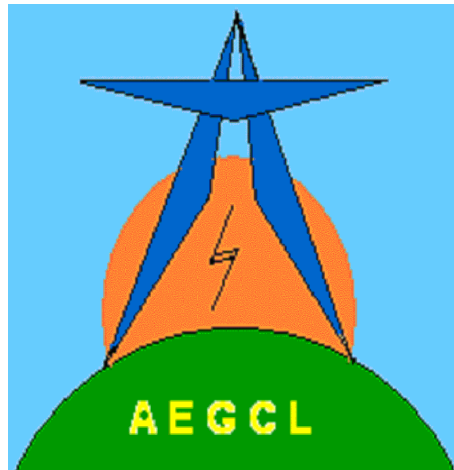


ASSAM ELECTRICITY GRID CORPORATION LIMITED
Regd. Office: 1st Floor, Bijulee Bhawan, Paltan Bazar, Guwahati-781001
CIN: U40101AS2003SGC007238
Ph: -0361-2739520/Fax: -0361-2739513 Web: www.aegcl.co.in



TENDER DOCUMENT

Name of Work: - Civil works at 132kV Gauripur Grid Substation related to Construction of 132kV Railway Traction Bay

Bid No.: AEGCL/MD/TL-76/PP&D/Traction Bay/IRCON/Gauripur/2023/Civil Bid

FUND: "Deposit Work-IRCON"

For and on behalf of the Managing Director, Assam Electricity Grid Corporation Limited (AEGCL), the Chief General Manager (PP&D) invites e-tender from reputed Civil Engineering Firms / Contractors for the work "Civil works at 132kV Gauripur Grid Substation related to Construction of 132kV Railway Traction Bay". A single stage two envelope procedure (Techno-Commercial and Price Bid) will be adopted for this tender.

(A) INFORMATION TO BIDDER: -

1. NAME OF WORK: Civil works at 132kV Gauripur Grid Substation related to Construction of 132kV Railway Traction Bay.

2. LOCATION OF WORK: -132kV GSS AEGCL, Gauripur.

3. CONTACT ADDRESS: -

The Chief General Manager (PP&D)

AEGCL, First Floor,

Bijulee Bhawan, Paltanbazar,

Guwahati-781001.

Email id- cgm.ppd@aegcl.co.in

4. BIDDING PROCEDURE: -

- a) The bidders must register themselves at <https://assamtenders.gov.in> as per the guidelines laid in the website.
- b) The bidders have to submit scanned copies of the relevant documents through the e-Tender Portal.
- c) The bid must be submitted online through e-tendering portal <https://assamtenders.gov.in>.
- d) Bidders may obtain further information from the office of the Chief General Manager (PP&D), Bijulee Bhawan, Paltan Bazar, Guwahati - 781001, Assam [e-mail: cgm.ppd@aegcl.co.in; Web site: www.aegcl.co.in].
- e) To participate in the tender the interested bidders may visit <https://assamtenders.gov.in> for all the relevant documents and information required to participate in the tender.

5. I. BASIC DETAILS:

- a) Bid No.: AEGCL/MD/TL-76/PP&D/Traction Bay/IRCON/Gauripur/2023/Civil Bid
- b) Name of work: Civil works at 132kV Gauripur Grid Substation related to Construction of 132kV Railway Traction Bay
- c) Work Type: Civil Works
- d) Tender Inviting Authority:
 - (i) Designation: Chief General Manager (PP&D)
 - (ii) Address: Bijulee Bhawan, Paltan Bazar, Guwahati, Assam.
- e) Total Tender Value: **Rs. 2,57,20,479.00** (inclusive of GST)

II. CRITICAL DATES:

Tender Start Date

31/08/2023 1200 Hrs 00 Mins

Submission Start Date

31/08/2023 1200 Hrs 00 Mins

Tender End Date

21/09/2023 1200 Hrs 00 Mins

Opening Date of Techno Commercial bid

22/09/2023 1600 Hrs 00 Mins

6. TENDER VALUE:

The tender value *inclusive of all taxes* is **Rs. 2,57,20,479.00** (Rupees Two Crore Fifty Seven Lakhs Twenty Thousand Four Hundred Seventy Nine) only.

7. TENDER PROCESSING FEE AND MODE OF PAYMENT: -

The Bidder shall bear all costs associated with the preparation and submission of its Bid, AEGCL shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.

Bidder has to pay Non-Refundable tender processing fee of **Rs. 2,000.00 (Rupees Two Thousand)** only via e-tender portal www.assamtenders.gov.in.

8. BID SECURITY/EARNEST MONEY AND MODE OF PAYMENT: -

- a) For participation in bidding procedure, participants must compulsorily pay the Bid Security of **Rs. 5,14,000.00 (Rupees Five Lakhs Fourteen Thousand)** only via e-tender portal www.assamtenders.gov.in.
- b) 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.
- c) The bid security of unsuccessful Bidders shall be returned as promptly as possible upon the successful Bidder's furnishing of the performance security.
- d) The bid security may be forfeited: -
 - (i) if a Bidder withdraws its bid during the period of bid validity period.
 - (ii) if the successful Bidder fails to sign the Contract within the specified period.
 - (iii) if the successful Bidder fails to furnish a performance security within 15 (Fifteen) days' time of issue of Letter of Intent (LOI).

9. PERFORMANCE GUARANTEE AND MODE OF PAYMENT: -

- a) Warranty: The materials and entire work are to be guaranteed against defective design, materials and workmanship and for satisfactory performance for a period of 18 (eighteen) Months from the date of final acceptance of the completed work by AEGCL.
- b) The successful Bidder shall have to deposit through a **Bank Guarantee/Fixed deposit/RTGS/NEFT** from a Nationalized or scheduled Bank of RBI in AEGCL's standard proforma on non-judicial stamp of appropriate value for an amount equivalent to 10% (ten percent) of the total value of the order including GST as performance security within 15 (Fifteen) days from receiving of letter of intent(LOI) duly pledged in favour of the Purchaser concerned (AEGCL) and such security deposit shall be **valid up 60 days beyond the warranty period..** In case of Abnormally Low Bid the amount to be taken as performance guarantee will be as per bid document.
- c) If the contractor/firm fails or neglects to observe and perform any of his obligations under the contract, Purchaser (AEGCL) shall have the right to forfeit either in full or in part at his absolute discretion, the security deposit furnished by the contractor/firm.
- d) If the value of the work increases from original ordered value, the contractor has to provide performance guarantee for additional amount
- e) If any abnormally low bid is accepted under Clause no. (B) 5.B., after taking the additional performance security as per the assessment of the committee, however, the total performance security should not have to be exceeded 20% of the total contract value.
- f) The additional performance security shall be treated as the part of the original performance security and shall be valid for a period coextensive with the applicable defect liability period of the contract.
- g) Non submission of the additional performance security shall constitute sufficient ground to rejection of the bid and similar assessment shall be initiated for next ranked bidder if that bidder is identified as ALB.
- h) No interest shall be payable on such deposits.

10. CLARIFICATIONS: -

- a) A prospective Bidder requiring any clarification of the Bidding Document shall contact the AEGCL in writing their enquiries during Pre-bid meeting. AEGCL will respond to any request for clarification if deemed necessary. Should AEGCL deem it necessary to amend the Bidding Document as a result of a request for clarification, it shall do so.
- b) The Bidder must visit and examine the site where the work is to be carried out and its surroundings and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract. The costs of visiting the site shall be at the Bidder's own expense.
- c) The Bidder and any of its personnel or representatives will be granted permission by AEGCL to enter upon its premises and lands for the purpose of such visit, but only upon the express condition that the Bidder and its personnel will release and indemnify the Employer and its personnel 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.

11. VALIDITY OF BID: -

- a) Bid shall remain valid for the period of **180 days** after the submission deadline date prescribed by AEGCL. In exceptional circumstances, prior to the expiration of the Bid validity period, AEGCL may request Bidders to extend the period of validity of their bids. The request and the responses shall be made in writing.

12. TIME OF COMPLETION: -

- a) The allotted time of completion for the work is **18 months** from the handing over of the site. The work shall be carried out as per the priority schedule which shall be approved by AEGCL after the issue of LoI.

13. DISCLAIMER: -

- a) AEGCL is not committed contractually in any way to those Bidders whose Bid are accepted. The issue of this Bid does not commit or otherwise oblige AEGCL to proceed with any part or steps of the process.

14. AMENDMENT OF TENDER DOCUMENT: -

- a) At any time prior to the deadline for submission of bids, the Employer may amend the Bidding Document by issuing addendum.
- b) To give prospective Bidders reasonable time in which to take an addendum into account in preparing their bids, AEGCL may, at its discretion, extend the deadline for the submission of bids.

15. LANGUAGE OF BID: -

- a) The Bid, as well as all correspondence and documents relating to the bid exchanged by the Bidder and AEGCL, shall be written in the English and/or Assamese language.

16. NEGOTIATION WITH BIDDER: -

The AEGCL reserve the right to hold negotiations with lowest bidder if AEGCL feels the quoted rates of particular item(s) are unreasonably high. The bid must be valid, eligible and technically acceptable and considered for award of contract.

17. VERIFICATION OF DOCUMENTS: -

- a) AEGCL reserves the right to verify the documents submitted by the bidders with issuing authority and if any abnormalities are observed in the same, their bids will be rejected.

18. RIGHT TO REJECT: -

- a) The AEGCL reserves the right to reject any or all the bids without assigning any reason thereof and the AEGCL further reserves the right to split up the work order in favour of more than one Contractor. The AEGCL also reserves the right to reject the lowest or any other price without assigning any reason. The clauses which are not appearing in this Bid document will be as per The General Condition of Supply and Erection 2009 of AEGCL. The General Condition of Supply and Erection 2009 of AEGCL is available in the AEGCL's website www.aegcl.co.in

(B) ELIGIBILITY QUALIFICATION:

- i. The Techno-Commercial Evaluation will be done on the basis of technical qualification, financial qualifications and fulfilment of the legal conditions.
- ii. The Price Bid of only Responsive Techno-Commercial Bidders will be opened and intimation will be issued in due course.

1. ELIGIBLE BIDDERS: -

- a) A Bidder may be a person, partnership, private entity or a government-owned entity.
- b) A Bidder, and all partners constituting the Bidder, shall have Indian nationality.
- c) In the case of the Joint Venture (JV): -
 - (i) When the bidder is a Joint Venture (JV) of two or more firms as partners, all partners shall be jointly and severally liable. The JV shall legally authorize one of the partners as the lead partner for the purpose of submitting the bid, incur liabilities; receive payments and instructions on behalf of the others. A copy of the **registered** JV agreement, executed on Non judicial stamp paper, shall be submitted with the bid. However, in case of successful bid, the agreement shall be signed by all the partners, so as to be legally binding on all the partners.
 - (ii) The lead partner must fulfil 40percent of the qualifying criteria.
 - (iii) The other partner must fulfil individually not below the 20percent of the qualifying criteria.
- d) Consequently, all Bidders found to have a conflict of interest shall be disqualified. A Bidder may be considered to be in a conflict of interest with one or more parties in this bidding process if, including but not limited to: -
 - they have controlling partners in common; or
 - they receive or have received any direct or indirect subsidy from any of them; or
 - they have the same legal representative for purposes of this bid; or
 - they have a relationship with each other, directly or through common third parties, that puts them in a position to have access to information about or influence on the bid of another Bidder, or influence the decisions of the Employer regarding this bidding process; or
- e) If a Bidder 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 it is involved.
- f) A Bidder or any of its affiliates participated as a consultant in the preparation of the design or technical specifications of the plant and services that are the subject of the bid.
- g) A firm that is under a declaration of ineligibility by the AEGCL or any Government Entity or PSU at the date of the deadline for bid submission or thereafter i.e., on or before contract signing date shall be disqualified.
- h) Bidders shall provide such evidence of their continued eligibility satisfactory to the AEGCL, as the Employer shall reasonably request.
- i) In case a prequalification process has been conducted prior to the bidding process, this bidding is open only to prequalified Bidders.
- j) The bidder must have experience of execution of work of similar nature previously. The bidder must submit experience and Performance Certificate for scrutiny by AEGCL.
- k) **A person, Firm or any other prospective bidder who is involved in fraud, unethical**

practices or barred from submitting bids by AEGCL or any sister concerns of AEGCL i.e., APDCL & APGCL will not be allowed to participate in the bids. If such cases are detected after submission of the bids, in later stages of the bidding process, then such bids will be rejected outright.

2. LEGAL ENTITY: -

- a) Verification may be undertaken to verify that an applicant is a bona-fide registered company or business. Bidders are required to provide evidence of the legal entity by providing a copy of an official document as mentioned in the appendix attached along with this bid document.

3. TECHNICAL QUALIFICATION: -

- a) **The bidder (single entity / each JV partner) shall have experience (as sole or partner in a JV) of having successfully completed similar works during the last 3 years (as on bid submission deadline) of value not less than the estimated amount.**

Note: “Similar work” is defined as work of construction of RCC building for Govt. Department or PSUs only.

- i. If the nature of work and value differs from the above stated conditions, it will not be considered while evaluation of technical qualification.
- ii. Work order along with completion certificate are to be attached.
- b) Bidders must compulsorily submit work order and work competition certificate issued from Govt Department/reputed PSUs only satisfying the above-mentioned work experience criteria for technical qualification. Moreover, AEGCL reserves the right to scrutinise any work order/work competition certificate submitted by the bidders with issuing authority and if any abnormalities are observed in the same, their bids will be rejected.

4. FINANCIAL QUALIFICATION: -

Criteria	Compliance Requirements				Documents
Requirement	Single Entity	Joint Venture			Submission Requirements
		All Partners Combined	Each partner	One partner	
4.1 Historical Financial Performance					
Submission of audited balance sheets or other financial statements acceptable to the Purchaser, for the last 3 (three) years to demonstrate the current soundness of the Bidders financial position and its prospective long-term profitability. As a minimum, a Bidder's net worth calculated as the difference between	Must Meet Requirement	Not Applicable	Must Meet Requirement	Not Applicable	Form ' FIN-1 ' With attachments

total assets and total liabilities should be positive.					
4.2 Average Annual Turnover					
<p>Minimum average annual turnover of Rs. 77,16,000.00 (Rupees Seventy Seven Lakhs Sixteen Thousand) only calculated as total certified payments received for contracts in progress or completed, within the last 3 years.</p> <p><i>Financial Statements for last 3 (three) years will be considered for calculation of turnover (should be CA/CMA certified).</i></p>	Must Meet Requirement	Must Meet Requirement	25% Minimum	Must meet 40% of the requirement (Lead partner)	Form ' FIN-2 '
4.3 Financial Resources/Cash Flow					
<p>Using Forms FIN-3 and FIN-4, Section 4 (Bidding Forms), the bidder (Single Entity/JV) must demonstrate that the financial resources of bidder (Single Entity/JV), defined in FIN-3, less the bidder's (Single Entity/JV) financial obligations for its own current contract commitments defined in FIN-4, meet or exceed the total requirement of Rs. 21,43,000.00 (Rupees Twenty One Lakh Forty Three Thousand) only.</p> <p><i>The Bidder (Single Entity/JV) must demonstrate access to, or availability of, financial resources such as liquid assets, unencumbered real</i></p>	Must Meet Requirement	Must Meet Requirement	25% Minimum	Must meet 40% of the requirement (Lead partner)	Form ' FIN-3 ' & Form ' FIN-4 '

assets, lines of credit, and other financial means, other than any contractual advance payments to meet the cash-flow requirement, in the prescribed format of ICAI.					
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4.4 The Contractor must furnish their Bank Solvency Certificate indicating the amount by concerned authority in necessary format as per their banks.

5. PRICE BID EVALUATION PROCESS:

Identification:

- A. The following methodology will be practised for identification and treatment of the Abnormally Low Bids (ALB) in this tender process of AEGCL:
 - (i) **Absolute Approach** is to be considered when there is fewer than five substantially responsive bidders and if the bid price is 20% or more below AEGCL's cost estimate then AEGCL's tender evaluation committee should clarify the Bid price with the bidder to determine whether the Bid is abnormally low.
 - (ii) **Relative approach** is to be considered when there are at least 5(five) nos. of substantially responsive bids and the lowest bid price is 20% or more below AEGCL's cost estimate. In this approach, first the Average bid price is determined and then by deducting the standard deviation from the Average bid price, potentially ALB may be determined.
- B. In case of an ALB, the tender evaluation committee/appropriate authority of the respective tenders shall undertake the following three stage review process which is as below:
 - (i) To identify ALB as per the steps mentioned in SI no. 5.A.(i) and 5.A.(ii) whichever is applicable.
 - (ii) To seek and analyse the clarifications from the abnormally low Bidder in terms of resource inputs and pricing, including overheads, contingencies and profit margins. In that respect, the committee may refer to guideline of World Bank, AIIB, ADB etc. prescribed for ALB.
 - (iii) To decide whether to accept or reject the bid.
 - (iv) On acceptance of the bid, whether Additional Performance Security is to imposed on the bidder supplemented by adequate justification.
- C. **In case of acceptance of ALB with Additional Performance Security:**
 - (i) If any abnormally low bid is accepted under point 5.B.(iii) with additional performance security, it is to be noted that the total performance security should not exceed 20% of the total contract value.
 - (ii) The additional performance security shall be treated as part of the original performance security and shall be valid for a period similar to that applicable for defect liability period of the contract.
 - (iii) Non submission of the additional performance security shall constitute sufficient ground for rejection of the bid and similar assessment shall then be initiated for next ranked bidder if that bidder is also identified as ALB.

(C) GENERAL CONDITIONS OF CONTRACT:

1. INSPECTION OF SITE: -

- a) The Bidder must visit and examine the site where the work is to be carried out and its surroundings, nature of work, site conditions, area for storage of materials, etc. and obtain for itself on its own responsibility all information that may be necessary for preparing the bid and entering into a contract. The costs of visiting the site shall be at the Bidder 's own expense. Non-familiarity with the site conditions will not be considered a reason either for

extra claims or for not carrying out the work in strict conformity with the specifications & requirements.

For site visit, the bidder may communicate with the concerned AGM, 132kV Dhaligaon GSS, AEGCL. A site visit certificate signed by the concerned AGM must be mandatorily submitted along with the bid.

2. PREPARATION OF BID: -

- a) Cost of Bidding:
The Bidder shall bear all costs associated with the preparation and submission of its Bid, and AEGCL shall not be responsible or liable for those costs, regardless of the conduct or outcome of the bidding process.
- b) Documents Establishing Conformity of the Goods and Services: -The documentary evidence of the conformity of the goods and services to the Bidding Document may be in the form of letter, drawings and data, and shall furnish. A detailed description of the essential technical and performance characteristics of the goods and services, including the functional guarantees of the Goods, in response to the specification.
- c) Bidder should note clearly that department should not take any responsibility for issuing of any materials, equipment's and T&P's that may be required in the work.
- d) All materials, labours, equipment's, T&P and heavy vehicle etc. required in the work shall have to be arranged by the bidder/contractor from his own sources in the event of allotment of the said work to him/them.
- e) Water to be used in the work should be clean and free from all impurities; the bidder should note that no water will be provided to them for the execution of the work from the department
- f) The department is also not bound to supply power that may be required in the execution of the work. However, subject to the availability of the power source near the vicinity of the work site, the department on payment of tariff as applicable at the time of execution of work may arrange one point near the work site.
- g) The bidder should clearly understand that all materials to be utilized in the work must confirm to the specifications. No substandard materials will be allowed to utilize in the work. Samples of each and every material to be brought to the site of work shall have to be get approved by the competent authority of the department before use.
- h) The contract must not be sublet under any circumstances. If any contractor found in doing so, his work liable to be terminated.
- i) The specification for the work shall be as per specification laid down in the items of work contained in the enclosed schedule of items of work or as per the APWD schedule of rates for Building (civil works), Sanitary and Water supply and internal electrification respectively (whichever is applicable) but, certain modification in the specification and method of execution of work if required shall have to be carried out which shall be finalized with the contractor bilaterally through discussion.

3. PRICE BID: -

- a) Unless otherwise specified in the Bid Document and/or AEGCL's Requirements, bidders shall quote for the entire plant and services on a single responsibility basis such that the total bid price covers all the Contractor's obligations mentioned in or to be reasonably inferred from the bidding document in respect of the including procurement, delivery, testing of materials, construction, installation and completion of the Work. The rate should also include the cost of testing of materials at the approved laboratory, carriage and transportation of sample, preparation of report, submission of report in all respect as required by AEGCL. This includes all requirements under the Contractor's responsibilities for completing the work and where so required by the bidding document, the acquisition of

all permits, approvals and licenses, etc.; the operation, maintenance and training services and such other items and services as may be specified in the Bidding Document, all in accordance with the requirements of the General Conditions. Items against which no price is entered by the Bidder will not be paid for by the Employer when executed and shall be deemed to be covered by the prices for other items.

- b) Bidders are required to quote the price for the commercial, contractual and technical obligations outlined in the bidding document.
- c) **Bidders quoted price should include all cost of testing of materials, transportation of sample, storage, preparation and submission of report during approval period, construction period as well as after completion of the work.**
- d) Whenever forest produces like sand, stone, timbers etc are used in the work the contractor have to furnish documentary proof that requisite royalty on such produces has been paid to the concerned Department, otherwise will be deducted at source at applicable rate.
- e) Taxes like work contract, income tax etc. which need to be deducted at source as per the prevailing law, will be deducted at source.
- f) The Bided Price should on Fixed Price basis, prices quoted by the Bidder shall be fixed during the Bidder's performance of the contract and not subject to variation on any account.

4. SITE FACILITIES: -

- a) AEGCL will not provide any accommodation at the work site to the contractor and their field personnel. No claim shall be entertained from the bidder for making his own arrangement for providing accommodation to the labours and bidder will bear entire expense. The same has to be arranged by the contractor on their own. However, AEGCL may provide space for storage of the materials but responsibility of the material and their safety shall be taken care of by the Contractor. In case of non-availability of space under AEGCL the same should be arranged by the contractor outside AEGCL campus/work site at their own cost and responsibility.
- b) AEGCL shall not be responsible for the safety of the workers at site either on account of the works executed by the Contractor or on account of the works executed by any other agency involved at that time.
- c) AEGCL shall on no account be responsible for the expenses incurred by the Contractor during the progress of work at site, towards any incidental expenditure like medical amenities to the workers at site, security arrangements.
- d) The quoted price shall be deemed to include charges for all site facilities for labour that are considered necessary for execution of the work.
- e) No claim shall be entertained from the bidder for making his own arrangement for approach roads from outside PWD road to the site and bidder will bear entire expenses.
- f) AEGCL on no account shall be responsible for storage of materials or loss or pilferage or theft either in respect of the material stored or material already billed and paid for by the AEGCL.
- g) Any facilities available at site shall be utilized only with prior permission of AEGCL and it should not be taken as granted for availing such services.

5. DEFECT AFTER COMPLETION OF WORK:-

- a) The contractor shall make good at his own cost and to the satisfaction of AEGCL all defects, or other faults which may appear during the defect liability period. In default, AEGCL may employ and pay other agency or persons to amend and make good such damages. Losses and expenses consequent thereon or incidental thereto shall be made good and borne by the contractor, failing which the same shall be recoverable from the payment due to the contractor and performance guarantee. In the event of amount due and performance guarantee being insufficient, the balance amount will be recovered from the

contractor from the amount due or retained for other works executed in AEGCL.

6. VARIATION AND DEVIATION OF QUANTITY:-

- a) The Tendered rates shall hold good for any variations in the Tendered quantities for legitimate completion of works as per original design on account of any modification in the bill of quantities.
- b) **Deletion of work:**
AEGCL and its representative have the right to delete or decrease any item or quantity from schedule of quantity at its discretion if deemed necessary. No claim by the contractor will be admissible for this deletion or deduction of Item/quantity from schedule of quantity.

7. LABOUR LEGISLATION: -

- a) The Bidder shall comply with the provisions of the Apprentices Act 1961, payment of Wages Act 1936, Minimum Wages Act 1948, Employees Liability Act 1938, Workmen's Compensation Act 1923, Industrial Disputes Act 1947, Maternity Benefits Act 1961, and the Contract Labour (Regulation and Abolition) Act 1970, Provident Fund Act or the modifications thereof or any other laws relating thereto and the rules made there under from time to time.
- b) The Bidder shall indemnify and keep indemnified AEGCL against payments to be made under and for the observance of the laws aforesaid and the Contractors' Labour Regulations without prejudice to his right to claim. The laws aforesaid shall be deemed to be a part of this contract and any breach thereof shall be deemed to be a breach of this contract.
- c) The Bidder shall at his own expense arrange for all the safety provisions for the safety of all workers and employees directly or indirectly employed on the work by the Bidder.
- d) The Bidder shall be fully responsible at his own expenses for compliance all the labour regulations and rules to be observed by them. The Bidder shall fully indemnify AEGCL against any action by the state and/or Central Government for any default or alleged default by the Bidder for violation of any of such rules and regulations. If, due to any default of the Bidder, AEGCL has to incur any expenditure for compliance of the rules and regulations or for any other reason connected with such default, AEGCL shall be entitled to recover from the Bidder all such expenditure in full from any payment due to the Bidder.

8. GOVERNMENT AND LOCAL RULES:-

- a) The Contractor shall conform to the provisions of all local bye-laws and acts relating to the work and to the regulations etc. of the Government and Local Authorities and of any Company whose system and design is proposed to be connected/utilized. The cost, if any, shall be deemed to have been included in his quoted rates, taking into account all liabilities and shall indemnify AEGCL against such liabilities and shall defend all actions arising from.

9. ELIGIBILITY OF CONTRACTORS EMPLOYEES: -

- a) The Contractor shall employ in and about the Execution of the works only such persons as are skilled and experienced in their several trades. A list of such personal should be submitted in corresponding Appendix.

10. ENGINEER AT LIBERTY TO OBJECT:-

- a) AEGCL's Site in-charge shall have right to remove any person provided by the Contractor who, in the opinion of the Site in-charge, misconducts himself, or is incompetent or negligent in the proper performance of his duties, or whose presence on Site is otherwise considered by the Engineer to be undesirable, and such person shall not be again allowed upon the Works without consent of the Engineer. Any person so removed from the Works

shall be replaced immediately without hampering the work.

11. TAXES: -

- a) Any taxes, royalties and duties as per Govt. Law should be responsible of the contractor and must be included in their quoted rate.

12. INSURANCE: -

- a) The bidder shall arrange for any pay/cost of personnel accident insurance, medical treatment etc. in respect of their employees assigned to the works for all time and shall govern by Law of the land.

13. DAMAGE TO PERSON AND PROPERTY: -

- a) The Contractor shall be responsible for all injury to the work or to workmen, to persons, animals or things and for all damages to the structural and/or decorative part of property which may arise from the operations or neglect of contractor or its employees, against whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this Contract. The Contractor shall at his cost effect the insurance necessary and indemnify AEGCL entirely from all responsibility in this respect. The scope of insurance is to include loss or damage to the work and workmen due to carelessness, accident including fire, earthquake, floods, all medical expenses, compensation to be borne in the event of accident etc., damage or loss to the Contract itself till this is made over a complete state. Insurance is compulsory and must be affected from the very initial stage and should cover the entire contract period till handing over of complete works. The Contractor shall also be responsible for anything which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this Contract.

AEGCL shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or occurring from or in respect of any such claim for damages from any sums due or to become due to the Contractor.

14. ACCEPTANCE OF BID AND CONTRACT AGREEMENT:-

- a) An agreement shall have to be drawn on non-judicial stamp of appropriate value with AEGCL by the selected Contractor in AEGCL's General Conditions of Supply and Erection 2009 of contract within 15 (fifteen) days from the date of issue of the LOI. Wherever there is any variation in between the conditions of AEGCL's General Conditions of Supply and Erection 2009 and the above terms & conditions, this bid conditions will supersede the conditions of AEGCL's General Conditions of Supply and Erection 2009.

15. STATUTORY AND SAFETY REQUIREMENT:-

- a) Each and every safety measure for MAN and MACHINE will be the sole responsibility of the Contractor without any prejudice. Compensation claims if any will also be the responsibility of the contractor without any prejudice.
- b) During the execution of the work, the contractor shall have to mark the site with banner warning/indicating precautions.
- c) The Contractor shall, throughout the execution and completion of the Works and the remedying of any defects therein:
- d) Have full regard for the safety of all persons entitled to be upon the Site and keep the Site (So far as the same is under his control) and the Works in an orderly state appropriate to the avoidance of danger to such persons, and
- e) Provided and maintain at his own cost all lights, guards, fencing, warning signs and

watching, when and where necessary or required by the Engineer or by any duly constituted authority for the protection of the Works or for the safety and convenience of the public or others, and 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 causes arising as a consequence of his methods.

16. PAYMENT TERMS: -

- a) No advance/Mobilization advance shall be made in this contract.
- b) No claim for interest shall be entertained by AEGCL in respect of any money or balance which may be in AEGCL's hands owing to any dispute or difference or misunderstanding between the contractor and the AEGCL or due to the reason beyond the reasonable control of AEGCL.
- c) First running bill shall be paid to the contractor on 40% completion of the work and Second running bill shall be paid to the contractor on 70% completion of the work.
- d) Final bill must contain the original site register.
- e) Final payment shall be released to the contractor only after completion of the work/final acceptance by AEGCL.
- f) Payment is subject to availability of specific fund.
- g) The Bidder / Firm will have to be submitted the following Net Banking details.
 - Banker's Name & Branch
 - Account No
 - Banker's address
 - Banker's IFSC Code
 - Banker's RTGS Code

17. ADDITIONAL WORKS:-

The Contractor shall, when ordered in writing by the concerned authority, perform extra work and furnish extra materials not required by the invitation or included in the "Bill of Quantities", but forming an inseparable part of the work concerned. For extra work and materials will ordinarily be paid for the lump sum or unit price/rates stated in the order. Whenever in the judgement of the concerned authority, it is impractical, because of the nature of the work or for any other reason to otherwise fixed the price/rate in order, the extra work and materials shall be paid for on the basis or actual necessary cost plus overhead and profit allowances as indicated hereunder.

The actual necessary cost will include:

- a) Market value of the materials utilized in the extra work, including taxes and duties, if any.
- b) Actual cost of handling and transportation of materials wherever applicable.
- c) Direct labour charges.
- f) Further supervision charges and profit will be allowed at 10% on the sum. In case any material or parts are furnished by the department no overhead and profit will be allowed on the value of such materials or parts.

18. RETENTION MONEY:-

- a) 10% retention money will be deducted from running bill, which will be released along with the final bill on completion of the work in all respect.

19. WARRANTY:-

- a) The term period of warranty shall mean the period of 18 months from the date of Taking Over of the Work by AEGCL. A Taking over Certificate (TOC) will be issued by the appropriate authority.
- b) The Contractor must handover the warranty card or other relevant documents from the

OEM at the time of submission of the bill.

20. SUSPENSION OF WORK:-

- a) If the contractor persistently neglects to carry out his obligations under the contract and/or commits default in complying with any of the terms and conditions of the contract and does not remedy it or take effective steps to remedy it within 7 days after a notice in writing is given to him in that behalf by AEGCL subject to other provisions contained, AEGCL may without prejudice to his any other rights or remedy against the Contractor in respect of any delay in commencing, completing the work may serve notice in writing absolutely determine and cancel the Contract.

21. EXTENSION OF TIME:-

- a) Time is the essence of the contract. No extension of time shall be allowed except on valid reason after pre-approval from competent authority.

22. CHANGE OF NAME OF THE TENDERER:-

- a) At any stage after tendering, AEGCL shall deal with the Contractor only in the name and the address under which he submitted the tender. All the liabilities/ responsibilities for due execution of the contract shall be that of the Contractor.
- b) Any change/ alteration of name/ constitution/ organization of contractor shall be duly notified to the AEGCL and the AEGCL reserves the right to determine the contract, in case of any such notification.

23. DEATH, BANKRUPTCY ETC.:-

- If the Contractor becomes bankrupt or being a corporation is in the process of winding up, amalgamation or reorganization, the AEGCL shall be at liberty to:
 - i. Terminate the contract forthwith by notice in writing to the Contractor or to the liquidator or receiver or to any person in whom the contract may become vested.
 - ii. Give such liquidator, receiver or other person the option of carrying out the contract subject to his providing a guarantee for the due and faithful performance of the contract up to an amount to be determined by the AEGCL.
- In case of death of the Contractor before completion of work and supply, the Engineer or AEGCL shall be at liberty to:
 - a) Close up the contract and take over the completed portion of work done and made as per specification and make final payment to the legal heir of the Contractor on receipt of claim from such legal heir.
 - b) Give the contract to the legal heir of the Contractor subject to his depositing a performance security for the due and faithful performance of the contract. The performance security amount shall be determined by the AEGCL commensurate with the incomplete portion of the work. The AEGCL will enter into a fresh contract with the legal heir of the Contractor on the same terms and conditions of the earlier contract.

24. CONTRACTUAL FAILURE, LIQUIDATED DAMAGE AND PENALTY:-

- a) Liquidity Damages 0.5% of the amount of delayed work per week subjected to the maximum 10 % of the contract value.

25. TERMINATION OF CONTRACT: -

- a) If the performance of the contract is not satisfactory and not corrected within 15 days of receiving notice, then employer shall be at liberty to terminate the contract and get the work executed through other means at the risk and cost of the Contractor.

26. PAYMENT ON TERMINATION: -

- a) In the event of termination of the contract, AEGCL shall be at liberty to get balance work done by any third party at the risk and cost of the contractor and due payment of the contractor, if any shall be released after the completion of whole of the works.

27. SUSPENSION OF BUSINESS DEALINGS WITH FIRMS/ CONTRACTORS: -

- a) The AEGCL may suspend business dealings with a Firm/ Contractor, if:-
 - i. The Central Bureau of Investigation or any other investigating agency recommends such a course in respect of a case under investigation; and if a prima facie case is made out that the firm is guilty of an offence involving unethical, unlawful, fraudulent means in relation to business dealings, which, if established, would result in business dealings with it being banned.
 - ii. The AEGCL has past record of non-performance of the Firm in its previously awarded contracts.
 - iii. The AEGCL has record of ban against the Firm by other Government /Public sector utility.
- b) However, the AEGCL shall give the Firm/ Contractor a fair chance to explain the circumstances of such previous suspensions.

28. BANNING OF BUSINESS DEALINGS WITH FIRMS/ CONTRACTORS:-

The AEGCL may ban business dealings with a Firm/ Contractor, if:-

- a) The owner (s) of the Firm/ Contractor is convicted by a court of law following prosecution for offences involving unethical, unlawful, fraudulent means in relation to business dealings.
 - b) There is strong justification that the Firm has been guilty of malpractices such as, bribery, corruption, fraud, substitution of tenders, interpolation, mis-representation, evasion or habitual default in payment of any Government tax etc.
 - c) The Firm continuously refuses to return government dues without showing adequate cause and government are reasonably satisfied that this is not due to reasonable dispute which would attract proceeding in arbitration or court of law.
 - d) The Firm is found guilty of involving in unethical practices, such as:-
 - i. "corrupt practice" involving offering, giving, receiving or soliciting, directly or indirectly, of anything of value to influence the action of any such official/ party in procurement process or in contract execution.
 - ii. "fraudulent practice" involving misrepresentation or omission of facts in order to influence a procurement process or the execution of a contract to the detriment of the Employer.
 - iii. "collusive practice" involving a scheme among bidders (prior to or after bid submission) designed to establish bid prices at artificial non-competitive levels and to deprive the Employer of the benefits of free and open competition.
 - iv. "coercive practice" involving harming or threatening to harm directly or indirectly, persons or their property to influence procurement process or the execution of a contract.
- The AEGCL may sanction a Firm/ Contractor or its successor, including declaring ineligible, indefinitely or for a period of not less than 3 (three) years.

29. FORCE MAJEURE CONDITION

- a) Force Majeure condition shall be considered as any circumstances beyond reasonable control of the party claiming relief, including but not limited to strikes, lockout, civil commotion, riot insurrection, hostilities, mobilization, war, fire, flood, earthquake, malicious damage or accidents could entitle contractor to extension time. Any such delay should intimated within 10 (ten) days from the beginning of such delay to consider/approved, any claim without prior information may not be considered under force Majeure.

- 30. SETTLEMENT OF DISPUTE AND ARBITRATION:-**
- a) Any dispute arising out of the contract will be first settled bilaterally between AEGCL and Contractor. In case, dispute cannot be settled bilaterally, it will be referred to arbitration to be by an arbitrator appointed by AEGCL. The contractor shall not stop the work during settlement of any dispute. All disputes shall be subjected to the jurisdiction of District Court of respective District of work.
- 31. POLLUTION AND ENVIRONMENT: -**
- a) Each and every measure should be taken to adhere to the standard norms to avert any occasion of Air Pollution, Water Pollution, Soil Pollution and Sound Pollution. In case of any deviation leading to any legal action the Contractor will be solely responsible without any prejudice.
- 32. ACCEPTANCE AND TAKEOVER:-**
- a) When the term of contract shall be fully complied with completing all works as per approved drawing and technical specifications to the satisfaction of the Department for a period as applicable, the Contractor/Firm shall have to submit Performance Certificate to the office of the undersigned after the satisfactory completion of the work through the executing authority for finalization of the work/payment as well as for the final acceptance and taking over the completed work and to issue the necessary certificate thereof.
- (D) WORK SCHEDULE:**
- 1. SITE HANDOVER: -**
- a) Handing over of the work site will be done in presence of AEGCL Officials of concerned site and contractor or its authorized representative.
- b) The contractor has to submit the list of manpower along with contact numbers to be engaged for the work to the AEGCL Officials .
- c) The date of site handing over to be noted on the Site register duly signed by the AEGCL Officials and contractor or its authorized representative.
- 2. WORK COMMENCEMENT: -**
- The work should be started only after having the following documents.
- a) Site Register
- b) Measurement Book
- c) Drawings
- d) Specifications of item & schedule of Quantity
- e) Approved Material
- 3. SITE REGISTER:-**
- a) It will be issued by the department along with the work order.
- b) It will be the responsibility of the Contractor to record and update the site register with details of Day-to-Day activities and other details.
- c) The days on which no work is carried out should be recorded in the site register with proper justification.
- d) Any instruction by AEGCL officials during site visit must be noted properly and should be jointly signed by the official and the contractor or its authorised representative.
In case of any disagreement, the Contractor must notify AEGCL in written.
- e) Any deviation in works must be properly noted in the site register by the Contractor along with proper justification for it.
- f) Progress report along with work completion percentage must be prepared by the Contractor on the basis of site register log and has to be submitted to AEGCL on 1st and 16th date of

the month.

- g) Site register shall be verified from time to time by the Site In-charge and any anomalies found will be forwarded to higher authorities in written by the Site In-charge.

4. WORKING PROCEDURE:

- a) **All materials must be procured only after verification and approved at store by AEGCL or any authorised representative.**
- b) Any materials bought to the site of work without approval from AEGCL, those materials will not be accepted and cannot be used in carrying out the work.
- c) All the work must be carried out as per the directions of AEGCL and no deviation from the directions shall be allowed under any circumstances. In case of inevitable discourse, the contractor must get the deviation approved from the AEGCL.
- d) If any kind of unapproved deviations are observed during the course of the work, the contractor shall have to redo the work as per the direction of AEGCL at the cost of the Contractor.
- e) It shall be the contractor's responsibility to clear any unusable debris/left out materials from the AEGCL campus. No unwanted material can be left unattended by the contractor and the same must be cleared before handing over the site to AEGCL.
- f) The reusable or valuable dismantled materials during the work have to be shifted to a place as decided and directed by the AEGCL.
- g) Since multiple Agencies will be working on the same work site, there should be proper coordination between different contractors involved in the same project or related projects under AEGCL.
- h) The requirement of electricity and water for execution of mentioned work is in scope of the concerned contractor.

5. PERT CHART OR BAR CHART: -

The successful bidder within 10 (ten) days of LoI and before the contract is awarded will make out a detailed PERT Chart (priority wise) covering all activities along with detailed program chart on accepted scheme indicating various stages of execution, method of execution and completion of work in different stages keeping the period of completion in view and submit the same to the CGM(PP&D) for the consideration and approval.

(E) GENERAL SPECIFICATION OF WORK:

The work is to be executed as per specifications of the BOQ as provided by AEGCL. Any unauthorised deviation is strictly prohibited and any deviation is to be corrected by the contractor at his own risk and cost.

1. Site preparation: -

- a) All the works related to dismantling, demolishing of existing structure has to be carried out by the contractor at their own costs as per direction of AEGCL. And all the dismantled and demolished unserviceable material has to be disposed off by the contractor outside the AEGCL premises and serviceable materials to be stacked as per the directions of AEGCL officials.
- b) The Contractor shall clear the site of vegetation by felling of trees, uprooting of stumps etc. to prepare the site for work only as per directions given by the Site Engineer
- c) The Contractor will have to construct access or any means for transport of material as per site requirements if the site is not easily accessible.
- d) All water which may accumulate on the site before or during the progress of the works or in trenches and excavations shall be removed and drained out from the site to the satisfaction of the Site Engineer by the Contractor.
- e) Any other work required for adequate preparation of the site for construction deemed

necessary shall be carried out by the Contractor.

2. **Earthwork in excavation:-**Earthwork in excavation for foundation trenches of walls, retaining walls, footings of column, steps, septic tank etc. including refilling (return filling) the quantity as necessary after completion of work, breaking clods in return filling, dressing, watering and ramming, dewatering etc. and removal of surplus earth with all lead and lifts as directed and specified including bailing out water where necessary as directed and specified.
3. **Brick soling:-** Brick soling in foundation and under floor should be provided with best quality jhama bricks as approved by Site Engineer.
4. **Plinth Wall and Plinth Filling:-** The plinth wall shall be thick brick/stone masonry works in cement mortar prop. 1:3 with cement plaster prop.1:4 on exposed faces with neat cement finishes. The outer plinth wall shall be 230mm thick and inner plinth wall shall be 112 mm thick.

Sand filling in plinth (height= 600mm) is to be done using suitable river sand or silt in layers not more than 150mm thick including all necessary watering, ramming, compaction etc. as directed by the Site Engineer.

5. **Plain Cement Concrete works:-**
 - i. Plain Cement Concrete works must be carried out with coarse aggregates of sizes 13mm to 32mm in dry condition and dewatering should be carried out wherever necessary before placing of concrete.
 - ii. The proportion of Plain Cement Concrete should be **1:3:6** or as specified in the drawing and design. The quality of the mix will have to be checked and approved by the Site Engineer.
 - iii. Curing should be done properly and as per instructions of AEGCL.
6. **Damp proof course: -** Damp proof course of 25mm thickness is to be applied above the plinth wall with cement concrete in proportion 1:1.5:3 with graded stone aggregate of 10mm down nominal size including damp proof admixture in proportion as per direction of Site Engineer. Water proof cement additive shall conform to IS 2645.
7. **Anti-termite treatment: - Pre** construction anti - termite treatment should be applied at the bottom of foundation pits and walls on either side up to a height of 300mm from bottom of the excavation made for column plinth beam, wall, trenches etc. by applying the emulsion @ 5 (five) litres per square meter of the surface area before starting construction work (supplying of necessary tools and accessories by the contractor) as per the direction of the Department.
8. **Reinforcement: -**
 - a) The Contractor shall procure all reinforcement steel required for the works, only from the **primary producers** manufacturing steel to the prescribed specifications of Bureau of Indian Standards or equivalent and licensed to affix ISI or other equivalent certification marks and acceptable to the Engineer-in-Charge. Necessary ISI list certificates are to be produced to Engineer-in-Charge before use on works. The unit weight and dimensions shall be as prescribed in the relevant Indian Standard specification for steel.
 - b) All reinforcement shall be cleaned thoroughly by removing loose scales, oil, grease or other deleterious materials. The contractor shall obtain the approval of the Engineer-in-charge or his representative to the reinforcement when fixed in position before any concrete is

deposited in the forms.

- c) Bars shall be bent cold or straightened in a manner to the satisfaction of the Engineer-in-charge or his representative. Bars bent during transport or handling shall be straightened before using on work. They shall not be heated to facilitate bending. Welding shall be done as per latest IS Code of practice.
- d) All reinforcement bars shall be cut and standard hooks for MS rounds made at ends and accurately placed in position as shown on the approved drawings. They shall be securely held in position before and during concreting by annealed binding wires used for binding the reinforcement which shall be of approved quality soft annealed iron wire not less than 1 mm (18SWG) size, conforming to IS:280.
- e) As far as possible, bars of full length shall be used. Where bars are required or permitted to be lapped by the Engineer-in-charge, or his representative, the over laps shall be staggered for different bars and located at points, along the span where bending moment is not maximum.
- f) The minimum grade of reinforcement to be used is Fe500.

9. Shuttering and Shoring: -

- a) Shuttering and shoring works is to be done with timber planks of 25mm thickness wherever necessary including removal of the same for in-situ reinforced/plain cement concrete works.
- b) When the Shuttering is ready for commencing concreting, the Engineer in Charge shall check the shuttering work for their alignment, strength and general fitness.
- c) **If the Site Engineer is satisfied with the quality of shuttering then may allow the contractor for pouring concrete.**
- d) **Poor or old shuttering should not be used. The Site Engineer at his own discretion may reject any shuttering material if found not satisfactory.**

10. Brick Masonry:-

- a) Brick work in cement mortar with 1st class brick including racking out joints and dewatering if necessary, and curing complete as directed by Engineer in-charge. Cement Mortar used should be in 1:4 proportion.
- b) The thickness of the masonry walls in superstructure shall be 112mm.
- c) The thickness of the walls shall be as per the approved drawings.

11. Reinforced Cement Concrete:-

- a) RCC works in footings, Tie- beam, lintel. Roof-beam, Column, Slab, Chajja etc. should be done using M20 grade concrete (prop 1:1.5:3).
- b) Curing shall be done as per IS 456:2000 under the supervision of the Site in-charge.
- c) **Cube moulds shall be prepared for concrete strength tests as per relevant IS codes. For Cube testing three nos of cube moulds each should be prepared for testing during the following stages of construction:-**
 - (a)Footing
 - (b)Column
 - (c)Beam/Slab**The cube tests should be done to test the strength after 28 days.**
- d) Cube moulds should be prepared for destructive testing randomly as per instructions giver by Site Engineer.
- e) Optimum quantity of water shall be mixed to produce the design mix/nominal mix concrete of required workability.
- f) Workability shall be such that the concrete surrounds and properly grips all reinforcement.
- g) The degree of consistency, which shall depend upon nature of work and method of vibration of concrete, shall be determined by regular slump tests to be carried out by the

contractor at his cost.

- h) Usually for mass concrete in RCC works where vibrations are used the slumps shall be within 10mm to 25mm.
- i) The frequency of such tests and the natures of slumps shall be maintained within the limits specified by the Engineer-in-charge.
- j) The Engineer-in-charge also reserves the right to carry out slump tests independently at his own discretion.
- k) Cement shall have to be weighed from bulk stocks at site and not by bags. It shall be weighed separately from the aggregates.
- l) Water shall either be measured by volume in calibrated buckets or weighed. All necessary equipment shall be maintained in a clean and serviceable condition. Their accuracy shall be periodically checked.
- m) Honeycombed RCC structure should be dismantled immediately and reconstructed.
- n) The mixing shall be done by mechanical means using mixer machine.

1 Cement:-

- a) The cement to be used shall be the best quality of its type.
- b) All cement shall be sampled and tested in accordance with Indian Standards.
- c) Cement shall be Ordinary Portland Cement as per I.S.269-1976 or Portland Pozzolona Cement as per I.S. 1489. The minimum grade of the Ordinary Portland cement to be used shall be OPC-43 grade and it shall confirm to IS 269.
- d) Delivery and storage of cement- Cement shall be delivered to the site in bulk or in sound and properly sealed bags and while being loaded or unloaded whether conveyed in vehicles or by mechanical means, and during transit to the concrete mixers, must be protected from the weather by effective coverings. Efficient screens are to be supplied and erected to prevent wastage of cement during strong winds. If the cement is delivered in bulk, the Contractor shall provide at his own cost approved silos of adequate size and number to store sufficient cement to ensure continuity of work. The cement shall be placed in these silos immediately it has been delivered on the site. Suitable precautions shall be taken during unloading to ensure that the resulting dust does not constitute a nuisance.

The cement must be used within 3 months from the date of manufacture.

1 Curing:-

- a) Curing should be done as soon as possible after concrete is placed and when initial set has occurred and before it has hardened. It should be continued for a minimum period of 7 to 12 days when ordinary (Portland) cement is used, 4 to 7 days when rapid hardening cement is used, and should be kept thoroughly wet for 24 hours when high alumina cement is used.
- b) Vertical surfaces may be covered with hanging curtains. Columns and small members shall be cured by wrapping round them wet sacks or by sprinkling water continuously. On vertical surfaces it should be checked that the wet fabric is in contact with the surface.
- c) Water should be sprinkled on the underside of beams and slabs for proper curing.

1 Plastering:-

- a) Surfaces to be rendered must be cleaned and made free from all dust, loose materials, grease, etc, and be well wetted for a few hours (the wall should not be soaked but only damped evenly); but the wall should not be too wet.
- b) Plaster work on new construction should be deferred as much as possible so as to let shrinkage reinforced concrete and masonry take place before plastering.
- c) General proportion for cement plaster should be 1:4.

1 **Plinth Protection Works:-**

- a) Plinth protection should be provided with bricks laid on edge and grouted with cement mortar 1:4 and finishing with cement pointing in prop 1:1 complete with a floating coat of neat cement finished.
- b) The plinth protection shall be provided upto a width of 500mm from the plinth wall.

1 **Plinth Drainage :-**

- a) Drainage should be provided with brick work in cement mortar in proportion 1:5 with half brick side walls and 100mm thick C.C (1:3:6) base over one brick flat soling including 15mm thick cement plastering in prop. 1:3 finished with a floating coat of cement slurry as directed with necessary shuttering for sides and earth work in excavation of foundation trenches and refilling the sides after completion of work etc. as specified. (The size of drain should be minimum 300 mm wide and average 150 mm deep with bed slope 1 in 150 with initial depth of 100 mm.)

1 **Cement plaster Skirting (for outer portion of the plinth wall):-**

- a) The outer portion of the plinth wall is to be provided with cement plaster skirting with cement mortar in prop 1:3 (1 cement : 3 coarse sand) finished with a floating coat of neat cement including rounding of junctions with floor of 15mm thickness.

1 **Retaining wall:-**

- a) Stone masonry work in retaining wall, wing wall, abutment, foundation, steps, plinth etc. in cement mortar in prop 1:6 with levelling course of 1:6:12 with both faces hammer dressed including bonding, providing face stone, through stone and centering including racking of joints, curing and supplying and all carriage of stone as directed including payment of forest royalty and sales tax and carriage.
- b) 50 mm dia PVC pipes shall be provided for weep holes @1.00 m interval on staggered manner as directed by the engineer in charge.

1 **Painting on Steel surfaces:-** All steel surfaces should be painted with one coat of primer and two coats of enamel paint.

Note: All other specifications shall be as per the approved drawings.

SPECIFICATIONS FOR CIVIL WORKS (RCC BUILDING)

Civil Works (Finishing Schedule) (RCC BUILDING)

S.No.	ITEM	DESCRIPTION
1.	Flooring (Except toilet floor)	<ol style="list-style-type: none"> a. Brick Flat Soling b. 75mm PCC (in proportion 1:2:4) c. Vitrified Tiles of not less than 12mm Thickness and Size 600mm x 600mm over cement mortar bed 15mm thick in prop 1:3 (1 cement: 3 Coarse sand).
2.	Flooring (Toilet Floor)	<ol style="list-style-type: none"> a. Brick Flat Soling b. 75mm PCC (in proportion 1:2:4) c. Antiskid Vitrified Tiles of not less than 12mm Thickness and Size 600mm x 600mm over cement mortar bed 15mm thick in prop 1:3 (1 cement : 3 Coarse sand).
3.	Skirting (except toilet area)	<ol style="list-style-type: none"> a. Vitrified tiles Skirting for a height of 150mm
4.	Stairs and Steps (outside)	

	portion)	<ul style="list-style-type: none"> a. 18mm thick granite (the granite shall be molded and polished) b. Nosing shall be provided in the stairs. c. Stair shall have stainless steel of 304 grade in hand railing using 50mm dia of 2mm thick circular pipe with balustrade of size 32mmx32mmx32mm @0.90mtr C/C and stainless square pipe bracing of size 32mmx32mmx32mm in three rows in staircase as per approved design and specification, buffing, polishing.
5.	Kitchen counter top slab	<ul style="list-style-type: none"> a. 18mm thick granite slab. b. Proper provision for the fitting of LPG gas pipe shall be given in the counter top slab.
6.	Exterior Walls	<p>Two coats of weatherproof paint (Berger/Nerolac/Asian Paints or equivalent) over following coats:-</p> <ul style="list-style-type: none"> a. One coat of 15mm thick cement plaster. b. One coat of 20mm thick cement plaster over 15mm thick cement plaster. (for grooving as per drawing) c. Two coats of putty (JK/Birla/Brison make or equivalent) of minimum 2mm of thickness. d. One coat of Primer (Weather Coat) (Berger/ Nerolac/ Asian paints or equivalent)
7.	Interior Walls (Except toilet wall)	<p>Two coats of emulsion paint (Berger/Nerolac/Asian paints or equivalent) over following coats:-</p> <ul style="list-style-type: none"> a. One coat of 15mm thick cement plaster. b. Two coats of putty (JK/Birla/Brison make or equivalent) of minimum 2mm of thickness. c. One coat of white primer (water thin-able/solvent thin-able) (Berger/Nerolac/Asian Paints or equivalent)
8.	Waterproofing (in toilet walls, roofing and chajjas)	<p>Supplying, mixing, laying and applying the following waterproofing systems over Roof slabs, Terraces etc. including curing complete as specified and directed by the Department at all levels.:</p> <p>(i) 1mm thick single coat of Master Crete M-81 of Choksey Chemicals /Dr. Sealkit Sealcrete (Asian Chemicals)/ mixed with cement in the ratio 1:2 as a prime coat.</p> <p>(ii) 3mm thick Polymer modified mortar - Cement sand mortar (in prop 1:3) mixed with Master Crete M-81/Dr. Sealkit Sealcrete (Asian Chemicals) @ 15% by weight of cement.</p> <p>(iii) 1mm thick coat of Master Crete M-81 /Dr. Sealkit Sealcrete (Asian Chemicals) mixed with cement in the ratio 1:2 as final coat.</p>
9.	Toilet Walls	<ul style="list-style-type: none"> a. Waterproofing b. Ceramic wall tiles of thickness not less than 8mm and size 300mm x 450mm over cement mortar bed 10mm thick in prop 1:3 (1 cement : 3 Coarse sand). Height = 2.1m

10.	Kitchen Wall	Ceramic wall tiles of thickness not less than 8mm and size 300mm x 450mm over cement mortar bed 10mm thick in prop 1:3 (1 cement : 3 Coarse sand) (3.2m x 1.5m , 2 x 1m x 1.5m)
11.	Ceiling	<ul style="list-style-type: none"> a. 10mm cement plaster over cement mortar of 1:4 b. Two coats of putty (JK/Birla/Brison make or equivalent) of minimum 2mm of thickness. c. Two coats of emulsion paint (Berger/Nerolac/Asian paints or equivalent)
12.	Roof	<ul style="list-style-type: none"> a. Waterproofing b. Grading roof for water proofing treatment with Slope:- 1:50 (1/4 th inch per ft) (minimum thickness should be 25mm) in cement mortar proportion 1:2:4 (1cement:2coarse sand:4 graded stone aggregates 10-20mm nominal size) mixed with Dr Fixit Roofseal Waterproofing Compound.
13.	Balcony	<ul style="list-style-type: none"> a. MS grills (Height = 1.35m) b. MS grills (of minimum 10sqmm square solid bars) should be coated with one coat of primer and two coats of synthetic enamel paint. c. Spacing of the grills should not be more that 100mm c/c in case of vertical members.
14.	Doors and Windows (except the toilet area)	<ul style="list-style-type: none"> a. Coloured Anodised Aluminium extruded sections as per IS 733 and IS 1285 for aluminium sliding windows. b. Minimum thickness of aluminium section = 2mm c. Thickness of Glass in windows: 5mm thick clear glass. d. The windows should be of sliding type. (W1= 3 Panel 3 track, W2= 3 panel 3 track) e. Nylon window Gaskets should be provided. f. WPC Door chowkaths (75mm x 125mm) should be provided. g. Door Shutters should be water/fire/termite resistant Block Board (35mm thickness) with 1mm thick MICA laminates . (D1 and D2) h. Door should have 4 hinges including tower bolt, L drop, Door Handle and all other necessary fittings and fixings. i. MS grills of minimum 10sqmm square solid bars should be provided in the windows. j. Spacing of the grills should not be more that 100mm c/c in case of vertical members. k. The doors and windows shall be provided including all necessary fittings and fixings. l. MS grills (of minimum 10sqmm square solid bars) should be coated with one coat of primer and two coats of synthetic enamel paint should be provided in the windows.
15.	Doors and Windows (toilet area)	<ul style="list-style-type: none"> a. UPVC frame (50mm x 60mm) and solid core PVC flush door 40mm thick.(D3)

		<p>b. Windows should be as per other rooms with 5mm thick frosted glass(W3= 1 panel 1 track)</p> <p>c. MS grills of minimum 10sqmm square solid bars should be provided in the windows.</p> <p>d. Spacing of the grills should not be more that 100mm c/c in case of vertical members.</p> <p>e. MS grills (of minimum 10sqmm square solid bars) should be coated with one coat of primer and two coats of synthetic enamel paint should be provided in the windows.</p> <p>f. The doors and windows shall be provided including all necessary fittings and fixings</p>
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ELECTRICAL WORKS (for RCC BUILDING)

<u>S. No.</u>	<u>Item Description</u>	<u>Room</u>	<u>Start Point</u>	<u>End Point</u>
<u>1.</u>	Wiring for drawing sub-main line with P.V.C insulated single core including earth continuity in recessed PVC conduit pipe wiring system. With 3 x 4 sq. mm + earth continuity with 2x2.5 sq. mm cable in 25mm dia. 2 mm thick/ heavy rigid PVC IS:9537.	Dining Cum Drawing Room	Distribution Box/MCCB	Dining Cum Drawing Room Switchboard
		Kitchen	Distribution Box/MCCB	Kitchen Switchboard
		Bedroom 1	Distribution Box/MCCB	Bedroom 1 Switchboard
		Bedroom 2	Distribution Box/MCCB	Bedroom 2 Switchboard
		Toilet	Distribution Box/MCCB	Toilet Switchboard
<u>2.</u>	Wiring for drawing sub-main line with P.V.C insulated single core including earth continuity in recessed PVC conduit pipe wiring system. With 3 x 2.5 sq. mm. + earth continuity with 2x1.5 sq. mm. cable in 25 mm. dia. 2mm thick/ heavy rigid PVC IS: 9537 Part - III conduit.	Dining Cum Drawing Room	Distribution Box/MCCB	Dining Cum Drawing Room Switchboard
		Kitchen	Dining Cum Drawing Room Switchboard	Kitchen Switchboard
		Bedroom 1	Distribution Box/MCCB	Bedroom 1 Switchboard
		Balcony	Bedroom 1 Switchboard	Balcony Switchboard
		Bedroom 2	Distribution Box/MCCB	Bedroom 2 Switchboard
		Toilet	Bedroom 2 Switchboard	Toilet Switchboard
		Corridor	Dining Cum Drawing Room Switchboard	Corridor Switchboard
		Terrace	Dining Cum Drawing Room Switchboard	Corridor Switchboard

S.No.	Item Description	
1.	(i) PVC insulated copper wiring for fan/light and other electrical equipments including 6 Amp flush type switch/ Switch board, ceiling rose, etc. a) 2 x 2.5 sqmm	Light
		Ceiling fan
		Exhaust fan
		Call bell
	(ii) PVC insulated copper wiring wiring to a 5pin 6 Amps plug point 2.5 sqmm recessed.	
	(iii) PVC insulated copper wiring to a 5pin 16 Amps plug point 4 sqmm recessed.	
2.	Supplying, fitting and fixing of LED light of 12 watt including necessary fittings and accessories complete in all aspects as per the direction of AEGCL. (PHILIPS/WIPRO/BAJAJ/Havells/HPL/SOLAR/JAQUAR make)	
3.	Supplying including fitting fixing of following A.C. Ceiling fan complete with all accessories like down rod, canopy etc. of following sweeps with making necessary connection as approved by the Deptt.)as required complete and as directed by the Department [With regulator] Premium model 1400 mm Sweep. (ORIENT PSPO make) /Premium model 1400 mm Sweep SS-390 Deco. Havells make)	
4.	Supplying and fixing of Call bell (Buzzer) including 6 amp capacity flush type bell push switch including connection as approved by the Deptt.)as required.	
5.	Supplying including fitting fixing of following A.C. Exhaust fan in the existing hole on the wall of following sweeps with making necessary connection as approved by the Deptt.)as required complete and as directed by the Department. High Speed 225 mm sweep (ORIENT make), Trans Air 225 mm sweep (Crompton make), Ventil Air DX 250 mm sweep Louver type (Havells make)	
6.		
	Supplying with fitting and fixing MCCB incomer and MCB outgoing sheet steel, phosphatised, powder painted single door surface mounting vertical TPN MCB DB. 8 way TPN (4+24) single door	
7.		
	Supply, installation & testing of G.I. earth station with perforated 40 mm dia and 4.50 Metre long heavy duty G.I. pipe with necessary 40 mm dia. G.I. Fittings such as Socket, Tee, elbow, nipple and 50 mmx40 mm G.I. reducing socket for funnel including locking arrangement 300 mmx300 mmx6 mm hinged cover C.I. earth plate complete with digging of earth pit, construction of brick chamber and plastering of both inner & outer surface of wall as specified and directed by the deptt . Extra for using salt (5 K and Charcoal (64 K in pipe Earth Station pit to provide low impedance ground in location of high soil resistivity as and when required and specified by the Deptt.	

NOTE: All wirings shall be recessed(concealed)

SANITARY WORKS (for RCC BUILDING)

S.No.	Item description
1.	Supplying, fitting and fixing PVC pipes of 6 kg/cm ² (Supreme/Prince) or other ISI approved including joining, fitting and fixing with clamps etc. as necessary complete at all levels including below G.L. as directed and specified (for rain water outlet pipeline from terrace till the drainage inlet) of 110 mm dia in exposed surfaces or in trenches.
2.	Providing and fixing Chlorinated Polyvinyl Chloride (CPVC) Pipes, having thermal stability for hot and cold water supply including CPVC plain and brass threaded fittings i/c fixing the pipe with clamps at 1.00m spacing. This includes jointing the pipe – CPVC pipe with CPVC fittings (using SUPREMRE/PRINCE brand pipe) (a) 15mm dia OD (b) 20mm dia OD (c) 25mm dia OD (d) 40mm dia OD (e) 75mm dia OD
3.	Providing fitting and fixing vitreous water closet squatting pan (Indian type W.C. Orissa pattern) with all fittings and fixtures complete including cutting and making good to the walls and floors wherever required including flushing cistern. White coloured of Jaquar make.
4.	Supplying fitting and fixing CP bib cock 15 mm dia of approved brand as directed and specified. Jaquar make:
	(i) 2-way bib cock with wall flange (long body)
	(ii) CP bibcock with wall flange (long body)
5.	Supplying and fitting fixing C.P. pillar cock of 15mm dia of approved brand as specified and directed. Jaguar make:-
	a) C.P. Long neck
6.	Supplying, fitting and fixing Chrome plated (C.P.) sink cock of approved brand as directed and specified. Jaguar Brand
	(i) Continental
7.	Supplying, fitting and fixing stop-cock of approved brand of size as mentioned and specified. Jaguar make.
	(i) C.P. stop cock
8.	Supplying, fitting and fixing overhead adjustable Chrome Plated (C.P.) spray shower 15mm dia. of Jaguar make with wall flange as directed and specified.
	a) Shower with minimum arm length of 190mm.
9.	Providing, fitting and fixing stainless steel kitchen sink of Jaguar make including all necessary fittings.
	a) Single Bowl with drain Board (400 mm x 200 mm) Flat Edge
10.	Providing, fitting and fixing pedestal type vitreous China wash basin including all necessary fittings.
	(i) Pedestal Basin of Jaguar make
11.	Providing, fitting and fixing C.P. towel rail complete as directed and specified. Jaguar make
	(i) 600 mm long
12.	Providing, fitting and fixing Chrome Plated towel ring complete as directed and specified. Jaguar make
	(i) Continental towel ring round

13.	Providing, fitting and fixing CP Soap tray/ soap dish complete as directed and specified. Jaguar make
	(i) Continental
14.	Providing, fitting and fixing PVC cowel of ISI make complete as directed and specified including all fittings and fixings.
	(i) 75mm dia PVC cowel of ISI make
15.	Providing, fitting and fixing C.I. grating to the floors complete as directed and specified.
	(i) 110mm dia
16.	Sintex water tank (1000L)

SPECIFICATIONS FOR (for Security Booth)

CIVIL WORKS (for Security Booth)

S.No.	ITEM	DESCRIPTION
1.	Flooring (Except toilet floor)	<ul style="list-style-type: none"> a) Brick Flat Soling b) 75mm PCC (in proportion 1:2:4) c) Vitrified Tiles of not less than 12mm Thickness and Size 600mm x 600mm over cement mortar bed 15mm thick in prop 1:3 (1 cement : 3 Coarse sand).
2.	Flooring (Toilet Floor)	<ul style="list-style-type: none"> a. Brick Flat Soling b. 75mm PCC (in proportion 1:2:4) c. Antiskid Vitrified Tiles of not less than 12mm Thickness and Size 600mm x 600mm over cement mortar bed 15mm thick in prop 1:3 (1 cement : 3 Coarse sand).
3.	Skirting (except toilet area)	a) Vitrified tiles Skirting for a height of 150mm
4.	Steps	<ul style="list-style-type: none"> a. Brick work b. Vitrified Tiles of not less than 12mm Thickness and Size 600mm x 600mm over cement mortar bed 15mm thick in prop 1:3 (1 cement : 3 Coarse sand). c. Nosing shall be provided in the steps.
5.	Bench	a. As per approved drawing and specifications.
6.	Exterior Walls	<p>Two coats of weatherproof paint (Berger/Nerolac/Asian Paints or equivalent) over following coats:-</p> <ul style="list-style-type: none"> a. One coat of 15mm thick cement plaster. b. Two coats of putty (JK/Birla/Brison make or equivalent) of minimum 2mm of thickness. c. One coat of Primer (Weather Coat) (Berger/ Nerolac/ Asian paints or equivalent)
7.	Interior Walls (Except toilet wall)	Two coats of emulsion paint

		<p>(Berger/Nerolac/Asian paints or equivalent) over following coats:-</p> <ol style="list-style-type: none"> One coat of 15mm thick cement plaster. Two coats of putty (JK/Birla/Brison make or equivalent) of minimum 2mm of thickness. One coat of white primer (water thin-able/solvent thin-able) (Berger/Nerolac/Asian Paints or equivalent)
8.	Waterproofing (in toilet walls roofing and chajjas)	<p>Supplying, mixing, laying and applying the following waterproofing systems over Raft slabs, Roof slabs, Terraces etc. including curing complete as specified and directed by the Department at all levels.:</p> <ol style="list-style-type: none"> 1mm thick single coat of Master Crete M-81 of Choksey Chemicals /Dr. Sealkit Sealcrete (Asian Chemicals)/ mixed with cement in the ratio 1:2 as a prime coat. 3mm thick Polymer modified mortar - Cement sand mortar (in prop 1:3) mixed with Master Crete M-81/Dr. Sealkit Sealcrete (Asian Chemicals) @ 15% by weight of cement. 1mm thick coat of Master Crete M-81 /Dr. Sealkit Sealcrete (Asian Chemicals) mixed with cement in the ratio 1:2 as final coat.
9.	Toilet Walls	<ol style="list-style-type: none"> Waterproofing Ceramic wall tiles of thickness not less than 8mm and size 300mm x 450mm over cement mortar bed 10mm thick in prop 1:3 (1 cement : 3 Coarse sand). Height = 2.1m
10.	Ceiling	<ol style="list-style-type: none"> 10mm cement plaster over cement mortar of 1:4 Two coats of putty (JK/Birla/Brison make or equivalent) of minimum 2mm of thickness. Two coats of emulsion paint (Berger/Nerolac/Asian paints or equivalent)
11.	Roof	<ol style="list-style-type: none"> Waterproofing Grading roof for water proofing treatment with Slope:- 1:50 (1/4 th inch per ft) (minimum thickness should be 25mm) in cement mortar proportion 1:2:4 (1cement:2coarse sand:4 graded stone aggregates 10-20mm nominal size) mixed

		with Dr Fixit Roofseal Waterproofing Compound.
12.	Doors, Windows and ventilators (except the toilet area)	<ul style="list-style-type: none"> a. Coloured Anodised Aluminium extruded sections as per IS 733 and IS 1285 for aluminium doors, sliding windows and sliding/hinged ventilators. b. Minimum thickness of aluminium section = 2mm c. Thickness of Glass in windows and ventilators: 5mm thick clear glass. d. The windows should be of sliding type. (W1= 3 Panel 3 track, W2= 3 panel 3 track) e. Nylon window Gaskets should be provided. f. Providing, fitting and fixing anodised aluminium framed glazed doors with anodised aluminium frame made of 100mm x 45mm x 2.5mm section with door style of size 88mm x 45mm x 2.5mm, top rails 50mm x 45mm x 2mm lock rails 100mm x 45mm x 2mm and bottom rails 100mm x 45mm x 2.5mm fitted with glazing clip, special type nylon gasket complete including hydraulic floor spring, pivot, tower bolt in each leaf, aluminium door handle, lock, angles, cleat etc complete as specified and directed by the department at all levels. The door shutter should be 5mm thick frosted glass and 12mm thick prelaminated particle board. (For D1)
13.	Doors, Windows and ventilators (toilet area)	<ul style="list-style-type: none"> a. UPVC frame (50mm x 60mm) and solid core PVC flush door 40mm thick including all fittings and fixings as approved by the Site Engineer.(For D2) b. Windows should be as per other rooms with 5mm thick frosted glass(W3= 2 panel 2 track)

ELECTRICAL WORKS (for Security Booth)

<u>S. No.</u>	<u>Item Description</u>	<u>Room</u>	<u>Start Point</u>	<u>End Point</u>	<u>Quantity (no. of lines) for one unit</u>
1.	Wiring for drawing sub-main line with P.V.C insulated single core including	Main Room	Distribution Box/MCCB	Main Room Switchboard	1

	earth continuity in recessed PVC conduit pipe wiring system. . With 3 x 4 sq. mm + earth continuity with 2x2.5 sq. mm cable in 25mm dia. 2 mm thick/ heavy rigid PVC IS:9537.				
<u>2.</u>	Wiring for drawing sub-main line with P.V.C insulated single core including earth continuity in recessed PVC conduit pipe wiring system. With 3 x 2.5 sq. mm. + earth continuity with 2x1.5 sq. mm. cable in 25 mm. dia. 2mm thick/ heavy rigid PVC IS: 9537 Part - III conduit.	Main Room	Distribution Box/MCCB	Main Room Switchboard	1
		Toilet	Main Room Switchboard	Toilet Switchboard	1

S.No.	Item Description		Quantity (for 1 unit)
1.	(i) PVC insulated copper wiring for fan/light and other electrical equipments including 6 Amp flush type switch/ Switch board, ceiling rose, etc. d) 2 x 2.5 sqmm	Light	5 points
		Ceiling fan	2 points
		Exhaust fan	1 points
	(ii) (i) PVC insulated copper wiring wiring to a 5pin 6 Amps plug point 2.5 sqmm recessed.		4 points
	(iii) (i) PVC insulated copper wiring to a 5pin 16 Amps plug point 4 sqmm recessed.		2 points
2.	Supplying, fitting and fixing of LED light of 12 watt including necessary fittings and accessories complete in all aspects as per the direction of AEGCL. (PHILIPS/WIPRO/BAJAJ/Havells/HPL/SOLAR/JAQUA R make)		4 no.
3.	Supplying including fitting fixing of following A.C. Ceiling fan complete with all accessories like down rod, canopy etc. of following sweeps with making necessary		1 no.

	connection as approved by the Deptt.)as required complete and as directed by the Department [With regulator] Premium model 1400 mm Sweep. (ORIENT PSPO make) /Premium model 1400 mm Sweep SS-390 Deco. Havells make)		
5.	Supplying including fitting fixing of following A.C. Exhaust fan in the existing hole on the wall of following sweeps with making necessary connection as approved by the Deptt.)as required complete and as directed by the Department. High Speed 225 mm sweep (ORIENT make), Trans Air 225 mm sweep (Crompton make), Ventil Air DX 250 mm sweep Louver type (Havells make)		1 no.
6.	DISTRIBUTION BOX		
	Supplying with fitting and fixing MCCB incomer and MCB outgoing sheet steel, phosphatised, powder painted single door surface mounting vertical TPN MCB DB. 4 way TPN (4+12) single door		1 no.
7.	EARTHING		
	Supply, installation & testing of G.I. earth station with perforated 40 mm dia and 4.50 Metre long heavy duty G.I. pipe with necessary 40 mm dia. G.I. Fittings such as Socket, Tee, elbow, nipple and 50 mmx40 mm G.I. reducing socket for funnel including locking arrangement 300 mmx300 mmx6 mm hinged cover C.I. earth plate complete with digging of earth pit, construction of brick chamber and plastering of both inner & outer surface of wall as specified and directed by the deptt .		1 job
	Extra for using salt (5 K and Charcoal (64 K in pipe Earth Station pit to provide low impedance ground in location of high soil resistivity as and when required and specified by the Deptt.		

NOTE: All wirings shall be recessed(concealed)

SANITARY WORKS (for Security Booth)

S.No.	Item description	Quantity
1.	Supplying, fitting and fixing PVC pipes of 6 kg/cm ² (Supreme/Prince) or other ISI approved including joining, fitting and fixing with clamps etc. as necessary complete at all levels including below G.L. as directed and specified (for rain water outlet pipeline from terrace till the drainage inlet) of 110 mm dia in exposed surfaces or in trenches.	2 outlets
2.	Providing and fixing Chlorinated Polyvinyle Chloride (CPVC) Pipes, having thermal stability for hot and cold water supply including CPVC plain and brass threaded fittings i/c fixing the pipe with clamps at 1.00m spacing. This includes jointing the pipe - (i) CPVC pipe with CPVC fittings (using SUPREMRE/PRINCE brand pipe)	As required and directed by the Site

	(a) 15mm dia OD (b) 20mm dia OD (c) 25mm dia OD (d) 40mm dia OD (e) 75mm dia OD	Engineer
3.	Providing fitting and fixing vitreous water closet squatting pan (Indian type W.C. Orissa pattern) with all fittings and fixtures complete including cutting and making good to the walls and floors wherever required including flushing cistern. White coloured of Jaquar make.	1 no.
4.	Supplying fitting and fixing CP bib cock 15 mm dia of approved brand as directed and specified. Jaquar make:	
	(i) 2-way bib cock with wall flange (long body)	1 no.
	(ii) CP bibcock with wall flange (long body)	1 no.
5.	Supplying and fitting fixing C.P. pillar cock of 15mm dia of approved brand as specified and directed. Jaguar make:-	
	a) C.P. Long neck	1 no.
6.	Supplying, fitting and fixing stop-cock of approved brand of size as mentioned and specified. Jaguar make.	
	(i) C.P. stop cock	2 no.
7.	Providing, fitting and fixing pedestal type vitreous China wash basin including all necessary fittings.	
	(i) Pedestal Basin of Jaguar make	1 no.
8.	Providing, fitting and fixing C.P. towel rail complete as directed and specified. Jaguar make	
	(i) 600 mm long	1 no.
9.	Providing, fitting and fixing CP Soap tray/ soap dish complete as directed and specified. Jaguar make	
	(i) Continental	2 no.
10.	Providing, fitting and fixing PVC cowel of ISI make complete as directed and specified including all fittings and fixings.	
	(i) 75mm dia PVC cowel of ISI make	1 no.
11.	Providing, fitting and fixing C.I. grating to the floors complete as directed and specified.	
	(i) 110mm dia	2 each
12.	Providing, fitting and placing in trench of Hume pipe septic tank of capacity 10 users including earthwork in excavation/backfilling, all necessary pipings as directed by Site Engineer.	1 no.
13.	Sintex Water Tank (250L capacity)	1 no.

SPECIFICATIONS FOR GATE

ELECTRICAL WORKS (FOR GATE)

S.No.	Item Description	Quantity (for 1 unit)
1.	PVC insulated copper wiring for fan/light and other electrical equipments including 6 Amp flush type switch/ Switch board, ceiling rose, etc.	As required and approved by Site Engineer.

	a) 2 x 2.5 sqmm	
2.	Supply and laying of following size PVC/XLPE insulated and PVC sheathed 1.1 KV G Solid Aluminium conductor up to 10 sq mm balance stranded conductor, XLPE Insulated, cores laid up, PVC tape inner sheathed, Armour (Aluminium for single core up to 70 sq mm balance Aluminium strip, Galvanised for cables up to 2x10 sq mm.3x10 sq mm,4x6 sq mm balance all galvanised steel strip) , extruded PVC Type ST2 sheathed, 650/1100V grade as per IS 7908(Part 1) 1988 armoured U.G. cable U.G. cable laid in ground/partially in air (as required for termination over ground including excavation of cable trench up to depth of 75cm, refilling, protective brick covering, Sand cushioning etc complete handling of surplus spoil, debris et to proper place as specified and directed by the depts. (Nicco/ Havells/ RPG/CCI/Polycab/Gloster/ Finolex make) . 2 Core A2XWaY A2XFaY	As required and approved by Site Engineer.
	a) 4.00 Sq.mm 2 Core armoured U.G. cable	

NOTE: The wirings for the lamps in the gate on the top of the columns shall be recessed(concealed) using PVC pipes running through the column.

SPECIFICATIONS FOR INTERLOCKING PAVER BLOCK ROAD

1. **Preparation of Subgrade and Earthen Shoulders:-** Preparation and Construction of subgrade and earthen shoulders with approved material obtained from borrow pits with all lifts and leads, transporting to site, spreading, grading to required slope and compacted to meet all necessary requirements as per technical specifications and as directed by the Site Engineer.
Width of earthen shoulder: 500mm on both sides.
2. **Compacting Original Ground:-** Compacting original ground supporting embankment Loosening, Levelling and Compacting original ground supporting embankment to facilitate placement of first layer of embankment, scarified to a depth of 150 mm, mixed with water at OMC and then compacted by rolling so as to achieve minimum dry density as per standard specifications for embankment construction.
3. **Granular Sub Base:-** Construction of granular sub-base by providing well graded material, spreading in uniform layers with motor grader on prepared surface, mixing by mix in place method with rotavator at OMC, and compacting with smooth wheel roller to achieve the desired density and all other specifications as per directions of Site Engineer.
a) For Grading I Material (200 mm thick layer)
4. **Water Bound Macadam:-**
WBM Grading 1 Using stone screening Type-A 13.2 mm for Gr.I: Providing, laying, spreading and compacting stone aggregates of specific sizes to water bound macadam specification including spreading in uniform thickness, hand packing, rolling with three wheel 80-100 kN static roller in stages to proper grade and camber, applying and brooming, stone screening/binding materials to fill-up the interstices of coarse aggregate, watering and compacting to the required density Grading 1. The WBM should be provided in two layers

of 75mm each and each layer should be properly compacted.

5. **Stone Crusher Dust:-** Supplying and stacking of stone crusher dust finer than 3mm with not more than 10% passing 0.075 sieve to be spreaded over the interlocking paver blocks as per the direction of the Site Engineer.
6. **Interlocking Paver Block:-** Providing SUN ROCK CTS/DEVI paver block/ tiles of concrete grade M40 of approved quality, size, shape of specified thickness over a leveling, bedding layer of 30mm compacted sand over a base course of WBM or PCC (Base course to be paid seperately) including cutting where necessary finished with spreading, sweeping jointing sand and compacting the pavers using vibrating compactor as specified and directed. (inclusive of carriage)
Thickness:-**80 mm.**
7. **Plain Cement Concrete Works (for kerb):-** Plain cement concrete works with coarse aggregate of sizes 13mm to 32mm in foundation bed for footing steps, walls, brick works etc. as directed and specified including dewatering if necessary, and curing complete (shuttering where necessary shall be measured and paid separately).
(a) In prop 1cement: 1.5 sand :3 coarse aggregate by volume
Size of kerb: 200mm x 300mm

Appendix-1

COVERING LETTER (ON THE APPLICANT'S LETTER HEAD)

To,

The Chief General Manager (PP&D),
Assam Electricity Grid Corporation Limited
Bijulee Bhawan, Paltanbazar, Guwahati-01.

Sub: Civil works at 132kV Gauripur Grid Substation related to Construction of 132kV Railway Traction Bay.

Ref: NIT No. AEGCL/MD/TL-76/PP&D/Traction Bay/IRCON/Gauripur/2023/Civil/03
Bid No. AEGCL/MD/TL-76/PP&D/Traction Bay/IRCON/Gauripur/2023/Civil Bid

Sir,

Having examined the terms & conditions, technical specifications, detailed items of work etc. as well as acquainting myself/ourselves with site of work, surroundings to get the required materials etc. I am/we are to submit herewith my/our tender for the above-mentioned work. My/our rates are quoted as per the specification laid down in the schedule of items of work, considering cost of design & preparation of structural drawing, materials, labours, haulage, taxes, royalty etc.

I /We clearly understand that all materials, tools and plants, machineries, labours, haulage etc. required in the work shall have to be arranged by me/us from my/our own resources in the events of allotment of the work to me/us.

I /We also clearly understand that in the event of acceptance/approved of my/our tender, the work shall have to be executed strictly as per specifications and the same shall have to be completed in all respects within the stipulated time failing which I am/We are liable to be penalized as per rules laid down in Tender document as well as agreement thereof.

Appendix-2
PROFILE OF THE BIDDER

Sl. No.	Particulars	To be filled by Bidder
a)	Name of the Bidder	:-
b)	Registration with Memorandum of Association	:-
c)	Financial statements for last 3(three) years (CA/CMA certified)	
d)	PAN	:-
e)	GST Registration number	:-
f)	Employees Provident Fund	:-
g)	Employees State Insurance Certificate	:-
h)	Labour License registration	:-
i)	Bank Solvency Certificate indicating the amount	:-
j)	Income Tax Return (for the last three years)	
k)	Date of Establishment/ Incorporation	:-
l)	Postal Address	:-
	House No.	:-
	Lane	:-
	Street	:-
	Town/Village	:-
	Post Office	:-
	P.S.	:-
	District	:-
	Pin code	:-
m)	Telephone Number	:-
	Mobile No.	:-
	E-Mail Address	:-
	Website	:-
n)	Name(s) of the Owners / Directors/Partners	:-
o)	Name of the Banker with Address and Telephone Number	:-
p)	Contact Person Details (Furnish here name of that person with whom AEGCL may get in touch for more information or clarifications)	Name:- Designation:- Mobile Number:- Email Address:-

Note: Bidder may attach additional sheets, if required.

Appendix-3

WORK EXPERIENCE OF THE BIDDER

- a) **The bidder (single entity / each JV partner) shall have experience (as sole or partner in a JV) of having successfully completed similar works during the last 3 years (as on bid submission deadline) of value not less than the estimated amount.**

Note: “Similar work” is defined as work of construction of RCC building for Govt. Department or PSUs only.

- (a) If the nature of work and value differs from the above stated conditions, it will not be considered while evaluation of technical qualification.
- (b) Work order along with work completion certificate are to be mandatorily attached for technical bids to be responsive.

Name of work	Nature of Work	Executed Amount	Starting Date	Completion Date

- b) Bidders must compulsorily submit work order and work completion certificate issued from Govt Department/reputed PSUs satisfying the above-mentioned work experience criteria for technical qualification. Moreover, AEGCL reserves the right to scrutinise any work order/work completion certificate submitted by the bidders with issuing authority and if any abnormalities are observed in the same, their bids will be rejected.

Note:

1. Bidder has to attach additional sheets, if required.
2. Bidder have to furnish necessary work order copies for technical evaluation of experience.

Form FIN - 1: Financial Situation

Each Bidder must fill in this form

Financial Data for Previous 3 Years [Rupees]		
Year 1:	Year 2:	Year 3:

Information from Balance Sheet

Total Assets			
Total Liabilities			
Net Worth			
Current Assets			
Current Liabilities			

Information from Income Statement

Total Revenues			
Profits Before Taxes			
Profits After Taxes			
<input type="checkbox"/> Attached are copies of financial statements (balance sheets including all related notes, and income statements) for the last three years, as indicated above, complying with the following conditions. <ul style="list-style-type: none"> • All such documents reflect the financial situation of the Bidder or partner to a JV, and not sister or parent companies. • Historic financial statements must be audited by a certified accountant. • Historic financial statements must be complete, including all notes to the financial statements. • Historic financial statements must correspond to accounting periods already completed and audited (no statements for partial periods shall be requested or accepted). 			

Common seal and signature of the authorized person:

Name:

Designation:

Date:.....

Form FIN - 2: Average Annual Turnover

Each Bidder must fill in this form

Annual Turnover Data for the Last 3 Years	
Year	Amount (Rupees)

Average Annual Turnover

The information supplied should be the Annual Turnover of the Bidder in terms of the amounts billed to clients for each year for contracts in progress or completed.

Common seal and signature of the authorized person:

Name:

Designation:

Date:.....

Form FIN – 3: Financial Resources

Specify proposed sources of financing, such as liquid assets, unencumbered real assets, lines of credit, and other financial means, net of current commitments, available to meet the total construction cash flow demands of the subject contract or contracts as indicated in Financial Qualification Criteria.

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

Common seal and signature of the authorized person:

Name:

Designation:

Date:.....

Form FIN- 4: Current Contract Commitments

Bidders 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.

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

Common seal and signature of the authorized person:

Name:

Designation:

Date:.....