GOVERNMENT OF MIZORAM

National Hydrology Project

BID [TENDER] REF. NO:- NHP-2018-2019-MZ-306433-CW-NCB-DE

**NATIONAL COMPETITIVE BIDDING**

**(One-Envelope Bidding Process without e-Procurement)**

**(*FOR ITEM RATE/ADMEASUREMENT CONTRACTS IN CIVIL WORKS)***

***(Upto US$ 20 Million)***

NAME OF WORK :**Vertical Extension of Irrigation & Water Resources Department Office Building**

PERIOD OF SALE OF FROM

BIDDING DOCUMENT

TIME AND DATE OF 07.01.2019 **1300 hr**

PRE-BID CONFERENCE

LAST DATE AND TIME FOR 14.01.2019  **1200 hrs**

RECEIPT OF BIDS

**\*** TIME AND DATE OF OPENING 14.01.2019 **1230 hrs**

OF BIDS

PLACE OF OPENING OF BIDS **OFFICE OF THE SUPERINTENDING ENGINEER, PWD, PROJECT CIRCLE, TUIKUAL, AIZAWL**

OFFICER INVITING BIDS **SUPERINTENDING ENGINEER, PWD, PROJECT CIRCLE, TUIKUAL, AIZAWL**

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# INVITATION FOR BID

(IFB)

GOVERNMENT OF MIZORAM

**NATIONAL HYDROLOGY PROJECT**

**INVITATIONS FOR BIDS (IFB)**

NATIONAL COMPETITIVE BIDDING

**Bid No.:**:- NHP-2018-2019-MZ-306433-CW-NCB-DE **Date:**

1. **This Invitation For Bid follows the General Procurement Notice for this Project that appeared in Development Business on 21 Sep 2016.**
2. The Government of India has receivedfinancing from the World Bank towards the cost of **National Hydrology Project** and intends to apply a part of the funds to cover eligible payments under the contracts for construction of works as detailed below.
3. Bidding will be conducted through National Competitive Bidding procedures agreed with the World Bank. Bidding is open to all eligible bidders as defined in theWorld Bank’s Guidelines: [Procurement of Goods, Works and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, January 2011 (Revised in 2014).](http://www.worldbank.org/html/opr/procure/guidelin.html)
4. Bidders from India should, however, be registered with the **Government of Mizoram** 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. **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 1.6 and 1.7 of the World Bank’s Guidelines setting forth the World Bank’s policy on conflict of interest.
5. The **Superintending Engineer, PWD, Project Circle**(***Entrusted by the Implementing Agency***)invites sealed bids for the construction of works detailed below in the table. The bidders may submit bids for the works indicated therein.
6. Bidding documents (and additional copies) may be purchased from the office of **the Superintending Engineer, PWD, Project Circle** from **10.12.2018** **to 14.01.2019** for a non-refundable fee (three sets) as indicated in the table, in the form of cash or Demand Draft on any Scheduled/Nationalized bank payable at **Aizawl** in favour of **the Superintending Engineer, PWD, Project Circle.** Interested bidders may obtain further information at the same address. Bidding documents requested by mail will be dispatched by courier/speed post on payment of an extra amount of **Rs. 500** The **Superintending Engineer, PWD, Project Circle**will not be held responsible for the postal delay if any, in the delivery of the documents or non-receipt of the same.

1. All Bids must be accompanied by a bid security of the amount specified for the work in the table below, drawn in favour of **the Superintending Engineer, PWD, Project Circle.** 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.
2. Bids must be delivered to **the Superintending Engineer, PWD, Project Circle** on or before1200 hours on **14.01.2019** and will be publically opened on the same day at **1230** hours, in the presence of the bidders designated representatives who wish to attend. If the office happens to be closed on the date of receipt of the bids as specified, the bids will be received and opened on the next working day at the same time and venue. Late Bids will be rejected*.*
3. A pre-bid meeting will be held on **07.01.2019** at **1200** hrs. at the office of **the Superintending Engineer, PWD, Project Circle** 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.
4. Other details can be seen in the bidding documents.
5. The address for communication is as under:

Name & Designation of Officer :**LALRUATKIMA,**

**SUPERINTENDING ENGINEER**

Official Address: **PROJECT CIRCLE, P.W.D., TUIKUAL, AIZAWL**

* 1. e-mail –**lrkima6@gmail.com**
  2. Telephone **0389 - 2314169**

TABLE

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Package No | Name of Work | Approx value of Works. | Bid Security \*  (Rs.) | Cost of Document  (Rs.) | Period of Completion |
| 1 | 2 |  | 3 | 4 | 5 |
| 1 | Vertical Extension of  Irrigation & Water Resources  Deptt Office Building | Rs. 1,35,00,000/- | Rs.2,70,000/- | Rs. 1,000/- | 12 (twelve) months |

Name & Address of Inviting Officer:

**LALRUATKIMA,**

**SUPERINTENDING ENGINEER**

: **PROJECT CIRCLE, P.W.D., TUIKUAL, AIZAWL**

PART 1 – Bidding Procedures

Section 1 - Instructions to Bidders

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Section I - Instructions to Bidders

|  |  |
| --- | --- |
| 1. General | |
| 1. Scope of Bid | 1.1 The Employer, as **indicated in the BDS**, issues this Bidding Document for the procurement of the Works as specified in Section VII (Work’s Requirements)&Invitation for Bids (IFB). The name, identification, and number of contracts of this bidding are **specified in the BDS**. |
|  | * 1. Throughout this Bidding Document:   (a) the term “in writing” means communicated in written form and delivered against receipt;  (b) except where the context requires otherwise, words indicating the singular also include the plural and words indicating the plural also include the singular; and  (c) “day” means calendar day. |
| 1. Source of Funds | 2.1 The Government of India (hereinafter called “Borrower”) **specified in the BDS** has receivedfor financing (hereinafter called “funds”) from the International Bank for Reconstruction and Development or the International Development Association (hereinafter called “the Bank”) in an amount USD 175.00 milliontowards the cost of the **National Hydrology Project**. The Borrower intends to apply a portion of the funds to eligible payments under the contract(s) for which this Bidding Documentisissued.  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 (or other financing) account for the purpose of any payment to persons or entities, or for any import of goods, 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). |
| 1. Corrupt and Fraudulent Practices | 3.1 The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Section VI.  3.2 In further pursuance of this policy, Bidders shall permit and shall cause its agents (whether declared or not), sub-contractors, sub-consultants, service providers, or suppliers and any personnel thereof, to permit the Bank to inspect all accounts, records and other documents relating to any prequalification process, bid submission, and contract performance (in the case of award), and to have them audited by auditors appointed by the Bank. |
| 1. Eligible Bidders | * + 1. A Bidder may be a firm that is a private entity, or a government-owned entity—subject to ITB 4.5—or any combination of such entities in the form of a joint venture (JV), under an existing agreement, or with the intent to constitute a legally-enforceable joint venture, unless otherwise **specified in the BDS**.     2. Bids submitted by a joint venture of two or more firms as members when permitted as per BDS ITB Clause 4.1.1 shall comply with the following requirements:   [a] the bid shall include all the information listed in Bidders Qualification Forms for all the Members. The maximum number of members in the Joint Venture shall be as **specified in the BDS;**  [b] the bid and, in case of a successful bid, the Agreement, shall be signed so as to be legally binding on all members;  [c] one of the members shall be nominated as being in charge, and this authorization shall be evidenced by submitting a power of attorney signed by legally authorized signatories of all the members;  [d] the member in charge shall be authorized to incur liabilities and receive instructions for and on behalf of any and all members of the joint venture and the entire execution of the contract, including payment, shall be done exclusively with the member in charge;  [e] all members of the joint venture shall be liable jointly and severally for the execution of the contract in accordance with the contract terms, and a statement to this effect shall be included in the authorization mentioned under (c) above, as well as in the bid and in the Agreement [*in case of a successful bid*];  [f] The joint venture agreement should indicate precisely the role of all members of JV in respect of planning, design, construction equipment, key personnel, work execution, and financing of the project. All members of JV should have active participation in the execution during the currency of the contract. This should not be varied/modified subsequently without prior approval of the Employer;  [g] The joint venture agreement should be registered in place **specified in BDS** so as to be legally valid and binding on members; and  [h] a copy of the Joint Venture Agreement entered into by the members shall be submitted with the bid. 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. |
|  | 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:   * + 1. directly or indirectly controls, is controlled by or is under common control with another Bidder; or     2. receives or has received any direct or indirect subsidy from another Bidder; or     3. has the same legal representative as another Bidder; or     4. 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     5. participates in more than one bid in this bidding process. Participation by a Bidder in more than one Bid will result in the disqualification of all Bids in which such Bidder is involved. However, this does not limit the inclusion of the same subcontractor in more than one bid; or     6. 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     7. 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; or     8. 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; or     9. 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 documents 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 unlessthe 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 Bidder may have the nationality of any country, subject to the restrictions pursuant to ITB 4.7. 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 sub-contractors or sub-consultants for any part of the Contract including related Services. |
|  | 4.4 A Bidder that has been sanctioned by the Bank in accordance with the above ITB 3.1, including in accordance with the Bank’s Guidelines on Preventing and Combating Corruption in Projects Financed by IBRD Loans and IDA Credits and Grants (“Anti-Corruption Guidelines”), shall be ineligible to be prequalified for, bid 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**. |
|  | 4.5 Bidders that are Government-owned enterprises or institutions in the Employer’s Country may participate only if they can establish that they (i) are legally and financially autonomous (ii) operate under commercial law, and (iii) are not dependent agencies of the Employer. To be eligible, a government-owned enterprise or institution shall establish to the Bank’s satisfaction, through all relevant documents, including its Charter and other information the Bank may request, that it: (i) is a legal entity separate from the government (ii) does not currently receive substantial subsidies or budget support; (iii) operates like any commercial enterprise, and, inter alia, is not obliged to pass on its surplus to the government, can acquire rights and liabilities, borrow funds and be liable for repayment of its debts, and can be declared bankrupt; and (iv) is not bidding for a contract to be awarded by the department or agency of the government which under their applicable laws or regulations is the reporting or supervisory authority of the enterprise or has the ability to exercise influence or control over the enterprise or institution. |
|  | 4.6 Not used. |
|  | 4.7 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. |
|  | 4.8 Bidder shall provide such evidence of eligibility satisfactory to the Employer, as the Employer shall reasonably request  4.9 Not used |
| 1. 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. |
| 1. Contents of Bidding Document | |
| 1. Sections of Bidding Document | 6.1 The Bidding Document consist of Parts 1, 2*,* and3*,* which include all the Sections indicated below, and 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- Bank Policy-Corrupt and Fraudulent Practices  **PART 2 Work’s 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 |
|  | * 1. The Invitation for Bids issued by the Employer is not part of the Bidding Document. |
|  | 6.3 Unless obtained directly from the Employer, the Employer is not responsible for the completeness of the Bidding Documents, responses to requests for clarification, the minutes of the pre-Bid meeting (if any), or Addenda to the Bidding Documents in accordance with ITB 8. In case of any contradiction, documents obtained directly from the Employer shall prevail. |
|  | 6.4 The Bidder is expected to examine all instructions, forms, terms, and specifications in the Bidding Documents and to furnish with its bid all information and documentation as required by the Bidding Documents. |
| 1. Clarification of Bidding Document, Site Visit, Pre-Bid Meeting | 7.1 A prospective Bidder requiring any clarification on the Bidding Document shall contact the Employer in writing at the Employer’s address **indicated in the BDS** or raise his inquiries during the pre-bid meeting if provided for in accordance with ITB 7.4. The Employer willrespond in writing to any request for clarification, provided that such request is received prior to the deadline for submission of bids, within a period **specifiedin the BDS**. The Employer shall forward copies of its response to all Bidders who have acquired the Bidding Document in accordance with ITB 6.3, including a description of the inquiry but without identifying its source.If so **specified in the BDS**, the Employer shall also promptly publish its response at the web page identified in the BDS. Shouldthe clarification result in changes to the essential elements of the Bidding Documents, the Employershall amend the Bidding Documents following the procedure under ITB 8 and ITB 22.2. |
|  | * 1. The Bidder is advised to visit and examine the Site of Works and its surroundings and obtain for itself, on its own risk and responsibility, all information that may be necessary for preparing the bid and entering into a contract for construction of the Works. The costs of visiting the Site shall be at the Bidder’s own expense. |
|  | 7.3 The Bidder and any of its personnel or agents will be granted permission by the Employer to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder, its personnel, and agents will release and indemnify the Employer and its personnel and agents from and against all liability in respect thereof, and will be responsible for death or personal injury, loss of or damage to property, and any other loss, damage, costs, and expenses incurred as a result of the inspection. |
|  | 7.4 If so **specified in the BDS**, the Bidder’s designated representative is invited to attend a pre-bid meeting. The purpose of the meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage. |
|  | 7.5 The Bidder is requested, to submit any questions in writing, to reach the Employer not later than one week before the meeting. |
|  | 7.6 Minutes of the pre-bid meeting, including the text of the questions raised, without identifying the source, and the responses given, together with any responses prepared after the meeting, will be transmitted promptly to all Bidders who have acquired the Bidding Documents in accordance with ITB 6.3. Any modification to the Bidding Documents that may become necessary as a result of the pre-bid meeting shall be made by the Employer exclusively through the issue of an addendum pursuant to ITB 8 and not through the minutes of the pre-bid meeting. |
|  | 7.7 Nonattendance at the pre-bid meeting will not be a cause for disqualification of a Bidder. |
| 1. Amendment of Bidding Document | 8.1 At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Documents by issuing addenda. |
|  | * 1. Any addendum issued shall be part of the Bidding Document and shall be communicated in writing to all who have obtained the Bidding Document from the Employer in accordance with ITB 6.3. The Employer shall also promptly publish the addendum on the Employer’s web page in accordance with ITB 7.1. |
|  | 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 |
| 1. Preparation of Bids | |
| 1. Cost of Bidding | 9.1 The Bidder shall bear all costs associated with the preparation and submission of its Bid, and the Employer shall in no case be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process. |
| 1. Language of Bid | 10.1 The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and the Employer, shall be written in English. |
| 1. Documents Comprising the Bid | 11.1 The Bid shall comprise the following:   1. Letter of Bid; 2. completed Schedules including priced bill of quantities, in accordance with ITB 12 and 14, as **specified in BDS**; 3. Bid Security, in accordance with ITB 19; 4. alternative bids, if permissible, in accordance with ITB 13; 5. written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2; 6. documentary evidence in accordance with ITB 17 establishing the Bidder’s qualifications to perform the contract, if its Bid is accepted; 7. Technical Proposal in accordance with ITB 16; 8. Construction methodology proposed as detailed inPara 1.1 of Section III Evaluation Criteria; and 9. Any other document **required in the BDS**.   11.2 In addition to the requirements under ITB 11.1, 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.  11.3 The Bidder shall furnish in the Letter of Bid information on commissions and gratuities, if any, paid or to be paid to agents or any other party relating to this Bid. |
| 1. Letter of Bid and Schedules | 12.1 The Letter of Bid, Schedulesincluding the Bill of Quantities, and all documents listed under Clause 11, shall be prepared using the relevant forms in Section IV(Bidding Forms), if so provided. The forms must be completed without any alterations to the text, and no substitutes shall be accepted. All blank spaces shall be filled in with the information requested. |
| 1. Alternative Bids | 13.1 Bidders shall submit offers that comply with the requirements of the bidding documents, including the basic technical design as indicated in the drawing and specifications. Alternatives will not be considered. |
| 1. Bid Prices and Discounts | 14.1 The prices and discounts (including any price reduction) quoted by the Bidder in the Letter of Bid and in the Schedules shall conform to the requirements specified below. |
|  | * 1. 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 (both in figures and words), as identified in Section IV, Bidding Forms alongwith 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 shall be made by crossing out, initialling, dating and rewriting. |
|  | 14.3 The price to be quoted in the Letter of Bid in accordance with ITB 12.1,shall be the total price of the Bid, excluding any discounts offered. |
|  | 14.4 Unconditional discounts, if any, and the methodology for their application shall be quoted in the Letter of Bid, in accordance with ITB 12.1. |
|  | 14.5 Unless otherwise **specified in the BDS** and the Conditions of Contract, the rates and prices quoted by the Bidder shall be fixed  14.6 If so indicated in ITB 1.1, bids are invited for individual lots (contracts) or for any combination of lots/contracts (packages). Bidders wishing to offer any price reduction for the award of more than one Contract shall specify in their bid the price reductions applicable to each package, or alternatively, to individual Contracts within the package. Price reductions or discounts shall be submitted in accordance with ITB 14.4, provided the bids for all lots/contracts are submitted and opened at the same time. |
|  | 14.7 All duties, taxes, and other levies payable by the Contractor under the Contract, or for any other cause, as applicable on 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 excise/custom duty exemption benefits available in India to the contracts financed under World Bank loan/credits. 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 alongwith his bid a declaration to this effect in the Declaration Format provided in Section IV of the bidding documents.  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 Central Excise Notification and Customs Notification as per form stipulated in Section IV. 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 quantity 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 customs/excise 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 customs/excise 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. |
| 1. Currencies of Bid and Payment | 15.1 The unit rates and prices shall be quoted by the Bidder and shall be paid for,entirely in Indian Rupees. |
| 1. Documents Comprising the Technical Proposal | 16.1 The Bidder shall furnish a Technical Proposal including a statement of work methods, equipment, personnel, schedule and any other information as per details stipulated in Section IV(Bidding Forms), in sufficient detail to demonstrate the adequacy of the Bidders’ proposal to meet the work requirements and the completion time. |
| 1. Documents Establishing the Qualifications of the Bidder | 17.1 To establish Bidder’s eligibility in accordance with ITB 4, Bidders shall complete the Letter of Bid, included in Section IV, Bidding Forms.  17.2 To establish its qualifications to perform the Contract in accordance with Section III (Evaluation and Qualification Criteria) the Bidder shall provide the complete information as requested in the corresponding information sheets included in Section IV(Bidding Forms). |
| 1. Period of Validity of Bids | 18.1 Bids shall remain valid for 90 days or for a period **specified in the BDS**after the bid submission deadline date prescribed by the Employer in accordance with ITB 22.1. A bid valid for a shorter period shall be rejected by the Employer as nonresponsive. |
|  | * 1. 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 forforty 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 request shall not be required or permitted to modify its bid. |
|  | 18.3 If the award is delayed by a period exceeding fifty-six (56) days beyond the expiry of the initial bid validity, the Contract price shall be determined as follows*:*   * + 1. In the case of fixed price contracts, the Contract price shall be the bid price adjusted by the factor **specified in theBDS**.     2. In the case of adjustable price contracts, no adjustment shall be made.     3. In any case, bid evaluation shall be based on the bid price without taking into consideration the applicable correction from those indicated above. |
| 1. Bid Security | 19.1 Unless otherwise **specified in the BDS**, the Bidder shall furnish as part of its bid, in original form, a bid security for the amount **shown in BDS,** for this particular work*.* |
|  | 19.2 The bid security shall be a demand guarantee, at the Bidder’s option, in any of the following forms:   1. an unconditional bank guarantee, issued by a Nationalized/Scheduled bank located in India; 2. an irrevocable letter of credit issued by a Nationalized or Scheduled bank located in India; 3. a cashier’s or certified check; or demand draft from a Nationalized or Scheduled Bank located in India; 4. another security **indicated in the BDS.**   *In case of a bank guarantee, the bid security shall be submitted using the Bid Security form included in the Section IV (Bidding Forms).* The form must include the complete name of the Bidder. The bid security shall be valid for forty five (45) daysbeyond the original validity period of the bid, or beyond any period of extension if requested under ITB 18.2. |
|  | 19.3 If a Bid Security is specified pursuant to ITB 19.1, any bid not accompanied by a substantially responsive Bid Security shall be rejected by the Employer as non-responsive. |
|  | 19.4 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 of the performance security pursuant to ITB 42. |
|  | 19.5 If a bid security is specified pursuant to ITB 19.1, the bid security of the successful Bidder shall be returned as promptly as possible once the successful Bidder has signed the Contract and furnished the required performance security. |
|  | 19.6 The bid security may be forfeited:   1. if a Bidder withdraws/modifies/substitutes its bid during the period of bid validity specified by the Bidder on the Letter of Bid, or any extension thereto provided by the Bidderin accordance with ITB 18.2or 2. if the Bidder does not accept the correction of its Bid Price pursuant to ITB 31 or 3. if the successful Bidder fails to:  sign the Contract in accordance with ITB 41; orfurnish a performance security in accordance with ITB 42. |
|  | 19.7 The Bid Security of a JVshall be in the name of the JVthat submits the bid. If the JVhasnot been constituted into a legally-enforceable JV*,* at the time of bidding, the Bid Security shall be in the names of all future members as named in the letter of intent mentioned in ITB 4.1.2 and ITB 11.2. |
| 1. Format and Signing of Bid | 20.1 The Bidder shall prepare one original of the documents comprising the bid as described in ITB 11 and clearly mark it “Original”. Alternative bids, if permitted in accordance with ITB 13, shall be clearly marked “Alternative” In addition, the Bidder shall submit copies of the bid in the number **specified in the BDS,** and clearly mark each of them “Copy.” In the event of any discrepancy between the original and the copies, the original shall prevail. |
|  | 20.2 The original and all copies of the bid shall be typed or written in indelible ink and shall be signed by a person duly authorized to sign on behalf of the Bidder. This authorization shall consist of a written confirmation as **specified in the BDS** and shall be attached to the bid. The name and position held by each person signing the authorization must be typed or printed below the signature. All pages of the bid where entries or amendments have been made shall be signed or initialed by the person signing the bid. |
|  | 20.3 In case the Bidder is a JV, the Bid shall be signed by an authorized representative of the JV on behalf of the JV, and so as to be legally binding on all the members as evidenced by a power of attorney signed by their legally authorized representatives  20.4 Any amendments such as interlineations, erasures, or overwriting shall be valid only if they are signed or initialled by the person signing the bid.  20.5 The Bidder shall furnish information as described in the letter of Bid on commissions or gratuities, if any, paid or to be paid to agents relating to this Bid, and to contract execution if the Bidder is awarded the contract. |
| 1. Submission and Opening of Bids | |
| 1. Sealing and Marking of Bids | 21.1 Bidders may always submit their bids by mail or by hand. When so **specified in the BDS**, bidders shall have the option of submitting their bids electronically. Procedures for submission, sealing and marking are as follows:  (a) Bidders submitting bids by mail or by hand shall enclose the original and each copy of the Bid including alternatives if permitted in accordance with ITB 13, in separate sealed envelopes, duly marking the envelopes as “Original”, “ALTERNATIVE” and “Copy.” These envelopes containing the original and the copies shall then be enclosed in one single envelope. The rest of the procedure shall be in accordance with ITB sub-Clauses 21.2 and 21.3.  (b) Bidders submitting bids electronically shall follow the electronic bid submission procedures **specified in the BDS**. |
|  | * 1. The inner and outer envelopes shall:   (a) bear the name and address of the Bidder;  (b) be addressed to the Employer as provided in the BDSpursuant to ITB 22.1;  (c) bear the specific identification of this bidding process indicated in accordance with ITB 1.1; and  (d) bear a warning not to open before the time and date for bid opening. |
|  | 21.3 If all envelopes are not sealed and marked as required, the Employer will assume no responsibility for the misplacement or premature opening of the bid. |
|  | 21.4 E-mail, Telex, Cable or Facsimile bids will be rejected as non-responsive. |
| 1. Deadline for Submission of Bids | 22.1 Bids must be received by the Employer at the address and no later than the date and time **indicated in the BDS**. Bidders submitting bids electronically (when permitted) shall follow the electronic bid submission procedures specified in the BDS.  In the event of the specified date for the submission of Bids being declared a holiday for the Employer, the Bids will be received up to the appointed time on the next working day. |
|  | * 1. 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. |
| 1. Late Bids | 23.1 The Employer shall not consider any bid that arrives after the deadline for submission of bids, in accordance with ITB 22. Any bid received by the Employer after the deadline for submission of bids shall be declared late, rejected, and returned unopened to the Bidder. |
| 1. Withdrawal, Substitution, and Modification of Bids | 24.1 A Bidder may withdraw, substitute, or modify its bid after it has been submitted by sending a written notice, duly signed by an authorized representative, and shall include a copy of the authorization in accordance with ITB 20.2, (except that withdrawal notices do not require copies). The corresponding substitution or modification of the bid must accompany the respective written notice. All notices must be:  (a) prepared and submitted in accordance with ITB 20 and ITB 21 (except that withdrawal notices do not require copies), and in addition, the respective envelopes shall be clearly marked “Withdrawal,” “Substitution,” “Modification;” and  (b) received by the Employer prior to the deadline prescribed for submission of bids, in accordance with ITB 22. |
|  | * 1. Bids requested to be withdrawn in accordance with ITB 24.1 shall be returned unopened to the Bidders. |
|  | 24.3 No bid may be withdrawn, substituted, or modified in the interval between the deadline for submission of bids and the expiration of the period of bid validity specified by the Bidder on the Letter of Bid or any extension thereof. This will result in the forfeiture of the Bid Security pursuant to ITB 19.6. |
| 1. Bid Opening | 25.1 Except in the cases specified in ITB 23 and 24, the Employer shall publicly open and read out in accordance with ITB 25.3 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 choose to attend. Any specific electronic bid opening procedures required, if electronic bidding is permitted in accordance with ITB 21.1, shall be as **specified in the BDS**.  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. |
|  | * 1. First, envelopes marked “Withdrawal” shall be opened and read out and the envelope with the corresponding bid shall not be opened, but returned to the Bidder. No bid withdrawal shall be permitted unless the corresponding withdrawal notice contains a valid authorization to request the withdrawal and is read out at bid opening. Next, envelopes marked “Substitution” shall be opened and read out and exchanged with the corresponding bid being substituted, and the substituted bid shall not be opened, but returned to the Bidder. No bid substitution shall be permitted unless the corresponding substitution notice contains a valid authorization to request the substitution and is read out at bid opening. Envelopes marked “Modification” shall be opened and read out with the corresponding bid. No bid modification shall be permitted unless the corresponding modification notice contains a valid authorization to request the modification and is read out at bid opening. Only envelopes that are opened and read out at bid opening shall be considered further. |
|  | 25.3 All other envelopes shall be opened one at a time, reading out: the name of the Bidder and whether there is a modification, the total Bid Price, per lot (contract) if applicable, including anydiscounts and alternative bids, the presence or absence of a bid security; and any other details as the Employer may consider appropriate. Only discountsandalternatives and modifications read out at bid opening shall be considered for evaluation. The Letter of Bid andtheBill of Quantitiesare to be initialled by representatives of the Employer attending bid opening in the manner **specified in the BDS.** The Employer shall neither discuss the merits of any bid nor reject any bid at bid opening (except for late bids, in accordance with ITB 23.1). |
|  | 25.4 The Employer shall prepare a record of the bid opening that shall include, as a minimum: the name of the Bidder and whether there is a withdrawal, substitution, or modification; the Bid Price, per contract if applicable, including any discounts and alternative bids; and the presence or absence of a bid security, if one was required. The Bidders’ representatives who are present shall be requested to sign the record. The omission of a Bidder’s signature on the record shall not invalidate the contents and effect of the record. A copy of the record shall be distributed to all Bidders. |
| 1. Evaluation and Comparison of Bids | |
| 1. Confidentiality | 26.1 Information relating to the examination, evaluation, comparison, and post-qualification of bids and recommendation of contract award, shall not be disclosed to Bidders or any other persons not officially concerned with such process until information on Contract award is communicated to all Bidders in accordance with ITB 40. |
|  | * 1. Any attempt by a Bidder to influence the Employer in the evaluation of the bids or Contract award decisions may result in the rejection of its bid. |
|  | 26.3 Notwithstanding ITB 26.2, from the time of bid opening to the time of Contract award, if any Bidder wishes to contact the Employer on any matter related to the bidding process, it may do so in writing. |
| 1. 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 including breakdown of unit rates, giving a reasonable time for 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 31. |
|  | * 1. 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. |
| 1. 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. |
| 1. Determination of Responsiveness | 29.1 The Employer’s determination of a bid’s responsiveness is to be based on the contents of the bid itself, as defined in ITB11. |
|  | * 1. A substantially responsive bid is one that meets the requirements of the Bidding Document without material deviation, reservation, or omission. A material deviation, reservation, or omission is one that,   (a) if accepted, would: (i) affect in any substantial way the scope, quality, or performance of the Works specified in the Contract; or(ii) limit in any substantial way, inconsistent with the Bidding Document, the Employer’s rights or the Bidder’s obligations under the proposed Contract; or (b) if rectified, would unfairly affect the competitive position of other Bidders presenting substantially responsive bids. |
|  | 29.3 The Employer shall examine the technical aspects of the bid submitted in accordance with ITB 16, Technical Proposal, in particular, to confirm that all requirements of Section VII(Work’s Requirements) have been met without any material deviation, reservations or omissions. |
|  | 29.4 If a bid is not substantially responsive to the requirements of the Bidding Document, it shall be rejected by the Employer and may not subsequently be made responsive by correction of the material deviations or reservations.  29.5 Not used. |
| 1. Nonconformities, Errors, and Omissions | 30.1 Provided that a bid is substantially responsive, the Employer may waive any non-conformities in the bid which do not constitute a material deviation, reservation or omission. |
|  | 30.2 Provided that a bid is substantially responsive, the Employer may request that the Bidder submit the necessary information or documentation, within a reasonable period of time, to rectify nonmaterial nonconformities in the bid related to documentation requirements. Requesting information or documentation on such nonconformities shall not be related to any aspect of the price or substance of the bid. Failure of the Bidder to comply with the request may result in the rejection of its bid.  30.3 Provided that a bid is substantially responsive, the Employer shall rectify quantifiable nonmaterial nonconformities related to the Bid Price. To this effect, the Bid Price may be adjusted, for comparison purposes only, to reflect the price of a missing or non-conforming item or component in the manner **specified in the BDS**. |
| 1. Correction of Arithmetical Errors | 31.1 Provided that the bid is substantially responsive, the Employer shall correct arithmetical errors on the following basis:  (a) only for unit price contracts, if there is a discrepancy between the unit price and the total price that is obtained by multiplying the unit price and quantity, the unit price shall prevail and the total price shall be corrected;  (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. |
|  | * 1. If the Bidder that submitted the lowest evaluated bid does not accept the correction of errors in accordance with ITB 31.1, its bid shall be declared non-responsive and the Bid Security may be forfeited in accordance with ITB Sub-Clause 19.6. |
| 1. Conversion to Single Currency | 32.1 Not used. |
| 1. Margin of Preference 2. Sub-contractors | 33.1 Not used.  34.1 Unless otherwise **stated in the BDS**, the Employer does not intend to execute any specific elements of the Works by sub-contractors selected in advance by the Employer.   * 1. The Employer may permit subcontracting for certain specialized works as indicated in Section III. When subcontracting is permitted by the Employer, the specialized sub-contractor’s experience shall be considered for evaluation. Section III describes the qualification criteria for sub-contractors.   34.3 Bidders may propose subcontracting upto the percentage of total value of contracts or the volume of works as **specified in theBDS.**Subcontractors proposed by the Bidder shall be fully qualified for their parts of the Works. |
| 1. Evaluation of Bids | 35.1 The Employer shall use the criteria and methodologies listed in this Clause. No other evaluation criteria or methodologies shall be permitted. |
|  | * 1. To evaluate a bid, the Employer shall consider the following:   (a) the bid price, excluding Provisional Sums and the provision, if any, for contingencies in the Summary Bill of Quantities, but including Daywork items, where priced competitively;  (b) price adjustment for correction of arithmetic errors in accordance with ITB 31.1;  (c) price adjustment due to discounts offered in accordance with ITB 14.4;   1. Not Used, 2. price adjustment for nonconformities in accordance with ITB 30.3; 3. the additional evaluation factors as specified in Section III (Evaluation and Qualification Criteria); |
|  | 35.3 The estimated effect of the price adjustment provisions of the Conditions of Contract, applied over the period of execution of the Contract, shall not be taken into account in bid evaluation. |
|  | 35.4 If this Bidding Document allows Bidders to quote separate prices for different lots (contracts), and to award multiple contracts to a single Bidder, the methodology to determine the lowest evaluated price of the contract combinations, including any discounts offered in the Letter of Bid, is specified in Section III (Evaluation and Qualification Criteria). |
|  | 35.5 If the bid of the successful bidder, which results in the lowest Evaluated Bid Price, is seriously unbalanced, front loaded or substantially below updated estimates in the opinion of the Employer, the Employer may require the Bidder to produce detailed price analyses (with breakdown of unit rates) for any or all items of the Bill of Quantities, to demonstrate the internal consistencyand justification of those prices with the construction methods and schedule proposed. After evaluation of the price analyses, taking into consideration the schedule of estimated contract payments, the Employer may require that the amount of the performance security be increased at the expense of the Bidder to a level sufficient to protect the Employer against financial loss in the event of default of the successful Bidder under the Contract*.* |
| 1. Comparison of Bids | 36.1 The Employer shall compare the evaluated prices of all substantially responsive bids established in accordance with ITB 35.2 to determine the lowest evaluated bid. |
| 1. Qualification of the Bidder | 37.1 The Employer shall determine to its satisfaction whether the Bidder that is selected as having submitted the lowest evaluated and substantially responsive bid meets the qualifying criteria specified in Section III (Evaluation and Qualification Criteria). |
|  | * 1. The determination shall be based upon an examination of the documentary evidence of the Bidder’s qualifications submitted by the Bidder, pursuant to ITB 17.1.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(s) different from the Bidder. |
|  | 37.3 An affirmative determination of qualification shall be a prerequisite for award of the Contract to the Bidder. A negative determination shall result in disqualification of the bid, in which event the Employer shall proceed to the next lowest evaluated bid to make a similar determination of that Bidder’s qualifications to perform satisfactorily. |
| 1. Employer’sRight to Accept Any Bid, and to Reject Any or All Bids | 38.1 The Employer reserves the right to accept or reject any bid, and to annul the bidding process and reject all bids at any time prior to contract award, without thereby incurring any liability to Bidders. In case of annulment, all bids submitted and specifically, bid securities, shall be promptly returned to the Bidders. |
| 1. Award of Contract | |
| 1. Award Criteria | 39.1 Subject to ITB 37.1*,* the Employer shall award the Contract to the Bidder whose offer has been determined to be the lowest evaluated bid and is substantially responsive to the Bidding Document, provided further that the Bidder is determined to be qualified to perform the Contract satisfactorily. |
| 1. Notification of Award | 40.1 Prior to the expiration of the period of bid validity, the Employer shall notify the successful Bidder, in writing, via the Letter of Acceptance included in the Contract Forms, that its bid has been accepted.The Letter of Acceptance shall specify the sum that the Employer will pay the Contractor in consideration of the execution and completion of the Works (hereinafter and in the Conditions of Contract and Contract Forms called “the Contract Price”). |
|  | * 1. Until a formal contract is prepared and executed, the notification of award shall constitute a binding Contract. |
| 1. Signing of Contract, Publication of award and Recourse to unsuccessful Bidders | 41.1 The Contract Agreement shall incorporate all agreements between the Employer and the successful Bidder. It shall be kept 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. Within 21 days of receipt of Letter of Acceptance, the successful Bidder shall sign the Agreement and furnish the performance security in accordance with ITB Clause 42 and revised construction methodology. 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 alongwith the bid. |
|  | 41.2 The Employer within 3 weeks of issue of notification of award shall publish in a national website (<http://tenders.gov.in>or GoI Central Public Procurement Portal <https://eprocure.gov.in/cpppp/>) or on the Employer’s website with free access if available, or in the official gazette, the results identifying the bid and lot numbers and the following information: (i) name of each bidder who submitted the bid; (ii) bid prices as read out at bid opening; (iii) name and evaluated prices of each bid that was evaluated; (iv) name of bidders whose bids were rejected and the reasons for their rejection; and (v) name of the winning bidder, and the price it offered, as well as the duration and summary scope of the contract awarded.  41.3 The Employer shall promptly respond in writing to any unsuccessful Bidder who, after publication of contract award, requests the Employer in writing to explain on which grounds its bid was not selected. |
| 1. Performance Security | 42.1 Within twenty-one (21) days of the receipt of notification of award from the Employer, the successful Bidder shall furnish the performance security in accordance with the conditions of contract, subject to ITB 35.5, using for that purpose the Performance Securityand ESHS Performance Security Forms included in Section X (Contract Forms). The performance security of a Joint Venture shall be in the name of the Joint Venture specifying the names of all members. |
|  | * 1. Failure of the successful Bidder to submit the above-mentioned Performance Security or to sign the Contract Agreement shall constitute sufficient grounds for the annulment of the award and forfeiture of the bid security. In that event the Employer may award the Contract to the next lowest evaluated Bidder whose offer is substantially responsive and is determined by the Employer to be qualified to perform the Contract satisfactorily. |
|  | 42.3 Upon the successful Bidder’s signing the Agreement and furnishing of the Performance Security pursuant to ITB Clause 42.1, 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 19.4 and 19.5. |
| 1. Adjudicator or Dispute Review Expert | 43.1 The Employer proposes the person **named in the BDS** to be appointed as Adjudicator (or Dispute Review Expert) under the Contract, at the daily rate 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 Letter of Bid. If, in the Letter of Acceptance, the Employer does not agree on the appointment of the Adjudicator [or Disputes Review Expert] proposed by the Bidder, 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 [or Disputes Review Expert]. |

Section II - Bid Data Sheet (BDS)

A. Introduction

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| **ITB 1.1** | The Employeris: **LALRUATKIMA , Superintending Engineer, PWD, Project Circle, Aizawl, Mizoram** |
| **ITB 1.1** | The name of the work is: **Vertical Extension of Irrigation & Water Resources Department Office Building**  The identification number of the work is: **IWR VE -1/2018**  The number and identification of lots comprising this bidding process is: **One** |
| **ITB 2.1** | The Borrower is Government of India. The Sub-Borrower is **Irrigation & Water Resources Deptt, Govt. of Mizoram.** The Employer is **LALRUATKIMA, Superintending Engineer, PWD, Project Circle** |
| **ITB 2.1** | The name of the Project is: ***National Hydrology Project*** Loan or Financing Agreement amount: **US$ 175Million** |
| **ITB 4.1.1** | **Bids from Joint ventures are acceptable.** |
| **ITB 4.1.2 (a)** | Maximum number of members in the JV shall be***:2 (Lead plus one)*** |
| **ITB 4.1.2(g)** | Place where the agreement to form JV to be registered is **Aizawl, Mizoram** |
| **ITB 4.4** | A list of debarred firms and individuals is available at the Bank’s external website [www.worldbank.org/debarr](http://www.worldbank.org/debarr). |

B. Contents of Bidding Documents

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| **ITB 7.1** | For **clarification purposes** only, the Employer’s address is:  Attention: **LALRUATKIMA Superintending Engineer, PWD Project Circle, Aizawl, Mizoram**  Street Address: **Project Circle, PWD, Tuikual, Aizawl**  Floor/Room number: **First Floor**  City: **Aizawl, Mizoram**  PIN Code: **796001**  Country: ***INDIA***  Telephone: **0389 - 2314169**  Facsimile number: **0389 2314169**  Electronic mail address:  Requests for clarification should be received by the Employer no later than **14*days prior to deadline for submission of bids.*** |
| **ITB 7.1** | Web page: [**www.irrigation.mizoram.gov.in**](http://www.irrigation.mizoram.gov.in) |
| **ITB 7.4** | A Pre-Bid meeting **shall** take place. the date, time and place are:  Date: **07.01.2019**  Time: **1300 hrs**  Place: **Superintending Engineer’s Office, Project Circle, PWD*.*** |

C. Preparation of Bids

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| **ITB 11.1(b)** | The following schedules shall be submitted with the bid:   1. **Letter of Bid;** 2. **completed Schedules including priced bill of quantities, in accordance with ITB 12 and 14,** 3. **Bid Security, in accordance with ITB 19;** 4. **written confirmation authorizing the signatory of the Bid to commit the Bidder, in accordance with ITB 20.2;** 5. **documentary evidence in accordance with ITB 17 establishing the Bidder’s qualifications to perform the contract, if its Bid is accepted;** 6. **Technical Proposal in accordance with ITB 16;** 7. **Construction methodology proposed as detailed inPara 1.1 of Section III Evaluation Criteria;** |
| **ITB 11.1 (i)** | The Bidder shall submit with its bid the following additional documents:  (i) Contractor Registration certificate as per IFB, if applicable  (ii) Comprehensive and concise Environmental, Social, Health and Safety Management Strategies and Implementation Plans including Code of Conduct that will apply to its employees and subcontractors, to ensure compliance with its Environmental, Social, Health and Safety (ESHS) obligations including compliance with applicable Laws/ Rules/ Regulations for protection of environment, public health and safety, and the applicable parts of the Environment Management Plan of the project under the contract. |
| **ITB 13.1** | Alternative bids ***shall not be*** permitted. |
| **ITB 14.5** | The prices quoted by the Bidder *shall not be* subject to adjustment during the performance of the Contract. |
| **ITB 18.1** | The bid validity period shall be: **90 days.** |
| **ITB 18.3 (a)** | The factor is **1.0007692(multiplicative)**per week |
| **ITB 19.1** | The Bidder shall furnish a bid security in the amount of **INR.2,70,000/-** |
| **ITB 19.2 (d)** | Other types of acceptable securities are:  Fixed Deposit/Time Deposit/**Call Deposit** certificate issued by a Nationalized or Scheduled Bank located in India for equivalent or higher values are acceptable as bid security provided it is pledged in favour of Superintending Engineer, PWD, Project Circle(implementing agency) and such pledging has been noted and suitably endorsed by the bank issuing the certificate. |
| **ITB 20.1** | In addition to the original of the bid, the number of copies is: **2** |
| **ITB 20.2** | The written confirmation of authorization to sign on behalf of the Bidder shall consist of:   1. *Legally valid Power of Attorney is required to demonstrate the authority of the signatory to sign the Bid; and* 2. *In the case of Bids submitted by an existing or intended JV, if permitted as per ITB 4.1, the authorization shall be evidenced by a Power of Attorney signed by legally authorized signatories of all the members.* |

D. Submission and Opening of Bids

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| **ITB 21.1 &22.1** | Electronic bidding is not permitted, bidders **shall not have** the option of submitting their bids electronically. |
| **ITB 22.1** | For **bid submission purposes** only, the Employer’s address is:  Attention: **SUPERINTENDING ENGINEER, PWD, PROJECT CIRCLE**  Street Address: **TUIKUAL, AIZAWL**  Floor/Room number: **FIRST FLOOR**  City: **AIZAWL, MIZORAM**  PIN Code: **796 001**  Country: **INDIA**  **The deadline for bid submission is:**  Date: **14.01.2019**  Time: **1200 Hrs** |
| **ITB 25.1** | The bid opening shall take place at:  Street Address: **TUIKUAL, AIZAWL**  Floor/Room number: **FIRST FLOOR**  City: **AIZAWL**  Country: **INDIA**  Date: **14.01.2019**  Time: **1230Hrs** |
| **ITB 25.1** | Electronic bidding is not permitted, bidders **shall not have** the option of submitting their bids electronically. |

E. Evaluation and Comparison of Bids

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| **ITB 25.3** | The Letter of Bid and Priced Bill of Quantities shall be initialled by **Superintending Engineer, PWD, Project Circle** or representatives of the Employer conducting Bid opening:  **Each Bid shall be numbered, any modification to the unit or total price shall be initialed by the Representative of the Employer** |
| **ITB 30.3** | The adjustment shall be based on the highest price of the item or component as quoted in other substantially responsive Bids, subject to a maximum of the estimated price of the item. If the price of the item or component cannot be derived from the price of other substantially responsive Bids, the Employer shall use its best estimate. |
| **ITB 34.1** | The employer intend to permit sub contracting of electrical and Sanitary Works and any other specialized items |
| **ITB 34.2** | ***[Indicate N/A if not applicable]***  The parts of the Works for which the Employer permits Bidders to propose Specialized Subcontractors are designated as follows:   1. **NIL** 2. **NIL** 3. **NIL** |
| **ITB 34.3** | (a) Contractor’s proposed subcontracting: Maximum percentage of subcontracting permitted is: **25%**  (b) Bidders planning to subcontract more than 10% of total volume of work shall specify, in the Bid Submission Form, the activity (ies) or parts of the works to be subcontracted alongwith complete details of the sub-contractors and their qualification and experience. The qualification and experience of the sub-contractors must meet the minimum criteria for the relevant work to be sub-contracted failing which such sub-contractors will not be permitted to participate. (c) Sub-contractors’ qualification and experience will not be considered for evaluation of the Bidder. The Bidder on its own (without taking into account the qualification and experience of the sub-contractor) should meet the qualification criteria.*[Note: Work should not be split into small parts and sub-contracted].* |
| **ITB 42.1 and 42.2** | The successful Bidder shall also be required to submit an Environmental, Social, Health and Safety (ESHS) Performance Security.  ***[Note: throughout this bidding document the term ’performance security’, unless the context clearly indicates otherwise, means and includes both ‘the performance security to be submitted by the successful bidder in the amounts specified in GCC/ PCC 50]*** |
| **ITB 43.1** | The Adjudicator/Dispute Review Expert proposed by the Employer is***:***  ***Lalbiakthanga Sellai*** The daily fee for this proposed Adjudicator/Dispute Review Expert shall be: Rs. 5000/-***.*** The biographical data of the proposed Adjudicator/Dispute Review Expert is as follows: \_  He has a degree in mechanical engineering and entered in the service under Mizoram PWD in 1981. In 2010 while he was posted as Superintending Engineer in Mechanical circle, Mizoram PWD, he was appointed as Member of Mizoram Public Service Commission (Retd). He served Mizoram Public Service Commission for six years from 2010 and finally got retired.  “The Adjudicator proposed by the Employer is: ***Lalbiakthanga Sellai*** and has been identified from the list provided by MPSC. The daily fee payable to Adjudicator is Rs. 5000/- as per the rules of the Institution.” |

**Section III - Evaluation and Qualification Criteria**

1. Evaluation

In addition to the criteria listed in ITB 35.2 (a) – (e) the following criteria shall apply:

1.1 Adequacy of Technical Proposal

# 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 implementation of the Environmental Management Planand Safety Assurance under this contract, backed with equipment planning and deployment, 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 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*].

1.2 Multiple Contractsif permitted under ITB 35.4,will be evaluated as under. Not Applicable.1.3 Specialised Subcontractors

*‘Not Applicable’*

2. Qualification

|  |  | |  |  | |  | |  |  | |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Eligibility and Qualification Criteria | | | | Compliance Requirements | | | | | | Documentation | |
| No. | Subject | | Requirement | Single Entity | | Joint Venture where permitted | | | | Submission Requirements | |
| **All Parties Combined** | | **Each Member** | **One Member** |
| 2.1 Eligibility | | | | | | | | | | | |
| 2.1.1 | Nationality | | Nationality in accordance with ITB Sub-Clause 4.3. | Must meet requirement | | Existing or intended JV must meet requirement | | Must meet requirement | N / A | Forms ELI –1.1 and ELI-1.2  With attachments | |
| 2.1.2 | Conflict of Interest | | No conflicts of interest in ITB Sub-Clause 4.2. | Must meet requirement | | Existing or intended JV must meet requirement | | Must meet requirement | N / A | Letter of Bid | |
| 2.1.3 | Bank eligibility | | Not having been declared ineligible by the Bank, as described in ITB Sub-Clause 4.4.& 4.7. | Must meet requirement | | Existing JV must meet requirement | | Must meet requirement | N / A | Letter of Bid | |
| 2.1.4 | Government Owned Entity | | Bidder to meet conditions of ITB Sub-Clause 4.5. The entity should not be a dependent agency of the borrower or sub-borrower or Employer. | Must meet requirement | | Must meet requirement | | Must meet requirement | N / A | Forms ELI -1.1 and 1.2 with attachments | |
| 2.1.5 | United Nations resolution or Borrower’s country law | | Not having been excluded as a result of prohibition in the 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 4.7 and Section V. | Must meet requirement | | Must meet requirement | | Must meet requirement | N / A | Forms ELI -1.1 and 1.2 with attachments | |
| 2.2 Historical Contract Non-Performance | | | | | | | | | | | |
| 2.2.1 | History of Non-Performing Contracts | Non-performance of a contract[[1]](#footnote-2) did not occur as a result of contractor default since 1stJanuary **2008** | | | Must meet requirement by itself or as member to past or existing JV | | Must meet the requirement | Must meet requirement by itself or as member to past or existing JV | N / A | Form CON – 2 | |
| 2.2.2 | **Suspension due to withdrawal of the Bid within Bid validity** | Not under suspension due to withdrawal of the Bid pursuant ITB 19.6. | | | Must meet requirement | | Must meet requirement | Must meet requirement | N/A | Letter of Bid | |
| 2.2.3 | Pending Litigation | Bidder’s financial position and prospective long term profitability sound according to criteria established in 2.3.1 below and assuming that all pending litigation will be resolved against the Bidder | | | Must meet requirement by itself or as member to past or existing JV | | N / A | Must meet requirement by itself or as member to past or existing JV | N / A | Form CON – 2 | |
| 2.2.4 | Litigation History | No consistent history of court/arbitral award decisions against the Bidder[[2]](#footnote-3) since 1st January **2013** | | | Must meet requirement by itself or as member to past or existing JV | | Must meet requirement | Must meet requirement by itself or as member to past or existing JV | N/A | Form CON – 2 | |
| 2.2.5 | **Declaration: Environmental, Social, Health, and Safety (ESHS) past performance** | Declare any civil work contracts that have been suspended or terminated and/or performance security called by an employer for reasons related to the non-compliance of any environmental, or social, or health or safety requirements or regulations in the past five years[[3]](#footnote-4). | | | Must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration. | | N/A | Each must make the declaration. Where there are Specialized Sub-contractor/s, the Specialized Sub-contractor/s must also make the declaration. | N/A | Form CON-3 ESHS Performance Declaration | |

|  |  | |  | |  | |  | | | |  | | |  | | |  | |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Qualification Criteria | | | | | Compliance Requirements | | | | | | | | | | Documentation | | | |
| No. | Subject | | Requirement | | Single Entity | | Joint Venture where permitted | | | | | | | | Submission Requirements | | | |
|  |  | |  | |  | | All Parties Combined | | | Each Member | | One Member | | |  | | | |
| 2.3 Financial Situation and Performance | | | | | | | | | | | | | | | | | | |
| 2.3.1 | Financial Capabilities | | (a) The Bidder shall demonstrate that it has access to, or has available, liquid assets, unencumbered real assets, lines of credit, and other financial means (independent of any contractual advance payment) sufficient to meet the construction cash flow requirements estimated as **Rs*34.00 lakh* for** the subject contract(s) net of the Bidders other commitments  (b) The Bidders shall also demonstrate, to the satisfaction of the Employer, that it has adequate sources of finance to meet the cash flow requirements on works currently in progress and for future contract commitments  (c) The audited balance sheets or, if not required by the laws of the Bidder’s country, other financial statements acceptable to the Employer, for the last *five* years (2013-14,2014-15,2015-16, 2016-17 and 2017-18) shall be submitted and must demonstrate the current soundness of the Bidder’s financial position and indicate its prospective long-term profitability. | | (a) Must meet requirement  (b) Must meet requirement  (c) Must meet requirement | | | (a) Must meet  the requirement  (b) Must meet requirement  N/A | (a) Must meet at least 25% of the requirement  as a minimum  N/A  (c) Must meet requirement | | | | (a) Must meet at least 50% of the requirement  as a minimum  N/A  N/A | | Form FIN - 3.1 with attachments | | | |
|  | | | | | | | | | | | | | | | | | | |
| 2.3.2 | Annual Construction Turnover | | Achieved in at least two financial years 2013-14, 2014-15, 2015-16,2016-17 and 201718)  a minimum annual financial turnover[[4]](#footnote-5) in civil engineering construction work of **INR 250** lakh ***(Rupees two crore fifty lakh)*** calculated as total certified payments received for contracts in progress or completed, | | Must meet requirement | | Must meet requirement | | Must meet twenty five percent (25%) of the requirement | | | | Must meet fifty percent (50%) of the requirement | | Form FIN - 3.2 | | | |
|  |  | |  | |  | |  | | | |  | | |  | | |  | |
| Qualification Criteria | | | | | Compliance Requirements | | | | | | | | | | Documentation | | | |
| No. | Subject | | Requirement | | Single Entity | | Joint Venture where permitted | | | | | | | | Submission Requirements | | | |
|  |  | |  | |  | | All Parties Combined | | | Each Member | | One Member | | |  | | | |
| 2.4 Experience | | | | | | | | | | | | | | | | | | |
| 2.4.1 | General Construction Experience | Experience under construction contracts for similar works such as those pertaining to **Building Works**[***RCC framed structure Building of two or more storeys*)** in the role of contractor, JV member, sub-contractor, or management contractor for at least the last five [5] (2013-14,2014-15,2015-16, 2016-17 and 2017-18) years prior to the bid submission deadline. | | Must meet requirement | | N/A | | | Must meet requirement of having executed works of similar nature | | | | N/A | | | Form EXP – 4.1 | |

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| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Qualification Criteria | | | Compliance Requirements | | | | | | | | Documentation | |
| No. | Subject | Requirement | Single Entity | Joint Venture where permitted | | | | | | | Submission Requirements | |
|  |  |  |  | All Parties Combined | | Each Member | | One Member | | |  | |
| 2.4.2 (a) | Specific Construction Experience | Bidder should have successfully completed as a prime contractor, JV member[[5]](#footnote-6), management contractor or sub-contractor, minimum one (1) contract substantially within the last five (5) years ((2013-14,2014-15,2015-16, 2016-17 and 2017-18) with a value[[6]](#footnote-7) of at least **Rs108 lakh**, which is similar to the proposed works. (***RCC Building of two or more storeys*.**) The similarity shall be based on the physical size, complexity, methods/technology or other characteristics as described in Section VII, Employer’s requirements. | Must meet requirement | Must meet requirement | Must meet requirement for one contract of 25% value | | | | Must meet requirement for one contract of 50% in value | | Form EXP 4.2(a). The contractor should have borne responsibility for execution of works to the extent he claims experience. A contractor should not claim experience for the works he has never executed. | |
|  | | | | | | | | | | | | |

| Qualification Criteria | | | Compliance Requirements | | | | Documentation |
| --- | --- | --- | --- | --- | --- | --- | --- |
| No. | Subject | Requirement | Single Entity | Joint Venture where permitted | | | Submission Requirements |
|  |  |  |  | All Parties Combined | Each Member | One Member |  |

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| 2.4.2  (b) | Specific Experience | | b) For the above or other contracts executed during the period stipulated in 2.4.2(a) above, at least in one year a minimum construction experience in the following key activities:  **RCC Building of two or more storeys – Floor area 550 sq.m** | Must meet requirements | Must meet requirement | Should meet the criteria in full, at least for one of key activities listed in column 3. | Must meet requirement for the key activities**RCC Building of two or more storeys – Floor area 300 sq.m**  …………..  …………..  …………..  ………….. | Form EXP-4.2(b) |
|  | | | | | | | | |
| **2.4.2(c)** For a bidder (either individually as a single entity or as a JV member) to qualify for a group of lots (contracts), he must demonstrate having experience and resources sufficient to meet the aggregate of the qualifying criteria for all the contracts in question. | | | | | | | | |
| **2.4.2(d)** | | Bidders who meet the minimum qualification criteria will be qualified only if their available bid capacity for construction work is equal to or more than the total bid value of the work. The available bid capacity will be calculated as under:  Assessed Available bid capacity = (A\*N\*1.5-B)  Where,  A = Maximum value of civil engineering works executed in any one year during the last five years (updated to the price level of the financial year ….. at the rate of 5% per year), taking into account the completed aswell as works in progress).  N = Number of years prescribed for completion of the works for which bids are invited (period upto 6 months to be taken as half-year and more than 6 months as one year).  B = Value, at the current price level, of existing commitments on on-going works to be completed during the period of completion of the works for which bids are invited.  Note: *the statements in Section IV showing the value of existing commitments of on-going works as well as the stipulated period of completion remaining for each of the works listed should be countersigned by the Engineer in charge, not below the rank of an Executive Engineer or equivalent.* | | | | | | |
| **2.4.2 (e)** | | Even though the bidders may meet the above qualifying criteria, they are subject to be disqualified if they have: -   * + made misleading or false representations in the forms, statements, affidavits, and attachments submitted in proof of the qualification requirement;   + record of poor performance such as abandoning the works, not properly completion or financial failures etc.   + consistent history of litigation or arbitration awards against the bidder or any member or the joint venture.   + Participated in the previous bidding (if this is a re-bidding) for the same work and had quoted unreasonably high bid price and could not furnish any rational justification for the same to the Employer. | | | | | | |
|  | |  | | | | | | |

2.5 Personnel

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

*[Specify requirements for each lot as applicable]*

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| S. No. | Designation of Personnel (Position) | No. | Minimum Qualification | Minimum years of experience | Minimum experience in similar works. |
| 1.  2.  3. | Civil Engineer  Diploma Engineer  Diploma Engineer | 1  1  1 | B.Tech (Civil Engg.)  Diploma in Civil Engg.  Diploma in Elect, Engg. | 5 years  5 Years  3 years | 3 years  3 years  2 years |

*[Indicate designation, qualification, and experience required for each position. Bidder should furnish Curriculum Vitae to confirm their meeting the requirements].*

The Bidder must not have in his employment:

[i] the near relations (defined as first blood relations, and their spouses, of the bidder or the bidder’s spouse) of persons of the following Government Departments.

[ii] without Government permission, any person who retired as gazetted officer within the last two years.

The Bidder shall provide details of the proposed personnel and their experience records in the relevant Forms included in Section IV, Bidding Forms.

Note:

*The managerial and technical competence of a contractor is largely related to the key personnel on site. The extent to which the Bidder should demonstrate having staff with extensive experience should be limited to those requiring critical operational or technical skills. The criteria should therefore refer to a limited number of such key personnel, for instance, the project or contract manager and others working under the project manager who will be responsible for major components (e.g. specialized in dredging, piling, earthworks, environmental, health and safety, or social aspects,as required for each particular project). Criteria of acceptability should be based on:*

*(a) a minimum number of years of experience in a similar position; and*

*(b) a minimum number of years of experience and/or number of comparable projects carried out in a specified number of preceding years.*

*The requirement of specified education and academic qualifications is normally unnecessary for such positions, as contractors often employ competent staff who have learned their profession “on the job” rather than through academic training. It is appropriate to specify that certain positions are filled by individuals who have held posts of comparable authority for, say, three years with the Bidder, so that key staff in executive site positions have sufficient knowledge of the Bidder's management, policy, procedures, and practices to act with confidence and authority within that framework.*

2.6 Equipment

The Bidder must demonstrate that it will have access to the key Contractor’s equipment listed hereafter:

|  |  |  |  |
| --- | --- | --- | --- |
| **No.** | **Equipment Type and Characteristics** | **Capacity** | **Minimum Number required** |
| **1** | **Concrete Mixer** | **7/10** | **1 no** |
| **2** | **Needle Vibrator** |  | **3 nos** |
| **3** | **Cube Mould (150x150x150mm)** |  | **12 nos** |
| **4** | **Tipper** | **4 cu.m** | **2 nos** |
| **5** | **Shuttering Boards** |  | **100 sqm** |
|  |  |  |  |
|  |  |  |  |

*[NOTE:*

#### *Based on the studies, carried out by the Project Manager the minimum suggested major equipment to attain the completion of works in accordance with the prescribed construction schedule is shown in the above list. The bidders should, however, undertake their own studies and furnish with their bid, a detailed construction planning and methodology supported with layout and necessary drawings and calculations (detailed) as stated in Section IV to allow the employee to review their proposals. The numbers, types and capacities of each plant/equipment shall be shown in the proposals alongwith the cycle time for each operation for the given production capacity to match the requirements.]*

The Bidder shall provide further details of proposed items of equipment using the relevant Form in Section IV.

Section IV - Bidding Forms

Letter of Bid

|  |
| --- |
| *The Bidder must prepare the Letter of Bid on stationery with its letterhead clearly showing the Bidder’s complete name and address.*  ***Note: All italicized text is for use in preparing these forms and shall be deleted from the final products.*** |

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

Invitation for Bid No.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

To: ***(Insert name of the Employer)***

We, the undersigned, declare that:

1. We have examined and have no reservations to the Bidding Documents, including Addenda issued in accordance with Instructions to Bidders (ITB8);
2. We meet the eligibility requirements and have no conflict of interest in accordance with ITB 4;
3. We offer to execute in conformity with the Bidding Documents the following Works: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_;
4. The total price of our Bid, excluding any discounts offered in item (e) below is:

-In case of only one lot, total price of the Bid ***[insert the total price of the bid in words and figures]*;**

-In case of multiple lots, total price of each *lot* ***[insert the total price of each lot in words and figures]*;**

-In case of multiple lots, total price of all lots (sum of all lots)***[insert the total price of all lots in words and figures***;

1. 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****]*\_\_\_\_\_\_\_\_\_\_;

1. Our bid shall be valid for a period of \_\_\_\_\_\_\_\_ ***[insert validity period as specified in ITB 18.1****.]* days from the date fixed for the bid submission deadline in accordance with the Bidding Documents, and it shall remain binding upon us and may be accepted at any time before the expiration of that period;
2. We accept the appointment of ***[insert name proposed in Bid Data Sheet****]* as the Adjudicator/Dispute Review Expert

***[or]***

We do not accept the appoint of *[****insert name proposed in Bid Data Sheet****]* as he Adjudicator/Dispute Review Expert, and propose instead that *[****insert name****]* be appointed[[7]](#footnote-8) as Adjudicator/Dispute Review Expert, whose daily fees and biographical data are attached;

1. If our bid is accepted, we commit to obtain a performance security in accordance with the Bidding Document;
2. We are not participating, as a Bidder, in more than one bid in this bidding process in accordance with ITB 4.2,
3. Our firm, its affiliates or subsidiaries, including any Subcontractors or Suppliers for any part of the contract, has not been declared ineligible by the Bank, under the Employer’s country laws or official regulations or by an act of compliance with a decision of the United Nations Security Council(ITB 4.7);
4. We are not a government owned entity / We are a government owned entity but meet the requirements of ITB 4.5[[8]](#footnote-9);
5. We have paid, or will pay the following commissions, gratuities, or fees with respect to the bidding process or execution of the Contract:***[[9]](#footnote-10)***

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Name of Recipient |  | Address |  | Reason |  | Amount |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

1. We hereby certify that we have taken steps to ensure that no person acting for us or on our behalf will engage in any type of fraud and corruption.
2. We also undertake that, in competing for (and, if the award is made to us, in executing) the above contract, we will strictly observe the laws against fraud and corruption in force in India on date namely “Prevention of Corruption Act 1988.”
3. We understand that this bid, together with your written acceptance thereof included in your notification of award, shall constitute a binding contract between us, until a formal contract is prepared and executed;
4. We understand that you are not bound to accept the lowest evaluated bid or any other bid that you may receive; and
5. If awarded the contract, the person named below shall act as Contractor’s Representative: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

|  |  |
| --- | --- |
|  | Name of the Bidder**\*** ***[insert complete name of person signing the Bid]***  Name of the person duly authorized to sign the Bid on behalf of the Bidder***\*\* [insert complete name of person duly authorized to sign the Bid]***  Title of the person signing the Bid ***[insert complete title of the person signing the Bid]***  Signature of the person named above  *[****insert signature of person whose name and capacity are shown above****]*  Date signed ***[insert date of signing]***day of ***[insert month]***, ***[insert year]***  **\***: In the case of the Bid submitted by joint venture specify the name of the Joint Venture as Bidder  \*\*: Person signing the Bid shall have the power of attorney given by the Bidder to be attached with the Bid Schedules. |
|  |  |

# 

BILL OF QUANTITIES

NAME OF WORK: VERTICAL EXTENSION OF IRRIGATION AND WATER RESOURCES OFFICE BUILDING AT NEW SECRETARIAT COMPLEX, AIZAWL

|  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **Sl/ No** | **Description of Items** | | | | **Qty.** | **Unit** | **Rate** | | | | **Amount** |
| **in figures** | | **In words** | |
| **A** | CIVIL WORKS | | | |  |  |  | |  | |  |
| 1 | Providing and laying in position machine batched, machine mixed and machine vibrated design mix M-20 grade reinforced cement concrete excluding cost of centering and shuttering and reinforcement in - b) All work above plinth level upto floor V level. | | | |  |  |  | |  | |  |
|  | Columns | | | | 15.24 | m3 |  | |  | |  |
|  | Beams | | | | 81.21 | m3 |  | |  | |  |
|  | Slabs | | | | 99.87 | m3 |  | |  | |  |
|  | Staircase | | | | 4.11 | m3 |  | |  | |  |
| 2 | Centering and shuttering including strutting, propping, etc. and removal of form works in - | | | |  |  |  | |  | |  |
|  | c) Columns, pillars, piers, abutments, posts and struts. | | | | 165.66 | m2 |  | |  | |  |
|  | d) Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc. | | | | 697.13 | m2 |  | |  | |  |
|  | e) Suspended floors, roofs, landings, shelves and their support, balconies and chajjaj, etc. | | | | 665.85 | m2 |  | |  | |  |
|  | f) Staircases (except spiral staircase) excluding landings. | | | | 25.04 | m2 |  | |  | |  |
| 3 | Smooth finishing of the exposed surface of RCC work with 6mm thick cement mortar 1:3 (1cement : 3fine sand) | | | | 1553.68 | m2 |  | |  | |  |
| 4 | Steel reinforcement for RCC work including straighthening, cutting, bending, placing in position and binding all complete. (f) Thermo-Mechanically Treated bars. | | | | 36987.45 | kg |  | |  | |  |
| 5 | Half brick masonry with first class brick in foundation and plinth in: b) in cement mortar 1:4 ( 1cement :4 fine sand) | | | | 699.96 | m2 |  | |  | |  |
| 6 | First class brickwork in superstructure above plinth level upto floor V level in: | | | | 5.37 | m3 |  | |  | |  |
| 7 | 20mm cement plaster 1 : 4 (1 cement : 4 fine sand). | | | | 1442.88 | m2 |  | |  | |  |
| 8 | Extra for plastering exterior walls of height more than 10 m from ground level for every additional height of 3 m or part thereof. | | | | 1442.88 | m2 |  | |  | |  |
| 9 | Providing and laying water proofing treatment in sunken portion of WCs, bathroom etc., by applying cement slurry mixed with Armourcrete of M/s The Structural Water Proofing Company Pvt. Ltd. | | | | 45.25 | m2 |  | |  | |  |
| 10 | Providing Ist class local wood dressed in frames of chaukat for doors, windows, clerestory windows fixed in position. | | | | 1.24 | m3 |  | |  | |  |
| 11 | Providing and fixing 30mm thick panelled door shutter comprising of styles and rails of seasoned teak wood with panels of phenol formaldehyde synthetic resin bonded particle board 19mm thick with one side teak ply and the other side commercial ply veneering on both faces conforming to IS:3097-1965 including M.S. butt hinges with necessary screws. | | | | 43.37 | m2 |  | |  | |  |
| 12 | Providing 1st class local wood work dressed in frames of sill, upright, batten, post, beams, etc. as structural members fixed in position complete. | | | | 2.31 | m3 |  | |  | |  |
| 13 | 25mm thick dressed local wood planked flooring butt joined fixed with iron screws / nails complete excluding cost of base frame. | | | | 55.87 | m2 |  | |  | |  |
| 14 | Providing and fixing anodisedaluminium work for windows and ventilators with extruded built up standard sections of approved make conforming to IS : 733 and IS : 1285 fixed with rawl plugs and screws or with fixing clips or with expansion hold fasteners including necessary filling up of gaps at junctions, at top, bottom and sides with required PVC/ neoprene gaskets etc. Aluminium sections shall be smooth, rust free, straight, mitred and jointed mechanically whenever required including cleat angle, aluminium snap beading for glazing /panelling, CP brass /stainless steel screws all complete including fixing of glasses but excluding cost of glasses. (a) 2 - track sliding windows/ventilators. | | | | 454.48 | kg |  | |  | |  |
| 15 | Supplying of glass panes at site. (d) 5mm thick plate sheet glass. | | | | 87.40 | m2 |  | |  | |  |
| 16 | Providing & laying vitrified floor tiles in different sizes (thickness to be specified by the manufacture) with water absorption less than 0.08% and conforming to IS:15622,of approved make, in all colours and shades, laid on bed of 20mm thick cement mortar 1 : 4 (1cement:4course sand), includingthe joints with white cement and matching pigments etc.complete.as per design colours. (d) Digital (Marble look) | | | | 330.11 | m2 |  | |  | |  |
| 17 | Providing & laying vitrified tiles in different sizes (thickness to be specified by the manufacture) with water absorption less than 0.08% and conforming to IS:15622,of approved make, in all colours and shades, in skirting , riser of steps, laid with cement based high polymer modified quick set tile adhesive (water) based) conforming to IS:15477, in average 6mm thickness, including grouting of joints (Payment for grouting of joints to be made separately). (d) Digital (Marble look) | | | | 39.04 | m2 |  | |  | |  |
| 18 | Marble stone flooring 18mm thick marble stone as per sample of marble approved by Engineer-in-Charge, over 20 mm thick base of cement mortar 1:4 (1cement :4 coarse sand) laid and jointed with white cement slurry including rubbing and polishing complete. (a) Raj Nagar Plain white marble/green white marble | | | | 23.39 | m2 |  | |  | |  |
| 19 | Providing and laying rectified glazed ceramic floor tiles of size 300x300mm or more (thickness to be specified by the manufacturer) of 1st quality conforming to IS: 15622 of approved make in all colours,shades, except white, ivory, grey, fume red brown, laid on 20mm thick cement mortar 1 : 4 (1cement : 4 course sand ) including pointing the joints with white cement and matching pigments etc. complete. as per designed colour. | | | | 45.25 | m2 |  | |  | |  |
| 20 | Providing and fixing ceramic glazed wall tiles of size 240x300mm or more conforming to IS : 15622 (thickness to e specified by the manufacturer),of approved make, in all colours, shades except White, Ivory, Grey, Fume Red Brown, over 20mm thick bed of cement mortar 1:4 (1cemeny :4 coarse sand) and jointing with cement slurry @ 3.3kg per sqm, including pointing in white cement mixed with pigment of matching shade complete. | | | | 97.73 | m2 |  | |  | |  |
| 21 | Providing & laying border tiles of approved quality, size, shape and thickness not less than 8mm of approved brand of any shade in wall & floors laid on bed of 20mm thick cement mortar 1 : 4 jointed with neat cement slurry including finishing joints with grouting in white cement mixed with pigment of matching shade complete. or/ including cutting where necessary finishing with flush pointing with Fix-A-tile (Choksey/ Sika/ Pedelite/ Rout)/ BalEndura with Balendura grout complete. (a) Fixed with white cement | | | | 4.89 | m2 |  | |  | |  |
| 22 | Cement concrete flooring 1:2:4 (1 cement : 2 sand : 4 well graded stone aggregate 20mm size) finished with a floating coat neat cement including cement slurry etc. complete but excluding the cost of nosing of steps etc. | | | | 822.40 | m2 |  | |  | |  |
| 23 | Providing and mixing integral liquid water proofing compound in plain and reinforced cement concrete work 1 : 1.5 : 3 , @ 200 ml per 50 kg of cement. | | | | 822.40 | m2 |  | |  | |  |
| 24 | Supplying and fixing of 100cm high Mild steel varandah railing consisting of hand railing and bottom railings of 40mmx40mm mild steel square section at the distance of 788mm apart and 30mm x 30mm mild steel square section balusters which are designed to have a symmetrical-rectangular shape of a very attractive view and being placed @ 280mm c/c . The square section balusters are welded joints with the mild steel hand railing at the top and below with bottom railing. The base of the balusters @ 560mm c/c are also welded joint with a base plate of 60mm x 3mm thick and fixed with cement grouting to receive the mild steel Gallery railings in firmed and stable conditions including applying steel priming coat and steel painting complete etc. | | | | 135.60 | Rm |  | |  | |  |
| 25 | Supplying and fixing stainless steel decorative railing 80cm high in staircase, etc. consisting of 75mm for rail and post, 63mm for longitudinal intermediate rail and 25mm of vertical section, spacing 125mm interval with circular sections. | | | | 7.50 | Rm |  | |  | |  |
| 26 | Providing and fixing dressed & chamfered 1st class local wood door and window architrave of size fixed with wooden plug on door chaukhatetc complete. (a) 100mmx30mm | | | | 133.70 | Rm |  | |  | |  |
| 27 | Providing and fixing CP brass sliding door bolts (aldrops) bright finished with nuts and screws etc. complete. (a) 300x16mm | | | | 15.00 | Nos |  | |  | |  |
| 28 | Providing and fixing CP brass tower bolts (socket bolts) bright finished with necessary screws etc. complete.a) 250 mm | | | | 44.00 | Nos |  | |  | |  |
| 29 | Providing and fixing CP brass handles with necessary screws, etc. complete. (a) 250 mm | | | | 16.00 | Nos |  | |  | |  |
| c) 150 mm | | | | 36.00 | Nos |  | |  | |  |
| 30 | Providing and fixing 150 mm bright finished brass floor door stopper with rubber cuhion, screws, etc. to suite shutter thickness complete. | | | | 19.00 | Nos |  | |  | |  |
| 31 | Providing and fixing wooden pelmet with 25mm dia wooden curtain rod and bracket including wooden plugs etc. complete (to be fixed on masonry or concrete work). (A) 1st class teak wood (b) 12mm thick 150 cm wide Pelmet. | | | | 64.60 | Rm |  | |  | |  |
| 32 | Providing and applying wall putty of 2mm thickness over plastered surface to prepare the surface even and smooth complete. | | | | 1442.88 | m2 |  | |  | |  |
| 33 | Applying one coat of cement primer of approved brand and manufacture on wall surface. | | | | 2996.56 | m2 |  | |  | |  |
| 34 | Wall painting with interior emulsion paint of approved brand and manufacture on new work (two or more coats) to give an even shade. (a) Regular interior emulsion like rangolidelux emulsion etc. | | | | 2275.12 | m2 |  | |  | |  |
| 35 | Finishing walls with exterior emulsion of required shade on new work (three or more coats) to give an even shade. a) Regular exterior emulsion like supercote, walmasala etc. | | | | 1442.88 | m2 |  | |  | |  |
| 36 | Applying priming coat with ready mixed primer of approved brand and manufacture on wood work and plywood complete. (a) Ready mix white primer | | | | 47.52 | m2 |  | |  | |  |
| 37 | Painting with synthetic enamel paint of approved brand and manufacture in all shades on new work (two or more coats). | | | | 47.52 | m2 |  | |  | |  |
| **B** |  |  |  |  | | | |  | |
| 38 | Providing and fixing water closet squatting pan ( Indian type ) with 100mm SCI 'P"/'S' trap,10 lits low level white PVC flushing cistern including flush pipe, manually controlled device with all fitting and fixtures complete including cutting and making good the walls and floors wherever required.( b) White Vitreous china Orissa pattern W.C. pan of size 530x410 mm with integral type foot rests | | | | 4.00 | Nos |  | |  | |  |
| 39 | Providing and fixing vitreous china water closet (EWC Extd.Wall Mtg. Constellation) including Seat Cover Constellation premium and lid with C.P brass hinges and rubber buffers, Dual-flush Cistern with Lid Constellation and Fittings (Water Saver dual flush) and C.I / R.S brackets, 40 mm porcelain enamelled flush bend, overflow arrangement with specials of standard make and mosquito proof coupling of approved design complete including painting of fittings and brackets, cutting and making good the walls and floors wherever required. (B) (ii) Pastel | | | | 3.00 | Nos |  | |  | |  |
| 40 | Providing and fixing white vitreous china flat back or wall corner type lipped front urinal basin of 430x260x350 mm and 340x410x265 mm sizes respectively with automatic flushing cistern with standard flush pipe and CP. Brass spreaders with brass unions and G.I clamps complete, including painting of fittings and brackets, cutting and making good the walls and floors wherever required : (a) One urinal basin with 5 litre white P.V.C. automatic flushing cistern. | | | | 7.00 | Nos |  | |  | |  |
| 41 | Providing and fixing wash basin with C.I. brackets, 15mm C.P. brass pillar taps, 32mm C.P. brass waste of standard pattern, including painting of fittings and brackets, cutting and making good the walls wherever required. (a) White Vitreous China Wash basin size 630x450mm with a single 15mm C.P. brass pillar tap. | | | | 7.00 | Nos |  | |  | |  |
| 42 | Providing and fixing 600x450mm bevelled edge mirror of superior glass complete with 6mm thick hard board ground fixed to wooden cleats with CP brass screws and washer complete. | | | | 7.00 | Nos |  | |  | |  |
| 43 | Providing and fixing C.P. brass towel rail complete with brackets to wooden cleats with C.P. brass screws. (b) 600x20mm size. | | | | 7.00 | Nos |  | |  | |  |
| 44 | Providing and fixing liquid soap container with C.P. brass lid and brackets to wooden cleats with the same materials etc complete. (a) (i) Glass container with CP lid and bracket | | | | 14.00 | Nos |  | |  | |  |
| 45 | Providing and fixing on wall face SWRPVC soil, waste and vent pipe including jointing with rubber lubricant/ cement solvent complete. (a) 110mm | | | | 40.00 | Rm |  | |  | |  |
|  | (b) 75mm | | | | 40.00 | Rm |  | |  | |  |
| 46 | Providing and fixing M.S holder bat clamps of approved design to sanitary / drainage pipe embedded in and including cement concrete block 10x10x10cm of 1:2:4 mix (1cement : 2coarse sand : 4aggregate 20mm nominal size) including cost of cutting holes and making good the wall etc. complete. (a) 110mm | | | | 20.00 | Nos |  | |  | |  |
|  | (b) 75mm | | | | 20.00 | Nos |  | |  | |  |
| 47 | Providing and fixing SWRPVC plain bend of required degree including jointing with rubber lubricant/cement solvent complete. (a) 110mm | | | | 20.00 | Nos |  | |  | |  |
|  | (b) 75mm | | | | 20.00 | Nos |  | |  | |  |
| 48 | Providing and fixing single equal SWRPVC plain junction of required degree. (a) 100x100x100x100mm. | | | | 20.00 | Nos |  | |  | |  |
|  | (b) 75x75x75x75mm. | | | | 20.00 | Nos |  | |  | |  |
| **C** |  |  |  |  | | | |  | |
| 49 | Providing and fixing CPVC pipes complete with CPVC fitting for water supply including clamps at one metre spacing, cutting and making good the walls etc. (internal works).Exposed on walls. (a) 15mm dia. nominal bore | | | | 40.00 | Rm |  | |  | |  |
| 50 | Providing and fixing CPVC pipes complete with CPVC fitting for water supply, including trenching and refilling etc. (external work). (b) 20mm dia. nominal bore | | | | 70.00 | Rm |  | |  | |  |
| 51 | Extra for concealed in brick and RCC works by making chases upto 7.5x7.5cm in walls and making good the same after housing pipes, etc. | | | | 110.00 | Rm |  | |  | |  |
| 52 | Providing and fixing brass bib cock of approved quality. (a) 15 mm nominal bore | | | | 14.00 | Nos |  | |  | |  |
| 53 | Providing and fixing brass stop cock of approved quality. (a) 20 mm nominal bore | | | | 2.00 | Nos |  | |  | |  |
| 54 | Providing and fixing on terrace (at all floor levels) Polyethylene storage tank of approved brand and manufacture with cover and mosquito proof coupling and suitable locking arrangement and making necessary connections for inlet, outlet and overflow pipes but without the cost for base support. | | | | 6000.00 | Lits |  | |  | |  |
| 55 | Providing and placing in position electric water pump of approved manufacture including connections to UPVC pipes etc. complete with accessories. (750 watts) | | | | 1.00 | Nos |  | |  | |  |
| **D** |  |  |  |  | | | |  | |
|  | **RECESS UPVC CONDUIT WIRING (GRADE-III)** | | | |  |  |  | |  | |  |
| 56 | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Life line Flame retardant (FR)1100 voltage graded copper flexible wire stranded copper running inside PVC conduit pipe (Medium Duty) 20mm dia' fixed, recess inside the wall/ceiling/floor as per convenience including junction box having required numbers of ways from control switch to the light point/fan point/exhaust fan point etc as required: | | | |  |  |  | |  | |  |
|  | **A. TO A LIGHT POINT(MODULAR TYPE)** | | | |  |  |  | |  | |  |
|  | (C ) Medium point | | | | 4 | No |  | |  | |  |
|  | **B. TO EXHAUST/CEILING FAN POINT(MODULAR TYPE)** | | | |  |  |  | |  | |  |
|  | (C ) Medium point | | | | 3 | No |  | |  | |  |
|  | **G. LIGHT POINT (Two points controlled by one switch (modular))** | | | | 3 | No |  | |  | |  |
|  | **H. LIGHT POINT (Three points controlled by one switch (modular)** | | | | 4 | No |  | |  | |  |
|  | **I. LIGHT POINT (Four points controlled by one switch (modular)** | | | | 3 | No |  | |  | |  |
| 57 | **FOR LIGHT PLUG/SOCKET POINT 5/6 AMPERES (MODULAR TYPE)** | | | |  |  |  | |  | |  |
|  | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Life line Flame retardant(FR)1100 voltage graded copper flexible wire standed copper running inside PVC conduit pipe (Medium Duty) 20mm dia' fixed, recess inside the wall/ceiling/floor as per convenience including junction box having required numbers of ways from DB to the light plug/socket 5/6A point etc. as required | | | |  |  |  | |  | |  |
|  | (E) Very Long point (MODULAR TYPE) | | | | 2 | No |  | |  | |  |
| 58 | **FOR POWER PLUG/SOCKET POINT 15/16 AMPERES (MODULAR TYPE)** | | | |  |  |  | |  | |  |
|  | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Life line Flame retardant(FR)1100 voltage graded copper flexible wire standed copper running inside PVC conduit pipe (Medium Duty) 20mm dia' fixed, recess inside the wall/ceiling/floor as per convenience including junction box having required numbers of ways from DB to the power plug/socket 15/16A point etc. as required | | | |  |  |  | |  | |  |
|  | (F) Extra Ordinary Long point (MODULAR TYPE) | | | | 2 | No |  | |  | |  |
| 59 | **FOR POWER PLUG/SOCKET POINT 20/32 AMPERES (MODULAR TYPE)** | | | |  |  |  | |  | |  |
|  | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Life line Flame retardant(FR)1100 voltage graded copper flexible wire standed copper running inside PVC conduit pipe (Medium Duty) 20mm dia' fixed, recess inside the wall/ceiling/floor as per convenience including junction box having required numbers of ways from DB to the power plug/socket 20/32A point etc. as required | | | |  |  |  | |  | |  |
|  | (F) Extra Ordinary Long point(MODULAR TYPE) | | | | 2 | No |  | |  | |  |
|  | FOR CALLING BELL POINT (MODULAR TYPE) | | | |  |  |  | |  | |  |
|  | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Life line Flame retardant (FR)1100 voltage graded copper flexible wire stranded flexible wire stranded copper running inside PVC conduit pipe(medium Duty) 20mm dia' fixed,recess inside the wall/ ceiling/floor as per convinience including junction box having required numbers of ways from control bell push switch to the light point etc as required :- | | | |  |  |  | |  | |  |
|  | (C ) Medium point (Modular type) | | | | 3 | No |  | |  | |  |
| 60 | **MAIN TO SUB-MAIN IN COPPER WIRE GRADE-I (SINGLE PHASE TWO WIRES)** | | | |  |  |  | |  | |  |
|  | Wiring in parallel system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Life line Flame retardant (FR)1100 voltage graded copper flexible wire stranded copper running inside PVC conduit pipe (Gr-III) 20x12/25x12/32x12/38/40x15/20mm diafixed,surface on the wall/ceiling/floor as per convinience including junction box having required numbers of ways from Main to Sub-Main/DB/Sub-Main/DB to SDB/SDB/Switch boards/SDB to switch boards as required:- | | | |  |  |  | |  | |  |
|  | (A) 2X2.5 Sqmm copper conductor/cable + 1x2.5 Sqmmearthwire | | | | 50.00 | rm |  | |  | |  |
|  | (B) 2X 4 Sqmm copper conductor/cable + 1x 4.0 Sqmmearthwire | | | | 40.00 | rm |  | |  | |  |
|  | (C) 2X 6 Sqmm copper conductor/cable + 1x 6.0 Sqmmearthwire | | | | 30.00 | rm |  | |  | |  |
|  | **SURFACE CASSING AND CAPING WIRING ( GRADE-III)** | | | |  |  |  | |  | |  |
| 61 | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1977) and Flame Retardant (FR) 1100 voltage grade copper flexible wire straded copper running inside PVC casing & capping (Gr-III) 20mm dia fixed, surface on the wall/ceiling/floor as per convenience including junction box having required numbers of ways from control switch to the light point etc as required: | | | |  |  |  | |  | |  |
|  | **A. TO A LIGHT POINT(MODULAR TYPE)** | | | |  |  |  | |  | |  |
|  | (B) Short point | | | | 15 | No |  | |  | |  |
|  | (C ) Medium point | | | | 10 | No |  | |  | |  |
|  | (D ) Long point | | | | 8 | No |  | |  | |  |
|  | **B. TO A CEILING FAN /EXHAUST FAN POINT;** | | | |  |  |  | |  | |  |
|  | (C ) Medium point | | | | 8 | No |  | |  | |  |
| 62 | **(G) LIGHT POINT (TWO POINTS CONTROLLED BY ONE SWITCH)** | | | | 6 | No |  | |  | |  |
|  | **(I) LIGHT POINT (FOUR POINTS CONTROLLED BY ONE SWITCH)** | | | | 4 | No |  | |  | |  |
| 63 | **FOR LIGHT PLUG/SOCKET POINT 5/6 AMPERES** | | | |  |  |  | |  | |  |
|  | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1977) and Flame Retardant (FR) 1100 voltage grade copper flexible wire straded copper running inside PVC casing & capping (Gr-III) 20X12mm dia fixed, surface on the wall/ceiling/floor as per convinience including junction box having required numbers of ways from DB to the light plug/socket 5/6A point etc. as required :- | | | |  |  |  | |  | |  |
|  | (E) LIGHT SOCKET/PLUG POINT (VERY LONG POINT)(MODULAR TYPE) | | | | 2 | No |  | |  | |  |
| 64 | **FOR POWER PLUG/SOCKET POINT 15/16 AMPERES** | | | |  |  |  | |  | |  |
|  | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1977) and Flame Retardant (FR) 1100 voltage grade copper flexible wire straded copper running inside PVC casing & capping (Gr-III) 30X12mm dia fixed, surface on the wall/ceiling/floor as per convinience including junction box having required numbers of ways from DB to the light plug/socket 15/16A point etc. as required :- | | | |  |  |  | |  | |  |
|  | (F) POWER SOCKET/PLUG POINT 15/16A(EXTRA ORDINARY LONG POINT) | | | | 4 | No |  | |  | |  |
| 65 | **FOR CALLING BELL POINT (Modular type)** | | | |  |  |  | |  | |  |
|  | Wiring in looping system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Life line Flame retardant (FR)1100 voltage graded copper flexible wire stranded copper running inside PVC cassing&caping (Gr-II) 20x12mm dia' fixed surface on the wall/ ceiling/floor as per convinience including junction box having required numbers of ways from control bell push switch to the light point etc as required :- | | | |  |  |  | |  | |  |
|  | (C ) Medium point | | | | 4 | No |  | |  | |  |
| 66 | **MAIN TO SUB-MAIN IN COPPER WIRE GRADE-III SURFACE (SINGLE PHASE TWO WIRES)** | | | |  |  |  | |  | |  |
|  | Wiring in parallel system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Life line Flame retardant (FR)1100 voltage graded copper flexible wire stranded copper running inside PVC Casing & capping (Gr-III) 20x12/25x12/32x12/38/40x15/20mm diafixed,surface on the wall/ceiling/floor as per convinience including junction box having required numbers of ways from Main to Sub-Main/DB/Sub-Main/DB to SDB/SDB/Switch boards/SDB to switch boards as required:- | | | |  |  |  | |  | |  |
|  | (A) 2X2.5 Sqmm copper conductor/cable + 1x2.5 Sqmmearthwire | | | | 80.00 | rm |  | |  | |  |
|  | (B) 2X4.0 Sqmm copper conductor/cable + 1x4.0 Sqmmearthwire | | | | 50.00 | rm |  | |  | |  |
|  | (C) 2X6.0 Sqmm copper conductor/cable + 1x6.0 Sqmmearthwire | | | | 60.00 | rm |  | |  | |  |
| 67 | **MAIN TO SUB-MAIN IN COPPER WIRE GRADE-III (THREE PHASES FOUR WIRES)** | | | |  |  |  | |  | |  |
|  | Wiring in parallel system with PVC wire sheathed standard copper conductor/wires as per IS:694(1990) and Life line Flame retardant (FR)1100 voltage graded copper flexible wire stranded copper running inside PVC Casing & capping (Gr-III) /25x12/32x12/38/40x15/20mm diafixed,surface on the wall/ceiling/floor as per convinience including junction box having required numbers of ways from Main to Sub-Main/DB/Sub-Main/DB to SDB/SDB/Switch boards/SDB to switch boards as required:- | | | |  |  |  | |  | |  |
|  | (C) 4X 6 Sqmm copper conductor/cable + 2X6 Sqmmearthwire | | | | 60.00 | rm |  | |  | |  |
|  |  | | | |  |  |  | |  | |  |
|  | (D) 4X 10 Sqmm copper conductor/cable + 2X10 Sqmmearthwire | | | | 28.00 | rm |  | |  | |  |
|  | (E) 4X16 Sqmm copper conductor/cable + 2 X 16 Sqmm earth wire | | | | 18.00 | rm |  | |  | |  |
|  | **LIGHTING FIXTURES AND FANS** | | | |  |  |  | |  | |  |
| 68 | Supplying of all types of LED Flat/FTL Ceiling mounted mirror optics/fibre cover/industrial type surface/Recess type with electronicdriver/ ballast/ballast, condenser /electronic filter etc.in complete as follows:- | | | |  |  |  | |  | |  |
|  | a) FTL Deco 1 X 36W ELECTRA SLIM Shrink Wrapped Sleek & strip type ﬁxture with domestic electronic ballast and coloured engineering plastic end plates Havells/Equivalent | | | | 12 | No |  | |  | |  |
|  | b) FTL Deco 1 X 18W ELECTRA SLIM Shrink Wrapped Sleek & strip type ﬁxture with domestic electronic ballast and coloured engineering plastic end plates | | | | 10 | No |  | |  | |  |
|  | c) Down lighter 18W LED 3000K SYL-LIGHTER LED 18WRecess mounted LED luminaire suitable for 18Wwith specially designed heat sink, optics made up of 99.9% pure aluminium with frosted front cover & suitable driver. Low resess depth < 60 mm. Sylvania/**PLUTO 2X2 42W 857 2X2 LED Flat panel Recess Ordering Code: LHEWEIP7PW1W042 Havells** | | | | 2 | No |  | |  | |  |
|  | d) Recess Mounting luminaires 2X28 FTL T5 IVY MIRROR OPTIC AS/GB/POP ceiling Ivy Classic with Pre-anodisedAluminium Louvre Havells/**PLUTO 2X2 34W 857 2X2 LED Flat panel Recess Ordering Code: LHEWEIP7W1W034 Havells** | | | | 2 | No |  | |  | |  |
|  | e) Recess Mounting luminaires 3 X 14 FTL T5 IVY MIRROR OPTIC AS/GB/POP ceiling. Havells/**PLUTO 2X2 LED Flat panel 28W 857 2X2 Recess Ordering Code: LHEWEIP7PW1W028 Havells** | | | | 2 | No |  | |  | |  |
|  | f)Downlight 8W LED 6K KITE - LED PANEL Ultra modern, recess mounted square shaped fixture in white finish with opal diffuser and separate electronic driver. Havells**/ENDURA DL NEO SQUARE SLIM 18W 857 Recess Ordering Code: LHEBJNP7IZ1W018 Havells or equivalent make.** | | | | 4 | No |  | |  | |  |
|  | g)Downlight 4W LED 4K/6K INNOVA LED GRID SQ/RD SWIVEL Aesthetically designed recessed square/round shaped grid fixture in silver finish with engineering plastic housing, domestic electronic driver for 4W LED, for low ceiling height application. Havells/ **ENDURE DL NEO 12 12W 857 Recess Ordering Code: LHEJNP7CPZ1W012 Havells or equivalent make.** | | | | 6 | No |  | |  | |  |
|  | f) Down lighter 12W LED 6K ENDURA DL Surface mounted LED downlighter in powder coated white ﬁnish with integrated HF electronic driver. Havells/ **PLUTO PANEL (SURFACE) 34W 857 4X1 Ordering Code: LHEWEIP7IK1W034 Hvells or equivalent make.** | | | | 2 | No |  | |  | |  |
|  | g) T5 FTL Batten fitting 1X14W with lamp E-LITE DESIRE/E-LITE MAGLEV DLX Decorative ultra slim ﬁxture with extruded aluminium body, prismatic diffuser, snap on installers & HF electronic ballast. (Havells )/**LUMILINE Surface Wall Mounted 18WOrdering Code: LHEXBQP7IN1W018 Havells or equivalent make.** | | | | 3 | No |  | |  | |  |
| 69 | Supplying of all types of FL types FC tube & GLS Lamp in complete as follows:- | | | |  |  |  | |  | |  |
|  | a) CFL retrofit Normal 11W (DU) B22, Base Havells/Equivalent | | | | 8 | Nos |  | |  | |  |
| 70 | Supplying & fixing of angle holder including connection etc. in completed | | | | 8 | Nos |  | |  | |  |
| 71 | Installation, testing and commissioning of pre-wired fluorescent light fitting of all types with all accessories and tube etc. directly on the wall/ceiling including connection with 1.5sqmm PVC insulated copper conductor single core cable etc. in complete | | | | 80 | Nos |  | |  | |  |
| 72 | Installation, testing & commissioning of ceiling fan and regulator, including wiring the down rod of standard length (upto 30cm) with 2X1.5 sqmm PVC insulated copper conductor single core cable etc, as required. | | | | 10 | Nos |  | |  | |  |
| 73 | Supplying of pre-wired ceiling fan as per IS:374 (1979) in a set including standard down rod, canopy, AC ceilingWall fan machines,regulator etc.in completed as folows:-  (a) Ceiling fan 1200mm sweeps ISI marked 3 blades (Usha/cromton/equivalent) | | | | 10 | Nos |  | |  | |  |
|  | (c) Exhaust fan 250mm sweeps with gravity louver/automatic shuttered Plastic ISI marked  (Usha/cromton/equivalent) | | | | 2 | No |  | |  | |  |
| 74 | Supplying of Cable lugs(copper) of different sizes as mention below :- | | | |  |  |  | |  | |  |
|  | (a) Copper Cable Lug Heavy Duty as per BS-4579 2.5 SqmmDowells/Equivalent | | | | 3 | Nos |  | |  | |  |
|  | (b) Copper Cable Lug Heavy Duty as per BS-4579 4 SqmmDowells/Equivalent | | | | 2 | Nos |  | |  | |  |
|  | (c)Copper Cable Lug Heavy Duty as per BS-4579 6 SqmmDowells/Equivalent | | | | 1 | Nos |  | |  | |  |
|  | (d)Copper Cable Lug Heavy Duty as per BS-4579 10 SqmmDowells/Equivalent | | | | 12 | Nos |  | |  | |  |
|  | (e)Copper Cable Lug Heavy Duty as per BS-4579 16 SqmmDowells/Equivalent | | | | 10 | Nos |  | |  | |  |
|  | **MAIN DISTRIBUTION BOARDS,SWITCH BOARD ETC.** | | | |  |  |  | |  | |  |
| 75 | **MCB DISTRIBUTION BOARD (DB)** | | | |  |  |  | |  | |  |
|  | Supplying and fixing of different numbers of ways MCB DB double door, SP&N, TP&N in sheet steel phosphatised powder painted MCB DB Bus Bar, Neutral link, earth Bar and Din rail conforms to IS:13032, IS:8623, BS:5486 240/415 volts 50Hz. AC supply on surface including inter-connection, painting etc, in completed as follows:- | | | |  |  |  | |  | |  |
|  | (06) 8-ways MCB DB SP&N Double Door | | | | 1 | No |  | |  | |  |
|  | (18) 4-ways (4+12) MCB DB TP&N Double Door IP-43 Metal door | | | | 1 | No |  | |  | |  |
|  | (33) 6-ways(4+12+18) MCB DB TP&N Duoble Door IP-43 metal door | | | | 1 | No |  | |  | |  |
| 76 | **MCCB DISTRIBUTION PANEL** | | | |  |  |  | |  | |  |
|  | Supplying, fitting &fixing of MCCB Distribution panel 4-ways suitable for Tab 2 , 3 Poles MCCB incomer and Tap 1, 3 Poles MCCB out going, Bus Bar, Neutrallinks, Blanking plates in Sheet steel Acrylic cover Phosphatised powder painted conforms to IS:13032,IS:8623,BS:5486 with 3 nos indicating light 415 Volts,50 Hz, AC on surface/recess including inter-connection, painting etc, as required | | | |  |  |  | |  | |  |
|  | (29) MCCB distribution Panel 12 ways with FP i/c loadguard 400A, 4P and FP o/g Tab 1 ,4 P | | | | 1 | No |  | |  | |  |
| 77 | **MANIATURE CIRCUIT BREAKER (MCB)** | | | |  |  |  | |  | |  |
|  | Supplying, fitting& fixing in complete of all types and rating of miniature circuit breaker(MCB) TP & N and SP L/G series 240/415 volts 50Hz in the existing MCB DB complete with connection, testing & commissioning etc, in completed as follows:- | | | |  |  |  | |  | |  |
|  | (1) 5 Amps' to 32 Amps' rating,SP, MCB B- series | | | | 10 | No |  | |  | |  |
|  | (4) 6-32 Amps' rating,DP, MCB B- series | | | | 2 | No |  | |  | |  |
|  | (25) 32 Amps' rating,DP, MCB Isolator | | | | 2 | No |  | |  | |  |
|  | (36) 63 Amps' rating,FP, MCB Isolator | | | | 2 | No |  | |  | |  |
|  | (37) 100 Amps' rating,FP, MCB Isolator | | | | 1 | No |  | |  | |  |
| 78 | **SUPPLYING AND FIXING OF SWITCH BOARDS ( MODULAR TYPE I )** | | | |  |  |  | |  | |  |
|  | Supplying and fixing of Modular switch board of the following sizes/modules on surface/recess including PVC/Steel boxes, modular plate and necessary switches, plug/socket, and fan regulators etc. with necessary painting if necessary | | | |  |  |  | |  | |  |
|  | A. ONE MODULE | | | |  |  |  | |  | |  |
|  | 1) 1S | | | | 10 | No |  | |  | |  |
|  | B. TWO MODULE | | | |  |  |  | |  | |  |
|  | 13) 2S | | | | 5 | No |  | |  | |  |
|  | C. THREE MODULE | | | |  |  |  | |  | |  |
|  | 33) 3S | | | | 3 | No |  | |  | |  |
|  | D. FOUR MODULE | | | |  |  |  | |  | |  |
|  | 60) 2S + 1R(2M) 120W | | | | 2 | No |  | |  | |  |
|  | 53) 4S | | | | 3 | No |  | |  | |  |
|  | E. SIX MODULE | | | |  |  |  | |  | |  |
|  | 76) 6S | | | | 1 | No |  | |  | |  |
|  | 76(a)) 5S+1bkp | | | | 1 | No |  | |  | |  |
|  | 86) 2S + 1R+1Soc | | | | 1 | No |  | |  | |  |
|  | F. EIGHT MODULE | | | |  |  |  | |  | |  |
|  | 128) 8S | | | | 2 | No |  | |  | |  |
|  | 153) 4S + 2R(2M) | | | | 1 | No |  | |  | |  |
|  | 158(a)) 4S + 1Soc+1R 100W(2M) | | | | 2 | No |  | |  | |  |
|  | 158) 3S + 1Soc + 1R + 1Bkp | | | | 1 | No |  | |  | |  |
|  | G. TWELVE MODULE | | | |  |  |  | |  | |  |
|  | 256) 6S + 1Soc + 2R 120W | | | | 1 | No |  | |  | |  |
|  | 266) 5S + 1Soc + 2R 100W(2M)+1bkp | | | | 2 | No |  | |  | |  |
|  | 288) 4S + 1Soc + 3R 120W | | | | 1 | No |  | |  | |  |
|  | 294) 5S + 1Soc + 1R 100W(2m)+3bkp | | | | 1 | No |  | |  | |  |
|  | 320(a)) 3 S + 3 R 100W (2M) + 3BKP | | | | 1 | No |  | |  | |  |
|  | **EARTHING AND LOOP EARTHING** | | | |  |  |  | |  | |  |
| 79 | (13) Advance maintenance free earthing 48mm 2 meter length 3.2mm wall thickness copper bond with 1 bags back filling compound electrode | | | | 1 | Nos |  | |  | |  |
| 80 | (42) Supplying and laying of 25mmX6mm Copper strip at 0.5 meter below ground level for conductor earth electrode including soldering etc. in completed | | | | 8.00 | rm |  | |  | |  |
|  | (45)Providing and laying of earth connection from earth electrode with 8 SWG Copper Wire in 15mm dia' G.I Pipe from earth electrode as required. | | | | 12.00 | rm |  | |  | |  |
|  | (55) Supplying and drawing of 1.5sqmm, PVC Sheathed copper conductor for loop earthing in the existing PVC casing & capping along with other wires in completed | | | | 495.50 | rm |  | |  | |  |
| 81 | **LIGHTNING ARRESTOR** | | | |  |  |  | |  | |  |
|  | (04) Providing & fixing of lightning conductor finial, made of copper five finger system with 85mm diameter 3mm thick base plate including holes etc completed. | | | | 1 | Set |  | |  | |  |
|  | (59) Providing & fixing of copper tape 20mm X3mm thick on parapet or surface of wall for lightning conductor in complete ( for vertical run) | | | | 20.00 | rm |  | |  | |  |
|  | (60) Providing & fixing of copper tape 20mm X3mm thick on parapet or surface of wall for lightning conductor in complete ( for Horizontal run) | | | | 20.00 | rm |  | |  | |  |
|  | (61)Rivetting, sweating and soldering of copper tape ( with another copper tape base of the finial or any other metallic object ) as required | | | | 15 | No |  | |  | |  |
|  | (66) Providing & fixing of testing joint made of 20mmx3mm thick G.I strip 125mm long with 4 Nos of Tinned nrass bolts, nuts,check nuts and spring washer etc. complete as required. | | | | 10 | No |  | |  | |  |
|  |  | | | |  |  |  | | **Total** | |  |

*(Rupees \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_) only*

**Note:**

1. *Item for which no rate or price has been entered in will not be paid for by the Employer when executed and shall be deemed covered by the other rates and prices in the Bill of Quantities (refer:ITB Clause 14.2 and GCC Clause 41.3)*
2. *Unit rates and prices shall be quoted by the bidder in Indian Rupees [ITB Clause 14.1 and ITB Clause 15.1]*
3. *Where there is a discrepancy between the unit rate and the line item total resulting from multiplying the unit rate by quantity, the unit rate quoted shall govern as explained in [ITB Clause 31.1(a)].*
4. *Where there is a discrepancy between the rate in figures and words, the rates in words will govern.[ITB Clause 31.1(c)*

**Form of Bid Security - Bank Guarantee**

*[Guarantor letterhead or SWIFT identifier code]*

Bid Guarantee No…………………….*[insert guarantee reference number]*

Date………………………….*[insert date of issue of the guarantee]*

WHEREAS, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[name of Bidder][[10]](#footnote-11)* (hereinafter called "the Bidder") has submitted his Bid dated \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[date]* or will submit his Bid for the construction of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[name of Contract]* (hereinafter called "the Bid") under Invitations for Bids No……………………….*[insert number]* (hereinafter called “the IFB”)

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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_[[11]](#footnote-12) 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 Bidder (a) withdraws his bid during the period of Bid validity specified in the Letter of Bid; or (b) does not accept the correction of the Bid Price pursuant to ITB 31;

or

(2) If the Bidder 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

(b) fails or refuses to furnish the 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 \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_[[12]](#footnote-13) 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.***

Technical Proposal

Technical Proposal Forms

* **Site Organization**
* **Method Statement**
* **Mobilization Schedule**
* **Construction Schedule**
* **Environmental, Social, Health, and Safety Management (ESHS) Strategies and Implementation Plans**
* **ESHS Code of Conduct**
* **Equipment**
* **Personnel**
* **Sub-contracting elements or works which in aggregate adds to more than 10% of Bid price (*for each the qualifications and experiences on the identified subcontractor in the relevant field should be given.***
* ***Note: Work should not be split into small parts and sub-contracted; but sub-contracting specialized elements of works is acceptable*.**
* **Others**

Technical Proposal – Site Organization

*[Insert Site Organization information]*

Technical Proposal – Method Statement

*[insert method Statement – A detailed note should be submitted outlining bidders proposed methodology and program of construction including Environmental Management Plan, 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 review of completion as per mile stones]*

Technical Proposal – Mobilization Schedule

*[Insert Mobilization Schedule]*

Technical Proposal – Construction Schedule

*[Insert Construction Schedule]*

Technical Proposal – Sub Contracting

*[Insert proposal of sub-contracting elements of works amounting to more than 10% of the bid price for each element and indicate the name of the sub-contractor, its qualifications and experiences to execute that element satisfactorily]*

ESHS Management Strategies and Implementation Plans

(ESHS-MSIP)

#### ***[Note to Employer: modify the text in italics in the numbered points below, to name the appropriate documents.]***

#### The Bidder shall submit comprehensive and concise Environmental, Social, Health and Safety Management Strategies and Implementation Plans (ESHS-MSIP) as required by ITB 11.1 (i) 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 following:

#### *[the Works Requirements described in Section VII];*

#### *[Environmental Impact Assessment (EIA) and the Environmental Management and Monitoring Plan (EMP) either contained in the EIA or prepared separately];*

3. *[Social Impact Assessment (SIA) including Social Impact Management Plan];*

#### *[Environmental and Social Management Plan (ESMP) or Environmental and Social Management Framework (ESMF)];*

#### *[Resettlement Action Plan (RAP)];*

#### *[Consent Conditions (regulatory authority conditions attached to any permits or approvals for the project)]; and*

#### *[specify any other relevant document/s]*

Selection of the Bidder and award of the Contract (of which the ESHS-MSIP will be a part) does not absolve the Contractor any obligation under this Contract to comply with the applicable Laws/ Rules/ Regulations for protection of environment, public health and safety, and the applicable parts of the Environment Management Plan of the project should such compliance be not expressly included in the ESHS-MSIP.

Code of Conduct: Environmental, Social, Health and Safety (ESHS)

#### ***[Note to Employer: modify the text in italics in the numbered points below, to name the appropriate documents.]***

#### The Bidder shall submit the Code of Conduct that will apply to the Contractor’s employees and subcontractors as required by ITB 11.1 (i) of the Bid Data Sheet. The Code of Conduct shall ensure compliance with the ESHS provisions of the contract, including those as may be more fully described in the following:

#### *[the Works Requirements described in Section VII];*

#### *[Environmental and Social Impact Assessment (ESIA)];*

#### *[Environmental and Social Management Plan (ESMP)];*

#### *[Consent Conditions (regulatory authority conditions attached to any permits or approvals for the project)]; and*

#### *[specify any other relevant document*/s]

#### In addition, the Bidder shall submit an outline of how this Code of Conduct will be implemented. This will include: how it will be introduced into conditions of employment/engagement, what training will be provided, how it will be monitored and how the Contractor proposes to deal with any breaches.

Forms for Personnel

**Form PER – 1: Proposed Personnel**

Bidders should provide the names of suitably qualified personnel to meet the specified requirements for each of the positions listed in Section III (Evaluation and Qualification Criteria). The data on their experience should be supplied using the Form below for each candidate.

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S. No. | Position | Name | Qualification | Years of Experience | Years of Experience in proposed position | | | |
|  |  |  |  |  | Road \* works | Building\* works | Others\* | Total |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |

*(\* Modify this as appropriate to suit the works for which bids are invited).*

**Form PER – 2: Resume of Proposed Personnel**

The Bidder shall provide all the information requested below. Fields with asterisk (\*) shall be used for evaluation.

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

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

|  |  |  |
| --- | --- | --- |
| From\* | To\* | Company, Project , Position, and Relevant Technical and Management Experience\* |
|  |  |  |
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|  |  |  |

Form 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). The Bidder shall provide all the information requested below.

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| S. No. | Item of Equipment | Description | Make | Capacity | Age (years) | Condition | No. available and present location | Owned | Leased | Purchased |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |

Form SC-Sub Contracting

SCHEDULE OF SUBCONTRACTORS

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Item | Element of work | Approximate value of sub-contract | % of bid price | Name and address of sub-contractor | Qualification and experience of sub-contractor on similar works of the elements executed |
|  |  |  |  |  |  |

The Bidder shall enter in this schedule a list of the major sections and appropriate value of the work for which he proposes 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).*

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

**Form-ELI -1.1: Bidder Information Form**

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

NCB No. and title: *[insert NCB number and title]*

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

|  |  |  |  |
| --- | --- | --- | --- |
| **1.1 Bidder Information** | | | |
| Bidder’s legal name |  |  |  |
| In case of JV, legal name of each member |  |  |  |
| Bidder’s country of constitution |  |  |  |
| Bidder’s year of constitution |  |  |  |
| Bidder’s legal address in country of constitution |  |  |  |
| Bidder’s authorized representative  (name, address, telephone numbers, fax numbers, e-mail address) |  |  |  |
| Attached are copies of the following original documents.   1. In case of single entity, articles of incorporation or constitution of the legal entity names above, in accordance with ITB 4.1.1 and 4.3. 2. Authorization to represent the firm or JV named in above, in accordance with ITB 20.2. 3. In case of JV, letter of intent to form JV or JV agreement: in accordance with ITB 4.1.2read with   BDS   1. In case of government-owned entity, documents establishing legal and financial authority and compliance with the principles of commercial law in accordance with ITB 4.5 read with Sub-clause 2.1.4 of Qualification Criteria. 2. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. | | | |

**Form-ELI -1.2: JV Information Form**

(Where permitted as per BDS ITB 4.1.1)

*Each member of a JV must fill in this form*

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

*NCB No. and title: [insert NCB number and title]*

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

|  |  |  |  |
| --- | --- | --- | --- |
| **JV/Specialist Subcontractor Information** | | | |
| Bidder’s legal name |  |  |  |
| JV Member’s or Subcontractor’s legal name |  |  |  |
| JV Member’s or Subcontractor’s country of constitution |  |  |  |
| JV Member’s or Subcontractor’s year of constitution |  |  |  |
| JV Member’s or Subcontractor’s legal address in country of constitution |  |  |  |
| JV Member’s or Subcontractor’s authorized representative information  (name, address, telephone numbers, fax numbers, e-mail address) |  |  |  |
| Attached are copies of the following original documents.   1. Articles of incorporation or constitution of the legal entity named above, in accordance with ITB 4.1.1read with BDS and ITB 4.1.2. 2. Authorization to represent the firm names above, in accordance with ITB 20.2. 3. In the case of government-owned entity, documents establishing legal and financial autonomy and compliance with commercial law, in accordance with ITB Sub-Clause 4.5read with Sub-Clause 2.1.4 of Qualification Criteria. 4. Included are the organizational chart, a list of Board of Directors, and the beneficial ownership. | | | |

**DETAILS OF PARTICIPATION IN THE JOINT VENTURE**

|  |  |  |  |
| --- | --- | --- | --- |
| **PARTICIPATION DETAILS** | **FIRM ‘A’**  **(Lead Member)** | **FIRM ‘B’** | **FIRM ‘C’** |
| 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.

**Form CON – 2**

Historical Contract Non-Performance, Pending Litigation and Litigation History

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

*Bidder’s* Name: *[insert full name]*Date: *[insert day, month, year]*Joint Venture Party Name:*[insertfull name]*NCB No. and title: *[insert NCB number and title]*Page *[insert page number]* of *[insert total number]* pages

|  |  |  |  |
| --- | --- | --- | --- |
| Non-Performed Contracts in accordance with Section III, Qualification Criteria and  Requirements | | | |
| 🞎 Contract non-performance did not occur during the (*number)* years specified in Section III, Qualification Criteria and Requirements, Sub-Factor 2.2.1.  🞎 Contract(s) not performed during the *(number)*of years specified in Section III, Qualification Criteria and Requirements, requirement 2.2.1 | | | |
| **Year** | **Non- performed portion of contract** | **Contract Identification** | **Total Contract Amount (in Indian Rupees)** |
| *[insert year]* | *[insert amount and percentage]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Reason(s) for non-performance: *[indicate main reason(s)]* | *[insert amount]* |
| Pending Litigation, in accordance with Section III, Qualification Criteria and Requirements | | | |
| 🞎 No pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor2.2.3. | | | |
| 🞎 Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor2.2.3as indicated below. | | | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Year of dispute** | **Amount in dispute (Rupees)** | **Contract Identification** | **Total**  **Contract Amount**  **(Rupees)** |
| *[insert year]* | *[insert amount]* | Contract Identification: [indicate complete contract name, number, and any other identification]  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Matter in dispute: *[indicate main issues in dispute]*  Party who initiated the dispute: *[indicate “Employer” or “Contractor”]*  Status of dispute: *[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]* | *[insert amount]* |
| 🞎 No pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor 2.2.3.  🞎 Pending litigation in accordance with Section III, Qualification Criteria and Requirements, Sub-Factor2.2.3as indicated below. | | | |
| **Year of award** | **Outcome as percentage of Net Worth** | **Contract Identification** | **Total Contract Amount (Rupees)** |
| *[insert year]* | *[insert percentage]* | Contract Identification: [indicate complete contract name, number, and any other identification]  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Matter in dispute: *[indicate main issues in dispute]*  Party who initiated the dispute: *[indicate “Employer” or “Contractor”]*  Status of dispute: *[Indicate if it is being treated by the Adjudicator, under Arbitration or being dealt with by the Judiciary]* | *[insert amount]* |

Form CON – 3: Environmental, Social, Health, and Safety

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: \_\_\_\_\_\_\_\_\_\_\_Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_Joint Venture Member’s or Specialized Subcontractor’s Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_NCB No. and title: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Page \_\_\_\_\_\_\_\_of \_\_\_\_\_\_\_\_pages

|  |  |  |  |
| --- | --- | --- | --- |
| Environmental, Social, Health, and Safety Performance Declaration  in accordance with Section III, Qualification Criteria, and Requirements | | | |
| 🞎 **No suspension or termination of contract**: An employer has not suspended or terminated a contract and/or called the performance security for a contract for reasons related to Environmental, Social, Health, or Safety (ESHS) performance since the date specified in Section III, Qualification Criteria, and Requirements, Sub-Factor 2.5.  🞎 **Declaration of suspension or termination of contract**: The following contract(s) has/have been suspended or terminated and/or Performance Security called by an employer(s) for reasons related to Environmental, Social, Health, or Safety (ESHS) 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)** |
| *[insert year]* | *[insert amount and percentage]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Reason(s) for suspension or termination: *[indicate main reason(s)]* | *[insert amount]* |
| *[insert year]* | *[insert amount and percentage]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Reason(s) for suspension or termination: *[indicate main reason(s)]* | *[insert amount]* |
| *…* | *…* | *[list all applicable contracts]* | *…* |
| **Performance Security called by an employer(s) for reasons related to ESHS performance** | | | |
| Year | Contract Identification | | Total Contract Amount (Rs) |
| *[insert year]* | Contract Identification: *[indicate complete contract name/ number, and any other identification]*  Name of Employer: *[insert full name]*  Address of Employer: *[insert street/city/country]*  Reason(s) for calling of performance security: *[indicate main reason(s)]* | | *[insert amount]* |
|  |  | |  |

Financial Situation

**FORMAT 3.1 Historical Financial Performances**

Bidder’s Legal Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

JVMember Legal Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Bidding No.: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

To be completed by the Bidder and, if JV, by each member

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
|  | **SUMMARY OF FINANCIAL STATEMENTS**  **Name of bidder/JV Member:** | | | | | | | |
|  | **(Equivalent Rs. Million)** | | | | | | | |
|  | **S.No.** | **Financial Information in Rupee equivalent with exchange rate at the end of concerned year** | **Actuals for Previous five years excluding the current financial year** | | | | | **Ref. of Page Nos. of Balance Sheets** |
|  | (1) | (2) | (3) | (4) | (5) | (6) | (7) | (8) |
|  | 1.  2.  3.  4.  5.  6.  7.  8.  9.  10.  11.  12.  13.  14. | Total Assets  Total Turnover  Current Assets  Current Assets + Loan & Advances  Total Liabilities  Current Liabilities  Current liabilities & provision  Profit before Interest and Tax  Profit before Tax  Profit after Tax  Shareholder’s Funds (Net Worth)=(Paid up equity +Reserves)-(revaluation reserves + Miscellaneous expenditure not written off)  Depreciation  Current Ration (2)/(5)  Net cash accruals= Profit after Tax + depreciation |  |  |  |  |  |  |
| 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. Financial documents**

The Bidder and its parties shall provide copies of the balance sheets and/or financial statements for *[number]* years pursuant Section III, Qualifications Criteria and Requirements, Sub-factor 2.3.1. The financial statements shall:

(a) reflect the financial situation of the *Bidder* or member to a JV, and not sister or parent companies.

1. (b) be audited by a certified Chartered Accountant.
2. (c) be complete, including all notes to the financial statements.

(d) Correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted).

* Attached are copies of financial statements (balance sheets, including all related notes, and income statements) for the *[number]* years required above; and complying with the requirements (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)
* Attached is a copy of certificate given from the commercial bank assuring cash flow (working capital for contraction) in the format attached.

**FORM FIN – 3.1(A)**

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

[To be given from a Nationalized or Scheduled Bank in India-No substitute other than this will be acceptable)]

**Clause 2.3.1(b) of Section II – 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. \_\_\_\_\_\_\_ to meet their capital requirements for executing the above contract.

-- Sd. --

Name of Bank Manager

Senior Bank Manager

Address of the Bank

**Form FIN - 3.2**

Annual Construction Turnover

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

*Bidder*'s/Joint Venture Member's Legal Name: *[insert full name]*Date: *[insert day, month, year]*JV Party Legal Name: *[insert full name]*NCB No. and title: *[insert NCB number and title]*Page *[insert page number]*of *[insert total number]*pages

|  |  |  |
| --- | --- | --- |
| **Annual turnover data (construction only)\*** | | |
| **Year** | **Amount in Rupees** |  |
| *[indicate year]* | *[insert amount]* |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |
|  |  |  |

\* ***Annual construction turnover calculated as total certified payments received for work in progress or completed, for 5 years. Specified in Section III, Qualification Criteria and Requirements, Sub-Factor 2.3.2. This should be certified by a Chartered Accountant*.**

Page …of…..Pages

**JOINT VENTURE**

|  |
| --- |
| **Names of all members of a joint venture** |
| **1. Member in charge** |
| **2. Member** |
| **3. Member** |

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

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| **Annual Turnover Data (construction only; in Rupees \*)** | | | | | | | |
| **Member** | **Form 2 page no.** | **Year 1** | **Year 2** | **Year 3** | **Year 4** | **Year 5** | **Average** |
| **1. Member in charge** |  |  |  |  |  |  |  |
| **2. Member** |  |  |  |  |  |  |  |
| **3. Member** |  |  |  |  |  |  |  |
| **TOTALS** |  |  |  |  |  |  |  |

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

#### 1. **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).

**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/Joint Venture Member's Legal Name: *[insert full name]*Date: *[insert day, month, year]* JV Party Legal Name: *[insert full name]*NCB No. and title: *[insert NCB number]*Page *[insert page number]*of *[insert total number]*pages

*[Identify contracts that demonstrate continuous construction work over the past [5] years pursuant to Section III, Qualification Criteria and Requirements, Sub-Factor 2.4.1.List contracts chronologically, according to their commencement (starting) dates.]*

|  |  |  |  |
| --- | --- | --- | --- |
| Starting  Month /  Year | Ending  Month /  Year | Contract Identification | Role of  *Bidder* |
| *[indicate month/year]* | *[indicate month/year]* | Contract name: *[insert full name]*  Brief Description of the Works performed by the  Bidder: *[describe works performed briefly]*  Amount of contract: *[insert amount in Rupees]*  Name of Employer: *[indicate full name]*  Address: *[indicate street/number/town or city/country]* | *[insert “Contractor” or “Subcontractor” or “Contract Manager”]* |
|  |  | Contract name: *[insert full name]*  Brief Description of the Works performed by the  Bidder: *[describe works performed briefly]*  Amount of contract: *[insert amount in Rupees]*  Name of Employer: *[indicate full name]*  Address: *[indicate street/number/town or city/country]* | *[insert “Contractor” or “Subcontractor” or “Contract Manager”]* |
|  |  | Contract name: *[insert full name]*  Brief Description of the Works performed by the  Bidder: *[describe works performed briefly]*  Amount of contract: *[insert amount in Rupees*  Name of Employer: *[indicate full name]*  Address: *[indicate street/number/town or city/country]* | *[insert “Contractor” or “Subcontractor” or “Contract Manager”]* |

**Form EXP - 4.2(a)**

Similar Construction 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/Joint Venture Member's Legal Name: *[insert full name]*Date: *[insert day, month, year]*JV Party Name: *[insert full name]  
N*CB No. and title: *[insert NCB number and title]*

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

* + 1. **Work performed as prime Contractor 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[[13]](#footnote-14). [*Attach certificate from the Engineer-in-charge.*]

|  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Project Name | Name of Employer | Description of work | Contract No. | Value of contract | Date of Issue of Work Order | Stipulated Date of Completion | Actual Date of Completion | Remarks explaining reasons for Delay, if any |
|  |  |  |  |  |  |  |  |  |

**Form EXP - 4.2(b)**

Construction Experience in Key Activities

Bidder’s/ Joint Venture Member’s Legal Name: *[insert full name]*Date: *[insert day, month, year]*

*JV Party Name: [insert full name]*

Nominated Sub-contractor's Legal Name[[14]](#footnote-15) *NCB No. and title: [insert NCB number and title]*

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

**(B) Quantities of work executed as prime contractoror Sub-Contractor**(in the same name and style)in the last five years:[[15]](#footnote-16)

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Year | Name of the Work | Name of the Employer \* | Quantity of Work performed (cum) @ | | | | Remarks \* (indicate contract agreement Ref for each year) |
|  |  |  | Cement Concrete | Masonry | Earth Work | Piling |  |
| 20…20…  20…20…  20…20…  20…20…  20…20… |  |  |  |  |  |  |  |

**@ *the items or work for which date is requested should tally with that specified in Qualification Criteria***

**\* *Attach certificates from Engineer in-charge***

Form for Current Contract Commitments/Works in Progress

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

(A) Existing commitments and on-going works:

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Description Place Contract No. Name Value of Stipulated Value of works\* Anticipated

of & & Date and Contract period of remaining to be date of

Work State Address (Rupees) completion completed completion

of Employer (Rupees)

(1) (2) (3) (4) (5) (6) (7) (8)

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

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

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Description Place Name and Estimated Stipulated Date when Remarks

of & Address of value of works period of decision is if any

Work State Employer (Rupees) completion expected

(1) (2) (3) (4) (5) (6) (7)

**\*** *Attach certificate(s) from the Engineer(s)-in-Charge*.

Form…..

*(Name of the Project)*

**(*Declaration regarding customs/ excise 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

1. We confirm that we are solely responsible for obtaining customs/excise 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 Central Excise Notification No.108/95 read alongwith all subsequent amendments including the amendment dated 01-03-2008 and Customs Notification No. 85/99.

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. |
| **Goods** | | | | | | |
| [a] Bitumen |  |  |  |  |  |  |
| [b] Cement |  |  |  |  |  |  |
| [c] Steel |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
| **Construction Equipment** | | | | | | |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |

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 alongwith 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 Central Excise/Customs Notification as current of date of bidding.***

Section V - Eligible Countries

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

1. In reference to ITB 4.7, 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 4.7 (a) and 5.1 *: None*

Under ITB 4.7 (b) and 5.1 *: None*

Section VI. Bank Policy - Corrupt and Fraudulent Practices

(Section VI shall not be modified)

**Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:**

“**Fraud and Corruption:**

1.16 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts.[[16]](#footnote-17) In pursuance of this policy, the Bank:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;[[17]](#footnote-18);

(ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;[[18]](#footnote-19)

(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;[[19]](#footnote-20)

(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;[[20]](#footnote-21)

(v) “obstructive practice” is

(aa) 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

(bb) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 1.16(e) below.

(b) will reject a proposal for award if it determines that the bidder recommended for award, or 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) will declare mis-procurement and cancel the portion of the loan allocated to a contract if it 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 or the implementation 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) will sanction a firm or individual, at any time, in accordance with the prevailing Bank’s sanctions procedures,[[21]](#footnote-22) including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated[[22]](#footnote-23);

(e) will require that a clause be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers and contractors, and their sub-contractors, agents, personnel, consultants, service providers, or suppliers, to permit the Bank to inspect all accounts, records, and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.”

**PART 2 – Works Requirements**

Section VII - Works Requirements

Specifications

The method of measurement of completed work for payment shall be in accordance with **CENTRAL PUBLIC WORKS DEPARTMENT, GOVT. OF INDIA**

*With reference to ESIA/ESMP reports, consent/permit conditions, and WBG ESHS Guidelines, include specific specifications if any, for ESHS working, over and above the requirements of labour and other laws that are applicable to construction industry in India.*

**GENERAL SPECIFICATION FOR VERTICAL EXTENSION OF IRRIGATION AND WATER RESOURCES OFFICE BUILDING AT NEW SECRETARIAT COMPLEX, KHATLA**

**General Requirement:**

1. The period of completion of work under this package is 12months (including rainy season). The traditional rainy season in this area starts from May and continues till October. The bidder is expected to plan execution of the works in such a manner that the rainy season also is utilized for work in the best possible manner.
2. The bidder should inspect the site and quarries and satisfy himself about the availability of the quality and quantity of materials required for the work and leads for the materials.
3. The contractor shall make his own arrangement to procure all materials required for the work.
4. The contractor should make his own arrangement for water supply, for works and drinking purpose, at his own cost.
5. The contractor shall make his own arrangements to obtain electricity for his consumption on the works, at his own cost.
6. All costs and charges on temporary works will be borne by the contractor.
7. All the approach roads, ramps, platforms, stacking yards required for the construction of the work shall be formed by the contractor at his own cost and no payment will be made by the Engineer.
8. Before carrying out any repairs, the structure should be thoroughly cleaned by air/water jet to remove any deleterious material such that the surface becomes free of any loose material, as per specifications/instruction for repair work and directions of Engineer in change.
9. Due care shall be taken by contractor to ensure conservation of nearby water bodies and environmental and social safe guards.
10. Suggestions of WUA/stake holders and social/environmental safeguard shall be incorporated in the construction activities to the extent possible.

**DETAIL SPECIFICATIONS:**

1. **CEMENT CONCRETE AND R.C.C WORKS :**

1.1.0 MATERIALS

**1.1.1 CEMENT**

Ordinary Portland Cement of 43 Grade Confirming to IS : 8112-2013 or its latest version shall be used.

The contractor shall have to make his own arrangement to procure the cement bearing I.S. I. Mark directly from the approved manufacturer.

For verification of such purchase, the contractor shall have to produce the bill of manufacturer along with testing details to the Engineer in charge. The cement brought to the site by the contractor shall be tested by the Department as per I.S.8112-2013. After conducting necessary qualitative tests as per I.S.8112-2013, department will issue acceptance certificate. The cement not satisfying the criteria as per I.S.8112-2013 , shall be rejected and contractor shall have to remove it from the site immediately. The contractor shall arrange to cart, load and unload the same to the site of work at his cost.

Sufficient quantities of cement shall be kept at site to ensure continuity of the work. The Contractor shall provide and maintain efficient and water proof storage shed with double lock arrangement for cement at the site of work in accordance with IS code 4082-1996 or its latest version. Materials shall be stored in such a manner as to prevent deterioration or intrusion of foreign matter and to ensure the preservation of their quality and fitness for the work.Cement bags shall be stacked off the floor on wooden planks in such a way as to keep about 150 mm to 200 mm clear above the floor. The floor may comprise of lean cement concrete or two layers of dry bricks laid on well consolidated earth. A space of 600 mm minimum shall be left all-round between the exterior walls and the stacks.

The cement bags shall be neatly stacked in an orderly manner, so as to admit of easy access and counts. Cement which has been damaged by moisture or any other way, shall be removed at once from the site, cement shall be used in the order in which consignments are received and shall not be stored for undue long period. Deteriorated cement shall not be allowed for use.

1.1.2 TESTING OF CEMENT

Cement brought to site by the Contractor shall be tested for following parameters as per procedure prescribed in IS code 4031(1988-1999). Cement tested shall conform to requirements as per IS code 8112-2013. The testing shall be done for each consignment received on site. The frequency of the tests shall be as under :

|  |  |
| --- | --- |
| Consignment of | No. of test specimen |
| 50 Mt. | 1 |
| 100 Mt. | 2 |
| 200 Mt. | 3 |
| 300 Mt. | 4 |
| 500 Mt. | 5 |
| 800 Mt. | 6 |
| 1300 Mt. | 7 |
| For each larger consignment | 8 |

Each consignment shall be stacked separately. The cement stacker after testing not found as per standard laid down, shall be rejected and such stack of cement shall be removed immediately from the site of work. No extra cost either for testing or for rejected materials shall be paid to the contractor. No cement shall be used for the work without being tested and such work shall not be paid by the Engineer in charge and shall be removed at Contractor's own cost.

1.1.3 SETTINGTIME

Setting time of the cement, when tested by the Vicat apparatus method described in I.S. 4031 (Part 5) - 1988, shall confirm to the following requirements.

|  |  |  |
| --- | --- | --- |
| Table 1 | | |
|  |  | Ordinary Portland Cement |
| a) | Initial Setting time in minutes not less than | 30 |
| b) | Final setting time in minutes not more than | 600 |

1.1.4

COMPRESSIVE

STRENGTH

The average compressive strength of at least three mortar cubes (area of face 50 sq.cm.) composed of one part of cement, three part of standard sand (conforming to I.S. 650 - 1991) by mass and P/4 + 3.0 percent (of combined mass of cement plus sand) water and prepared cubes and tested in the manner described in I.S. 4031(Part 6) - 1988, shall be as follows.

|  |  |  |
| --- | --- | --- |
| Table 2 | | |
| Ordinary Portland Cement | | 43 Grade |
| (a) | 72 + 1 h, not less than | 23 MPa |
| (b) | 160 + 2h, not less than | 33 MPa |
| (c) | 672 + 4h, not less than | 43 MPa |

Where 'P' is the percentage of water required.

1.1.5 FINENESS

When tested for fineness by Blaine's air permeability method as described in I.S. 4031 (Part 2) 1999, the specific surface of cement shall not be less than 225 m2/kg.

1.1.6 SOUNDNESS

When tested by Le-Chatelier method and autoclave test described in I.S. 4031 (Part 3) 1988, un-aerated cement shall not have an expansion of more than 10mm and 0.8 percent respectively. In the event of cement failing to comply with anyone or both the requirements specified above further tests in respect of each failure shall be made as described in I.S. 4031 (Part 2) 1999, from another portion of the same sample after aeration The aeration shall be done by spreading out the sample to depth 75mm at a relative humidity of 50 to 80 percent for a total period of 7 days the expansion of cement so aerated shall not be more than 5mm when tested by Le Chatelier's method.

1.1.7 CHEMICAL TESTS

The chemical tests as to be suggested by Engineer in charge shall be carried out as per I.S. and it should conform to the provision made in I.S. 4032 – 1985.

1.1.8 COST OF TESTING THE CEMENT TO BE SUPPLIED BY THE CONTRACTOR

The contractor shall supply, free of charge. Cement required for testing unless otherwise specified. The cost of the test shall entirely be borne by the contractor, which shall include, preparation of blocks *I* cubes their transportation, testing charges etc. If the results shown that the cement does not as per the requirements of standard (as per I.S. code) or described above, then such cement will not be allowed to use in the work. After a representative sample has been drawn, test on that sample shall be carried out as expeditiously as possible.

1.1.9 REJECTIONS

(A) Cement may be rejected if it does not comply with any of the requirements described above, as per I.S.8112 -2013.

(B) Cement remaining in bags in local storage, in the hands of the contractor for more than 2 months after completion of tests shall be retested before use and may be rejected if it fails to conform to any of the requirements of this specification.

**2.2 .0 COARSE AGGREGATE**

Coarse aggregate shall be free from disintegrated stones, soft flaky and elongated particles, silt, alkalis, vegetable and other deleterious materials in such quantities as to reduce the strength and durability of concrete or to attack the steel reinforcement. It shall generally comply with the I.S. 383-2016. Some of the important requirements of coarse aggregates as specified as in I.S. 383-2016 are summarized below*.*

2.2.1 Size and Grading

(i). Stone Aggregate And Gravel*:* It shall be either graded or single sized as specified by the IS codes.

1. Nominal sizes of graded stone aggregate or gravel shall be 40, 20, 16, or 12.5 mm as specified. For any one of the nominal sizes, the specified proportion of other sizes, as determined by the method described in IS 2386 (Part 1) shall also be in accordance with Table below.

COARSE AGGREGATES.

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 3a | | | | |
| *IS Sieve*  *Designation* | *Percentage passing (by weight) for nominal size of* | | | |
| 40 mm | 20 mm | 16 mm | 12.5 mm |
| 80 mm | 100 | - | - | - |
| 63 mm | - | - | - | - |
| 40 mm | 90-100 | 100 | - | - |
| 20 mm | 30-70 | 90-100 | 100 | 100 |
| 16 mm | - | - | 90-100 | - |
| 12.5 mm | - | - | - | 90-100 |
| 10 mm | 10-35 | 25-55 | 30-70 | 40-85 |
| 4.75mm | 0-5 | 0-10 | 0-10 | 0-10 |
| 2.36mm | - | - | - | - |

SINGLE SIZED STONE AGGREGATE OR GRAVEL

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 3b | | | | | | |
| *IS Sieve*  *Designation* | Percentage Passing for Single-Sized aggregate of nominal size of | | | | | |
|  | 63mm | 40mm | 20mm | 16mm | 12.5 mm | 10mm |
| 80mm | 100 | - | - | - | - | - |
| 63 mm | 85-100 | 100 | - | - | - | - |
| 40 mm | 0-30 | 85-100 | 100 | - | - | - |
| 20mm | 0-5 | 0-20 | 85-100 | 100 | - | - |
| 16mm | - | - | - | 85-100 | 100 | - |
| 12.5 mm | - | - | - | - | 85-100 | 100 |
| 10mm | 0-5 | 0-5 | 0-20 | 0-30 | 0-45 | 85-100 |
| 4.75 mm | - | - | 0-5 | 0-5 | 0-10 | 0-20 |
| 2.36 mm | - | - | - | - | - | 0-5 |

All-in-Aggregate : If combined aggregates are available they need not be separated into fine and coarse. The grading of the all in-aggregate, when analyzed, as described in IS 2386 (Part 1) shall be in accordance with Table 3(c). Necessary adjustments may be made in the grading by the addition of single-sized aggregates.

|  |  |  |
| --- | --- | --- |
| Table 3c | | |
| *IS Sieve*  *Designation* | *Percentage passing for all in aggregates of nominal size* | |
| 40 mm | 20mm |
| 80 mm | 100 | - |
| 40 mm | 90-100 | 100 |
| 20 mm | 45-75 | 90-100 |
| 4.75mm | 25-45 | 30-50 |
| 600μmm | 8-30 | 10-35 |
| 150μmm | 0-6 | 0-6 |

2.2.2 DELETERIOUS MATERIALS.

The amount of deleterious materials in coarse aggregate shall not exceed the percentage limit given below, when tested by methods described in I.S. 2386-1963 and sum of the percentage of all deleterious materials (except mica) shall not exceed the limit of 5%.

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Table 4 | | | | | | | |
| Sr.  No. | Deleterious  Substances | Method of test  . | Coarse aggregate  percentage by weight  mix crushed | | | | |
| 1 | 2 | 3 | 4 | 5 | | | 6 |
| uncrushed | | crushed | Manufactured | |
| 1. | Coal & Lignite | I.S. 2386 (Part - 11 / 1963) or its latest version | 1 | | 1 | 1 | |
| 2. | Clay Lumps | I.S. 2386 (Part - 11 / 1963) or its latest version | 1 | | 1 | 1 | |
|  |  | I.S. 2386 (Part - 1/ 1963) . or its latest version | 1 | | 1 | 1 | |
| 3. | Materials finer than 75 µm  IS Sieve |
| 4. | Soft fragments | I.S. 2386 (Part - 11 / 1963) or its latest version | 3 | | - | 3 | |
| 5. | Shale | I.S.2386 (Part - 11/ 1963) or its latest version | - | | - | - | |
| 6. | Total of percentage of all deleterious materials (except mica) inc. Sr. No. 1 to 5 for Col. 4,5. And Sr.No.1 and 2 for column 6. | -- | 5 | | 2 | 2 | |

When required by the Engineer in charge, coarse aggregate shall also be subjected to some of the following tests as he may consider necessary in accordance with the procedure specified in I.S. 383 – 2016, 2386(Part 4)- 1963 or its latest version.

|  |  |  |  |
| --- | --- | --- | --- |
| Table 5 | | | |
|  | Mechanical Properties | Method of Test | Remarks |
| (A) | Flakiness & elongation  indices | IS 2386 (Part 1) or its latest  Version | 40% Maximum |
| (B) | Abrasion Value | IS 2386 (Part 4) or its latest version | 30% for concrete for wearing surface & 50% for aggregates used in concrete other than wearing surfaces(as per IS 383-2016 or its latest version. |
| (C) | Soundness | IS 2386 (Part 5) or its latest  version | 12 percent when tested with sodium sulphate(Na₂SO₄) and 18 percent when tested with  magnesium sulphate (MgSO4) |
| (D) | Alkali aggregate  Reactivity Test. | IS 2386 (Part 7) its latest  version. | As per SCIRC curve IS 2386 - 1963 . |
| (E) | Crushing value /Ten  Percent Fines Value | IS 2386 (Part 4) its latest  version. | 30% Max for aggregates to be used in concrete for wearing surface and other than wearing surfaces. |

\*In case the aggregate crushing value for wearing exceeds 30 percent, surfaces then the test for 'ten percent fines' should be conducted and the minimum load for the ten percent fines should be 50 kN.

**2.3.0 .FINE AGGREGATES.**

The grading of fine aggregate, when determined as described in IS 2386 (Part 1) shall be within the limits given in Table below. Fine aggregate conforming to Grading Zone IV will not be used in the reinforced concrete works .

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Table 6 | | | | |
| *IS Sieve*  *Designation* | *Percentage passing by weight* | | | |
| Grading Zone I | Grading Zone II | Grading Zone IIII | Grading 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- |
| 600μm | 15-34 | 35-59 | 60-79 | 80-100 |
| 300μm | 5-20 | 8-30 | 12-40 | 15-50 |
| 150μm | 0-10 | 0-10 | 0-10 | 0-15 |

**2.4.0 .SAND FOR MASONARY MORTARS**

The sand to be used after screening will be the natural sand. The maximum size shall be limited to 4.75 mm.

It may be pointed out that all the sand may not be available in natural conditions and may require screening and/or binding without any extra claim to meet the specifications. The contractor may however consider the alternative of bring sand from outside source which may meet with the specification without any extra cost to the department.

2.4.1. QUALITY

The sand shall consist of natural sand, crushed stone sand or crushed gravel sand or a combination of any of these. The sand shall be hard, durable, clean and free from adherent coatings and organic matter and shall not contain the amount of clay, silt and fine dust more than as specified under IS code 2116:1980 or its latest version.

2.4.2. GRADING OF SAND :

The sand shall be well graded and the grading shall conform to IS code 2116:1980 or its latest version.

|  |  |
| --- | --- |
| Table 7 | |
| *IS Sieve*  *Designation* | *Percentage passing by weight* |
| 4.75mm | 100 |
| 2.36mm | 90-100 |
| 1.18mm | 70-100 |
| 600μm | 40-100 |
| 300μm | 5-70 |
| 150μm | 0-15 |

2.4.3. LIMITS OF DELETERIOUS MATERIAL :

Unless found satisfactory as a result of further tests as may be specified by the engineer-in-charge, or unless evidence of such performance is offered which is satisfactory to him, the maximum quantities of clay, fine silt, fine dust and organic impurities in the sand shall not exceed the following limits:

|  |  |  |  |
| --- | --- | --- | --- |
| Table 8 | | | |
| (A) | Clay, fine silt and  fine dust | IS 2386 (Part 2) or its latest  Version | (a).In natural sand or crushed gravel sand - Not more than 5 percent by mass  (b)In crushed stone sand - Not more than 5 percent by mass |
| (B) | Organic impurities | IS 2386 (Part 2) or its latest version | Colour of the liquid shall lighter than that indicated by the standard solution specified |

\*In particular cases, crushed stone sand with even higher proportions of fine dust than specified above may be satisfactory and the limit so permitted may be subject to the agreement between the supplier and the purchaser.

**2.5 .CONCRETE**.

2.5.1 The concrete will be exposed to mild environmental condition during its working life .It shall be of required grade as shown in detailed specification and item description.All concrete works and calculations will conform to IS code 456:2000. Nominal concrete mix would be adopted for the concrete works. The cement content adopted for the mix will conform to IS code 456:2000.

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Table 9 | | | | | | |
| Exposure | Plain concrete | | | Reinforced Concrete | | |
| Min.cement content Kg/m3 | Max.freewc ratio | Min.Grade of concrete | Min.cement content Kg/m3 | Max.freewc ratio | Min.Grade of concrete |
| Mild | 220 | 0.60 | - | 300 | 0.55 | M20 |

Note : Minimum Cement Content, Maximum Water-Cement Ratio and Minimum Grade of Concrete for Mild Exposures with Normal Weight Aggregates of 20 mm Nominal Maximum Size.

2.5.2. PROPORTIONS FOR NOMINAL MIX CONCRETE.

The proportions of materials for nominal mix concrete shall be in accordance with Table 10 given below conforming to IS code 456:2000.

|  |  |  |  |
| --- | --- | --- | --- |
| Table 10 | | | |
| Grade of concrete | Total Quantity of Dry Aggregates by mass per 50 kg of Cement to be taken as the sum of the Individual masses of Fine and Coarse aggregates, kg. Max. | Proportion of Fine  Aggregates to Coarse Aggregates (by Mass) | Quantity of Water per 50Kg of Cement, Max |
| M15 | 330 | Generally 1:2 but subject to  an upper limit of1:1½ and a  lower limit of 1:2½ | 32 |
| M20 | 250 | As above | 30 |

Note: The proportion of the fine to coarse aggregates should be adjusted from upper limit to lower limit progressively as the grading of fine aggregates becomes finer and the maximum size of coarse aggregate becomes larger.

The cement content of the mix specified in Table 10 for any nominal mix shall be proportionately increased if the quantity of water in a mix has to be increased to overcome the difficulties of placement and compaction, so that the water-cement ratio as specified is not exceeded.

2.5.3 SAMPLING PROCEDURE**.**

A random sampling procedure shall be adopted to ensure that each concrete batch shall have a reasonable chance of being tested that is, the sampling should be spread over the entire period of concreting and cover all mixing units.

2.5.4 FREQUENCY

|  |  |
| --- | --- |
| Table 11 | |
| Quantity of concrete in the work.(m3) | Number of Samples |
| 1-5 | 1 |
| 6-15 | 2 |
| 16-30 | 3 |
| 31 - 50 | 4 |
| 51 and above | 4 plus one additional sample for  each additional 50 m3 or part thereof |

Note: At least one sample shall be taken from each shift. Where concrete is produced at continuous production unit, such as ready - mixed concrete plant, frequency of sampling may be agreed upon mutually by suppliers and purchasers

**2.6 STEEL**

Hot rolled deformed bars(Fe500grade) for reinforcement for R.C.C. work shall conform to I.S. 1786-2008 or its latest version. All the reinforcement shall be clean and free from dirt, oil paint, grease, sill scale or lodge or thick. At the time of placing ,reinforcement steel be stored such as to avoid distortion and shall be protected as far as possible from surface deterioration. All bars of the same designation shall be stacked separately as far as possible and distinctly marked. For the purpose of payments the bars shall be measured correct up to 10mm length and weight payable worked out at the rates specified below.

|  |  |
| --- | --- |
| Table 12 | |
| 6mm | 0.22 Kg./ Rmt. |
| 8mm | 0.39 Kg./ Rmt. |
| 12mm | 2.47 Kg./ Rmt. |
| 16mm | 1.58 Kg./ Rmt |
| 20mm | 2.47 Kg/Rmt |

**2.7 REINFORCEMENT.**

General Requirements :

Steel reinforcement shall be clear and free from loose mill scales, dust, loose rust, coats of paints, oil or other coating which may destroy or reduce bond. It shall be stored in such a way as to avoid distortion and to prevent deterioration and corrosion. Prior to assembly of reinforcement on no account any oily substance shall be used for removing the rust. All works will conform to IS code 800:2007.

2.7.1 Assembly of Reinforcement ***:***Bars shall be bent correctly and accurately to the size and shape as shown in the detailed drawing or as directed by Engineer-in-Charge. The High strength deformed steel bars should not be re-bent or straightened without the approval of engineer-in charge Preferably bars of full length shall be used. Necessary cutting and straightening is also included. Overlapping of bars, if necessary shall be done as directed by the Engineer-in-Charge. The overlapping bars shall not touch each other and these shall be kept apart with concrete between them by 25mm or 11/4 times the maximum size of the coarse aggregate whichever is greater. But where this is not possible, the overlapping bars shall be bound together at intervals not exceeding twice the dia. of such bars with two strands annealed steel wire of 0.90 mm to 1.6 mm twisted tight. The overlaps/ splices shall be staggered as per directions of the Engineer-in-Charge. But in no case the overlapping shall be provided in more than 50% of cross sectional area at one section.

Reinforcement shall be bent and fixed in accordance with procedure specified in IS 2502 code of practice of bending and fixing of bars for concrete reinforcement.

2.7.2 Anchoring Bars in Tension: Deformed bars may be used without end anchorages provided, development length equipment is satisfied. Development length of bars will be determined as per IS: 456-2000

2.7.3 Anchoring Bars in Compression***:*** The anchorage length of straight bar in compression shall be equal to the ‘Development length’ of bars in compression as specified in IS: 456. The projected length of hooks, bend and straight lengths beyond bend, if provided for a bar in compression, shall be considered for development length.

2.7.4 Binders, stirrups, links etc***. :*** In case of binders, stirrups, links etc. the straight portion beyond the curve at the end shall be not less than eight times of nominal size of bar.

2.7.5 Placing in Position**:** Rough handling, shock loading (prior to embedment) and the dropping of reinforcement from a height should be avoided. Reinforcement should he secured against. The concrete shall he deposited as nearly as practicable in its final position to avoid re handling. The concrete shall he placed and compacted before initial setting of concrete commences and should not be subsequently disturbed. Methods of placing should be such as to prevent segregation. Care should be taken to avoid displacement of reinforcement or movement of formwork. As a general guidance, the maximum permissible free fall of concrete may be taken as 1.5m.

2.7.6 Tolerance on Placing of Reinforcement: Unless otherwise specified by the Engineer-in- Charge, reinforcement shall be placed within the following tolerances (IS 456:2000)

Tolerance in spacing

(a) For effective depth, 200 mm or less +-10 mm

(b) For effective depth, more than 200 mm +- 15 mm

2.7.7 Bending at Construction Joints: Where reinforcement bars are bent aside at construction joints and afterwards bent back into their original position, care should be taken to ensure that at no time the radius of the bend is less than 6 bar diameters for deformed bars. Care shall also be taken when bending back bars to ensure that the concrete around the bar is not damaged.

2.7.8 Nominal cover of not less than 20mm will be provided to meet the durability requirement for concrete under mild exposure condition .For main reinforcement up to 12mm diameter bar the nominal cover may be reduced by 5 mm.Unless specified otherwise. The actual concrete cover should not deviate from the required nominal cover by +10 mm( IS 456:2000).

2.7.9 Measurement: Reinforcement including authorized spacer bars and laps shall be measured in length of different diameters used in the work nearest to a centimeter and their weight calculated on the basis of standard weight . In case actual unit weight of the bars is less than standard unit weight, but within variation, in such cases weight of reinforcement shall be calculated on the basis of actual unit weight. Wastage and unauthorized overlaps shall not be paid for. Measurements will be carried out as specified under IS 1200 ( Part 1 ) : 1892 or its latest version.

**2.8 WATER**

Water to be used for various items of work under procurement shall be clean and free from injurious amounts of oils, acids, alkalis, salts, sugar, organic materials or others sub-stances that may be deleterious to concrete or steel. Potable water shall be used for various items of work under this tender.

|  |  |  |  |
| --- | --- | --- | --- |
| Table 13 | | | |
| 1. | Organic | I.S. 456-2000 or  its latest version. | 200 mg./Lt Maximum |
| 2. | Inorganic | I.S. 456-2000 or  its latest version. | 3000 mg.*/* Lt Maximum |
| 3. | Sulphates (As S03) | 1.5. 456-2000 or  its latest version. | 400 mg./ Lt Maximum. |
| 4. | Chlorides | 1.5. 456-2000 or  its latest version. | 2000 mg.*/* Lt for plain  concrete and 500 mg.llit  for R.C.C. work maximum. |
| 5. | Suspended | I.S. 456-2000 or  its latest version. | 2000 mg.*/*Lit Maximum |

As a guide the following concentrations represent the maximum permissible values.

The pH value of water shall not be less than -6.

**2.9 DAMP PROOF COURSE**

2.9.1 CEMENT CONCRETE LAYER

This shall consist of cement concrete of specified proportions and thickness. The surface of brick or stone masonry work shall be levelled and prepared before laying the cement concrete. Edge of damp proof course shall be straight, even and vertical. Side shuttering shall consist of steel forms and shall be strong and properly fixed so that it does not get disturbed during compaction and the mortar does not leak through. The concrete mix shall be of workable consistency and shall be tamped thoroughly to make a dense mass. When the sides are removed, the surface should come out smooth without honeycombing. Continuity shall be maintained while laying the cement concrete layer and laying shall be terminated only at the predetermined location where damp proof course is to be discontinued. There shall be no construction joints in the Damp Proof Course.

2.9.2 Curing: Damp proof course shall be cured for at least seven days, after which it shall be allowed to dry.

2.9.3 Measurements: The length and breadth shall be measured correct to a cm and its area shall be calculated in square meters correct to two places of decimal. The depth shall not be less than the specified thickness at any section.

**3. BRICK WORK**

Brick work with F.P.S. bricks of class designation 75 conforming to IS 1077:1992 and IS 2212 : 1991 code of practice will be followed. Rendered half brick thick walls with Stretcher bond will be provided.

3.1 LAYING

3.1.1 Brick used for masonry in cement mortar shall be thoroughly soaked in clean water for atleast an hour immediately before use. (The absence of bubbling when the soaked brick is immersed in water is the test for thorough soaking). The soaked bricks shall be kept on a platform free from dirt, mud or any foreign element.. It shall be ensured that horizontal and vertical bonds are completely filled with mortars without any void in brick work. The bricks used will be without fly ash.

3.1.2 Brick work shall be raised truly plum. All courses shall be laid truly horizontal. Vertical joints shall be truly vertical and those in alternate courses shall be in the same vertical line. The thickness of brick courses shall be uniform (slight difference in the dimension of bricks being adjusted in joint thickness). The levels of window sills, soffit levels of lintels and such other levels shall be kept as shown in the drawing or otherwise specified and courses shall be so adjusted as to get complete number of courses up to these levels.

3.1.3 Rendered half Brick thick walls will be provided with at least one face kept smooth and plane even if the other side is slightly rough(due to variation in size of bricks).

3.1.4 All connected brick work shall be raised uniformly and no portion of brick work shall be left more than one meter below the rest of work. Where this is not possible the work shall be raked back according to the bond (and not left toothed) at an angle not steeper than 45.

3.1.5 All iron fixtures, pipe outlets of water, hold fasts of doors and windows etc. which are required to be built in wall shall be embedded in cement mortar or in cement concrete as specified in their correct position as the brick work is raised.(Such cement concrete shall be paid for separately by nothing extra shall be paid for cement mortar used for embedding the fixtures.

3.2 Joints

3.2.1 The face joints shall be raked to a minimum depth of 15mm by raking tool during the progress of the work, while the mortar is still green so as to provide proper key for the plaster or to facilitate pointing to be done at a later date. When plaster or pointing is not required to be done, the joints shall be struck flush and finished side by side with the laying of brick work.

3.2.2 The face of brick work shall be cleared on the same day it is laid and all mortar droppings removed.

3.3. Protection and Curing:

3.3.1 Green work shall be protected from rain by suitable covering. Masonry in cement mortar shall be kept constantly moist over all the faces for minimum period of 7 days. The top of the masonry work shall be left flooded at the close of the day.

3.4 Scaffolding

3.4.1 For exposed brick work double scaffolding having two sets of vertical supports shall be provided. Only minimum no. of holes shall be formed by omitting a header brick shall be left in brick work for supporting horizontal scaffolding poles. No holes shall be permitted in pillars under one meter width or near the skew back of arches. The holes left in masonry shall be made good by fixing full bricks into the holes before plastering. The scaffolding shall be strong and shall be maintained during construction.

3.5. Measurement: All work shall be measured net in the decimal system in accordance with IS 1200 (Part 3) -1976 as given below:

a) Dimensions shall be measured to the nearest 0.01 m

b) Areas shall be worked out to the nearest 0.01 m2

c) Cubic contents shall be worked out to the nearest 0 .01m3.

**4. PLASTERING AND POINTING**

4.1.0 PLASTERING WITH CEMENT MORTAR.

4.1.1 SEQUENCE OF OPERATIONS.

General:- Plastering and Pointing operation will be carried out as per IS 1661:1972.

For external plaster, the plastering operation shall be started from top floor and carried downwards. For internal plaster, the plastering operations may be started whenever the building frame and cladding work are ready and the temporary supports of the ceiling resting on wall or floor have been removed. The surfaces to be plastered shall first be prepared. The surfaces shall be thoroughly cleaned of all dirt, dust, mortar droppings and other foreign maters.

4.1.2 APPLICATION OF PLASTER.

One coat plasters work- The plaster about 15cm x15cm shall be first applied, horizontally and vertically not more than 2m intervals over the entire surface to serve as gauges. The surfaces of these gauged areas shall be truly in the plane of the finished plaster surface. The mortar then shall be laid on the wall between the gauges with trowel. The mortar shall be applied in a uniform surface slightly more than the specified thickness and then brought to the true surface by working a wooden straightedge reaching across the gauges with small upward and sideways movements at a time. Finally the surface shall be finished off true with a trowel or wooden float according as a smooth or sandy granular texture is required. Excessive toweling or overworking the float shall be avoided. All comers, arises, angles and junctions shall be truly vertical or horizontal as the case may be and shall be carefully finished, rounding or chamfering corners, arises, junctions etc. shall be corned out with proper templates to the size required.

In suspending the work at the end of the day, the plaster shall be left, out clean to line both horizontally and vertically. When recommencing the plastering, the edge of the old work shall be scraped clean and wetted before the plaster is applied to the adjacent areas to enable the two to join together. Plastering work shall be closed at the end of the day on the body of the wall and nearer than 15cm to any corners or arises. It shall not be closed on the body of features such as plaster, bands and cornices nor at the corners or arises. Horizontal joints in plaster works shall not also occur on parapet tops and copings as these are invariably lead to leakages. No portion of the surface shall be left out initially to be patched up later on.

Cement plaster shall be used within half an hour after addition of water. Any mortar or plaster which is partially set shall be rejected and removed forthwith from the site.

4.1.3 CURING:

This shall be started 24 (IST) Hours after finishing the plaster. The plaster shall be kept damp continually for a period of 7 days**.** Soaking of walls shall be avoided and only as much water as can be readily bobbed shall be used. Excessive evaporation on the sunny or wind ward sides of the buildings in hot air weather shall be prevented by hanging matting’s or gunny bags on the outside of the plaster and keeping them wet.

4.1.4 CEMENT MORTAR.

Proportioning: - Cement mortar for plastering shall be prepared by mixing cement and fine aggregate in specified proportion. It is convenient to take the amount of measurement for cement as a bag of cement weighing 50 Kgs. And this shall be taken as 0.035 cum. Sand in specified proportion shall be measured in boxes of suitable sizes(40x35x25). It shall be measured on the basis of its dry volume. In case of damp sand its quantity shall be increased suitably to allow for bulkage. Following table gives the relation between the moisture content and percentage of bulking which may be used a guide .

|  |  |
| --- | --- |
| Table 14 | |
| Moisture content % by weight | Bulking % by volume |
| 2 | 15 |
| 3 | 20 |
| 4 | 25 |
| 5 | 30 |

4.1.5 MIXING:

The mixing of mortars shall be done in Mechanical mixer. The engineer in charge may however release the condition at his discretion taking into account the nature, magnitude and location of the work, practicability of the use of these machines etc. or where items involving small quantities are to be done or if in his opinion, the use of these mixers is not otherwise feasible. In case, where mixers are not to be used, the contract shall take prior permission of the Engineer in charge.

(a) Mixing By Mech. Mixer:

Cement and fine aggregate in the specified proportion shall be fed into the mixer and mixed thoroughly in the mixer. Water shall then be added gradually and wet mixing continued at least minutes after the addition of water. Care shall be taken not to add more water than that which shall bring the mortar to consistency of a stiff paste. Only that quantity of mortar that can be used which in 30 minutes of its mixing shall be prepared at any time. When mixing is stopped, the stages of the machine shall be cleaned each time.

(b) Hand Mixing: The requisite and measured quantity of fine aggregate shall be levelled on clean water tight masonry platform and cement bags emptied on top. The cement and sand shall be thoroughly mixed dry to a homogeneous mixture of uniform colour by using turned over and over, backwards and forward several times.

4.1.6 Retampering of mortar: In case of mortar using cement, the mortar that has stiffened because of evaporation of water from the mortar, may be re tampered by adding water as frequently as needed to restore the requirement of consistency but this re tampering shall be permitted only up to two (IST) Hours from the time of addition of cement.

4.1.7 Mortars not formed in accordance with the specification above or laying unused after the periods as mentioned above, or found partly set or dried or otherwise spoilt shall be rejected and removed from site of work at the contractor’s risk and cost.

4.1.8 Measurements: All plastering shall be measured in square meters unless otherwise specified. Length, breadth and height shall be measured correct to 0.01meters.

**FLOORING & DADO**

5.1.0 CEMENT CONCRETE FLOORING

5.1.1 Material: Cement concrete flooring tiles conforming to specification given under IS 1237:1980 or its latest version shall be used and all works shall conform to the code of practice under IS 1443:1972.

5.1.2: Workmanship: The flooring shall be laid on concrete sub grade (leanconcrete) where so provided. The slopes of floors in places like verandah, kitchen**,** baths water closets and courtly and shall be provided with adequate slopes for proper drainage of washings and rain water. Where sub grade is not provided earth below shall be properly sloped, gathered rammed and consolidated and before laying the flooring **it** shall be moistened.

If the sub-grade is lean concrete, the flooring shall be commenced within 48 (IST) hrs. of laying of the sub-grade, falling which the surface of the sub-grade shall be roughened with steel wire brushes without disturbing the concrete, wetted and smeared with a coat of cement slurry **@** 2.75Kg. of cement per square meter so as to give a good bond between sub-grade and flooring.

Plinth masonry offsets shall be depressed so as to allow the sub-grade concrete to rest on it.

If the cement concrete flooring is to be laid directly on the RCC slab the surface of RCC slab shall be roughened with brushes, when concrete is greenthis shall be done carefully without disturbing the concrete. A large unbroken areas of cement concrete are liable to crack, it is advisable to divide the Floor either into strips or into square or rectangles called panels.

5.1.3. Panels: Flooring of specified thickness shall be laid in accordance with approved pattern or as directed by the Engineer-in-Charge. The border shall have a mited joints at corners of the room and intermediate joints shall be in straight line with the panel joints. The Panels shall be uniform in size length of panel shall not exceed ½ times its breadth. Alternate panels shall be laid on different lanes.

5.1.4 Finishing : Finishing operations shall start shortly after cessation of beating the laid concrete and shall be spread over a period of one to six Hours depending upon the temperature and atmospheric condition. The surface shall be left for sometime till moisture disappears from it. Use of dry cement or concrete and sand mixtures sprinkled on the surface to stiffen the concrete or absorb excessive moisture shall not be permitted.

Fresh quantity of cement of 2.75Kg.perSqm. of flooring shall be mixed with water to form a thick slurry and spread over the surface while the concrete is still green. The cement slurry will then the properly pressed twice by means of Iron Floats, once when the slurry is applied and second time when cement starts setting and finished floated smooth. Floor finish over ramps**,** stairs and other similar situations specially they are liable to get wet shall be finished in chequed pattern to make them non slip. The junctions of floors with wall plaster, skirting shall be rounded no where so required to 25mm radius.

5.1.5 Curing: After 24 (IST) Hours of laying of concrete, the surface shall be cured by flooring water upto 25mm depth by cooling there with wet absorbent. The curing shall be done for 7 days, unless other wise specified.

5.1.6 Precautions: Flooringof Lavatories and bath rooms shall be laid after of water close**t** and squatting pairs and floor traps which shall be plugged, while laying the floors and opened after the floors are complete. Any damage done to water supply and sanitary fittings during execution of work shall be made good.

No concrete shall be laid within half an hour of the closing time of the day, unless permitted by the Engineer-in-Charge.

5.1.7 Measurement: Flooring shall be measured as laid in square metre correct to two places of decimal. For length and breadth dimension correct to a cm before laying skirting dado or wall plaster shall be taken. No deductions shall be made or extra paid for any opening upto 0.1Sqm. in area in the floor. Nothing extra shall be paid for laying the floors at different levels in the same room. The thickness of flooring shall be specified in the description of the item and shall be measured correct to 1mm. Flooring laid in borders, margins and treads of steps shall be measured under flooring in respective of width.

**6. PAINTS**.

6.1.1 PRIMER PAINT:

The primer shall be of superior quality and as per I.S. specification and it should be of standard company available in market. The painting practice will be as per IS 1477(Part 2) 1971 and also conform to 2395 ( Part 2) : 1994 or its latest version.

Primer shall be factory prepared ready-made mixed in single pack and shall be approved by Engineer-in-charge. It shall be at brushing consistency and suitable for application after thinning with relevant thinner. It is strongly recommended that a primer is employed for which long term experience under the specific climatic conditions is available and to insist that it shall conform to the relevant Indian Standard specifications.

The primer coat shall be applied soon’ after completion of precleaning Primer required for primer coat shall be obtained directly from manufacturer of authorized dealers and brought to the side in packed drum with seal.

The primer not in use shall be kept properly protected. Lids of containers shall be kept closed and surface of paint in open or partially open containers shall be covered with thin layers of turpentine to prevent formation of skin. The primer shall be stirred thoroughly in its container before pressing in the small container. While applying also, the primer shall be continuously stirred in small container. No left over primer shall be put back in to stock tins. When not in use, the container shall be kept properly closed. Due to any reason, thinning is found necessary the brand of thinner recommended by manufacturer primer paint shall be applied at coverage rate of 7 to 9 sq.mt. per liter.

6.1.2 EMULSION PAINT :Uni -gloss multipurpose paint will be procured from the manufacturer .The same shall be factory prepared, ready mixed in single pack conforming to IS 15489:2004 and shall be approved by Engineer-in-charge. Painting practices will conform to IS 2396 ( Part 2) : 1994 code of practice or its latest version .

The paint procured shall brush easily, shall have good leveling properties and show running or sagging tendencies. The paint shall not skin within 48 (IST) Hours in a three quarters filled closed containers. The paint when dry shall from a good uniform surface. The paint shall be applied to cover 8 to 10 sq.mt. average per litre. If due to any reason thinning is necessary, the brand of thinner recommended by the manufacturer shall only be used.

**7. WOOD**

7.1 .1 All woodwork shall be neatly and truly finished to the exact dimensions required, wood work which will be exposed to view when the work is complete, shall be accurately planed to the required dimensions. A tolerance of (1.6mm)shall be allowed for nominal dimensions of structural timber. Where dimensions are specifically mentioned as net dimensions, no such tolerance shall be permissible.

Timber suitable for manufacture of door shutters shall be in accordance with IS 12896. Each class of species stand in the same footing functionally (irrespective of cost). Timber used for rails and stiles shall be of the same species. All the panels where they are of solid wood shall be of one species which may or may not be the same species as that of rails and stiles

7.1.2 Moisture Content: The maximum permissible moisture content in timber shall be as specified in IS 287: 1993.

7.1.3. Seasoning and Treatment: Timber shall be well seasoned by a suitable process conforming to IS 1141: 1993. before being planned and shaped to the required dimensions. Sap wood of durable species and hardwood and sapwood of non-durable species shall be treated with suitable preservatives (except the water soluble leachable type) as specified in IS 401: 1982.

7.1.4. Defects Prohibited: The timber shall be graded as First Grade and Second Grade on the basis of the permissible defects in the timber as given in Table 1. For both the grades, knot

should be avoided where it is over or touching a place of joint. Surface checks not exceeding 2 mm in depth may be permitted.

7.1.5 Defects Permitted: The timber shall be graded as First Grade or Second Grade on the basis of the permissible defects in timber as given in Table 16. For both the grades, knots shall not occur at joint or at locations where boldfasts and hinges are to be fixed.( IS 1003- part 1 2003)

|  |  |  |  |
| --- | --- | --- | --- |
| Table 16 | | | |
| Sl.no | Defects | First Grade | Second Grade |
| 1 | Cross grain | Not steeper than 1 in 15 | Not steeper than 1 in 10 |
| 2 | Sound knots and live knots a)Size,Max b)Number per metre | 1) Stiles and rails  a) *Short exposed face* - Not more than 20 mm Size and not more 1 knot/m  b) *Long exposed face* - Not more than 20 mm size and not more than knot/m2 No knot shall occur within 20 mm of the edges  2) *Panels* - Not more than 20 mm Size and not more than 2 knots/m2 No knot shall occur on edge of any component of a panel | 1) Stiles and rails  a) *Short exposed face* - Not more than 20 mm Size and not more than 3 knots per stile and 1 knot per rail  b) *Long exposed face* - Not more than 25 mm size and not more than 3 knots per stile and 1 knot per rail  2) *Panels* - Not more than 20 mm Size and not more than 4 knots/m2. No knot shall occur on edge of any component of a panel |
| 3 | Dead and loose knots (Plugged) | 1) *Stiles and Ralls* - Not more than 10 nm size centrally located and not more than 1 knot/m  2) *Panels* - Not more than 15 mm size and not more than 2 knots/rn2 .No knot shall occur on edge of any component of a panel | 1) *Stiles and Ralls* - Not more than 10 mm Size, centrally located and not more than 3 knots per stile and 1 knot per rail  2) *Panels* - Not more than 15 mm size and not more than 4 knots/m2 No knot shall occur on edge of any component of a panel |
| 4 | Pitch pockets or streaks | None | Permissible except on exposed edges,provided that they are clean and filled up With suitable putty or filler When pitch pockets or streaks are located on the exposed edges of the core, they shall be cut out and filled With piece of wood of Similar species With gram running 10 the same direction.The piece shall be well glued |
| 5 | Pin holes (other than due to live infestation) | Permitted provided they are not in clusters | Permitted |
| 6 | Worm holes | None | Permitted provided they arc not more than 10mm in diameter and not more than one per metre and provided such wormholes are plugged with similar timber in such a manner that the plugging merge with the surrounding area both as to colour and grain |

Notes : 1. Dead and loose knots are permuted only If they are suuably plugged. 2 .Knot shall not occur where hinges or locks are to be fixed

7.2 Workmanship:

7.2.1 Timber panelled shutters shall be constructed in the form of timber framework of stiles and rails with panel inserts of timber, plywood, blockboard, medium density fibreboard, veneered particle board, asbestos cement sheets, prelaminated particle board ,wire gauze or glass. The panels shall be fixed by either providing grooves in the stiles and rails or beading or both.The stiles, top rails and lock rails shall be joined to each other by mortice and tenon joints The bottom rails shall have haunched plain double tenon joints andother single tenon joints. The bottom, lock and top rails shall be inserted 25 ± 3mm short of the width of the stiles to form a stub mortice and tenon joint.

All members’ ofthe door shutters shall be straight, smooth and well planed faces at right angles to each other. Any warp or bow shall not exceed 1.5 mm. The right angle for the shutters shall be checked by measuring the two diagonals from one extreme comer to the opposite one and the difference between the two diagonals shall be not more than 3 mm.

The minimum depth of grooves of stiles and rails shall be 12mm for all types of panelling. The panels shall be framed into grooves to the full depth of groove leaving an air space of 1.5 mm and the faces shall be closely fitted to the sides of the groove.

All door shutters shall be sanded and finished smooth. Panels of shutters shall be flat and well-sanded to a smooth and level surface.

Dimensions, Sizes And Tolerances will be provided as specified and it shall conform to IS 1003 (Part I) : 2003.

7.2.2 All woodwork shall be passed and inspected by the Engineer before being treated or finally fixed in position. Rejected timber shall at-once be removed from the work by the contractor.

**8. ALUMINIUM WORK**

8.0 GENERAL

The following particular specifications are applicable to Aluminum work as contained in the tender documents. For doors, windows and ventilators, the work practice adopted will conform to IS: 1081-1960 and the material used shall satisfy the specification as laid under 1038-1983 .

Inspection of materials and works: All materials brought to the site by the contractor for use in the work, as well as fabricated components shall be subject to inspection and approval by Engineer-in- Charge. The contractor shall be required to get necessary tests carried out on materials components at his own cost from the laboratories / test houses, as directed by the Engineer-in-Charge

8.1 MATERIAL

8.1.1 Putty - Putty used for glazing metal door, window or ventilator shall conform to IS :420-1953.

8.1.2 Mastic - The requirements of maltic used in fixing metal door window and ventilator shall be as agreed to between the purchaser and the supplier

8.1.3 Manufacturer’s Test Certificate: The contractor shall, if required by the Engineer-in-Charge, produce manufacturer’s test certificates for any material or particular batch of materials supplied by him. The test carried out shall be as per relevant specifications/Indian standard codes.

8.1.4 APPROVAL OF SAMPLES

The contractor shall submit to the Engineer-in-Charge, samples of all materials for approval and no work shall commence before such samples are approved. Samples of unanodized as well as anodized and electro coloured aluminum sections, neoprene gaskets, Thermal Barrier sections, glass, screws, hardware and any other material components requiring approval of samples, an opinion of Engineer-in-Charge shall be submitted for approval. The above samples will be retained as standards of materials and workmanship. The cost of the above samples shall be borne by the contractor.

**8.2.0 ALUMINIUM SECTIONS**

8.2.1 Aluminum sections to be used for doors, windows, ventilators and fixed glazing etc. as specified in the estimate shall be manufactured by reputed companies & shall be appropriate to meet architectural designs of relevant components .It shall be subject to approval of the Engineer-in-Charge, who is required to be satisfied about their being appropriate on technical, structural, functional and aesthetic considerations.

**8.3.0 FABRICATION**

8.3.1 All joints shall be accurately fabricated and be hairline in appearance. The finished surface shall be free from visible defects.

8.3.2 (a) Taking into consideration varying profiles of aluminum sections being extruded by approved manufacturers, the contractor shall prepare detailed shop drawings of his proposal using suitable sections based on architectural design/drawings, adequate to meet the requirement/specifications laid down in this tender documents and as proposed by the manufacturers and these detailed shop drawings shall be subject to approval of the Engineer-in-Charge.

(b) All hardware used shall conform to the relevant specifications and as per samples approved by the Engineer-in-Charge. Design, quality, type, number and fixing of hardware shall be generally in accordance with architectural drawings and as approved by the Engineer-in-Charge before use.

8.3.3 All doors, windows, ventilators and glazing etc. shall be completely water proof and air tight with neoprene gaskets and silicon sealants to the satisfaction of the Engineer-in-Charge, for which no extra payment shall be made.

8.3.4 Mitered joints of the doors, windows, ventilators shutters and frames shall be either corner crimped or fixed with self tapping stainless steel screws of approved make and quality of heavy duty extruded aluminum cleats and sealed with silicon sealant, for which nothing extra shall be paid.

8.3.5 Vertical of the frame shall be embedded in the floors, wherever required, by 50mm by cutting and making good the floor. Nothing extra shall be paid for the same.

**8.4.0 FIXING**

**8.4**.1 The screws used for fixing aluminum frames to masonry walls/RCC members and aluminum member to another aluminum members shall be of stainless steel of approved make and quality. Threads of machine screws used shall conform to requirement of I.S. 4218.

**8.4.**.2 The gap between frames and supports and any gap in the various sections shall be filled with approved silicon sealant to ensure complete water tightness. The sealant shall be of such approved colour and composition that it would not stain the masonry/RCC work. It should not sag or flow and shall not set hard or dry out under any conditions of weather. The SILICON sealant shall be used as required and shall match the colour of the aluminum sections. Any excess sealant shall be removed/cleared. Nothing extra shall be paid for the above.

**8.5.0 GLAZING**

8.5.1.All glazing panes shall be retained within aluminum framing by use of exterior grade neoprene gaskets. No water leakage shall occur on the interior even if water penetrates exterior neoprene gaskets. Use of glazing or caulking compounds around the perimeter of glass will not be permitted. All fixed glass panes shall be supported by setting blocks. There shall be no whistling or rutting.

Before installation of glass, contractors shall ensure the following.

(a) All glazing rebates shall be square to plumb, true to plane, dry and free from dust.

(b) Glass edge shall be clean and cut to exact size.

(c) Glazing shall provide such thermal expansion and contraction of components, as will be caused by the temperature variations inside and outside without causing bucking stress on glass, detrimental effect on structural elements and components.

8.5.2 Samples of typical glazing shall be made and got approved by the Engineer-in-Charge before mass installation is taken in hand.

8.5.3 After erection and removal of protective layer, all aluminum works including glass panes shall be washed with a suitable thinner and water to give a uniform clear appearance free from all marks and blemishes.The Contractor shall be responsible for the safety of all activities on the Site.

**8.6 WATER SUPPLY IN BUILDINGS**

All materials used in the construction of any of the works shall conform to the relevant Indian Standards where available in so far as these standards are applicable. Where no such standards exist, the materials shall be of the quality and workmanship acceptable to the Engineer in charge, and shall be open to inspection at the manufacturer's works before despatch. The practice adopted to establish the water supply will conform to IS 2065:1983.

**8.7 FINISHING**

8.7.1 The site finishing of doors, windows and ventilators shall assure two purposes:

a) protection of the metal (in the case of ungalvanized material),and

b) decoration of the assembly (for both galvanized and ungalvanized material ).

8.7.2 Site finishing shall consist of the application of an undercoat and a finishing coat of paint, after any necessary touching up. In the case of aluminium frames site painting is not necessary.

IS 2065:1983 Code of practice for water supply in buildings

**8.8 MEASUREMENT AND RATES**

The method of measurement of all works shall conform to the specified IS code.The rates for works specified will be as per the PWD SoR 2013.

**8.9 SANITARY INSTALLATIONS**

8.9.1 Mirror

The mirror shall be of superior glass with edges rounded off or beveled, as specified. It shall be free from flaws, specks or bubbles. The size of the mirror shall be 60 x 45 cm unless specified otherwise and its thickness shall not be less than 5.5 mm. It shall be uniformly silver plated at the back and shall be free from silvering defects. Silvering shall have a protective uniform covering of red lead paint. Where beveled edge mirrors of 5.5 mm thickness are not available, fancy looking mirrors with PVC beading/border or aluminium beading or stainless steel beading/border based on manufacture’s specifications be provided nothing extra shall be paid on this account. Backing of mirrors shall be provided with environmentally friendly material other than asbestos cement sheet.

8.9.2 Pillar Taps

Pillar taps shall be chromium plated brass and shall conform to IS 1795. The nominal sizes of the pillar tap shall be 15 mm or 20 mm as specified. The nominal size shall be designated by the nominal bore of the pipe outlet to which the tap is to be fitted. Finished weights of 15 mm and 20 mm pillar taps shall be as prescribed in Table.

Minimum Finished Weights of Pillar Taps

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| --- | --- | --- | --- | --- | --- | --- |
| *Particulars* | *Weights in gms* | *15 mm size* | | | | *20 mm size* |
| ***Body*** | ***255*** | ***505*** | |  |  |  |
| ***Washer plate loose valve*** | ***15*** | ***28*** |  |  |  |  |
| ***Back nut*** | ***40*** | ***50*** |  |  |  |  |
| ***Tap*** | ***650*** | ***1175*** | | |  |  |

8.9.3 Waste Fittings for Wash Basins and Sinks

The waste fittings shall be of nickel chromium plated brass, with thickness of plating not less than service grade 2 of IS 4827 which is capable of receiving polish and will not easily scale off. The fitting shall conform in all respect to IS 2963 and shall be sound, free from laps, blow holes and fittings and other manufacturing defects. External and internal surfaces shall be clean and smooth. They shall be neatly dressed and be truly machined so that the nut smoothly moves on the body. Waste fitting for wash basins shall be of nominal size of 32 mm. Waste fittings for sinks shall be of nominal size 50 mm.

8.9.4 Water Closet

*Squatting Pans (Indian Type W.C.)*

Squatting pans shall be of white vitreous china conforming to IS 2556 Part-I for

General Requirements and relevant IS codes for each pattern as described below:

1. Long pattern-conforming to IS 2556 (Part-3).
2. Orissa pattern-conforming to IS 2556 (Part-3).
3. Integrated type conforming to IS 2556 (Part-14).

Preferably Orissa type pan should be used. Each pan shall have an integral flushing rim of suitable type. It shall also have an inlet or supply horn for connecting the flush pipes. The flushing rim and inlet shall be of the self draining type. It shall have weep hole at the flushing inlet to the pan. The flushing inlet shall be in the front, unless otherwise specified or ordered by the Engineer-in-Charge. The inside of the bottom of the pan shall have sufficient slope from the front towards the outlet and the surface shall be uniform and smooth to enable easy and quick disposal while flushing. The exterior surface of the outlet below the flange shall be an unglazed surface which shall have grooves at right angles to the axis of the outlet. In all cases a pan shall be provided with a (100 mm) S.C.I. trap ‘P’ or ‘S’ type with approximately 50 mm water seal and 50 mm dia vent horn, where required by the Engineer-in-Charge.

*Wash Down Type (European Type W.C.)*

Water closets shall be of white vitreous china conforming to IS 2556 (Part-1) and 2556 (Part-2), as specified and shall be of “Wash down type”. The closets shall be either of the two patterns (Pattern I & Pattern II) and sizes. The closets shall be of one piece construction. Each water closet shall have not less than two holes having a minimum diameter of 6.5 mm for fixing to floor and shall have an integral flushing rim of suitable type. It shall also have an inlet or supply horn for connecting the flushing pipe of dimensions the flushing rim may be boxed or open type. In the case of box rims adequate number of holes, on each side together with a slot opposite the inlet shall be provided. The flushing rim and inlet shall be of the self draining type. The water closet shall have a weep hole at the flushing inlet. Each water closet shall have an integral trap with either ‘S’ or ‘P’ outlet with at least 50 mm water seal. For P trap, the slope of the outlet shall be 14 deg. below the horizontal. Where required the water closet shall have an antisiphonage 50 mm dia vent horn on the outlet side of the trap with dimension and on either right or left hand or centre as specified set at an angle of 45 deg. and invert of vent hole not below the central line of the outlet. The inside surface of water closets and traps shall be uniform and smooth in order to enable an efficient flush. The serrated part of the outlet shall not be glazed externally. The water closet, when sealed at the bottom of the trap in line with the back plate, shall be capable of holding not less than 15 litres of water between the normal water level and the highest possible water level of the water closet as installed.

8.10 WATER SUPPLY

Bib Taps and Stop Valve Brass: A bib tap is a draw off tap with a horizontal inlet and free outlet and a stop valve is a valve with suitable means of connections for insertion in a pipe line for controlling or stopping the flow. They shall be of specified size and shall be of screw down type and shall conform to IS 781. The closing device shall work by means of disc carrying a renewable non-metallic washer which shuts against water pressure on a seating at right angles to the axis of the threaded spindle which operates it. The handle shall be either crutch or butterfly type securely fixed to the spindle. Valve shall be of the loose leather seated pattern. The cocks (taps) shall open in anti-clock wise direction. The bib tap and stop valve shall be polished bright. The minimum finished weights of bib tap and stop valve shall be as specified in Table 18.1.

Minimum Finished Mass of Bib Taps and Stop Valves

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | *Minimum Finished Mass* | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | |  |  |  |  |  |  |  |  |  |  |
| *Size* | | | | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | *Stop Valves* | | | | | | | | | | |  |  |  |  |  |  |  |  |  |  |
|  | *Bib Taps* | | | | | |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  | *Internally* | | | | | | | |  |  | *Externally* | | | | | | | | | |  |  | *Mixed End* | | | | | | | |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | *Threaded* | | | | | |  |  |  |  | *Threaded* | | | | | | | | |  |  |  |  |  |  |  |  |  |  |
|  | |  | |  |  |  |  |  |  |  |  | |  |  |  |  |  | |  |  | |  |  |  |  |  | | |  |  | |  |  |  |  |  |  |  |  | |  | |  |  |  |  |  |
|  | | | *(1)* | | |  |  |  |  | *(2)* | | |  |  |  |  | *(3)* | | | | |  |  |  |  | *(4)* | | | | | | | |  |  |  |  |  | *(5)* | | | | | |  |  |  |
|  |  | |  |  |  |  | | |  |  |  |  |  |  | |  |  |  |  |  |  |  |  | | |  |  |  |  |  |  |  | |  |  | | |  |  |  |  |  |  | |  |  | |
|  |  | *mm* | | | | |  | |  |  |  | *Kg* |  | | |  |  |  |  |  | *Kg* | | | | |  |  |  |  |  |  | *kg* | | | | | |  |  |  |  |  | *kg* | | | | |
|  | |  | |  |  |  |  |  |  |  | |  |  |  |  |  |  | | | |  |  |  |  |  |  | | | | | |  |  | |  |  |  |  |  | | | |  |  | |  |  |
| **8** | | | | |  |  |  |  |  |  | **0.250** | | |  |  |  | **0.220** | | | | | |  |  |  | **0.250** | | | | | | | | |  |  |  |  | **0.235** | | | | | | |  |  |
|  | | | |  |  |  |  |  |  |  |  | | |  |  |  |  | | |  | | |  |  |  |  | | | |  | | | | |  |  |  |  |  | |  | | | | |  |  |
| **10** | | | | |  |  |  |  |  | **0.300** | | | |  |  |  | **0.300** | | | | | |  |  |  | **0.350** | | | | | | | | |  |  |  |  | **0.325** | | | | | | |  |  |
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| **15** | | | | |  |  |  |  |  | **0.400** | | | |  |  |  | **0.330** | | | | | |  |  |  | **0.400** | | | | | | | | |  |  |  |  | **0.365** | | | | | | |  |  |
|  | | | |  |  |  |  |  |  |  |  | | |  |  |  |  | | |  | | |  |  |  |  | | | |  | | | | |  |  |  |  |  | |  | | | | |  |  |
| **20** | | | | |  |  |  |  |  | **0.750** | | | |  |  |  | **0.675** | | | | | |  |  |  | **0.750** | | | | | | | | |  |  |  |  | **0.710** | | | | | | |  |  |
|  | | | |  |  |  |  |  |  |  |  | | |  |  |  |  | | |  | | |  |  |  |  | | | |  | | | | |  |  |  |  |  | |  | | | | |  |  |
| **25** | | | | |  |  |  |  |  | **1.250** | | | |  |  |  | **1.180** | | | | | |  |  |  | **1.300** | | | | | | | | |  |  |  |  | **1.250** | | | | | | |  |  |
|  | | | |  |  |  |  |  |  |  |  | |  |  |  |  |  | | |  | | |  |  |  |  | | | |  | | | | |  |  |  |  |  | |  | | | | |  |  |
| **32** | | | | |  |  |  |  |  | **-** | | |  |  |  |  | **1.680** | | | | | |  |  |  | **1.800** | | | | | | | | |  |  |  |  | **1.750** | | | | | | |  |  |
|  | | | |  |  |  |  |  |  |  | | |  |  |  |  |  | | |  | | |  |  |  |  | | | |  | | | | |  |  |  |  |  | |  | | | | |  |  |
| **40** | | | | |  |  |  |  |  | **-** | | |  |  |  |  | **2.090** | | | | | |  |  |  | **2.250** | | | | | | | | |  |  |  |  | **2.170** | | | | | | |  |  |
|  | | | |  |  |  |  |  |  |  | | |  |  |  |  |  | | |  | | |  |  |  |  | | | |  | | | | |  |  |  |  |  | |  | | | | |  |  |
| **50** | | | | |  |  |  |  |  | **-** | | |  |  |  |  | **3.700** | | | | | |  |  |  | **3.850** | | | | | | | | |  |  |  |  | **3.750** | | | | | | |  |  |
|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |

In case these are required to be nickel plated, the plating shall be of the first quality with a good thick deposit of silvery whiteness capable of taking high polish which will not easily tarnish or scale.

**8.11 Pipes-Galvanised Iron**

The pipes (tubes) shall be galvanised mild steel hot finished seamless (HFS) or welded (ERW) HRIW or HFW screwed and socketed conforming to the requirements of IS 1239 Part-I for medium grade. They shall be of the diameter (nominal bore) specified in the description of the item, the sockets shall be designated by the respective nominal bores of the pipes for which they are intended.

*Galvanising shall conform to IS 4736*

The zinc coating shall be uniform adherent, reasonably smooth and free from such imperfections as flux, ash and dross inclusions, bare batches, black spots, pimples, lumping runs, rust stains, bulky white deposits and blisters. The pipes and sockets shall be cleanly finished, well galvanised in and out and free from cracks, surface flaws laminations and other defects. All screw threads shall be clean and well cut. The ends shall be cut cleanly and square with the axis of the tube.

APPENDIX C

PARTICULARS OF MEDIUM GRADE G.I. PIPES

|  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| *Nominal* | *Dimension of pipes* | | *Weight of pipe* |  | *Bore* |  |  |  |  |
|  | | | | | | | |  |  |
| *\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Outside diameter* | | | | | | | | *Thickness Plain end* | *Screwed end socket* |
|  |  |  |  |  |  |  |  |  |  |
|  | *Max.* | *Min.* | *(mm)* | *(mm)* | *(mm)* | *(mm)* | *Kg/m* | *Kg/m* |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **6** | **10.6** | **9.8** | **2.0** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **0.404** | **0.407** | **8** | **14.0** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **13.2** | **2.3** | **0.641** | **0.645** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **10** | **17.5** | **16.7** | **2.3** | **0.839** | **0.845** | **15** | **21.8** |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **21.0** | **2.6** | **1.21** | **1.22** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **20** | **27.3** | **26.5** | **2.6** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **1.56** | **1.57** | **25** | **34.2** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **33.3** | **3.2** | **2.41** | **2.43** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **3242.9** | **42.0** | **3.2** |  |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **3.10** | **3.13** | **40** | **48.8** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **47.9** | **3.2** | **3.56** | **3.60** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **50** | **60.8** | **59.7** | **3.6** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **5.03** | **5.10** | **65** | **76.6** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **75.3** | **3.6** | **6.42** | **6.54** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **80** | **89.5** | **88.0** | **4.0** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **8.36** | **8.53** | **100** | **115.0** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **113.1** | **4.5** | **12.2** | **12.50** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **125** | **140.8** | **138.5** | **4.8** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **15.90** | **16.40** | **150** | **166.5** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |
|  | **163.9** | **4.8** | **18.90** | **19.50** |  |  |  |  |  |
|  |  |  |  |  |  |  |  |  |  |

**8.11 POLYETHYLENE WATER STORAGE TANKS**

Material

Polyethylene used for manufacture of tanks and manhole lids may be high density (HDPE), low density (LDPE) or linear low density (LLDPE) and shall conform to IS 10146. Polyethylene shall be compounded with carbon black so as to make the tank resistant to ultra violet rays from the sun. The percentage of carbon black content in polyethylene shall be 2.5 ± 0.5 percent and it shall be uniformly distributed. The materials used for the manufacture of tank, manhole lid and fittings shall be such that they neither contaminate the water nor impart any taste, colour, odour or toxity to water.

**8.12 DRAINAGE**

8.12.1 PIPES AND SPECIALS

Glazed Stone Ware Pipes and Fittings

All pipes with spigot and socket ends and fittings shall conform to class SP1 of IS 651. These shall be sound, free from visible defects such as fire cracks or hair cracks. The glaze of the pipes shall be free from crazing. The pipes shall give a sharp clear tone when struck with a light hammer. There shall be no broken blisters. The thickness of pipes shall be as given in the Table below.

TABLE



Stoneware Pipes

*\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_*

*Internal Diameter (mm)* *Mean Thickness of the Barrel and Socket (mm)*

|  |  |
| --- | --- |
| **100** | **12** |
|  |  |
| **150** | **15** |
|  |  |
| **200** | **16** |
|  |  |
| **230** | **19** |
|  |  |
| **250** | **20** |
|  |  |
| **300** | **25** |
|  |  |
| **350** | **30** |
|  |  |
| **400** | **35** |
|  |  |
| **450** | **37** |

\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

The length of pipes shall be 60, 75, 90 cm exclusive of the internal depth of the socket.

The pipes shall be handled with sufficient care to avoid damage to them.

**TECHNICAL SPECIFICATION FOR ELECTRICAL WIRING / PANELS / SWITCHGEAR**

**9.0 GENERAL REQUIREMENTS**

The installation shall generally be carried out in conforming with the requirements of the Indian Electricity Act, l9l0 as amended up to date and the Indian Electricity Rules, l956 framed thereunder, the relevant regulations of the Electric Supply Authority concerned, and also with the specifications laid down in the Indian Standard I.S. 732 - l963 Code of Practice (revised) for Electrical Wiring Installations (system voltage not exceeding 650 volts) and I.S. 2309-1969 Code of Practice for the protection of Buildings and Allied Structure against Lighting and IS 3043 - Indian code of Practice for Earthing. The wiring shall also be according to the I.S specifications, NEC, Local Government Body.

Only the contractor having valid Electrical Contractor Licence of the State shall be eligible to execute the same. The contractor shall be responsible for renewal of the same at the appropriate time.

**9.1 MATERIALS**

All materials, fittings, appliances, used in electrical installations, shall conform to Indian Standard Specifications wherever these exist. A list of approved materials is attached afterwards. Materials not included in the list shall be got approved by the Engineer-in-Charge/Owner prior to actual use.

**9.2 MAIN SWITCH GEAR**

Iron clad switch fuse and isolator units should conform to relevant I.S. Standard. The quick make and break mechanism shall be self-interlocked with the cover. In "Off" position there must be two breaks per pole.

Main switch gear shall be properly earthed with two numbers conductors if M.V and one number of L.V.

**9.3 DISTRIBUTION BOARDS**

These totally enclosed metal clad type Distribution Boards with hinged lids shall be in accordance with I.S. 2147 - 1952 and 2675 - l966 and B.S. 2l4 and shall be of welded construction and fabricated from rust proofed sheet steel and finished with anticorrosive stove enamel paint and have provision for fixing on wall and have ear thing terminals/terminals.

Power Distribution Boards (415 volts TPN) shall be constructed from l6 SWG sheet steel and Branch Distribution Boards (230 volts SPN from l8 SWG sheet steel).

The MCB shall be mounted on Din rails supports of proper dielectric & mechanical strength. If fuses/fuse banks are used these shall be mounted on moulded DMC/SMC or ebonite supports of proper dielectric and mechanical strength. TPN units should have phase separation barriers.

Cables shall be connected to a terminal by crimped lugs.

Where two or more B.D.B's feeding low voltage circuits are fed from different phases of a medium voltage supply, these B.D.B's shall be installed at least two metres apart or otherwise in a different direction to prevent access to the both DBs at a time.

All three phase power distribution boards shall be properly earthed as per relevant I.E. rules and provided with suitable Danger Board. All SPN B.D.B's shall be properly earthed with one number l0 SWG galvanised iron wire each or with insulated copper PVC wire of adequate ratings in case of concealed wiring as per the specifications.

**9.4 SWITCHES**

All switches for lights, fans and plug points shall be piano type switches, unless specified otherwise.

**9.5 CABLES AND CONDUCTORS**

All cables shall conform to I.S-692, IS-7098, IS-1554 (Part-I) 1964 and IS 694-1990 or latest . Conductors of all cables except for flexible cables shall be of aluminium, unless specified otherwise.

**9.6 FLEXIBLE CABLES**

Conductors of flexible cables shall be of copper. The minimum size of core acceptable is 1.00 sq.mm for light point and 1.5-2.0 mm dia for Power Point.

**9.7 Casing /Caping**

PVC casing/capingShall be used

**9.8 INSTALLATION OF MAIN SWITCH BOARD, BDB'S MAINS, SUBMAINS,DISTRIBUTION WIRING TO INDIVIDUAL POINTS**

The exact positions of all main switch board, BDB's and all runs of mains and sub mains, and distribution wirings to individual points including the exact position of all light fittings and switch boards shall be first marked on the buildings and shall be approved by the Engineer-in-Charge before actual commencement of the work.

The D.Bs shall generally be installed at a height of 2.l3 m (7 ft) from floor level.

**9.9 INSTALLATION OF SWITCH BOARDS**

These shall be installed at a height of l.3 metres (4'-3") and above the floor level.

**9.10 INSTALLATION OF FLUORESCENT LIGHT FITTINGS :**

Where these are suspended from ceiling by two down rods, or fixed to ceiling/beam directly, at least one fixing to the ceiling/beam shall be made with Mechanical/Metal fasteners. Electrical drill only shall be used while making holes for the fasteners which shall be capable of sustaining at least 15 kg of dead weight.

The down rods and accessories shall be painted with approved paint without involving extra cost.

Unless otherwise specified these should be suspended 2.60 M (8'-6") above the floor or as per direction of Owner to match interiors.

**9.11 INSTALLATION OF SOCKET OUTLETS**

No socket outlet shall be provided in the bath room at the height less than l30 cms (4'-3") from the floor.

No switches shall be provided inside the bath rooms, unless approved by the Engineer-in-Charge.

Socket outlet at locations other than bath rooms shall be either 25 cms (l0") or 130 cms (4'-3") from the floor.

**9.12 ELECTRICAL PANELS**

a)Before fabrication, drawings of electrical panels will have to be got approved by the Employer/Architects.

b)Panels will be inspected at works and approved by the Employer/Architect’s prior to despatch.

c)Panel fabricator should be ISO certified or having test certificates from CPRI for panels built in their works where, the panel values exceeds Rs. 2 Lacks.

d)Panels should be tested for insulation resistance and HV withstand test. Factory test certificates should be provided.

**9.13 TESTING OF INSTALLATION**

Before a completed installation or an addition to an existing installation is put into service, the following tests shall be carried out by the contractor in presence of the Engineer-in-Charge/Owner’s/Architect’s representative.

a)Polarity of switches

It must be ensured by test that all single pole switches have been fitted on the live side of the circuits they control.

b)Insulation Test :

i)By applying a 500 volt merger between earth and the whole system of conductors or any section thereof, with all fuses in place and all switches closed, all lamps in position or both poles of installation otherwise electrically connected together :- The result in meghom shall not be less than 50 divided by the number of points on the circuit, and should not be less than 1 meghom.

ii)Between all conductors connected to one phase and all such conductors connected to the neutral or to the other phase conductors of the supply after removing all metallic connections between the two poles of the installation and switching on all switches. The insulation resistance shall be as in (i) above.

c) Earth continuity Test

The earth continuity conductor including metal conduits and metal sheaths of cables in all cases shall be tested for electrical continuity. Electrical resistance of the above along with the earthing lead but excluding any resistance of earth leakage circuit breaker, measured from the connection with the earth electrode to any point in the earth continuity conductor in the completed installation shall not exceed one ohm.

d)Earth Resistance Test

To ensure effectiveness of installation earth, the value of earth resistance shall be within 5 ohm for installation capacity up to 5 KW and one ohm for installation of higher capacity.

**10.ACCESSORIES**

Only screwed type of accessories are to be used.

**10.0 CONDUIT JOINTS**

The conduit shall be properly earthed. In long distance straight runs of conduit inspection type screwed couplers are to be provided at reasonable intervals on running threads with couplers and jamnuts. Threads on conduit pipes in all cases shall be between 13 mm to 27 mm long sufficient to accommodate pipes to full threaded portion of couplers or accessories. Cut end of conduit pipes shall have no sharp edges or any burrs left to avoid damage to insulation of conductor while pulling them through such pipes.

**10.1 PROTECTION AGAINST DAMPNESS AND RUST**

In order to minimise condensation and sweating inside the tube, all outlets of pipes system shall be properly drained and ventilated, but in such a manner as to prevent entry to insects inside the conduit.

To protect against rust the outer surface of the conduit and accessories shall be painted and the bare thread portion is to be painted with anti-corrosive preservative.

**10.2 FIXING OF CONDUITS**

Conduit pipes shall be fixed by heavy gauge saddles and h.w. or metal bars, secured to wall/ceiling by screws driven into wood plugs or rawl plugs or phil plugs at an interval of not more than 76 cm apart for vertical run and 60 cm apart for horizontal run. But on either side of couplers or bend of similar fittings-saddle shall be fixed at a distance of 30 cm from the centre of such fittings. The minimum thickness for saddles shall be 24 SWG for conduits upto 25 mm dia, and 20 SWG for larger sizes.

**10.3 BENDS IN CONDUITS**

All necessary bends in the system including diversion shall be done by bending the pipes, or by inserting suitable inspection type bends, elbows or similar fittings, or by fixing cast iron inspection boxes whichever is most suitable.

**10.4 OUTLETS**

All outlets for fittings, switches etc. shall be fixed on boxes of suitable metal for either surface mounting system or flush mounting system. In case of cast iron boxes the wall thickness shall be at least 3 mm and in case of welded mild steel sheet box the wall thickness shall not be less than 16 gauge. Except where otherwise stated 3 mm thick insulated laminated sheets shall be fixed on the front with screws. Where conduits are terminated special care shall be taken in employing double jam nuts, for securely fixing conduits to outlets so as to prevent any possibility of damages to cables when drawn.

**10.5 CABLES TO BE USED**

Unless stated otherwise only single core PVC insulated cables of approved manufactures shall be used for wiring in conduit system. The number of single core cables drawn in one conduit shall not be greater than maximum set out in Table II of Indian Standard (I.S. 732-1963) Code of Practice (revised) for electrical wiring installation(system voltage not exceeding 650 volts).

**10.6 LOOPING IN SYSTEM**

Distribution wiring in conduit to light, fan plug points etc. shall be done in looping system. In this system no joints or connections shall be made anywhere of the system except at terminating points such as at terminals of switches, ceiling roses, etc and in case of socket outlets at the socket terminals.

**11.0 GENERAL**

All Medium Voltage and Low Voltage PVC insulated and armoured/unarmoured cables shall conform to IS 1554 Part-I-1964 and of 1,100 volt grade.

Old and used cables must not be used for installation. Only one make of cable shall be used. All cables brought to site must be tested and got approved by the Engineer-in-Charge before these can be laid. The cables shall be despatched to site on wooden drums with ends sealed. Exact lengths shall be determined by the Contractor after measurement at site.

The underground installation of cables shall be generally conforming to I.S. 1255-1967, Code of Practice for installation and maintenance of underground cables (upto including 33 KV).

**11.1 LAYING OF CABLES**

a)Inside Building

Cables shall be laid on walls/ceiling/structure, unless specified otherwise, with M.S. brackets and suitable clamps or over claw type aluminium cleats fixed on M.S. brackets, spaced not more than 450 mm apart. G.I Bolts of suitable sizes are to be grouted on the wall properly for fixing the brackets.

b)Minimum bending radius permissible is 12D for MV Cables and 20D for HV cables. At joints and terminations, the individual core of multicore cables should never be bent so that the radius is less than 15 times the diameter over the insulation.

No cable jointing is allowed between two terminal points.

**11.2 CABLE JOINTING**

All cable joints shall be carried out by experienced and Licenced jointers under strict supervision. Electro plated brass cable glands, aluminium/tinned copper cable sockets and approved jointing materials must be used. The price for cable jointing and finishing the ends of the cable shall include all materials and shall also provide for tools and plants for the work. The cable armouring is to be properly terminated. All cable accessories and other associated materials shall conform to Indian Standard Specification where applicable. Proper earthing of cable glands and armouring shall be included in the job.

**11.3 TESTING OF CABLES**

All cables shall be tested for insulation resistance with megger - 5,000V constant pressure megger insulation tester for HT Cables and 1,000 V constant pressure megger for MV Cables, before installation.

After installation and end termination, the cables shall be again subjected to the above test. Insulation value for HT Cables shall not be less than 100 meghom and for MV Cables 1.0 meghom.

After laying and jointing, the HV Cables shall be subjected to high voltage pressure test before commissioning, the test voltage being as specified in I.S.1255-1967 or latest.

Technical Specification

**11.4 TESTING OF INSTALLATION**

Before the completed installation is put into service or handed over to Owner, the installation is to be subjected to the above tests to the satisfaction of the Engineer-in-Charge. The completed work will be taken over only if the results are acceptable to the Owner/Architects/Consultant.

**12.0 TECHNICAL SPECIFICATION FOR EARTHING INSTALLATION**

The installation shall generally conform to IS 3043 - Indian Standard Code of Practice for Earthing, as amended upto date.

**12.1 EARTHING**

a)Plate Electrode

Where plate electrode for earthing is to be employed, the size of the plate shall not be less than 0.6 m x 0.6 m x 6 mm thickness for G.I plate and 0.6 m x 0.6 m x 3mm thickness in case of copper plate.

The plate shall be buried vertically with the top at a minimum of 4.0 M below the ground level for sandy soil and 2.0 M below the ground level for normal soil. In order to place the same at the prescribed depth, the dimension of pit to be excavated shall be 0.9 m x 0.9 m x 3 M deep. The plate shall be placed in position by the contractor only after the inspection of excavated pit and approval is obtained from the Engineer.

One no. 50 mm x 6 mm G.I flat (for electrical installation) or one no. 25 mm x 6 mm GI flat (for Lighting conductor) should be connected to the plate at two points by means of 65 mm long 12 mm diagalv bolts, nuts and galv washers. In case of copper plate copper flat of not less than 32 mm x 6.0 mm shall be used as the earth lead. Brass bolts, nuts and washers shall be used for fixing. All other details shall be in accordance with IS 3043-1987. No joint on the earth lead conductor is permitted. Every care be taken to ensure that the ends of the wire/flats have been securely clamped by the bolt on cleaned surface of the plate and established a good electrical contact.

After placing the plate the earth lead conductor shall be protected by means of a continuous length of G.I pipe (Class-B) having 50 mm dia bore or depending upon the size of the lead, right from the plate upto a height of 0.60 metre (2 ft) above ground level. The whole length of pipe shall be filled with bituminous compound of approved make and brand. The molten compound shall be poured from the top end the pipe and topped upto overflowing.

The plate electrode shall have a 50 mm galvanized iron water pipe buried vertically and adjacent to the electrode and reaching up to the centre of the plate. The upper end of the pipe shall be at least 5 cm above the bottom of the inspection pit and with wire mesh, funnel, etc. as per IS specification.

**12.2 MASONRY INSPECTION PIT**

The inspection pit for the earth station shall be approx. 0.56 M x 0.56 M (1'-10"x1'-10") outside dimensions and approx. 0.45 M (l'-6") deep when completed, having 5" thick cement brick work with 1st class bricks in cement mortar (6:l) both inside and outside plastered 19 mm (3/4") thick and neatly cemented l.60 mm (l/16") thick, both inside, outside and top. The opening on top shall be provided with a C.I. ring with lockable cover fixed flush with ground surface.

All the excavations shall be duly back filled, dressed and rammed.

**12.3 LOCATION FOR EARTH ELECTRODES**

Electrodes shall be buried at least 2 M (6'-6") away from the building pole or object to be earthed. However, earthing electrodes for L.C. installations should be as close to the down conductors as possible.

Electrodes, when installed in parallel, shall not be placed less than 2 M (6'-6") apart and preferably placed at distances greater than twice their lengths.

**12.4 EARTH BUSBAR**

a) Galvanised M.S. Flat

The bus bar shall be of suitable size and length, as specified in the Schedule of Items, heavily galvanised and having adequate number of drilled and tapped holes 30 mm apart, complete with G.I. bolts, nuts, washers for securely connecting the earth leads and earth continuity conductors. The busbar shall be fixed on wall, having clearance of 6 mm from wall with spacing insulators with at least 13 mm (l/2") G.I. rag bolts spaced about 0.46 M (l'-6") apart.

b) Copper Flats :

To be used , as specified, in the Schedule of Items, where earthing requirements are more stringent. Brass bolts, nuts washers shall be used for connections.

**12.5 VALUE OF EARTH RESISTANCE**

In case of installations where the load does not exceed 5 K.W. the resistance to earth shall on no account exceed 5 ohms . Where the load exceeds 5 K.W. the resistance shall not exceed l ohm.

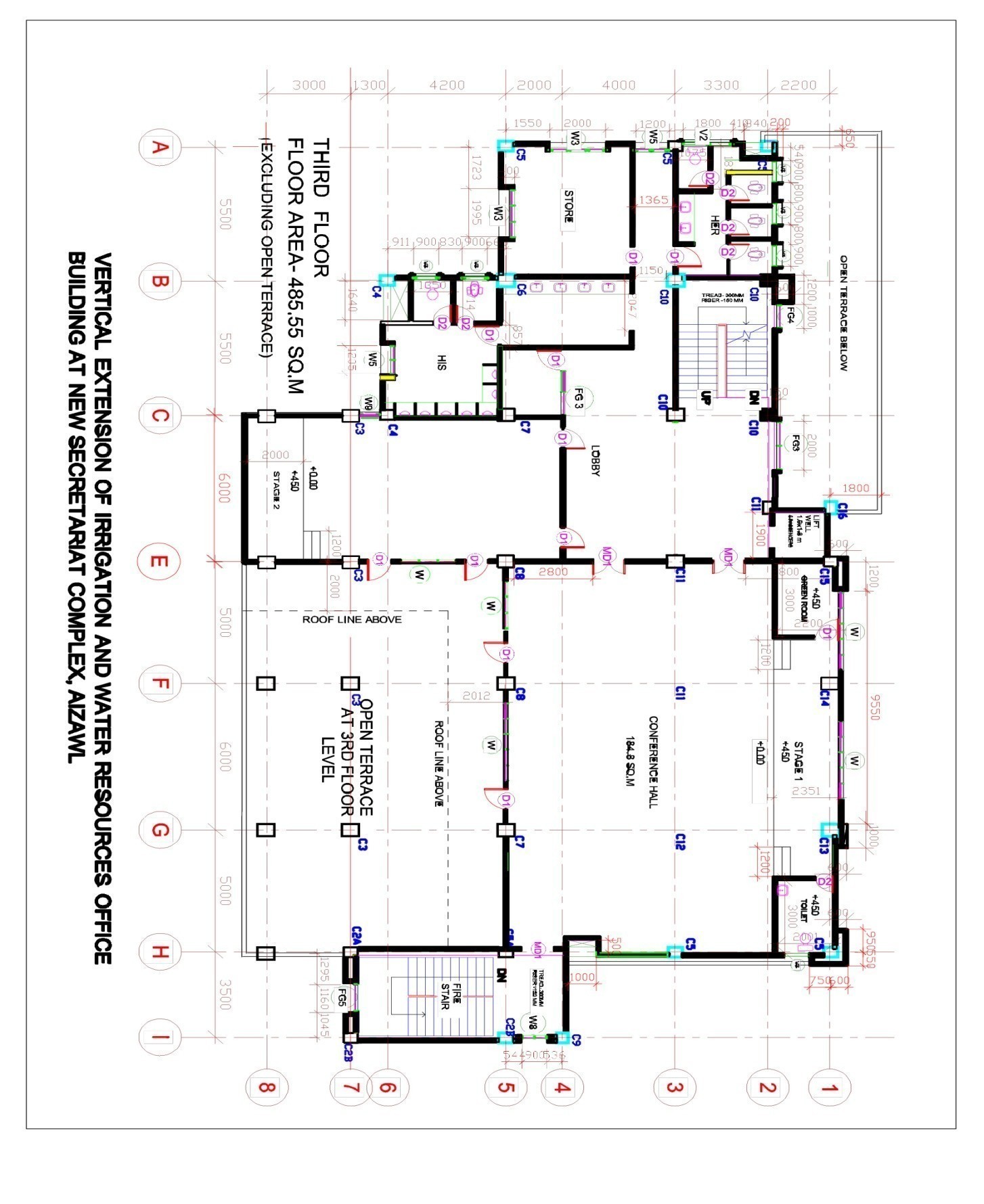
For sub-stations, the value is 1ohm.

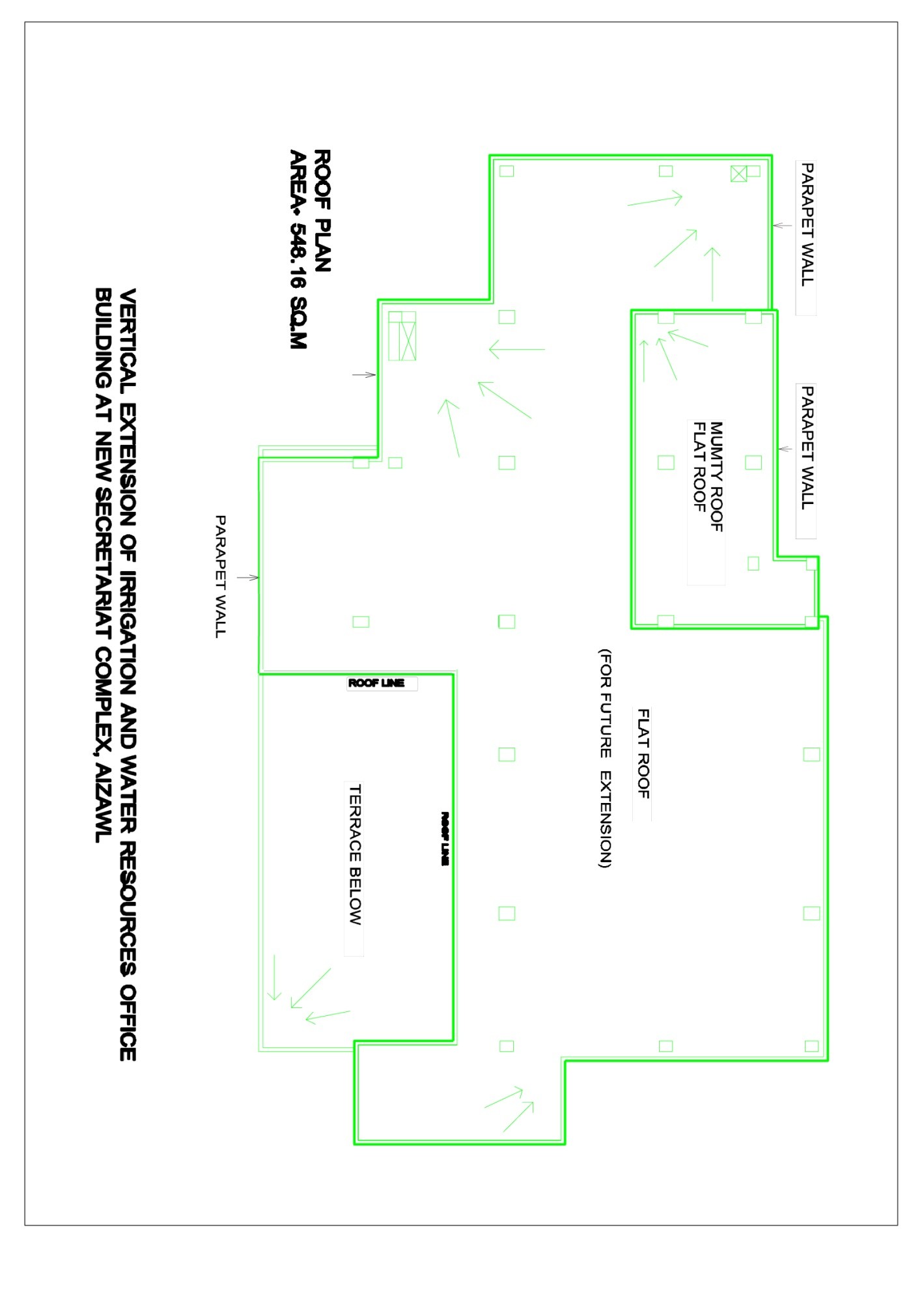
For L.C. installations, the value is 1 ohm.

Drawings

*Insert here a list of Drawings. The actual Drawings, including site plans, should be attached to this section or annexed in a separate folder.*

1. FLOOR PLAN OF THE PROPOSED EXTENSION





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.

**General Conditions of Contract**

A. General

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| 1. Definitions | * 1. Boldface type is used to identify defined terms.  1. The Accepted Contract Amount means the amount accepted in the Letter of Acceptance for the execution and completion of the Works and the remedying of any defects. 2. Not used. 3. The Adjudicator or Dispute Review Expert is the person appointed jointly by the Employer and the Contractor to resolve disputes in the first instance, as provided for in GCC 23. 4. Bank means the financing institution **named in the PCC**. 5. Bill of Quantities means the priced and completed Bill of Quantities forming part of the Bid. 6. Compensation Events are those defined in GCC Clause 42 hereunder. 7. The Completion Date is the date of completion of the Works as certified by the Project Manager, in accordance with GCC Sub-Clause 53.1. 8. The Contract is the Contract between the Employer and the Contractor to execute, complete, and maintain the Works. It consists of the documents listed in GCC Sub-Clause 2.3 below. 9. The Contractor is the party whose Bid to carry out the Works has been accepted by the Employer. 10. The Contractor’s Bid is the completed bidding document submitted by the Contractor to the Employer. 11. The Contract Price is the Accepted Contract Amount stated in the Letter of Acceptance and thereafter as adjusted in accordance with the Contract. 12. Days are calendar days; months are calendar months. 13. Not used. 14. A Defect is any part of the Works not completed in accordance with the Contract. 15. The Defects Liability Certificate is the certificate issued by Project Manager upon correction of defects by the Contractor. 16. The Defects Liability Period is the period named in the PCC pursuant to Sub-Clause 34.3 and calculated from the Completion Date. 17. Drawings means the drawings of the Works, as included in the Contract, and any additional and modified drawings issued by (or on behalf of) the Employer in accordance with the Contract, include calculations and other information provided or approved by the Project Manager for the execution of the Contract. 18. The Employer is the party who employs the Contractor to carry out the Works, as **specified in the PCC**. 19. Equipment is the Contractor’s machinery and vehicles brought temporarily to the Site to construct the Works. 20. “In writing” or “written” means hand-written, type-written, printed or electronically made, and resulting in a permanent record; 21. The Initial Contract Price is the Contract Price listed in the Employer’s Letter of Acceptance. 22. The Intended Completion Date is the date on which it is intended that the Contractor shall complete the Works. The Intended Completion Date is **specified in the PCC**. The Intended Completion Date may be revised only by the Project Manager by issuing an extension of time or an acceleration order. 23. Materials are all supplies, including consumables, used by the Contractor for incorporation in the Works. 24. Plant is any integral part of the Works that shall have a mechanical, electrical, chemical, or biological function. 25. The Project Manager is the person **named in the PCC** (or any other competent person appointed by the Employer and notified to the Contractor, to act in replacement of the Project Manager) who is responsible for supervising the execution of the Works and administering the Contract. 26. PCC means Particular Conditions of Contract 27. The Site is the area **defined as such in the PCC**. 28. Site Investigation Reports are those that were included in the bidding documents and are factual and interpretative reports about the surface and subsurface conditions at the Site. 29. Specification means the Specification of the Works included in the Contract and any modification or addition made or approved by the Project Manager. 30. The Start Date is **given in the PCC**. It is the latest date when the Contractor shall commence execution of the Works. It does not necessarily coincide with any of the Site Possession Dates. 31. A Subcontractor is a person or corporate body who has a Contract with the Contractor to carry out a part of the work in the Contract, which includes work on the Site. 32. Temporary Works are works designed, constructed, installed, and removed by the Contractor that are needed for construction or installation of the Works. 33. A Variation is an instruction given by the Project Manager which varies the Works. 34. The Works are what the Contract requires the Contractor to construct, install, and turn over to the Employer, **as defined in the PCC**. |
| 1. Interpretation | * 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.   2. If sectional completion is **specified in the PCC**, references in the GCC to the Works, the Completion Date, and the Intended Completion Date apply to any Section of the Works (other than references to the Completion Date and Intended Completion Date for the whole of the Works).   3. The documents forming the Contract shall be interpreted in the following order of priority:  1. Agreement, 2. Letter of Acceptance, 3. Contractor’s Bid& Priced Bill of Quantities, 4. Particular Conditions of Contract, 5. General Conditions of Contract including Appendices, 6. Specifications, 7. Drawings, and 8. Joint Venture Agreement [where applicable] 9. any other document **listed in the PCC** as forming part of the Contract. |
| 1. Language and Law | * 1. The language of the Contract and the law governing the Contract are **stated in the PCC**.   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.   * 1. Throughout the execution of the Contract, the Contractor shall comply with the import of goods and services prohibitions in the India when   (a) as a matter of law or official regulations, India prohibits commercial relations with that country; 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, India prohibits any import of goods from that country or any payments to any country, person, or entity in that country. |
| 1. Project Manager’s Decisions | * 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.   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. |
| 1. Delegation | * 1. Unless otherwise **specified in the PCC**, the Project Manager may delegate any of his duties and responsibilities to other people, except to the Adjudicator/Dispute Review Expert, after notifying the Contractor, and may revoke any delegation after notifying the Contractor. |
| 1. Communica­tions | * 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. All oral instructions shall be confirmed in writing in seven working days. |
| 1. Subcontracting | * 1. The Contractor may subcontract with the approval of the Project Manager upto a ceiling **specified in PCC**, but may not assign the Contract without the approval of the Employer in writing. Subcontracting shall not alter the Contractor’s obligations.   7.2 The Project Manager should satisfy himself before recommending to the Employer whether:  a) the circumstances warrant such sub-contracting; and,  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.  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.  7.4 The Contractor shall not be required to obtain any consent from the Employer for:  (a) the sub-contracting of any part of the Works for which the Sub-Contractor is already named in the contract;  (b) the provision for labour, or labour component, and,  (c) the purchase of materials which are in accordance with the standards specified in the contract.  (*Note: 1. All bidders are expected to indicate clearly in the bid, if they proposed sub-contracting elements of the works amounting to more than 10 percent of the Bid Price. For each such proposal the qualification and the experience of the identified sub-contractor in the relevant field should be furnished along with the bid to enable the Employer to satisfy himself about their qualifications before agreeing for such sub-contracting and include it in the contract. In view of the above, normally no additional sub-contracting should arise during execution of the contract.*  *2. However, [a] sub-contracting for certain specialized elements of the work is not unusual and acceptable for carrying out the works more effectively; but vertical splitting of the works for sub-contracting is not acceptable. [b] in any case, proposal for sub-contracting in addition to what was specified in bid and stated in contract agreement will not be acceptable if the value of such additional sub-contracting exceeds 25% of value of work which was to be executed by Contractor without sub-contracting.*  *3. Assignment of the contract may be acceptable only under exceptional circumstances such as insolvencies/liquidation or merger of companies etc.)* |
| 1. Other Contractors | * 1. The Contractor shall cooperate and share the Site with other contractors, public authorities, utilities, and the Employer between the dates given in the Schedule of Other Contractors, as **referred to in the PCC.** The Contractor shall also provide facilities and services for them as described in the Schedule. The Employer may modify the Schedule of Other Contractors, and shall notify the Contractor of any such modification. |
| 1. Personnel and Equipment | * 1. The Contractor shall employ the key personnel and use the equipment identified in its Bid and **referred to in the PCC**, 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.   9.2 The Project Manager may require the Contractor to remove from the Site of Works, a member of the Contractor’s staff or his work force, who:  (a) persists in any misconduct or lack of care,  (b) carries out duties incompetently or negligently,  (c) fails to conform with any provisions of the Contract, or  (d) persists in any conduct which is prejudicial to safety, health, or the protection of the environment.  9.3 If the Employer, Project Manager or Contractor determines, that any employee of the Contractor be determined to have engaged in corrupt, fraudulent, collusive, coercive, or obstructive practice during the execution of the Works, then that employee shall be removed in accordance with Clause 9.2 above  9.4 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.  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[[23]](#footnote-24). |
| Compliance with Labour Regulations | 9.6 The Contractor shall, unless otherwise provided in the Contract, make his own arrangements for the engagement of all staff and labour, local or other, and for their payment, housing, feeding and transport. The Contractor shall, if required by the Project Manager, deliver to the Project Manager a return in detail, in such form and at such intervals as the Project Manager may prescribe, showing the staff and the numbers of the several classes of labour from time to time employed by the Contractor on the Site and such other information as the Project Manager may require.  9.7 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. 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.  9.8 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.  9.9 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. |
| 1. Employer’s and Contractor’s Risks | * 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. |
| 1. Employer’s Risks | * 1. From the Start Date until the Defects Liability Certificate has been issued, the following are Employer’s risks:  1. The risk of personal injury, death, or loss of or damage to property (excluding the Works, Plant, Materials, and Equipment), which are due to    1. 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    2. 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. 2. 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.    1. From the Completion Date until the Defects Liability Certificate has been issued, the risk of loss of or damage to the Works, Plant, and Materials is an Employer’s risk except loss or damage due to 3. a Defect which existed on the Completion Date, 4. an event occurring before the Completion Date, which was not itself an Employer’s risk, or 5. the activities of the Contractor on the Site after the Completion Date. |
| 1. Contractor’s Risks | 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. |
| 1. Insurance | * 1. The Contractor shall provide, in the joint names of the Employer and the Contractor, insurance cover from the Start Date to the end of the Defects Liability Period, in the amounts and deductibles **stated in the PCC** for the following events which are due to the Contractor’s risks:  1. loss of or damage to the Works, Plant, and Materials [which are incorporated in works]; 2. loss of or damage to Construction Equipment; 3. loss of or damage to property (except the Works, Plant, Materials, and Equipment) in connection with the Contract; and 4. personal injury or death.    1. 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.    2. If the Contractor does not provide any of the policies and certificates required, the Employer may effect 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.    3. Alterations to the terms of insurance shall not be made without the approval of the Project Manager.    4. Both parties shall comply with any conditions of the insurance policies. |
| 1. Site Data | * 1. The Contractor shall be deemed to have examined any Site Data **referred to in the PCC**, supplemented by any information available to the Contractor. |
| 1. Contractor to Construct the Works including protection of environment, and assurance of public health and safety | * 1. The Contractor shall construct and install the Works in accordance with the Specifications and Drawings and as per instructions of Project Manager.      1. The Contractor shall take all reasonable steps to protect the environment on and off the Site and to avoid damage or nuisance to persons or to property of the public or others resulting from pollution, noise or other cause arising as a consequence of his methods of operation.      2. 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 Sate 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. |
| 1. The Works to Be Completed by the Intended Completion Date | * 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. |
| 1. Approval by the Project Manager | * 1. The Contractor shall submit Specifications and Drawings showing the proposed Temporary Works to the Project Manager, for his approval.   2. The Contractor shall be responsible for design of Temporary Works.   3. The Project Manager’s approval shall not alter the Contractor’s responsibility for design of the Temporary Works.   4. The Contractor shall obtain approval of third parties to the design of the Temporary Works, where required.   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. |
| 1. Safety | * 1. The Contractor shall be responsible for the safety of all activities on the Site. |
| 1. Discoveries | * 1. Anything of historical or other interest or of significant value unexpectedly discovered on the Site shall be the property of the Employer. The Contractor shall notify the Project Manager of such discoveries and carry out the Project Manager’s instructions for dealing with them. |
| 1. Possession of the Site | * 1. The Employer shall give possession of all parts of the Site to the Contractor. If possession of a part is not given by the date **stated in the PCC,** the Employer shall be deemed to have delayed the start of the relevant activities, and this shall be a Compensation Event. |
| 1. Access to the Site | * 1. The Contractor shall allow the Project Manager and any person authorized by the Project Manager access to the Site and to any place where work in connection with the Contract is being carried out or is intended to be carried out. |
| 1. Instructions, Inspections and Audits | * 1. The Contractor shall carry out all instructions of the Project Manager which comply with the applicable laws where the Site is located.   22.2 The Contractor shall keep, and shall make all reasonable efforts to cause its Subcontractors and sub-consultants to keep, accurate and systematic accounts and records in respect of the Works in such form and details as will clearly identify relevant time changes and costs.  22.3 The Contractor shall permit and shall cause its Subcontractors and sub-consultants to permit, the Bank and/or persons appointed by the Bank to inspect the Site and/or the accounts and records relating to the performance of the Contract and the submission of the bid, and to have such accounts and records audited by auditors appointed by the Bank if requested by the Bank. The Contractor’s and its Subcontractors’ and sub-consultants’ attention is drawn to Sub-Clause 25.1 which provides, inter alia, that acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under Sub-Clause 22.2 constitute a prohibited practice subject to contract termination (as well as to a determination of ineligibility pursuant to the Bank’s prevailing sanctions procedures). |
| 1. Appointment of the Adjudicator or Dispute Review Expert | * 1. The Adjudicator/Dispute Review Expert [DRE] named in PCC 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/DRE, the Employer will request the Appointing Authority **designated in the PCC**, to appoint the Adjudicator/DRE within 14 days of receipt of such request.   23.1.1 The Adjudicator/DRE should be in position before “notice to proceed with work” is issued to the Contractor and an agreement should be signed with the Adjudicator/DRE jointly by the Employer and the Contractor in the form attached – Appendix 3.   * 1. Should the Adjudicator/DRE resign or die, or should the Employer and the Contractor agree that the Adjudicator/DRE is not functioning in accordance with the provisions of the Contract; a new Adjudicator/DRE 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/DRE shall be designated by the Appointing Authority **designated in the PCC** at the request of either party, within 14 days of receipt of such request. |
| 1. Procedure for Disputes   25. Corrupt And Fraudulent Practices | * 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/DRE within 14 days of the notification of the Project Manager’s decision.   2. The Adjudicator/DRE shall give a decision in writing within 28 days of receipt of a notification of a dispute.   3. The Adjudicator/DRE shall be paid daily at the rate **specified in the PCC,** together with reimbursable expenses of the types **specified in the PCC**, and the cost shall be divided equally between the Employer and the Contractor. Whatever decision is reached by the Adjudicator/DRE, either party may refer that decision to an Arbitrator within 28 days of the Adjudicator’s /DRE’s written decision. If neither party refers the dispute to arbitration within the above 28 days, the Adjudicator’s /DRE’s decision shall be final and binding.   4. The arbitration shall be conducted in accordance with the arbitration procedures published by the institution named and in the place **specified in the PCC.**   The Arbitrator(s) shall give a decision in writing within 120 days of start of the proceedings unless otherwise agreed to by the Parties. The Arbitrators shall entertain only those issues which have been earlier referred to the Adjudicator/Dispute Review Expert and either party is dissatisfied with the decision given by the Adjudicator/Dispute Review Expert.  25.1 The Bank requires compliance with its policy in regard to corrupt and fraudulent practices as set forth in Appendix to the GCC.  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 shall be disclosed as and when such payments are made or agreed to, and compliance with the disclosure requirement shall be furnished, while submitting each monthly statement for payments; such disclosure 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. |

B. Time Control

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| * + 1. 2   **26. Program** | 26.1 Within the time **stated in the PCC**, after the date of the Letter of Acceptance, the Contractor shall submit to the Project Manager for approval a revised Program (revising the program given alongwith the bid) including Environmental Management Plan(to comply with the applicable Laws/ Rules/ Regulations for protection of environment, public health and safety, and the applicable parts of the Environment Management Plan of the project) showing the general methods, arrangements, order, and timing for all the activities in the Works alongwith monthly cash flow forecasts.  26.2 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.  26.3 The Contractor shall submit to the Project Manager for approval an updated Program at intervals no longer than the period **stated in the PCC.** If the Contractor does not submit an updated Program within this period, the Project Manager may withhold the amount **stated in the PCC** from the next payment certificate and continue to withhold this amount until the next payment after the date on which the overdue Program has been submitted.  26.4 The Project Manager’s approval of the Program shall not alter the Contractor’s obligations. The Contractor may revise the Program and submit it to the Project Manager again at any time. A revised Program shall show the effect of Variations and Compensation Events.  26.5 The Contractor shall furnish monthly progress reports as directed by the Project Manager by 7th of the succeeding month. The report shall include charts and detailed descriptions of the progress of identified activities, photographs showing status of progress at site, records of Contractor’s personnel and equipment, Quality Assurance documents, comparison of actual and planned progress as per program.This report will also include progress on the ESHS Management Strategies and Implementation Plans (ESHS-MSIP), and compliance to the applicable Laws/ Rules/ Regulations for protection of environment, public health and safety, and the applicable parts of the Environment Management Plan of the project. |
| 27. Extension of the Intended Completion Date | 27.1 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 agreed milestones without the Contractor taking steps to accelerate the remaining work, which would cause the Contractor to incur additional cost.  27.2 The Project Manager shall decide whether and by how much to extend the Intended Completion Date/milestones 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/milestones. |
| 28. Acceleration | 28.1 When the Employer wants the Contractor to finish before the Intended Completion Date, the Project Manager shall obtain priced proposals for achieving the necessary acceleration from the Contractor. If the Employer accepts these proposals, the Intended Completion Date shall be adjusted accordingly and confirmed by both the Employer and the Contractor.  28.2 If the Contractor’s priced proposals for acceleration are accepted by the Employer, they are incorporated in the Contract Price and treated as a Variation. |
| 29. Delays Ordered by the Project Manager | 29.1 The Project Manager may instruct the Contractor to delay the start or progress of any activity within the Works. |
| 30. Management Meetings | 30.1 Either the Project Manager or the Contractor may require the other to attend a management meeting. (which will be held at the place **indicated in PCC**. The periodicity to 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 26.1, the plans for remaining work and to deal with matters raised in accordance with the early warning procedure.  30.2 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. |
| 31. Early Warning | 31.1 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.  31.2 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. |

C. Quality Control

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| 32. Quality Assurance | 32.1 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.  32.2 Compliance with the QA/QC systems shall not relieve the Contractor of any of his duties obligations or responsibilities under the Contract. |
| 33. Tests | 33.1 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.  33.2 If the Project Manager instructs the Contractor to carry out a test not specified in the Specification to check whether any work has a Defect and the test shows that it does, the Contractor shall pay for the test and any samples. If there is no Defect, the test shall be a Compensation Event. |
| 34.Identifying and Correction of Defects | 34.1. The Project Manager shall check the Contractor’s work and notify the Contractor of any defects that are found specifying a time by which it should be corrected. 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.  34.2 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  34.3 The Project Manager shall give notice to the Contractor of any Defects [specifying a time limit by which it should be corrected] before the end of the Defects Liability Period, which begins at Completion, and is **defined in the PCC.** The Defects Liability Period shall be extended for as long as Defects remain to be corrected.  34.4 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. |
| 35. Uncorrected Defects | 35.1 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.  ***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*.**  ***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 57.2(e).*** |

D. Cost Control

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| 36. Contract Price | 36.1 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.  . |
| 37. Changes in the Contract Price | 37.1 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.  (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.  (b) If the quantity of work executed less than the quantity of the item in BOQ 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.  37.2. 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.  37.3 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. |
| 38. Variations | 38.1 All Variations shall be included in updated Programs, produced by the Contractor.  38.2 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 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.  38.3 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 Sub-Clause 37.1 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.  38.4 If the Contractor’s quotation is unreasonable, [*or if contractor fails to provide the Project Manager with a quotation within a reasonable time specified by Project Manager in accordance with GCC38.2*] 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  38.5 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.  38.6 The Contractor shall not be entitled to additional payment for costs that could have been avoided by giving early warning. |
| 39. Cash Flow Forecasts | 39.1 When the Program, is updated, the Contractor shall provide the Project Manager with an updated cash flow forecast. The cash flow forecast shall be in Indian Rupees. |
| 40. Payment Certificates | 40.1 The Contractor shall submit to the Project Manager monthly statements of the estimated value of the work executed less the cumulative amount certified previously alongwith details of measurement of the quantity of works executed in a tabular form approved by the Project Manager.  40.2 The Project Manager shall check the details given in the Contractor’s monthly statement and within 14 days certify the amounts to be paid to the Contractor 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 49.4 *[Secured Advance]*  40.3 The value of work executed shall be determined by the Project Manager after due check measurement of the quantities claimed as executed by the contractor  40.4 The value of work executed shall comprise of the value of the quantities of work in the Bill of Quantities that have been completed;  40.5 The value of work executed shall include the valuation of Variations and Compensation Events.  40.6 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. |
| 41. Payments | 41.1 Payments shall be adjusted for deductions for advance payments, retention, other recoveries in terms of contract & 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 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 upto the date when the late payment is made at the rate **stated in the PCC**.  41.2 If an amount certified is increased in a later certificate or as a result of an award by the Adjudicator/DRE or an Arbitrator, the Contractor shall be paid interest upon the delayed payment as set out in this clause. Interest shall be calculated at the rate stated in GCC 41.1 above, from the date upon which the increased amount would have been certified in the absence of dispute.  41.3 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. |
| 42. Compensation Events | 42.1 The following shall be Compensation Events:   1. The Employer does not give access to a part of the Site by the Site Possession Date pursuant to GCC Sub-Clause 20.1. 2. The Employer modifies the Schedule of Other Contractors in a way that affects the work of the Contractor under the Contract. 3. The Project Manager orders a delay or does not issue Drawings, Specifications, or instructions required for execution of the Works on time. 4. The Project Manager instructs the Contractor to uncover or to carry out additional tests upon work, which is then found to have no Defects. 5. The Project Manager unreasonably does not approve a subcontract to be let. 6. Ground conditions are substantially more adverse than could reasonably have been assumed before issuance of the Letter of Acceptance from the information issued to bidders (including the Site Investigation Reports), from information available publicly and from a visual inspection of the Site. 7. 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. 8. 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. 9. The advance payment is delayed. 10. The effects on the Contractor of any of the Employer’s Risks. 11. The Project Manager unreasonably delays issuing a Certificate of Completion.   42.2 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.  42.3 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.  42.4 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. |
| 43. Tax | 43.1 The rates quoted by the Contractor shall be deemed to be inclusive of the VAT, Sales and other taxes that the Contractor will have to pay for the performance of this Contract. The Employer will perform such duties in regard to the deduction of such taxes at source [TDS] as per applicable law.  43.2 The Project Manager shall adjust the Contract Price if taxes, duties, and other levies are changed between the deadline for 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. |
| 44.Currencies | 44.1 All payments shall be made in Indian Rupees. |
| 45. Price Adjustment | 45.1 Contract price shall be adjusted for increase or decrease in rates and price of labour, materials, fuels and lubricants and other inputs to the works in accordance with the principles and procedures outlined below. A table of adjustment data is **included in the PCC** which indicates the coefficients of various inputs and the sources of indices for various schedules of BOQ. If the PCC does not include a table of adjustment data this sub clause shall not apply and there shall be no price adjustment.  (a) The price adjustment according to sub para (d) below, shall apply for the work done from the start date given in the PCC upto the end of the Intended Completion Date. If there is delay in completion beyond such date for reasons attributable to the contractor, the Price Adjustment for the work carried out during such period, for reasons attributable to the Contractor, shall be regulated by sub-para (g) below.  (b) The Contract Price shall be adjusted to take account of any increase or decrease in cost after the base date, which affect the Contractor in performance of obligations under the Contract.  (c) The total value (R) of the work done during the specified period[GCC 40.1]shall be as under:  R= SUM (RS1 + RS2 + RS3 + …….RSn),  Where,  ‘Rsn’ is the value of work done during the specified period to which the price adjustment shall be applied for the relevant schedule of Bill of Quantities (BOQ) specified in P.C.C during the specified period, and represented as under:  Rsn = (Vsn + Ssn) minus (amount of secured advance recovered in the same period + value of works executed under variations for which price adjustments will be worked separately based on terms mutually agreed between the Project Manager and the Contractor)  where,  Vsnis the total value of work done during the specified period for the respective schedule of BOQ, and  Ssn is the secured advance paid during the specified period for the respective schedule of BOQ,  (d) The adjustment to be applied to the amount otherwise payable to the Contractor, as valued in accordance with the appropriate schedule of BOQ and certified in Payment Certificates, shall be determined from formulae which shall be of the following general type:  Pn = a + b Ln/Lo +c En/Eo + d Mn/Mo+ ……….  where,  “Pn” is the adjustment multiplier to be applied to the value of the work done during the period “n”, this period being a month unless otherwise stated in the PCC.  “a” is a fixed coefficient, stated in the relevant table of adjustment data, representing the non-adjustable portion in contractual payments;  “b”, “c”, “d”,… are coefficients representing the estimated proportion of each cost element related to the execution of the Works, as stated in the relevant table of adjustment data; such tabulated cost elements may be indicative of resources such as labour, equipment and materials;  “Ln”[*Labour*], “En”[*Equipment*], “Mn”[*Material*], …. are the current cost indices or reference prices for period “n”, each of which is applicable to the relevant tabulated cost element [*Labour, Equipment, Steel, Cement, Fuel/Lubricants, Bitumen, others*] on the date, specified in the Table-2 of Adjustment Data, prior to the last day of the period (to which the particular Payment Certificate relates); and  “Lo”, “Eo”, “Mo”, ….are the base cost indices or reference prices, expressed in the relevant currency of payment, each of which is applicable to the relevant tabulated cost element on the Base Date.  (e) The cost indices or reference prices stated in the tables of adjustment data given in PCC shall be used. The base date shall be the deadline for the submission of bids.  (f) If the Contractor fails to complete the Works within the Intended Completion date, adjustment of prices thereafter shall be made using either:  (i) index or price applicable for each cost element tabulated in the tables of adjustment data on the specified date prior to the expiry of the Intended Completion Date, or  (ii) the current index or price applicable for the period in question whichever is more favourable to the Employer.   1. The weightings (coefficients) for each of the factors of cost stated in the table(s) of adjustment data shall only be varied by the Project Manager if they have been rendered unreasonable, unbalanced or inapplicable, as a result of Variations. 2. Unless otherwise **stated in the P.C.C.**, the Price adjustment shall be done in each monthly Interim Payment Certificate [IPC]. The coefficients and indices are given in the Tables of Adjustment Data in Contract data.   To the extent that full compensation for any rise or fall in costs to the contractor is not covered by the provisions of this or other clauses in the contract, the unit rates and prices included in the contract shall be deemed to include amounts to cover the contingency of such other rise or fall in costs |
| 46. Retention | 46.1 The Employer shall retain from each payment due to the Contractor the proportion **stated in the PCC** until Completion of the whole of the Works  46.2 Upon the issue of a Certificate of Completion of the Works by the Project Manager, in accordance with GCC 53.1, 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 have been corrected. On completion of the whole works the Contractor may substitute the balance retention money with an “on demand” Bank guarantee. |
| 47. Liquidated  Damages | 47.1 The Contractor shall pay liquidated damages to the Employer at the rate per day **stated in the PCC** for each day that the Completion Date is later than the Intended Completion Date (for the whole of the works or the milestones as stated in the PCC). The total amount of liquidated damages shall not exceed the amount **defined in the PCC.** The Employer may deduct liquidated damages from payments due to the Contractor. Payment of liquidated damages shall not affect the Contractor’s liabilities.  47.1.1 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.  47.2 If the Intended Completion Date including milestones 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 41.1. |
| 48. Bonus | * 1. Not used. |
| 49. Advance Payment  Secured Advances | 49.1 The Employer shall make advance payment to the Contractor of the amounts **stated in the PCC** by the date **stated in the PCC,** against provision by the Contractor of an Unconditional Bank Guarantee in a form and by a bank acceptable to the Employer in amounts in Indian Rupees 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 (*each instalment not less than Rs. 500,000*) reduced by the amounts repaid by the Contractor. Interest shall not be charged on the advance payment.  49.2 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.  49.3 The advance payment shall be repaid by deducting proportionate amounts from payments otherwise due to the Contractor, following the schedule of completed percentages of the Works on a payment basis. No account shall be taken of the advance payment or its repayment in assessing valuations of work done, Variations, price adjustments, Compensation Events, Liquidated Damages.  49.4 The Project Manager shall make advance payment in respect of materials intended for but not yet incorporated in the Works in accordance with conditions **stipulated in the PCC**. |
| 50. Securities | 50.1 The Performance Security shall be provided to the Employer no later than the date specified in the Letter of Acceptance and shall be issued in an amount **specified in the PCC,** by a Nationalized or Schedule bank in India, and denominated. The Bank Guarantee for Performance Security and additional security for unbalanced bids shall be valid until a date 28days from the date of issue of the Certificate of Completion. |
| 51. Dayworks | 51.1 Not used. |
| 52. Cost of Repairs | 52.1 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. |

E. Finishing the Contract

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| 53. Completion | 53.1 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. |
| 54. Taking Over | 54.1 The Employer shall take over the Site and the Works within seven days of the Project Manager’s issuing a certificate of Completion. |
| 55. Final Account | 55.1 The Contractor shall supply the Project Manager with a detailed account of the total amount that the Contractor considers payable under the Contract at the end of the Defects Liability Period. The Project Manager shall issue a Defects Liability Certificate and certify any final payment that is due to the Contractor within 56 days of receiving the Contractor’s account if it is correct and complete. If it is not, the Project Manager shall issue within 56 days a schedule that states the scope of the corrections or additions that are necessaryincluding corrections and additions to comply with the applicable Laws/ Rules/ Regulations for protection of environment, public health and safety, and the applicable parts of the Environment Management Planof the project. 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 within 56 days of receiving the contractor’s revised account. |
| 56. Operating and Maintenance Manuals | 56.1 If “as built” Drawings [including a compact disk containing digitized drawings] and/or operating and maintenance manuals are required, the Contractor shall supply them by the dates **stated in the PCC.**  56.2 If the Contractor does not supply the Drawings [including a compact disk containing digitized drawings] and/or manuals by the dates **stated in the PCC** pursuant to GCC Sub-Clause 56.1**,** or they do not receive the Project Manager’s approval, the Project Manager shall withhold the amount **stated in the PCC** from payments due to the Contractor. |
| 57. Termination | 57.1 The Employer or the Contractor may terminate the Contract if the other party causes a fundamental breach of the Contract after giving fourteen (14) days written notice.  57.2 Fundamental breaches of Contract shall include, but shall not be limited to, the following:   1. 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; 2. the Project Manager instructs the Contractor to delay the progress of the Works, and the instruction is not withdrawn within 28 days; 3. the Employer or the Contractor is made bankrupt or goes into liquidation other than for a reconstruction or amalgamation; 4. 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; 5. 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; 6. the Contractor does not maintain a Security, which is required;      1. the Contractor has delayed the completion of the Works by the number of days for which the maximum amount of liquidated damages can be paid, as **defined in the PCC**; or 2. if the Contractor, in the judgment of the Employer, has engaged in corrupt or fraudulent practices in competing for or in executing the Contract, pursuant to GCC Clause 25.1, then the Employer may, after giving fourteen (14) days written notice to the Contractor, terminate the Contract and expel him from the Site. 3. The contractor has contravened Clauses 7 and 9 of GCC. 4. The contractor does not adhere to the agreed construction program and agreed environmental management plan [Clause 26 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. 5. The contractor fails to carry out of the instructions of the Project Manager within a reasonable time determined by the Project Manager in accordance with GCC Clause 15.1 and 22. 6. 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.   57.3 When either party to the Contract gives notice of a breach of Contract to the Project Manager for a cause other than those listed under GCC Sub-Clause 57.2 above, the Project Manager shall decide whether the breach is fundamental or not.  57.4 Notwithstanding the above, the Employer may terminate the Contract for convenience.  57.5 If the Contract is terminated, the Contractor shall stop work immediately, make the Site safe and secure, and leave the Site as soon as reasonably possible. |
| 58.Payment upon Termination | 58.1 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 upto the date of the issue of the certificate less other recoveries due in terms of contract, less taxes to be deducted at source [TDS] as per applicable law, and less the percentage to apply to the value of the work not completed, as **indicated in the PCC.** Additional Liquidated Damages shall not apply. If the total amount due to the Employer exceeds any payment due to the Contractor, the difference shall be a debt payable to the Employer.  58.2 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 upto the date of the certificate less other recoveries due in terms of the contract and less taxes due to be deducted at source [TDS] as per applicable law. |
| 59.Property | 59.1 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. |
| 60.Release from Performance | 60.1 If the Contract is frustrated by the outbreak of war or by any other event entirely outside the control of either the Employer or the Contractor, the Project Manager shall certify that the Contract has been frustrated. The Contractor shall make the Site safe and stop work as quickly as possible after receiving this certificate and shall be paid for all work carried out before receiving it and for any work carried out afterwards to which a commitment was made. |
| 61.Suspension of Bank Loan or Credit | 61.1 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:   1. The Employer is obligated to notify the Contractor of such suspension within 7 days of having received the Bank’s suspension notice. 2. If the Contractor has not received sums due it within the 28 days for payment provided for in Sub-Clause 40.1, the Contractor may immediately issue a 14-day termination notice. |

**APPENDIX TO GENERAL CONDITIONS**

**Bank’s Policy- Corrupt and Fraudulent Practices**

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

**Guidelines for Procurement of Goods, Works, and Non-Consulting Services under IBRD Loans and IDA Credits & Grants by World Bank Borrowers, dated January 2011:**

“**Fraud and Corruption:**

1.16 It is the Bank’s policy to require that Borrowers (including beneficiaries of Bank loans), bidders, suppliers, contractors and their agents (whether declared or not), sub-contractors, sub-consultants, service providers or suppliers, and any personnel thereof, observe the highest standard of ethics during the procurement and execution of Bank-financed contracts.[[24]](#footnote-25) In pursuance of this policy, the Bank:

(a) defines, for the purposes of this provision, the terms set forth below as follows:

(i) “corrupt practice” is the offering, giving, receiving, or soliciting, directly or indirectly, of anything of value to influence improperly the actions of another party;[[25]](#footnote-26);

(ii) “fraudulent practice” is any act or omission, including a misrepresentation, that knowingly or recklessly misleads, or attempts to mislead, a party to obtain a financial or other benefit or to avoid an obligation;[[26]](#footnote-27)

(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;[[27]](#footnote-28)

(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;[[28]](#footnote-29)

(v) “obstructive practice” is

(aa) 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

(bb) acts intended to materially impede the exercise of the Bank’s inspection and audit rights provided for under paragraph 1.16(e) below.

(b) will reject a proposal for award if it determines that the bidder recommended for award, or 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) will declare misprocurement and cancel the portion of the loan allocated to a contract if it 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 or the implementation 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) will sanction a firm or individual, at any time, in accordance with the prevailing Bank’s sanctions procedures,[[29]](#footnote-30) including by publicly declaring such firm or individual ineligible, either indefinitely or for a stated period of time: (i) to be awarded a Bank-financed contract; and (ii) to be a nominated[[30]](#footnote-31);

(e) will require that a clause be included in bidding documents and in contracts financed by a Bank loan, requiring bidders, suppliers and contractors, and their sub-contractors, agents, personnel, consultants, service providers, or suppliers, to permit the Bank to inspect all accounts, records, and other documents relating to the submission of bids and contract performance, and to have them audited by auditors appointed by the Bank.”

**Section IX. Particular Conditions of Contract**

*Except where otherwise indicated, all* PCC *should be filled in by the* Employer *prior to issuance of the Bidding Documents. Schedules and reports to be provided by the* Employer *should be annexed.*

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| **A. General** | |
| **GCC 1.1 (d)** | The financing institution is: IBRD (**World Bank) & Government of India.** |
| **GCC 1.1 (r)** | The Employer is **LALRUATKIMA, Project Circle, PWD, Govt. Of Mizoram** |
| **GCC 1.1 (v)** | The Intended Completion Date for the whole of the Works shall be ***31.12.2020*** |
| **GCC 1.1 (y)** | The Project Manager is *:****BeizawziT.Azyu, Superintendent Engineer,* Irrigation & Water Resources Deptt, Govt. Of Mizoram** |
| **GCC 1.1 (aa)** | The Site is located at ***New Secretariat Complex,* Khatla** and is defined in drawings No. *1* |
| **GCC 1.1 (dd)** | The Start Date shall be one week after the date of issue of notice to proceed with works to the contractor. |
| **GCC 1.1 (hh)** | The Works consist of ***Vertical Extension of the existing building with RCC Frame, brick wallings, tile flooring and precoated roofing on steel truss***  Identification number of Contract is **IWR VE -1/2018** |
| **GCC 2.2** | Sectional Completions are: ***NA*** |
| **GCC 2.3(i)** | The following documents also form part of the Contract: *[list documents]*   |  |  |  | | --- | --- | --- | | 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. | Environmental, Social, Health and Safety | (i) ESHS Management Strategies and Implementation Plans; (ii) Labor Influx and Worker’s Camp Management Plan including the process for mitigating construction related impacts on local community; and (iii) Code of Conduct that will apply to its employees and subcontractors, to ensure compliance with its Environmental, Social, Health and Safety (ESHS) obligations under the contract. | |
| **GCC 3.1** | The language of the contract is ***English.***  The law that applies to the Contract is thelaws of **Union of India.** |
| **GCC 5.1** | The Project Manager maydelegate any of his duties and responsibilities. |
| **GCC 7.1** | The ceiling for sub-contractor is 25% |
| **GCC 8.1** | Schedule of other contractors: NA |
| **GCC 9.1** | Key Personnel and equipment:  GCC 9.1 is replaced with the following:   * 1. Key Personnel are the Contractor’s personnel named in this GCC 9.1 of the Particular Conditions of Contract. 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.   *[insertthe 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& construction methodology].* |
| **GCC 13.1** | The minimum insurance amounts and deductibles shall be:   |  |  |  |  | | --- | --- | --- | --- | | S.No. | Description | Minimum cover for Insurance | Maximum deductible for Insurance | | (i) | Works and Plant and Materials which are incorporated in works | **Rs. 202.50 lakh** | **Rs 2.03 lacs** | | (ii) | Loss or damage to Construction Equipment | **Rs. 13.50 lakh** | **Rs. 0.135 lacs** | | (iii) | Other Property | **Rs. 13.50 lakh** | **Rs. 0.135 lacs** | | (iv) | Personal injury or death insurance:  a) for other people; | **Rs. 10.00 lakh** | **Rs. 0.10lacs** | |  | b) for Contractor’s Employees | In accordance with the statutory requirements applicable in India | | |
| **GCC 14.1** | Site Data are: **The project is vertical extension of Third Floor of the existing building of Irrigation and Water Resources Department at New Sectt. Complex, Khatla** *and the drawing is attached* |
| **GCC 15.2** | *[Insert after GCC 15.2.2 the following]*  15.2.2 (b): The Contractor shall implement all mitigation measures for which responsibility is assigned to him as stipulated in the Environmental Management *[Plan/Framework (strike out whichever is not applicable)],* and the conditions stipulated in Section VII-Work Requirements of this Bidding Document, even if not explicitly covered under the ESHS-MSIP submitted by the bidder and made part of the Contract Document. |
| **GCC 20.1** | The Site Possession Date(s) shall be: **New Sectt. Complex in November 2018** The Site Possession Dates shall be:  : **One Week after issue of letter to preceed with work** |
| **GCC 23.1 &**  **GCC 23.2** | Name of the agreed Adjudicator/Dispute Review Expert LalbiakthangaSellai..  Appointing Authority for the Adjudicator/Dispute Review Expert: *[insert name of Authority]*.  *[Note: if ITB 43 provides for an Adjudicator from list provided by an Institution, insert the name of the same institution as the appointing authority]* |
| **GCC 24.3** | Daily rate and types of reimbursable expenses to be paid to the Adjudicator/Dispute Review Expert: **Rs. 5000/-*[****insert daily fees [not less than Rs. 5000 per day]andreimbursable expenses –boarding/lodging/travel etc.]*.  *[Note: if ITB 43 provides for provision of an Adjudicator from list provided by an institution, kindly state that ‘the daily fee and reimbursable expenses payable to the Adjudicator will be governed by rules of ………. (name of the Institution)].* |
| **GCC 24.4** | The procedure for adhocarbitration will be as follows:   1. In case of Dispute or difference arising between the Employer and an Indian 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 as amended up-to-date. 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/ President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India).For the purposes of this Sub-Clause, the term “Indian Contractor” means a contractor who is registered in India and is a juridic person created under Indian law as well as a joint venture between such a contractor and a Foreign Contractor.   Note: *[Sub-para (b) is applicable in case of contract award to foreign contractors].*   1. In the case of dispute with a Foreign Contractor the dispute shall be settled in accordance with provisions of UNCITRAL Arbitration Rules. The Arbitral Tribunal shall consist of three 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 a 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, the Presiding Arbitrator shall be appointed by the\* Indian Council of Arbitration/President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India).For the purposes of this Clause, the term “Foreign Contractor” means a contractor who is not registered in India and is not a juridical person created under Indian Law. 2. If one of the parties fails to appoint its Arbitrator in pursuance of sub-clause (a) and (b) 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/President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India), 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 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. 3. 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/ Dispute Review Expert shall not be altered by reason of the arbitration being conducted during the progress of the Works. 4. Arbitration proceedings shall be held at the **office of the Superintending Engineer, PHE, Aizawl Circle, Aizawl, Mizoram**the language of the arbitration proceedings and that of all documents and communications between the parties shall be English. 5. 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. 6. 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/President of the Institution of Engineers (India)/The International Centre for Alternative Disputes Resolution (India). 7. The Arbitrator should give final award within **150 days** of starting of the proceedings 8. 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.   \* |
| **B. Time Control** | |
| **GCC 26.1** | The Contractor shall submit a revised Program including Environmental Management Plan and ESHS-MSIP for the Works (in such form and detail as the Project Manager shall reasonably prescribe) within 14 days of delivery of the Letter of Acceptance.  [*This program should be in adequate detail and generally conform to the program submitted alongwith bid. Deviations if any from that should be clearly explained and should be satisfactory to the Project Manager]* |
| **GCC 26.3** | The period between Program updates is **60 days.**  The amount to be withheld for late submission of an updated Program is **Rs.15,000** |
| **GCC 26.6** | The following is inserted as a new sub clause 26.6:  “26.6 The contractor will submit a brief Labor Influx and Worker’s Camp Management Plan including the process for mitigating construction related impacts on local community within 30 days of signing the contract. The plan shall be updated and a revised plan shall be submitted, if required.” |
| **GCC 30** | Venue of management meeting will be the **office of the Superintending Engineer, PWD, Project Circle, Govt. of Mizoram, India** |
| **C. Quality Control** | |
| **GCC 34.3** | The Defects Liability Period is: **365** days. |
| **D. Cost Control** | |
| **GCC 41.1** | Interest rate for Delayed payment is **4%**per annum |
| **GCC 45.1** | **Deleted** |
| **GCC 46.1** | The proportion of payments retained (Retention Money) shall be 6% from each bill subject to the maximum of 5% of final contract price. |
| **GCC 47.1** | The liquidated damages for the whole of the Works are *Rs. 0.05% per* day. The maximum amount of liquidated damages for the whole of the Works is 10% of the final Contract Price.  *[Usually liquidated damages are set between 0.05 percent and 0.20 percent of Contract Price per day, and the maximum amount is not to exceed 10 percent of the Contract Price. If Sectional Completion and Liquidated Damages per Section are required, the latter should be specified here]* |
| **GCC 49.1** | The amount of the advance payments are:   |  |  |  | | --- | --- | --- | | Nature of Advance | Amount (Rs.) | Conditions to be fulfilled | | 1. Mobilization | 5% of the Contract price | On submission of un-conditional Bank Guarantee. *(to be drawn before end of 20% of Contract period*) | | 1. *Equipment* | *As the work and duration is small equipment advance shall not be considered* | Nil | | 3. Secured advance for non-perishable materials brought to site *[Specify the item or items for which this will be given here]* | 75% of Invoice value or Market value –lower of the two. | a) The materials are in-accordance with the specification for Works;  b) Such materials have been delivered to site, and are properly stored and protected against damage or deterioration to the satisfaction of the Project Manager.  c) the Contractor’s records of the requirements, orders, receipt and use of materials are kept in a form approved by the Project Manager and such records shall be available for inspection by the Project Manager;  d) The contractor has submitted with his monthly statement the estimated value of the materials on site together with such documents as may be required by the Project Manager for the Purpose of valuation for material and providing evidence of ownership and payment thereof;  e) Ownership of such materials shall be deemed to vest in the Employer for which the Contractor has submitted an Indemnity Bond in an acceptable format; and  f) The quantity of materials are not excessive and shall be used within a reasonable time as determined by the Project Manager. | | (The advance 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 15 percent of the Contract Price or **7(seven)**months from the date of payment of first instalment of advance, whichever period concludes earlier, and shall be made at the rate **of 20% @**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.  **Repayment of secured advance**:  The advance shall be repaid from each succeeding monthly payments to the extent materials *[for which advance was previously paid pursuant to Clause 49 of GCC and 49.1(3) of PCC.]* have been incorporated into the Works. |
| **GCC 50.1** | “GCC 50.1 is replaced with the following  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 the amounts specified in the PCC (for GCC 50.1), and shall be issued by a Nationalized or Scheduled bank in India. The Performance Security shall be valid until a date 28 days from the date of issue of the Certificate of Completion.” |
| **GCC 50.1** | The Performance Security amount is **5 percent** of contract price(amount to be decided based on price quoted) [*in terms of ITB Clause 34.5*],  The standard form of Performance Security acceptable to the Employer shall be unconditional Bank Guarantees from a Scheduled or Nationalized banks in India of the types as presented in Section X of the Bidding Documents. |
| **E. Finishing the Contract** | |
| **GCC 56.1** | \* 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 1:100) 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 |
| **GCC 56.2** | The amount to be withheld for failing to produce “as built” drawings and/or operating and maintenance manuals \*by the date required in G.C.C. 56.1 is **Rs. 50,000/-** |
| **GCC 57.2 (g)** | The maximum number of days is: **60 days** |
| **GCC 58.1** | The percentage to apply to the value of the work not completed, representing the Employer’s additional cost for completing the Works, is **20%**. |

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# Appendices

Appendix 1

## Salient Features of Labour& Environment Protection Laws[[31]](#footnote-32)

SALIENT FEATURES OF SOME MAJOR LABOUR LAWS

APPLICABLE TO ESTABLISHMENTS ENGAGED IN BUILDING AND OTHER CONSTRUCTION WORK

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| 1. 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. 2. 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. 3. 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.   1. Maternity Benefit Act 1961: The Act provides for leave and some other benefits to women employees in case of confinement or miscarriage etc. 2. 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 3. 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. 4. 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. 5. 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. 6. 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. 7. 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. 8. 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. 9. 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. 10. 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. 11. 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 upto the establishment and back,etc. 12. 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. 13. 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. 14. Weekly Holidays Act -1942 15. 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. 16. 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. 17. 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. 18. 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. 19. 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.

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| 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 mattes 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 are 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 waste 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 foe 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**

Appendix -3[[32]](#footnote-33)

Appointment of Adjudicator / Dispute Review Expert

Suggested Draft of Letter of Appointment of Adjudicators in civil works contracts

Sub:**Vertical Extension of Irrigation & Water Resource Deptt Office Building**

**To**

Name and address of the Adjudicator / Dispute Review Expert

We hereby confirm your appointment as Adjudicator/ Dispute Review Expert for the above contract to carry out the assignment specified in this Letter of Appointment.

For administrative purpose, **Mr. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**(*name of the officer representing the Employer*) has been assigned to administer the assignment and to provide the Adjudicator / Dispute Review Expert 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)**Vertical Extension of Irrigation & Water Resource Deptt Office Building**

The Adjudicator / Dispute Review Expert 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 upto 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/ Dispute Review Expert 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/ Dispute Review Expert will be paid a fee of **Rs.5,000(Rupees five thousand) 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/ Dispute Review Expert. The Adjudicator/ Dispute Review Expert 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. 200 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/ Dispute Review Expert within 30 days of 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/ Dispute Review Expert 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/ Dispute Review Expert 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/ Dispute Review Expert 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/ Dispute Review Expert is described in the contract of **Vertical Extension of Irrigation & Water Resource Deptt Office Building**

(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/ Dispute Review Expert 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 / Dispute Review Expert will discuss the matter with the Employer and if necessary with the Contractor before arriving at any decision.

The Adjudicator/ Dispute Review Expert 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/ Dispute Review Expert 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/ Dispute Review Expert

Signature

Place:

Date:

Name of Employer LALRUATKIMA

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 AJUDICATIOR’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.
4. When a dispute is referred to it, conduct a hearing (no legal presentation), complete its deliberations, and prepare a recommendations in a professional and timely manner(as per sample format)

*[in this and the next form, use the term Adjudicator, or Dispute Review Expert as specified in the rest of the bidding document.]*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 and Advance Payment Security, when required, shall only be completed by the successful Bidder after contract award.

Letter of Acceptance

*[letterhead paper of the Employer]*

[The Letter of Acceptance shall be the basis for formation of the Contract as described in ITB Clause 40. 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.]

*[insert date]*

Identification No and Title of Contract: *[insert identification number and title of the Contract]*

To: *[insert name and address of the Contractor]*

This is to notify you that your Bid dated *[insert date]* for execution of the *[insert name of the Contract and identification number, as given in the PCC]* for the Contract Price ………………. *[insert amount in numbers and words]* as corrected and modified[[33]](#footnote-34) in accordance with the Instructions to Bidders is hereby accepted by our Agency.

*[insert one of the following (a) or (b) options]*

(a) We accept that *[insert name proposed by bidder]* be appointed as the Adjudicator/Dispute Review Expert [DRE].[[34]](#footnote-35)

(b) We do not accept that *[insert name proposed by bidder]* be appointed as Adjudicator/DRE, and by sending a copy of this Letter of Acceptance to *[insert name of the Appointing Authority]*, we are hereby requesting *[insert name]*, the Appointing Authority, to appoint the Adjudicator/DRE in accordance with GCC 23.[[35]](#footnote-36)

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 ……………………..

[*Delete whatever is inapplicable*]

You are hereby requested to furnish Performance Security, plus additional security for unbalanced bids in terms of ITB clause 35.5, in the form detailed in ITB Clause 42 for amounts[[36]](#footnote-37) of Rs. \_\_\_\_ and Rs \_\_\_\_\_ 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 42.2 will be taken.The securities shall be valid upto 28 days from the date of completion i.e. upto …………. and shall be as per the Performance Security Form and the ESHS Performance Security Form, included in Section X - Contract Forms, of the bidding document.

We have reviewed the construction methodology submitted by you alongwith 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 environmental management plan as per Clause 26 of General Conditions of Contract within 14 days of receipt of this letter of acceptance.

Yours faithfully,

Authorized Signature………………………..

Name and Title of Signatory…………………

Name of Agency……………………………..

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 42.1, 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.

* + 1. this Agreement
    2. the Letter of Acceptance
    3. the Contractor’s Bid including completed schedules and priced bill of quantities,
    4. the Addenda No’s . . . . . ***[insert addenda numbers if any]***. . . . .
    5. the Particular Conditions of contract
    6. the General Conditions of contract;
    7. the Specifications
    8. the Drawings*;* and
    9. Construction Program, Methodology, Quality Assurance Program and Environmental Management Plan
    10. Joint Venture Agreement [for JVs only]
    11. Any other document listed in PCC as forming part of the Contract

3. In consideration of the payments to be made by the Employer to the Contractor as indicated in this Agreement, the Contractor hereby covenants with the Employer to execute the Works and to remedy defects therein in conformity in all respects with the provisions of the Contract.

4. The Employer hereby covenants to pay the Contractor in consideration of the execution and completion of the Works and the remedying of defects therein, the Contract Price or such other sum as may become payable under the provisions of the Contract at the times and in the manner prescribed by the Contract.

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

|  |  |  |  |
| --- | --- | --- | --- |
| Signed by: |  | Signed by: |  |
| for and on behalf of the Employer | | for and on behalf the Contractor | |
| in the presence of: |  | in the presence of: |  |
| Witness, Name, Signature, Address, Date | | Witness, Name, Signature, Address, Date | |

**Performance Security - Bank 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[[37]](#footnote-38)]* (hereinafter called "the Contractor") 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 Contractor 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 Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[amount of guarantee[[38]](#footnote-39)]* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[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 Contractor 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 Contractor 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 ……… (i.e.) 28 days from the date of expiry of the Defects Liability Period, 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.***

**Environmental, Social, Health and Safety (ESHS)**

**Performance Security - Bank Guarantee**

*[Guarantor letterhead or SWIFT identifier code]*

ESHS 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[[39]](#footnote-40)]* (hereinafter called "the Contractor") 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 Contractor shall furnish you with a Bank Guarantee by a recognized bank for the sum specified therein as security for compliance with Environmental, Social, Health and/or Safety (ESHS) obligations in accordance with the Contract;

AND WHEREAS we have agreed to give the Contractor such a Bank Guarantee;

NOW THEREFORE we hereby affirm that we are the Guarantor and responsible to you, on behalf of the Contractor, up to a total of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[amount of guarantee[[40]](#footnote-41)]* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[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 Contractor 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 Contractor 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 ……… (i.e.) 28 days from the date of expiry of the Defects Liability Period, 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.***

**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, Sub-clause 49.1 ("Advance Payment") of the above-mentioned Contract, \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[name and address of Contractor[[41]](#footnote-42)]* (hereinafter called "the Contractor") 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**[[42]](#footnote-43)]* \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[in words]*.

We, the \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ *[bank or financial institution]*, as instructed by the Contractor, 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 Contractor, 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 Employer]* and the Contractor, 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 Contractor. 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[[43]](#footnote-44)]*(hereinafter called “the Contractor”) 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 contractor, 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[[44]](#footnote-45)]* upon receipt by us of your first demand in writing accompanied by a written statement stating that the Contractor is in breach of its obligation under the Contract without cavil or argument.

It is a condition for any claim and payment under this guarantee to be made that the payment of the second half of the Retention Money referred to above must have been received by the Contractor on its account number \_\_\_\_\_\_\_\_\_ 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.*

1. Non-performance, as decided by the Employer, shall include all contracts where (a) nonperformance 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. [↑](#footnote-ref-2)
2. 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. [↑](#footnote-ref-3)
3. The Employer may use this information to seek further information or clarifications in carrying out its due diligence. [↑](#footnote-ref-4)
4. At **2018** price level. Financial turnover of previous years shall be given weightage @5% per year based on rupees value to bring them to the price level of the financial year in which bids are received. [↑](#footnote-ref-5)
5. For contracts under which the Bidder participated as a joint venture member or sub-contractor, only the Bidder’s share, by value, shall be considered to meet this requirement. [↑](#footnote-ref-6)
6. At 2018price level. Cost of completed works of previous years shall be given weightage @5% per year based on rupees value to bring them to the price level of the financial year in which bids are received. [↑](#footnote-ref-7)
7. In case appointment of Adjudicator was proposed from the list provided by an Institution in ITB 43, the replacement should also be proposed from the list of same institution. [↑](#footnote-ref-8)
8. ***Use one of the two options as appropriate.*** [↑](#footnote-ref-9)
9. ***If none has been paid or is to be paid, indicate “none”.*** [↑](#footnote-ref-10)
10. *In the case of a JV, the bidder should be stated as “a Joint Venture consisting of ………., and …….”.* [↑](#footnote-ref-11)
11. *The Bidder 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.* [↑](#footnote-ref-12)
12. *45 days after the end of the validity period of the Bid.* [↑](#footnote-ref-13)
13. Immediately preceding the financial year in which bids are received. [↑](#footnote-ref-14)
14. If applicable [↑](#footnote-ref-15)
15. Immediately preceding the financial year in which bids are received. [↑](#footnote-ref-16)
16. In this context, any action to influence the procurement process or contract execution for undue advantage is improper. [↑](#footnote-ref-17)
17. For the purpose of this sub-paragraph, “*another party*” refers to a public official acting in relation to the procurement process or contract execution. In this context, “*public official*” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions. [↑](#footnote-ref-18)
18. For the purpose of this sub-paragraph, “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution. [↑](#footnote-ref-19)
19. For the purpose of this sub-paragraph, “parties” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other’s bid prices or other conditions. [↑](#footnote-ref-20)
20. For the purpose of this sub-paragraph, “party” refers to a participant in the procurement process or contract execution. [↑](#footnote-ref-21)
21. A firm or individual may be declared ineligible to be awarded a Bank financed contract upon: (i) completion of the Bank’s sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding. See footnote 14 and paragraph 8 of Appendix 1 of these Guidelines. [↑](#footnote-ref-22)
22. A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either 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. [↑](#footnote-ref-23)
23. Based on Government Directives. [↑](#footnote-ref-24)
24. In this context, any action to influence the procurement process or contract execution for undue advantage is improper. [↑](#footnote-ref-25)
25. For the purpose of this sub-paragraph, “*another party*” refers to a public official acting in relation to the procurement process or contract execution. In this context, “*public official*” includes World Bank staff and employees of other organizations taking or reviewing procurement decisions. [↑](#footnote-ref-26)
26. For the purpose of this sub-paragraph, “party” refers to a public official; the terms “benefit” and “obligation” relate to the procurement process or contract execution; and the “act or omission” is intended to influence the procurement process or contract execution. [↑](#footnote-ref-27)
27. For the purpose of this sub-paragraph, “parties” refers to participants in the procurement process (including public officials) attempting either themselves, or through another person or entity not participating in the procurement or selection process, to simulate competition or to establish bid prices at artificial, non-competitive levels, or are privy to each other’s bid prices or other conditions. [↑](#footnote-ref-28)
28. For the purpose of this sub-paragraph, “party” refers to a participant in the procurement process or contract execution. [↑](#footnote-ref-29)
29. A firm or individual may be declared ineligible to be awarded a Bank financed contract upon: (i) completion of the Bank’s sanctions proceedings as per its sanctions procedures, including, inter alia, cross-debarment as agreed with other International Financial Institutions, including Multilateral Development Banks, and through the application the World Bank Group corporate administrative procurement sanctions procedures for fraud and corruption; and (ii) as a result of temporary suspension or early temporary suspension in connection with an ongoing sanctions proceeding. See footnote 14 and paragraph 8 of Appendix 1 of these Guidelines. [↑](#footnote-ref-30)
30. A nominated sub-contractor, consultant, manufacturer or supplier, or service provider (different names are used depending on the particular bidding document) is one which has either 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. [↑](#footnote-ref-31)
31. 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. [↑](#footnote-ref-32)
32. If ITB 43makesprovision 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. [↑](#footnote-ref-33)
33. *Delete “corrected and” or “and modified” if not applicable. See Notes on Standard Form of Agreement, next page.* [↑](#footnote-ref-34)
34. *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.*  [↑](#footnote-ref-35)
35. *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.* [↑](#footnote-ref-36)
36. *Insert amounts for (i) Performance Security, plus additional security for unbalanced bids; and (ii) ESHS Performance Security respectively.* [↑](#footnote-ref-37)
37. *In the case of a JV, insert the name of the Joint Venture* [↑](#footnote-ref-38)
38. *An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract less provisional sum if any, plus additional performance security for unbalanced bids if any, and denominated in Indian Rupees.* [↑](#footnote-ref-39)
39. *In the case of a JV, insert the name of the Joint Venture* [↑](#footnote-ref-40)
40. *An amount shall be inserted by the Guarantor, representing the percentage of the Contract Price specified in the Contract less provisional sum if any, and denominated in Indian Rupees.* [↑](#footnote-ref-41)
41. In the case of a JV, insert the name of the Joint Venture [↑](#footnote-ref-42)
42. An amount shall be inserted by the bank representing the amount of the Advance Payment, and denominated in Indian Rupees. [↑](#footnote-ref-43)
43. *In the case of a JV, insert the name of the Joint Venture* [↑](#footnote-ref-44)
44. *The Guarantor shall insert an amount representing the amount of the second half of the Retention Money.* [↑](#footnote-ref-45)