

**GOVERNMENT OF MIZORAM
POWER AND ELECTRICITY DEPARTMENT
MIZORAM : AIZAWL**



TENDER DOCUMENT

NOTICE INVITING TENDER NO 5 OF 2017-2018

(Vide No. 996/1/17-E-in-C(PD)/9)

**Name of work : *Construction of Departmental Building
and Switch Yard Fencing at P&E Complex, Saiha.***

2017

Office of the Engineer-in-Chief, P&E Deptt : Aizawl, Mizoram

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SECTION - I

INSTRUCTION TO TENDERERS

1 DEFINITION OF TERMS

In the Contract, the following expressions shall, unless the context otherwise requires, have the meanings, hereby respectively assigned to them.

The '**Contract**' means the Documents duly signed by both the Parties, forming formal Agreement executed between Power & Electricity Department, Govt. of Mizoram, Aizawl and the Tenderer.

'**Contract Price**' shall mean the total sum of financial involvement named in or calculated in accordance with the provisions of the Contract Price.

'**Equipment/Materials**' shall mean and include all Machinery, Apparatus, Materials etc to be provided/supplied under the Contract by the Tenderer

'**F.O.T Price**' shall mean the cost of materials up to destinations as specified in the Contract. The cost should include GST, Freight, Insurance, any other Charges up to destination.

'**General Conditions**' shall mean these General Conditions of Contract.

'**Month**' shall mean a Calendar Month.

'**Owner**' means the Power & Electricity Department, Govt. of Mizoram, Aizawl.

'**Project**' refers to that mentioned under the headings of the Tender Specifications.

'**Owner**' shall mean the Engineer-in-Chief, Power & Electricity Department, Govt. of Mizoram, Aizawl.

'**Owner's Representatives**' shall mean any Person or Consulting Firm appointed and remunerated by the Owner to Supervise, Inspect, Test and Examine Workmanship on the Survey, Supply and erection works.

'**The Tenderer**' shall mean the Tenderer whose Bid has been accepted by the Owner and shall include the Tenderer's Executors, Administrators, Successors and permitted assigns approved by Engineer-in-Chief, Power & Electricity Department, Mizoram, Aizawl.

'**The Engineer/Engineer in charge**' shall mean the Engineer appointed by the Owner/Owner for the purpose of this Contract.

'Specification' shall mean the specification annexed to or issued with the General Conditions and shall include the Schedules and Drawings attached thereto as well as samples and patterns, if any.

'Ton' or **'Tonne'** used in these specifications shall mean Metric Ton, unless otherwise specified.

'Plant' is any integral part of the works, which has mechanical, electrical, electronic or chemical or biological functions.

'Contract Documents' shall mean the following documents which shall be deemed to form an integral part of this Contract.

- i) Contract Agreement, Instructions to Tenderers and all conditions of contract.
- ii) Tenderer's proposal including the letters or clarifications there to between the Tenderer and the Owner prior to award of Contract and
- iii) Equipment Specifications and Drawings. In the event of any conflict between the above mentioned documents, the Contract Agreement shall prevail.

'Works' means the materials and equipments to be supplied and the work to be executed as defined and set out in the specifications and includes all extra Work, Additions, Deletions, Substitutions and Variations ordered by the Engineer in accordance with the provisions of the Contract.

"Tenderer" means the Person, Firm or Corporation tendering for the works and His/Its Executors or Administrators or Successors or Assigns.

'Site' means the land on, under, in or through which the works are to be executed or carried out or such lands as may be agreed between the Owner and the Tenderer as being reasonable and necessary for the carrying out of the work.

'Sub Contractors' used here refer to a Party or Parties having a direct contract with the Tenderer and to whom any part of the Contract has been sublet by the Tenderer with the consent in writing of the Engineer-in-Chief.

'Labourer' shall mean all categories of labour engaged by the Tenderer, his Sub-Tenderers and his piece workers for work in connection with the execution of the work covered by the specifications. All these labourers will be deemed to be employed primarily by the Tenderer.

'Fiscal Year' shall mean a year beginning on 1st April and ending on 31st March in the succeeding year.

'Security Deposit' shall mean all deposits whether in Government Securities, Fixed Deposit Receipts or Bank Guarantees from Nationalized Banks of India, amounts deducted from interim payments or in any other form as specified by the Owner pledged to the Owner for due performance of the Contract and shall be adjusted in case of compensations or penalties and which may stand for future either in part or whole as the situation demands.

Letter of Intent means the letter from the Engineer-in-Chief conveying his intention to accept the Bid subject to reservations as may have been stated therein.

Letter of Award/Instruction to Commence means the letter from the Engineer-in-Chief notifying the formal acceptance of the Bid subject to the terms and conditions finally arrived at after conduction/negotiation (if any).

'Manufacturer' used herein refers to the party proposing to design, fabricate and manufacture as specified complete or in part.

'Authorised Representative' of the Owner shall mean any Authorised Officer of the Owner from the level of Junior Engineer and above.

2 Qualifying Requirement

Qualification of a bidder will be based on meeting the minimum criteria specified in below regarding the bidder's technical and financial position as demonstrated by the bidder's responses in Application.

- i) Average Annual Financial Turn over during the immediate last three (3) consecutive financial years should be 100% of the estimated cost for the works.
- ii) The bidder shall provide evidence satisfactory to the Owner of their capability and adequacy of resources to carry out the Contract effectively. Accordingly, bids shall include the following information:
 - (a) Copies of original documents defining the constitutions or legal status, place of registration and principal place of business; written power of attorney of the signatory of the "Applicant" to commit the plant.
 - (b) Firm's credentials including its past experience in executing similar type or works and also the list of ongoing projects.
 - (c) List of plant, machinery, manufacturing and testing facilities
 - (d) List of manpower with qualification and designations
 - (e) Quality assurance system with designated quality officer and Nos. of safety officer with PPE (personal protective equipment)

- (f) A Statement from banker indicating various fund based/non fund based limits sanctioned to the bidder and the extent of utilization as on date. Such statement should have been issued not earlier than three months prior to the date of submission of 'Application'. Wherever necessary P&E Deptt. may make queries with the bidder's bankers;
 - (g) The complete annual reports together with Audited statement of accounts of the company for last three years preceding the date of submission of the 'Application'.
- iii) The tenderer must have documentary proof of Contractor Registration under Mizoram PWD.

The Owner may assess the capacity and capability of the Bidder in Qualification Stage, to successfully execute the scope of work covered under the package within stipulated completion period. This assessment shall include

- (i) Document verification
- (ii) Details of works executed, works in hand, anticipated in future & balance capacity available for the present scope of work
- (iii) Details of plant and machinery, manufacturing/testing facilities, safety equipments, manpower and financial resources
- (v) Details of quality system in place
- (vi) Past experience and performance
- (vii) Customer feedback
- (viii) Banker's feedback etc.

P&E Department reserves the right to waive minor deviations if they do not materially affect the capability of the Bidder to perform the contract.

3 Instruction to Bidder

3.1.0: Bid documents can be obtained from Executive Engineer (Design & Monitoring), Office of The Engineer-in-Chief, Power & Electricity Department, Aizawl, e-mail - encdesigncell@gmail.com during working hours against formal request on payment of the cost of Bid Documents by way of Demand Draft from any Reputed Bank in favour of Engineer-in-Chief, Power & Electricity Dept. Payable at 'SBI Dawrpui Branch, Aizawl.'

3.2.0: Notwithstanding anything stated above, P&E Dept. reserves the right to assess the bidder's capability and capacity to perform the contract should the circumstances warrant such assessment necessary in its overall interest.

3.3.0: IT IS IMPERATIVE/MUST FOR EACH BIDDER TO SATISFY HIMSELF COMPLETELY OF ALL LOCAL CONDITIONS AND ASSESS ANY PROBLEMS RELATING TO THE MEANS OF ACCESS TO THE SITE. RIGHT OF WAY SHALL BE THE JOINT RESPONSIBILITY OF SUCCESSFUL BIDDER AND THE DEPARTMENT. A BIDDER SHALL BE DEEMED TO HAVE FULL KNOWLEDGE OF THE SITE (WHETHER HE INSPECTS OR NOT) ONCE THEY SUBMIT THE BID.

3.4.0: P&E Dept. reserves the right to accept or reject any or all the bids without assigning any reason whatsoever. P&E Dept. also reserves the right to pre-pone/postpone the above dates, split and distribute the work among more than one bidder without assigning any reason whatsoever. The bid documents are non-transferable and the cost of bid documents non refundable under any circumstances. P&E Dept. shall not be held responsible for any delay, loss, damage or non-receipt of request for issue of bid documents or bids sent by post.

3.5.0 This NIT in window form as published in newspapers may also be seen on the official website: www.tender.mizoram.gov.in. In case of any discrepancy between the documents downloaded from the website by the prospective bidder and the bidding documents (Hard copy) issued by P&E Dept. Officials, the latter shall prevail.

4 Earnest Money :

The Tenderer shall have to furnish Earnest Money for Rs. 0.61 lakh (Rupees sixty one thousand) only in the form of Bank Draft/Deposit at call from a nationalized bank pledged in favour of the Engineer-in-Chief, Power & Electricity Department in a separate cover super-scribing the Tender Specification, Number and Date of opening failing which the Tender will not be opened. Tribal Tenderers are allowed to submit Earnest Money for half the above amount. Manufacturers registered with NSIC, DGT&D and also SSI unit is exempted for payment of Earnest Money provided Registration Certificate is enclosed.

5 Validity

Tender should be kept valid for a period of 30(thirty) Calendar months from the date of opening of Tenders. Validity less than 30(thirty) Calendar months will be liable for rejection.

6 Examination of the Documents

The Tenderer shall examine General Conditions of Contract and Specifications to satisfy himself about all the Terms & Conditions and circumstances affecting the Contract Price. He shall quote price(s) according to his own views on these matters and understand that no additional allowances except as otherwise provided therein will be levied. The Owner shall not be responsible for any misunderstanding or incorrect information obtained by the Tenderer other than information given to the

Tenderer in writing by the Owner. The Tenderer shall give his/her signature with seal in each and every page of the Tender Document as an indication of his/her acceptance of the Terms and Conditions of the Tender.

In the Tender, no overwriting is allowed. Dated initial should be given by the Tenderer to all corrections, if any, and the Seal stamped on each. Rates should be quoted both in figures and in words as far as practicable.

5.1. Non-Tribal Tenderers should submit the following alongwith their Tenders:

- 1) Documents showing past experience.
- 2) Court fee stamp worth Rs.8.25

5.2. Tribal Tenderers should submit :

- 1) House Tax Payee Certificate
- 2) Documents showing past experience.

7 Reservation

The Owner reserves the right to accept or reject, partly or wholly, or all the tenders without assigning any reason thereof. Further, the Owner is not bound to select the lowest Tenderer to execute the work. Tenderers who do not accept General Conditions will be automatically rejected.

8 Variations - Additions and Omission

- i) The Tenderer shall not modify the materials and equipment after approval being obtained except directed in writing by the Owner.
- ii) The owner shall have the right to alter, amend, omit or otherwise vary the equipment by notice in writing to the Tenderer. The Tenderer shall carry out such variations except when said variations result on cost excess of 15% of the Contract Price, in which case the approval of the owner shall be obtained. The amount of such variations shall be determined in accordance with the rate specified in the Contract so far as they may apply and where such rates are not available. These will be mutually agreed between the Owner and the Tenderer.
- iii) If the owner shall make variations in any part of the materials, a reasonable notice shall be given in writing to the Tenderer. If in the opinion of the Tenderer such variation is likely to prevent or prejudice the Tenderer from fulfilling any of his obligations under the contract, he shall notify the Owner thereof in writing and the Owner shall decide whether or not the variation shall be carried out.

9 Pre-Bid meeting :

The intending bidder or his official representative is invited to attend a pre-bid meeting which will take place at the address, venue, time and date as indicated in the NIT. The purpose of meeting will be to clarify issues and to answer questions on any matter that may be raised at that stage. The intending bidder is requested to submit any questions in writing to the owner not late than one week before the meeting. Minutes of meeting, including the text of the question raised and the response given will be transmitted to the purchaser of the bidding documents. Non-attendance at the pre-bid meeting will not be a cause for disqualification of the bidder.

10 Special Instruction to Bidder :

Please read following instructions carefully before submitting your bid.

1. All the drawings, i.e. elevation, side view, plan, cross sectional view etc., in Soft Copy and manuals in PDF format, for offered item shall be submitted to the owner for approval. Also the hard copies as per specification shall be submitted.
2. Please note that the evaluation will be carried out on the strength of content of bid only. No further correspondence will be made.
3. One tender per tenderer (i.e. only one tender should be submitted by each tenderer).

SECTION - II GENERAL CONDITIONS OF CONTRACT

1. Scope of the Work

Bidders are requested to visit the site before participating in the tender. Scope of work of the Contract includes Engineering, Supply, Erection, Testing and Commissioning of all materials & equipment such as –

1.1. Sub-Station :

- i) Fencing of Sub-Station Switch Yard
- ii) Construction of Semi permanent Building for Type I Quarters
- iii) Construction of Semi permanent Building for Type II Quarters

The scope is on the basis of a single/JV Bidder's responsibility, completely covering supply construction materials and construction of building and fencing of all the equipment specified under the accompanying Technical Specifications including other services. It will include the following:

- a) A tentative BOQ has been made on Preliminary investigation / survey. However, the Contractor will make detail survey and will supply the materials as per detailed survey/investigation.
- b) Providing Engineering drawings related to construction details, structural details of both building & fencing.

The following items of work are specifically excluded from the Contractors scope of work unless otherwise specifically brought out.

- a) Building site selection
- b) Land acquisition for Construction works.

2. Manner of Execution

The Project will be executed on turnkey basis.

3. Price

Firm rates for materials should be quoted FOT Destination. Rate should be inclusive of all taxes, duties, insurance, freight, handling charges, etc. For erection, firm rates should be quoted inclusive of all taxes.

4. Terms of Payment

- i) The Divisional Officer can sanction the secured advance upto an amount not exceeding 90% of the value of non-perishable item as assessed by the engineer-in-charge. They should be made from his bill for work done as the materials are used, the necessary deductions being made whenever the items of work in which they are used are billed for. Payment of such advance should be made only on the certificate of concerned Sub-Divisional Officer that:
 - a) The quantity of materials for which the advance is to be made have actually brought to the site

- b) Full quantity of the materials for which advance is to be made are required by the contractor for use on items of works for which rates for finished work have been agreed upon
- c) The quality of materials is as per the specification.
- ii) 100% Payment for the Works shall be done for works done as per actual measurement on the basis of R.A. Bills to be raised against final construction.

5. Mode of Payment

Payments shall be made promptly by the Owner at the receipt of the Tenderer's invoice, complete in all respects and supported by the requisite documents and fulfillment of stipulated conditions, if any. All the payment shall be released to the Contractor directly.

All invoices under the Contract shall be raised by the Tenderer on "the Owner" and all payments shall be made to the Contractor by the Owner.

6. Target Date of Completion

The work should be completed within 12 months from the date of signing Contract Agreement.

7. Extension of Time

If the supply of work is delayed due to any reasons, the Tenderer shall without delay give notice to the Owner in writing of his claim for an extension of time within 30 days of Scheduled Date of Delivery/Completion. The owner on receipt of such notice may agree to extend the Contract Completion Date as may be reasonable but with Liquidated Damages. However, in the case of Force Majeure or in any such cases beyond the control of the Tenderer and are accepted as such by the owner, the Completion Date may be extended without Liquidated Damages.

8. Completion of the work

The work shall be completed to the entire satisfaction of the Engineer and in accordance with the time mentioned in the Contract. As soon as the work under the Contract is substantially completed as a whole, the Tenderer shall give notice of such substantial completion to the Engineer along with an understanding to complete any outstanding work. The Engineer, within 30 days or receipt of such notice, shall inspect the work and shall satisfy himself that the Work(s) has been substantially completed in accordance with the provisions of the Contract and then issue to the Contractor a Certificate of Completion indicating the date of completion. If the Engineer notice that there are defects in the works or the works are not considered to be substantially completed, he shall issue a notice in writing to the Tenderer to rectify/replace the defective work or any part there of or

complete the work, as the case may be, within such time as may be notified and after the Tenderer has complied with as aforesaid and gives notice of completion, the Engineer shall inspect the work and issue the Completion Certificate in the same manner as the aforesaid.

No Certificate of Completion shall be issued and no work shall be considered to be completed unless the Tenderer shall have removed from the work site and/or premises all his belongings/temporary arrangements made/brought by him for the purpose of execution of the work and cleared the site and/or premises in all respects and made the whole of the site and/or premises fit for immediate occupation/use to the satisfaction of the Engineer. If the Tenderer fails to comply with the above mentioned requirements on or before the date of completion of the work, the Engineer may, as he thinks fit, at the risk and cost of the Tenderer, fulfill such requirements and remove/dispose off the Tenderer's belongings/temporary arrangements as aforesaid and the Tenderer shall have no claim in this respect except for any sum realized by the sale of the Tenderer's belongings/temporary arrangements, less the cost of fulfilling the said requirements and any other amount that may be due from the Tenderer, should the expenditure on the aforesaid account exceed the amount by sale of such Tenderer's belongings/ temporary arrangements then the Tenderer shall, on the demand of the Engineer, pay the amount of such excess expenditure.

9. Taking over

The work shall be taken over from the Tenderer by the Owner after he successfully completed.

10. Replacement

If the materials/equipments or any portion thereof is damaged or lost before taking over of the work by the Owner, the replacement of such materials/equipment shall be effected by the Tenderer within a specified time to avoid unnecessary delay of completion of works. The replacement of materials/equipment damaged shall be made free of cost by the Tenderer.

11. Rejection

In the event that any portion of the works carried out by the Tenderer is found below standard or otherwise not in conformity with the requirements of the Contract Specifications, the owner shall request the Tenderer in writing to rectify the same. The Tenderer on receipt of such notification shall rectify the work free of cost. If the Tenderer fails to do so, the owner may:

- a) at its option replace or rectify such defective work and recover the extra cost so involved from the Tenderer plus 15% of the defective work
- b) terminate the Contract.

12. Inspection & Testing During Manufacture

- i) The Owner's representative shall be entitled at all reasonable times during manufacture to inspect, examine and test on the Tenderer's premises the material, manpower and workmanship of all equipment to be supplied under this Contract by the Tenderer.
- ii) The Tenderer shall give the owner's Representative thirty (30) days notice in writing of the date and the place at which the materials and equipment will be ready for testing.
- iii) Inspection and Testing will be at the cost of Tenderer including providing assistance for labour, materials, electricity, fuel and instrument as may be required or as may be reasonably demanded by the owner's Representative to carry out such tests efficiently.
- iv) When the equipment/materials has passed the specified tests, the owner's Representative shall furnish a Certificate to his effect in writing to the Tenderer. The Tenderer shall provide reasonable copies of the Test Certificates to the Owner.

13. Force Majeure

The term '**Force Majeure**' shall herein mean Riots (other than among the Tenderers Employees), Civil Commotion (to the extent not Insurable), War (whether declared or not), Invasion, Act of Foreign Enemies, Hostilities, Civil War, Rebellion, Revolution, Insurrection, Military or Usurped Power, Damage from Aircraft, Nuclear Fission, such as Earthquake (above 7 Magnitude on Richter Scale), Lightning, Unprecedented Floods, Fires not caused by Tenderer's negligence and other such causes over which the Tenderer has no control and are accepted as such by the Owner, whose decision shall be final and binding.

In the event of either party being rendered unable by Force Majeure to perform any obligation required to be performed by them under this Contract, the relative obligation of the Party effected by such Force majeure shall be treated as suspended for the period during which such Force Majeure cause lasts, provided the Party alleging that it has been rendered unable as aforesaid, thereby shall notify within 10 days of the alleged beginning and ending thereof giving full particulars and satisfactory evidence in support of such cause. The Owner shall verify the facts and grant such extension or as the case may be as fact justify.

14. Payment due from the Tenderer

All cost and damages for which the Tenderer is liable to the owner including a recovery of advance will be deducted by the owner from any money due to the Tenderer under the Contract.

If for any unavoidable reasons, payment is delayed, the Tenderer shall neither charge any interest for the delay in payment nor the Tenderer shall stop the contract work on account of this.

15. Performance Bond or Bank Guarantee for Security

At the time of signing the Contract, the Tenderer shall provide the owner with Security Deposit for a Performance Bond or a Performance Bank Guarantee for an amount of 5% (five percent) of the total accepted value of the works. This Bond or Guarantee will be released at the end of the completion of works and on written request by the Tenderer. Form of Bank Guarantee attached.

16. Delay in Completion

If the Tenderer shall fail to complete the work within the time specified in the Contract Agreement or extension of time without Liquidated Damage, the Owner shall recover from the Tenderer as liquidated damages a sum of one half of one percent (0.5 %) of the Balance Contract Value, for each week (7days) of delay from the expiry of Scheduled Date of Completion. The total Liquidated Damages shall not exceed 10% (ten percent) of the balance contract value to be finalized by the purchaser.

17. Tenderer's Default & Liability

- i) The Owner may upon written notice of default to the Tenderer terminate the Contract in circumstances detailed here under:
 - a) If in the judgement of the Owner, the Tenderer fails to complete the work within the time specified in the contract agreement or within the period for which extension has been granted by the Owner to the Tenderer.
 - b) If in the judgement of the Owner, the Tenderer fails to comply with any of the other provisions of the Contract.

18. Termination of the Contract

- i) If the Tenderer finds it impracticable to continue operation or if owing to Force Majeure reasons or to any cause beyond his control, the owner finds it impossible to continue operation then prompt notification in writing shall be given by the party affected to the other.

- ii) If the delay or difficulties so caused cannot be expected to cease or become avoidable or if in operations cannot be resumed within 6(six) months then either parties shall have the rights to terminate the Contract upon 10(ten) days written notice to the other. In the event of such termination of the Contract, payment to the Tenderer will be made as follows :
 - a) The Tenderer shall be paid for all materials and equipment approved by the Owner's representative and for any other legitimate expenses due to him.
 - b) If the owner Terminates the Contract owing to Force Majeure or due to any cause beyond his control, the Tenderer shall additionally be paid for any work done during the said 6 (six) months period including any financial commitment made for the proper performance of the Contract and which are not reasonably defrayed by payments under (a) above.
 - c) The owner shall also release all Bond and Guarantees at its disposal except in cases where the total amount for payment made to the Tenderer exceeds the final amount due to him in which case the Tenderer shall refund the excess amount within 60(sixty) days after termination and the owner thereafter shall release all Bonds and Guarantees. Should the Tenderer fail to refund the amounts received in excess within the said period, such amounts shall be deducted from the Bonds or Guarantee provided.
- iii) On Termination of the Contract for any cause the Tenderer shall see to the orderly suspension and termination of operations, with due consideration to the interest of the Owner with respect to completion, safeguarding or storing of equipment produced for the performance of the contract and the salvage and resale thereof.

19. The Engineer shall, on such Termination of the Contract, have Powers

- i) To take possession of the site of Work under the Contract as well as the Land/Premises allotted to the Tenderer for his preliminary, enabling and Works and
- ii) To take possession of any Materials, Constructional Plant, Equipment, Implements, Stores, Structures etc thereon.

The Engineer shall also have powers to carry out the incomplete Work by any means or through any other Agency or by himself at the risk and cost of the Tenderer. In such a case, the value of the Work done through such agencies shall be credited to the Tenderer at his Contract prices and the

Tenderer shall pay the excess amount, if any incurred in completing the Work as aforesaid as stipulated herein.

19.1. On termination of the Contract in full or in part, the Engineer may direct that a part or whole of works, Structures be removed from the site of the Work as well as from the land/premises allotted to the Tenderer for his preliminary, enabling and ancillary Works, within a stipulated period. If the Tenderer shall fail to do so within the period specified in a notice in writing by the Engineer, the Engineer may cause them to be sold, the net proceeds of such sale to the credit of which shall be released after completion of Works and settlement of amounts under the Contract.

19.2. If the expenses incurred or to be incurred by the Department for carrying out and completing the incomplete Work or part of the same, as certified by the Engineer, are in excess of the value of the Work credited/to be credited to the Tenderer, the difference shall be paid by the Tenderer to the Department. If the Tenderer fails to pay such an amount, as aforesaid, within thirty days of receipt of notice in writing from the Engineer, the Engineer shall be empowered to recover such amount from any sums due to the Tenderer on any account under this or any other Contract or from his Security Deposit or otherwise.

19.3. Also, the Engineer shall have the right to sale any or all of the Tenderer's unused materials, constructional plant, equipment, implements, temporary building/structures etc. and apply the proceeds of sale thereof towards the satisfaction of any sums due from the Tenderer under the Contract and if thereafter there maybe any balance outstanding from the Tenderer, the Engineer shall have powers to recover the same in accordance with the provisions of the Contract.

19.4. All decisions/actions of the Engineer under this clause as aforesaid shall be conclusive and binding on the Tenderer.

23. Bankruptcy

If the Tenderer shall become Bankrupt or have a receiving order made against him or compound with his Creditors, or being a Corporation commence to be wound up, not being a voluntary winding up for the purpose only of amalgamation or reconstruction, or carry on its business under a receiver for the benefit of its Creditors or any of them the Owner shall be at liberty:-

- a) to Terminate the Contract forthwith by notice in writing to the Tenderer or to be liquidator or receiver or to any person in whom the Contract may become vested and to act in the manner provided in Clause 19.0 as though the last mentioned notice has been the notice referred to in such Article and the materials and equipment has been taken out of the Tenderer's hand.
- b) to 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 upto an amount to be determined by the Owner.

24. Contingent Fees

The Tenderer warrants that he has not employed any person to solicit or secure the contract upon any agreement for a Commission, Percentage, Brokerage or Contingent Fee, breach of this warranty shall give the Owner the right to cancel the Contract or to take any other measure as the Owner may deem fit. The warranty does not apply to commissions payable by the Tenderer to Established/Commercial or Selling Agent for the purpose of securing business.

25. Non-Assignment

The Tenderer shall not assign or transfer the contract or any part thereof without the prior approval of the Owner.

26. Certificate not to Affect Rights of the Owner of the Tenderer

The issuance of any certificate by the Owner or any extension of time granted by the Owner shall not prejudice the rights of the Owner in terms of the contract nor will this relieve the Tenderer of his obligations for due performance of the Contract.

27. Settlement of disputes

- i) Except as otherwise specifically provided in the Contract, all disputes concerning question of fact arising under the Contract shall be decided by the Owner subject to a written appeal by the Tenderer to the Owner, these decisions shall be final to the Parties hereto.
- ii) Any disputes or differences including those considered as such by only one of the Parties arising out of or in connection with this Contract shall be to the extent possible settled amicably between the Parties. If amicable settlement cannot be reached then all disputes issues shall be settled by Arbitration.

28. Arbitration

i) If at any time, any question, disputes or difference whatsoever shall arise between the Tenderer and the Owner upon or in relation to or in connection with this Contract, either of the Parties may give to the other notice in writing of the existence of such a question dispute or difference and the same shall be referred to two Arbitrators, one to be nominated by the Owner and the other to be nominated by the Tenderer or in case of such arbitration not agreeing, then to an Umpire to be appointed by the Arbitrator in writing, before proceeding with the reference and the decision of the Arbitrator or in the event of their not agreeing of the Umpire appointed by them, shall be final and binding on the Parties and the provision of the Indian Arbitration and Conciliation Act, 1996 and of the Rules there under and any statutory modifications thereof shall be deemed to apply and be incorporated in this Contract. Such a notice of the existence of any question, dispute or difference in connection with this contract shall be served by either party within 90 days of the issue of the Taking Over Certificate by the Owner, failing which all rights and claims under this Contract shall be deemed to have been forfeited and absolutely barred.

ii) Upon every or any such reference, the cost of and incidental to the reference and award respectively, shall be at discretion of the Arbitrators or in the event of their not agreeing of the Umpire appointed by them who, may determine the amount thereof or direct the same to be fixed as between solicitor and client, or as between Party, and Party shall direct by whom and to whom and in what manner the same shall be borne and paid.

iii) The work under this Contract shall, if reasonably possible, continue during arbitration proceedings, and no payments due from or payable by the Owner shall be withheld on account of such proceedings except to the extent which may be in dispute.

29. Jurisdiction

No legal proceedings shall be taken to enforce any claim and no suit rising out of any conflict shall be instituted except in a court of competent jurisdiction located within **MIZORAM**.

30. Language and Measure

All Documents pertaining to the Contract including Specifications, Schedule, Notice, Correspondence, Operating and Maintenance Instructions, Drawings, or any other writings shall be in English Language. The Metric System of measurement shall be used exclusively in this Contract.

31. Correspondence

- i) Any notice to the Tenderer under terms of the Contract shall be served by registered mail or by hand at the Tenderer's principal place of business.
- ii) Any notice to the Owner shall be served at the Owner's Principal office in the same manner.

32. Consignee and Paying Authority

Name of Work	Paying Authority	Consignee
Construction of Departmental building and switch yard fencing at P&E Complex, Saiha	Executive Engineer, Saiha Power Division	Sub-Divisional Officer, Saiha Power Sub-Division

33. Legal Addresses of the Parties

The addresses of the Parties to the Contract are as follows :

Owner : The Engineer-in-Chief,
Power & Electricity Department
Govt. of Mizoram, Aizawl.

Tenderer : _____

SECTION - III TECHNICAL SPECIFICATION

A. TECHNICAL SPECIFICATION OF CIVIL WORKS

1. GENERAL

The provisions of this section of specification shall only be applicable to the extent of scope of works indicated in Bid Proposal Sheet (BPS). The intent of specification covers the following:

- 1.1 Design, engineering, and construction of all works at sub-station. All civil works shall also satisfy the general technical requirements specified in other Sections of this Specification and as detailed below. They shall be designed to the required service conditions/loads as specified elsewhere in this Specification or implied as per National/International Standards.
- 1.2 All civil works shall be carried out as per applicable Indian Laws, Standards and Codes. All materials shall be of best quality conforming to relevant Indian Standards and Codes.
- 1.3 The Contractor shall furnish all design, drawings, labour, tools, equipment, materials, temporary works, constructional plant and machinery, fuel supply, transportation and all other incidental items not shown or specified but as may be required for complete performance of the Works in accordance with approved drawings, specifications and direction of Employer.
- 1.4 The work shall be carried out according to the design/drawings to be developed by the Contractor and approved by the owner based on Tender Drawings Supplied to the Contractor by the Owner. For all buildings, structures, foundations etc. necessary layout and details shall be developed by the Contractor keeping in view the functional requirement of the substation facilities and providing enough space and access for operation, use and maintenance based on the input provided by the Owner. Certain minimum requirements are indicated in this specification for guidance purposes only.
- 1.5 Contactor shall visit site to ascertain the amount of repair and strengthening of structures and foundations, dismantling and new construction of structures and foundations works are to be done before quoting. Contractor must furnish the design and drawings in support of the activities mentioned above that are to be carried out in the existing site.
- 1.6 The rate quoted by the bidder for all type of civil work shall be firm irrespective of the type of terrain and depth of filling. However, the Contractor shall quote according to the complete requirements.

2. GEOTECHNICAL INVESTIGATION

- 2.1 The Contractor shall perform a detailed soil investigation to arrive at sufficiently accurate, general as well as specific information about the soil profile and the necessary soil parameters of the site. So that

the foundation of the various structures can be designed and constructed safely and rationally.

- 2.2 A report to the effect will be submitted by the Contractor for Owner's specific approval giving details regarding data proposed to be utilized for civil structures design.
- 2.3 The Contractor should visit the site to ascertain the soil parameters before submitting the bid. The topography is uneven steeply sloping at few places requiring cutting and filling operations including slope stability and protection measures (if slopes encountered). Any variation in soil data shall not constitute a valid reason for any additional cost & shall not affect the terms & condition of the Contract. Tests must be conducted under all the critical locations i.e. Control Room Building. Tower locations, transformer etc.

3. SCOPE OF WORK

The scope of works for all Civil and structural works shall include preparation of Civil designs and approval thereof, supply of all approved materials, labour, plant and equipments, fixtures, fitting, erection, testing and all temporary and permanent works necessary for the satisfactory completion of the job in all respects including clearing and cleaning the site. The Contractor shall complete all these works so that each substation is handed over to the employer ready to use.

Brief scope of work for each substations/Sites is as given below :

- a) Check survey of substation areas and its surrounding upto main road, soil investigation, collection of necessary data for establishing the parameters for design of various switchyard fencing structure foundations as per site conditions.
- b) Site leveling building, fencing to the extent as marked in the respective plot plan and providing gates.
- c) Water supply and plumbing system including bore well survey / investigation, drilling and installation of tube/borewell with provision of pumping arrangement and storage tanks. Alternate arrangement shall be made from available local authority water supply scheme or any assured private well in case of failure of bore well within a one km.
- d) Peripheral barbed wire fencing with MS gates, wicket gate, cattle arresters. In case of some natural drain coming across the fencing proper protection for safety and free waterway to be ensured.
- e) 1 No Type-II Quarters for JE and 1 No type-I Quarters for Staff including Internal Electrification, plumbing system, sanitary wares etc of the building

- f) All other necessary works required for the completion of the job.

4. SITE PREPARATION

The contractor shall be responsible for proper leveling of plinth of the building as per layout and levels of site finalized during detailed engineering stage. The Contractor at his own cost shall make the layout and levels of all structure etc from the general grids of the plot and benchmarks set by the Contractor and approved by the Owner.

Earth Works:

This specification covers the general requirements of earthwork in excavation in different soils and strata including rock, site grading, filling in areas, including bringing excavated approved material from borrow pits, filling back around foundations and in plinths including consolidation, conveyance and disposal of surplus unwanted spoils as directed by Engineer and all operations covered within the intent and purpose of this specification.

All excavation work shall be carried out by the Contractor by mechanical equipments unless in the opinion of Engineer, the work involved and time schedule permits manual work.

All excavations shall be kept free of water. Grading the vicinity of excavations shall be controlled to prevent surface water running into excavated areas.

Site Drainage:

1. Adequate site drainage system shall be provided by the Contractor in a building. The Contractor shall obtain rainfall data and design the storm water drainage system to accommodate run off due to the most intense rainfall that is likely to occur over the catchments area in one hour period on an average of once in ten years. The surface of the site shall be sloped to prevent the ponding of water.

2. The maximum velocity for pipe drains and open drains shall be limited to 2.4m/sec and 1.8m/sec respectively. However, minimum non-silting velocity of 0.6m/sec shall be ensured. Longitudinal bed slope shall not be milder than 1 in 1000.

3. The drains shall be constructed using Brick masonry except at road crossings etc. where RCC pipe shall be used. The RCC pipe for drains and culverts shall be as per IS:456 and IS:783.

4. The Contractor shall ensure that water drains are away from the site area and shall prevent damage to adjacent property by this water. Adequate protection shall be given to site surfaces, roads, ditches, culverts, etc. to prevent erosion of material by water.

5. GATES AND BOUNDARY FENCING

The Gate frame shall be made of medium duty MS pipe conforming to relevant IS with welded joints.

The gates shall be fabricated with welded joints to achieve rigid connections. The gate frames shall be painted with one coat of approved steel primer and two coats of synthetic enamel paint.

Gates shall be fitted with approved quality iron hinges, latch and latch catch. Latch and latch catch shall be suitable for attachment and operation of pad lock from either side of gates. Hinges shall permit gates to swing through 180 degree back against fence. Gates shall be earthed by G I wire.

Gates shall be fitted with galvanized chain hook or gate hold back to hold gates open. Double gates shall be fitted with centre rest and drop bolt to secure gates in closed position.

Bottom of gates shall be set approximately 40mm above ground surface and necessary guiding mechanism shall be fitted.

The Contractor shall design and construct boundary fencing around substation area as per requirements. The boundary wall shall be of height 2.0M above the ground and shall be made of fencing net with an angle post 40x40x5mm column. The boundary Fencing post shall be painted with minimum two coats of synthetic enamel paint of approved make over one coat of primer.

Chain Link fence fabric in accordance to IS-2721

- | | | | |
|----|----------------------------|---|------------|
| 1. | Size of mesh | : | 75 mm |
| 2. | Nominal wire size | : | 4.0 mm dia |
| 3. | Width of chain link | : | 1800 mm |
| 4. | Class of zinc coating | : | medium |
| 5. | Zinc coated after weaving. | | |

Posts

Angle Section

- | | | |
|-----------------|---|-----------------|
| Intermediate | : | L 50 x 50 x 6mm |
| Straining posts | : | L 50 x 50 x 6mm |

All structural steel shall conform to IS: 2062 and shall be painted with a coat of approved steel primer and two coats of synthetic enamel paint.

The Chain Link fabric shall be fixed to the post at the top and bottom of the fence by welding/fixing 50 mm MS flat all through its length.

1. Contractor shall submit the fencing drawing Fence shall be installed along lines shown on approved drawings.
2. Intermediate posts shall be spaced 2.5 m apart measured parallel to ground surface.
3. Straining posts shall be installed at sharp changes in grade, at corners, at change of direction and where directed.

4. All corner post will have two-stay post and every tenth post will have a transverse stay post.
5. Posts shall be set in 1:2:4 plain cement concrete Blocks of minimum dimension 200 mm x 200 mm x 1800 mm deep Concrete work shall conform to relevant clause. Post shall be braced and held in plumb position and true alignment and elevation until concrete has set.
6. Fence fabric shall not be installed until concrete has cured a minimum of 7 days.
9. Proper earthing shall be done for fencing also.

6. Type-I Quarters for staff:

The scope for new Type-I quarters building includes the design, engineering and construction including anti-termite treatment, plinth protection, DPC of Building including sanitary, water supply, and electrification etc. The building is proposed to be constructed with Semi permanent framed structure with RCC columns, footings shall be provided. The superstructure shall be in Assam type building for walls. The plinth area of Quarters should not be less than 45 sqm and as per specified below:

S/N o	Description	Items of Work
1	FOUNDATIONS	Earthwork in hard soil
		RCC 1:3:6 Isolated footings
		Depth upto 1.50m below ground level
2	SUPERSTRUCTURES	RCC 1:2:4 columns 250x250mm upto skirting level joined with wooden post 100x100mm from skirting to roof. RCC 1:2:4 beams 250x200mm will be casted at plinth level for a maximum span of 3.65m. RCC slab shall be casted for toilet areas.
		External walls with 5mm thick ACP sheets on 4"x3" wooden frames.
		Internal partition with 5mm thick ACP sheets on 4"x3" frames.
		Toilet walls with half brick masonry in cement mortar 1:4
		Kitchen counter with RCC slab supported on brick support.
		Gutter and eaveboards etc.
3	DOORS & WINDOWS	Frames of Ist class local wood or equivalent
		Door shutters : Ist class local wood panelled or half glazed half panelled, internal doors panelled or flush doors

		Window and Ventilation shutters 35mm thick first class local wood with steel grills.
		Fittings - MS fittings
4	FLOORING & SKIRTING	PCC Flooring 1 : 2 : 4, and half brick Skirting, Stone Masonry for plinth wall
		Toilet floor with in situ terrazo, toilet skirting with white glazed dado 1.80m high
5	ROOFING	CGI sheet 0.63mm thick on 2nd class wooden truss
6	CEILING	Ceiling with 4mm thick ACP sheets on second class wooden frames with necessary beadings
8	FINISHING	Internal rooms with whitewashing.
		External walls with white washing.
		Doors, windows and wall frames- Synthetic enamel paint finish over wood and zinc chromate primer
9	SANITARY FITTINGS	Orissa type WC shall be used for common toilets. Low level flushing cistern shall be used. All fittings shall be CP fittings
10	WATER SUPPLY	PVC pipes medium class will be used for water supply pipes.

The design drawing of the building should be submitted by the successful tenderer for approval.

7. Type-II Quarters for JE:

The scope for new Type-I quarters building includes the design, engineering and construction including anti-termite treatment, plinth protection, DPC of Building including sanitary, water supply, and electrification etc. The building is proposed to be constructed with Semi permanent framed structure with RCC columns, footings shall be provided. The superstructure shall be in Assam type building for walls. The plinth area of Quarters should not be less than 68.08 sqm and as per specified below:

S/N o	Description	Items of Work
1	FOUNDATIONS	Earthwork in hard soil
		RCC 1:3:6 isolated footings
		Depth upto 1.50m below ground level
2	SUPERSTRUCTURES	RCC 1:2:4 columns 250x250mm upto skirting level joined with wooden post 100x100mm from skirting to roof. RCC 1:2:4 beams 250x200mm will be casted at plinth level for a maximum span of 3.65m. RCC slab shall be casted for toilet areas.
		External walls with 5mm thick ACP sheets on 4"x3" wooden frames.

		Internal partition with 5mm thick ACP sheets on 4"x3" frames.
		Toilet walls with half brick masonry in cement mortar 1:4
		Kitchen counter with RCC slab supported on brick support.
		Gutter and eaveboards etc.
3	DOORS & WINDOWS	Frames of Ist class local wood or equivalent
		Door shutters : Ist class local wood panelled or half glazed half panelled, internal doors panelled or flush doors
		Window and Ventilation shutters 35mm thick first class local wood with steel grills.
		Fittings - MS fittings
4	FLOORING & SKIRTING	PCC Flooring 1 : 2 : 4, and half brick Skirting, Stone Masonry for plinth wall
		Toilet floor with in situ terrazo, toilet skirting with white glazed dado 1.80m high.
5	ROOFING	CGI sheet 0.63mm thick on 2nd class wooden truss
6	CEILING	Ceiling with 4mm thick ACP sheets on second class wooden frames with necessary beadings
7	FINISHING	Internal rooms with whitewashing.
		External walls with white washing.
		Doors, windows and wall frames- Synthetic enamel paint finish over wood and zinc chromate primer
8	SANITARY FITTINGS	Orissa type WC shall be used for common toilets. Low level flushing cistern shall be used. All fittings shall be CP fittings
9	WATER SUPPLY	PVC pipes medium class will be used for water supply pipes.

The design drawing of the building should be submitted by the successful tenderer for approval.

8. WATER SUPPLY

- (i) Contractor shall make its own arrangement for construction water.
- (ii) The contractor shall carry out all the plumbing/erection works required for supply of water in control room building.
- (iii) The details of tanks, pipes, fittings, fixtures etc for water supply are given elsewhere in the specification under respective sections.

(iv) A scheme shall be prepared by the contractor indicating the layout and details of water supply which shall be got approved by the Owner before actual start of work including all other incidental items not shown or specified but as may be required for complete performance of the works.

(v) Bore wells and pumps for water supply are in the scope of contractor meeting the day-to-day requirement of the water supply.

(vi) If the water is supplied by Municipal corporation/Village authority then bore well for water supply purposes is not required to be carried out by contractor. Contractor shall also make necessary arrangement /formalities to receive water connection from the water supplier.

9. STATUTORY RULES

Contractor shall comply with all the applicable statutory rules pertaining to factories act (as applicable for the State), Fire Safety Rules, Water Act for pollution control etc.

Foundation system adopted by Bidder shall ensure that relative settlement and other criteria shall be as per provision in IS: 1904 and other Indian Standards

All building/construction materials shall conform to the best quality specified in CPWD specifications if not otherwise mentioned in this specification.

All tests as required in the standard field quality plans have to be carried out.

PRICE SCHEDULE

SL No	Items/ Description	Unit	Provisional Qty	Rate	Amount
1. Switch yard Fencing					
	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres. C) Very Hard Soil	Cum	29.475		
	Providing and laying in position reinforced cement concrete excluding cost of centering and shuttering, finishing and reinforcement in : (b) 1:2:4	Cum	2.10		
	Reinforced cement concrete work in walls including attached pillasters, columns, pillars, posts, abutments, retur walls, retaining walls, struts, buttresses, string or lacing courses, fillets etc upto floor five level excluding cost of centering shuttering etc complete. (b) 1:2:4	Cum	4.28		
	Reinforce cement concrete work in beams, suspended floors, roofs having slope upto 15 landings, balconies, shelves, chajjas, lintels, bands, window sills, stair cases, spiral stair cases, cantilevers upto floor five level excluding cost of centering shuttering etc complete with 1:2:4 (i cement : 2 coarse sand : 4 stone aggregate 20mm)	Cum	3.63		
	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete. (d) Hot rolled deformed bars.	Kg	1183.12		
	Centering and shuttering including strutting, propping, etc and removal of form works in -				
	(c) Column :	Sqm	81.00		
	d) Beam	Sqm	74.40		
	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering All work upto plinth level :				
	(b) 1:3:6 (1 cement : 3 course sand : 6 stone aggregate 40mm nominal size)				
	Plinth :	Cum	3.10		

	Deduct Column	Cum	-0.25		
	Total		2.85		
	Half brick masonry with first class brick in foundation and plinth in : (b) Cement mortar 1:4	Cum	102.60		
	1.8m high polysteel goat proof fencing with 2.4m angle iron posts 50x50x6mm size placed 2.0m apart embedded in cement concrete block 1:3:6 (1 cement : 3 sand : 6 stone aggregate) size 25x25x60cm fixing with nails and wire etc. including earthwork complete.	Rm	124		
	12mm cement plaster 1:4 (1 cement : 4 fine sand) Wall (both sides) :	Sqm	313.02		
	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc.in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead upto 50m and lift upto 1.5m.	cum	29.70		
	Applying priming coat with ready mixed primer of approved brand and manufacture on plaster surface. (b) Ready mix pink primer.	Sqm	272.80		
	Painting with synthetic enamel paint of approved brand and manufacture in all shades on new work (two or more coats). (a) General quality	Sqm	272.8		
	Deduct cement concrete work included in Providing and laying cement concrete 1:3:6 (1 cement : 3 coarse sand : 6 graded stone aggregate 40mm nominal size) excluding cost of centering and shuttering in -	Cum	1.875		
	Providing and fixing M.S Steel Gate, including all necessary works like painting , fitting to RCC post etc complete.	Sqm	7.2		
	G.I barded wire fencing on angle iron post placed 2.0m apart using 4 horizontal lines and 2 diagonals barded wire fixed from post to post with wire nails and projecting the post 5cm above the top most wire etc. complete.	Sqm	49.6		
2. Construction of Type-I Quarters					
	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres. Ordinary Soil	Cum	13.50		

	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	10.19		
	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:	Cum	0.90		
	Reinforced cement concrete work in walls including attached pillasters, columns, pillars, posts, piers, abutments, return walls, retaining walls, struts, buttresses, string or lacing courses, fillets etc. upto floor five level excluding cost of centering shuttering etc complete.				
	1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	Cum	5.63		
	Reinforce cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, window sills, stair cases, spiral stair cases, cantilevers upto floor five level excluding cost of centering shuttering etc complete. with 1:2:4(1cement : 2 coarse sand :4 stone aggregate 20mm)	Cum	1.79		
	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.	Cum	1129.71		
	Centering and shuttering including strutting,propping etd. And removal of form for:				
	c) Columns, pillars, piers, abutments, posts and struts.	Sq.m	25.20		
	d) Lintels, beams, plinth beams, girders, bressumers and cantilevers, etc.	Sq.m	7.43		
	First class brickwork in foundation and plinth in:- b) Cement mortar 1:4	Sq.m	17.53		
	Regular coursed rubble masonry with hard stone in foundation upto one storey above and below ground level including curing, etc. complete. b) in cement mortar 1 : 4 (1cement : 4 fine sand):-	Cum	2.34		
	Providing 1st class local wood work dressed in frames of sill, upright, batten, post, beams, etc. as structural members fixed in position complete.	Cum	1.91		
	Providing 1st class local wood dressed in frames of chaukat for doors, windows, clerestory windows fixed in position.	Cum	0.80		

	Providing 1st class local wood in trusses etc. including hoisting fixing in position supplying necessary fittings such as spikes bolts and nuts, nails etc and applying wood preservative for unexposed surface etc. complete.	Cum	1.09		
	Providing and fixing 1st class local wood panelled shutters for doors etc. including M.S. butt hinges with necessary screws, etc. complete. b) 35mm Thick	Sq.m	3.78		
	Providing and fixing 1st class local wood glazed shutters using 3mm thick plate sheet glass for doors, windows, etc. including M.S. butt hinges with necessary screws complete. b) 35mm Thick	Sq.m	16.74		
	Providing and fixing hollow core flush door shutters with frame of 1st class local wood and well matched teak ply 3mm thick veneering with vertical grains or cross bands and face veneers on both faces of shutters including M.S. butt hinges with necessary screws. a) 35mm Thick	Sq.m	1.08		
	Providing and fixing 25mm thick 25cm wide wooden eaves board. Ornamental eaves board a) Using 1st class local wood	m	26.32		
	Providing and fixing flat iron ties 3mm x 2cm x 20cm L-section with galvanised screw for joints of post plate and upright in Assam type building.	No.	40		
	Providing and fixing flat iron ties 3mm x 2cm x 15cm section with galvanised screw for joints of post plate and roof truss in Assam type building.	No.	40		
	Providing and fixing a pair of flat iron brackets in concrete work while laying for jointing with timber post etc. including cost of bolts and nuts complete.	Pair	9		
	Cement concrete flooring 1:2:4 (1 cement : 2 sand : 4 well graded stone aggregate 20mm size) finished with a floating coat neat cement including cement slurry etc. complete but excluding the cost of nosing of steps etc.	Sq.m	33.9648		
	Providing and fixing M.S. Oxidised sliding door bolts (aldrops) bright finished and/or black enamelled with nuts and screws etc. complete.	No.	6.00		
	Providing and fixing M.S. Oxidised tower bolts (socket bolts) bright finished with necessary screws etc. complete.	No.	6.00		
	Providing and fixing M.S. Oxidised handles with necessary screws, etc. complete	No.	12.00		

Providing and fixing M.S. Oxidised tower bolts (socket bolts) bright finished with necessary screws etc. complete.	No.	92		
Providing and fixing M.S. Oxidised handles with necessary screws, etc. complete	No.	34		
Providing and fixing M.S. Oxidised hooks and eyes.	No.	34		
Providing and fixing plain, chamfered edged 1st class local wood beading with screws or nails for walls, ceiling, etc. complete.	m	94		
Supplying, fitting and fixing 3.20mm thick decocial asbestos board ceiling with nescessary screws etc. complete excluding frame work of base and beading.	Sq.m	33.9648		
Providing and fixing 1st class local wood frame works for ceiling consisting of battens 50x25mm fixed over wood plugs embedded in wall with necessary nails or screws, etc. including cost of wood plugs complete.	Sq.m	0.14		
Providing corrugated G.S. sheet roofing fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (upto a pitch of 60 degrees) excluding the cost of purlins, rafters and trusses.	Sq.m	51.80		
Providing ridges or hips of width 60 cm over all width plain G.S. sheet fixed with polymer coated J. or L hooks, bolts and nuts 8 mm dia. G.I. limpet and bitumen washers complete.	m	13.04		
Providing and fixing 15mm wide and 45cm overall semi-circular gutter with 0.63mm thick plain G.I. sheet with iron brackets 40mm x 3mm size, bolts, nuts and washers etc. including making necessary connections with rain water pipes complete.	m	10.62		
Providing and fixing wind ties section 40mm x 6mm flat iron.	Rm	30.00		
15mm cement plaster 1 :5 (1 cement : 5 fine sand).	Sq.m	44.72		
Applying priming coat with ready mixed primer of approved brand and manufacture on wood work and plywood complete.	Sq.m	115.76		
Applying one coat of cement primer of approved brand and manufacture on wall surface.	Sq.m	16.21		

	Wall painting with interior emulsion paint of approved brand and manufacture on new work (two or more coats) to give an even shade. Regular interior emulsion like Rangoli deluxe emulsion etc.	Sq.m	115.76		
	Finishing walls with exterior emulsion of required shade on new work (three or more coats) to give an even shade. Regular exterior emulsion like supercote, walmasta etc.	Sq.m	16.21		
	Providing and fixing plain, chamfered edged 1st class local wood beading with screws or nails for walls, ceiling, etc. complete.	m	168.32		
	Providing and fixing asbestos cement plain sheet board fixed with 50mm x 12mm thick dressed beading with 50mm wide plain sheet flashing at the horizontal joints including supply of beading and flashing complete excluding cost of timber frame work using -	Sq.m	50.84		
	Septic Tank (10 users 1 no)				
	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.	Cum	5.28		
	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:	Cum	0.73		
	Reinforce cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, window sills, stair cases, spiral stair cases, cantilevers upto floor five level excluding cost of centering shuttering etc complete. with 1:2:4(1cement : 2 coarse sand :4 stone aggregate 20mm)	Cum	0.25		
	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.	Kg.	25.00		
	Centering and shuttering including strutting,propping etd. And removal of form for:				
	e) Suspended floors, roofs, landings, shelves and their support, balconies and chajjaj,etc.	Sq.m	2.20		
	First class brickwork in foundation and plinth in :				

	in cement mortar 1: 4 (1 cement : 4 coarse sand)	Cum	2.13		
	Cement concrete flooring 1:2:4 (1 cement : 2 sand : 4 well graded stone aggregate 20mm size) finished with a floating coat neat cement including cement slurry etc. complete but excluding the cost of nosing of steps etc. 4mm thick Base Slab	Sq.m	1.08		
	Providing and fixing SWRPVC plain bend of required degree (87.50°) including jointing with rubber lubricant/cement solvent complete. a) 110mm dia	rm	3.00		
	Providing and fixing W.C. connection bend type (siphon) (SWRPVC) including jointing with rubber lubricant/ solvent cement. b) 75mm SWRPVC Vent Cowl	No.	1.00		
	15mm cement plaster 1 : 3 (1 cement : 3 fine sand).	Sq.m	6.00		
	Constructing soak pit 1.20x1.20x1.20m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	No.	1.00		
	Water Supply & Sanitation	Building	1		
	External Service Connection	Building	1		
	Internal Electrification	Building	1		
	Site Development	Building	1		

3. Construction of Type-II quarters

	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.				
	Ordinary Soil	Cum	2.16		
	Filling available excavated earth (excluding rock) in trenches, plinth, sides of foundations etc. in layers not exceeding 20cm in depth, consolidating each deposited layer by ramming and watering, lead up to 50 m and lift upto 1.5 m.	Cum	30.42		
	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:				
	1:3:6 - Foundation Base	Cum	2.03		
	Providing and laying in position reinforced cement concrete excluding cost of centering and shuttering , finishing and reinforcement in - 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	Cum	9.11		

	Reinforced cement concrete work in walls including attached pillasters, columns, pillars, posts, piers, abutments, return walls, retaining walls, struts, buttresses, string or lacing courses, fillets etc. upto floor five level excluding cost of centering shuttering etc complete. 1:2:4 (1 cement : 2 coarse sand : 4 graded stone aggregate 20mm nominal size)	Cum	1.32		
	Reinforce cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, window sills, stair cases, spiral stair cases, cantilevers upto floor five level excluding cost of centering shuttering etc complete. with 1:2:4(1cement : 2 coarse sand :4 stone aggregate 20mm)	Cum	2.16		
	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.	Cum	847.35		
	Centering and shuttering including strutting,propping etd. And removal of form for:	Sq.mm	30.30		
	First class brickwork in foundation and plinth in:-	Sq.mm	25.25		
	Regular coursed rubble masonry with hard stone in foundation upto one storey above and below ground level including curing, etc. complete.	Cum	16.92		
	Providing 1st class local wood work dressed in frames of sill, upright, batten, post, beams, etc. as structural members fixed in position complete.	Cum	1.93		
	Providing 1st class local wood dressed in frames of chaukat for doors, windows, clerestory windows fixed in position.	Cum	0.41		
	Providing 1st class local wood in trusses etc. including hoisting fixing in position supplying necessary fittings such as spikes bolts and nuts, nails etc and applying wood preservative for unexposed surface etc. complete.	Cum	2.26		
	Providing and fixing 1st class local wood panelled shutters for doors etc. including M.S. butt hinges with necessary screws, etc. complete.	Sq.mm	2.16		
	Providing and fixing 1st class local wood glazed shutters using 3mm thick plate sheet glass for doors, windows, etc. including M.S. butt hinges with necessary screws complete.	Sq.mm	3.24		

	Providing and fixing hollow core flush door shutters with frame of 1st class local wood and well matched commercial plywood 3mm thick veneering with vertical grains or cross bands and face veneers on one face and inner face with alluminium plain sheet including M.S. butt hinges with necessary screws.	Sq.mm	3.24		
	Providing and fixing 25mm thick 25cm wide wooden eaves board. Ornamental eaves board a) Using 1st class local wood	m	43.66		
	Providing and fixing flat iron ties 3mm x 2cm x 20cm L-section with galvanised screw for joints of post plate and upright in Assam type building.	No.	30		
	Providing and fixing flat iron ties 3mm x 2cm x 15cm section with galvanised screw for joints of post plate and roof truss in Assam type building.	No.	20		
	Providing and fixing a pair of flat iron brackets in concrete work while laying for jointing with timber post etc. including cost of bolts and nuts complete.	Pair	9		
	Cement concrete flooring 1:2:4 (1 cement : 2 sand : 4 well graded stone aggregate 20mm size) finished with a floating coat neat cement including cement slurry etc. complete but excluding the cost of nosing of steps etc.	Sq.mm	61.16		
	Providing and fixing M.S. Oxidised sliding door bolts (aldrops) bright finished and/or black enamelled with nuts and screws etc. complete.	No.	10.00		
	Providing and fixing M.S. Oxidised tower bolts (socket bolts) bright finished with necessary screws etc. complete.	No.	20.00		
	Providing and fixing M.S. Oxidised handles with necessary screws, etc. complete	No.	20.00		
	Providing and fixing M.S. Oxidised tower bolts (socket bolts) bright finished with necessary screws etc. complete.	No.	36.00		
	Providing and fixing M.S. Oxidised handles with necessary screws, etc. complete				
	100mm Window	No.	16.00		
	100mm Ventilation	No.	10.00		
			26.00		
	Providing and fixing M.S. Oxidised hooks and eyes.	No.	26.00		
	Providing and fixing plain, chamfered edged 1st class local wood beading with screws or nails for walls, ceiling, etc. complete.	m	147.44		

	Supplying, fitting and fixing 3.20mm thick decocial asbestos board ceiling with nescessary screws etc. complete excluding frame work of base and beading.	Sq.mm	51.44		
	Providing and fixing 1st class local wood frame works for ceiling consisting of battens 50x25mm fixed over wood plugs embedded in wall with necessary nails or screws, etc. including cost of wood plugs complete.	Sq.mm	0.32		
	Providing corrugated G.S. sheet roofing fixed with polymer coated J or L hooks, bolts and nuts 8 mm diameter with bitumen and G.I. limpet washers or with G.I. limpet washers filled with white lead and including a coat of approved steel primer and two coats of approved paint on overlapping of sheets complete (upto a pitch of 60 degrees) excluding the cost of purlins, rafters and trusses.	Sq.mm	128.37		
	Providing ridges or hips of width 60 cm over all width plain G.S. sheet fixed with polymer coated J. or L hooks, bolts and nuts 8 mm dia. G.I. limpet and bitumen washers complete.	m	23.56		
	15mm cement plaster 1 : 4 (1 cement : 4 fine sand).	Sq.mm	136.94		
	Applying one coat of cement primer of approved brand and manufacture on wall surface.	Sq.mm	50.69		
	Applying priming coat with ready mixed primer of approved brand and manufacture on wood work and plywood complete.		73.53		
	Wall painting with interior emulsion paint of approved brand and manufacture on new work (two or more coats) to give an even shade.	Sq.mm	212.72		
	Painting with synthetic enamel paint of approved brand and manufacture in all shades on old work (one or more coats).	Sq.mm	73.53		
	Finishing walls with exterior emulsion of required shade on new work (three or more coats) to give an even shade.	Sq.mm	212.72		
	Providing and fixing plain, chamfered edged 1st class local wood beading with screws or nails for walls, ceiling, etc. complete.	m	179.96		
	Providing and fixing asbestos cement plain sheet board fixed with 50mm x 12mm thick dressed beading with 50mm wide plain sheet flashing at the horizontal joints including supply of beading and flashing complete excluding cost of timber frame work using -	Sq.mm	89.53		

	Earthwork in excavation in foundation trenches or drains etc. (not exceeding 1.5m in width or 10sqm on plan) including dressing of sides and ramming of bottoms, lift upto 1.5m including getting out excavated soil and disposal of surplus excavated soil as directed within a lead of 50 metres.	Cum	5.28		
	Providing and laying in position cement concrete of specified grade excluding cost of centering and shuttering - All work upto plinth level:	Cum	0.73		
	Reinforce cement concrete work in beams, suspended floors, roofs having slope upto 15° landings, balconies, shelves, chajjas, lintels, bands, window sills, stair cases, spiral stair cases, cantilevers upto floor five level excluding cost of centering shuttering etc complete. with 1:2:4(1cement : 2 coarse sand :4 stone aggregate 20mm)	Cum	0.25		
	Steel reinforcement for RCC work including straightening, cutting, bending, placing in position and binding all complete.	Kg.	25.00		
	Centering and shuttering including strutting,propping etd. And removal of form for: e) Suspended floors, roofs, landings, shelves and their support, balconies and chajjaj,etc.	Sq.mm	2.20		
	First class brickwork in foundation and plinth in : in cement mortar 1: 4 (1 cement : 4 coarse sand)	Cum	2.13		
	Cement concrete flooring 1:2:4 (1 cement : 2 sand : 4 well graded stone aggregate 20mm size) finished with a floating coat neat cement including cement slurry etc. complete but excluding the cost of nosing of steps etc.	Sq.mm	1.08		
	Providing and fixing SWRPVC plain bend of required degree (87.50°) including jointing with rubber lubricant/cement solvent complete.	rm	3.00		
	Providing and fixing W.C. connection bend type (siphon) (SWRPVC) including jointing with rubber lubricant/ solvent cement. b) 75mm SWRPVC Vent Cowl	No.	1.00		
	15mm cement plaster 1 : 3 (1 cement : 3 fine sand).	Sq.mm	6.00		

	Constructing soak pit 1.20x1.20x1.20m filled with brickbats including S.W. drain pipe 100 mm diameter and 1.20 m long complete as per standard design.	No.	1.00		
	Water Supply & Sanitation	Building	1		
	External Service Connection	Building	1		
	Internal Electrification	Building	1		
	Site Development	Building	1		

(Rupees) only

Signature with Seal of the bidder

SECTION - IV

ANNEXURE

ANNEXURE

Bank Guarantee for Advance Payment

We (hereinafter called as 'Bank') do hereby agree to pay on demand in writing from (hereinafter called 'the Owner') of any amount upto and not exceeding Rs. (Rupees) only to the owner on behalf of M/s (hereinafter called the 'Tenderer') who received an order for against tender No. dated (hereinafter called as the 'contract') and whereas the contract provides for payment as advance at the rate of 15% value of the contract by the owner to the Tenderer against this undertaking.

Whereas this guarantee shall be valid and binding on the Bank upto and including and the liability against this guarantee from Bank to the owner shall be limited to the amount remaining outstanding out of 10% advance payment after progressive adjustment of the same in the normal bills for progressive work by the Tenderer.

The liability of the Bank under this guarantee shall not be impaired or discharged by any extension of time or variations or alternations made, given, conceded to agree with or without the knowledge of the Bank by or between the owner and the Tenderer.

This guarantee shall remain in full force until and unless a suit or action to enforce a claim under the guarantee is filed against the Bank within 6 months from that date (ie.), all the rights of the owner under this guarantee shall be forfeited and the Bank shall be relieved and discharged from all liability thereon.

Dated this day of 20....

For and on behalf of the Bank
The above guarantee is accepted by me on behalf of P&E Department,
Govt. of Mizoram, Aizawl.

Engineer-in-Chief (P&E)
Mizoram : Aizawl

ANNEXURE

Annexure

Form of Performance guarantee / Bank guarantee bond

[Reference para 21.1.(1)(V)]

To,

The Engineer-In-Chief
Power & Electricity Department
Government of Mizoram

In consideration of the Engineer-In-Chief, P&E Deptt (hereinafter called "The Government") having offered to accept the terms and conditions of the proposed agreement between _____ and _____ (hereinafter called "the said Contractor(s)") for the work (hereinafter called "the said agreement") having agreed to production of an irrevocable Bank Guarantee for Rs. _____ (Rupees _____ only) as a security/guarantee from the contractor(s) for compliance of his obligations in accordance with the terms and conditions in the said agreement.

1. We, _____ (hereinafter referred to as "the Bank") hereby undertake to pay to the Government an amount not exceeding Rs. _____ (Rupees _____ Only) on demand by the Government.
2. We, _____ (indicate the name of the Bank) do hereby undertake to pay the amounts due and payable under this guarantee without any demure, merely on a demand from the Government stating that the amount claimed as required to meet the recoveries due or likely to be due from the said contractor(s). Any such demand made on the bank shall be conclusive as regards the amount due and payable by the bank under this Guarantee. However, our liability under this guarantee shall be restricted to an amount not exceeding Rs. _____ (Rupees _____ only)
3. We, the said bank further undertake to pay the Government any money so demanded notwithstanding any dispute or disputes raised by the contractor(s) in any suit or proceeding pending before any court or Tribunal relating thereto, our liability under this present being absolute and unequivocal. The payment so made by us under this bond shall be a valid discharge of our liability for payment thereunder and the Contractor(s) shall have no claim against us for making such payment.
4. We, _____ (indicate the name of the Bank) further agree that the guarantee herein contained shall remain in full force and effect during the period that would be taken for the performance of the said agreement and that it shall continue to be enforceable till all the dues of the Government under or by virtue of the said agreement have been fully paid and its claims satisfied or discharged or till Engineer-in-Charge on behalf of the Government certified that the terms and conditions of the said agreement have been fully and properly carried out by the said

ANNEXURE

Contractor(s) and accordingly discharges this guarantee.

5. We, _____ (indicate the name of the Bank) further agree with the Government that the Government shall have the fullest liberty without our consent and without affecting in any manner our obligation hereunder to vary any of the terms and conditions of the said agreement or to extend time of performance by the said Contractor(s) from time to time or to postpone for any time or from time to time any of the powers exercisable by the Government against the said contractor(s) and to forbear or enforce any of the terms and conditions relating to the said agreement and we shall not be relieved from our liability by reason of any such variation, or extension being granted to the said Contractor(s) or for any forbearance, act of omission on the part of the Government or any indulgence by the Government to the said Contractor(s) or by any such matter or thing whatsoever which under the law relating to sureties would, but for this provision, have effect of so relieving us.
6. This guarantee will not be discharged due to the change in the constitution of the Bank or the Contractor(s).
7. We, _____ (indicate the name of the Bank) lastly undertake not to revoke this guarantee except with the previous consent of the Government in writing.
8. This guarantee shall be valid up to _____ unless extended on demand by the Government. Notwithstanding anything mentioned above, our liability against this guarantee is restricted to Rs. _____ (Rupees _____ only) and unless a claim in writing is lodged with us within six months of the date of expiry or the extended date of expiry of this guarantee all our liabilities under this guarantee shall stand discharged.

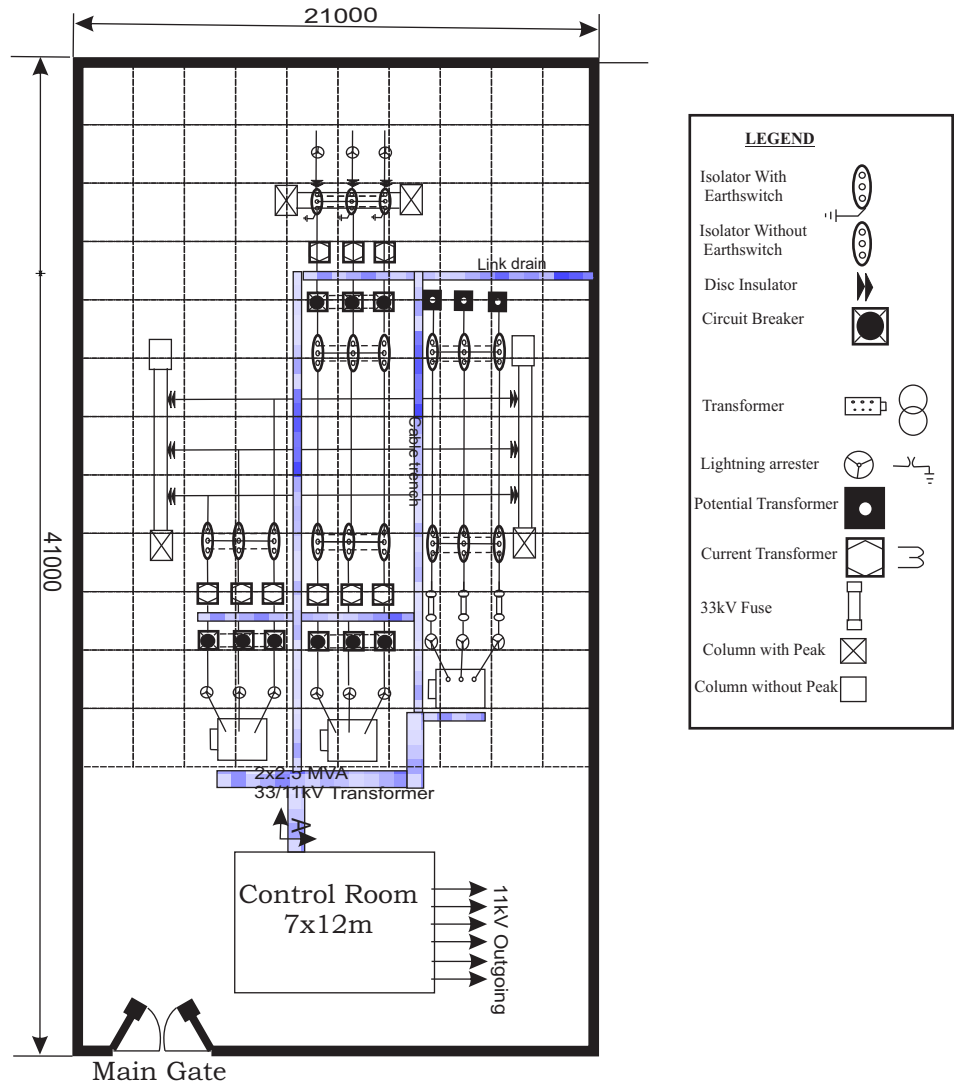
Dated the _____ day of _____ for _____ (indicate the name of the Bank)

For and on behalf of the Bank

The above Guarantee is accepted by me on behalf of P&E Department,
Govt. of Mizoram, Aizawl

Engineer-in-Chief (P&E)
Mizoram : Aizawl

DIAGRAM OF FENCING



LEGEND	
Isolator With Earthswitch	
Isolator Without Earthswitch	
Disc Insulator	
Circuit Breaker	
Transformer	
Lightning arrester	
Potential Transformer	
Current Transformer	
33kV Fuse	
Column with Peak	
Column without Peak	

