANITE FLOORING / ANTISKID TILES</b>				
21.1	Providing and laying Vitrified tiles in floor in different sizes (thickness to be specified by the manufacturer) with water absorption less than 0.08% and conforming to IS:15622, of approved brand & manufacturer, in all colours and shade, laid on 20 mm thick cement mortar 1:4 (1 cement: 4 coarse sand) jointing with grey cement slurry @3.3 kg/sqm including grouting the joints with white cement and matching pigments etc. The tiles must be cut with the zero chipping diamond cutter only. Laying of tiles will be done with the notch trowel, plier, wedge, clips of required thickness, leveling system and rubber mallet for placing the tiles gently and easily				
21.1.1	Glazed Vitrified tiles Matt/Antiskid finish of size				
21.1.1.1	Size of Tile 600 x 600 mm	Sqm	605.97		-
21.2	Providing and laying Polished Granite stone flooring and tread of steps in required design and patterns, in linear as well as curvilinear portions of the building all complete as per the architectural drawings with 18 mm thick stone slab over 20 mm (average) thick base of cement mortar 1:4 (1 cement : 4 coarse sand) laid and jointed with cement slurry and pointing with white cement slurry admixed with pigment of matching shade including rubbing , curing and polishing etc. all complete as specified and as directed by the Engineer-in-Charge.				
21.2.1	Polished Granite stone slab jet Black, Cherry Red, Elite Brown, Cat Eye or equivalent	Sqm	25.00		-
22	<b>WALL TILES</b>				
22.1	Providing and fixing Ist quality ceramic glazed wall tiles conforming to IS: 15622 (thickness to be specified by the manufacturer), of approved make, in all colours, shades except burgundy, bottle green, black of any size as approved by Engineer-in-Charge, in skirting, risers of steps and dados, over 12 mm thick bed of cement mortar 1:3 (1 cement : 3 coarse sand) and jointing with grey cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete.	Sqm	1,009.10		-
23	<b>ALUMINIUM DOORS, WINDOWS AND OTHER WORKS</b>				

23.1	Providing and fixing aluminium work for doors, windows, ventilators and partitions with extruded built up standard tubular sections/ appropriate Z sections and other sections of approved make conforming to IS: 733 and IS: 1285, fixing with dash fasteners of required dia and size, including necessary filling up the gaps at junctions, i.e. at top, bottom and sides with required EPDM rubber/ neoprene gasket etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically wherever required including cleat angle, Aluminium snap beading for glazing / paneling, C.P. brass / stainless steel screws, all complete as per architectural drawings and the directions of Engineer-in-charge. (Glazing, paneling and dash fasteners to be paid for separately)				
23.1.1	For fixed portion				
23.1.1.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	21.87		-
23.2	For shutters of doors, windows & ventilators including providing and fixing hinges/ pivots and making provision for fixing of fittings wherever required including the cost of EPDM rubber / neoprene gasket required (Fittings shall be paid for separately)				
23.2.1	Powder coated aluminium (minimum thickness of powder coating 50 micron)	Kg	21.87		-
23.3	Providing and fixing glazing in aluminium door, window, ventilator shutters and partitions etc. with EPDM rubber / neoprene gasket etc. complete as per the architectural drawings and the directions of engineer-in-charge . (Cost of aluminium snap beading shall be paid in basic item):				
23.3.1	With float glass panes of 5 mm thickness (weight not less than 12.50 kg/sqm)	Sqm	7.02		-
23.4	Providing and fixing stainless steel (SS 304 grade) adjustable friction windows stays of approved quality with necessary stainless steel screws etc. to the side hung windows as per direction of Engineerin- charge complete.				
23.4.1	205x19mm	Each	6.00		-
23.5	Providing and fixing aluminium tubular handle bar 32 mm outer dia, 3.0 mm thick & 2100 mm long with SS screws etc .complete as per direction of Engineer-in-Charge.				
23.5.1	Anodized (AC 15) aluminium tubular handle bar	Each	4.00		-

23.6	Providing and fixing anodised aluminium grill (anodised transparent or dyed to required shade according to IS: 1868 with minimum anodic coating of grade AC 15) of approved design/pattern, with approved standard section and fixed to the existing window frame with C.P. brass/ stainless steel screws @ 200 mm centre to centre, including cutting the grill to proper opening size for fixing and operation of handles and fixing approved anodised aluminium standard section around the opening, all complete as per requirement and direction of Engineer-in-charge. (Only weight of grill to be measured for payment).	Kg	35.10		-
24	<b>PLINTH PROTECTION WORKS</b>				
24.1	Making plinth protection 50mm thick of cement concrete 1:3:6 (1 cement : 3 coarse sand (zone-III) derived from natural sources : 6 graded stone aggregate 20 mm nominal size derived from natural sources) over 75mm thick bed of dry brick ballast 40 mm nominal size, well rammed and consolidated and grouted with fine sand, including necessary excavation, levelling & dressing & finishing the top smooth.	Sqm	7.50		-
25	<b>WATER PROOFING</b>				
25.1	Providing and laying water proofing treatment to vertical and horizontal surfaces of depressed portions of W.C., kitchen and the like consisting of:				
25.1.1	i) Ist course of applying cement slurry @ 4.4 kg/sqm mixed with water proofing compound conforming to IS 2645 in recommended proportions including rounding off junction of vertical and horizontal surface.				
25.1.2	ii) IInd course of 20 mm cement plaster 1:3 (1 cement : 3 coarse sand) mixed with water proofing compound in recommended proportion including rounding off junction of vertical and horizontal surface.				
25.1.3	iii) IIIrd course of applying blown or residual bitumen applied hot at 1.7 kg. per sqm of area.				
25.1.4	iv) IVth course of 400 micron thick PVC sheet. (Overlaps at joints of PVC sheet should be 100 mm wide and pasted to each other with bitumen @ 1.7 kg/sqm).	Sqm	1,615.07		-
26	<b>FALSE CEILING</b>				

26.1	Providing and fixing tiled false ceiling of specified materials of size 595x595 mm in true horizontal level, suspended on inter locking metal grid of hot dipped galvanized steel sections ( galvanized @ 120 grams/ sqm, both side inclusive) consisting of main "T" runner with suitably spaced joints to get required length and of size 24x38 mm made from 0.30 mm thick (minimum) sheet, spaced at 1200 mm center to center and cross "T" of size 24x25 mm made of 0.30 mm thick (minimum) sheet, 1200 mm long spaced between main "T" at 600 mm center to center to form a grid of 1200x600 mm and secondary cross "T" of length 600 mm and size 24x25 mm made of 0.30 mm thick (minimum) sheet to be interlocked at middle of the 1200x600 mm panel to form grids of 600x600 mm and wall angle of size 24x24x0.3 mm and laying false ceiling tiles of approved texture in the grid including, required cutting/making, opening for services like diffusers, grills, light fittings, fixtures, smoke detectors etc. Main "T" runners to be suspended from ceiling using GI slotted cleats of size 27 x 37 x 25 x 1.6 mm fixed to ceiling with 12.5 mm dia and 50 mm long dash fasteners, 4 mm GI adjustable rods with galvanised butterfly level clips of size 85 x 30 x 0.8 mm spaced at 1200 mm center to center along main T, bottom exposed width of 24 mm of all T-sections shall be pre-painted with polyester paint, all complete for all heights as per specifications, drawings and as directed by Engineer-in-charge.				
26.1.1	12.5 mm thick fully Perforated Gypsum Board tile made from plasterboard having glass fibre conforming to IS: 2095 part I, of size 595x595 mm, having perforation of 9.7x9.7 mm at 19.4 mm c/c with center borders of 48 mm and the side borders of 30 mm, backed with non woven tissue on the back side, having an NRC (Noise Reduction Coefficient) of 0.79, with 50 mm resin bonded glass wool backing.	Sqm	5,065.46		-
27	<b>DISMANTALING WORKS</b>				
27.1	Nominal concrete 1:4:8 or leaner mix (i/c equivalent design mix)	Cum	10.00		-
27.2	Demolishing R.C.C. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer - in- charge.	Cum	5.00		-
27.3	Demolishing R.B. work manually/ by mechanical means including stacking of steel bars and disposal of unserviceable material within 50 metres lead as per direction of Engineer- in- charge.	Cum	10.00		-
27.4	Extra for cutting reinforcement bars manually/ by mechanical means in R.C.C. or R.B. work (Payment shall be made on the cross sectional area of R.C.C. or R.B. work) as per direction of Engineerin	Sqm	10.00		-
27.5	Demolishing brick work manually/ by mechanical means including stacking of serviceable material and disposal of unserviceable material within 50 metres lead as per direction of Engineer-in-charge.				
27.5.1	In cement mortar	Cum	12.00		-

27.6	Dismantling doors, windows and clerestory windows (steel or wood) shutter including chowkhats, architrave, holdfasts etc. complete and stacking within 50 metres lead :				
27.6.1	Of area 3 sq. metres and below	Each	232.00		-
27.7	Dismantling cement asbestos or other hard board ceiling or partition walls including stacking of serviceable materials and disposal of unserviceable materials within 50 metres lead.	Sqm	5,065.46		-
27.8	Dismantling steel work in built up sections in angles, tees, flats and channels including all gusset plates, bolts, nuts, cutting rivets, welding etc. including dismembering and stacking within 50 metres lead.	Kg	50.00		-
27.9	Dismantling roofing including ridges, hips, valleys and gutters etc., and stacking the material within 50 metres lead of:	Sqm	231.72		-
27.10	Dismantling old plaster or skirting raking out joints and cleaning the surface for plaster including disposal of rubbish to the dumping ground within 50 metres lead.	Sqm	3,935.89		-
27.11	Dismantling tile work in floors and roofs laid in cement mortar including stacking material within 50 metres lead.				
27.11.1	For thickness of tiles 10 mm to 25 mm	Sqm	4,148.61		-
27.12	Disposal of building rubbish / malba / similar unserviceable, dismantled or waste materials by mechanical means, including loading, transporting, unloading to approved municipal dumping ground or as approved by Engineer-in-charge, beyond 50 m initial lead, for all leads including all lifts involved.	Cum	1,030.00		-
28	<b>WIRE MESH</b>				
28.1	Providing and fixing fly proof stainless steel grade 304 wire gauge, to windows and clerestory windows using wire gauge with average width of aperture 1.4 mm in both directions with wire of dia. 0.50 mm all complete.				
28.1.1	With 2nd class teak wood beading 62X19 mm	Sqm	288.88		-
29	<b>Pu Paint</b>				
29.1	Providing two coats of White cement putty, Epoxy based primer of Pro Epi Shield Floor Sealer (20 micron), Top coat Aqua green WB PU Finish White (60 micron) to finishing including scaffolding, Brush, Roller, Sand Paper, Silk Roller & Carrying charges etc.	Sqm	376.32		-
30	<b>Hermeticallysealed HPL OT Door</b>				

30.1	Metaflex make Mak Health Manual Single Leaf sliding 100% Hermetically sealed HPL OT door, door panel 60 mm thick, 4 mm HPL on both sides of 52 mm thick pressure injected High Grade PIR (density 45 kg/m3) with Anodized Aluminium Door Profile and Rail with Special grade self-lubricating PA rollers, Bearings 2X per roller, Bulb & Lip design EPDM gasket with special lower sealing, 28 dB noise insulation with vision panel of 300 x 300 x 60 mm with 5 mm tempered glasson both sides, planks. Size: 1500 x 2100 mm	Each	4.00		-
30.2	Metaflex make Double Leaf HPL (Pre- Painted Galvanized Steel) Skin Insulated Clean Room Door with 44 mm Door thickness with HPL Skin on both sides with pressure injected High Grade PIR as Door Blade core material with Ano alu Door Frame, Rubber Gasket Non Particle Shredding Type Seal, Drop Seal, Double Insulated Glass Vison panel 300x300mm, Ball Bearing Hinges, Door Closer on active leaf, Door Lock and SS 304 Door Handle D-Type for smooth passage. Size : 1500x2100 mm	Each	8.00		-
31	<b>RETROFITTING WORK</b>				
31.1	Epoxy Grout Providing and Sealing the cracks, in the concrete surface, after opening the cracks using suitable tools or saw cut in the crack, and cleaning the interior sides of the crack using sharp tools to remove all loose materials, using two component, high strength, non-sag, epoxy compound Nitobond PC 40 of fosroc make, inclusive of all Manpower, Material and Equipment. Injection Of Low Viscous Resin: BY Providing and grouting the cracks after fixing the injection ports at predetermine locations with the help of suitable injection grouting pumps at suitable pressures using two-component, high strength, low viscous epoxy injection resin system such as Conbextra EP 10 of Fosroc inclusive of Manpower, Material and Equipment". (Mode of measurement: Per litre of grout consumption.	Litre	19.20		-
31.2	Providing, Supplying, transporting materials, drilling holes by rotary hammer drill, dust removing, batching, mixing of resin and hardener, inserting & anchoring rebars of specified dia in existing concrete surfaces using polyester resin based anchoring grout like Fosroc Lokfix E75 or equivalent and necessary re baring of reinforcement steel up to 200mm depth( Cost of the reinforcement will be charged extra) 12 mm Dia	Each	480.00		-
32	<b>INTERNAL WIRING</b>				
32.1	Wiring for light point/ fan point/ exhaust fan point/ call bell point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable in surface / recessed medium class PVC conduit, with modular switch, modular plate, suitable GI box and earthing the point with 1.5 sq.mm FRLS PVC insulated copper conductor single core cable etc. as required.				
32.1.1	Group C	Each	583.00		-
32.2	Wiring for circuit/ submain wiring alongwith earth wire with the following sizes of FRLS PVC insulated copper conductor, single core cable in surface/ recessed medium class PVC conduit as required.				

32.2.1	2x2.5 sq.mm + 1 x 2.5 sq.mm earth wire (For 6A Power Point looping & Switchboard to Switchboard looping)	Metre	2,115.00		-
32.3	Supplying and fixing suitable size GI box with modular plate and cover in front on surface or in recess, including providing and fixing 3 pin 5/6 A modular socket outlet and 5/6 A modular switch, connections etc. as required.	Each	141.00		-
32.4	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
32.4.1	20 mm	Metre	2,115.00		-
32.5	Supplying and fixing following way, single pole and neutral, sheet steel, MCB distribution board, 240 V, on surface/ recess, complete with tinned copper bus bar, neutral bus bar, earth bar, din bar, interconnections, powder painted including earthing etc. as required. ( But without MCB/RCCB/Isolator )				
32.5.1	6 way, double door	Each	20.00		-
32.6	Supplying and fixing 5A to 32A rating, 240/415V, 10kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
32.6.1	single pole	Each	100.00		-
32.6.2	double pole	Each	100.00		-
32.7	Supply, Installation, Testing and Commissioning of 1200 mm sweep, BEE 5 star rated, ceiling fan with Brush Less Direct Current (BLDC) Motor, class of insulation: B, 3 nos. blades, 30 cm long down rod, 2 nos. canopies, shackle kit, safety rope, copper winding, Power Factor not less than 0.9, Service Value (CM/M/W) minimum 6.00, Air delivery minimum 210 Cum/Min, 350 RPM (tolerance as per IS: 374-2019), THO less than 10%, remote or electronic regulator unit for speed control and all remaining accessories including safety pin, nut bolts, washers, temperature rise=75 degree C (max.), insulation resistance more than 2 mega ohm, suitable for 230 V, 50 Hz, single phase AC Supply, earthing etc. complete as required	Each	87.00		-
32.8	Supply and laying of 25mm X 5mm G.I. strip at 0.5 mtr below ground as strip earth electrode including connection/termination with GI Nut-Bolt & Spring Washer etc as required (Jointing Shall be done by overlapping and with 2 sets of GI Nut-Bolt & spring washer spaced at 50mm)	Metre	50.00		-
32.9	Supplying and laying 25 mm X 5 mm copper strip at 0.50 metre below ground as strip earth electrode, including connection/ terminating with nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of brass nut bolt & spring washer spaced at 50mm)	Metre	50.00		-
32.10	Providing and fixing 6 SWG dia. G.I. wire on surface or in recessed for loop earthing as required	Metre	50.00		-



32.11	Supply, installation testing, commissioning of 20W LED TUBE LIGHT including Luminaire housing and all fixing accessories (As per make list / architect choice)	Each	222.00		-
32.12	Supply, installation testing, commissioning of 12W surface/ recess MOUNTED DOWN LIGHT including Luminaire housing and all fixing accessories (As per make list / architect choice)	Each	274.00		-
33	<b>EXTERNAL ELECTRICAL</b>				
33.1	Laying of one number PVC insulated and PVC sheathed / XLPE power cable of 1.1 KV grade of following size direct in ground including excavation, sand cushioning, refilling the trench etc as required. protective covering and				
33.1.1	3 x 4 sq. Mm ( upto 35 sqmm)	Metre	90.00		-
33.2	Laying of one number additional PVC insulated and PVC sheathed/ XLPE power cable of 1.1 KV grade of following size direct in ground in the same trench in one tier horizontal formation including excavation, sand cushioning, protective covering and refilling the trench etc as required.				
33.2.1	3 x 4 sq. Mm ( upto 35 sqmm) additional cable	Metre	9.00		-
33.3	Supplying and fixing 5A to 32A rating, 240/415V, 10kA, "C" curve, miniature circuit breaker suitable for inductive load of following poles in the existing MCB DB complete with connections, testing and commissioning etc. as required.				
33.3.1	single pole	Each	2.00		-
33.4	Earthing with G.I. earth pipe 4.5mtr long, 40mm dia including accessories and providing masonry encloser with cover plate having locking arrangement and watering pipe etc. with charcoal or coke and salt complete as required (IS : 3043-1987), (Panel earthing + Lightning protection)	Each	2.00		-
33.5	Supply and laying of 25mm X 5mm G.I. strip at 0.5 mtr below ground as strip earth electrode including connection/termination with GI Nut-Bolt & Spring Washer etc as required (Jointing shall be done by overlapping and with 2 sets of GI Nut-Bolt & spring washer spaced at 50mm)	Metre	3.75		-
33.6	Erection of metallic pole of following length in cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40 mm nominal size) foundation including excavation and refilling etc. as required.				
33.6.1	Above 4.5 metre and upto 6.5 metre	Each	7.00		-
34	<b>LIGHTING FIXTURES</b>				
34.1	Supply & fixing of 30W LED street light Wipro LR02-331-XXX-57-XX or equivalent	Each	20.00		-
34.2	Supply of decorative hot dipped galvanised mild steel step pole 6mtrs. height with grey powder finish. Compatible for street light. Window - Plasma cut & duly chamfered opening window of 300x110 mm for terminal connections & mounting accessories. Window cover is fitted with allen screws to the pole ( Excluding civil work). Havells make or equivalent	Each	20.00		-

35	<b>SUPPLY OF MV CABLES</b>				
35.1	Supply of XLPE insulated power cable (conforming IS-7098 Part-I) 1100 Volt grade, 1 core/2 core/3½ core/4 core ISI marked with alu. stranded /solid conductor				
35.1.1	4 sq. mm. 3 core Cu. Arm. XLPE cable	Metre	99.00		-
36	<b>TERMINATION OF MV CABLES</b>				
36.1	Supplying and making end termination with brass compression gland and copper lugs for following size of PVC insulated and PVC sheathed / XLPE copper conductor cable of 1.1 KV grade as required				
36.1.1	4 sq. mm. 3 core Cu. Arm.XLPE cable	Each	1.00		-
37	<b>SUPPLY OF FEEDER PILLAR, OUTDOOR</b>				
37.1	Supplying, installation, testing & commissioning of cubical Feeder Pillar type double door, floor mounted, IP65, suitable for 415V, 3 Phase, 4 Wire 50 Hz AC supply system of suitable size fabricated in compartmentalized design from CRCA sheet steel of 2 mm thick for frame work and covers, 3mm thick for gland plates i/c cleaning & finishing ,powder coating in approved shade, having 63 A capacity aluminium bus bars of high conductivity, Short circuit withstanding capacity of 16 KA, DMC / SMC bus bar supports, bottom base channel of MS section not less than 75 mm x 75 mm x 5 mm thick, entire panel shall have a common GI earth bar 25mm x 5mm at the rear with 2 Nos. earth stud, connections from main bus bar to switch gears with required size of copper conductor/single core cable and control wiring with 1.5 sq. mm. PVC insulated copper conductor S/C cable, cable alleys, cable gland plates in two half, i/c providing and fixing of following switchgear and components complete as required.				
37.1.1	(I)Incomer 1) 32 Amp, FP,10 kA MCB with -1 nos 2) LED type phase indicating lamps with 2 Amps SP MCBs for Instrument Protection  (II) Outgoing :- (i) ML 1.5 Contactor with control wiring and connector block etc. : 1 set (ii) Digital astronomical timer switch -1 No (iii) 10 Amp SP MCB, 10 KA - 12 Nos 2) LED type phase indicating lamps with 2 Amps SP MCBs for Instrument Protection	Each	1.00		-
38	<b>DIESEL GENERATOR</b>				

38.1	Supply, installation testing, commissioning of 100 KVA Silent DG set outdoor type complete with acoustic enclosure , fuel tank, fuel piping, engine directly coupled with alternator 3 - Phase 415V, 1500 rpm , 0.8 p.f. , 50Hz, engine control panel residential silencer, anti vibration mountings pad etc., charged battery with leads, earthing and first fill of oil and lubricants as per specifications . Including Liaison fees Necessary Statutory Approval from (NOC - POWER UTILITY, DOE & PCB). Also includes supply, fabrication and erection of DG exhaust 150/200 mm dia MS piping including necessary rock wool insulation (64kg/m3), Al. cladding over the insulation including silencer and necessary support , scaffolding arrangement . DG AMF panel also included	Each	1.00		-
39	<b>UPS</b>				
39.1	Supply & Installation of 120 KVA , 3P+N in/out, 415V system, 50HZ, Modular UPS ( 25 x 3 nos), Input Voltage range 400V +15%/-20% - 230V +15%/-20% , Output Voltage range -380, 400, 415V selectable, Low THD Double conversion efficiency up to 96.8% Efficiency in ECO mode up to 99%. Output power factor = 1 Hot-swappable modules. Modular redundancy in N+1 configuration. Intelligence distributed between modules. UPS Power capacity upto 25KW x 3 module Decentralised by-pass. Reduced battery charging times. BMS compatible with open protocol communicable, remote monitoring interface, 30 mins backup ( for 50 KVA) with 12V SMF battery, built in redundancy with all accessories, Battery racks, interconnecting cables etc.	Each	1.00		-
40	<b>INTERNAL PLUMBING</b>				
40.1	Providing and fixing white vitreous china pedestal type water closet (European type) with seat and lid, 10 litre low level white vitreous china flushing cistern & C.P. flush bend with fittings & C.I. brackets, 40 mm flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved municipal design complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required :				
40.1.1	W.C. pan with ISI marked white solid plastic seat and lid	Each	29.00		-
40.2	Providing and fixing wash basin with C.I. brackets, 15 mm C.P. brass pillar taps, 32 mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever require:				
40.2.1	White Vitreous China Wash basin size 630x450 mm with a single 15 mm C.P. brass pillar tap	Each	29.00		-
40.3	White Vitreous China Surgeon type wash basin of size 660x460 mm with single 15 mm C.P. brass pillar taps with elbow operated levers ISI Marked	Each	10.00		-

40.4	Providing and fixing CP Brass 32mm size Bottle Trap of approved quality & make and as per the direction of Engineer-in-charge.	Each	39.00		-
40.5	Providing and fixing stainless steel A ISI : 304 (18/8) kitchen sink as per IS : 13983 with CI brackets and stainless steel plug 40mm including painting of fittings and brackets, cutting and making good the walls wherever required.				
40.5.1	Kitchen sink without drain board				
40.5.1.1	610 x 510 mm bowl depth 200 mm	Each	11.00		-
40.6	Providing and fixing C.P. brass long nose bib cock of approved quality conforming to IS standards and weighing not less than 810 gms.				
40.6.1	15 mm nominal bore	Each	20.00		-
40.7	Providing and fixing C.P. brass chain and rubber plug complete for sink or wash basin:				
40.7.1	32 mm dia	Each	9.00		-
40.7.2	15 mm C.P. brass tap with elbow operation lever	Each	11.00		-
40.8	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge. [for Basin / Urinal / Sink waste]				
40.8.1	40 mm dia	Each	50.00		-
40.8.2	50 mm dia	Each	50.00		-
40.9	Providing and fixing PTMT liquid soap container 109 mm wide, 125 mm high and 112 mm distance from wall of standard shape with bracket of the same materials with snap fittings of approved quality and colour, weighing not less than 105 gms.	Each	50.00		-
40.10	Providing and fixing 8 mm dia C.P. / S.S. Jet with flexible tube upto 1 metre long with S.S. triangular plate to European type W.C. of quality and make as approved by Engineer - in - charge.	Each	29.00		-
40.11	Providing and fixing C.P. brass bib cock of approved quality conforming to IS:8931 :				
40.11.1	15 mm nominal bore	Each	9.00		-
40.12	Providing and fixing C.P. brass angle valve for basin mixer and geyser points of approved quality conforming to IS:8931				
40.12.1	15mm nominal bore	Each	40.00		-
40.13	Providing and fixing C.P. brass shower rose with 15 or 20 mm inlet :				
40.13.1	150 mm diameter	Each	7.00		-
40.14	Providing and fixing C.P. brass stop cock (concealed) of standard design and of approved make conforming to IS:8931. 15 mm nominal bore	Each	7.00		-

40.15	Providing and fixing soil, waste pipes : Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905				
40.15.1	100 mm dia Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	Metre	39.00		-
40.16	75 mm diameter : vent pipes : Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	Metre	45.00		-
40.17	Providing and laying S&S centrifugally cast (spun) iron pipes (Class LA) conforming to IS - 1536 : (For RWP)				
40.17.1	100 mm dia pipe	Metre	45.00		-
40.17.2	150 mm dia pipe	Metre	45.00		-
40.18	Providing and fixing M.S. holder-bat clamps of approved design to sand cast iron / cast iron (spun) pipes embedded in and including cement concrete blocks 10 x 10 x 10 cm of 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size) including cost of cutting holes and making good the walls, etc.				
40.18.1	For 100mm diameter	Each	19.00		-
40.18.2	For 75mm diameter	Each	19.00		-
40.19	Providing and Fixing shielded coupling for Hubless centrifugally cast iron pipe.				
40.19.1	100 mm dia				
40.19.1.1	SS 304 grade coupling with EPDM Rubber gasket.	Each	11.00		-
40.20	Providing and fixing bend of required degree with access door, insertion rubber washer 3 mm thick, bolts and nuts complete. Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905				
40.20.1	100 mm dia Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	Each	72.00		-
40.21	Providing and fixing plain bend of required degree.				
40.21.1	100 mm dia Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	Each	37.00		-
40.22	Providing and fixing double equal plain junction of required degree.				
40.22.1	100x100x100x100 mm Hubless centrifugally cast (spun) iron pipes epoxy coated inside & outside IS:15905	Each	9.00		-
40.23	Providing and fixing single equal plain junction of required degree :				
40.23.1	100x100x100 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	Each	9.00		-

40.24	Providing and fixing double unequal plain junction of required degree :				
40.24.1	100x100x75x75 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	Each	17.00		-
40.25	Providing and fixing single unequal plain junction of required degree :				
40.25.1	100x100x75 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	Each	9.00		-
40.26	Providing and fixing double equal plain invert branch of required degree:				
40.26.1	100x100x100x100 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	Each	9.00		-
40.27	Providing and fixing single equal plain invert branch of required degree :				
40.27.1	100x100x100 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	Each	9.00		-
40.28	Providing and fixing terminal guard : 100 mm Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	Each	9.00		-
40.29	Providing and fixing trap of self cleansing design with screwed down or hinged grating with or without vent arm complete, including cost of cutting and making good the walls and floors :				
40.29.1	100 mm inlet and 100 mm outlet				
40.30.	Hubless centrifugally cast (spun) iron epoxy coated inside & outside as per IS:15905	Each	9.00		-
40.31	Cutting holes up to 15x15 cm in R.C.C. floors and roofs for passing drain pipe etc. and repairing the hole after insertion of drain pipe etc. with cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size), including finishing complete so as to make it leak proof.	Each	7.00		-
40.32	Cutting chases in brick masonry walls for following diameter sand cast iron / centrifugally cast (spun) iron pipes and making good the same with cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 12.50 mm nominal size), including necessary plaster and pointing in cement mortar 1:4 (1 cement : 4 coarse sand).				
40.32.1	100 mm	Metre	7.00		-
40.32.2	50 mm	Metre	7.00		-
40.33	Painting sand cast iron/centrifugally cast (spun) iron soil, waste vent pipes and fittings with paint of any colour such as chocolate, grey or buff, etc., over a coat of primer (of approved quality) for new work.				

40.33.1	100mm diameter pipe	Metre	39.00		-
41	<b>WATER SUPPLY</b>				
41.1	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply, including all CPVC plain & brass threaded fittings, i/c fixing the pipe with clamps at 1.00 m spacing. This includes jointing of pipes & fittings with one step CPVC solvent cement and the cost of cutting chases and making good the same including testing of joints complete as per direction of Engineer in Charge. Concealed work, including cutting chases and making good the walls etc.(Concealed Work)				
41.1.1	15 mm nominal outer dia Pipes	Metre	20.00		-
41.1.2	20 mm nominal outer dia Pipes	Metre	10.00		-
41.1.3	25 mm nominal outer dia Pipes	Metre	10.00		-
41.1.4	32 mm nominal outer dia Pipes	Metre	5.00		-
41.1.5	40 mm nominal outer dia Pipes	Metre	15.00		-
41.2	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) pipes, having thermal stability for hot & cold water supply including all CPVC plain & brass threaded fittings This includes jointing of pipes & fittings with one step CPVC solvent cement, trenching, refilling & testing of joints complete as per direction of Engineer in Charge.				
41.2.1	20 mm nominal dia Pipes	Metre	36.00		-
41.2.2	25 mm nominal dia Pipes	Metre	16.00		-
41.2.3	32 mm nominal dia Pipes	Metre	16.00		-
41.2.4	40 mm nominal dia Pipes	Metre	16.00		-
41.2.5	50 mm nominal dia Pipes	Metre	16.00		-
41.2.6	65 mm nominal dia Pipes	Metre	16.00		-
41.3	Providing and fixing ball valves (brass) of approved quality, High or Low pressure with plastic floats complete.				
41.3.1	15 mm nominal bore	Each	21.00		-
41.3.2	20 mm nominal bore	Each	21.00		-
41.3.3	25 mm nominal bore	Each	21.00		-
42	<b>DISMANTALING WORK FOR PLUMBING</b>				
42.1	Disconnecting damaged overhead/terrace PVC water storage tank of any size from water supply line and removing from the terrace	Each	10.00		-

	including shifting at ground level as per direction of Engineer-in-charge.				
42.2	Dismantling W.C. Pan of all sizes including disposal of dismantled materials i/c malba all complete as per directions of Engineer-in Charge	Each	8.00		-
42.3	Dismantling 15 to 40 mm dia G.I. pipe including stacking of dismantled pipes (within 50 metres lead) as per direction of Engineer in-Charge.				
42.3.1	(a) Internal Work- Exposed on wall	Metre	500.00		-
42.4	Dismantling G.I. pipes (external work) including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means including stacking of pipes within 50 metres lead as per direction of Engineer-in-charge :				
42.4.1	15 mm to 40 mm nominal bore	Metre	95.00		-
42.4.2	Above 40 mm nominal bore	Metre	75.00		-
42.5	Dismantling C.I. pipes including excavation and refilling trenches after taking out the pipes, manually/ by mechanical means breaking lead caulked joints, melting of lead and making into blocks including stacking of pipes & lead at site within 50 metre lead as per direction of Engineer-in-charge:				
42.5.1	Up to 150 mm diameter	Metre	70.00		-
42.5.2	Above 150 mm dia up to 300 mm dia	Metre	70.00		-
42.6	Dismantling of flushing cistern of all types (C.I./PVC/Vitrious China) including stacking of useful materials near the site and disposal of unserviceable materials within 50 metres lead.	Each	16.00		-
42.7	Dismantling of C.I. sluice valve including stacking of useful materials within a lead of 50 metres				
42.7.1	Up to 150 mm diameter	Each	57.00		-
42.7.2	Above 150 mm diameter	Each	57.00		-
42.8	Providing and fixing G.I. pipes complete with G.I. fittings including trenching and refilling etc. [for Municipal and Bore Well supply to UGT/ UGR TO OHR]				
42.8.1	40 mm dia nominal bore	Metre	20.00		-
42.8.2	50 mm dia nominal bore	Metre	50.00		-
42.8.3	65 mm dia nominal bore	Metre	40.00		-
42.8.4	80 mm dia nominal bore	Metre	20.00		-



42.9	Constructing masonry Chamber 60x60x75 cm inside, in brick work in cement mortar 1:4 (1 cement : 4 coarse sand) for sluice valve, with C.I. surface box 100mm top diameter, 160 mm bottom diameter and 180 mm deep ( inside) with chained lid and RCC top slab 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size ) , i/c necessary excavation, foundation concrete 1:5:10 (1 cement : 5 fine sand : 10 graded stone aggregate 40 mm nominal size) and inside plastering with cement mortar 1:3 (1 cement : 3 coarse sand) 12 mm thick, finished with a floating coat of neat cement complete as per standard design :				
42.9.1	With common burnt clay F.P.S.(non modular) bricks of class designation 7.5	Each	10.00		-
42.10	Painting G.I. pipes and fittings with two coats of anti-corrosive bitumastic paint of approved quality :				
42.10.1	50 mm diameter pipe	Metre	50.00		-
42.10.2	65 mm diameter pipe	Metre	40.00		-
42.10.3	80 mm diameter pipe	Metre	10.00		-
42.11	Providing and filling sand of grading zone V or coarser grade, allround the G.I. pipes in external work :				
42.11.1	50 mm diameter pipe	Metre	50.00		-
42.11.2	65 mm diameter pipe	Metre	50.00		-
42.11.3	80 mm diameter pipe	Metre	8.00		-
42.12	Providing and fixing G.I. Union in G.I. pipe including cutting and threading the pipe and making long screws etc. complete (New work) :				
42.12.1	25 mm nominal bore	Each	6.00		-
42.12.2	32 mm nominal bore	Each	10.00		-
42.12.3	40 mm nominal bore	Each	7.00		-
42.12.4	50 mm nominal bore	Each	6.00		-
42.12.5	65 mm nominal bore	Each	6.00		-
42.13	Providing and fixing gun metal gate valve with C.I wheel of approved quality (screwed end).				
42.13.1	32 mm nominal bore	Each	10.00		-
42.13.2	40 mm nominal bore	Each	8.00		-
42.13.3	50 mm nominal bore	Each	10.00		-
42.13.4	65 mm nominal bore	Each	6.00		-
42.14	Providing and fixing square-mouth S.W. gully trap class SP-1 complete with C.I. grating brick masonry chamber with water tight C.I. cover with frame of 300 x300 mm size (inside) the weight of cover to be not less than 4.50 kg and frame to be not less than 2.70 kg as per standard design:				

42.14.1	100x100 mm size P type				
42.14.1.1	With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Each	10.00		-
42.15	Providing and laying cement concrete 1:5:10 (1 cement : 5 coarse sand : 10 graded stone aggregate 40 mm nominal size) all-round S.W pipe including bed concrete as per standard design.				
42.15.1	150 mm Diameter S.W Pipe	Metre	30.00		-
42.15.2	200 mm Diameter S.W Pipe	Metre	5.00		-
42.15.3	300 mm Diameter S.W Pipe	Metre	5.00		-
42.16	Making connection of drain or sewer line with existing manhole including breaking into and making good the walls, floors with cement concrete 1:2:4 mix (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) cement plastered on both sides with cement mortar 1:3 (1 cement : 3 coarse sand), finished with a floating coat of neat cement and making necessary channels for the drain etc. complete :				
42.16.1	For pipes 250 to 300 mm diameter	Each	20.00		-
42.17	Providing and placing on terrace (at all floor levels) polyethylene water storage tank, IS : 12701 marked, with cover and suitable locking arrangement and making necessary holes for inlet, outlet and overflow pipes but without fittings and the base support for tank.	Litre	10,000.00		-
42.18	Brick work with common burnt clay F.P.S. (non modular) bricks of class designation 7.5 in foundation and plinth in:				
42.18.1	Cement mortar 1:4 (1 cement : 4 coarse sand)	Cum	1.20		-
42.19	Filling with available fly ash and earth (excluding rock) in trenches or embankment in layers (each layer should not exceed 15 cm), with intermediate layer of compacted earth (Soil density of 98%) after every four layers of compacted depth of fly ash, sides & top layer of filling shall be done with earth having total minimum compacted thickness 30 cm or as decided by Engineer -in-charge, including compacting each layer by rolling/ ramming and watering, all complete as per drawing and direction of Engineer -in - charge.	Cum	3.89		-
42.20	Cement concrete flooring 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate) finished with a floating coat of neat cement, including cement slurry, but excluding the cost of nosing of steps etc. complete.				
42.20.1	40 mm thick with 20 mm nominal size stone aggregate	Sqm	16.00		-
43	<b>HVAC</b>				
43.1	<b>SUPPLY OF DX SPLIT TYPE AIRCONDITIONING SYSTEM</b>				

43.1.1	Air-Cooled Split Air-conditioners for cooling only of capacity given below suitable for operation on $230 \pm 10$ % volt, 50 Hz, 1 phase AC supply. The system shall full charge of refrigerant gas and oil. The unit shall be suitable for cordless remote operation and as per specifications. Each air-conditioner shall consist of one outdoor unit and one indoor unit and other accessories as listed below. Air-cooled condensing unit (outdoor) comprising of hermetically sealed Rotary / Scroll type compressor, condenser coil, propeller fan etc. 3 Star Inverter				
43.1.1.1	Basic Price for Split AC i/c accessories, fittings, supports, Outdoor Stand, Voltage Stabilizer, ITC etc. 1.5 TR, 3 star inverter type	Each	19.00		-
43.2	<b>REFRIGERATION PIPING SPLIT UNITS</b>				
43.2.1	Supply, Installation, testing and commissioning including vacuumization and Nitrogen testing of following nominal sizes of soft/hard drawn copper refrigerant piping for Split AC system, complete with fittings, with suitable adjustable ring type hanger supports, jointing/brazing including accessories, insulated with XPLE Class-O tubular insulation/with Class-O closed cell elastometric nitrile rubber tubular sleeves sections of specified thickness as given below for Suction and Liquid lines, all accessories as per specifications etc. as required :				
43.2.1.1	Copper Pipe for 6.4 mm dia (OD) (Soft drawn) with tube thickness .54 mm with 19 mm thick insulation	Metre	95.00		-
43.2.1.2	Copper Pipe for 12.7 mm dia (OD) (Soft drawn) with tube thickness .64 mm with 19 mm thick insulation	Metre	95.00		-
43.3	<b>CONDENSATE DRAIN PIPING SPLIT UNITS</b>				
43.3.1	Providing and fixing in position the following pipes cut to required lengths and necessary fittings with insulation.				
43.3.1.1	25 mm dia. PVC pipe	Metre	95.00		-
44	<b>CCTV System</b>				
44.1	Supplying and drawing of UTP 4 pair CAT 6 LAN Cable in the existing surface/ recessed Steel/ PVC conduit as required.				
44.1.1	1 run of cable	Metre	1,150.00		-
44.2	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
44.2.1	25 mm	Metre	1,060.00		-
44.3	Supplying, installation, testing and commissioning of 32 channels CCTV NVR 2 SATA PORT Network Video Recorder with all accessories such as internet connection, 2x4tb Hard Disk etc. complete in all respect to use at site.	Set	1.00		-

44.4	Supplying, installation, testing and commissioning of 2MP full HD 1080p dome IP CCTV camera with all accessories complete in all respect to use at site.	Set	10.00		-
44.5	Supplying, installation, testing and commissioning of 2MP full HD 1080p bullet IP CCTV camera IP-66 with all accessories complete in all respect to use at site.	Set	5.00		-
44.6	Supplying, installation, testing and commissioning of 16 port rack mountable POE switch complete with all accessories .	Set	1.00		-
44.7	Supply, Installation, Testing & Commissioning of CAT6 UTP 24 port Patch Panel complete with all accessories complete.	Set	1.00		-
44.8	Supply, Installation, Testing & Commissioning of CAT6 patch cord factory crimp cable for connecting RJ 45 including all required like connection etc at site.				
44.8.1	1 metre	Each	10.00		-
44.9	Supplying, installation, testing and commissioning of 42 inch LED Monitor with VGA and HDMI Ports complete with all accessories .	Set	2.00		-
44.10.	Central Management Software for Viewing, Multi-DVR management, supporting all cameras at one single screen and maximum Devices management, auto search configuration and status monitoring.	Each	1.00		-
45	<b>Public address system</b>				
45.1	Supplying, installation, testing & commissioning of 6 zone, voice alarm controller with USB, MP3 player (including 6 zone button paging station) with seamless integration facility with main fire alarm panel for voice evacuation complete as required.	Each	1.00		-
45.2	Supplying, installation, testing & commissioning of 1.5/3/6W metal box ceiling/wall speakers complete as required.	Each	20.00		-
45.3	Supplying and drawing of cable Fire Retardant PVC insulated copper conductor cable in the existing surface / recessed steel conduit of following pairs, cores and size including connections and interconnections etc. as required.				
45.3.1	speaker cable Single pair, 2-core, 1.5 sqmm	Metre	250.00		-
45.4	Supplying and fixing of following sizes of medium class PVC conduit along with accessories in surface/recess including cutting the wall and making good the same in case of recessed conduit as required.				
45.4.1	25 mm	Metre	340.00		-
45.5	Supplying installation, testing, programming and commissioning of Audio equipment, Reference Dynamic Vocal Microphone, highest audio Performance for stage and studio.	Each	1.00		-
46	<b>FIRE DETECTION SYSTEM</b>				
46.1	Supplying, installation, testing & commissioning of intelligent analog addressable photothermal detector complete with mounting base complete as required.	Each	34.00		-

46.2	Supplying, installation, testing & commissioning of fault isolator complete with base as required.	Each	2.00		-
46.3	Supplying, installation, testing & commissioning of addressable fire control Module complete as required.	Each	2.00		-
47	<b>Voice Network System.</b>				
47.1	Supplying including Fitting & Fixing of RJ45 Computer /Data Socket( Category 5 ( MK or equivalent Schneider/ RR /Legrand)	Each	10.00		-
47.2	Patch Cord Cat 6 UTP Gray 1m - Moulded SCHNEIDER/ LEGRAND or equivalent	Each	2.00		-
47.3	Patch Cord Cat 6 UTP Gray 2m - Moulded SCHNEIDER/LEGRAND or equivalent make as approved by the Deptt..	Each	2.00		-
47.4	DIGILINKL/ LEGRAND OR equivalent 24 Port 10/100/1000Mbps Layer 2 stackable Switch with 4 Gigabit Combo Ports	Set	1.00		-
48	<b>TV system</b>				
48.1	Supplying and fixing following modular switch/ socket on the existing modular plate & switch box including connections but excluding modular plate etc. as required.				
48.1.1	TV antenna socket outlet	Each	3.00		-
48.2	Supplying and fixing following size/ modules, GI box alongwith modular base & cover plate for modular switches in recess etc. as required.				
48.2.1	1 or 2 Module (75mmX75mm)	Each	3.00		-
48.3	Supplying installation, testing, programming and commissioning of video equipment, Mini Coax High-Resolution Cable , COAX CENTER CONDUCTOR: 28 AWG 7/36 tinned copper.	Metre	40.00		-
48.4	4K Ultra HD Smart LED TV	Each	3.00		-
49	<b>DATA Network System.</b>				
49.1	Supplying including Fitting & Fixing of RJ45 Computer /Data Socket( Category 5 ( MK or equivalent Schneider/ RR /Legrand)	Each	20.00		-
49.2	Patch Cord Cat 6 UTP Gray 1m - Moulded SCHNEIDER/ LEGRAND or equivalent	Each	10.00		-
49.3	Patch Cord Cat 6 UTP Gray 2m - Moulded SCHNEIDER/LEGRAND or equivalent make as approved by the Deptt..	Each	10.00		-
49.4	DIGILINKL/ LEGRAND OR equivalent 24 Port 10/100/1000Mbps Layer 2 stackable Switch with 4 Gigabit Combo Ports	Set	2.00		-
49.5	9U Rack Loaded SCHNEIDER/ LEGRAND or equivalent	Set	2.00		-
50	<b>Pump for Overhead Tank</b>				

50.1	Supply, installation & commissioning of 2 Nos.vertical Inline Multi Stage Centrifugal Pump for Clear Water Transfer with 50Hz, 380-415V, 2 Pole IE3 efficiency class motor (As per IEC standard). Pump shall be CI with CED quoted- Head & Base, SS 316 -Shaft and all other components will be with SS 304, Mechanical Seal (SiC vs SiC face) . Pump should have minimum 70% efficiency. (Motor Make-Siemens/ABB/Schneider)				
50.1.1	Pump controller suitable for 2 Pumps (1W+1S) with LCD screen displays, phase loss protection (incoming as well as for outgoing), Individual pump overload protection, individual pump under voltage protection, dryrunning protection without installing any float switch, memory function when power off and during recovery, visual and audio alarm for fault prompt, auto manual switch, and pump should operate based on the OHT water level and both pump should run together for high level. Panel should come with 2 Nos Float switch to work as per the sump water level.				
50.1.1.1	Flow Rate-17 m3/hr (1W+1S) Head-30m	Set	1.00		-
51	<b>FIRE RISER SYSTEM &amp; INTERNAL HYDRANT SYSTEM</b>				
51.1	Supplying, installation testing and commissioning of the following				
51.1.1	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete Note : The piping installation has to be put to hydraulic test to 1.5 times the working pressure & as per latest applicable code & standard before applying paint etc. complete				
51.1.1.1	<b>150 mm (Wet Risers for Hydrant)</b>	Metre	150.00		-
51.1.1.2	<b>80 mm (For Internal Landing valve Connection)</b>	Metre	10.00		-
51.1.1.3	<b>50 mm (Drain Down Comer)</b>	Metre	120.00		-
51.1.1.4	<b>25 mm (For Internal Hose Reel Drum Connection)</b>	Metre	50.00		-
51.2	Supplying, fixing, testing and commissioning of <b>Butterfly Valve</b> of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required				
51.2.1	<b>150 mm (For Hydrant)</b>	Each	2.00		-
51.2.2	<b>80 mm (For Internal Landing Valve)</b>	Each	3.00		-
51.3	Providing, installation, testing and commissioning of <b>Non-Return Valve</b> of following sizes conforming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required				
51.3.1	<b>Size : 150 mm</b>	Each	4.00		-

51.4	Supplying and fixing single headed internal hydrant valve with instantaneous Gunmetal/Stainless Steel coupling of 63 mm dia with cast iron wheel ISI marked conforming to IS 5290 (Type -A) with blank Gunmetal/Stainless Steel cap and chain as required				
51.4.1	<b>63mm Single headed Hydrant Valve or Internal Landing Valve</b>	Each	4.00		-
51.5	Supplying and fixing 63 mm dia, 15 m long RRL hose pipe with 63 mm dia male and female couplings duly bound with GI wire, rivets etc. conforming to IS 636 (type-A) as required				
51.5.1	<b>63 mm RRL Hose 15mtr.length.</b>	Each	6.00		-
51.6	Supplying and fixing first-aid Hose Reel with MS construction spray painted in post office red, conforming to IS 884 complete with the following as required. 20 mm nominal internal dia water hose thermoplastic (Textile reinforced) type -2 as per IS: 12585 20 mm nominal internal dia gun metal globe valve & nozzle. Drum and brackets for fixing the equipments on wall. Connections from riser with 25 mm dia stop gun metal valve & M.S. Pipe and socket.				
51.6.1	<b>Hose Reel Drum having 40 mtr. Hose Reel Length</b>	Each	6.00		-
51.7	Providing, fixing and testing forged brass <b>25 mm dia screwed inlet single acting air release valve with 25 mm dia Ball Valve</b> on inlet side and pressure gauge with 15 mm isolating cock / Valve.				
51.7.1	<b>25mm Air release valve as per IS:14845 ISI Marked</b>	Each	4.00		-
51.8	Supplying & fixing 63 mm dia gun metal short branch pipe with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required				
51.8.1	<b>GM Branch Pipe with NOZZLE</b>	Each	4.00		-
51.9	Supplying and fixing orifice plate made out of 6 mm thick stainless steel (Grade 304) with orifice of required size to be fitted between flange & landing valve of external and internal hydrants to reduce pressure at the outlet to the level of 3.5 kg/cm <sup>2</sup> complete as required. Each				
51.9.1	<b>Orifice Plate</b>	Each	4.00		-
51.9.2	25 mm nominal bore <b>Ball Valve</b> (for Internal HRD & ARV)	Each	4.00		-
52	<b>EXTERNAL HYDRANT</b>				
52.1	Excavations for pipelines in trench and pit in open areas where disposal or surplus earth is done along the alignment, including trimming and dressing sides, leveling of beds of trenches to correct grades, cutting joint holes, refilling consolidation and dewatering of refilling in 15 cm layers & restoration & unmettalled or unpaved surface to it's original condition.				

52.1.1	The rate including the cost of necessary timbering dewatering of drain water, diversion of traffic, night signals, fixing caution boards, watching fencing etc.				
52.1.1.1	Upto 1.5m depth in all classes of soil	Cum	500.00		-
52.2	Supplying, installation testing and commissioning of the following 'C' class <b>MS Pipe</b> as per IS1239 for underground/over ground pipes with welded / flanged connection with saddles, supports (all with screwed/welded joints) as required including pipe of shorter lengths, tapering connecting pieces, short or long bends, specials like sockets, union nuts, elbows, reducers, plugs, Tees etc. Complete to make the system operative as required by LFA / TAC authorities the pipes will have to be laid and fixed in trenches. The work includes excavation in all types of soils and back filling, dewatering, etc., making holes in brick or RCC walls, slabs/ roofs and making good the damages by bringing to the original condition to the satisfaction of the Architect and painting two coats of approved shade(Post office red)of enamel paint over a coat of approved primer for overheads pipes and providing and fixing pyp kote (corrosion protection tape) including supply and application of pipe coating and spiral Wrapping for underground piping (wrapping should have overlap of 15 to 20 mm) etc.				
52.2.1	Complete as per ASTM standards/IS: 10221 for corrosion protection of pipes for the underground installation. Note: The piping installation has to be put to hydraulic test to 1.5 times the working pressure & as per latest applicable codes & standard before applying paint or pipe coating or wrapping etc. complete.				
52.2.1.1	<b>OVER GROUND</b>				
52.2.1.1.i	150 mm dia.	Metre	65.00		-
52.2.1.1.ii	100 mm dia.	Metre	30.00		-
52.2.1.1.iii	80 mm dia.	Metre	20.00		-
52.2.1.2	<b>UNDER GROUND</b>				
52.2.1.2.i	150 mm dia.	Metre	100.00		-
52.3	Providing and fixing <b>hydrant stand posts of 80 mm dia.</b> With flanges and accessories and supply, fixing single headed 63 mm dia G.M. Hydrant Valve in the courtyard IS:5290 Including 2 coats of approved enamel paint (red) over a coat of primer, complete with 2.1/2" 'Morris' pattern instantaneous couplings, etc. complete.				
52.3.1	<b>Yard Hydrant : 63 mm</b>	Each	8.00		-
52.4	Providing & fixing 63mm dia <b>RRL hose pipe</b> as per IS 636 TYPE A TAC/ LFA approved of 15 mtr. standard length of approved pattern and size including gun metal male and female Coupling duly bound with copper wire etc. complete				



52.4.1	<b>63 mm RRL Hose 15mtr.length.</b>	Each	8.00		-
52.5	Supplying and fixing <b>4 way Fire Brigade service inlet</b> of size 150 mm dia. with 4 No. 63mm (2.1/2") size GM male outlets ( bronze male coupling) including metallic cover of mild steel and glass front, indicator plates,150mm BFV, etc. complete				
52.5.1	<b>4 Way Fire Brigade service inlet</b>	Each	2.00		-
52.6	SITC of <b>fire brigade draw out connection</b> with 100 mm MS suction pipe & 100 mm dia foot valve. The scope shall also include required valves, piping, M.S cabinet as required				
52.6.1	<b>2 Way Fire Brigade draw out connection</b>	Each	1.00		-
52.7	Constructing brick masonry manhole in cement mortar 1:4 ( 1 cement : 4 coarse sand ) with R.C.C. top slab with 1:1.5:3 mix (1 cement : 1.5 coarse sand (zone-III) : 3 graded stone aggregate 20 mm nominal size), foundation concrete 1:4:8 mix (1 cement : 4 coarse sand (zone-III) : 8 graded stone aggregate 40 mm nominal size), inside plastering 12 mm thick with cement mortar 1:3 (1 cement: 3 coarse sand) finished with floating coat of neat cement and making channels in cement concrete 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20 mm nominal size) finished with a floating coat of neat cement complete as per standard design :				
52.7.1	Inside size 90x80 cm and 45 cm deep including C.I. cover with frame (light duty) 455x610 mm internal dimensions, total weight of cover and frame to be not less than 38 kg (weight of cover 23 kg and weight of frame 15 kg) : 19.7.1.1 With common burnt clay F.P.S. (non modular) bricks of class designation 7.5	Job	2.00		-
52.8	Supply and installation, testing and commissioning of CI <b>Butterfly Valves</b> ( heavy ) conforming to BS 5155 ,PN1.0 tested to 1.5 times working pressure with necessary companion flanges, bolts, nuts, gasket packing, support and any other spares, including indicator for open and shut position as per fire practice etc complete.				
52.8.1	150 NB	Each	4.00		-
52.8.2	100 NB	Each	2.00		-
52.8.3	80 NB	Each	2.00		-
52.9	<b>Non-Return Valve</b> conforming to IS 5312 (swing type) or to API 594/598 (dual plate check type) with CI body & brass trim part, PN 1.0 having necessary companion flanges, CS hardwares. Gaskets, arrow indicating direction of flow, etc. complete. It shall be ISI Marked and approved make				
52.9.1	150 NB	Each	2.00		-
52.9.2	100 NB	Each	2.00		-

52.10	Supplying & fixing 63 mm dia <b>Gun Metal Short Branch Pipe</b> with 20 mm nominal internal diameter size nozzle conforming to IS 903 suitable for instantaneous connection to interconnect hose pipe coupling as required	Each	7.00		-
52.11	Providing and laying non-pressure <b>NP2 class (light duty) R.C.C. Pipes</b> with collars jointed with stiff mixture of cement mortar in the proportion of 1:2 (1 cement : 2 fine sand) including testing of joints etc. complete :				
52.11.1	Hume Pipe : 300 NB	Metre	20.00		-
53	<b>EARTHING</b>				
53.1	Earthing with G.I. earth pipe 4.5 metre long, 40 mm dia including accessories, and providing masonry enclosure with cover plate having locking arrangement and watering pipe etc. with charcoal/ coke and salt as required.	Each	4.00		-
53.2	Supplying and laying 25 mm X 5 mm G.I strip at 0.50 metre below ground as strip earth electrode, including connection/terminating with G.I. nut, bolt, spring, washer etc. as required. (Jointing shall be done by overlapping and with 2 sets of G.I. nut bolt & spring washer spaced at 50mm)	Metre	15.00		-
54	<b>CABLE END TERMINATION</b>				
54.1	Supplying and making end termination with brass compression gland and aluminium lugs for following size of PVC insulated and PVC sheathed / XLPE aluminium conductor cable of 1.1 KV grade as required.				
54.1.1	<b>3½ X 95 sq. mm (45mm)</b>	Each	4.00		-
54.2	Providing, laying, testing & commissioning of 'C' class heavy duty MS pipe conforming to IS 3589/IS 1239 including Welding, fittings like elbows, tees, flanges, tapers, nuts bolts, gaskets etc. and fixing the pipe on the wall/ceiling with suitable clamp/support frame and painting with two or more coats of synthetic enamel paint of required shade complete as				
54.2.1	Note: The piping installation has to be put to hydraulic test to 1.5 times the working pressure (for minimum 2 hrs.) before applying paint or pipe coating and wrapping etc. Complete				
54.2.1.1	<b>Size : 250mm ( 6.3 mm thk IS 3589)</b>	Metre	12.00		-
54.2.1.2	<b>Size : 200mm ( 6.3 mm thk IS 3589)</b>	Metre	16.00		-
54.3	Providing, installation, testing and commissioning of stainless steel <b>Y-Strainer</b> fabricated out of 1.6 mm thick stainless steel, Grade 304, sheet with 3 mm dia holes with stainless steel flange.				
54.3.1	<b>Size : 200 mm</b>	Each	2.00		-
54.4	Supplying, fixing, testing & commissioning of double flanged <b>Sluice Valve</b> of rating PN 1.6 with non rising spindle, bronze/gun metal seat, ISI marked complete with nuts, bolts, washers, gaskets and conforming to IS 780 of following sizes as required				
54.4.1	<b>Size : 200 mm</b>	Each	2.00		-

54.5	Supplying, fixing, testing and commissioning of <b>Butterfly Valve</b> of PN 1.6 rating with bronze/gunmetal seat duly ISI marked complete with nuts, bolts, washers, gaskets conforming to IS 13095 of following sizes as required				
54.5.1	<b>Size : 200 mm</b>	Each	3.00		-
54.5.2	<b>Size : 150 mm</b>	Each	7.00		-
54.5.3	<b>Size : 100 mm</b>	Each	1.00		-
54.5.4	<b>Size : 50 mm</b>	Each	2.00		-
54.5.5	<b>Size : 40 mm</b>	Each	2.00		-
54.6	Providing, installation, testing and commissioning of <b>Non-Return Valve</b> of following sizes confirming to IS: 5312 complete with rubber gasket, GI bolts, nuts, washers etc.as required				
54.6.1	<b>Size : 200 mm</b>	Each	1.00		-
54.6.2	<b>Size : 150 mm</b>	Each	4.00		-
54.6.3	<b>Size : 40 mm</b>	Each	2.00		-
54.7	Providing & fixing of pressure switch in M.S. pipe line including connection etc. as required.				
54.7.1	<b>Pressure Switch</b>	Each	6.00		-
54.8	Supplying and fixing <b>air vessel</b> made of 250 mm dia, 8 mm thick MS sheet, 1200 mm in height with air release valve on top and flanged connection to riser, drain arrangement with 25 mm dia gun metal wheel valve with required accessories, pressure gauge and painting with synthetic enamel paint of approved shade.	Each	1.00		-
55	<b>FIRE EXTINGUISHERS</b>				
55.1	Providing & Fixing of fire extinguishers with necessary accessories, stand, trolley, etc.				
55.1.1	<b>6 Kg ABC</b> (Powder Type) Fire Extinguisher. In HP Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC powder (Mono Ammonium Phosphate) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:15683	Each	30.00		-
55.2	ISI Marked portable fire extinguisher, <b>4.5kg CO2</b> type fire extinguishers complete in all respect including initial fill and wall suspension brackets & shall conform to IS 2878 or latest IS	Each	30.00		-
55.3	<b>6Kg DCP (Powder Type)</b> Fire Extinguisher. In HP Mild Steel Cylinders ISI marked fitted with pressure indicating gauge, internal tube, squeeze lever type valve fully charged with ABC powder (Mono Ammonium Phosphate) pressured by Nitrogen complete in all respects including wall suspension bracket and conforming to IS:15683	Each	16.00		-
55.4	ISI marked (IS:15683) <b>portable chemical fire extinguisher, Foam type capacity 9 liters</b> with gun metal cap and nozzle and complete in all respects including initial fill and wall suspension brackets	Each	4.00		-

55.5	Supplying and installing at approved location approved make fire buckets (3nos./set) of 24 gauge galvanized steel sheet, standard 9 litre capacity and of round bottom shape, painted white inside and black on the bottom, inscribed with letters "FIRE" in black and gold with dry clean fire sand. The scope shall also include the stand for mounting the sand bucket.	Set	12.00		-
55.6	<b>5Kg. Clean Agent Ceiling Mounted Type Fire Extinguisher</b> , Working Temperature -30°C to +60°C, Cylinder Testing Pressure 35 bar for 30sec., Operating Pressure 8 bar, Bulb Temp.68°C Standard, Area Coverage of 3x3 mtr., Propellant uses of Dry Nitrogen and type of Charge Clean Agent HFC-236fa ( <b>Including Internal Server &amp; Ups Room .</b> )	Each	4.00		-
56	<b>FIRE RISER SYSTEM &amp; INTERNAL HYDRANT SYSTEM</b>				
56.1	Providing and fixing TAC approved <b>fire hose cabinet</b> to house fire hydrant & hose, including all other related accerrories fabricated from M.S. sheet (16 Gauge) of fully welded construction having front door with locking arrangement, partially glazed with 4 mm thick glass. Cabinet shall be powder coated & painted with post office red colour of size as shown in the drawing (or as approved by Architect) to house the hydrant valve, 15 mtr.x2 nos. hose & hose reel. The hose cabinet size is 1500 x 900 mm x 450 mm				
56.1.1	<b>Internal Hose Cabinet</b>	Each	9.00		-
56.2	Providing and fixing TAC approved <b>fire hose cabinet</b> to house fire hydrant & hose, including all other related accerrories fabricated from M.S. sheet (16 Gauge) of fully welded construction having front door with locking arrangement, partially glazed with 4 mm thick glass. Cabinet shall be powder coated & painted with post office red colour of size as mentioned in drawing (or as approved by the Architect) to house 15 mtr.x2 nos. hoses. The hose box size is 750 mm x 600 mm x 300 mm				
56.2.1	<b>Hose Cabinet for External yard Hydrant</b>	Each	40.00		-
57	<b>FIRE PUMPS &amp; RELATED ACCESSORIES</b>				
57.1	Supply, installation, testing and commissioning of 25 x 6 mm GI Equipotential bar of 500 mm length with suitable. junction box to connect earthing conductor from building earthing to the equipment. (With six knock outs for connecting the equipment earthing	Each	2.00		-
58	<b>CABLE</b>				
58.1	Supply, laying testing and commissioning of L.T. XLPE armoured / unarmoured cable confirming to IS : 7098 Part - II as per the description given below: (Note: Qty may vary +/- 15% as per actual work at site)				
58.1.1	3.5 C x 95 Sq. MM. Al. XLPE ARM Cable (FIRE PANEL To Hydrant & Standby Pumps)	Metre	60.00		-
58.1.2	3.5 C x 2.5 Sq. MM. Cu. PVC Armored Cable (JOCKEY PUMP)	Metre	20.00		-
58.1.3	5 C x 2.5 Sq. MM. Cu. PVC Armored Cable	Metre	70.00		-

58.2	<b>INSTALLATION OF</b>				
58.2.1	<b>3.5 C x 2.5 Sq. MM. Cu. PVC Armored Cable (JOCKEY PUMP)</b>	Each	4.00		-
58.2.2	<b>5 C x 2.5 Sq. MM. Cu. PVC Armoured Cable</b>	Each	8.00		-
58.3	<b>Providing and fixing Power wiring with 2 core x 1.5 sq.mm. PVC armoured copper cable for wiring pressure switches, etc. Including all required material and labour, terminations, etc. Complete.</b>	Metre	80.00		-
58.4	Providing, installing testing & commissioning of <b>Foot valve</b>				
58.4.1	<b>Size : 100 mm</b>	Each	1.00		-
58.5	100 mm dial Pressure gauge with Syphon tubing, isolation valve & mounting accessories complete Range: 0 - 10 kg/sq.cm.				
58.5.1	<b>Pressure Gauge : 0 - 10 kg/sq.cm.</b>	Each	6.00		-
58.6	Supply, installation, testing & commissioning of <b>Rubber Bellows</b> on discharge side of pump conforming to EJMA with all hardwares, companion flanges & gaskets, etc.				
58.6.1	<b>Size : 200 mm</b>	Each	3.00		-
58.6.2	<b>Size : 150 mm</b>	Each	3.00		-
58.7	SITC of electronic type water level indicator with LED panel, with probe & all control wiring to operate the system automatic/manual & shall prevent the pump from dry running	Job	1.00		-
58.8	Fire Man Axe with heavy insulated rubber handle tested to 20,000 volts as per IS:929 complete				
58.8.1	<b>Fire Man Axe</b>	Each	6.00		-
59	<b>MEDICAL GAS PIPELINE SYSTEM</b>				
59.1	SITC of 8 + 8 cylinder size main Oxygen manifold (header bar), complete with middle frame with chain for individual cylinder along with high pressure copper tail pipes, Non Return Valve for every cylinder. All header racks and cylinder tailpipes should be 230 bar rated. Cylinder header racks for oxygen service shall be provided with connections for bull nose cylinder connections. Cylinder racks shall be manufactured from powder coated steel and shall be designed to securely support cylinders of varying diameters. Tailpipes shall have gas specific connections to the manifold header with threaded connections. Manifold header racks shall incorporate hard-seat, polymer-free non-return integral with each cylinder connection point to maintain system in the event of tailpipe fracture and prevent backflow of gas into the high pressure cylinders as per specification. Flexible tail pipes should not be used.	Set	2.00		-
59.2	SITC of Fully Automatic Control Panel for Oxygen having constant flow output of over 1000 LPM or more at 55 to 60 psig Pressure as per specification	Each	2.00		-

59.3	SITC of 6 + 6 cylinder size <b>Emergency Back-up Oxygen manifold (header bar)</b> , complete with middle frame with chain for individual cylinder along with high pressure copper tail pipes, Non Return Valve for every cylinder. All header racks and cylinder tailpipes should be 230 bar rated. Cylinder header racks for oxygen service shall be provided with connections for bull nose cylinder connections. Cylinder racks shall be manufactured from powder coated steel and shall be designed to securely support cylinders of varying diameters. Tailpipes shall have gas specific connections to the manifold header with threaded connections. Manifold header racks shall incorporate hard-seat, polymer-free non-return integral with each cylinder connection point to maintain system in the event of tailpipe fracture and prevent backflow of gas into the high pressure cylinders as per specification. Flexible tail pipes should not be used.	Set	2.00		-
59.4	SITC of SEMI Automatic Control Panel for Emergency Oxygen Manifold having constant flow output of over 1000 LPM or more at 55 to 60 psig Pressure as per specification	Each	2.00		-
60	Oxygen Flowmeter with Humidifier as per specification				
60.1	Range: 0 to 15 LPM	Each	24.00		-
60.2	Range: 0 to 5 LPM	Each	19.00		-
60.3	BPC Adapter for Ventilator & Anesthesia Workstation	Each	24.00		-
60.4	Oxygen Kit Conversion for connecting Anaesthesia Machine with Oxygen Gas Outlet	Each	9.00		-
61	<b>NITROUS OXIDE SYSTEM</b>				
61.1	SITC of 1 + 1 size main Nitrous Oxide manifold (header bar), complete with middle frame with chain for individual cylinder along with high pressure copper tail pipes, Non Return Valve for every cylinder. All header racks and cylinder tailpipes should be 230 bar rated. Cylinder header racks for oxygen service shall be provided with connections for bull nose cylinder connections. Cylinder racks shall be manufactured from powder coated steel and shall be designed to securely support cylinders of varying diameters. Tailpipes shall have gas specific connections to the manifold header with threaded connections. Manifold header racks shall incorporate hard-seat, polymer-free non-return integral with each cylinder connection point to maintain system in the event of tailpipe fracture and prevent backflow of gas into the high pressure cylinders as per specification. Flexible tail pipes should not be used.	Set	2.00		-
61.2	SITC of Semi Automatic Control Panel for Nitrous Oxide having constant flow output of over 450 LPM or more at 55 to 60 psig Pressure as per specification	Each	2.00		-

61.3	SITC of 1 cylinder size emergency Nitrous Oxide back-up manifold (header bar), complete with middle frame with chain for individual cylinder along with high pressure copper tail pipes, Non Return Valve for every cylinder. All header racks and cylinder tailpipes should be 230 bar rated. Cylinder header racks for oxygen service shall be provided with connections for bull nose cylinder connections. Cylinder racks shall be manufactured from powder coated steel and shall be designed to securely support cylinders of varying diameters. Tailpipes shall have gas specific connections to the manifold header with threaded connections. Manifold header racks shall incorporate hard-seat, polymer-free non-return integral with each cylinder connection point to maintain system in the event of tailpipe fracture and prevent backflow of gas into the high pressure cylinders as per specification. Flexible tail pipes should not be used.	Set	2.00		-
61.4	SITC of Preset Nitrous Oxide Pressure Regulator for Emergency Nitrous Oxide Manifold having constant flow output of over 150 LPM or more at 55 to 60 psig Pressure as per specification	Each	2.00		-
61.5	Nitrous Oxide Kit Conversion for connecting Anaesthesia Machine with Nitrous Oxide Gas Outlet	Each	8.00		-
62	<b>SITC of MEDICAL VACUUM SYSTEM AS PER SPECIFICATION</b>				
62.1	Central Vacuum System Complete with Vacuum Pump, each having 110 cfm PD with <b>10 Hp motor</b> , Filter, Interconnecting Pipes, NRV, Auto Switch Gear Assembly, Exhaust Silencer and Line Filter etc.	Set	4.00		-
62.2	Vacuum Tank 2000 Liters	Each	2.00		-
62.3	Bacterial Filter with Drain Flask- 115 CFM FLOW RATE	Each	4.00		-
62.4	Ward Vacuum Unit with Regulator, Collection Jar of 600 ml with Bracket as per specification	Each	18.00		-
62.5	Theatre Vacuum Unit mounted on Trolley consisting of Vacuum Regulator with Gauge and 2 nos. of 2000 ml Polycarbonate Jar as per specification	Each	7.00		-
62.6	LP Tube	Metre	35.00		-
62.7	<b>SITC of COMPRESSED AIR SYSTEM AS PER SPECIFICATION</b>				
62.8	Compressed Air system complete with 2 nos. of Reciprocating Oil free, air cooled type, dust free, Base frame mounted Air Compressors with <b>10 HP Motors</b> with Air filter 2 sets (Pre, Post and Activated Carbon)	Set	2.00		-
62.9	Air receiver shall be of 1000 litres water capacity designed considering maximum working pressure of 10 bar(g).	Each	2.00		-
62.10	Medical Breathing Air Dryer	Each	2.00		-
62.11	Pressure Reducing Station for 4 Bar	Set	4.00		-
62.12	SITC of Common Electrical Power Distribution Panel for Compressed Air System & Vacuum System as per specification complete with plant room wiring.	Each	2.00		-

62.13	<b>SITC of Distribution Copper Pipe as per EN 13348 - Lloyds Certified as per specification</b>				
62.13.1	35 mm OD x 1.2 mm thick	Metre	50.00		-
62.13.2	28 mm OD x 1.2 mm thick	Metre	300.00		-
62.13.3	22 mm OD x 0.9 mm thick	Metre	480.00		-
62.13.4	15 mm OD x 0.9 mm thick	Metre	135.00		-
62.13.5	12 mm OD x 0.9 mm thick	Metre	250.00		-
62.14	<b>SITC of Medical Gas Outlets / Terminal Units for mounting on Wall, Bed Head Panel &amp; Ceiling Pendant as per specification</b>				
62.14.1	Front Loading Oxygen Outlets with probe	Each	60.00		-
62.14.2	Front Loading N2O Outlets with probe	Each	8.00		-
62.14.3	Front Loading Medical Air - 4 Bar Outlets with probe	Each	34.00		-
62.14.4	Front Loading Vacuum Outlets with probe	Each	54.00		-
62.15	<b>SITC of Medical Gas Digital Area Alarm System as per specification</b>				
62.15.1	4 - Gas (O2,N2O, Med Air-4 Bar, sa7 & Vacuum)	Each	2.00		-
62.15.2	3 Gas ( O2, Air, Vacuum)	Each	4.00		-
62.16	<b>Area Valve Service Unit with Valve &amp; Gauge as per specification</b>				
62.16.1	4 Gas Service ( 35 x 28 x 28 x 22 mm)	Each	2.00		-
62.17	<b>SITC of Lockable Floor Isolation Valve with End Fittings as per specification</b>				
62.17.1	12 mm	Each	29.00		-
62.17.2	15 mm	Each	57.00		-
62.17.3	22 mm	Each	17.00		-
62.17.4	28 mm	Each	8.00		-
62.17.5	28 mm	Metre	100.00		-
63	<b>PRIMARY RO PLANT</b>				
63.1	Supply ,Testing and Commissioning of Floor Mounted R.O. Plant capable to deliver Output water at TDS < 150 PPM . The Rate Should Include Complete items inclusive of Necessary PVC Storage Tanks, Valves, Membranes, Control Panels, Pplings, Pumps, Strainers, Supports and Other accessories .Backwash once a day. Vendor to consider pre filter requirement , if any, based on water test at their own cost. Vendor to submit design details, p &ID and plan /section drawings along with membrane calculations for approval. Vendor to submit technical datasheet including membrane details.				
63.1.1	<b>50 LPH WITH All Accessories and Pumps, Filters, for Fitting on Floor as per approved OEM drawings</b>	Each	6.00		-



	<b>Total Amount</b> -
--	--------------------------

**NOTE TO THE BIDDERS:**

The above BoQs containing various items and quantity mentioned thereof are indicative only. Few of the items mention in the BoQ may not be required at the time of actual execution of work. Payment shall be on actual utilization of items.

## **Section V - Eligible Countries**

### **Eligibility for the Provision of Goods, Works and Non-consulting Services in Bank-Financed Procurement**

In reference to ITB 4.8, and 5.1, for the information of the Bidders, at the present time firms, goods and services from the following countries are excluded from this Bidding process:

Under ITB 4.8 (a) and 5.1 : *None*

Under ITB 4.8 (b) and 5.1 : *None*

[Note: as and when some country/ countries become ineligible insert the list of such countries following approval by the Bank to apply the restriction]

## **Section VI - Fraud and Corruption**

### **(Section VI shall not be modified)**

#### **1. Purpose**

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

#### **2. Requirements**

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders, (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, 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;
- ii. "Fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
- 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;
- 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;
- 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 provided for under paragraph 2.2 e. below.

b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or

indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;

- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring mis procurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;<sup>18</sup> (ii) to be a nominated<sup>19</sup> sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders (applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect<sup>20</sup> all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

<sup>18</sup> For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

<sup>19</sup> A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

<sup>20</sup> Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

## **PART 2 – Works' Requirements**

## Section VII - Works' Requirement

### **Repair and renovation works in Hojai Civil Hospital, Hojai, Assam and Nagaon Medical College & Hospital, Nagaon, Assam under ASSIST project**

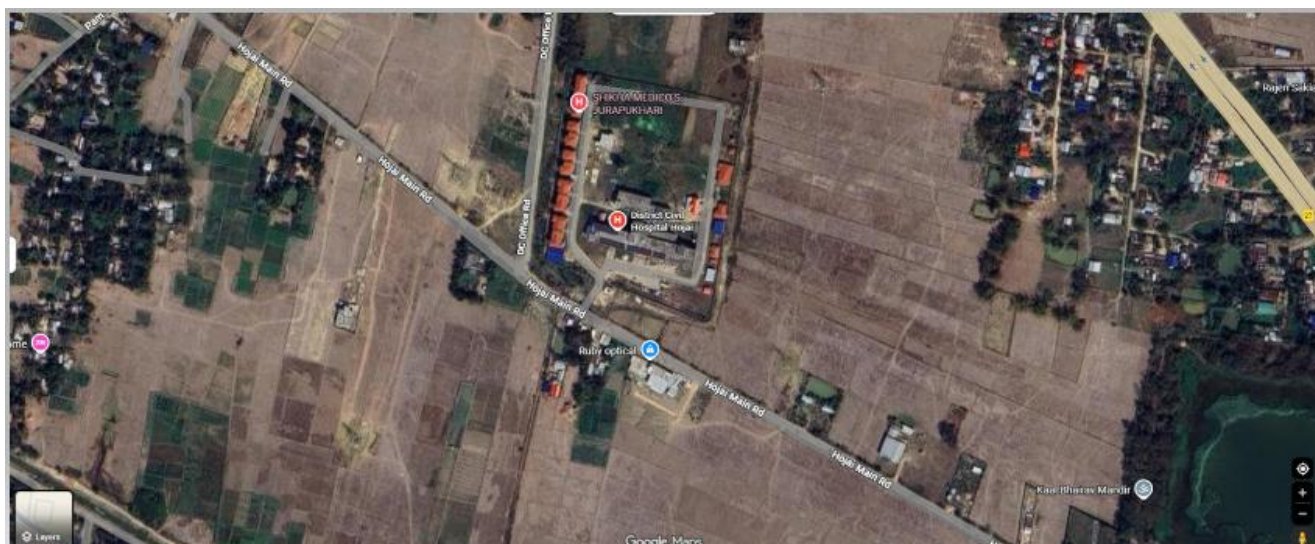
**Background:** The ASSIST Project is a targeted initiative to upgrade district-level healthcare services in Assam, with a focus on elevating quality, access, and management capacity in selected District Hospitals and Medical Colleges. Key areas of improvement include infrastructure enhancements, institutional reforms, and a results-driven financing framework. Among the major activities are:

- **Construction of New District Hospitals:** Building 10 new 100 to 200-bedded district hospitals across various districts for increasing capacity and enhanced accessibility.
- **Upgradation of Existing Facilities:** Improving the physical and operational infrastructure of 25 district hospitals for improving accessibility and quality of secondary services
- **Public-Private Partnerships (PPPs):** Establishing PPPs to bring in expertise and improve service quality and efficiency within the healthcare system.
- **Hospital Management Strengthening:** Upgrading management capabilities of the facilities through training and structural reforms to enhance operational efficiency.
- **Data and Management System Enhancements:** Implementing advanced data and management systems for better decision-making and resource allocation.

**Name of the Site:** Hojai Civil Hospital, Hojai, Assam

**Location of Project:**

- ☐ Coordinate of the Hojai Civil Hospital is 25.982343996421715, 92.92501812300877
- ☐ Location: Hojai Civil Hospital, Hojai Road, Hojai, Assam, 782435
- ☐ Distance from Key Locations:
  - o Nearest Railway Station: Hojai Railway station is 10 km away from the hospital location.
  - o Nearest Airport: Guwahati Airport is 200 km away from Hojai Town
  - o Nearest Bus Terminal: Hojai local bus stand within 5 Km



**Name of the Site-** Nagaon Medical College & Hospital, Nagaon, Assam

**Location of Project:**

□ Location: Nagaon Medical College and Hospital is located at 1, Laokhowa Road, Diphalu, Mohkhuli Chariali, Nagaon, Assam 782003.

□ Distance from Key Locations:

o Nearest Railway Station: Nearest railway station is Haibagaon is within 6 km

o Nearest Airport: The nearest airport to the college is Guwahati Airport, located approximately 150 km away.

o Nearest Bus Terminal: ASTC Bus Station, of Nagaon is 3 Km kilometres from the hospital.

o Coordinate: 26.36666783419267, 92.71441568705318



**About works:** Repair and renovation works in Hojai Civil Hospital, Hojai, Assam and Nagaon Medical College & Hospital, Nagaon, Assam under ASSIST project

The primary objective of this initiative is to achieve NQAS accreditation across all departments of the Hospitals. These refurbishment and upgrade efforts aim to enhance the hospital's infrastructure, ensuring it is better equipped to provide high-quality healthcare services at the district level.

**Probable Challenges during construction period:** Renovating and repairing an operational hospitals presents several challenges for the contractor, requiring meticulous planning and execution to ensure minimal disruption to healthcare services and in the process to mitigate environmental and social concerns simultaneously. Some key challenges include:

**1. Operational Continuity, Occupational Safety & Patient Safety**

- Ensuring uninterrupted healthcare services while conducting renovation activities.
- Implementing strict infection control, environmental and social mitigation measures to prevent dust, debris, and noise from affecting patients, staff, and sensitive medical equipment.
- Coordinating work schedules to avoid disturbing critical departments such as ICU, OT, and emergency wards.

**2. Space Constraints & Phased Execution**

- Limited space for construction activities within an active hospital environment.
- Need for a phased execution plan to sequentially renovate different sections without shutting down essential services.
- Relocation and temporary shifting of departments to allow for seamless construction without disruption of services
- Provision of alternative space for uninterrupted services when the works require complete evacuation of the area/facilities.

**3. Compliances with relevant regulations, guidelines and norms**

- Adhering to National Quality Assurance Standards (NQAS)
- Regulatory guidelines of the state, country and World Bank for compliance of health & safety, environment and social safeguards
- Regulatory compliances for establishment of new facilities such as ETP, STP such as obtaining consent to Establish and further Consent to Operate from Pollution Control Board
- Ensuring biomedical waste management protocols are not disrupted.
- Maintaining fire safety norms, emergency evacuation routes, and air & water quality standards.



#### **4. Infrastructure & Utility Management**

- Managing hospital utilities (electricity, water supply, oxygen lines, medical gas pipelines) without disrupting essential services.
- Strengthening works without causing vibrations that could affect diagnostic or surgical procedures.
- Handling outdated infrastructure that may require additional retrofitting or compliance upgrades.

#### **5. Coordination with Hospital Administration & Staff**

- Regular communication with doctors, nurses, and hospital management/authority to schedule work in non-peak hours.
- Addressing concerns of medical professionals regarding patient care, hygiene, and accessibility.

#### **6. Security & Access Control**

- Ensuring safety and security at sites by engagement of security services at sites concerned and installing barricades, safety signage at all vulnerable and sensitive points on the site
- Controlling movement of labourers, machinery, materials and construction vehicles within/in and around hospital concerned/sites Avoiding entry/exit routes of people coming to hospital for movement of construction vehicles.
- Preventing unauthorized access to restricted hospital zones.

#### **7. Waste Management & Environmental Concerns**

- Proper disposal of construction debris without affecting hospital sanitation and surface and ground water sources
- Implementing noise and dust control measures to protect patients and medical equipment.
- Effective implementation of Environment, health and safety plan

#### **8. Logistics & Material Delivery Challenges**

- Scheduling material deliveries avoiding rush hours of hospital and without blocking hospital entry points or ambulance routes.
- Storing construction materials in a way that does not hinder hospital operations.

#### **9. Financial & Timeline Constraints**

- Ensuring cost-effective execution within budget while maintaining quality standards.
- Managing tight deadlines without compromising patient safety or hospital efficiency.

## 10. Unforeseen Issues

- Discovering hidden structural weaknesses/distortion or outdated utilities requiring additional work. If so a prior approval from competent authority has to be taken.
- Unexpected delays due to approvals, hospital emergencies, or resource shortages.

To overcome these challenges, a well-structured **work execution plan, stakeholder coordination, and risk mitigation strategies** must be in place to ensure smooth and efficient hospital renovation.

Contractor has to complete following works as a part of scope of work as mentioned below:

### Civil Works:

- Hospital Internal Civil Repairing Works
- Main Gate & Security Room
- Campus Road Works
- Campus Brick Drain
- Campus Brick Boundary Wall
- Repairing of Existing Boundary Wall
- Bio-Medical Waste House
- Effluent Treatment Plant (ETP-10 KLD) RCC Tank
- Sewage Treatment Plant (STP-70 KLD) RCC Tank
- Under Ground Reservoir (UGR- 200 KLD) RCC Tank

### MEPF Works:

- Hospital Internal Electrical Repairing Works
- External Electrical Works
- Hospital Internal Plumbing Repairing Works
- UGR, OHT & Bore Well Pump Works
- Hospital RO System
- Hospital HVAC System
- Hospital ETP & STP System
- Hospital CCTV System
- Hospital PA System
- Hospital Fire Detection System
- Hospital LVS System
- Hospital MGPS WORKS
- Hospital Fire Protection Works

The aforementioned work items are broad in nature; however, the detailed payment, including specifications, is outlined in the Bill of Quantities (BoQ). During execution, all civil works must be carried out in full compliance with the specified requirements and quantities. The department name and area has been mentioned in room wise in drawings for reference.

**Defect Liability Period (DLP):** The DLP will vary depending on the nature of the work. In the case of the hospital project, the bid documents specify both repair and renovation work as well as new construction. Accordingly, the bid document proposes two distinct DLPs based on the type of construction undertaken.

Items of Works	Defect Liability Period
Hospital Internal Civil Repairing Works	12 Months
Repairing of Existing Boundary Wall	12 Months
Hospital Internal Electrical Repairing Works	12 Months
Hospital Internal Plumbing Repairing Works	12 Months

Items of Works	Defect Liability Period
Main Gate & Security Room	12 Months
Campus Road Works	12 Months
Campus Brick Drain	12 Months
Campus Brick Boundary Wall	12 Months
Bio-Medical Waste House	12 Months
Effluent Treatment Plant (ETP-10 KLD) RCC Tank	12 Months
Sewage Treatment Plant (STP-70 KLD) RCC Tank	12 Months
Under Ground Reservoir (UGR- 200 KLD) RCC Tank	12 Months
External Electrical Works	12 Months
UGR, OHT & Bore Well Pump Works	12 Months
Hospital RO Water Purifier System	12 Months
Hospital HVAC System	12 Months
Hospital ETP System	12 Months
Hospital STP System	12 Months
Hospital CCTV System	12 Months
Hospital PA System	12 Months
Hospital Fire Detection System	12 Months
Hospital LVS System	12 Months
Hospital MGPS WORKS	12 Months
Hospital Fire Protection Works	12 Months

### **SPECIFICATION:**

---

## **CIVIL WORKS**

### **1. CEMENT:**

- 1.1. The cement used shall be one of the following types:
  - i) Ordinary Portland cement conforming to IS:269 – 1976
  - ii) Portland Pozzolana cement conforming to IS: 1489
- 1.2. Whenever possible all cements of each type shall be obtained from one constant source throughout the contract. Cement of different types shall not be mixed one with the other. Different brands of cements, or the same brand of cement from different sources, shall not be used without prior notification and approval.
- 1.3. The cement shall be supplied either packed in bags or in silos installed for the purpose of supply. Packed cement shall be delivered to the site in original sealed bags which shall be labelled with the weight, date of manufacture, name of manufacturer, brand and type. A Cement received in torn bags shall not be used.
- 1.4. All cement shall be fresh when delivered and at ambient atmospheric temperature.
- 1.5. In fair faced elements, the cement used in the concrete for any complete element shall be from a single consignment. All cement for exposed concrete shall be from the same approved source and uniform in colour.

### **2. AGGREGATES:**

- A. Aggregates from natural sources shall be in accordance with IS: 383. The contractor shall test aggregate at site in accordance with IS 2386. The contractor shall allow for and provide all necessary apparatus for carrying out such tests and for supplying test records to the consultant agency.
- B. The contractor shall ensure that aggregates are free from iron pyrites and impurities which may cause discoloration.
- C. FINE AGGRAGATE:
  - i) All aggregate shall comply to IS: 2386 Part-II. The fine aggregate shall be pit sand stone dust or other approved sand. It shall be free from clay, loam, harmful chemical impurities. It shall be clean, sharp, strong, and angular and composed of hard siliceous materials.
  - ii) Fine sand shall be within the limits of Grading Zone IV of relevant IS code, as

given in Table I. When the grading falls outside the percentage limits given for sieves other than 600-micron, 300 micron and 150-micron (I.S.) sieves but not more than 5 percent, it shall be regarded as falling within this zone. The 5 percent shall be summation of excess on all other services

iii)

**TABLE – I : FINE AGGREGATE**

IS SIEVE	PERCENTAGE PASSING FOR GRADING			
	Zone - I	Zone - II	Zone - III	Zone - IV
10mm	100	100	100	100
4.75mm	90-100	90-100	90-100	95-100
2.36mm	60-95	75-100	85-100	95-100
1.18mm	30-70	55-90	75-100	90-100
600 micron	15-34	35-59	35-60	80-100
300 micron	5-20	8-30	8-30	20-65
150 micron	0-10	0-10	0-10	0-15

iii. The maximum quantity of silt as determined by the method prescribed in I.S.2386 Part II shall not exceed 8 percent. Stone dust shall be obtained by crushing hard stone and the grading as determined by the method prescribed in IS:2386 Part-II. It shall be within the limits above for the sieves other than 600 micron (I.S.) Sieves should not be more than 5 percent and for 150 micron sieve should not be more than 20 percent.

**D. COARSE AGGREGATE:**

- i) For reinforced concrete work coarse aggregate shall be crushed stone, river shingle or approved pit gravel having nominal maximum size of 20 mm and down as approved by Engineer-in-charge.
- ii) Coarse aggregate obtained from crushed or broken stone shall be angular, hard, strong, dense, durable, clean and free from soft, friable, thin flat, elongated or flaky pieces.
- iii) River shingle or pit gravel shall be rounded sound, hard, clean, nonporous,

suitably graded in size with or without broken fragments and free from flat particles of shale, clay silt, loam and other impurities.

- iv) Except where it can be shown to the satisfaction of the Engineer-in-charge, supply of properly graded aggregate of uniform quality can be maintained over the period of the works, the grading of aggregate shall be controlled by obtaining the coarse aggregate in different sizes and blending them in correct proportions as and when required

### 3. STEEL:

#### STEEL REINFORCEMENT:

- i) Steel reinforcing bars shall be TMT conforming to IS :14786-1979 or IS : 1139-1966 (Grade Fe 415) or mild steel bars conforming to Grade I of IS : 432 (Part I) – 1966
- ii) For checking nominal mass, tensile strength, band test, re-band- test etc. specimen of sufficient length shall be cut from each size of the bar at random at frequency not less than that specified below: -

Size of Bar	For consignment below 100 tones.	For consignment over 100 tones.
Under 10 mm dia	One sample for each 25 tones or part thereof.	One sample for each 40 tones or part thereof.
10mm- 16mm dia.	One sample for each 35 tones or part thereof.	One sample for each 45 tones or part thereof.
Over 16mm dia	One sample for each 45 tones or part thereof.	One sample for each 50 tones or part thereof.

- iii) Steel brought to site and steel remaining unused shall not be moved from site without the written permission of the Engineer-in-charge.
- iv) The use of cold twisted bars is not permitted.

#### BINDING WIRE:

Reinforcement binding wire shall be best black annealed mild steel wire, approximately 1.6 mm in diameter.

#### BAR SIZES:

Bar size of various components of building shall be as the following or as conformed by the engineer-in-charge.

- i) Column footing - 20mm diameter.
- ii) Plinth Beams - 16mm diameter.
- iii) Main Beams - 16mm diameter.
- iv) Columns - 20mm diameter.
- v) Lintel Beams - 12mm diameter.

- vi) Chajjas - 8mm diameter.
- vii) Staircase slab - 16mm diameter.
- viii) Slabs - 10mm diameter.
- ix) Stirrups &Ties - 8mm diameter.

#### **STRUCTURAL STEEL:**

All finished rolled steel sections shall be of weldable quality in accordance with latest edition of IS 226 and shall be approved by the Engineer-in-charge.

#### **4. WATER:**

A. Water used in the works shall be potable water and free from deleterious materials. water used for mixing and curing concrete as well as for cooling and/or washing aggregate shall be fresh and clean, free from injurious amounts of oil, salts, acids, alkali, other chemicals and organic matter.

B. Water shall be from the source approved by the Engineer-in-charge and shall be in accordance with clause 4.3 of IS: 456.

C. Before starting any concreting work and wherever the source of water changes, the water shall be tested for its chemical and other impurities to ascertain its suitability for use in concrete for approval of the Engineer-in-charge. No water shall be used until tested and found satisfactory. Cost of all such tests shall be borne by the contractor.



## **5. STORAGE:**

All goods and products covered by these specifications shall be procured well in advance and stored as specified below:

### **A. CEMENT:**

- i) Cement shall be stored on raised floor in dry weather proof and draught free but well-ventilated shed.
- ii) Cement bags shall be stacked at least 60 cm away from external walls and in stacks of not more than ten bags to avoid lumping under pressure.
- iii) Cement stored during monsoons or cement expected to be in store for more than eight weeks shall be completely enclosed in 500 gauge polythene sheet so arranged that the flap closes on the top stack. The contractor shall ensure that protective polythene sheet is not damaged at any time during use.
- iv) Cement of different types shall be stored in separate sheds or separate compartment of a shed. If different types of cement are mixed, the Engineer-in-charge will have the discretion to reject all the cement/concrete concerned.
- v) Consignment of cement shall be used in order of delivery. A record shall be kept of the batch numbers of cement deliveries in such a form that the part of the works in which the cement is used can be readily identified.
- vi) The contractor shall be responsible for the storage of cement at the site and no claim will be entertained in the event of any damage occurring to cement due to faulty storage by the contractors or on account of his negligence.
- vii) If cement is stored on site for a period longer than eight weeks it shall be tested to the satisfaction of the Engineer-in-charge before it is used in the works.
- viii) Cement which has so deteriorated in quality that it no longer conforms in all respects to the requirements of this specification will be condemned by the Engineer-in-charge - and shall not be used in the works. The contractor shall immediately remove from the site all cement which has been so condemned.

---

**B. AGGREGATE:**

- i) Aggregates shall be stored as per 18:4082: 1977 on a suitable well drained raft of concrete, timber, metal or other approved material. The storage of aggregate on the ground will not be permitted.
- ii) Each size of aggregate shall be stored separately in such a manner as to prevent spillage and mixing of one aggregate with an adjacent aggregate. The dividing wells of any bins shall be of sufficient height and the aggregate shall be so deposited that a distance of 300mm shall left between the top of the division wall and any part of the aggregate stack
- iii) When stack piling, the aggregate shall not form pyramids resulting in segregation of different size particles. The stacks shall be regular and of a height not exceeding two meters.

**C. STEEL:**

- i) Reinforcement for structures shall be handled and stored in a manner that will prevent bending out of the desired shape and any accumulation of dirt, oil and paint. When placed in the works it shall be free from dirt, oil, grease, paint, mill scale and loose or thick rust.
- ii) It shall be stored in such a way as to avoid distortion and to prevent deterioration and corrosion. Steel reinforcement, shall be stored clear of the ground, on rack or otherwise supported, covered in bundles indicating the type, number, size, length, diameter and date of delivery to the site of the bars or fabric reinforcement as per relevant I.S. 226 and as Directed by the Engineer-in-charge.

## **6. CONCRETE MIX PROPORTIONS:**

Cement concrete used in the works shall be either of the two categories given below.

A. All cement concrete not designated by strength shall be treated as ordinary concrete of nominal mix as specified. The aggregates and cement shall be as specified. The aggregates and cement shall be measured by volume. Mixing water shall be measured in graduated litre cans.

### **B. Controlled Concrete**

- i) All cement concrete designated by strength shall be treated as controlled concrete. The aggregates and cement shall be measured by weight in approved weight batching equipment. Mixing water shall be measured in graduated litre cans. In case cement is supplied packed in bags one or more complete bags of cement shall be used for each batch of concrete where concrete mixers are allowed to be used.
- ii) The controlled concrete shall meet with the strength requirement laid down IS : 516 – 1959.
- iii) The contractor shall be responsible for designing mixes of the specified performance to suit the degree of workability and strength. Required for the various parts of the works.
- iv) Alternative mixes may be designed by the contractor for use in both thin and narrow section and thick sections. Special mixes using finer aggregates may be designed by him for infilling pockets and narrow spaces and for regions of congested reinforcement.
- v) The maximum water cement ratio for all grade of ordinary concrete shall not be more than 0.5.

## 7. STRENGTH OF CONCRETE:

The compressive strength on work tests for different nominal mixes is given in following Table: -

Concrete Mix	Compressive strength (kg/sq.cm)	
	7 days	28 days
1:1:5:3	140	210
1:2:4	106	158
1:1:2	175	265

## 8. WATER CEMENT RATIO:

- i) The quantity of water added to the cement and aggregate during mixing shall be such as to produce a concrete having sufficient workability to enable it to be properly compacted to be worked into the corners of the shuttering and around reinforcement.
- ii) Due amount shall be taken of the variation of moisture content, within any consignment of aggregate and any variations due to watering, exposure to rain or drying weather. The contractor shall carry out regular moisture content tests in accordance the Engineer-in-charge and results submitted to him.
- iii) In case of ordinary concrete, the maximum value of water cement ratio shall be 0.50 and in the case of controlled concrete the water cement ratio is determined by the mix design.
- iv) The contractor shall exercise particularly tight control on the water content for fairfaced concrete the colour of which is sensitive to small variations of water in the mix.
- v) When a suitable water cement ratio has been determined and agreed by the Engineer- in-charge, it shall be maintained throughout the corresponding part of works. Approved tests shall be undertaken periodically by the contractor to satisfy the Engineer-in-charge of the maintenance of the consistency. However, the amount of water added to a mix other than for fair faced concrete may be reduced below the agreed design amount with the consent of the Engineer-in-charge if the

contractor is able to demonstrate that such a reduction is consistent with producing concrete of the required workability and characteristic strength.

- vi) The contractor shall frequently test the concrete for slump cone test. The slump at the actual location of placing as measured in accordance with the methods laid down in IS:1199 shall be as per IS.456.2000.

## **9. CONCRETE MIXING:**

- i) All concrete in the correct proportion of ingredients approved by the CONSULTANT whether ordinary or controlled, shall be mixed in an approved mixer for the minimum time necessary to ensure adequate quality and uniform distribution of the materials. The cement and aggregates shall normally be first mixed dry until all particles of aggregate are coated with cement after which the water shall be added.
- ii) Allowance shall be made for the moisture content of the aggregate when calculating the amount of water to be added for each mix.
- iii) The temperature of the aggregate, water and cement when added to the mixer shall be such that the temperature of the concrete at the time of placement is less than 40o C.
- iv) Materials for concrete shall be deposited into the drum while it is in rotation. Mixers shall not be loaded beyond their rated capacity and each batch shall be completely discharged from the drum before recharging takes place.
- v) Facilities shall be provided to spray the mixer drum with cool water between batches and on the completion of concreting the drum shall be washed down. The surface of the mixer drum shall be maintained in a clean condition at all times
- vi) Re-tampering and/or mixing of concrete which has partially hardened and set will not be permitted under any circumstances.

---

**10. CONCRETE TRANSPORTING:**

- i) The period between mixing the concrete and placing it in the final position shall be kept to a minimum and the delivery of concrete shall be co-ordinate with the rate of placement to avoid delays in delivery and placement.
- ii) Concrete shall be handled from the place of mixing to the place of final deposit by methods, which prevent segregation, loss of ingredients and contamination and maintain the required workability
- iii) Should any segregation have occurred in any batches arriving at the place of deposition, such batches shall be rejected and shall not be allowed to use
- iv) Where concrete is conveyed by chutes, the chutes shall be made of metal or fitted with metal linings. The approval of the Engineer-in-charge shall be obtained for the use of chutes more than 3 meters long.
- v) All plant and equipment used in the transportation of concrete shall be thoroughly cleaned before and after each working period and at all changes of concrete mixes.
- vi) All major concreting shall be done by concrete pump. A concrete pump of capacity 38- 40m<sup>3</sup>/hr. shall be installed for the purpose and necessary approval for the concrete pump delivery system with adequate boom length, pipe line and associated items shall be obtained before installation of the concrete pump. There shall also have the provision of an approved standby system in case of any eventualities for transporting the concrete.

**11. PREPARATON BEFORE CONCRETING**

- i) The inside surface of the forms against which concrete is to be placed shall be clean and free from dried or hardened spattering or coatings of concrete. The forms shall be well wetted before placing concrete.
- ii) When the work has to be resumed on a surface which has hardened, such surface shall be roughened. It shall then be swept clean, thoroughly wetted and covered with 12mm layer of freshly mixed mortar composed of cement and sand (in the same ratio as the cement and sand in the concrete mix) immediately before placing of concrete

- iii) Concrete shall be handled from the place of mixing to the place of final deposit by methods which prevent segregation, loss of ingredients and contamination and maintain the required workability.

## **12. PLACING:**

- i) Concreting of any portion of the works shall be done only in the presence of the representatives of the Engineer-in-charge.
- ii) Concreting shall be carried out continuously between construction, contraction or expansion joints as agreed with Engineer-in-charge. The contractor shall closely follow the sequence of concreting where such is specified in the drawings. If concreting is interrupted before reaching the predetermined joint an approved construction joint shall be provided after obtaining necessary approval from Engineer-in-charge.
- iii) Immediately before placing of concrete for columns and walls, the reinforcement within and the old concrete at the bottom of the formwork shall be given a coating of cement sand mortar of the identical materials and proportions to be used in the subsequent concrete, to prevent the loss of fine material from the initial concrete pour.
- iv) Concrete shall be deposited as nearly as is practicable to its final position and shall not be dumped in a large quantity at any point to be run or worked along the formwork manually or with vibrators. Concrete shall not be deposited at a faster rate than it can be placed and compacted.
- v) Concrete shall be thoroughly worked into the forms so that they are entirely filled; reinforcing bars adequately and tightly surrounded and entrained air released from the mass of concrete. Placing shall be carried out with the use of vibrators in a manner directed by the Engineer-in-charge.
- vi) For members having thickness more than 300 mm, the concrete shall be placed in layers not greater than 300 mm thickness and thoroughly compacted before succeeding layers are placed. Concrete of thickness less than 300mm shall be placed in single operation to the full thickness of slabs, beams and similar members. No concrete shall be placed on concrete which has set sufficiently to

cause the formation of planes of weakness and where there is likely to occur due to unforeseen circumstances.

### **13. COMPACTION:**

- i) Each layer of concrete whilst being deposited shall be compacted by approved methods to form a dense material with all surface free from honey combing, air holes or other blemishes. The contractor shall use mechanical vibration for all concrete and shall take care that internal vibrators shall not be brought into contact with the reinforcement or their formwork. An adequate number of vibrators shall be used to ensure that compaction of concrete is achieved within 10 minutes of placing. Particular attention shall be given to the compaction of concrete around the water bars to ensure that no voids or p areas are left.
- ii) Compacting shall cease as soon as excess water appears on the face of concrete. Any water accumulating on the surface of newly placed concrete shall be removed by approved methods and no further concrete shall be placed thereon until such water has been removed.
- iii) Notwithstanding the requirements regarding mix design, should it be found that the proportion of water in the mix is such the laitance forms before compaction (i.e. completion of expulsion of that air) is complete; the quantity of water in the mix shall be reduced. If required, approved admixture / plasticizer could be used to achieve necessary workability. Whenever either of the aforesaid procedures are to be adopted, an additional set of 6 cubes for testing at 7 or 28 days shall be made from the changed mix. The time elapsed between the discharge of the concrete from the mixer and the completion of compaction shall not exceed 30 minutes. A sufficient number of spare vibrators shall be kept readily accessible to the place of deposition of concrete to assure adequate vibration in case of breakdown of those in use.



---

**14. FINISHES:**

- i) All concrete surfaces shall have a good, dense finish. Except for slabs the face of concrete for which formwork is not provided shall be smoothed with a steel or wooden trowel to provide a finish equal to that face where formwork is provided.
- ii) The top surfaces of all floor and roof slabs specified as smooth shall be levelled and trawled before the concrete sets to a smooth finish at the levels of falls shown on the drawings. The trawling shall be done at such a time and in such a manner that an excess of mortar is not brought to the surface of concrete nor the aggregate displaced. The top surfaces of concrete slabs specified to receive an integral finish shall be uniformly roughened by deep hacking before the finish is laid.
- iii) Immediately after striking the formwork and removing any superficial water, honeycombed areas in normal unfinished concrete shall be inspected by the Engineer-in-charge and where directed the contractor shall immediately make good at his own expense such honeycombing in accordance to the instruction and guide line of Engineer-in-charge whilst the concrete is still green. All air holes shall be similarly filled in.
- iv) The contractor shall be responsible for providing an adequate key in concrete where plastering or rendering is specified to be applied. Hacking of the concrete surface immediately after striking the formwork will be permitted.
- v) The faces of all fair faced concrete shall be of even colour throughout, free from air bubbles, cracks, honeycombing or other blemishes and will be inspected by the Engineer-in-charge immediately after the formwork has been struck. Such faces shall not be rubbed down after striking the formwork to remove fins, excrescences or any similar imperfections without the prior permission of the Engineer-in-charge.
- vi) Concrete surface finishes shall be according to the requirements and all instructions by the Engineer-in-charge with regard to the method of achieving such finishes shall be implemented.

---

**15. CURING AND PROTECTION:**

- i) Walking on concrete shall not be permitted for at least 24 hours after it has been placed in position or for such additional length of time as the Engineer-in-charge may direct.
- ii) Immediately after compaction and completion of any surface finishes, the concrete shall be protected from the evaporation of moisture by means of polythene sheeting, wet Hessian or other similar material kept soaked by spraying. As soon as the concrete has attained a degree of hardening sufficient to withstand surface damage, moist curing shall be implemented and maintained for a period of at least 15 days after casting.
- iii) Method of curing and their duration shall be such that the concrete will have satisfactory durability and strength and members will suffer a minimum distortion, be free from excessive efflorescence and will not cause, by its shrinkage, undue cracking in the works.
- iv) The top surfaces of slabs and other horizontal surfaces shall be cured by impounding water in cement mortar bunds. Steeply sloping and vertical formed surfaces shall be kept completely and continuously moist prior to and during the striking of formwork by applying water to the top surfaces and allowing it to pass down between the formwork and the concrete.
- v) The Contractor shall give careful consideration to the curing methods and conditions for fair faced concrete. Components which are specified to have exposed concrete finish shall receive the same curing treatment. Moreover, water used for curing shall be clean so as not to discolors the concrete.
- vi) All fair-faced concrete shall be protected from damage from the time of striking the formwork. All edges and surfaces of such concrete shall be protected from' chipping using notched timber or aluminum corner pieces or other suitable covers which shall be maintained in place until the completion of the works.

**16. CRACKS:**

- i) If any cracks develop in the reinforced cement concrete construction which in the opinion of the Engineer-in-charge may be detrimental to the strength of the construction, the contractor at his own expense shall test the structural element in question. If under these test loads the cracks shall develop further the contractor at his own expense shall dismantle the construction, cart away the debris, replace the construction and carryout all consequential work there to at no extra cost. If the cracks are not detrimental to the stability of the construction in the opinion of the Engineer-in-charge the contractor at his own expense shall grout the cracks with pneumatically applied mortar or epoxy grout or by other specified treatment as directed by the Engineer-in-charge at his own expense and risk he shall also made good al other building work such as plaster, molding, surface finish of floors, roofs, ceiling etc. which in the opinion of the Engineer-in-charge have suffered damage either in appearance or stability owing to such cracks.
- ii) The repair work shall be carried out to the satisfaction of the Engineer-in-charge. The decision of the Engineer-in-Charge as to the extent of the liability of the contractor in the above matter shall be final and binding on the contractor.

**17. LOAD TESTING ON COMPLETED STRUCTURES:**

- i) During the period of construction or within the defect liability period the Engineer-in- Charge may at his discretion order the load testing of any completed structure or any part thereof if he has reasonable doubts about the adequacy of the strength of such structure for any the following reasons:
  - a) Results of compressive strength on concrete test cubs.
  - b) Premature removal of formwork.
  - c) Inadequate curing of concrete.
  - d) Over loading during the construction of the structure or part thereof.
  - e) Carrying out concreting of any portion without prior approval of the Engineer- in-Charge.
  - f) Honey combed or damaged concrete which in the opinion of the Engineer-

in- Charge is particularly weak and will affect the stability of the structure to carry the design load, more so in important or critical areas of the structure.

- g) Any other circumstances attributable to alleged negligence of the contractor which in the opinion of the Engineer-in-Charge result in the structure or any part thereof being of less than the expected strength.
- ii) All the loading tests shall be carried out by the contractor strictly in accordance with the instructions of the Engineer-in-Charge. Such tests should be carried out only after expiry of minimum 28 days or such longer period as directed by the Engineer-in- Charge.
- iii) The structure should be subjected to a super imposed load equal to 1.25 times the specified superimposed load assumed in the design. This load shall be maintained for  
  
a period of 24 hours before removal. During the test, struts strong enough to take the whole load shall be placed in position leaving a gap under the members as directed.
- iv) The deflection due to the superimposed load shall be recorded by sufficient number of approved deflect meters capable of reading up to 1/500 of a cm and located suitably under the structure as directed by the Engineer-in-Charge. If within 24 hours of the removal of the superimposed load, the structures do not recover at least 75% of the deflection under the superimposed load, the test loading shall be repeated after a lapse of 72 hours. If the recovery after the second test is less than 80% of the maximum deflection shown during the second test, the structure shall be considered to have failed to pass the test and shall be deemed to be unacceptable.
- v) In such cases the part of the work concerned shall be taken down or cut out and reconstructed to comply with the specifications. Other remedial measures may be taken to make the structure secure at the discretion of the Engineer-in-Charge. Moreover, such remedial measures shall be carried out to the complete satisfaction of the Engineer-in-Charge.
- vi) All costs involved in carrying out the tests and other incidental expense thereto

shall be borne by the contractor regardless of the result of the tests. The Contractor shall take down or cut out and reconstruct the defective work or shall make the remedial measures instructed at his own cost.

- vii) In addition to the above load tests, non-destructive test methods such as core test and ultrasonic pulse velocity test shall be carried out by the Contractor at his own expense if so desired by the Engineer-in-Charge. Such tests shall be carried out by an agency approved by the Engineer-in-Charge and shall be done under expert's guidance using only recommended testing equipment. The acceptance criteria for these tests shall be in accordance to IS:1959 and IS:456-1978

## **18. MASONRY WORK – BRICK WORK:**

- i) Bricks shall be sound, hard, well-burnt, uniform in size, shape and colour, homogeneous in texture, giving a metallic ringing sound, free from flaws, cracks, holes, lumps or grit and arises should be square, straight and sharply defined. They shall not break when struck against each other and dropped flat from a height of 1 m to the ground. They shall conform to IS 1077 giving classes of common burnt clay bricks.
- ii) Bricks shall be as specified and detailed in BOQ. It shall have to be approved prior to procurement. Bricks shall be obtained from an approved source and shall be of uniform colour, size, shape. Bricks shall have smooth rectangular faces with sharp straight right-angle edges. Maximum absorption shall not be more than 20% of its dry weight on immersion in water for 24 hours. Minimum crushing strength shall be 35 kg/sq. cm.
- iii) Bricks of approved quality and quantity shall have to be procured by the contractor at the desired time. No delay or extra cost due to nonavailability shall be accepted. The contractor is obliged to carry out the work as specified. It shall be the responsibility of the contractor to procure sufficient quantities of bricks and stack them at site or elsewhere to avoid delays.
- iv) Mortars: Cement for masonry shall be prepared in accordance with IS 2250 code of practice for preparation and use of masonry mortars.

v) Cement: Cement used shall be:-

- a) Ordinary Portland cement conforming to IS:269 – 1976
- b) Portland Pozzolana cement conforming to IS: 1489

It shall be received in bags of 50 kg (or in bulk carriers in case of storage in silos) and each batch shall be accompanied with test certificate of the factory. Also, it shall be tested before use to ascertain its strength, setting time, etc. In case cement has been stored for over 6 months from date of manufacturer or for any reasons the stored cement shows signs of deterioration or contamination, it shall be tested as per the direction of the Engineer-in-charge prior to use in the works.

- vi) Water: Water used for masonry shall be potable conforming to IS, clean and free from injurious amounts of deleterious materials.
- vii) Fine Aggregates: Sand shall conform to IS 2116 specification for sand for masonry mortars. Only river sand shall be used.

## **19. DEFECTIVE CONCRETE WORK:**

If the results of load test or core test on any concrete structure found unsatisfactory or unacceptable, the concrete work and the structure shall be removed and redone by the contractor at his own risk and cost as instructed by Engineer-in-Charge.

## **20. SUPERVISION:**

All concreting work shall be done under strict supervision of the qualified and experienced representatives of the Contractor as well as those of the Engineer-in-Charge. The contractor's supervisor who are in-charge of concreting work shall be skilled in this class of work and shall personally superintend all the concreting operations.

## **21. QUALITY CONTROL:**

The Engineer-in-Charge reserves the right to make changes in the mix proportions including increasing the cement content or/and a change in the Contractor's control procedure, should the quality control during process of the work prove to be inadequate in CONSULTANT's opinion and the contractor shall carry out the same at no extra cost to the corporation. All the concrete work shall be true to level, plumb and square within the

acceptable tolerance. The corners, edges and arises in all cases shall be unbroken and finished properly and carefully.

## **22. WOOD WORK:**

- i) All the timber members shall be well seasoned by any proper natural or artificial method of seasoning. The preparation of timber for joinery is to commence simultaneously with the construction of superstructure and should be completed well before fixing at site, and shall be stacked at site for observation against bending, warping etc. and for regular inspection. It should be stacked in a proper manner. As a special case, if the contractor agrees to do so, required fund shall be released to the contractor for procurement of material as certified by the Engineer-in-charge.
- ii) All timber member and joinery, in touch with masonry or concrete, shall be applied with wood preservative as approved by the Engineer-in-charge and the rate quoted shall be inclusive of the same. All rough frame work, framing for false ceiling and partition or paneling shall also be treated similarly.
- iii) All joinery, preferably, shall be tongue and groove joint and the thickness of each shall not be less than 6mm. All the joints shall be glued and pinned together with wooden pegs and the pegs shall engage all tongues.
- iv) In mortice and tenon joints all tenons shall not be less than 12mm. Thick and shall be the full width of the member. Tenons shall be glued into the mortices. Through tenons shall be pinned with wooden dowels of not less than 6mm. Dia. or with non-ferrous metal dowels. Through tenons shall be wedged if the mortices are tapered.
- v) Whether mentioned or not in the B.O.Q., all exposed faces of timber shall receive a primer coat of red oxide or similar approved primer. Quoted rates shall be inclusive of the same.

## **23. ALUMINIUM WORK:**

- i) Aluminum sections used for fixed/openable windows, ventilators, partitions, frame work & doors etc. shall be suitable for use to meet architectural designs to relevant works and shall be subject to approval of the Engineer-in-Charge for technical,

structural, functional and visual considerations.

- ii) Chemical and mechanical properties of sections shall comply with requirements given in IS 733-1983, Specification for wrought aluminum and aluminum alloys bars, rods and sections, IS 737-1986, Specification for wrought aluminum and aluminum alloys sheet and strip for general engineering purposes and IS 1285-2002, Specification for wrought aluminum and aluminum alloys extruded round tube and hollow sections for general engineering purposes.
- iii) The permissible dimensional tolerances of the extruded sections shall be as per IS 6477 and shall be such as not to impair the proper and smooth functioning/operation and appearance of door and windows.
- iv) The powder used for powder coating shall be Epoxy/polyester powder of make approved by the Engineer-in-Charge. The contractor shall give detailed programme for powder coating in advance, to facilitate the inspection by Engineer-in-Charge or his authorized representative.
- v) It is mandatory that all aluminum members shall be wrapped with self-adhesive non- staining PVC tape, approved by Engineer-in-Charge.

#### **24. PAINTS SYSTEM:**

- i) All paints for the protection of steelwork shall be of the best available quality and specifications suitable for the purpose and in any case shall not fall below the minimum standards laid down in IS 1477.
- ii) Where the specifications, method or extent of application of any other paint scheme approved for the work varies from those described, the recommendations and instructions of manufacturers shall be followed.
- iii) Before application of paint, it is to be ensured that the surface is dried completely and shall be cleaned with hard brush to remove all loose particles and dust etc.
- iv) Priming coat to be applied wherever applicable, irrespective of whether it is mentioned in the specification of item or not.
- v) At least three coats painting (Including priming coat) shall be done, brush applied paint shall be applied at least one coat in horizontal and the other in vertical direction.



- vi) If the colour is not uniform or any mark of patch or impression of brush is visible, it shall be removed and if required, more coats shall be applied by the contractor at his own cost.

## **25. FORM WORK:**

- i) Form work shall include all temporary or permanent forms of moulds required for forming the concrete which is cast-in-situ together with all temporary construction required for their support.
- ii) Formwork shall be of rigid construction true to shape and dimensions. It shall be strong enough to withstand the dead and live loads and forces caused by ramming and vibrations of concrete and other incidental loads, imposed upon it during and after casting of concrete. It shall be made sufficient rigid by using adequate number of ties and braces. Screw jack or hard board wedges, were required shall be provided to make up any settlement in the form work either before or during the placing of concrete.
- iii) Forms shall be so constructed as to be removable in sections in the designed sequence without damaging the surface of concrete or disturbing other sections. All form work should be easy to strip after concreting and form work must be erected with this consideration in mind. Care shall be taken to see that no pieces remain keyed into the concrete. Details of formwork shall be properly designed by the Contractor and relevant drawings together with calculations for strength and deflection shall be submitted to the Engineer-in-Charge. for approval before commencement of formwork erection.
- iv) The completed formwork shall be inspected by the Engineer-in-Charge on receipt of information in this regard from the Contractor, before the reinforcement bars are placed in position. Minimum 2 complete sets of approved set of form work system for the total area in the typical floor shall always be available in usable condition.
- v) Formwork surface in contact with concrete (sheathing) shall be hard wood section approved by the Engineer-in-Charge.
- vi) All joints in boards for such formwork shall be carefully designed, no repair on

the form finish concrete will be accepted.

- vii) There shall not be any visible patches, strains or efflorescence in the fair faced concrete.
- viii) Use of ties shall be minimum.
- ix) The surfaces of timber formwork that would come in contact with concrete shall be coated with soap solution, raw linseed oil, or form oil of approved material to prevent adhesion of concrete to formwork.
- x) The formwork shall be so removed as not to cause any damage to concrete due to shock or vibration. In a slab and beam construction, sides of beam shall be stripped first, then the under sides of slab and lastly the underside of the beam.

## **26. BENDING SCHEDULE:**

The Contractor shall be responsible for preparing, checking all bar bending schedules against the drawing and obtain approval from Engineer-in-Charge. before cutting and bending and fixing of steel commences. Contractor shall get satisfied that the steel can't be fixed according to the drawing and also can be transported to the Site. The contractor shall remove from site at his own risk and cost any steel reinforcement bar fixed in position without obtaining prior approval of bar bending schedule from Engineer-in-Charge.

### **26.1. Bending and Cutting of Reinforcing Steel Bars**

Preferably, bars of full length shall be used, overlapping of bars, where necessary, shall be done in accordance with the drawings or as directed by Engineer-in-Charge and as specified in IS:456- 1978.

Wherever facility is available, welding of bars shall be resorted to in lieu of overlap. The location and type of welding shall be as approved by the Engineer-in-Charge as shall be done in accordance to IS: 2751-1966.

### **26.2. Placing in Position:**

Reinforcement bars shall be placed in position as shown in the drawings. The bars crossing one another shall be tied together at every intersection with two strands of annealed steel wire 0.90 to 1.6 mm thickness twisted tight to make the skeleton of the steel work rigid so that the reinforcement does not get displaced during the deposition of concrete. The

concrete cover shall not be less than that specified in the drawings. Tuck welding shall also be permitted in lieu of binding with steel wire if approved by Engineer-in-Charge.

### **26.3 Approval of Reinforcement:**

The Contractor must obtain the approval of the Engineer-in-Charge to the reinforcement fixed in position, before any concrete is deposited on the shutters.

### **27. CONCRETING:**

- i) The concrete, which will flow sluggishly into the forms and around the reinforcement without any segregation shall be determined by slump tests. The slump to be used shall be minimum required for proper concreting and compaction depending upon the concentration of reinforcement structural member to be connected.
- ii) Concreting shall be commenced only after the Engineer-in-Charge has inspected the centering, shuttering and reinforcement as placed and passed the same. Shuttering shall be clean and free from all dirt, saw dust, pieces of wood, or other foreign material, and shall be treated as described hereinbefore.
- iii) The concrete shall be deposited in its final position in a manner to preclude segregation of ingredients. In deep trenches and footings, concrete shall be laced through chutes as directed by the Engineer-in-Charge. In case of columns and walls, the shuttering shall be so adjusted that the vertical drop of concrete is not more than 1.5 meters at a time.
- iv) During cold weather, concreting shall not be done when the temperature falls below 4.5 °C. The concrete placed shall be protected against frost by suitable covering. Concrete damaged by frost shall be removed and work redone at contractor's risk & cost. During hot weather, precaution shall be taken to see that the temperature of wet concrete does not exceed 38 °C. No concrete shall be laid within half an hour of the closing time of the day, unless permitted by the Engineer-in-Charge. It is necessary that the time between mixing and placing of concrete shall not exceed 30 minutes so that the initial setting process is not interfered with.

- v) Concrete shall be compacted into a dense mass immediately after placing, by means of mechanical vibrators designed for continuous operations. The layers of concrete shall be so placed that the bottom layer does not finally set before the top layer is placed.
- vi) Concreting shall be carried out continuously up to the construction joints, the position and details of which shall be as directed by the Engineer-in-Charge. Such joints shall be Page 24 of 246 kept to the minimum and shall not be located in valleys. The joints shall be kept at places where the shear force is the minimum and these shall be straight and at right angles to the direction of main reinforcement.
- vii) When stopping the concrete on a vertical plane in slabs and beams and any other R.C.C. work an approved stop-board shall be placed with necessary slots for reinforcement bars or any other obstruction to pass the bars freely without bending. The. Construction joints shall be keyed by providing a triangular or trapezoidal fillet nailed on the stop-board. Inclined or feather joints shall not be permitted. Any concrete flowing through- -the joints of stop-board shall be removed soon after the initial set. When concrete is stopped on a horizontal plane, the surface shall be roughened and cleaned after the initial set.
- viii) When the work has to be resumed, the joint shall be thoroughly cleaned with wire brush and loose particles removed. A coat of neat cement slurry at the rate of 2.75 kg of cement per square meter shall then be applied on the roughened surface before fresh concrete is laid.
- ix) Expansion joints shall be provided as shown in the structural drawings or as directed by the Engineer-in-Charge. The filling of these joints with bitumen filler, bitumen felt or any such material with the provision of copper or brass plate, etc.
- x) After the concrete has begun to harden i.e. about 1 to 2 hours after its laying, it shall be protected from quick drying with moist gunny bags, sand or any other materials approved by the Engineer-in-Charge. After 24 hours of laying of concrete, the surface shall be cured by flooding with water of minimum 25mm

- depth, or by covering with wet absorbent material. The curing shall be done for a minimum period of 15 days.
- xi) For all slabs the top surface shall be furnished even and smooth with wooden trowel, before the concrete begins to set. Where so specified, the surfaces shall be given a linear deeply scratched surface by a steel broom or other approved tool while the concrete is still green to receive the specified finish on top.
  - xii) Immediately on removal of forms, the R.C.C. work shall be examined by the Engineer-in-Charge before any defects are made good.

## **28. CEILING SYSTEM:**

- i) Aluminum frame consisting of battens 50x25mm fixed over plugs embedded in wall conforming IS 733-1983.
- ii) Plaster of Paris (Gypsum anhydrous) ceiling tiles of thickness 12mm should be used.
- iii) Gypsum plaster shall conform to IS 2547 (Part 1). By product gypsum conforming to the requirements of IS 12679 shall also be used for the preparation of plaster.

## **29. ROOFING**

Trapezoidal Polyester Coated Galvanized Steel Sheets of 0.50 mm thick conforming IS 277: 2003 on steel work in built up trusses of steel conforming IS:226 shall be used.

## **30. EARTHWORK**

### **30.1 GENERAL:**

Excavation may be involved in all types of soils including rock, saturated soil, sub-soil water or running sand. It may also include pumping or bailing out of water. The contractor shall furnish all tools, plant instruments, qualified supervisory personnel, labour, materials, any temporary works, consumables and anything else necessary, for completion of the work in accordance with the Employer's requirements, whether or not such items are specifically stated herein.

The contractor shall survey the site before excavation and set out all lines and establish levels for various works such as grading, basement, foundations, plinth filling, roads, drains etc. Such survey shall be carried out by taking accurate cross sections of the area perpendicular to established reference/grid lines at 10 m and 30 m intervals or nearer in case of buildings and roads and pipe lines works respectively.

The excavation shall be carried out to correct lines and levels. This shall also include, where required, proper shoring to maintain excavations and also the furnishing, erecting and maintaining of substantial barricades around excavated areas and warning lamps at night. Excavated material shall be dumped in regular heaps, bunds, riprap with regular slopes and levelling the same so as to provide natural drainage. Rock/soil excavated shall be stacked properly as approved by the Engineer-in-charge. As a rule, all softer material shall be laid along the centre of heaps, the harder and more weather resisting materials forming the casing on the sides and the top. Topsoil shall be stock piled separately for later use.

## **30.2 EXCAVATION**

Excavation for permanent work shall be taken out to such widths, lengths, depths and profiles as are shown on the approved drawings or such other lines and grades as may be agreed with the Engineer-in-charge. Rough excavation shall be carried out to a depth of 150 mm above the final level. The balance shall be excavated with special care. Soft pockets shall be removed below the final level and extra excavation filled up with material as approved by the Engineer-in-charge. The final excavation should be carried out just prior to laying the blinding course.

All excavations shall be to the minimum dimensions required for safety and ease of working. Prior approval of the Engineer-in-charge shall be obtained by the contractor in each individual case, for the method proposed for the excavation, including dimensions, side slopes, dewatering, disposal, etc. This approval, shall not in any way relieve the Bidder of his responsibility for any consequent loss or damage. The excavation must be carried out in the most expeditious and efficient manner. Side slopes shall be as steep as will stand safely for the actual soil conditions encountered. Every precaution shall be taken to prevent slips. If slips occur, the slipped material shall be removed and the slope shall be dressed to a modified stable slope.

All loose boulders, detached rocks partially and other loose material which might move there with not directly in the excavation but so close to the area to be excavated as to be liable, in the opinion of Engineer-in-charge, to fall or otherwise endanger the workmen, equipment, or the work shall be stripped off and removed from the area of the excavation. The method used shall be such as not to render unstable or unsafe the portion, which was originally sound and safe.

Any material not requiring removal in order to complete the permanent works, but which, in the opinion of Engineer-in-charge, is likely to become loose or unstable later, shall also be promptly and satisfactorily removed.

## **30.3 FILLING AND BACK FILLING:**

All fill material shall be subject to the Engineer-in-charge's approval. If any material is rejected by Engineer-in-charge, the Bidder shall remove the same forthwith from the site. Surplus fill material shall be deposited/disposed of as directed by Engineer-in-charge after the fill work is completed.

No earth fill shall commence until surface water discharges and streams have been properly intercepted or otherwise dealt with other approval of the Engineer-in-charge.

**NOTE:**

- i. *For any item not covered in the above list, the contractor shall get the samples approved from the authorized representative of Engineer-in-charge before the supply is made.*
- ii. *Shifting of existing Materials/Equipment's to the designated place provided by the Employer shall be done by the Contractor during repair/renovation work. Contractor shall be responsible for re-allocation of the Materials/Equipment's after repair works are completed. No additional payments shall be made for undertaking this shifting job.*
- iii. *The vendor shall be responsible for characterizing the influent to the Effluent Treatment Plant (ETP) / Sewage Treatment Plant (STP) and accordingly undertake a detailed study for the design of the treatment system preferably using Moving Bed Biofilm Reactor (MBBR) technology. The design shall conform to the relevant Indian Standards, including but not limited to IS: 10500 (for treated water quality where reuse is proposed), IS: 3025 series (for methods of sampling and testing of water and wastewater), and IS: 5225 (for guidelines in designing biological treatment systems). The final treated effluent shall comply with the latest Central Pollution Control Board (CPCB) / State Pollution Control Board (SPCB) discharge norms, which typically include:*
  - $BOD \leq 10 \text{ mg/L}$*
  - $COD \leq 50 \text{ mg/L}$*
  - $TSS \leq 10\text{--}20 \text{ mg/L}$*
  - pH: 6.5 to 8.5*
  - Fecal Coliform  $\leq 1000 \text{ MPN/100 mL}$  (if required for reuse applications)*

*The system shall be designed to ensure performance under varying flow and load conditions, and must meet all statutory environmental compliance requirements.*



## **Contractors Environment and Social Management Plan (C-ESMP)**

The Environment Management Plan (C-ESMP) is a set of measures for assessment, identification, minimization and mitigation of adverse environmental and social issues and impacts. The Contractor will abide by the environmental, social, occupational health and safety measures listed in the Environment and Social Management Plan (C-ESMP) given in the table below during preparation and execution of Works. Adverse impact/s on the environment caused due to non-adherence of legal and C-ESMP requirements during preparation and execution of civil works shall be made good at the Contractor's own expenses.

The complete document on Environmental and Social Management Framework (ESMF) is in the AHIDMS website. The activity to be carried out by the Contractor as a part of C-ESMP are as follows:

<b>S. No.</b>	<b>Activity</b>	<b>Measures to be Implemented by the Contractor</b>
1.	Work Plan for C-ESMP implementation	<p>The Contractor is responsible for implementation of C-ESMP provided in the bid document. The contractor shall make additions in the C-ESMP provided depending upon the need/inclusion of any additional activities. The Environment, Health &amp; Safety Officer/specialist/Expert will be responsible to update and ensure implementation of the C-ESMP. The Project Manager will coordinate and facilitate the implementation of the said plan. C-ESMP will be implemented to avoid, reduce, and minimize any impact which can harm the environment as well as the hospital staff, patients, community in and around the site. The C-ESMP gives an account of the risks and impacts that have been identified and its mitigation measures to avoid or minimize the impacts. The C-ESMP also outlines the responsibilities and timelines for complying the suggested mitigation measures.</p> <p>Along with the Work Programme, the Contractor shall submit a plan including method statement and timeline about specific actions that will be taken by him to implement the provisions laid out in the C-ESMP.</p>

S. No.	Activity	Measures to be Implemented by the Contractor
2.	Regulatory Permissions and Consents	<p>The Contractor shall obtain all requisite statutory clearances prior to commencement of civil works, which includes obtaining permission/consent for plants, water extraction and borrow areas operations. This includes:</p> <ul style="list-style-type: none"> <li>▪ Consent for establishment and operation of plant (for concrete work) from SPCB</li> <li>▪ Consent for establishment and operation for ETP &amp; STP from SPCB, Assam</li> <li>▪ Permission from Central Ground Water Agency for new bore wells.</li> <li>▪ PUC certification for all vehicles/equipment used for/during construction</li> <li>▪ Permission/consent of the District Administration/Mining Department/other agencies for quarrying and/or borrowing operations for materials like sand and earth</li> <li>▪ Permission for water extraction, if applicable in the local area context.</li> <li>▪ Land ownership documents with information on land parcels of the site concerned</li> </ul> <p>The Contractor shall abide by all conditions laid out in the said clearances.</p>
3.	Consultation and Community Consent	<p>The Contractor shall orient, consult and obtain written consents of landowners (individual/panchayat/govt. agency) for temporary use of land for all construction related activities including:</p> <ul style="list-style-type: none"> <li>(a) setting-up and operation of construction camp including labour camps, stock yards etc.</li> <li>(b) borrow areas and</li> <li>(c) disposal of debris and other waste material.</li> </ul>
4.	Construction/ Labour Camp	<ul style="list-style-type: none"> <li>(a) Location: The camp and plant site/s location and establishment shall be done in a manner that does not interfere or disturb the activities of hospital staff, patients, local inhabitants, particularly those of schools and health facilities. Written permission (no objection certificate) shall be taken from the Gram Sabha/other authority and the land owner prior to location selection and a copy shall be submitted to the Engineer for approval.</li> <li>(b) Camp site shall not be located within 250 mts. from a water body including village ponds.</li> <li>(c) A distance of at least 500 mts. shall be maintained from designated/protected natural habitats (such as</li> </ul>

S. No.	Activity	Measures to be Implemented by the Contractor
		<p>National Parks, Sanctuaries, Biosphere Reserves, Reserve Forests and Ramsar Sites) and Coastal Regulation Zone.</p> <p>A) Provision of basic amenities to the labourers:</p> <ul style="list-style-type: none"> <li>○ Proper sanitation: Separate toilets for male and female workers staying in labour camp connected to septic tank/adequate waste collection and disposal arrangement</li> <li>○ Adequate solid &amp; liquid waste disposal and management provisions: Waste management system to be implemented in labour camp by providing adequate number of bins and collection/drainage system to avoid littering of wastes.</li> <li>○ Sleeping space along with bedding provision.</li> <li>○ Separate Kitchen/Cooking space along with fuel requirement for cooking. The Contractor shall ensure that fuel wood is not used as a cooking medium in the construction/labour camp.</li> <li>○ Supply of safe drinking water. Drinking water supply of at least 40 lpcd with the required supply points shall be provided.</li> <li>○ The drinking water will be tested quarterly through a NABL accredited laboratory.</li> <li>○ Bathing space with water provision for male and female workers separately.</li> <li>○ Sufficient lighting facility along with required numbers of fans.</li> </ul> <p>b) Fire Safety: Adequate fire safety precautions shall be taken and required fire safety equipment (such as fire extinguishers) shall be provided by the Contractor.</p> <p>c) Orientation on good health and hygiene practices, use of PPE and safety gears/ harness etc., prevention of GBV &amp; SEA/SH and POSH, occupational health and safety</p> <p>d) It will be ensured that the Labours and staff is wearing the PPE</p> <p>e) Registration and Redressal of grievances of all type including SEA/SH/GBV of Labourers as per GRM protocol set up under the project.</p> <p>f) Clearance of migratory labour under Inter-state Migrant Workmen.</p> <p>g) Following labour management procedures and provision of basic amenities to labourers as guided by Labour</p>

S. No.	Activity	Measures to be Implemented by the Contractor
		Management Procedures under ASSIST Project as in the <b>Link<sup>1</sup></b> below.
5.	Site Clearance	<p>(a). No tree cutting is to be carried out without the written instruction from the Employer &amp; concerned authority, who in turn will ensure that relevant regulatory permission/s (including those from Forest Dept., if required) are obtained prior to cutting of such trees.</p> <p>(b) The non-timber grade trees are to be stacked and possession is to be given to Employer/concerned Govt. Department or as prescribed by the regulatory authority.</p> <p>(c) The Contractor shall strip, store and preserve top soil from the site of construction work and in the stock yards prior to stacking of materials. The top soil shall be reinstated in the cyclone shelter compound after the construction is over.</p>
6.	Protection of Properties and Resources	<p>The Contractor shall take due care to protect and prevent damages to the following resources during preparatory and construction work:</p> <ul style="list-style-type: none"> <li>a. Water supply lines</li> <li>b. Irrigation canals</li> <li>c. Cart, cattle and/or foot trail/tracks</li> <li>d. Cultural properties and sites/structures of religious importance</li> <li>e. Houses, Farmlands, Orchards and/or Trees</li> <li>f. School and other existing buildings adjacent to the site of construction</li> </ul> <p>In case of damage due to construction activity, the restoration/repairs shall be carried out by the Contractor at his own cost.</p>
7.	Quarry Operations	The Contractor shall procure material from quarries that have been approved/licensed by the State Govt. A copy of such an approval shall be submitted to the Engineer prior to procuring material.

<sup>1</sup>[https://ahidms.assam.gov.in/sites/default/files/public\\_utility/Revised%20%20Labor%20Management%20Procedures%20%20281%29.pdf](https://ahidms.assam.gov.in/sites/default/files/public_utility/Revised%20%20Labor%20Management%20Procedures%20%20281%29.pdf)

S. No.	Activity	Measures to be Implemented by the Contractor
8.	Borrow Areas	(a) Borrow areas for the project will be selected by the Contractor following the stipulations given below. The finalization of all such locations shall be dependent on the approval of the Engineer on technical and environmental grounds. This includes on-site verification to cross-check the accuracy of details provided by the Contractor. Only after receipt of the written approval from the Engineer, the Contractor shall enter into a formal agreement with landowner.
		(b) The Contractor shall not procure any kind of construction material (such as aggregates, sand and earth) from ecologically protected areas.
		(c) <u>Identification and Selection</u> 1. The borrow area should not be located in agriculture field/s unless unavoidable i.e. barren land is not available. In case borrowing needs to be done on an agricultural land, top-soil stripping, stacking and preservation is a must. 2. Borrow pits shall not be located within a distance of 100 mts. from any NH, SH or other roads. 3. Borrow pits shall be preferably located 500 mts. away from settlements/ habitations.
		(d) <u>Operation</u> 1. Area up to which material will be extracted shall be clearly demarcated on ground. 2. A 15 cm topsoil layer will be stripped and preserved in stockpiles.
		(e) <u>Rehabilitation of Borrow Areas</u> 1. Rehabilitation shall be satisfactorily undertaken immediately after the use has ceased and at least three weeks prior to monsoon.
9.	Water Extraction/ Use	Water for construction and for use at construction camps (including labour camps) is to be extracted with prior written permission of (a) the individual owner, in case the source is private well/tube well; (b) Gram Panchayat in case the source belongs to community; and (c) Irrigation Department in case the source is an irrigation canal or a river (d) ground water authority in case extraction of ground water

S. No.	Activity	Measures to be Implemented by the Contractor
10.	Safety of Road Users and Local Residents	<p>(a) Traffic safety arrangements (including provision of warning signage, speed breakers etc.) shall be made by the Contractor to ensure safety of road users and local people, particularly in the internal village roads which will be used for transporting materials.</p> <p>(b) Material shall be adequately covered during transportation to prevent spillage, accidents and pollution.</p> <p>(c) All required measures to ensure safety of local residents including children and other near-by residents shall be taken up by the Contractor. This shall include provisions to prevent unauthorised entry into the construction site and camp; fire and electrical safety measures; pre-cautions around excavation such as barricading and warning signs and safe storage of material.</p>
11.	Worker's Safety	<p>(a) All measures required for ensuring safety and health of the workers shall be taken up by the Contractor. This includes provision and enforcement of appropriate personal protective equipment; first aid facility; emergency response arrangement; proper storage of hazardous/ toxic and polluting materials and; measures for ensuring fire, electrical and mechanical safety arrangements in camp and in work site.</p> <p>(b) All methods, steps and measures required for ensuring safety of workers, particularly those needed while undertaking work in or around excavations; working at height; and; while handling inflammable, toxic and/or hazardous materials shall be ensured by the contractor.</p> <p>(c) Material safety data sheet record of fuel and other inflammable chemicals shall be maintained at the site.</p>
12.	Air Pollution	<p>(a) Wind barriers or screens shall be provided in the downwind direction at air pollution causing sources like plant sites and fine material storage stock yards.</p> <p>(b) Fugitive dust emissions have to be eliminated by providing dust suppression/control measures, such as water sprinkling and cover on materials, based on activity and site conditions.</p> <p>(c) All plants and equipment shall comply with pollution control norms.</p>

S. No.	Activity	Measures to be Implemented by the Contractor
		(d) Water shall be sprinkled at least twice during dry day on haulage roads passing through or near settlements (including at least 100 m before the settlement).
13.	Water pollution	<p>(a) All measures (including provision of temporary silt fencing to control sediment run-off) required for avoiding adverse impacts to water bodies (such as ponds, streams, canals and rivers), water sources (such as hand pumps and wells) and adjacent farmland shall be undertaken by the Contractor.</p> <p>(b) Storage of materials like fuel, chemicals and cement shall be done in a manner (with impervious layer on bottom and a covered shed on top) that does not contaminate land and ground/surface water.</p>
14.	Noise Pollution	<p>(a) All noise causing activities shall be stopped during night time (9:00 PM to 6:00 AM). The Contractor shall schedule construction works in consultation with local Panchayat Authority and School Principal to ensure least disturbance to school children and other adjacent residents.</p> <p>(b) Ear plugs shall be provided to the labour facing risk from high noise pollution such as plant site and those working near generators, heavy equipment/machinery.</p> <p>(c) Appropriate noise controlling devices including acoustic generators shall be used to minimise noise during construction work and operation of camp.</p>
15.	Disposal of Debris/Wastes	(a) Debris and other construction waste, if any, shall be disposed in locations pre-approved by the Engineer in a manner that it does not contaminate the environment.
		(b) Location of Debris Disposal Sites: Debris disposal sites shall be located preferably away from farmlands, water sources and water bodies. In no case, debris shall be disposed within 500 mts. of ecologically sensitive areas, including forests, wetlands and protected natural habitats.
16.	Restoration and Rehabilitation of Sites	All work sites and areas under temporary use (including construction and labour camps, plant sites, haul roads and borrow areas) shall be restored/ rehabilitated to a better condition (if not at least to its original condition) and to the satisfaction of the Engineer and land owner upon completion of construction work by the Contractor.

S. No.	Activity	Measures to be Implemented by the Contractor
		Completion of work (as covered under clause 55.1 of GCC) will also include completion of rehabilitation and clean-up of the work sites including camps, plants, in and around the construction site; disposal of debris/construction wastes at pre-approved locations and; restoration of borrow areas and other sites/locations used for material sourcing.
17.	Liabilities	Any liability arising out of Contractor's agreement with landowners/ local people/gram panchayat (including those related to temporary use of land, water extraction and disposal of debris) shall be settled by the Contractor.



## **Drawings**

The drawing and site plan is attached as an **Annexure-A** in a separate file. This drawing shall be part of the contract with the successful bidder.

## **Supplementary Information**

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

## **Section VIII - General Conditions of Contract**

These General Conditions of Contract (GCC), read in conjunction with the Particular Conditions of Contract (PCC) and other documents listed therein, should be a complete document expressing fairly the rights and obligations of both parties.

These General Conditions of Contract have been developed on the basis of considerable international experience in the drafting and management of contracts, bearing in mind a trend in the construction industry towards simpler, more straightforward language.

The GCC can be used for both smaller admeasurement contracts and lump sum contracts.

## General Conditions of Contract

### A. General

<b>1. Definitions</b>	<p>1.1 Boldface type is used to identify defined terms.</p> <ul style="list-style-type: none"> <li>(a) The <b>Accepted Contract Amount</b> means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects.</li> <li>(b) The <b>Activity Schedule</b> is a schedule of the activities comprising the construction, installation, testing, and commissioning of the Works in a lump-sum contract. It includes a lump-sum price for each activity, which is used for valuations and for assessing the effects of Variations and Compensation Events.</li> <li>(c) The <b>Adjudicator</b> is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23.</li> <li>(d) <b>Bank</b> means the financing institution <b>named in the PCC</b>.</li> <li>(e) <b>Bill of Quantities</b> means the priced and completed Bill of Quantities forming part of the Bid.</li> <li>(f) <b>Compensation Events</b> are those defined in GCC Clause 46 hereunder.</li> <li>(g) The <b>Completion Date</b> is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 57.1.</li> <li>(h) The <b>Contract</b> is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below.</li> <li>(i) The <b>Contractor</b> is the party whose Bid to carry out the Works has been accepted by the Employer.</li> <li>(j) The <b>Contractor's Bid</b> is the completed bidding document submitted by the Contractor to the Employer.</li> <li>(k) The <b>Contract Price</b> is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract.</li> <li>(l) <b>Days</b> are calendar days; months are calendar months.</li> <li>(m) <b>Dayworks</b> are varied work inputs subject to payment on a time basis for the Contractor's employees and Equipment, in addition to payments for associated Materials and Plant.</li> </ul>
-----------------------	--

	<p>(n) A <b>Defect</b> is any part of the Works not completed in accordance with the Contract.</p> <p>(o) The <b>Defects Liability Certificate</b> is the certificate issued by Project Manager upon correction of defects by the Contractor.</p> <p>(p) The <b>Defects Liability Period</b> is the period <b>named in the PCC</b> pursuant to GCC Sub-Clause 38.1 and calculated from the Completion Date.</p> <p>(q) <b>Drawings</b> 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, include calculations and other information provided or approved by the Project Manager for the execution of the Contract.</p> <p>(r) The <b>Employer</b> is the party who employs the Contractor to carry out the Works, <b>as specified in the PCC</b>.</p> <p>(s) <b>Equipment</b> is the Contractor's machinery and vehicles brought temporarily to the Site to construct the Works.</p> <p>(t) <b>"In writing"</b> or <b>"written"</b> means hand-written, type-written, printed or electronically made, and resulting in a permanent record;</p> <p>(u) The <b>Initial Contract Price</b> is the Contract Price listed in the Employer's Letter of Acceptance.</p> <p>(v) The <b>Intended Completion Date</b> is the date on which it is intended that the Contractor shall complete the Works. The <b>Intended Completion Date</b> is specified in the PCC. The <b>Intended Completion Date</b> may be revised only by the Project Manager by issuing an extension of time or an acceleration order.</p> <p>(w) <b>Materials</b> are all supplies, including consumables, used by the Contractor for incorporation in the Works.</p> <p>(x) <b>Plant</b> is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function.</p> <p>(y) The <b>Project Manager</b> is the person named in the PCC (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract.</p> <p>(z) <b>PCC</b> means Particular Conditions of Contract.</p> <p>(aa) The <b>Site</b> is the area defined as such in the PCC.</p> <p>(bb) <b>Site Investigation Reports</b> are those that were included in the bidding document and are factual and interpretative</p>
--	---

	<p>reports about the surface and subsurface conditions at the Site.</p> <p>(cc) <b>Specification</b> means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager.</p> <p>(dd) The <b>Start Date</b> is <b>given in the PCC</b>. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates.</p> <p>(ee) A <b>Subcontractor</b> is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site.</p> <p>(ff) <b>Temporary Works</b> are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works.</p> <p>(gg) A <b>Variation</b> is an instruction given by the Project Manager which varies the Works.</p> <p>(hh) The <b>Works</b> are what the Contract requires the Contractor to construct, install, and turn over to the Employer, as defined in the PCC.</p> <p>(ii) “<b>Contractor’s Personnel</b>” refers to all personnel whom the Contractor utilizes on the Site or other places where the Works are carried out, including the staff, labor and other employees of each Subcontractor.</p> <p>(jj) “<b>Key Personnel</b>” means the positions (if any) of the Contractor’s personnel that are stated in the Specification.</p> <p>(kk) “<b>ES</b>” means Environmental and Social (including Sexual Exploitation and Abuse (SEA), and Sexual Harassment (SH)).</p> <p>(ll) “<b>Sexual Exploitation and Abuse</b>” “(SEA)” means the following:</p> <p><b>Sexual Exploitation</b> is defined as any actual or attempted abuse of position of vulnerability, differential power or trust, for sexual purposes, including, but not limited to, profiting monetarily, socially or politically from the sexual exploitation of another;</p> <p><b>Sexual Abuse</b> is defined as the actual or threatened physical intrusion of a sexual nature, whether by force or under unequal or coercive conditions.</p> <p>(mm) “<b>Sexual Harassment</b>” “(SH)” is defined as unwelcome sexual advances, requests for sexual favors, and other verbal or physical conduct of a sexual nature by the</p>
--	--

	<p>Contractor's Personnel with other Contractor's or Employer's Personnel; and</p> <p>(nn) <b>"Employer's Personnel"</b> refers to the Project Manager and all other staff, labor and other employees (if any) of the Project Manager and of the Employer engaged in fulfilling the Employer's obligations under the Contract; and any other personnel identified as Employer's Personnel, by a notice from the Employer or the Project Manager to the Contractor.</p>
<b>2. Interpretation</b>	<p>2.1 In interpreting these GCC, words indicating one gender include all genders. Words indicating the singular also include the plural and words indicating the plural also include the singular. Headings have no significance. Words have their normal meaning under the language of the Contract unless specifically defined. The Project Manager shall provide instructions clarifying queries about these GCC.</p> <p>2.2 If sectional completion is <b>specified in the PCC</b>, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).</p> <p>2.3 The documents forming the Contract shall be interpreted in the following order of priority:</p> <ul style="list-style-type: none"> <li>(a) Agreement,</li> <li>(b) Letter of Acceptance,</li> <li>(c) Contractor's Bid,</li> <li>(d) Particular Conditions of Contract,</li> <li>(e) General Conditions of Contract, including Appendices,</li> <li>(f) Specifications,</li> <li>(g) Drawings,</li> <li>(h) Bill of Quantities,<sup>2</sup> and</li> <li>(i) any other document <b>listed in the PCC</b> as forming part of the Contract.</li> </ul>
<b>3. Language and Law</b>	<p>3.1 The language of the Contract and the law governing the Contract are <b>stated in the PCC</b>.</p> <p>3.2 Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the Employer's country when</p>

<sup>2</sup> In lump-sum contracts, delete "Bill of Quantities" and replace with "Activity Schedule."



	<p>(a) as a matter of law or official regulations, the Borrower's country prohibits commercial relations with that country; or</p> <p>(b) by an act of compliance with a decision of the United Nations Security Council taken under Chapter VII of the Charter of the United Nations, the Borrower's Country prohibits any import of goods from that country or any payments to any country, person, or entity in that country.</p>
<b>4. Project Manager's Decisions</b>	4.1 Except where otherwise specifically stated, the Project Manager shall decide contractual matters between the Employer and the Contractor in the role representing the Employer.
<b>5. Delegation</b>	5.1 Unless otherwise <b>specified in the PCC</b> , the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator, after notifying the Contractor, and may revoke any delegation after notifying the Contractor.
<b>6. Communications</b>	6.1 Communications between parties that are referred to in the Conditions shall be effective only when in writing. A notice shall be effective only when it is delivered.
<b>7. Subcontracting</b>	7.1 The Contractor may subcontract with the approval of the Project Manager, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor's obligations. The Contractor shall require that its Subcontractors execute the Works in accordance with the Contract, including complying with the relevant ES requirements and the obligations set out in Sub-Clause 28.1.
<b>8. Other Contractors</b>	<p>8.1 The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as <b>referred to in the PCC</b>. The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification.</p> <p>8.2 The Contractor shall also, as stated in the Specifications or as instructed by the Project Manager, cooperate with and allow appropriate opportunities for the Employer's or any other personnel, notified to the Contractor by the Employer or Project Manager, to conduct any environmental and social assessment.</p>

<b>9. Personnel and Equipment</b>	<p>9.1 The Contractor shall employ the Key Personnel and use the Equipment identified in its Bid, to carry out the Works or other personnel and Equipment approved by the Project Manager. The Project Manager shall approve any proposed replacement of Key Personnel and Equipment only if their relevant qualifications or characteristics are substantially equal to or better than those proposed in the Bid.</p> <p>9.2 The Project Manager may require the Contractor to remove (or cause to be removed) any person employed on the Site or Works, including the Key Personnel (if any), who:</p> <ul style="list-style-type: none"> <li>(a) persists in any misconduct or lack of care;</li> <li>(b) carries out duties incompetently or negligently;</li> <li>(c) fails to comply with any provision of the Contract;</li> <li>(d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment;</li> <li>(e) based on reasonable evidence, is determined to have engaged in Fraud and Corruption during the execution of the Works;</li> <li>(f) has been recruited from the Employer's Personnel;</li> <li>(g) undertakes behavior which breaches the Code of Conduct for Contractor's Personnel (ES).</li> </ul> <p>If appropriate, the Contractor shall then promptly appoint (or cause to be appointed) a suitable replacement with equivalent skills and experience.</p> <p>Notwithstanding any requirement from the Project Manager to remove or cause to remove any person, the Contractor shall take immediate action as appropriate in response to any violation of (a) through (g) above. Such immediate action shall include removing (or causing to be removed) from the Site or other places where the Works are being carried out, any Contractor's Personnel who engages in (a), (b), (c), (d), (e) or (g) above or has been recruited as stated in (f) above."</p> <p>9.3 The Contractor shall take all necessary safety measures to avoid the occurrence of incidents and injuries to any third party associated with the use of, if any, Equipment on public roads or other public infrastructure. The Contractor shall monitor road safety incidents and accidents to identify negative safety issues, and establish and implement necessary measures to resolve them.</p> <p>9.4 Labor</p> <p>9.4.1 <i>Engagement of Staff and Labor.</i> The Contractor shall provide and employ on the Site for the execution of the Works such</p>
-----------------------------------	---

	<p>skilled, semi-skilled and unskilled labor as is necessary for the proper and timely execution of the Contract. The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within the Country.</p> <p>Unless otherwise provided in the Contract, the Contractor shall be responsible for the recruitment, transportation, accommodation and welfare facilities in accordance with GCC Sub-Clause 9.4.6, of the Contractor's Personnel, and for all payments in connection therewith.</p> <p>The Contractor shall provide the Contractor's Personnel information and documentation that are clear and understandable regarding their terms and conditions of employment. The information and documentation shall set out their rights under relevant labor laws applicable to the Contractor's Personnel (which will include any applicable collective agreements), including their rights related to hours of work, wages, overtime, compensation and benefits, as well as those arising from any requirements in the Specifications. The Contractor's Personnel shall be informed when any material changes to their terms or conditions of employment occur.</p> <p>9.4.2 <i>Conditions of Labor.</i> The Contractor shall inform the Contractor's Personnel about:</p> <ul style="list-style-type: none"> <li>(a) any deduction to their payment and the conditions of such deductions in accordance with the applicable laws or as stated in the Specifications; and</li> <li>(b) 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.</li> </ul> <p>The Contractor shall perform such duties in regard to such deductions thereof as may be imposed on him by such laws.</p> <p>Where required by applicable laws or as stated in the Specifications, the Contractor shall provide the Contractor's Personnel written notice of termination of employment and details of severance payments in a timely manner. The Contractor shall have paid the Contractor's Personnel (either directly or where appropriate for their benefit) all due wages and entitlements including, as applicable, social security benefits and pension contributions, on or before the end of their engagement/ employment.</p> <p>9.4.3 The Contractor may bring into the Country any foreign personnel who are necessary for the execution of the Works to</p>
--	---

	<p>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 its best endeavors 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.</p> <p>9.4.4 The Contractor shall at its own expense provide the means of repatriation to and the Contractor's Personnel employed on the Contract at the Site to their various home countries. It shall also provide suitable temporary maintenance of all such persons from the cessation of their employment on the Contract to the date programmed for their departure. In the event that the Contractor defaults in providing such means of transportation and temporary maintenance, the Employer may provide the same to such personnel and recover the cost of doing so from the Contractor.</p> <p>9.4.5 <i>Disorderly conduct.</i> The Contractor shall at all times during the progress of the Contract use its best endeavors to prevent any unlawful, riotous or disorderly conduct or behavior by or amongst the Contractor's Personnel.</p> <p>9.4.6 <i>Facilities for Staff and Labor.</i> Except as otherwise stated in the Specification, the Contractor shall provide and maintain all necessary accommodation and welfare facilities for the Contractor's Personnel. If stated in the Specification, the Contractor shall give access to or provide services that accommodate the physical, social and cultural needs of the Contractor's Personnel. The Contractor shall also provide similar facilities for the Employer's Personnel if stated in the Specifications.</p> <p>9.4.7 The Contractor shall, in all dealings with the Contractor's Personnel, pay due regard to all recognized festivals, official holidays, religious or other customs and all local laws and regulations pertaining to the employment of labor. The Contractor shall provide the Contractor's Personnel annual holiday and sick, maternity and family leave, as required by applicable laws or as stated in the Specifications.</p> <p>9.4.8 <i>Supply of Foodstuffs.</i> 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.</p>
--	--

	<p>9.4.9 <i>Supply of Water.</i> The Contractor shall, having regard to local conditions, provide on the Site an adequate supply of drinking and other water for the use of the Contractor's Personnel.</p> <p>9.4.10 <i>Measures against Insect and Pest Nuisance.</i> 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.</p> <p>9.4.11 <i>Alcoholic Liquor or Drugs.</i> 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.</p> <p>9.4.12 <i>Arms and Ammunition.</i> 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.</p> <p>9.4.13 <i>Funeral Arrangements.</i> The Contractor shall be responsible, to the extent required by local regulations, for making any funeral arrangements for any of its local employees who may die while engaged upon the Works.</p> <p>9.4.14 <i>Forced Labor.</i> The Contractor, including its Subcontractors, shall not employ or engage forced labor. Forced labor 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 labor, such as indentured labor, bonded labor or similar labor-contracting arrangements.</p> <p>No persons shall be employed or engaged who have been subject to trafficking. Trafficking in persons is defined as the recruitment, transportation, transfer, harboring or receipt of persons by means of the threat or use of force or other forms of coercion, abduction, fraud, deception, abuse of power, or of a position of vulnerability, or of the giving or receiving of payments or benefits to achieve the consent of a person having control over another person, for the purposes of exploitation.</p> <p>9.4.15 <i>Child Labor.</i> The Contractor, including its Subcontractors, shall not employ or engage a child under the age of 14 unless the national law specifies a higher age (the minimum age).</p> <p>The Contractor, including its Subcontractors, shall not employ or engage a child between the minimum age and the age of 18 in a manner that 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.</p>
--	--

The Contractor including its Subcontractors, shall only employ or engage children between the minimum age and the age of 18 after an appropriate risk assessment has been conducted by the Contractor with the Project Manager's approval. The Contractor shall be subject to regular monitoring by the Project Manager that includes monitoring of health, working conditions and hours of work.

Work considered hazardous for children is work that, by its nature or the circumstances in which it is carried out, is likely to jeopardize the health, safety, or morals of children. Such work activities prohibited for children include work:

- (a) with exposure to physical, psychological or sexual abuse;
- (b) underground, underwater, working at heights or in confined spaces;
- (c) with dangerous machinery, equipment or tools, or involving handling or
- (d) transport of heavy loads;
- (e) in unhealthy environments exposing children to hazardous substances, agents, or processes, or to temperatures, noise or vibration damaging to health; or
- (f) under difficult conditions such as work for long hours, during the night or in confinement on the premises of the employer.

9.4.16 *Employment Records of Workers.* The Contractor shall keep complete and accurate records of the employment of labor at the Site. The records shall include the names, ages, genders, hours worked, and wages paid to all workers. These records shall be summarized on a monthly basis and submitted to the project Manager.

9.4.17 *Workers' Organizations.* In countries where the relevant labor laws recognize workers' rights to form and to join workers' organizations of their choosing and to bargain collectively without interference, the Contractor shall comply with such laws. In such circumstances, the role of legally established workers' organizations and legitimate workers' representatives will be respected, and they will be provided with information needed for meaningful negotiation in a timely manner. Where the relevant labor laws substantially restrict workers' organizations, the Contractor shall enable alternative means for the Contractor's Personnel to express their grievances and protect their rights regarding working conditions and terms of employment. The Contractor shall not seek to influence or control these alternative means. The Contractor shall not discriminate or retaliate against the Contractor's Personnel

who participate, or seek to participate, in such organizations and collective bargaining or alternative mechanisms. Workers' organizations are expected to fairly represent the workers in the workforce.

9.4.18 *Non-Discrimination and Equal Opportunity.* The Contractor shall not make decisions relating to the employment or treatment of Contractor's Personnel on the basis of personal characteristics unrelated to inherent job requirements. The Contractor shall base the employment of Contractor's Personnel on the principle of equal opportunity and fair treatment, and shall not discriminate with respect to any aspects of the employment relationship, including recruitment and hiring, compensation (including wages and benefits), working conditions and terms of employment, access to training, job assignment, promotion, termination of employment or retirement, and disciplinary practices.

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. The Contractor shall provide protection and assistance as necessary to ensure non-discrimination and equal opportunity, including for specific groups such as women, people with disabilities, migrant workers and children (of working age in accordance with GCC Sub-Clause 9.4.15).

9.4.19 *Contractor's Personnel Grievance Mechanism.* The Contractor shall have a grievance mechanism for Contractor's Personnel, and where relevant the workers' organizations stated in GCC Sub-Clause 9.4.17, to raise workplace concerns. The grievance mechanism shall be proportionate to the nature, scale, risks and impacts of the Contract. The mechanism shall address concerns promptly, using an understandable and transparent process that provides timely feedback to those concerned in a language they understand, without any retribution, and shall operate in an independent and objective manner.

The Contractor's Personnel shall be informed of the grievance mechanism at the time of engagement for the Contract, and the measures put in place to protect them against any reprisal for its use. Measures will be put in place to make the grievance mechanism easily accessible to all Contractor's Personnel.

The grievance mechanism shall not impede access to other judicial or administrative remedies that might be available, or substitute for grievance mechanisms provided through collective agreements.

	<p>The grievance mechanism may utilize existing grievance mechanisms, providing that they are properly designed and implemented, address concerns promptly, and are readily accessible to Contractor's Personnel. Existing grievance mechanisms may be supplemented as needed with Contract-specific arrangements.</p> <p>9.4.20 <i>Training of Contractor's Personnel.</i> The Contractor shall provide appropriate training to relevant Contractor's Personnel on ES aspects of the Contract, including appropriate sensitization on prohibition of SEA and SH, and health and safety training referred to in GCC Sub-Clause 18.2.</p> <p>As stated in the Specifications or as instructed by the Project Manager, the Contractor shall also allow appropriate opportunities for the relevant Contractor's Personnel to be trained on ES aspects of the Contract by the Employer's Personnel.</p> <p>The Contractor shall provide training on SEA and SH, including its prevention, to any of its personnel who has a role to supervise other Contractor's Personnel.</p>
<b>10. Employer's and Contractor's Risks</b>	<p>10.1 The Employer carries the risks which this Contract states are Employer's risks, and the Contractor carries the risks which this Contract states are Contractor's risks.</p>
<b>11. Employer's Risks</b>	<p>11.1 From the Start Date until the Defects Liability Certificate has been issued, the following are Employer's risks:</p> <ul style="list-style-type: none"> <li>(a) The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to <ul style="list-style-type: none"> <li>(i) use or occupation of the Site by the Works or for the purpose of the Works, which is the unavoidable result of the Works or</li> <li>(ii) negligence, breach of statutory duty, or interference with any legal right by the Employer or by any person employed by or contracted to him except the Contractor.</li> </ul> </li> <li>(b) The risk of damage to the Works, Plant, Materials, and Equipment to the extent that it is due to a fault of the Employer or in the Employer's design, or due to war or radioactive contamination directly affecting the country where the Works are to be executed.</li> </ul> <p>11.2 From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the</p>



	<p>Works, Plant, and Materials is an Employer's risk except loss or damage due to</p> <ul style="list-style-type: none"> <li>(a) a Defect which existed on the Completion Date,</li> <li>(b) an event occurring before the Completion Date, which was not itself an Employer's risk, or</li> <li>(c) the activities of the Contractor on the Site after the Completion Date.</li> </ul>
<b>12. Contractor's Risks</b>	<p>12.1 From the Starting Date until the Defects Liability Certificate has been issued, the risks of personal injury, death, and loss of or damage to property (including, without limitation, the Works, Plant, Materials, and Equipment) which are not Employer's risks are Contractor's risks.</p>
<b>13. Insurance</b>	<p>13.1 The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles <b>stated in the PCC</b> for the following events which are due to the Contractor's risks:</p> <ul style="list-style-type: none"> <li>(a) loss of or damage to the Works, Plant, and Materials;</li> <li>(b) loss of or damage to Equipment;</li> <li>(c) loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and</li> <li>(d) personal injury or death.</li> </ul> <p>13.2 Policies and certificates for insurance shall be delivered by the Contractor to the Project Manager for the Project Manager's approval before the Start Date. All such insurance shall provide for compensation to be payable in the types and proportions of currencies required to rectify the loss or damage incurred.</p> <p>13.3 If the Contractor does not provide any of the policies and certificates required, the Employer may affect the insurance which the Contractor should have provided and recover the premiums the Employer has paid from payments otherwise due to the Contractor or, if no payment is due, the payment of the premiums shall be a debt due.</p> <p>13.4 Alterations to the terms of an insurance shall not be made without the approval of the Project Manager.</p> <p>13.5 Both parties shall comply with any conditions of the insurance policies.</p>

<b>14. Site Data</b>	14.1 The Contractor shall be deemed to have examined any Site Data <b>referred to in the PCC</b> , supplemented by any information available to the Contractor.
<b>15. Contractor to Construct the Works</b>	<p>15.1 The Contractor shall construct and install the Works in accordance with the Specifications and Drawings.</p> <p>15.2 If the Contract specifies that the Contractor shall design any part of the permanent Works, the Contractor shall take into account the Employer's requirements which may include, if stated in the Specifications:</p> <ul style="list-style-type: none"> <li>(a) designing structural elements of the Works taking into account climate change considerations;</li> <li>(b) applying the concept of universal access (the concept of universal access means unimpeded access for people of all ages and abilities in different situations and under various circumstances; and</li> <li>(c) considering the incremental risks of the public's potential exposure to operational accidents or natural hazards, including extreme weather events.</li> </ul>
<b>16. The Works to Be Completed by the Intended Completion Date</b>	<p>16.1 The Contractor may commence execution of the Works on the Start Date and shall carry out the Works in accordance with the Program submitted by the Contractor, as updated with the approval of the Project Manager, and complete them by the Intended Completion Date.</p> <p>16.2 The Contractor shall not carry out mobilization to the Site unless the Project Manager gives approval, an approval that shall not be unreasonably delayed, to the measures the Contractor proposes to address environmental and social risks and impacts, which at a minimum shall include applying the Management Strategies and Implementation Plans (MSIPs) and Code of Conduct for Contractor's Personnel submitted as part of the Bid and agreed as part of the Contract.</p> <p>The Contractor shall submit, to the Project Manager for its approval any additional MSIPs as are necessary to manage the ES risks and impacts of ongoing Works. These MSIPs collectively comprise the Contractor's Environmental and Social Management Plan (C-ESMP). The Contractor shall review the C-ESMP, periodically (but not less than every six (6) months), and update it as required to ensure that it contains measures appropriate to the Works. The updated C-ESMP shall be submitted to the Project Manager for its approval.</p>

<b>17. Approval by the Project Manager</b>	<p>17.1 The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.</p> <p>17.2 The Contractor shall be responsible for design of Temporary Works.</p> <p>17.3 The Project Manager's approval shall not alter the Contractor's responsibility for design of the Temporary Works.</p> <p>17.4 The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.</p> <p>17.5 All Drawings prepared by the Contractor for the execution of the temporary or permanent Works, are subject to prior approval by the Project Manager before this use.</p>
<b>18. Health, Safety and Protection of the Environment</b>	<p>18.1 The Contractor shall be responsible for the safety of all activities on the Site.</p> <p>18.2 The Contractor shall:</p> <ul style="list-style-type: none"> <li>(a) comply with all applicable health and safety regulations and Laws;</li> <li>(b) comply with all applicable health and safety obligations specified in the Contract;</li> <li>(c) take care for the health and safety of all persons entitled to be on the Site and other places, if any, where the Works are being executed;</li> <li>(d) keep the Site and Works clear of unnecessary obstruction so as to avoid danger to these persons;</li> <li>(e) provide fencing, lighting, safe access, guarding and watching of the Works until the issue of the Contract Completion Certificate;</li> <li>(f) 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;</li> <li>(g) provide health and safety training of Contractor's Personnel as appropriate and maintain training records;</li> <li>(h) actively engage the Contractor's Personnel in promoting understanding, and methods for, implementation of health and safety requirements, as well as in providing information to Contractor's Personnel, training on occupational safety and health, and provision of personal</li> </ul>

	<p>protective equipment without expense to the Contractor's Personnel;</p> <ul style="list-style-type: none"> <li>(i) put in place workplace processes for Contractor's Personnel to report work situations that they believe are not safe or healthy, and to remove themselves from a work situation which they have reasonable justification to believe presents an imminent and serious danger to their life or health.</li> <li>(j) Contractor's Personnel who remove themselves from such work situations shall not be required to return to work until necessary remedial action to correct the situation has been taken. Contractor's Personnel shall not be retaliated against or otherwise subject to reprisal or negative action for such reporting or removal;</li> <li>(k) where the Employer's Personnel, any other contractors employed by the Employer, and/or personnel of any legally constituted public authorities and private utility companies are employed in carrying out, on or near the site, of any work not included in the Contract, collaborate in applying the health and safety requirements, without prejudice to the responsibility of the relevant entities for the health and safety of their own personnel; and</li> <li>(l) establish and implement a system for regular (not less than six-monthly) review of health and safety performance and the working environment.</li> </ul> <p>Subject to GCC Sub-Clause 16.2, the Contractor shall submit to the Project Manager for its approval a health and safety manual which has been specifically prepared for the Works, the Site and other places (if any) where the Contractor intends to execute the Works.</p> <p>The health and safety manual shall be in addition to any other similar document required under applicable health and safety regulations and laws.</p> <p>The health and safety manual shall set out all the health and safety requirements under the Contract,</p> <ul style="list-style-type: none"> <li>(a) which shall include at a minimum: <ul style="list-style-type: none"> <li>(i) the procedures to establish and maintain a safe working environment without risk to health at all workplaces, machinery, equipment and processes under the control of the Contractor, including control measures for chemical, physical and biological substances and agents;</li> </ul> </li> </ul>
--	--

	<ul style="list-style-type: none"> <li>(ii) details of the training to be provided, records to be kept;</li> <li>(iii) the procedures for prevention, preparedness and response activities to be implemented in the case of an emergency event (i.e. an unanticipated incident, arising from both natural and man-made hazards, typically in the form of fire, explosions, leaks or spills, which may occur for a variety of different reasons including failure to implement operating procedures that are designed to prevent their occurrence, extreme weather or lack of early warning);</li> <li>(iv) remedies for adverse impacts such as occupational injuries, deaths, disability and disease;</li> <li>(v) the measures to be taken to avoid or minimize the potential for community exposure to water-borne, water-based, water-related, and vector-borne diseases,</li> <li>(vi) the measures to be implemented to avoid or minimize the spread of communicable diseases (including transfer of Sexually Transmitted Diseases or Infections (STDs), such as HIV virus) and non-communicable diseases associated with the execution of the Works, taking into consideration differentiated exposure to and higher sensitivity of vulnerable groups. This includes taking measures to avoid or minimize the transmission of communicable diseases that may be associated with the influx of temporary or permanent Contract-related labor;</li> <li>(vii) the policies and procedures on the management and quality of accommodation and welfare facilities if such accommodation and welfare facilities are provided by the Contractor in accordance with GCC Sub-Clause 9.4.6; and</li> </ul> <p>(b) any other requirements stated in the Specification</p> <p>18.3 Protection of the environment</p> <p>The Contractor shall take all necessary measures to:</p> <p>18.3.1 protect the environment (both on and off the Site); and</p> <p>18.3.2 limit damage and nuisance to people and property resulting from pollution, noise and other results of the Contractor's operations and/ or activities.</p> <p>The Contractor shall ensure that emissions, surface discharges, effluent and any other pollutants from the Contractor's</p>
--	---

	<p>activities shall exceed neither the values indicated in the Specifications, nor those prescribed by applicable laws.</p> <p>In the event of damage to the environment, property and/or nuisance to people, on or off Site as a result of the Contractor's operations, the Contractor shall agree with the Project Manager the appropriate actions and time scale to remedy, as practicable, the damaged environment to its former condition. The Contractor shall implement such remedies at its cost to the satisfaction of the Project Manager.</p>
<b>19. Archaeological and Geological Findings</b>	<p>19.1 All fossils, coins, articles of value or antiquity, structures, groups of structures, and other remains or items of geological, archaeological, paleontological, historical, architectural or religious interest found on the Site shall be placed under the care and custody of the Employer. The Contractor shall:</p> <ul style="list-style-type: none"> <li>(a) take all reasonable precautions, including fencing-off the area or site of the finding, to avoid further disturbance and prevent Contractor's Personnel or other persons from removing or damaging any of these findings;</li> <li>(b) train relevant Contractor's Personnel on appropriate actions to be taken in the event of such findings; and</li> <li>(c) implement any other action consistent with the requirements of the Specifications and relevant laws.</li> </ul> <p>The Contractor shall, as soon as practicable after discovery of any such finding, notify the Project Manager of such discoveries and carry out the Project Manager's instructions for dealing with them.</p>
<b>20. Possession of the Site</b>	<p>20.1 The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date <b>stated in the PCC</b>, the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event.</p>
<b>21. Access to the Site</b>	<p>21.1 The Contractor shall allow the Project Manager and any person authorized by the Project Manager (including the Bank staff or consultants acting on the Bank's behalf, stakeholders and third parties, such as independent experts, local communities, or non-governmental organizations), including to carry out environmental and social audit, as appropriate, access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out.</p>

<b>22. Instructions, Inspections and Audits</b>	<p>22.1 The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.</p>
	<p>22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and subconsultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.</p>
	<p>22.3 Inspections &amp; Audit by the Bank</p> <p>Pursuant to paragraph 2.2 e. of Appendix A to the GCC- Fraud and Corruption, the Contractor shall permit and shall cause its agents (where declared or not), subcontractors, subconsultants, service providers, suppliers, and personnel, to permit, the Bank and/or persons appointed by the Bank to inspect the site and/or the accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have such accounts, records and other documents audited by auditors appointed by the Bank. The Contractor's and its Subcontractors' and subconsultants' attention is drawn to GCC Sub-Clause 25.1 (Fraud and Corruption) which provides, inter alia, that acts intended to materially impede the exercise of the Bank's inspection and audit rights constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank's prevailing sanctions procedures).</p>
<b>23. Appointment of the Adjudicator</b>	<p>23.1 The Adjudicator shall be appointed jointly by the Employer and the Contractor, at the time of the Employer's issuance of the Letter of Acceptance. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator, the Employer will request the Appointing Authority <b>designated in the PCC</b>, to appoint the Adjudicator within 14 days of receipt of such request.</p> <p>23.2 Should the Adjudicator resign or die, or should the Employer and the Contractor agree that the Adjudicator is not functioning in accordance with the provisions of the Contract, a new Adjudicator shall be jointly appointed by the Employer and the Contractor. In case of disagreement between the Employer and the Contractor, within 30 days, the Adjudicator shall be designated by the Appointing Authority <b>designated in the PCC</b> at the request of either party, within 14 days of receipt of such request.</p>

<p><b>24. Procedure for Disputes</b></p>	<p>24.1 If the Contractor believes that a decision taken by the Project Manager was either outside the authority given to the Project Manager by the Contract or that the decision was wrongly taken, the decision shall be referred to the Adjudicator within 14 days of the notification of the Project Manager's decision.</p> <p>24.2 The Adjudicator shall give a decision in writing within 28 days of receipt of a notification of a dispute.</p> <p>24.3 The Adjudicator shall be paid by the hour at the <b>rate specified in the PCC</b>, together with reimbursable expenses of the types <b>specified in the PCC</b>, and the cost shall be divided equally between the Employer and the Contractor, whatever decision is reached by the Adjudicator. Either party may refer a decision of the Adjudicator to an Arbitrator within 28 days of the Adjudicator's written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator's decision shall be final and binding.</p> <p>24.4 The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and, in the place, <b>specified in the PCC</b>.</p>
<p><b>25. Fraud and Corruption</b></p>	<p>25.1 The Bank requires compliance with the Bank's Anti-Corruption Guidelines and its prevailing sanctions policies and procedures as set forth in the WBG's Sanctions Framework, as set forth in Appendix A to the GCC.</p> <p>25.2 The Employer requires the Contractor to disclose any commissions or fees that may have been paid or are to be paid to agents or any other party with respect to the bidding process or execution of the Contract. The information disclosed must include at least the name and address of the agent or other party, the amount and currency, and the purpose of the commission, gratuity or fee.</p>
<p><b>26. Stakeholder Engagement</b></p>	<p>26.1 The Contractor shall provide relevant contract- related information, as the Employer and/or Project Manager may reasonably request to conduct Stakeholder engagements. "Stakeholder" refers to individuals or groups who:</p> <ul style="list-style-type: none"> <li>(i) are affected or likely to be affected by the Contract; and</li> <li>(ii) may have an interest in the Contract.</li> </ul> <p>The Contractor may also directly participate in Stakeholder engagements, as the Employer and/or Project Manager may reasonably request</p>



<p><b>27. Suppliers (other than Subcontractors)</b></p>	<p>27.1 <b>Forced Labor:</b> The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage forced labor including trafficked persons as described in GCC Sub-Clause 9.4.14. If forced labor/trafficking cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.</p> <p>27.2 <i>Child Labor:</i> The Contractor shall take measures to require its suppliers (other than Subcontractors) not to employ or engage child labor as described in GCC Sub-Clause 9.4.15. If child labor cases are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.</p> <p>27.3 <i>Serious Safety Issues:</i> The Contractor, including its Subcontractors, shall comply with all applicable safety obligations, including as stated in GCC Sub-Clause 18.2. The Contractor shall also take measures to require its suppliers (other than Subcontractors) to adopt procedures and mitigation measures adequate to address safety issues related to their personnel. If serious safety issues are identified, the Contractor shall take measures to require the suppliers to take appropriate steps to remedy them. Where the supplier does not remedy the situation, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to manage such risks.</p> <p>27.4 <i>Obtaining natural resource materials in relation to supplier:</i> The Contractor shall obtain natural resource <i>materials</i> from suppliers that can demonstrate, through compliance with the applicable verification and/ or certification requirements, that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats such as unsustainably harvested wood products, gravel or sand extraction from river beds or beaches.</p> <p>If a supplier cannot continue to demonstrate that obtaining such materials is not contributing to the risk of significant conversion or significant degradation of natural or critical habitats, the Contractor shall within a reasonable period substitute the supplier with a supplier that is able to demonstrate that they are not significantly adversely impacting the habitats.</p>
---	---

<b>28. Code of Conduct</b>	<p>28.1 The Contractor shall have a Code of Conduct for the Contractor's Personnel.</p> <p>The Contractor shall take all necessary measures to ensure that each Contractor's Personnel is made aware of the Code of Conduct including specific behaviors that are prohibited, and understands the consequences of engaging in such prohibited behaviors.</p> <p>These measures include providing instructions and documentation that can be understood by the Contractor's Personnel and seeking to obtain that person's signature acknowledging receipt of such instructions and/or documentation, as appropriate.</p> <p>The Contractor shall also ensure that the Code of Conduct is visibly displayed in multiple locations on the Site and any other place where the Works will be carried out, as well as in areas outside the Site accessible to the local community and project affected people. The posted Code of Conduct shall be provided in languages comprehensible to Contractor's Personnel, Employer's Personnel and the local community.</p> <p>The Contractor's Management Strategy and Implementation Plans shall include appropriate processes for the Contractor to verify compliance with these obligations.</p>
<b>29. Security of the Site</b>	<p>29.1 The Contractor shall be responsible for the security of the Site, and:</p> <ul style="list-style-type: none"> <li>(a) for keeping unauthorized persons off the Site;</li> <li>(b) authorized persons shall be limited to the Contractor's Personnel, the Employer's Personnel, and to any other personnel identified as authorized personnel (including the Employer's other contractors on the Site), by a notice from the Employer or the Project Manager to the Contractor.</li> </ul> <p>Subject to GCC Sub-Clause 16.2, the Contractor shall submit for the Project Manager's No-objection a security management plan that sets out the security arrangements for the Site</p> <p>The Contractor shall (i) conduct appropriate background checks on any personnel retained to provide security; (ii) train the security personnel adequately (or determine that they are properly trained) in the use of force (and where applicable, firearms), and appropriate conduct towards Contractor's Personnel, Employer's Personnel and affected communities; and (iii) require the security personnel to act within the</p>

	<p>applicable Laws and any requirements set out in the Specifications.</p> <p>The Contractor shall not permit any use of force by security personnel in providing security except when used for preventive and defensive purposes in proportion to the nature and extent of the threat.</p> <p>In making security arrangements, the Contractor shall also comply with any additional requirements stated in the Specification.”</p>
<b>B. Time Control</b>	
<b>30. Program and Progress Reports</b>	<p>30.1 Within the time <b>stated in the PCC</b>, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a Program showing the general methods, arrangements, order, and timing for all the activities in the Works. In the case of a lump-sum contract, the activities in the Program shall be consistent with those in the Activity Schedule. The Project Manager’s approval of the Program shall not alter the Contractor’s obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.</p> <p>30.2 An update of the Program shall be a program showing the actual progress achieved on each activity and the effect of the progress achieved on the timing of the remaining work, including any changes to the sequence of the activities.</p> <p>30.3 The Contractor shall monitor progress of the Works and submit to the Project manager progress report and any updated Program showing the actual progress achieved and the effect of the progress achieved on the timing of the remaining Works, including any changes to the sequence of the activities, at intervals no longer than the period <b>stated in the PCC</b>. If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount <b>stated in the PCC</b> from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted. In the case of lump-sum Contract, the Contractor shall provide an updated Activity Schedule within 14 days of being instructed to by the Project Manager.</p> <p>30.4 Unless otherwise stated in the Specifications, each progress report shall include the Environmental and Social (ES) metrics set out in Appendix B.</p>

	<p>30.5 In addition to the progress reports, the Contractor shall inform the Project Manager immediately of any allegation, incident or accident in the Site, which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel, Project Manager's personnel or Contractor's Personnel. This includes, but is not limited to, any incident or accident causing fatality or serious injury; significant adverse effects or damage to private property; or any allegation of SEA and/or SH. In case of SEA and/or SH, while maintaining confidentiality as appropriate, the type of allegation (sexual exploitation, sexual abuse or sexual harassment), gender and age of the person who experienced the alleged incident should be included in the information.</p> <p>The Contractor, upon becoming aware of the allegation, incident or accident, shall also immediately inform the Project Manager of any such incident or accident on the Subcontractors' or suppliers' premises relating to the Works which has or is likely to have a significant adverse effect on the environment, the affected communities, the public, Employer's Personnel, or Contractor's, its Subcontractors' and suppliers' personnel. The notification shall provide sufficient detail regarding such incidents or accidents. The Contractor shall provide full details of such incidents or accidents to the Project Manager within the timeframe agreed with the Project Manager.</p> <p>The Contractor shall require its Subcontractors and suppliers (other than Subcontractors) to immediately notify the Contractor of any incidents or accidents referred to in this Subclause.</p>
<p><b>31. Extension of the Intended Completion Date</b></p>	<p>31.1 The Project Manager shall extend the Intended Completion Date if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.</p> <p>31.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date within 21 days of the Contractor asking the Project Manager for a decision upon the effect of a Compensation Event or Variation and submitting full supporting information. If the Contractor has failed to give early warning of a delay or has failed to cooperate in dealing with a delay, the delay by this failure shall not be considered in assessing the new Intended Completion Date.</p>
<p><b>32. Acceleration</b></p>	<p>32.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from</p>

	<p>the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.</p> <p>32.2 If the Contractor's priced proposals for an acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation.</p>
<b>33. Delays Ordered by the Project Manager</b>	<p>33.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works.</p>
<b>34. Management Meetings</b>	<p>34.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. The business of a management meeting shall be to review the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.</p> <p>34.2 The Project Manager shall record the business of management meetings and provide copies of the record to those attending the meeting and to the Employer. The responsibility of the parties for actions to be taken shall be decided by the Project Manager either at the management meeting or after the management meeting and stated in writing to all who attended the meeting.</p>
<b>35. Early Warning</b>	<p>35.1 The Contractor shall warn the Project Manager at the earliest opportunity of specific likely future events or circumstances that may adversely affect the quality of the work, increase the Contract Price, or delay the execution of the Works. The Project Manager may require the Contractor to provide an estimate of the expected effect of the future event or circumstance on the Contract Price and Completion Date. The estimate shall be provided by the Contractor as soon as reasonably possible.</p> <p>35.2 The Contractor shall cooperate with the Project Manager in making and considering proposals for how the effect of such an event or circumstance can be avoided or reduced by anyone involved in the work and in carrying out any resulting instruction of the Project Manager.</p>
<b>C. Quality Control</b>	
<b>36. Identifying Defects</b>	<p>36.1 The Project Manager shall check the Contractor's work and notify the Contractor of any Defects that are found. Such checking shall not affect the Contractor's responsibilities. The Project Manager may instruct the Contractor to search for a Defect and to uncover and test any work that the Project Manager considers may have a Defect.</p>

<b>37. Tests</b>	37.1 If the Project Manager instructs the Contractor to carry out a test not specified in the Specifications to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event.
<b>38. Correction of Defects</b>	<p>38.1 The Project Manager shall give notice to the Contractor of any Defects before the end of the Defects Liability Period, which begins at Completion, and is <b>defined in the PCC</b>. The Defects Liability Period shall be extended for as long as Defects remain to be corrected.</p> <p>38.2 Every time notice of a Defect is given, the Contractor shall correct the notified Defect within the length of time specified by the Project Manager's notice.</p>
<b>39. Uncorrected Defects</b>	39.1 If the Contractor has not corrected a Defect within the time specified in the Project Manager's notice, the Project Manager shall assess the cost of having the Defect corrected, and the Contractor shall pay this amount.
<b>D. Cost Control</b>	
<b>40. Contract Price<sup>3</sup></b>	40.1 The Bill of Quantities shall contain priced items for the Works to be performed by the Contractor. The Bill of Quantities is used to calculate the Contract Price. The Contractor will be paid for the quantity of the work accomplished at the rate in the Bill of Quantities for each item.
<b>41. Changes in the Contract Price<sup>4</sup></b>	41.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change. The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 15 percent, except with the prior approval of the Employer.

<sup>3</sup> In lump-sum contracts, replace GCC Sub-Clauses 40.1 as follows:

40.1 The Contractor shall provide updated Activity Schedules within 14 days of being instructed to by the Project Manager. The Activity Schedule shall contain the priced activities for the Works to be performed by the Contractor. The Activity Schedule is used to monitor and control the performance of activities on which basis the Contractor will be paid. If payment for materials on site shall be made separately, the Contractor shall show delivery of Materials to the Site separately on the Activity Schedule.

<sup>4</sup> In lump-sum contracts, replace entire GCC Clause 41 with new GCC Sub-Clause 41.1, as follows:

41.1 The Activity Schedule shall be amended by the Contractor to accommodate changes of Program or method of working made at the Contractor's own discretion. Prices in the Activity Schedule shall not be altered when the Contractor makes such changes to the Activity Schedule.

	41.2 If requested by the Project Manager, the Contractor shall provide the Project Manager with a detailed cost breakdown of any rate in the Bill of Quantities.
<b>42. Variations</b>	<p>42.1 All Variations shall be included in updated Programs<sup>5</sup> produced by the Contractor.</p> <p>42.2 The Contractor shall provide the Project Manager with a quotation for carrying out the Variation when requested to do so by the Project Manager. The Contractor shall also provide information of any ES risks and impacts of the Variation. The Project Manager shall assess the quotation, which shall be given within seven (7) days of the request or within any longer period stated by the Project Manager and before the Variation is ordered.</p> <p>42.3 If the Contractor's quotation is unreasonable, the Project Manager may order the Variation and make a change to the Contract Price, which shall be based on the Project Manager's own forecast of the effects of the Variation on the Contractor's costs.</p> <p>42.4 If the Project Manager decides that the urgency of varying the work would prevent a quotation being given and considered without delaying the work, no quotation shall be given and the Variation shall be treated as a Compensation Event.</p> <p>42.5 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning.</p> <p>42.6 If the work in the Variation corresponds to an item description in the Bill of Quantities and if, in the opinion of the Project Manager, the quantity of work above the limit stated in GCC Sub-Clause 41.1 or the timing of its execution do not cause the cost per unit of quantity to change, the rate in the Bill of Quantities shall be used to calculate the value of the Variation. If the cost per unit of quantity changes, or if the nature or timing of the work in the Variation does not correspond with items in the Bill of Quantities, the quotation by the Contractor shall be in the form of new rates for the relevant items of work.<sup>6</sup></p> <p>42.7 Value Engineering: The Contractor may prepare, at its own cost, a value engineering proposal at any time during the performance of the contract. The value engineering proposal shall, at a minimum, include the following;</p> <p>(a) the proposed change(s), and a description of the difference to the existing contract requirements;</p>

<sup>5</sup> In lump-sum contracts, add "and Activity Schedules" after "Programs."

<sup>6</sup> In lump-sum contracts, delete this paragraph.

	<p>(b) a full cost/benefit analysis of the proposed change(s) including a description and estimate of costs (including life cycle cost) the Employer may incur in implementing the value engineering proposal;</p> <p>(c) a description of any effect(s) of the change on performance/functionality; and</p> <p>(d) a description of the proposed work to be performed, a program for its execution and sufficient ES information to enable an evaluation of ES risks and impacts.</p> <p>The Employer may accept the value engineering proposal if the proposal demonstrates benefits that:</p> <p>(a) accelerates the contract completion period; or</p> <p>(b) reduces the Contract Price or the life cycle costs to the Employer; or</p> <p>(c) improves the quality, efficiency, safety or sustainability of the Facilities; or</p> <p>(d) yields any other benefits to the Employer, without compromising the functionality of the Works.</p> <p>If the value engineering proposal is approved by the Employer and results in:</p> <p>(a) a reduction of the Contract Price; the amount to be paid to the Contractor shall be the <b>percentage specified in the PCC</b> of the reduction in the Contract Price; or</p> <p>(b) an increase in the Contract Price; but results in a reduction in life cycle costs due to any benefit described in (a) to (d) above, the amount to be paid to the Contractor shall be the full increase in the Contract Price.</p>
<b>43. Cash Flow Forecasts</b>	<p>43.1 When the Program,<sup>7</sup> is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall include different currencies, as defined in the Contract, converted as necessary using the Contract exchange rates.</p>
<b>44. Payment Certificates</b>	<p>44.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously.</p> <p>44.2 The Project Manager shall check the Contractor's monthly statement and certify the amount to be paid to the Contractor.</p>

<sup>7</sup> In lump-sum contracts, add "or Activity Schedule" after "Program."



	<p>44.3 The value of work executed shall be determined by the Project Manager.</p> <p>44.4 The value of work executed shall comprise the value of the quantities of work in the Bill of Quantities that have been completed.<sup>8</sup></p> <p>44.5 The value of work executed shall include the valuation of Variations and Compensation Events.</p> <p>44.6 The Project Manager may exclude any item certified in a previous certificate or reduce the proportion of any item previously certified in any certificate in the light of later information.</p> <p>44.7 If the Contractor was, or is, failing to perform any ES obligations or work under the Contract, the value of this work or obligation, as determined by the Project Manager, may be withheld until the work or obligation has been performed, and/or the cost of rectification or replacement, as determined by the Project Manager, may be withheld until rectification or replacement has been completed. Failure to perform includes, but is not limited to the following:</p> <ul style="list-style-type: none"> <li>(a) failure to comply with any ES obligations or work described in the Works' Requirements which may include: working outside site boundaries, excessive dust, failure to keep public roads in a safe usable condition, damage to offsite vegetation, pollution of water courses from oils or sedimentation, contamination of land e.g. from oils, human waste, damage to archeology or cultural heritage features, air pollution as a result of unauthorized and/or inefficient combustion;</li> <li>(b) failure to regularly review C-ESMP and/or update it in a timely manner to address emerging ES issues, or anticipated risks or impacts;</li> <li>(c) failure to implement the C-ESMP e.g. failure to provide required training or sensitization;</li> <li>(d) failing to have appropriate consents/permits prior to undertaking Works or related activities;</li> <li>(e) failure to submit ES report/s (as described in Appendix B), or failure to submit such reports in a timely manner;</li> <li>(f) failure to implement remediation as instructed by the Project Manager within the specified timeframe (e.g. remediation addressing non-compliance/s).</li> </ul>
--	---

<sup>8</sup> In lump-sum contracts, replace this paragraph with the following: "The value of work executed shall comprise the value of completed activities in the Activity Schedule."

<b>45. Payments</b>	<p>45.1 Payments shall be adjusted for deductions for advance payments and retention. The Employer shall pay the Contractor the amounts certified by the Project Manager within 28 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the prevailing rate of interest for commercial borrowing for each of the currencies in which payments are made.</p> <p>45.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated from the date upon which the increased amount would have been certified in the absence of dispute.</p> <p>45.3 Unless otherwise stated, all payments and deductions shall be paid or charged in the proportions of currencies comprising the Contract Price.</p> <p>45.4 Items of the Works for which no rate or price has been entered in shall not be paid for by the Employer and shall be deemed covered by other rates and prices in the Contract.</p>
<b>46. Compensation Events</b>	<p>46.1 The following shall be Compensation Events:</p> <ul style="list-style-type: none"> <li>(a) The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1.</li> <li>(b) The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract.</li> <li>(c) The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time.</li> <li>(d) The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects.</li> <li>(e) The Project Manager unreasonably does not approve a subcontract to be let.</li> <li>(f) Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from</li> </ul>

	<p>information available publicly and from a visual inspection of the Site.</p> <ul style="list-style-type: none"> <li>(g) The Project Manager gives an instruction for dealing with an unforeseen condition, caused by the Employer, or additional work required for safety or other reasons.</li> <li>(h) Other contractors, public authorities, utilities, or the Employer does not work within the dates and other constraints stated in the Contract, and they cause delay or extra cost to the Contractor.</li> <li>(i) The advance payment is delayed.</li> <li>(j) The effects on the Contractor of any of the Employer's Risks.</li> <li>(k) The Project Manager unreasonably delays issuing a Certificate of Completion.</li> </ul> <p>46.2 If a Compensation Event would cause additional cost or would prevent the work being completed before the Intended Completion Date, the Contract Price shall be increased and/or the Intended Completion Date shall be extended. The Project Manager shall decide whether and by how much the Contract Price shall be increased and whether and by how much the Intended Completion Date shall be extended.</p> <p>46.3 As soon as information demonstrating the effect of each Compensation Event upon the Contractor's forecast cost has been provided by the Contractor, it shall be assessed by the Project Manager, and the Contract Price shall be adjusted accordingly. If the Contractor's forecast is deemed unreasonable, the Project Manager shall adjust the Contract Price based on the Project Manager's own forecast. The Project Manager shall assume that the Contractor shall react competently and promptly to the event.</p> <p>46.4 The Contractor shall not be entitled to compensation to the extent that the Employer's interests are adversely affected by the Contractor's not having given early warning or not having cooperated with the Project Manager.</p>
<b>47. Tax</b>	<p>47.1 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the date 28 days before the submission of bids for the Contract and the date of the last Completion certificate. The adjustment shall be the change in the amount of tax payable by the Contractor, provided such changes are not already reflected in the Contract Price or are a result of GCC Clause 49.</p>

<b>48. Currencies</b>	48.1 Where payments are made in currencies other than the currency of the Employer's country <b>specified in the PCC</b> , the exchange rates used for calculating the amounts to be paid shall be the exchange rates stated in the Contractor's Bid.
<b>49. Price Adjustment</b>	<p>49.1 Prices shall be adjusted for fluctuations in the cost of inputs only if <b>provided for in the PCC</b>. If so provided, the amounts certified in each payment certificate, before deducting for Advance Payment, shall be adjusted by applying the respective price adjustment factor to the payment amounts due in each currency. A separate formula of the type specified below applies to each Contract currency:</p> $P_c = A_c + B_c I_{mc}/I_{oc}$ <p>where:</p> <p><math>P_c</math> is the adjustment factor for the portion of the Contract Price payable in a specific currency "c."</p> <p><math>A_c</math> and <math>B_c</math> are coefficients <sup>9</sup> <b>specified in the PCC</b>, representing the nonadjustable and adjustable portions, respectively, of the Contract Price payable in that specific currency "c;" and</p> <p><math>I_{mc}</math> is the index prevailing at the end of the month being invoiced and <math>I_{oc}</math> is the index prevailing 28 days before Bid opening for inputs payable; both in the specific currency "c."</p> <p>49.2 If the value of the index is changed after it has been used in a calculation, the calculation shall be corrected and an adjustment made in the next payment certificate. The index value shall be deemed to take account of all changes in cost due to fluctuations in costs.</p>
<b>50. Retention</b>	<p>50.1 The Employer shall retain from each payment due to the Contractor the proportion <b>stated in the PCC</b> until Completion of the whole of the Works.</p> <p>50.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC Sub-Clause 57.1, half the total amount retained shall be repaid to the Contractor and half when the Defects Liability Period has passed and the Project Manager has certified that all Defects notified by the Project Manager to the Contractor before the end of this period</p>

<sup>9</sup> The sum of the two coefficients  $A_c$  and  $B_c$  should be 1 (one) in the formula for each currency. Normally, both coefficients shall be the same in the formulae for all currencies, since coefficient  $A_c$ , for the nonadjustable portion of the payments, is a very approximate figure (usually 0.15) to take account of fixed cost elements or other nonadjustable components. The sum of the adjustments for each currency are added to the Contract Price.

	have been corrected. The Contractor may substitute retention money with an “on demand” Bank guarantee.
<b>51. Liquidated Damages</b>	<p>51.1 The Contractor shall pay liquidated damages to the Employer at the rate per day <b>stated in the PCC</b> for each day that the Completion Date is later than the Intended Completion Date. The total amount of liquidated damages shall not exceed the amount <b>defined in the PCC</b>. The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor’s liabilities.</p> <p>51.2 If the Intended Completion Date is extended after liquidated damages have been paid, the Project Manager shall correct any overpayment of liquidated damages by the Contractor by adjusting the next payment certificate. The Contractor shall be paid interest on the overpayment, calculated from the date of payment to the date of repayment, at the rates specified in GCC Sub-Clause 45.1.</p>
<b>52. Bonus</b>	<p>52.1 The Contractor shall be paid a Bonus calculated at the rate per calendar day <b>stated in the PCC</b> for each day (less any days for which the Contractor is paid for acceleration) that the Completion is earlier than the Intended Completion Date. The Project Manager shall certify that the Works are complete, although they may not be due to be complete.</p>
<b>53. Advance Payment</b>	<p>53.1 The Employer shall make advance payment to the Contractor of the amounts <b>stated in the PCC</b> by the date <b>stated in the PCC</b>, against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts and currencies equal to the advance payment. The Guarantee shall remain effective until the advance payment has been repaid, but the amount of the Guarantee shall be progressively reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.</p> <p>53.2 The Contractor is to use the advance payment only to pay for Equipment, Plant, Materials, and mobilization expenses required specifically for execution of the Contract. The Contractor shall demonstrate that advance payment has been used in this way by supplying copies of invoices or other documents to the Project Manager.</p> <p>53.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the</p>

	advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Bonuses, or Liquidated Damages.
<b>54. Securities</b>	54.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount <b>specified in the PCC</b> , by a bank or surety acceptable to the Employer, and denominated in the types and proportions of the currencies in which the Contract Price is payable. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion in the case of a Bank Guarantee, and until one year from the date of issue of the Certificate of Completion in the case of a Performance Bond.
<b>55. Dayworks</b>	<p>55.1 If applicable, the Dayworks rates in the Contractor's Bid shall be used only when the Project Manager has given written instructions in advance for additional work to be paid for in that way.</p> <p>55.2 All work to be paid for as Dayworks shall be recorded by the Contractor on forms approved by the Project Manager. Each completed form shall be verified and signed by the Project Manager within two days of the work being done.</p> <p>55.3 The Contractor shall be paid for Dayworks subject to obtaining signed Dayworks forms.</p>
<b>56. Cost of Repairs</b>	56.1 Loss or damage to the Works or Materials to be incorporated in the Works between the Start Date and the end of the Defects Correction periods shall be remedied by the Contractor at the Contractor's cost if the loss or damage arises from the Contractor's acts or omissions.
<b>E. Finishing the Contract</b>	
<b>57. Completion</b>	57.1 The Contractor shall request the Project Manager to issue a Certificate of Completion of the Works, and the Project Manager shall do so upon deciding that the whole of the Works is completed.
<b>58. Taking Over</b>	58.1 The Employer shall take over the Site and the Works within seven days of the Project Manager's issuing a certificate of Completion.
<b>59. Final Account</b>	59.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract before the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to

	<p>the Contractor within 56 days of receiving the Contractor's account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessary. If the Final Account is still unsatisfactory after it has been resubmitted, the Project Manager shall decide on the amount payable to the Contractor and issue a payment certificate.</p>
<p><b>60. Operating and Maintenance Manuals</b></p>	<p>60.1 If "as built" Drawings and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates <b>stated in the PCC</b>.</p> <p>60.2 If the Contractor does not supply the Drawings and/or manuals by the dates <b>stated in the PCC</b> pursuant to GCC Sub-Clause 60.1, or they do not receive the Project Manager's approval, the Project Manager shall withhold the amount <b>stated in the PCC</b> from payments due to the Contractor.</p>
<p><b>61. Termination</b></p>	<p>61.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract.</p> <p>61.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:</p>
	<ul style="list-style-type: none"> <li>I. the Contractor stops work for 28 days when no stoppage of work is shown on the current Program and the stoppage has not been authorized by the Project Manager;</li> <li>II. the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days;</li> <li>III. the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation;</li> <li>IV. a payment certified by the Project Manager is not paid by the Employer to the Contractor within 84 days of the date of the Project Manager's certificate;</li> <li>V. the Project Manager gives Notice that failure to correct a particular Defect is a fundamental breach of Contract and the Contractor fails to correct it within a reasonable period of time determined by the Project Manager;</li> <li>VI. the Contractor does not maintain a Security, which is required;</li> <li>VII. the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as <b>defined in the PCC</b>; or</li> </ul>

	<p>VIII. if the Contractor, in the judgment of the Employer has engaged in Fraud and Corruption, as defined in paragraph 2.2 a of the Appendix A to the GCC, in competing for or in executing the Contract, then the Employer may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site.</p> <p>61.3 Notwithstanding the above, the Employer may terminate the Contract for convenience.</p>
	<p>61.4 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible.</p>
	<p>61.5 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 61.2 above, the Project Manager shall decide whether the breach is fundamental or not.</p>
<b>62. Payment upon Termination</b>	<p>62.1 If the Contract is terminated because of a fundamental breach of Contract by the Contractor, the Project Manager shall issue a certificate for the value of the work done and Materials ordered less advance payments received up to the date of the issue of the certificate and less the percentage to apply to the value of the work not completed, as <b>specified in the PCC</b>. Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.</p> <p>62.2 If the Contract is terminated for the Employer's convenience or because of a fundamental breach of Contract by the Employer, the Project Manager shall issue a certificate for the value of the work done, Materials ordered, the reasonable cost of removal of Equipment, repatriation of the Contractor's personnel employed solely on the Works, and the Contractor's costs of protecting and securing the Works, and less advance payments received up to the date of the certificate.</p>
<b>63. Property</b>	<p>63.1 All Materials on the Site, Plant, Equipment, Temporary Works, and Works shall be deemed to be the property of the Employer if the Contract is terminated because of the Contractor's default.</p>
<b>64. Release from Performance</b>	<p>64.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before</p>



	receiving it and for any work carried out afterwards to which a commitment was made.
<b>65. Suspension of Bank Loan or Credit</b>	<p>65.1 In the event that the Bank suspends the Loan or Credit to the Employer, from which part of the payments to the Contractor are being made:</p> <ul style="list-style-type: none"> <li>(a) The Employer is obligated to notify the Contractor of such suspension within 7 days of having received the Bank's suspension notice.</li> <li>(b) If the Contractor has not received sums due to it within the 28 days for payment provided for in GCC Sub-Clause 45.1, the Contractor may immediately issue a 14-day termination notice.</li> </ul>

# APPENDIX A

## TO GENERAL CONDITIONS

### Fraud and Corruption

*(Text in this Appendix shall not be modified)*

#### 1. Purpose

1.1 The Bank's Anti-Corruption Guidelines and this annex apply with respect to procurement under Bank Investment Project Financing operations.

#### 2. Requirements

2.1 The Bank requires that Borrowers (including beneficiaries of Bank financing); bidders (applicants/proposers), consultants, contractors and suppliers; any sub-contractors, sub-consultants, service providers or suppliers; any agents (whether declared or not); and any of their personnel, observe the highest standard of ethics during the procurement process, selection and contract execution of Bank-financed contracts, and refrain from Fraud and Corruption.

2.2 To this end, 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;
  - ii. "Fraudulent practice" is any act or omission, including misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain financial or other benefit or to avoid an obligation;
  - 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;
  - 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;
  - 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 provided for under paragraph 2.2 e. below.

- b. Rejects a proposal for award if the Bank determines that the firm or individual recommended for award, any of its personnel, or its agents, or its sub-consultants, sub-contractors, service providers, suppliers and/ or their employees, has, directly or indirectly, engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices in competing for the contract in question;
- c. In addition to the legal remedies set out in the relevant Legal Agreement, may take other appropriate actions, including declaring mis procurement, if the Bank determines at any time that representatives of the Borrower or of a recipient of any part of the proceeds of the loan engaged in corrupt, fraudulent, collusive, coercive, or obstructive practices during the procurement process, selection and/or execution of the contract in question, without the Borrower having taken timely and appropriate action satisfactory to the Bank to address such practices when they occur, including by failing to inform the Bank in a timely manner at the time they knew of the practices;
- d. Pursuant to the Bank's Anti- Corruption Guidelines and in accordance with the Bank's prevailing sanctions policies and procedures, may sanction a firm or individual, either indefinitely or for a stated period of time, including by publicly declaring such firm or individual ineligible (i) to be awarded or otherwise benefit from a Bank-financed contract, financially or in any other manner;<sup>10</sup> (ii) to be a nominated<sup>11</sup> sub-contractor, consultant, manufacturer or supplier, or service provider of an otherwise eligible firm being awarded a Bank-financed contract; and (iii) to receive the proceeds of any loan made by the Bank or otherwise to participate further in the preparation or implementation of any Bank-financed project;
- e. Requires that a clause be included in bidding/request for proposals documents and in contracts financed by a Bank loan, requiring (i) bidders(applicants/proposers), consultants, contractors, and suppliers, and their sub-contractors, sub-consultants, service providers, suppliers, agents personnel, permit the Bank to inspect<sup>12</sup> all accounts, records and other documents relating to the procurement process, selection and/or contract execution, and to have them audited by auditors appointed by the Bank.

<sup>10</sup> For the avoidance of doubt, a sanctioned party's ineligibility to be awarded a contract shall include, without limitation, (i) applying for pre-qualification, expressing interest in a consultancy, and bidding, either directly or as a nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider, in respect of such contract, and (ii) entering into an addendum or amendment introducing a material modification to any existing contract.

<sup>11</sup> A nominated sub-contractor, nominated consultant, nominated manufacturer or supplier, or nominated service provider (different names are used depending on the particular bidding document) is one which has been: (i) included by the bidder in its pre-qualification application or bid because it brings specific and critical experience and know-how that allow the bidder to meet the qualification requirements for the particular bid; or (ii) appointed by the Borrower.

<sup>12</sup> Inspections in this context usually are investigative (i.e., forensic) in nature. They involve fact-finding activities undertaken by the Bank or persons appointed by the Bank to address specific matters related to investigations/audits, such as evaluating the veracity of an allegation of possible Fraud and Corruption, through the appropriate mechanisms. Such activity includes but is not limited to: accessing and examining a firm's or individual's financial records and information, and making copies thereof as relevant; accessing and examining any other documents, data and information (whether in hard copy or electronic format) deemed relevant for the investigation/audit, and making copies thereof as relevant; interviewing staff and other relevant individuals; performing physical inspections and site visits; and obtaining third party verification of information.

## APPENDIX B

### Environmental and Social (ES) Metrics for Progress Reports

*[Note to Employer: the following metrics may be amended to reflect the specifics of the Contract. The Employer shall ensure that the metrics provided are appropriate for the Works and impacts/key issues identified in the environmental and social assessment]*

*Metrics for regular reporting:*

- a. *environmental incidents or non-compliances with contract requirements, including contamination, pollution or damage to ground or water supplies;*
- b. *health and safety incidents, accidents, injuries that require treatment and all fatalities;*
- c. *interactions with regulators: identify agency, dates, subjects, outcomes (report the negative if none);*
- d. *status of all permits and agreements:*
  - i. *work permits: number required, number received, actions taken for those not received;*
  - ii. *status of permits and consents:*
    - *list areas/facilities with permits required (quarries, asphalt & batch plants), dates of application, dates issued (actions to follow up if not issued), dates submitted to resident engineer (or equivalent), status of area (waiting for permits, working, abandoned without reclamation, decommissioning plan being implemented, etc.);*
    - *list areas with landowner agreements required (borrow and spoil areas, camp sites), dates of agreements, dates submitted to resident engineer (or equivalent);*
    - *identify major activities undertaken in each area in the reporting period and highlights of environmental and social protection (land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation);*
    - *for quarries: status of relocation and compensation (completed, or details of activities and current status in the reporting period).*
- e. *health and safety supervision:*
  - i. *safety officer: number days worked, number of full inspections & partial inspections, reports to construction/project management;*

- 
- ii. number of workers, work hours, metric of PPE use (percentage of workers with full personal protection equipment (PPE), partial, etc.), worker violations observed (by type of violation, PPE or otherwise), warnings given, repeat warnings given, follow-up actions taken (if any);
  - f. *worker accommodations:*
    - i. number of expats housed in accommodations, number of locals;
    - ii. date of last inspection, and highlights of inspection including status of accommodations' compliance with national and local law and good practice, including sanitation, space, etc.;
    - iii. actions taken to recommend/require improved conditions, or to improve conditions.
  - g. *Health services: provider of health services, information and/or training, location of clinic, number of non-safety disease or illness treatments and diagnoses (no names to be provided);*
  - h. *gender (for expats and locals separately): number of female workers, percentage of workforce, gender issues raised and dealt with (cross-reference grievances or other sections as needed);*
  - i. *training:*
    - i. number of new workers, number receiving induction training, dates of induction training;
    - ii. number and dates of toolbox talks, number of workers receiving Occupational Health and Safety (OHS), environmental and social training;
    - iii. number and dates of communicable diseases (including STDs) sensitization and/or training, no. workers receiving training (in the reporting period and in the past); same questions for gender sensitization, flag person training.
    - iv. number and date of SEA and SH prevention sensitization and/or training events, including number of workers receiving training on Code of Conduct for Contractor's Personnel (in the reporting period and in the past), etc.
  - j. *environmental and social supervision:*
    - i. EHS Officers: days worked, areas inspected and numbers of inspections of each (road section, work camp, accommodations, quarries, borrow areas, spoil areas, swamps, forest crossings, etc.), highlights of activities/findings (including violations of environmental and/or social best practices, actions taken), reports to environmental and/or social specialist/construction/site management;

- 
- k. *Grievances*: list new grievances (e.g. number of allegations of SEA and SH) received in the reporting period and number of unresolved past grievances by date received, complainant's age and sex, how received, to whom referred to for action, resolution and date (if completed), data resolution reported to complainant, any required follow-up (Cross-reference other sections as needed):
    - i. Worker grievances;
    - ii. Community grievances
  - l. *Traffic, road safety and vehicles/equipment*:
    - i. traffic and road safety incidents and accidents involving project vehicles & equipment: provide date, location, damage, cause, follow-up;
    - ii. traffic and road safety incidents and accidents involving non-project vehicles or property (also reported under immediate metrics): provide date, location, damage, cause, follow-up;
    - iii. overall condition of vehicles/equipment (subjective judgment by environmentalist); non-routine repairs and maintenance needed to improve safety and/or environmental performance (to control smoke, etc.).
  - m. *Environmental mitigations and issues (what has been done)*:
    - i. dust: number of working bowlers, number of waterings/day, number of complaints, warnings given by environmentalist, actions taken to resolve; highlights of quarry dust control (covers, sprays, operational status); % of rock/ spoil lorries with covers, actions taken for uncovered vehicles;
    - ii. erosion control: controls implemented by location, status of water crossings, environmentalist inspections and results, actions taken to resolve issues, emergency repairs needed to control erosion/sedimentation;
    - iii. quarries, borrow areas, spoil areas, asphalt plants, batch plants: identify major activities undertaken in the reporting period at each, and highlights of environmental and social protection: land clearing, boundary marking, topsoil salvage, traffic management, decommissioning planning, decommissioning implementation;
    - iv. blasting: number of blasts (and locations), status of implementation of blasting plan (including notices, evacuations, etc.), incidents of off-site damage or complaints (cross-reference other sections as needed);
    - v. spill clean-ups, if any: material spilled, location, amount, actions taken, material disposal (report all spills that result in water or soil contamination);
    - vi. waste management: types and quantities generated and managed, including amount taken offsite (and by whom) or reused/recycled/disposed on-site;

- vii. details of tree plantings and other mitigations required undertaken in the reporting period;
- viii. details of water and swamp protection mitigations required undertaken in the reporting period.

*n. compliance:*

- i. compliance status for conditions of all relevant consents/permits, for the Work, including quarries, etc.): statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance;
- ii. compliance status of C-ESMP/ESIP requirements: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
- iii. compliance status of SEA and SH prevention and response action plan: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance
- iv. compliance status of Health and Safety Management Plan re: statement of compliance or listing of issues and actions taken (or to be taken) to reach compliance other unresolved issues from previous reporting periods related to environmental and social: continued violations, continued failure of equipment, continued lack of vehicle covers, spills not dealt with, continued compensation or blasting issues, etc. Cross-reference other sections as needed.

## Section IX - Particular Conditions of Contract

*Except where otherwise specified, all Particular Conditions of Contract should be filled in by the Employer prior to issuance of the bidding document. Schedules and reports to be provided by the Employer should be annexed.*

<b>A. General</b>			
<b>GCC 1.1 (d)</b>	The financing institution is: The World Bank		
<b>GCC 1.1 (r)</b>	The Employer is <i>Project Director, AHIDMS, 4<sup>th</sup> Floor, Sixmile, Khanapra, Guwahati-21</i>		
<b>GCC 1.1 (v)</b>	The Intended Completion Date for the whole of the Works shall be <i>12 months</i>		
	<b><i>Milestones</i></b>	<b><i>Description</i></b>	<b><i>Period of Completion from Start Date</i></b>
	<i>1</i>	Value of work to be completed 25% of the contract	3 months
	<i>2</i>	Value of work to be completed 60% of the contract amount	7 months
	<i>3</i>	Completion of contract in all respects 12 months	<i>12 months</i>
<b>GCC 1.1 (y)</b>	The Project Manager Will be notified to the Contractor by The Employer		
<b>GCC 1.1 (aa)</b>	The Site is located at (i) Hojai Civil Hospital, Hojai, Assam (ii) Nagaon Medical College & Hospital, Nagaon,		
<b>GCC 1.1 (dd)</b>	The Start Date (Appointed date) shall be one week after the date of issue of notice to proceed with works to the contractor.		
<b>GCC 1.1 (hh)</b>	The Works consist of <i>as per scope of work mentioned in the bidding document.</i>  Identification number of Contract is.....		
<b>GCC 1.1 (jj)</b>	GCC 1.1 (jj) is replaced with the following:  “Key Personnel are the Contractor’s personnel named in GCC 9.1 of the Particular Conditions of Contract.”		



<b>GCC 2.2</b>	Sectional Completions are: <i>Not applicable</i>																					
<b>GCC 2.3(i)</b>	<div>Besides other, the following documents also form part of the Contract:</div> <table><tr><th>S. No.</th><th>Document</th><th>Description of the document</th></tr><tr><td>1.</td><td>Construction Methodology</td><td>Construction methodology given in bid amended as per comments of employer given in letter of acceptance.</td></tr><tr><td>2.</td><td>Quality control</td><td>Quality control procedures and assurance plans given in the bid and amended as per comments of Employer given in letter of acceptance.</td></tr><tr><td>3.</td><td>Fraud and Corruption</td><td>Appendix A – Fraud and Corruption</td></tr><tr><td>4.</td><td>Environmental and Social</td><td>Appendix B - Environmental and Social (ES) Metrics for Progress Reports.</td></tr><tr><td>5.</td><td>Key Personnel</td><td>Schedule of Key Personne</td></tr><tr><td>6.</td><td>Equipment’s</td><td>Schedule of key and critical equipment to be deployed on the work as per program construction</td></tr></table>	S. No.	Document	Description of the document	1.	Construction Methodology	Construction methodology given in bid amended as per comments of employer given in letter of acceptance.	2.	Quality control	Quality control procedures and assurance plans given in the bid and amended as per comments of Employer given in letter of acceptance.	3.	Fraud and Corruption	Appendix A – Fraud and Corruption	4.	Environmental and Social	Appendix B - Environmental and Social (ES) Metrics for Progress Reports.	5.	Key Personnel	Schedule of Key Personne	6.	Equipment’s	Schedule of key and critical equipment to be deployed on the work as per program construction
S. No.	Document	Description of the document																				
1.	Construction Methodology	Construction methodology given in bid amended as per comments of employer given in letter of acceptance.																				
2.	Quality control	Quality control procedures and assurance plans given in the bid and amended as per comments of Employer given in letter of acceptance.																				
3.	Fraud and Corruption	Appendix A – Fraud and Corruption																				
4.	Environmental and Social	Appendix B - Environmental and Social (ES) Metrics for Progress Reports.																				
5.	Key Personnel	Schedule of Key Personne																				
6.	Equipment’s	Schedule of key and critical equipment to be deployed on the work as per program construction																				
<b>GCC 3.1</b>	<div>The following is inserted as a sub-clause at the end of GCC 3.1:</div> <div>“Salient features of major labour and other laws that are applicable to construction industry in India are given as Appendix 1 to these General Conditions of Contract.”</div> <div>The language of the contract is <i>English</i>.</div> <div>The law that applies to the Contract are the laws of Union of India.</div>																					
<b>GCC 4.1</b>	<div>The following is inserted as a sub-paragraph at the end of GCC 4.1:</div> <div>“However, if the Project Manager is required, under the rules and regulations and orders of the Employer, to obtain approval of some other authorities for specific actions, he will so obtain the approval. Provided further that any requisite approval shall be deemed to have been given by the Employer for any such authority exercised by the Project Manager.”</div>																					
<b>GCC 5.1</b>	The Project manager <i>may not</i> delegate any of his duties and responsibilities.																					

<b>GCC 7</b>	<p>The first sentence of GCC 7. 1 is modified as:</p> <p>“The Contractor may subcontract with the approval of the Project Manager up to a ceiling <b>specified in PCC</b>, but may not assign the Contract without the approval of the Employer in writing.”</p> <p>The following sub-clauses are inserted at the end of GCC 7.1:</p> <p>“7.2 The Project Manager should satisfy himself before recommending to the Employer whether:</p> <ul style="list-style-type: none"> <li>a) the circumstances warrant such sub-contracting; and,</li> <li>b) the sub-Contractor so proposed for the Work possesses the experience, qualifications and equipment necessary for the job proposed to be entrusted to him in proportion to the quantum of Works to be sub-contracted.</li> </ul> <p>7.3 If payments are proposed to be made directly to that sub-contractor, this should be subject to specific authorization by the prime contractor so that his arrangement does not alter the contractor’s liability or obligations under the contract.</p> <p>7.4 The Contractor shall not be required to obtain any consent from the Employer for:</p> <ul style="list-style-type: none"> <li>(a) the sub-contracting of any part of the Works for which the Sub-Contractor is already named in the contract;</li> <li>(b) the provision for labour, or labour component, and,</li> <li>(c) the purchase of materials which are in accordance with the standards specified in the contract.</li> </ul> <p><i>(Note: 1. All bidders are expected to indicate clearly in the bid, if they proposed sub-contracting elements of the works amounting to 10 percent of the Bid Price.</i></p> <p><i>2. Assignment of the contract may be acceptable only under exceptional circumstances such as insolvencies/liquidation or merger of companies etc.)”</i></p>
<b>GCC 8.1</b>	Schedule of other contractors: <i>Not Applicable</i>
<b>GCC 9</b>	<p>The following is inserted as a sub-clause at the end of GCC 9.2:</p> <p>“In all the above cases, the contractor shall ensure that the person leaves the site within seven days and has no further connection with the work in the contract. The Contractor shall appoint a suitable replacement within 28 days or earlier as may be agreed to between the Project Manager and the Contractor.”</p>

	<p>The following sentence is deleted from first paragraph of GCC 9.4.1:</p> <p>“The Contractor is encouraged, to the extent practicable and reasonable, to employ staff and labor with appropriate qualifications and experience from sources within the Country.”</p> <p>GCC 9.4.3 and GCC 9.4.4 are deleted.</p> <p>The following sub-clauses are inserted at the end of GCC 9.4:</p> <p>“9.5 The Contractor shall not employ any retired Gazetted officer who has either not completed two years after the date of retirement or has not obtained permission from the Government authorities for employment with the Contractor<sup>13</sup>.</p> <p>9.6 During continuance of the Contract, the Contractor and his Sub-Contractors shall abide at all times by all existing labour enactments and rules made there under, regulations, notifications and bye laws of the State or Central Government or local authority and any other labour laws (including rules), regulations, bye laws that may be passed or notification that may be issued under any labour law prevailing on the Base Date either by the State or the Central Government or the local authority. The Contractor shall keep the Employer indemnified in case any action is taken against the Employer by the competent authority on account of contraventions including amendments. If the Employer is caused to pay or reimburse, such amounts as may be necessary to cause or observe, or for non-observance of the provisions stipulated in the notifications/bye laws/Acts/Rules/regulations including amendments, if any, on the part of the Contractor, the Project Manager/ Employer shall have the right to deduct any money due to the Contractor including his amount of performance security and if applicable, the Environmental and Social (ES) Performance Security. The Employer/ Project Manager shall also have right to recover from the Contractor any sum required or estimated to be required for making good the loss or damage suffered by the Employer.</p> <p>9.7 The employees of the Contractor and the Sub-Contractor in no case shall be treated as the employees of the Employer at any point of time.</p> <p>9.8 The Contractor shall duly comply with the provisions of the Apprentices Act 1961 (III of 1961) and the rules made there under, and comply, failure or neglect to shall be subject to all liabilities and penalties provided in the said Act and Rules.”</p>
--	---

<sup>13</sup>Based on Government Directives.

<b>GCC 9.1</b>	<i>[insert the name/s of each Key Personnel agreed by the Employer prior to Contract signature, Schedule of Key Personnel and equipment as indicated in accepted bid &amp; construction methodology].</i>			
<b>GCC 13.1</b>	The minimum insurance amounts and deductibles shall be:			
	<b>SN.</b>	<b>Description</b>	<b>Minimum cover for Insurance</b>	<b>Maximum deductible for Insurance</b>
	(i)	Works and Plant and Materials	Equal to 25% of Contract Amount	0.4% of the contract amount
	(ii)	Loss or damage to Equipment	10% of the Contract Amount	0.4% of the contract amount
	(iii)	Other Property (except the Works, Plant, Materials, and Equipment)	25% of the Contract Amount	0.4% of the contract amount
	(iv)	Personal injury or death insurance: a) for other people;	As per workmen's compensation Act 1923 and other Acts in force	As per workmen's compensation Act 1923 and other Acts in force
		b) for Contractor's Employees	In accordance with the statutory requirements applicable in India	
	The compliance of these Insurance provisions is mandatory for the Contractor. In case the Contractor does not provide these Insurances as per above provisions, the Employer shall deduct the amount of premium from the Contractor's payments as per above and shall ensure the compliances. In such case an additional penalty of INR 1,00,000/- may also be imposed to the Contractor for non-compliance of the Insurance provisions and/or delay in renewal, If not done before validity of the insurance for the required period expires, in each occasion except in the case of insurance for T&P and machinery, which will be penalized as per above table and any damage/incident to the work/workmen, that occur during the uninsured period, will be the sole responsibility of the contractor.			
<b>GCC 14.1</b>	Site Data are: will be provided by the appointed Project Manager			

<b>GCC 15.1</b>	<p>GCC 15.1 is replaced with the following:</p> <p>“The Contractor shall construct and install the Works in accordance with the Specifications and Drawings stipulated in the bidding document and as per instructions of Project Manager.”</p>
<b>GCC 18 (add new 18.3.3)</b>	<p>The following is inserted as a new sub-clause 18.3.3:</p> <p>“18.3.3 During continuance of the contract, the contractor and his sub-contractors shall abide at all times by all existing enactments on environmental protection and rules made thereunder, regulations, notifications and by-laws of the State or Central Government, or local authorities and other law, bye-law, regulations that may be passed or notification that may be issued in this respect in future by the State or Central Government or the local authority. Salient features of the major laws are given in Appendix 1 to the General Conditions of Contract.”</p> <p>The Project Manager/ Concerned Authority shall verify and approve the particular area for stacking of scrap arises out of demolition/ renovation activities identified by the second party for handing over of the scrap by the Contractor. The Concerned Authority shall provide valuation of scrap and conduct auction.</p> <p>Any scrap arise due to demolition/renovation activities at site, will be safely deposited at a place identified by the contractor which should be prior verified and approved by the Concerned Authority. Following key actions will be in C&amp;DW management in the scope of Contractor:</p> <ul style="list-style-type: none"> <li>i. Earmarking &amp; Geotagging of location for disposal of C&amp;D Waste,</li> <li>ii. 35-40% of the waste will be reused at site, Approvals for Location (from Civic authority &amp; State PCB as per C&amp;D Waste rules 2016) to dump the C&amp;D waste, in case Collection of C&amp;D waste (workers wearing Mask &amp; gloves) Handling of C&amp;D waste in a tarpaulin covered vehicle. At site periodic water sprinkling where demolition activity is in progress. Preferably disposal of C&amp;D Waste will be (from site) after SUNSET.</li> </ul>
<b>GCC 20.1</b>	<p>The Site Possession Date(s) shall be: <i>Date of Commencement of work.</i></p> <p>The site will be physically handed over by the authorized representative of the employer to the Contractor before date of commencement as per contract agreement and both the authorized representative of the</p>

	employer as well as the Contractor will issue a jointly signed letter mentioning the handing over and taken over of the site.
<b>GCC 23</b>	<p>The following is inserted as a new sub-clause 23.1.1:</p> <p>“23.1.1 The Adjudicator should be in position before “notice to proceed with work” is issued to the Contractor and an agreement should be signed with the Adjudicator jointly by the Employer and the Contractor in the form attached – Appendix 3.”</p>
<b>GCC 23.1 &amp; GCC 23.2</b>	<p>Name of the agreed Adjudicator  ..... (<i>insert name before signing contract</i>).</p> <p>Appointing Authority for the Adjudicator: [<i>insert name of Authority</i>].</p> <p>[<i>Note: if ITB 51 provides for an Adjudicator from list provided by an Institution, insert the name of the same institution as the appointing authority</i>]</p>
<b>GCC 24</b>	In the first sentence in GCC 24.3, the words “The Adjudicator shall be paid by the hour at the rate” are replaced by the words “The Adjudicator shall be paid daily at the rate”
<b>GCC 24.3</b>	Daily rate and types of reimbursable expenses to be paid to the Adjudicator: daily fees - Rs 10,000/- per day, and reimbursable expenses – boarding/ lodging/ travel etc.
<b>GCC 24.4</b>	<p>The procedure for adhoc arbitration will be as follows:</p> <p>(a) In case of Dispute or difference arising between the Employer and a Contractor relating to any matter arising out of or connected with this agreement, such disputes or difference shall be settled in accordance with the Arbitration and Conciliation Act, 1996. The arbitral tribunal shall consist of 3 Arbitrators one each to be appointed by the Employer and the Contractor. The third Arbitrator shall be chosen by the two Arbitrators so appointed by the Parties and shall act as Presiding Arbitrator. In case of failure of the two Arbitrators appointed by the parties to reach upon a consensus within a period of 30 days from the appointment of the Arbitrator appointed subsequently, the Presiding Arbitrator shall be appointed by the Indian Council of Arbitration</p> <p>(b) If one of the parties fails to appoint its Arbitrator in pursuance of sub-clause (a) above within 30 days after receipt of the notice of the appointment of its Arbitrator by the other party, then the *Indian Council of Arbitration, both in cases of Foreign Contractor as well as Indian Contractor, shall appoint the Arbitrator. A certified copy of the order of the* Indian Council</p>

	<p>of Arbitration/President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India), making such an appointment shall be furnished to each of the parties.</p> <p>(c) Arbitration may be commenced prior to or after completion of the Works, provided that the obligations of the Employer, the Project Manager, the Contractor and the Adjudicator shall not be altered by reason of the arbitration being conducted during the progress of the Works.</p> <p>(d) Arbitration proceedings shall be held at Guwahati, and the language of the arbitration proceedings and that of all documents and communications between the parties shall be English.</p> <p>(e) The decision of the majority of Arbitrators shall be final and binding upon both parties. The cost and expenses of Arbitration proceedings will be paid as determined by the arbitral tribunal. However, the expenses incurred by each party in connection with the preparation, presentation, etc. of its proceedings as also the fees and expenses paid to the Arbitrator appointed by such party or on its behalf shall be borne by each party itself.</p> <p>(f) Where the value of the contract is Rs. 50 million and below, the disputes or differences arising shall be referred to the Sole Arbitrator. The Sole Arbitrator should be appointed by agreement between the parties; failing such agreement, by the appointing authority, namely the * Indian Council of Arbitration.</p> <p>(g) The Arbitrator should give final award within 180 days of starting of the proceedings.</p> <p>(h) Performance under the contract shall continue during the arbitration proceedings and payments due to the contractor by the Employer shall not be withheld, unless they are the subject matter of the arbitration proceedings.</p>
<b>B. Time Control</b>	
<b>GCC 30.1</b>	<p>The Contractor shall submit for approval a Program for the Works within 14 days of delivery of the Letter of Acceptance.</p> <p>Any revision in Program should only be agreed in writing.</p>
<b>GCC 30.3</b>	The period between Program updates is <b>45 days</b> .

	<p>The amount to be withheld for late submission of an updated Program is <b>5,00,000</b></p> <p>The period for submission of progress reports is <b>30 days</b>.</p>
<b>GCC 31</b>	<p>GCC 31.1 is replaced with the following:</p> <p>“31.1 The Project Manager shall extend the Intended Completion Date including milestones if a Compensation Event occurs or a Variation is issued which makes it impossible for Completion to be achieved by the Intended Completion Date as per the agreed milestones without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.”</p> <p>In GCC 31.2, replace the words “Intended Completion Date” at the first occurrence by the words “Intended Completion Date/ Milestones”; and at the second occurrence by the words “Intended Completion Date/ Milestone”.</p>
<b>GCC 34</b>	<p>GCC 34.1 is replaced with the following:</p> <p>“Either the Project Manager or the Contractor may require the other to attend a management meeting (which will be held at the place <b>indicated in PCC</b>. The periodicity shall be fixed by Project Manager/ Contractor jointly). The business of a management meeting shall be to review the progress of construction with reference to the construction program given in accordance with GCC 30.1, the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.”</p>
<b>GCC 34.1</b>	<p>Venue of management meeting will be AHIDMS, 4<sup>th</sup> Floor, Nayantara Building, Sixmile, Khanapara-22</p> <p>The management meetings shall be held every month as notified by the Project Manager.</p>
<b>C. Quality Control</b>	
<b>GCC 36</b>	<p>The following sub-clause is inserted at the end of GCC 36.1:</p> <p>“36.2 The contractor shall permit the Employer’s Technical auditor to check the contractor’s work and notify the Project Manager and Contractor of any defects that are found. Such a check shall not affect the Contractor’s or the Project Manager’s responsibility as defined in the Contract Agreement.”</p>
<b>GCC 37</b>	<p>The following sub-clauses are inserted before GCC 37.1, and GCC 37.1 is re-numbered as GCC 37.3:</p>



	<p>“GCC 37.1 The Contractor shall institute Quality Assurance (QA) and Quality Control (QC) systems in accordance with Quality Assurance Plan to demonstrate compliance with the requirements of the Contract as approved by the Project Manager. Compliance with the QA/QC systems shall not relieve the Contractor of any of his duties obligations or responsibilities under the Contract.</p> <p>GCC 37.2 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.”</p>
<b>GCC 38.1</b>	The Defects Liability Period is: 365 days.
<b>GCC 39.1</b>	<p>The following notes are added at the end of GCC 39.1:</p> <p><i>Note: 1. Where in certain cases, the technical specifications provide for acceptance of works within specified tolerance limits at reduced rates, Project Manager will certify payments to Contractor accordingly.</i></p> <p><i>2. Where the failure to correct a particular defect within the specified time is considered as a fundamental breach of contract a notice should be given to the contractor as stated in GCC 61.2(e).”</i></p>
<b>D. Cost Control</b>	
<b>GCC 41</b>	<p>GCC 41.1 is replaced with the following, and existing GCC 41.2 is re-numbered as GCC 41.3:</p> <p>“41.1 If the final quantity of the work done differs from the quantity in the Bill of Quantities for the particular item by more than 25 percent, provided the change exceeds 1 percent of the Initial Contract Price, the Project Manager shall adjust the rate to allow for the change:</p> <p>(a) If the quantity of work executed exceeds the quantity of the item in BOQ beyond the higher specified limit the Project Manager shall fix the rate to be applied for the additional quantity of the work executed as per CPWD-DSR as approved by Assam PWD.</p> <p>(b) If the quantity of work executed is less than the quantity of the item in BOQ and is lesser than the lower specified limit, the Project Manager shall fix the rate to be applied for whole of the quantity of the work so executed as per CPWD-DSR as approved by Assam PWD.</p>

	<p>(c) In case of reduction in scope of work against any particular item/items, the actual requirement as determined by the project manager shall be applicable without any change in unit price.</p> <p>41.2 The Project Manager shall not adjust rates from changes in quantities if thereby the Initial Contract Price is exceeded by more than 10 percent, except with the prior approval of the Employer.”</p>
<b>GCC 42</b>	<p>In GCC 42.2, the first sentence is modified as follows:</p> <p>“The Contractor shall provide the Project Manager with a quotation (with breakdown of unit rates) for carrying out the Variation when requested to do so by the Project Manager. The Contractor shall also provide a description of the varied work performed or to be performed, including details of the resources and methods adopted or to be adopted by the Contractor.”</p> <p>In the first sentence in GCC 42.3, after the words ‘If the Contractor’s quotation is unreasonable’, the following is added:</p> <p><i>“[or if contractor fails to provide the Project Manager with a quotation within a reasonable time specified by Project Manager in accordance with GCC 42.2]”</i></p> <p>Negative Variations: Where a Variation results in a reduction in quantities, the Contractor shall not be entitled to claim loss of profit or other losses. The Contract Price shall be adjusted based on the rates and prices set out in the Contract. There is no limit for reduction of contract price.</p>
<b>GCC 42.7</b>	Provisions related to Value Engineering do not apply.
<b>GCC 43.1</b>	<p>The second sentence in GCC 43.1 is replaced with the following:</p> <p>“The cash flow forecast shall be in Indian Rupees.”</p>
<b>GCC 44</b>	<p>At the end of GCC 44.1 after the word ‘previously’, the following words are added:</p> <p>“along with details of measurement of the quantity of works executed in a tabular form approved by the Project Manager”</p> <p>At the end of GCC 44.2 after the words ‘the Contractor’, the following words are added:</p> <p>“after taking into account any credit or debit for the month in question in respect of materials for the works in the relevant amount and under conditions set forth in GCC Sub-Clause 53.1 (Secured Advance)”</p>
<b>GCC 45</b>	GCC 45.1 is replaced with the following:

	<p>“Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of contract &amp; taxes to be deducted at source [TDS] as per applicable law. The Employer shall pay the Contractor the amounts certified by the Project Manager within 40 days of the date of each certificate. If the Employer makes a late payment, the Contractor shall be paid interest on the late payment in the next payment. Interest shall be calculated from the date by which the payment should have been made up to the date when the late payment is made at the rate <b>stated in the PCC.</b>”</p>
<b>GCC 45.1</b>	Interest rate for Delayed payment is 8% per annum.
<b>GCC 45.3</b>	All payments (and deductions) shall be paid or charged in Indian Rupees.
<b>GCC 47</b>	The rates quoted by the Contractor shall also be deemed to be inclusive of other taxes, cess, royalty etc. as applicable, but excluding GST.
<b>GCC 48</b>	All payments shall be made in Indian Rupees.
<b>GCC 49</b>	Entire clause and its sub clauses are not applicable.
<b>GCC 50.1</b>	The proportion of payments retained (Retention Money) shall be 6% from each bill subject to the maximum of 5% of final contract price.
<b>GCC 50.2</b>	<p>The last line of GCC 50.2 is replaced with the following:</p> <p>“On completion of the whole works the Contractor may substitute the balance retention money with an “on demand” Bank guarantee.”</p>
<b>GCC 51</b>	<p>In the first sentence of GCC 51.1, the following words are inserted after the words ‘Intended Completion Date’:</p> <p>“(for the whole of the works or the milestones as stated in the PCC)”</p> <p>The following is inserted as a sub-paragraph at the end of GCC 51.1:</p> <p>“Time is the essence of the contract and payment or deduction of liquidated damages shall not relieve the contractor from his obligation to complete the work as per agreed construction program and milestones, or from any of the Contractor’s other obligations and liabilities under the contract.”</p> <p>In the first sentence in GCC 51.2 the following words are inserted after the words ‘Intended Completion Date’:</p> <p>“Including milestones”</p>
<b>GCC 51.1</b>	The liquidated damages for not achieving the milestone within the stipulated time as specified below:

	<i>Milestone</i>	<i>Description</i>	<i>Period of Completion from the start date</i>	<i>Penalty Amount to be deducted in case of non-achievement of mile stone*</i>									
	1	Value of work to be completed 25% of the contract amount	3months	0.25%									
	2	Value of work to be completed 60% of the contract amount	7 months	2.5%									
	3	Completion of contract in all respects	12 months	2.25%									
	* Penalty amounts deducted in case of non-compliances/ failure to achieve the milestone are % of the Contract Price and are adaptative in nature. <b><u>NOTE:</u></b> The maximum amount of Penalty Amount to be deducted from the Contractors Payments in case of Non-Achievement of Milestone is 5% of the Contract Amount.												
<b>GCC 52.1</b>	Not Applicable												
<b>GCC 53.1</b>	Advance Payments shall be made in Indian Rupees only in two equal installments. The amount of the Advance Payments are: <table><tr><td><u>Nature of Advance</u></td><td><u>Amount (Rs.)</u></td><td><u>Conditions to be fulfilled</u></td></tr><tr><td>1. Mobilization</td><td>5% of the Contract price</td><td>On submission of un-conditional Bank Guarantee. (to be drawn before end of 20% of Contract period)</td></tr><tr><td>2. Manpower &amp; Equipment</td><td>5% of the contract Price</td><td>After Manpower &amp; equipment is brought to site as per agreed construction program (provided the Project Manager is satisfied that the</td></tr></table>				<u>Nature of Advance</u>	<u>Amount (Rs.)</u>	<u>Conditions to be fulfilled</u>	1. Mobilization	5% of the Contract price	On submission of un-conditional Bank Guarantee. (to be drawn before end of 20% of Contract period)	2. Manpower & Equipment	5% of the contract Price	After Manpower & equipment is brought to site as per agreed construction program (provided the Project Manager is satisfied that the
<u>Nature of Advance</u>	<u>Amount (Rs.)</u>	<u>Conditions to be fulfilled</u>											
1. Mobilization	5% of the Contract price	On submission of un-conditional Bank Guarantee. (to be drawn before end of 20% of Contract period)											
2. Manpower & Equipment	5% of the contract Price	After Manpower & equipment is brought to site as per agreed construction program (provided the Project Manager is satisfied that the											

			<i>equipment is required for performance of the contract)</i> and on submission of unconditional Bank Guarantee for amount of advance.
(The advance payment will be paid to the Contractor no later than 15 days after fulfilment of the above conditions).			
Repayment of advance payment for mobilization and equipment:  The advance shall be repaid with percentage deductions from the interim payments certified by the Project Manager under the Contract. Deductions shall commence in the next Interim Payment Certificate following that in which the total of all such payments to the contractor has reached not less than 5 percent of the Contract Price or 3 months from the date of payment of first instalment of advance, whichever period concludes earlier, and shall be made at a rate not less than 10 percent of the amounts of all Interim Payment Certificates until such time as the advance has been repaid, always provided that the advance shall be completely repaid prior to the expiry of the original time for completion.  <b>Repayment of secured advance:</b>  The advance shall be repaid from each succeeding monthly payments to the extent materials [ <i>for which advance was previously paid pursuant to Clause 53 of GCC and 53.1(3) of PCC.</i> ] have been incorporated into the Works.			
<b>GCC 54</b>	GCC 54.1 is replaced with the following:  “The Performance Security and an Environmental and Social (ES) Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in the amounts <b>specified in the PCC</b> , and shall be issued by a Nationalized or Scheduled bank in India. The Performance Security including additional security for unbalanced bids, and the ES Performance Security, shall be valid until a date 28 days from the date of issue of the Certificate of Completion including defect liability period.”		
<b>GCC 54.1</b>	The Performance Security amount is <b>5</b> percent of the Accepted Contract Amount plus up to 15% as additional security for abnormally low or unbalanced bids [ <i>in terms of ITB Clause 40.2 or 41.2</i> ], and Environmental and Social (ES) Performance Security amount is 1 percent of the Accepted Contract Amount		

	The standard forms of Performance Security and if applicable ES Security acceptable to the Employer shall be <u>unconditional</u> Bank Guarantees from Scheduled or Nationalized banks in India of the types as presented in Section X of the Bidding Document.
<b>E. Finishing the Contract</b>	
<b>GCC 59.1</b>	The following is added after the words ‘issue a payment certificate’ at the end of GCC 59.1:  “within 56 days of receiving the contractor’s revised account”
<b>GCC 60.1</b>	The date by which operating and maintenance manuals are required is within 28 days of issue of certificate of completion of whole or section of work, as the case may be.  The date by which “as built” drawings (in scale...) including a compact disc containing digitized drawings in 2 sets are required, is within 28 days of issue of certificate of completion of whole or section of the work, as the case may be.
<b>GCC 60.2</b>	The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals by the date required in GCC 60.1 is <b>Rs.1.00 Lakh (One Lakh only)</b>
<b>GCC 61</b>	The following sub-clauses are added after GCC 61.2 (h):  “(i) The contractor has contravened Clauses 7 and 9 of GCC.  (j) The contractor does not adhere to the agreed construction program, agreed ES-MSIP [Clause 30 of GCC], and also fails to take satisfactory remedial action as per agreements reached in the management meetings [Clause 30 of GCC] for a period of 60 days.  (k) The contractor fails to carry out the instructions of the Project Manager within a reasonable time determined by the Project Manager in accordance with GCC Clause 15.1 and 22.  (l) The contractor (in case of Joint Venture) has modified the composition of the joint venture and/or the responsibility of each member of the joint venture from what is stated in joint venture agreement without the prior approval of the Employer.”
<b>GCC 61.2 (g)</b>	The maximum number of days is: 180
<b>GCC 61.2 (l)</b>	Hiding any information regarding changes in roles and responsibilities of JV members, which is not authorized by the Employer, shall also be treated as violation of Appendix A to General Conditions (Fraud and Corruption).

<b>GCC 62</b>	<p>The following is added after the words ‘issue of the certificate’ in the first sentence of GCC 62.1;</p> <p>“less other recoveries due in terms of contract, less taxes to be deducted at source [TDS] as per applicable law,”</p> <p>The following is added after the words ‘date of the certificate’ at the end of GCC 62.2:</p> <p>“less other recoveries due in terms of contract, less taxes to be deducted at source [TDS] as per applicable law”</p>
<b>GCC 62.1</b>	<p>The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is 20%.</p>

## **Appendices**



## Appendix 1

**Salient Features of Labour & Environment Protection Laws<sup>14</sup>**

**SALIENT FEATURES OF SOME MAJOR LABOUR LAWS  
APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER  
CONSTRUCTION WORK**

- (a) Employees Compensation Act 1923: The Act provides for compensation in case of injury, disease or death arising out of and during the course of employment.
- (b) Payment of Gratuity Act 1972: gratuity is payable to an employee under the Act on satisfaction of certain conditions on separation if an employee has completed 5 years' service or more or on death at the rate of 15 days wages for every completed year of service. The Act is applicable to all establishments employing 10 or more employees.
- (c) Employees P.F. and Miscellaneous Provision Act 1952 (since amended): The Act provides for monthly contribution by the employer plus workers @ 10% or 8.33%. The benefits payable under the Act are:
  - (i) Pension or family pension on retirement or death, as the case may be.
  - (ii) Deposit linked insurance on the death in harness of the worker.
  - (iii) Payment of P.F. accumulation on retirement/death etc.
- (d) Maternity Benefit Act 1961: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc.
- (e) Sexual Harassment of Women at the Workplace (Prevention, Prohibition and Redressal) Act, 2013: This Act defines sexual harassment in the workplace, provides for an enquiry procedure in case of complaints and mandates the setting up of an Internal Complaints Committee or a Local Complaints Committee
- (f) Contract Labour (Regulation & Abolition) Act 1970: The Act provides for certain welfare measures to be provided by the Contractor to contract labour and in case the Contractor fails to provide, the same are required to be provided, by the Principal Employer by law. The Principal Employer is required to take Certificate of Registration and the Contractor is required to take license from the designated Officer. The Act is applicable to the establishments or Contractor of Principal Employer if they employ 20 or more contract labour.

<sup>14</sup>This list is only illustrative and not exhaustive. Bidders and Contractors are responsible for checking the correctness and completeness of the list. The law as current on the date of bid opening will apply.

- (g) Minimum Wages Act 1948: The Employer is supposed to pay not less than the Minimum Wages fixed by appropriate Government as per provisions of the Act if the employment is a scheduled employment. Construction of Buildings, Roads, Runways are scheduled employments.
- (h) Payment of Wages Act 1936: It lays down the mode, manner and by what date the wages are to be paid, what deductions can be made from the wages of the workers.
- (i) Equal Remuneration Act 1976: The Act provides for payment of equal wages for work of equal nature to male and female workers and for not making discrimination against Female employees in the matters of transfers, training and promotions etc.
- (j) Payment of Bonus Act 1965: The Act is applicable to all establishments employing 20 or more employees. Some of the State Governments have reduced this requirement from 20 to 10. The Act provides for payments of annual bonus subject to a minimum of 8.33% of the wages drawn in the relevant year. It applies to skilled or unskilled manual, supervisory, managerial, administrative, technical or clerical work for hire or reward to employees who draw a salary of Rs. 10,000/- per month or less. To be eligible for bonus, the employee should have worked in the establishment for not less than 30 working days in the relevant year. The Act does not apply to certain establishments.
- (k) Industrial Disputes Act 1947: the Act lays down the machinery and procedure for resolution of Industrial disputes, in what situations, a strike or lock-out becomes illegal and what are the requirements for laying off or retrenching the employees or closing down the establishment.
- (l) Trade Unions Act 1926: The Act lays down the procedure for registration of trade unions of workmen and employers. The Trade Unions registered under the Act have been given certain immunities from civil and criminal liabilities.
- (m) Child Labour (Prohibition & Regulation) Act 1986: The Act prohibits employment of children below 14 years of age in certain occupations and processes and provides for regulation of employment of children in all other occupations and processes. Employment of Child Labour is prohibited in the Building and Construction Industry.
- (n) Inter-State Migrant workmen's (Regulation of Employment & Conditions of Service) Act 1979: The Act is applicable to an establishment which employs 5 or more inter-state migrant workmen through an intermediary (who has recruited workmen in one state for employment in the establishment situated in another state). The Inter-State migrant workmen, in an establishment to

which this Act becomes applicable, are required to be provided certain facilities such as housing, medical aid, traveling expenses from home up to the establishment and back, etc.

- (o) The Building and Other Construction Workers (Regulation of Employment and Conditions of Service) Act 1996 and the Building and Other Construction Workers Welfare Cess Act, 1996 (BOCWW Cess Act): All the establishments who carry on any building or other construction work and employ 10 or more workers are covered under these Acts. All such establishments are required to pay cess at the rate not exceeding 2% of the cost of construction as may be notified by the Government. The Employer of the establishment is required to provide safety measures at the building or construction work and other welfare measures, such as Canteens, First – Aid facilities, Ambulance, Housing accommodations for workers near the work place etc. The Employer to whom the Act applies has to obtain a registration certificate from the Registering Officer appointed by the Government.
- (p) Factories Act 1948: the Act lays down the procedure for approval of plans before setting up a factory engaged in manufacturing processes, health and safety provisions, welfare provisions, working hours, annual earned leave and rendering information regarding accidents or dangerous occurrences to designated authorities. It is applicable to premises employing 10 persons or more with aid of power or 20 or more persons without the aid of power.
- (q) Weekly Holidays Act -1942
- (r) Bonded Labour System (Abolition) Act, 1976: The Act provides for the abolition of bonded labour system with a view to preventing the economic and physical exploitation of weaker sections of society. Bonded labour covers all forms of forced labour, including that arising out of a loan, debt or advance.
- (s) Employer's Liability Act, 1938: This Act protects workmen who bring suits for damages against employers in case of injuries endured in the course of employment. Such injuries could be on account of negligence on the part of the employer or persons employed by them in maintenance of all machinery, equipment etc. in healthy and sound condition.
- (t) Employees State Insurance Act 1948: The Act provides for certain benefits to insured employees and their families in case of sickness, maternity and disablement arising out of an employment injury. The Act applies to all employees in factories (as defined) or establishments which may be so notified by the appropriate Government. The Act provides for the setting up of an Employees' State Insurance Fund, which is to be administered by the Employees State Insurance Corporation. Contributions to the Fund are paid by the employer and the employee at rates as prescribed by the Central

Government. The Act also provides for benefits to dependents of insured persons in case of death as a result of an employment injury.

- (u) The Personal Injuries (Compensation Insurance) Act, 1963: This Act provides for the employer's liability and responsibility to pay compensation to employees where workmen sustain personal injuries in the course of employment.
- (v) Industrial Employment (Standing Order) Act 1946: It is applicable to all establishments employing 100 or more workmen (employment size reduced by some of the States and Central Government to 50). The Act provides for laying down rules governing the conditions of employment by the Employer on matters provided in the Act and get the same certified by the designated Authority.

**SALIENT FEATURES OF SOME OF THE MAJOR LAWS THAT ARE  
APPLICABLE FOR PROTECTION OF ENVIRONMENT.**

1. The Environment (Protection) Act, 1986 and as amended: This provides for the protection and improvement of environment and for matters connected therewith, and the prevention of hazards to human beings, other living creatures, plants and property. 'Environment' includes water, air and land and the inter-relationship which exists among and between water, air and land, and human beings, other living creatures, plants, micro-organism and property.
2. The Forest Conservation Act, 1980, as amended, and Forest (Conservation) Rules, 1981 as amended: These provides for protection of forests by restricting conversion of forested areas into non- forested areas and prevention of deforestation, and stipulates the procedures for cutting any trees that might be required by the applicable rules. Permissions under the Act also stipulates the norms and compliance requirements of the employer and any contractor on behalf of the employer.
3. State Tree Preservation Acts as may be in force: These provide for protection of trees of important species. Contractors will be required to obtain prior permission for full or partial cutting, uprooting, or pruning of any such trees.
4. The Wildlife (Protection) Act, 1972, and as amended: This provides for protection of wildlife through notifying National Parks and Sanctuaries and buffer areas around these zones; and to protect individuals of nationally important species listed in the Annex of the Act.
5. The Biological Diversity Act, 2002: This provides for conservation of biological diversity, sustainable use of components of biological diversity, and fair and equitable sharing of the benefits arising out of the use of biological resources, knowledge and for matters connected therewith or incidental thereto.
6. The Public Liability Insurance Act, 1991 as amended and The Public Liability Insurance Rules, 1991 as amended: These provide for public liability insurance for the purpose of providing immediate relief to the persons affected by accident occurring while handling hazardous substances and for matters connected herewith or incidental thereto. Hazardous substance means any substance or preparation which is defined as hazardous substance under the Environment (Protection) Act 1986, and exceeding such quantity as may be specified by notification by the Central Government.
7. The Ancient Monuments and Archaeological Sites and Remains Act, 1958 and the Ancient Monuments and Archaeological Sites and Remains (Amendment and Validation) Act, 2010, the Ancient Monuments and Archaeological Sites and Remains Rules, 1959 amended 2011, the National Monuments Authority Rules, 2011 and the similar State Acts: These provide for conservation of cultural and historical remains found in India. Accordingly, area within the radii of 100m and 300m from the "protected property" are designated as "protected area" and "controlled area"

respectively. No development activity (including building, mining, excavating, blasting) is permitted in the “protected area” and development activities likely to damage the protected property is not permitted in the “controlled area” without prior permission of the Archaeological Survey of India (ASI) or the State Departments of Art and Culture or Archaeology as applicable.

8. The Environmental Impact Assessment Notification, 2006 and as amended: This provides for prior environmental clearance for new, modernization and expansion projects listed in Schedule 1 of the Notification. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any environmental management plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification.
9. The Water (Prevention and Control of Pollution) Act, 1974 as amended, and the Water (Prevention and Control of Pollution) Rules, 1975 as amended: These provide for the prevention and control of water pollution and the maintaining and restoring of wholesomeness of water. ‘Pollution’ means such contamination of water or such alteration of the physical, chemical or biological properties of water or such discharge of any sewage or trade effluent or of any other liquid, gaseous or solid substance into water (whether directly or indirectly) as may, or is likely to, create a nuisance or render such water harmful or injurious to public health or safety, or to domestic, commercial, industrial, agricultural or other legitimate uses, or to the life and health of animals or plants or of aquatic organisms. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates waste water, and observe the required standards of establishment and operation of these items of work or installations; as well as install and operate all required waste water treatment facilities.
10. The Water (Prevention and Control of Pollution) Cess Act, 1977 and The Water (Prevention and Control of Pollution) Cess Rules, 1978: These provide for the levy and collection of a cess on water consumed by persons carrying on certain industries and by local authorities, with a view to augment the resources of the Central Board and the State Boards for the prevention and control of water pollution under the Water (Prevention and Control of Pollution) Act, 1974.
11. The Air (Prevention and Control of Pollution) Act, 1981 as amended, and the Air (Prevention and Control of Pollution) Rules, 1982: These provides for prevention, control and abatement of air pollution. ‘Air Pollution’ means the presence in the atmosphere of any ‘air pollutant’, which means any solid, liquid or gaseous substance (including noise) present in the atmosphere in such concentration as may be or tend to be injurious to human beings or other living creatures or plants or property or environment. Contractors will need to obtain consent for establishment and consent for operation of any item of work or installation of equipment that generates air pollution such as batching plants, hot mix plants, power generators, backup power generation,

material handling processes, and observe the required standards of establishment and operation of these items of work or installations.

12. Noise Pollution (Control and Regulation) Rules, 2000, and as amended: This provides for standards for noise for day and night for various land uses and specifies special standards in and around sensitive receptors of noise such as schools and hospitals. Contractors will need to ensure compliance to the applicable standards, and install and operate all required noise control devices as may be required for all plants and work processes.
13. Chemical Accidents (Emergency Planning, Preparedness and Response) Rules, 1996: This provides for Requirement of preparation of on-site and off-site Disaster Management Plans for accident-prone areas.
14. The Explosives Act 1884 and the Explosives Rules, 2008: These provide for safe manufacture, possession, sale, use, transportation and import of explosive materials such as diesel, Oil and lubricants etc.; and also for regulating the use of any explosives used in blasting and/or demolition. All applicable provisions will need compliance by the contractors.
15. The Petroleum Rules, 2002: This provides for safe use and storage of petroleum products, and will need to be complied by the contractors.
16. The Gas Cylinder Rules 2004 and amendments: This provides for regulations related to storage of gas, and possession of gas cylinder more than the exempted quantity. Contractors should comply with all the requirements of this Rule.
17. Manufacture, Storage and Import of Hazardous Chemical Rules of 1989 and as amended: These provide for use and storage of hazardous material such as highly inflammable liquids like HSD/LPG. Contractors will need to ensure compliance to the Rules; and in the event where the storage quantity exceeds the regulated threshold limit, the contractors will be responsible for regular safety audits and other reporting requirements as prescribed in the Rules.
18. Hazardous & Other Wastes (Management and Transboundary Movement) Rules, 2016: These provide for protection of general public from improper handling storage and disposal of hazardous waste. The rules prescribe the management requirement of hazardous wastes from its generation to final disposal. Contractors will need to obtain permission from the State Pollution Control Boards and other designated authorities for storage and handling of any hazardous material; and will to ensure full compliance to these rules and any conditions imposed in the permit.
19. The Bio Medical Waste Management Rules, 2016: This provides for control, storage, transportation and disposal of bio-medical wastes. As and where the contractor has any first aid facility and dispensaries, established in either temporary or permanent manner, compliance to these Rules is mandatory.

20. Construction and Demolition Waste Management Rules, 2016: This provides for management of construction and demolition waste (such as building materials possible to be reused, rubble and debris or the like); and applies to all those wastes resulting from construction, re-modelling, repair or demolition of any civil structure. Contractor will need to prepare a waste disposal plan and obtain required approval from local authorities, if waste generation is more than 20 tons in any day or 300 tons in any month during the contract period; and ensure full compliance to these rules and any conditions imposed in the regulatory approval.
21. The E-Waste (Management) Rules, 2016: This provides for management of E-wastes (but not covering lead acid batteries and radio-active wastes) aiming to enable the recovery and/or reuse of useful material from e-waste, thereby reducing the hazardous wastes destined for disposal and to ensure the environmentally sound management of all types of waste of electrical and electronic equipment. This Rule applies to every manufacturer, producer, consumer, bulk consumer, collection centers, dealers, e-retailer, refurbisher, dismantler and recycler involved in manufacture, sale, transfer, purchase, collection, storage and processing of e-waste or electrical and electronic equipment listed in Schedule I, including their components, consumables, parts and spares which make the product operational.
22. Plastic waste Management Rules, 2016: This provides for control and management of the plastic waste generated from any activity. Contractors will ensure compliance to this Rule.
23. The Batteries (Management and Handling) Rules 2001: This provides for ensuring safe disposal and recycling of discarded lead acid batteries likely to be used in any equipment during construction and operation stage. Rules require proper control and record keeping on the sale or import of lead acid batteries and recollection of the used batteries by registered recyclers to ensure environmentally sound recycling of used batteries. Contractors will ensure compliance to this Rule.
24. The Ozone Depleting Substances (Regulation and Control) Rules, 2000 and as amended: This provides for regulation of production and consumption of ozone depleting substances in the country, and specifically prohibits export to or import from countries not specified in the Rules, and prohibits unless specifically permitted, any use of ozone depleting substance.
25. The Coastal Regulation Zone Notifications, 1991 and as amended: This provides for regulation of development activities within the 500m of high tide line in coastal zone and 100m of stretches of rivers and estuaries influenced by tides. Contractors will be required to ensure that no work starts until applicable clearances under the Notification is not available. Contractors will be responsible for implementation of any plan stipulated as per the permission under this Notification; and will be required to prepare and submit to the employer and compliance report stipulated in the permission under the Notification.



26. The Motor Vehicle Act 1988 as amended (and State Motor Vehicle Acts as may be in force) and the Motor Vehicle Rules, 1989, and as amended (and State Motor Vehicle Rules as may be in force): To minimize the road accidents, penalizing the guilty, provision of compensation to victim and family and check vehicular air and noise pollution. Contractors will be required to ensure full compliance to these rules.
27. Easement Act, 1882: This provides for the rights of landowners on groundwater. Contractors will need to ensure that other landowners' rights under the Act is not affected by any groundwater abstraction by the contractors.
28. State Groundwater Acts and Rules as may be in force and the Guidelines for Groundwater Abstraction for drinking and domestic purposes in Notified Areas and Industry/Infrastructure project proposals in non-notified areas, 2012: These provide for regulating extraction of ground water for construction/industrial and drinking and domestic purposes. Contractors will need to obtain permission from Central/State Groundwater Boards prior to groundwater abstraction through digging any bore well or through any other means; and will to ensure full compliance to these rules and any conditions imposed in the permit.
29. The Mines Act, 1952 as amended; the Minor Mineral and concession Rules as amended; and the State Mineral (Rights and Taxation) Acts as may be in force: These provide for for safe and sound mining activity. The contractors will procure aggregates and other building materials from quarries and borrow areas approved under such Acts. In the event the contractors open any new quarry and/or borrow areas, appropriate prior permission from the State Departments of Minerals and Geology will need to be obtained. Contractors will also need to ensure full compliance to these rules and any conditions imposed in the permit.
30. The Insecticides Act, 1968 and Insecticides Rules, 1971 and as amended: These provide for regulates the manufacture, sale, transport, distribution, export, import and use of pesticides to prevent risk to human beings or animals, and for matters connected therewith. No one should import or manufacture; sell, stock or exhibit for sale; distribute, transport, use: (i) any misbranded insecticides, (ii) any insecticide the sale, distribution or use of which is for the time being prohibited under the Act; and (iii) any insecticide except in accordance with the condition on which it was registered under the Act.
31. National Building Codes of India, 2005 and as amended: This provides guidelines for regulating the building construction activities in India. The code mainly contains administrative regulations, development control rules and general building requirements; stipulations regarding materials, structural design and construction; and building and plumbing services. Contractors will be required to comply with all Bureau of Indian Standards Codes dealing with: (i) use and disposal of asbestos containing materials in construction; (ii) paints containing lead; (iii) permanent and temporary ventilations in workplace; (iv) safety, and hygiene at the workplace; (v) prevention of fire; (vi) prevention of accidents from faulty electrical gadgets, equipment and accessories; and all other such codes incidental to the Contract.



---

## Appendix 2

### **Tables of Adjustment Data- Deleted**

(Cl. 49 of GCC)

Appendix - 3<sup>15</sup>  
**Appointment of Adjudicator**

Suggested Draft of **Letter of Appointment of Adjudicators** in civil works contracts

Sub: \_\_\_\_\_ (Name of the Contract)

**To**

Name and address of the Adjudicator

We hereby confirm your appointment as Adjudicator for the above contract to carry out the assignment specified in this Letter of Appointment.

For administrative purpose \_\_\_\_\_ (*name of the officer representing the Employer*) has been assigned to administer the assignment and to provide the Adjudicator with all relevant information needed to carry out the assignment on behalf of both the employer and the contractor. The services will be required during the period of contract for the work of (Name of the Contract) \_\_\_\_\_.

The Adjudicator shall visit the worksite once in 3 (three) months till the completion of the work indicated above or as specifically requested by Employer/ Contractor for the period up to the end of defects liability period with prior intimation to the Employer and the contractor. The duration of each visit shall ordinarily be for one day only. These durations are approximate and (*Name of the employer and Name of the Contractor*) may find it necessary to postpone or cancel the assignment and/or shorten or extend the duration.

The appointment will become effective upon confirmation of letter by you. The appointment of Adjudicator shall be liable for termination under a 30 (thirty) days written notice from the date of issue of the notice, if both Employer and the Contractor so desire. Also the appointment shall automatically stand terminated 14 days after the defect notice / correction period as stated in Clauses 23 and 24 of the Conditions of Contract is over.

The Adjudicator will be paid a fee of Rs. \_\_\_\_\_ (Rupees \_\_\_\_\_ only) per each day of visit at the worksite. The actual expenses for boarding and traveling in connection with the assignment will be reimbursed to the Adjudicator. The Adjudicator will submit a pre-receipted bill in triplicate to the employer indicating the date of the visit, fees for the visit and a proof in support of the actual expenditure [only for items valued above Rs. 500 each] incurred by him against boarding, lodging and traveling expenses after performing the visit on each occasion. The Employer will make the admissible payment (both the Employer's and the Contractor's share) to the Adjudicator within 30 days of

<sup>15</sup> If ITB 51 makes provision of an Adjudicator from list provided by an institution, kindly modify Appendix 3 to state that the fee and reimbursable payable to the adjudicator shall be as per the rules of the Institution.

the receipt of the bill. The Contractor's share on this account (half the paid amount) will be recovered by the Employer from the Contractor's bills against the work.

In accepting this assignment, the Adjudicator should understand and agree that he is responsible for any liabilities and costs arising out of risks associated with travel to and from the place of emergency repatriation, loss or damage to personal/professional effects and property. The Adjudicator is advised to effect personal insurance cover in respect of such risks if he does not already have such cover in place. In this regard, the Adjudicator shall maintain appropriate medical, travel, accident and third-party liability insurance. The obligation under this paragraph will survive till termination of this appointment.

Procedures for resolution of disputes by the Adjudicator is described in the contract of \_\_\_\_\_ (name of the contract) between the employer and the contractor vide Clause No. 24 of the General Conditions of Contract. Your recommendation should be given in the format attached, within 28 days of receipt of a notification of dispute.

The Adjudicator will carry out the assignment in accordance with the highest standard of professional and ethical competence and integrity, having due regard to the nature and purpose of the assignment, and will conduct himself in a manner consistent herewith. After visiting the worksite, the Adjudicator will discuss the matter with the Employer and if necessary, with the Contractor before arriving at any decision.

The Adjudicator will agree that all knowledge and information not within the public domain, which may be acquired while carrying out this service shall be all time and for all purpose, regarded as strictly confidential and held in confidence, and shall not be directly or indirectly disclosed to any party whatsoever, except with the permission of the employer and the contractor. The Adjudicator's decision should be communicated in the form of a speaking order specifying the reasons.

The Adjudicator will agree that any manufacturing or construction firm with which he might be associated with, will not be eligible to participate in bidding for any goods or works resulting from or associated with the project of which this consulting assignment forms a part

Read and Agreed

Name of Adjudicator

Signature

Place:

Date:

Name of Employer

Signature of authorized representative of Employer

Name of the Contractor

Signature of authorized representative of Contractor

Attachment: Copy of contract document between the employer and contractor and format for recommendation.

### **SUMMARY OF ADJUDICATOR'S RESPONSIBILITIES**

The Adjudicator has the following principal responsibilities:

1. Visit the site periodically.
2. Keep abreast of job activities and developments.
3. Encourage the resolution of disputes by the parties.

When a dispute is referred to it, conduct a hearing (no legal presentation), complete its deliberations, and prepare a recommendation in a professional and timely manner (as per sample format)

---

Sample Format of Adjudicator's Recommendation

**[Project Name]**  
**Recommendation of Adjudicator**

Dispute No. XX [*NAME OF DISPUTE*]

Hearing Date: \_\_\_\_\_

**Dispute**

Description of dispute. A one or two sentence summation of the dispute.

**Contractor's Position**

A short summation of the contractor's position as understood by the Adjudicator.

**Employer's Position**

A short summation of the Employer's position as understood by the Adjudicator.

**Recommendation**

The Adjudicator's specific recommendation for settlement of the dispute. (*The recommended course is consistent with the explanation*).

**Explanation**

(*This section could also be called Considerations, Rationale, Findings, Discussion, and so on.*)

The Adjudicator's description of how each recommendation was reached.

Respectfully submitted,

Date : \_\_\_\_\_

Date : \_\_\_\_\_

Date : \_\_\_\_\_

## **Section X - Contract Forms**

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



## NOTIFICATION OF AWARD

### Letter of Acceptance *[on letterhead paper of the Employer]*

*[The Letter of Acceptance shall be the basis for formation of the Contract as described in ITB Clause 47. This Standard Form of Letter of Acceptance shall be filled in and sent to the successful Bidder only after evaluation of bids has been completed, subject to any review by the World Bank required under the Loan Agreement.]*

..... *[date]* .....

To: ..... *[name and address of the Contractor]* .....

Subject: ..... *[Notification of Award Contract No.]* .....

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 PCC]* ..... for the Accepted Contract Amount of ..... *[insert amount in numbers and words]*, as corrected and modified<sup>16</sup> in accordance with the Instructions to Bidders is hereby accepted by our Agency.

You are requested to furnish the Performance Security, plus additional security for unbalanced bids in terms of ITB Clause 41, and ES Performance Security *[Delete ES Performance Security if it is not required under the contract]* in the form detailed in ITB Clause 50 for amounts<sup>17</sup> of Rs. ...., and Rs. .... specified therein, within 21 days of the receipt of this letter of acceptance, and visit this office to sign the contract, failing which action as stated in ITB Clause 50.2 will be taken in accordance with the Conditions of Contract. The securities shall be valid up to 28 days from the date of completion i.e. up to ..... and shall be as per the Performance Security Form and the ES Performance Security Form *[Delete reference to the ES Performance Security Form if it is not required under the contract]*, included in Section X - Contract Forms, of the bidding document.

*[Choose one of the following statements:]*

We accept that \_\_\_\_\_ *[insert the name of Adjudicator proposed by the Bidder]* be appointed as the Adjudicator<sup>18</sup>.

*[or]*

<sup>16</sup>Delete "corrected and" or "and modified" if not applicable. See Notes on Standard Form of Agreement, next page.

<sup>17</sup>Insert amounts for (i) Performance Security, plus additional security for unbalanced bids in terms of ITB Clause 41; and (ii) ES Performance Security respectively.

<sup>18</sup>To be used only if the Contractor disagrees in the Bid with the Adjudicator proposed by the Employer in the Instructions to Bidders, and has accordingly offered another candidate.

We do not accept that \_\_\_\_\_ *[insert the name of the Adjudicator proposed by the Bidder]* be appointed as the Adjudicator, and by sending a copy of this Letter of Acceptance to \_\_\_\_\_ *[insert name of the Appointing Authority]*, the Appointing Authority, we are hereby requesting such Authority to appoint the Adjudicator in accordance with ITB 51.1 and GCC 23.1<sup>19</sup>.

We note that as per your bid, you do not intend to subcontract any component of work.

[OR]

We note that as per your bid, you propose to employ M/s. .... as sub-contractor for executing .....

We have reviewed the construction methodology submitted by you along with the bid in response to ITB Clause 16 and our comments are given in the attachment. You are requested to submit a revised Program including ES requirements as per Clause 30 of General Conditions of Contract within 14 days of receipt of this letter of acceptance.

Authorized Signature: .....

Name and Title of Signatory: .....

Name of Agency: .....

---

<sup>19</sup>To be used only if the Contractor disagrees in the Bid with the Adjudicator proposed by the Employer in the ITB, has accordingly offered another candidate, and the Employer does not accept the counterproposal.

---

**Issue of Notice to proceed with the work**

(letterhead of the Employer)

\_\_\_\_\_ (date)

To

\_\_\_\_\_ (name and address of the Contractor)

\_\_\_\_\_

\_\_\_\_\_

Dear Sirs:

Pursuant to your furnishing the requisite securities as stipulated in ITB clause 50.1, insurance policy as per GCC 13, construction methodology as stated in letter of acceptance and signing of the contract agreement for the construction of \_\_\_\_\_ @ a Bid Price of Rs. \_\_\_\_\_, you are hereby instructed to proceed with the execution of the said works in accordance with the contract documents.

Yours faithfully,

(Signature, name and title of  
signatory authorized to sign on  
behalf of Employer)

**Attachment: Contract Agreement**

## Contract Agreement

THIS AGREEMENT made the . . . . .day of . . . . ., between . . . . . *[name of the Employer]* . . . . . (hereinafter “the Employer”), of the one part, and . . . . . *[name of the Contractor]* . . . . .(hereinafter “the Contractor”), of the other part:

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

The Employer and the Contractor agree as follows:

1. In this Agreement words and expressions shall have the same meanings as are respectively assigned to them in the Contract documents referred to.
2. The following documents shall be deemed to form and be read and construed as part of this Agreement. This Agreement shall prevail over all other Contract documents.
  - (i) This Agreement
  - (ii) the Letter of Acceptance
  - (iii) the Contractor’s Bid including completed schedules and priced bill of quantities,
  - (iv) the addenda Nos \_\_\_\_\_(if any)
  - (v) the Particular Conditions
  - (vi) the General Conditions of Contract, including appendix;
  - (vii) the Specification
  - (viii) the Drawings
  - (ix) Construction Program, Methodology, Quality Assurance Program, the ES Management Strategies and Implementation Plans, and Code of Conduct for Contractor’s Personnel (ES)
  - (x) Joint Venture Agreement [for JVs only];and
  - (xi) any other document **listed in the PCC** as forming part of the Contract.
3. In consideration of the payments to be made by the Employer to the Contractor as specified 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 India on the day, month and year specified 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**  
**[including Additional Performance Security for unbalanced bids]**  
*[Guarantor letterhead or SWIFT identifier code]*

Performance Guarantee No..... *[insert guarantee reference number]*

Date..... *[insert date of issue of the guarantee]*

To: \_\_\_\_\_ *[name of Employer]*

\_\_\_\_\_ *[address of Employer]*

WHEREAS \_\_\_\_\_ *[name and address of Contractor<sup>20</sup>]*  
 (hereinafter called "the Applicant") has undertaken, in pursuance of Contract No. \_\_\_\_\_  
 dated \_\_\_\_\_ to execute \_\_\_\_\_ *[name of*  
*Contract and brief description of Works]* (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Applicant shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Applicant such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Applicant, up to a total of \_\_\_\_\_ *[amount of guarantee<sup>21</sup>]* \_\_\_\_\_ *[in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of \_\_\_\_\_ *[amount of guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

<sup>20</sup>In the case of a JV, insert the name of the Joint Venture

<sup>21</sup>An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract less provisional sums, if any, plus additional performance security for unbalanced bids if any, and denominated in Indian Rupees.

We hereby waive the necessity of your demanding the said debt from the Applicant before presenting us with the demand.

We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Applicant shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until .....<sup>22</sup>, and any demand for payment under it must be received by us at this office on or before that date.

Signature and seal of the guarantor \_\_\_\_\_

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

***Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.***

---

<sup>22</sup>Insert the date twenty-eight days after the expected completion date as described in GC Clause 53.1. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [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"

**Environmental and Social (ES) Performance Security**  
**ES – Bank Guarantee**  
*[Guarantor letterhead or SWIFT identifier code]*

**ES Performance Guarantee No.:** *[Insert guarantee reference number]*

Date..... *[insert date of issue of the guarantee]*

To: \_\_\_\_\_ *[name of Employer]*

\_\_\_\_\_ *[address of Employer]*

WHEREAS \_\_\_\_\_ *[name and address of Contractor<sup>23</sup>]*  
 (hereinafter called "the Applicant") has undertaken, in pursuance of Contract No. \_\_\_\_\_  
 dated \_\_\_\_\_ to execute \_\_\_\_\_ *[name of*  
*Contract and brief description of Works]* (hereinafter called "the Contract");

AND WHEREAS it has been stipulated by you in the said Contract that the Applicant shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with his Environmental and/or Social (ES) obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Applicant such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Applicant, up to a total of \_\_\_\_\_ *[amount of guarantee<sup>24</sup>]* \_\_\_\_\_ *[in words]*, such sum being payable in the types and proportions of currencies in which the Contract Price is payable, and we undertake to pay you, upon your first written demand and without cavil or argument, any sum or sums within the limits of \_\_\_\_\_ *[amount of guarantee]* as aforesaid without your needing to prove or to show grounds or reasons for your demand for the sum specified therein.

We hereby waive the necessity of your demanding the said debt from the Applicant before presenting us with the demand.

<sup>23</sup>*In the case of a JV, insert the name of the Joint Venture*

<sup>24</sup>*An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract less provisional sums, if any, and denominated in Indian Rupees.*



We further agree that no change or addition to or other modification of the terms of the Contract or of the Works to be performed thereunder or of any of the Contract documents which may be made between you and the Applicant shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall be valid until .....<sup>25</sup>, and any demand for payment under it must be received by us at this office on or before that date.

Signature and seal of the guarantor \_\_\_\_\_

Name of Bank \_\_\_\_\_

Address \_\_\_\_\_

Date \_\_\_\_\_

***Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.***

---

<sup>25</sup>*Insert the date twenty-eight days after the expected completion date as described in GC Clause 53.1. The Employer should note that in the event of an extension of this date for completion of the Contract, the Employer would need to request an extension of this guarantee from the Guarantor. Such request must be in writing and must be made prior to the expiration date established in the guarantee. In preparing this guarantee, the Employer might consider adding the following text to the form, at the end of the penultimate paragraph: "The Guarantor agrees to a one-time extension of this guarantee for a period not to exceed [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**  
*[Guarantor letterhead or SWIFT identifier code]*

Advance Payment Guarantee No..... *[insert guarantee reference number]*

Date..... *[insert date of issue of the guarantee]*

To: \_\_\_\_\_ *[name of Employer]*  
 \_\_\_\_\_ *[address of Employer]*  
 \_\_\_\_\_ *[name of Contract]*

Gentlemen:

In accordance with the provisions of the Conditions of Contract, Subclause 53.1 ("Advance Payment") of the above-mentioned Contract, \_\_\_\_\_ *[name and address of Contractor <sup>26</sup>]* (hereinafter called "the Applicant") shall deposit with \_\_\_\_\_ *[name of Employer]* a bank guarantee to guarantee his proper and faithful performance under the said Clause of the Contract in an amount of \_\_\_\_\_ *[amount of guarantee<sup>27</sup>]* \_\_\_\_\_ *[in words]*.

We, the \_\_\_\_\_ *[bank or financial institution]*, as instructed by the Applicant, agree unconditionally and irrevocably to guarantee as primary obligator and not as Surety merely, the payment to \_\_\_\_\_ *[name of Employer]* on his first demand without whatsoever right of objection on our part and without his first claim to the Applicant, in the amount not exceeding \_\_\_\_\_ *[amount of guarantee]* \_\_\_\_\_ *[in words]*.

We further agree that no change or addition to or other modification of the terms of the Contract or of Works to be performed thereunder or of any of the Contract documents which may be made between \_\_\_\_\_ *[name of*

<sup>26</sup> In the case of a JV, insert the name of the Joint Venture

<sup>27</sup> An amount shall be inserted by the bank representing the amount of the Advance Payment, and denominated in Indian Rupees.

*Employer*]and the Applicant, shall in any way release us from any liability under this guarantee, and we hereby waive notice of any such change, addition or modification.

This guarantee shall remain valid and in full effect from the date of the advance payment under the Contract until \_\_\_\_\_ [*name of Employer*] receives full repayment of the same amount from the Applicant. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

Yours truly,

Signature \_\_\_\_\_ and \_\_\_\_\_ seal:

Name of Bank: \_\_\_\_\_

Address: \_\_\_\_\_

Date: \_\_\_\_\_

***Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.***

**Retention Money Security  
Demand Guarantee**  
*[Guarantor letterhead or SWIFT identifier code]*

\_\_\_\_\_ *[Bank's name and address of issuing branch or office]*

**Beneficiary:** \_\_\_\_\_ *[Name and Address of Employer]*

**Date:** \_\_\_\_\_

**RETENTION MONEY GUARANTEE NO.:** \_\_\_\_\_

We have been informed that \_\_\_\_\_ *[name of contractor<sup>28</sup>]* (hereinafter called "the Applicant") has entered into Contract No. \_\_\_\_\_ *[reference number of the contract]* dated \_\_\_\_\_ with you, for the execution of \_\_\_\_\_ *[name of contract and brief description of Works]* (hereinafter called "the Contract").

Furthermore, we understand that, according to the conditions of the Contract, when the Taking-Over Certificate has been issued for the Works and the first half of the Retention Money has been certified for payment, payment of \_\_\_\_\_ *[insert the second half of the Retention Money]* is to be made against a Retention Money guarantee.

At the request of the Applicant, we \_\_\_\_\_ *[name of Bank]* hereby irrevocably undertake to pay you the sum or sums not exceeding in total an amount of \_\_\_\_\_ *[amount in Rupees]* (\_\_\_\_\_) *[amount in words<sup>29</sup>]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the Applicant is in breach of its obligation under the Contract without cavil or argument.

<sup>28</sup>In the case of a JV, insert the name of the Joint Venture

<sup>29</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.

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 Applicant on its account number \_\_\_\_\_ at \_\_\_\_\_ *[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 Defects Liability Certificate issued by the Project Manager. Consequently, any demand for payment under this guarantee must be received by us at this office on or before that date.

\_\_\_\_\_  
*[Signature(s) and seal of the guarantor]*

***Note: All italicized text (including footnotes) is for use in preparing this form and shall be deleted from the final product.***

