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NOTE: Documents at srl No. 8 & 9 are not attached with the tender documents which will be seen in any of the MES office. These documents shall form part of contract agreement and be deemed to have been read by the contractor.

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

Tele Civ: 01894-231421
FAX No: 01894-230025
E-mail: gemesplp20@gmail.com

REGISTERED POST
Garrison Engineer
Military Engineer Services
Palampur (HP)-176061

8001/GEP-49/2024-25/03/E8

15 Oct 2024

M/s-----

**NAME OF WORK: REPAIR AND MAINT OF E/M INSTALLATION, STAND BY DG SETS, PUMP
MOTOR, FENCING AND OTHER CONNECTED WORKS AT PALAMPUR MIL STN**

1. Tender documents in respect of above work are uploaded on the site www.defproc.gov.in. The tender is on single stage two cover e-tendering systems. The contents of Cover I & Cover II are specified in NOTICE OF TENDER.
2. Bids will be received online by **GARRISON ENGINEER, PALAMPUR** up to the date and time mentioned in the **NOTICE INVITING TENDER (NIT)**. No tender/bid will be received in physical form and any tender/bid received in such manner will be treated as non bonafied tender/bid.
3. Bid will be opened on due date and time fixed for opening in the presence of tenderers/bidders or their authorized representatives, who have uploaded their quotation bid and who wish to be present at the time of opening the bids.
4. Your attention is also drawn to instruction on filling and submission of tender attached herewith. You may forward your points on tender documents and/or depute your technical representative for discussion on tender/drawing and to clarify doubts, if any, on or before "Clarification end date" mentioned on the site <https://defproc.gov.in> for subject tender. You are requested not to write piece meal points and forward your points duly consolidated before "Clarification end date".
5. Un-enlisted contractors are required to submit the scanned copies (in pdf file) of documents required as per eligibility criteria mentioned in instructions for filling the tender documents along with EARNEST MONEY DEPOSIT (EMD) and tender fee on <https://defproc.gov.in> portal and submit the physical documents in the office of **GE Palampur** within time limit specified in **NIT**. Inadequacy/deficiency of documents shall make the bid liable for rejection resulting in disqualification for opening of finance bid.
6. (a) Contractor having not executed standing security bond and standing security deposit in any MES formation shall upload scanned copy of EARNEST MONEY DEPOSIT (EMD) mentioned in Notice of Tender and shall ensure receipt of hard copy of EMD in the office of tender issuing authority before date & time fixed for opening of bid. In case of failure to abide by any of these requirements, the bid will be treated as non-bonafide and bid will not be opened.

(b) Within 28 days of receipt of letter of acceptance, the successful contractor shall required to deposit performance security in any of the form given in clause 19 of IAFW-2249 for an amount equal to 5% of the contract sum in favour of Accepting officer. Work order No 1 shall be placed only after submission of Performance Security of adequate value by the contractor. Failure of the successful contractor to comply with the requirements of sub-clause 19.1 of IAFW-2249 shall constitute sufficient grounds for cancellation of the award and forfeiture of Earnest Money. In case of MES enlisted contractor, ,amount equal to the Earnest Money stipulated in the Notice Inviting Tender, shall be notified to the tenderer for depositing the amount through MRO. Issue of tender to such tenderers remains suspended till the aforesaid amount equal to the Earnest Money is deposited in Government Treasury.

7. Enlisted contractors of MES shall submit the scanned copies (pdf file) of enlistment letter, tender fee and such other documents as mentioned in Appx 'A' to **NIT** on <https://defproc.gov.in> portal and submit physical documents in the office of **GE Palampur** before date & time fixed for this purpose.
8. The contractor must ensure that the tender/bid on the proper form is uploaded in time as the Accepting Officer will take no cognizance of any quotations/offer received in any other electronic or physical form like email/fax/by hand/through post from tenderer/bidder even if they are received in time.
9. In view of delays due to system failure or other communication related failures, it is suggested that the tender/bid be uploaded, if necessary, sufficiently in advance of the last due date and time fixed.
10. General Conditions of Contracts (IAFW-2249) (1989 Print) and errata and amendments thereto, Schedule of minimum fair wages and MES SSR 2009 Part-I-specifications and SSR 2020 Part-II rates are not enclosed with these documents. These are available for perusal in the Office GE Palampur.
11. **Any tenderer, which proposes alterations to any of the condition, specification laid down in tender documents or any new condition, whatsoever, is liable to be rejected.**
12. If contractor does not quote his rate against any item or "NQ" appears in rate/amount column, then it shall be deemed that rate quoted is Rupees Zero i.e. the contractor intends to execute the particular item at no cost basis (free of cost) to the Govt. Items and their quantities for which no rates or prices have been quoted shall be deemed to have been covered by the rates and prices quoted for the other items of bills of quantities. Hence contractors are advised to cross check his quoted rates in the BOQ before summing bid online..No representation by the contractor on this matter shall be entertained by the department.
13. This letter shall form part of the tender documents

Yours faithfully,

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

INSTRUCTIONS ON FILLING AND SUBMISSION OF TENDER**1. EARNEST MONEY DEPOSIT (EMD)**

Contractor (s) who are not enlisted with MES/who are enlisted but have not executed the Standing Security Bond shall submit Earnest Money Deposit as detailed in Notice of Tender in one of the following forms, alongwith their tender/bid :-

- (a) Deposit at Call Receipt from a Scheduled Bank in favour of Garrison Engineer Palampur.
- (b) Receipted Treasury Challan, the amount being credited to the Revenue Deposit of Garrison Engineer Palampur.

It is advisable that Earnest Money is deposited in the form of deposit call receipt from an approved Schedule Bank for easy refund. In case the tenderer/bidder wants to lodge 'EARNEST MONEY DEPOSIT' in any other form allowed by MES, a confirmation about its acceptability will be obtained from the Accepting Officer well in advance of the bid submission end date and time. Earnest Money Deposit shall be submitted in the name of GE Palampur.

NOTES : Earnest Money Deposit (EMD) in the form of cheque/Bank Guarantee etc will not be accepted. NON-SUBMISSION OF EARNEST MONEY DEPOSIT (EMD) (scanned copy alongwith Technical Bid & hard copy before the date & time fixed for opening of BOQ) WILL RENDER THE BID DISQUALIFIED FOR OPENING OF COVER II (FINANCE BID).

2. PERFORMANCE SECURITY

Within 28 days of receipt of letter of acceptance, the successful contractor shall required to deposit performance security in any of the forms given in clause 19 of IAFW-2249 for an amount equal to 5% of the contract sum in favour of Accepting officer. Work order No 1 shall be placed only after submission of Performance Security of adequate value by the contractor,.Failure of the successful contractor to comply with the requirement of sub clause 19.1 of IAFW-2249 shall constitute sufficient grounds for cancellation of the award of work and forfeiture of the Earnest Money. In case of MES enlisted contractor, amount equal to the Earnest Money stipulated in the Notice Inviting Tender,shall be notified to the tenderer for depositing the amount through MRO. Issue of tender to such tenderer shall remain suspended till the aforesaid amount equal to the Earnest Money is deposited in Government Treasury.

3 .All contractor enlisted with any MES formation and who have deposited the standing security deposited and have the standing security bond, fulfilling the eligibility criteria may tender without depositing the earnest money.

4. EMD summated by all unsuccessful bidders shall be released immediately after acceptance of lowest bid. EMD of lowest bidder (in case if applicable) shall only be released after receipt of performance security.

5. **GENERAL INSTRUCTIONS FOR COMPLIANCE**

5.1 The bids received only in the electronic form will be considered. All bids shall be submitted on <https://defproc.gov.in> portal. Documents should be scanned and forwarded in 'pdf' form and xls' form as indicated.

5.2 Bids shall be uploaded on <https://defproc.gov.in> on or before the bid closing date mentioned in the tender. No tender/bid in any other electronic or physical form like email/fax/by hand/through post will be considered.

5.3 Bid should be DIGITALLY signed using valid DSC. All pages of tender documents, corrections/alterations shall be signed/initialed by the lowest bidder after acceptance.

5.4 Drawings, if issued in physical form, must be returned duly initialed by the tenderer/bidder in separate envelope indicating his name and address.

5.5 The tender shall be signed, dated and witnessed at all places provided for in the documents after acceptance. All corrections shall be initialed. The Contractor shall initial every page of tender and shall sign all drawings forming part of the tender. Any tender/bid which proposes alterations to any of the conditions whatsoever, is liable to be rejected.

5.6 In the technical bid, a scanned copy of Power of Attorney in favour of the person uploading the bid using his/her DSC shall be uploaded. In case, the digital signatory himself is the sole proprietor, scanned copy of an affidavit on stamp paper of appropriate value to this effect stating that he has authority to bind the firm in all matters pertaining to contract including the Arbitration Clause, shall be attached in 'pdf', form. In case of partnership concern or a limited company, digital signatory of the bid/tender shall ensure that he is competent to bind the contractor (through partnership deed, general power of attorney or Memorandum and Articles of Association of the Company) in all the matters pertaining to the contracts with Union of India including arbitration clause. A scanned copy of the documents confirming of such authority shall be attached with the tender/bid in 'pdf' form, if not submitted earlier. The person uploading the bid on behalf of another partner(s) or on behalf of a firm or company using his DSC shall upload with the tender/bid a scanned copy (in 'pdf' form) of Power of Attorney duly executed in his favour by such other or all of the Partner(s) or in accordance with constitution of the company in case of company, stating that he has authority to bind such other person of the firm or the Company, as the case may be, in all matters pertaining to the contract including the Arbitration Clause.

5.7 Even in case of Firms or Companies which have already given Power of Attorney to an individual authorizing him to sign tender in pursuance of which bids are being uploaded by such person as a routine, fresh Power of Attorney duly executed in his favour stating specifically that the said person has authority to bind such partners of the Firm, or the Company as the case may be, including the condition relating to Arbitration Clause, should be uploaded in 'pdf' form with the tender/bid; unless such authority has already been given to him by the Firm or the Company. It shall be ensured that power of attorney shall be executed in accordance with the constitution of the company as laid down in its Memorandum & Article of Association.

5.8 Hard copies of all above documents should be sent by the contractor to the Tender issuing authority well in advance to be received before the date & time fixed for the same.

5.9 Bid (Cover 1 & 2) shall be uploaded online well in time.

5.10 The contractor shall employ Indian Nationals after verifying their antecedents and loyalty. Attention is also drawn to special condition 3 referred hereinafter and also conditions 24 & 25 of IAFW 2249 (General conditions of contract).

5.11 Tenders/bidders who uploaded their priced tenders/bids and are desirous of being present at the time of opening of the tenders/bids, may do so at the appointed time.

5.12 *The tenderer/bidder shall quote his rate on the BOQ file only. No alteration to the format will be accepted, else the bid will be disqualified and summarily rejected.*

5.13 *In case the tenderer/bidder has to revise/modify the rates quoted in the BOQ (excel sheet) he can do so only in the BOQ, through "https://defproc.gov.in" site only before the bid closing time and date.*

6. REVOCATION/REVISION OF OFFER UPWARD/OFFERING VOLUNTARY REDUCTION, AFTER OPENING OF FINANCIAL BIDS BY LOWEST BIDDER

In the event of lowest tenderer/bidder revoking his offer or revising his rates upward/offering voluntary reduction, after closing of bid submission date & time, his offer will be treated as revoked and the Earnest Money deposited by him shall be forfeited. In case of MES enlisted Contractors, the amount equal to the Earnest Money stipulated in the Notice of tender, shall be notified to the tenderer/bidder for depositing the amount through MRO. Bids of such Contractors/bidders shall not be opened till the aforesaid amount equal to the earnest money is deposited by him in Govt. Treasury. In addition, bids of such tenderer/bidder and his related firm shall not be opened in second call or subsequent calls. Reduction offered by the tenderer/bidder on the freak high rates referred for review shall not be treated as voluntary reduction.

7. C P M (CRITICAL PATH METHOD)

7.1 The project planning for work covered in the scope of tender is based on CPM.

7.2 The tenderer/bidder is accepted to be fully conversant with the CPM technique and employ technical staff who can use the technique in sufficient details. Sufficient books and other literature on the subject are widely available in the market which the tenderer,/bidder may make use of.

7.3 The tenderer's/bidder's attention is drawn to special condition of the tender regarding preparation of the detailed network analysis and time schedule for the work and his liability for employing sufficient resources to adhere to his schedule. Any inability on the part of the tenderer/bidder in using the technique will be taken as his technical inefficiency and will affect his class of enlistment and future prospect/invitation to tenders for future works.

7.4 Department may issue amendments/errata in form of **CORRIGENDUM** to tender/revised BOQ to the tender documents. The tenderer/bidder is requested to read the tender documents in conjunction with all the errata/amendments/corrigendum, if any, issued by the department.

8. These instructions shall form part of the contract documents.

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

MILITARY ENGINEER SERVICES
NOTICE INVITING TENDER (NIT)

1. A tender is invited for the work as mentioned in Appendix 'A' to this NOTICE INVITING TENDER (NIT).

2. The work is estimated to cost as indicated in aforesaid Appendix 'A'. This estimate, however, is not a guarantee and is merely given as a rough guide and if the work cost more or less, a tenderer / bidder will have no claim on that account. The tender shall be based on as mentioned in aforesaid Appendix 'A'.

3. The work is to be completed within the period as indicated in aforesaid Appendix 'A' in accordance with the phasing, if any, indicated in the tender from the date of handing over site, which will be on or about two weeks after the date of Acceptance of tender.

4. Normally contractors whose names are on the MES approved list for the area in which the work lies, and within whose financial category the estimated amount would fall, may tender / bid but in case of term contracts, contractors of categories SS to E may tender / bid. In case, the Accepting officer decides to accept the lowest tender or bidder the tenderer would be required to lodge performance security deposit as notified by the accepting officer in any of the form given in General condition of contracts for an amount equivalent to 5% of the contract sum in any of the forms prescribed in condition 19.1 of IAFW-2249 within 28 days of receipt of the letter of Acceptance. Failure of the successful contractor to comply with the requirements of condition 19.1 of IAFW-2249 shall constitute sufficient grounds for cancellation of the award of work and forfeiture of the Earnest Money. In case of MES enlisted contractor, amount equal to the Earnest Money stipulated in the Notice inviting Tender, shall be notified to the tenderer for depositing the amount through MRO. Issue of tender to such tenderers shall remain suspended till the aforesaid amount equal to the Earnest Money is deposited in Government Treasury.

5. Not more than one tender/bid shall be *submitted* / uploaded by one contractor or one firm of contractors. Under no circumstances will a father and his son(s) or other close relative who have business circumstances with a father and his son(s) or other close relation who have business dealing with one another be allowed to tender/bid for the same contract as separate competitors. A breach of this condition will render the tenders/bids of both the parties liable for reject.

6. The Office of **GE Palampur** will be the Accepting Officer here in after referred to as such for purpose of the contract.

7. **Performance security**

7.1 Within 28 days of receipt of the letter of Acceptance the successful contractor shall deliver to the Accepting Officer a Performance Security in any of the forms given below for an amount equivalent to 5% of the contract sum.

(a) A Bank Guarantee in the prescribed form.

(b) Government Securities FDR or any other Government Instruments stipulated by the Accepting officer.

7.2 If the performance security is provided by the successful contractor in the form of Bank Guarantee. It shall be issued by Nationalized/Scheduled Indian Bank but its confirmation shall be done only the Head Office of the Bank.

MILITARY ENGINEER SERVICES
NOTICE INVITING TENDER (NIT)

7.3 All compensation or other sums of money payable by the contractor to the Governments under the terms of this contract or under any other contract with Government may be deducted from or paid by the sale of a sufficient part of the Performance Security or from the interest arising there from or from any sums which may be due or become due to the contractor by the Government on any account whatsoever and in the event of his Performance Security being reduced by reason of any such deduction, or sale as aforesaid the contractor shall within ten days thereafter make good in cash or securities endorsed as aforesaid any sum or sums which may have been deducted from or realized by the sale of his Performance Security or any part thereof.

Government shall not be responsible for any loss of securities or any depreciation in the value of securities while in their charge nor for loss of interest thereon.

7.4 In the event of contract being cancelled under condition 52, 53 & 54 of General Conditions of Contract, the Performance Securities shall be forfeited in full and shall be credited into Consolidated Fund in India.

7.5 Refund of performance security: The performance security deposit referred above may be refunded to the contractor after expiration of the defect liability period or date of release of final bill which is later by GE provided always that the contractor shall first final bill have been paid and contractor have rendered a no-demand certificate (IAFW-451) (vide condition 46)

7.6 Bank Guarantee Bond against Performance Security

7.6.1 Condition 19.1 of IAFW-2249 provides for submission of Performance Security by the successful contractor in the form of Bank Guarantee Bonds or Govt. Securities, FDR or any other form of deposit stipulated by the Accepting Officer.

7.6.2 The full amount of Performance Security for each contract shall be given by the contractor in any one of the forms stipulated in Para 6.7.1 above, Mix of forms for Performance Security for same contract shall not be allowed.

7.6.3 If the Performance Security is provided by the successful contractor in the form of a Bank Guarantee. It shall be issued by Nationalized/Scheduled Indian Bank but its confirmation shall be done only from the Head Office of the Bank.

7.6.4 The period of validity of the Bank Guarantee Bond against Performance Security shall be upto and including the scheduled date of expiry of Defects Liability period plus minimum 60 days beyond that. In case final bill is not paid during this period, the contractor shall get the validity of performance Guarantee extended to cover such enlarged time required for payment of final bill.

7.6.5 In case at a later stage, on account of delay in completion of work or due to any other reason. It is considered that the validity date stipulated in the Bank Guarantee against Performance Security should be extended, and then the contractor shall be directed by the Accepting Officer of the contract to have the validity extended before the date of validity expires. If the contractor fails to do so, the Bank Guarantee shall be en-cashed before expiry.

MILITARY ENGINEER SERVICES
NOTICE INVITING TENDER (NIT)

7.6.6 If any recovery is outstanding against the contractor, release of Bank Guarantee is subject to compliance of the procedure for effecting recovery/withholding the due amount as stipulated in condition 67 of IAFW-2249 as amended.

8. The Technical Bid and Financial Bid (Cover-1 and Cover-2) shall be uploaded by the tenderer / bidder on or before the date & time mentioned in **NIT**. A scanned copy of DD / Bankers cheque with enlistment details/documents shall be uploaded as packet 1/cover-1 ('T' bid) of the tender/ bid on e-tendering portal. DD is refundable in case T bid is not accepted resulting in non-opening of 'Q' bid. The applicant contractor shall bear the cost of bank charges for procuring and en-cashing the DD and shall not have any claim from Government whatsoever on this account..The applicant shall also renew or forward fresh DD / Bankers cheque at his own cost on demand by Accepting Officer in case of delay in tender action / postponement of tender / validity of DD / Bankers cheque expired.

8.1 Tender form and conditions of contract and other necessary documents shall be available on eprocuremes.gov.in/eprocure.gov.in site for download and shall form part of contract agreement in case the tender/bid is accepted.

8.2 In case of contractor who has not executed the Standing Security Bond, the Cover-1 shall be accompanied with by Earnest Money of amount as mentioned in Appendix 'A' in the form of deposit at call receipt in favour of **GE Palampur** (see Appendix 'A') by a scheduled Bank or in receipted treasury Challan the amount being credited to the revenue deposit of the **GE Palampur** (see Appendix 'A').

8.3 A contractor who is not enlisted for the area in which the work lies but whose name is in the MES approved list of any MES formation and who has deposited standing security and executed standing security Bond may bid without depositing earnest money along with the tender; but if the Accepting Officer accepts the tender/bid, the contractor will be required to lodge Performance security deposit as notified by the Accepting officer in any of form given in General conditions of contracts for an amount equivalent to 3% of the contract sum in term of condition of contract..

8.4 A contractor who has executed standing security Bond but not corresponding to the appropriate class as mentioned above, shall lodge Performance security deposit as notified by the Accepting officer in any of form given in General conditions of contracts for an amount equivalent to 3% of the contract sum in term of condition of contract..

8.5 **GE Palampur** will return the Earnest Money wherever applicable to all unsuccessful tenderers/bidders by endorsing an authority on the deposit-at-call receipt for its refund, on production by the tenderer, bidder a certificate of the Accepting Officer that a bonafied tender/bid was received and all documents were returned.

8.6 **GE Palampur** will either return the Earnest Money to the successful tenderer/bidder by endorsing an authority on the deposit-at-call Receipt for its refund on receipt of an appropriate amount of Performance Security Deposit.

8.7 Copies of the drawings and other document pertaining to the work signed for the purpose of identification by the Accepting Officer or his accredited representative, sample of materials and Stores to be supplied by the contractor will also be available for inspection by the tenderer/bidder at the office of Accepting Officer at **GE Palampur** during working hours.

MILITARY ENGINEER SERVICES
NOTICE INVITING TENDER (NIT)

9. The tenderers/bidders are advised to visit the site of work by making prior appointment with **GE Palampur** who is also the Executing Agency of the work (see Appx 'A'). The tenderers/bidders are deemed to have full knowledge of all relevant documents, samples, site etc., whether they have inspected them or not.
10. Any tender/bid which proposes any alteration to any of the conditions laid down or which proposes any other condition or prescription whatsoever, is liable to be rejected.
11. The uploading of bid implies that bidder has read this notice and the Conditions of Contract and has made himself aware of the scope and specification of work to be done and of the conditions and rates at which stores, tools and plants etc will be issued to him and local conditions and other factors having bearing on the execution of the work.
12. Tenderers/bidders must be in possession of a copy of the MES Standard Schedule of Rates (see Appendix 'A') including amendments and errata thereto.
13. Invitation for e-tender does not constitute any guarantee for validation of 'T' bid and subsequent opening of finance bid of any applicant/bidder, even of enlisted contractors of appropriate class, merely by virtue of enclosing DD / Bankers cheque. Accepting Officer reserves the right to reject the 'T' bid and not open the finance bid of any applicant/bidder. 'T' bid validation shall be decided by the Accepting officer based on, inter alia, capability of the firm as per criteria given in Appendix 'A' to this **NIT**. The applicant contractor/bidder will be informed regarding non-validation of his 'T' bid assigning reasons thereof through the defproc website. The applicant contractor/bidder if he so desires may appeal to the next higher Engineer authority viz **HQ CWE YOI Cantt** (HP) on email Id ylpz4-mes@nic.in with copy to the Accepting Officer on **e-mail Id gemesplp20@gmail.com** before the scheduled date of opening of Finance Bid. The decision of the Next Higher Engineer Authority (NHEA) shall be final and binding. The contractor/bidder shall not be entitled for any compensation whatsoever for rejection of his bid.
14. The Accepting Officer reserves the right to accept a tender submitted by a Public Undertaking, giving a price preference over other Tender(s)/bids which may be lower, as are admissible under the Government Policy. No claim for any compensation or otherwise shall be admissible from such tenderer/bidder whose tender/bid is rejected.
15. Accepting Officer does not bind himself to accept the lowest or any tender/bid or to give any reason for not doing so.
16. This **Notice Inviting Tender (NIT)** including Appendix 'A' shall form part of the contract.

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)
(For Works Costing Less Than Rs. 50 crore and Specialist E/M Works Costing Less Than Rs. 5 Crore)

1.	Name of work	REPAIR AND MAINT OF E/M INSTALLATION, STAND BY DG SETS, PUMP MOTOR, FENCING AND OTHER CONNECTED WORKS AT PALAMPUR MIL STN
2.	Estimated Cost	Rs. 30.00 Lakh (At Per Market)
3.	Period of completion	180.00 days
4.	Cost of tender documents	Rs 500/- in the form of DD/Bankers cheque from any scheduled Bank in favour of GE Palampur and payable at Palampur (H.P) . (Note : In case of retendering the contractor who had quoted in the previous call is not required to submit the cost of tender)
5.	Website/portal address	www.defproc.gov.in
6.	Type of Contract	The tender shall be based on IAFW-1779A and General Conditions of Contracts (IAFW-2249) with Schedule 'A'. The contractor is required to quote their rates against each items of Schedule 'A'
7.	Timeline details:	
	(a) Bid submission start date	Refer critical dates on the website.
	(b) Bid submission end date	
	(c) Date of bid opening	
8.	Eligibility Criteria	
	(A) For MES enlisted contractors	Contractors shall be enlisted with MES in Class ' D ' and above and category b(i) subject to satisfactory remarks wrt performance in respect of Wks in hand as reflected in Work Load return (WLR) or any other report circulated by competent engineer authority.
	(B) For contractors not enlisted with MES	(i) Contractor not enlisted with MES should meet the enlistment criteria of ' D ' class & category b(i) contractor with regard to satisfactorily completion of requisite value works with Central/State Government/Central/State PSUs/AWHO/AFNHB/CGEWHO/ DGMAP, annual turnover, bank solvency, working capital, and other requirement given in Para 1.4 & 1.5 of Section of MES Manual of Contracts 2020 as available in all MES formations as well as MES website (www.mes.gov.in) (ii) Not carrying adverse remarks in Work Load Report (WLR) or any other similar report circulated by any competent authority, if already working in MES. (iii) Not suspended/debarred/blacklisted (either permanently or temporarily) from participating in any bid or for business dealings by any Central/State Government Department or any Central/State Government PSU or any Autonomous Body under Central/State Government or any Local Body as on the bid submission end date.

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

	(c) Technical PQC criteria	<i>In case of Solar Power Works and Runway / Pavements, technical PQC criteria as stipulated in Manual on Contracts and as per Policy letters issued by E-in-C's Branch from time to time shall be included suitably.</i>
9.	Tender issuing and Accepting Officer	Garrison Engineer Palampur PIN-176061 Ph 01894 231421 Email ID gemesplp20@gmail.com
10.	Execution agency	GE Palampur
11.	Earnest Money	Rs 60,000/- in favour of GE Palampur in the form of Deposit at call receipt, FDR not acceptable

NOTES :

1 In case after opening of Cover 1, the number of MES enlisted contractors of eligible class as well as eligible un-enlisted contractors, if any, fulfilling the other eligibility criteria give in NIT is less than 7 (Seven), applications in respect of MES contractors of one class or two classes (in case of remote and difficult areas to be decided as per list circulated by CE command/ADG) below the eligible class shall also be considered subject to fulfillment of other eligibility criteria given in the NIT. Therefore MES contractor's one class below (two classes below in case of remote and difficult areas) may also bid for this tender. Such contractors (contractors of one/two classes below the eligible class) shall not be considered in case their present residual work in hand is more than FIVE TIMES their present tender limit. However in case such contractors fulfill the criteria of up gradation to the stipulated eligible class based on past experience of completed works (individual works experience and/or average annual turnover, as applicable) and financial soundness (solvency/financial soundness and working capital), the ceiling of present residual work will not apply and the will be considered for issue of tender. Such bidders shall upload in their Cover-1 bid details related to residual work in hand like details of works in hand showing names of work, names of Accepting Officers, Contract amounts, date of commencement and completion (stipulated) and progress as on bid submission date. Such contractors, if claim to fulfill the criteria of up gradation shall also upload the requisite information/documents in support of up gradation. These details shall be verified by the Tender Issuing Authority from concerned formations in case bids of such contractors are considered for evaluation.

2 In case after opening of Cover-1, the number of MES enlisted contractors of eligible class as well as un-enlisted contractors, if any, fulfilling the other eligibility criteria given in NIT, are 7 (Seven) or more, applications of only those one class below the eligible class bidders shall be considered, who have previously completed similar works satisfactorily and are meeting the criteria of up gradation in respect of past experience of completed works (individual work experience and/or average annual turnover as applicable) and financial soundness (solvency/financial soundness and working capital) as per details given in Manual on Contracts. Therefore such contractor shall upload the requisite information/documents in the Cover-1.

3. Un-enlisted contractor shall be considered provided he meets the criteria. Foreign firms shall not be eligible for this tender. However Indian Firms having foreign nationals / Indian nationals staying abroad / Indian national having taken foreign citizenship, as director(s) shall be considered subject to security clearance from the concerned authorities.

4. Contractors enlisted with MES will upload following documents in Cover-1 for checking eligibility:-

- Application for tender on Firm's letterhead.
- Enlistment letter issued by the Registering Authority duly renewed for the cycle period in vogue.
- Scanned copy of DD / Bankers Cheque toward cost of tender and EMD instrument in case SSD bond in not signed at the time of registration.
- Copy of Provident Fund Code number.
- Copy of GST Registration number

5. Contractors not enlisted with MES will be required to upload following documents in Cover-1 for checking eligibility:-

- Application for tender on Firm's letterhead.
- Scanned copy of DD / Bankers cheque toward cost of tender and Earnest Money Deposit (EMD) instrument.
- Copy of Police Verification Report/Police Clearance Certificate/Character Certificate from the Police Authority of the area where the registered office of the firm is located. Notarized copy of valid passport of Proprietor/each Partner/each Director

Signature of Contractor

**AGE (Contracts)
For Garrison Engineer**

- (d) All documents required for enlistment in MES for the class mentioned in Para 8(b) above as per Para 1.5 of Section 1 of MES Manual on Contracts 2020.
- (e) Details of works being executed in MES, if any.
- (f) List of all other documents required can be obtained from GE Office during working hours.

6. Tenders not accompanied by scanned copies of requisite DD/Bankers Cheque towards cost of tender and earnest money (as applicable) in Cover-1 shall not be considered for validation of 'T' bid and their Financial Bids will not be opened.

7. Contractors should ensure that their original physical DDs and Earnest Money Deposit (EMD) instruments (as applicable) reach the office of Accepting Officer within **five days (05)** of bid submission end date (*The number of days to be mentioned shall be as decided by the Accepting Officers, but it shall not be less than 5 days) failing which following action shall be taken:-

(a) In case of tenders from an enlisted contractor of MES, where scanned copies of requisite DD / Bankers Cheque towards cost of tender have been uploaded in Cover-1 but physical copies are not received within the stipulated period, their financial bids (Cover 2) will be opened. However non-submission of physical copies of cost of tender shall be considered as willful negligence of the tenderer with ulterior motives and such tenderer shall be banned from bidding for a period of six months commencing from the date of opening of Financial Bid (Cover 2).

(b) In case of tenders from un-enlisted contractor, where scanned copies of requisite DD / Bankers Cheque towards cost of tender have been uploaded in Cover-1 but physical copies are not received within the stipulated period, their financial bids (Cover 2) will not be opened. Name of such contractors along with complete address shall be circulated for not opening of their bids for a period of six months commencing from the date of opening of Financial bid (Cover 2)

(c) In case of tenders from enlisted and un-enlisted contractors, where scanned copies of instruments for Earnest Money Deposit (as applicable) have been uploaded in Cover-1 but the same are not received in physical form within stipulated period, such tenders shall not qualify for opening of financial bid (Cover 2).

8. Contractor will not be allowed to execute the work by subletting or through power of attorney to a third party / another firm on his behalf. However a contractor can execute the work through power of attorney to sons / daughters / spouse of Proprietor / Partner / Director and firm's own employees, director, project manager provided they are not having a separate enlisted firm in MES in their name as Proprietor / Partner / Director.

9. After opening of Cover-1 and during its technical evaluation, in case any deficiency is noticed in the documents required to be uploaded by the tenderers as per NIT, a communication in the form of e-mail / SMS / Speed Post etc shall be sent to the contractor to rectify the deficiency within a period of seven days from date of communication failing which their financial bid (Cover 2) shall not be opened contractor shall not have any claim on the same.

10. Invitation for e-tender does not constitute any guarantee for validation of Technical bid and subsequent opening of financial bid of any applicant / bidder merely by virtue of enclosing DD. Accepting Officer reserves the right to reject the Technical bid and not to open the financial bid of any applicant / bidder. Technical bid validation shall be decided by the Accepting Officer based on eligibility of the firm as per criteria given in Appendix. Tender / bidder will be informed regarding non-validation of his Technical bid assigning reasons therefore through tender evaluation report which shall be uploaded on the website. Such tender, if desires, may appeal to the next higher Engineer Authority (NHEA) viz . **HQ CWE Yol Cantt on e-mail Id ylpz4-mes@nic.in** with copy of the Accepting Officer on emails i.e. Garrison Engineer Palampur on **e-mail Id gemesp20@gmail.com** before the scheduled date of opening of Cover-2. NHEA shall decide the matter within a period of seven working days from the date of receipt of appeal. The decision of the NHEA shall be final and binding. The tender / bidder shall not be entitled for any compensation whatsoever for rejection of his bid.

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

11. In case an un-enlisted contractor is already executing works in MES, he shall not be considered eligible for the subject tender if the total value of such works is more than twice the tendering limit of the MES Class of contractor for which it is eligible. For this purpose, details of works being executed by such a contractor shall be uploaded in the Cover-1 of the bid and shall be checked / verified by the Accepting Officer.

12. In case the BOQ is revised through the corrigendum and the bidder has failed to quote on revised BOQ (i.e he has quoted on pre revised BOQ), such bid shall be treated as willful negligence by the bidder and his quotation shall be considered non-bonafide. In such cases the lowest tender shall be determined from amongst the valid / bonafide bids only. Accepting Officer may decide whether to re-tender or consider the lowest bonafide tender for acceptance.

13. Revoking the offer or revising the rates upward or offering voluntary reduction by the lowest tenderer after opening of Cover 2 shall be considered as a willful default. For this default a penalty of an amount equal to Earnest Money shall be levied. In case of an un-enlisted tenderer having deposit the Standing Security Bond, amount equal to the earnest money stipulated in the NIT, shall be notified to the tenderer for depositing through MRO and consideration of such tenderer in tender evaluation for future works shall remain suspended till the aforementioned amount is deposited in the Government Treasury. No other disciplinary / administrative action shall be taken against such tenderers. In such a situation, the next lowest offer shall not be considered for acceptance. Instead, retendering shall be resorted to in a transparent and fair manner and the defaulting tenderer and his related firm if any, shall not be eligible for this tender in second call or subsequent calls.

14. Tender to related firms shall not be issued simultaneously. Firms shall be termed as related if Proprietor / one of more Partners / Directors are common. Decision of Accepting Officer on issue / deny the tender to any one of the related firms shall be final and binding.

15. **Performance Security:** Within 28 days of receipt of the letter of acceptance, the successful contractor shall deliver to the Accepting Officer a performance security an amount equivalent to 5% of the contract sum.

16. **Jurisdiction of Courts:** Court of the place from where the tender has been issued shall alone have jurisdiction to decide any dispute out of or in respect of this tender. After acceptance of tender, condition 72-jurisdiction of courts of IAFW-2249 shall be applicable

Signature of contractor.

No : 8001/GEP-49/2024-25/03/E8

Garrison Engineer
Military Engineer Services
Palampur (HP) – 176061

AGE (Contracts)
For Garrison Engineer

Dated: 15 Oct 2024

DISTRIBUTION:

1. CE Pkt Zone 2. CWE Yol 3. CWE Mamun 4. CWE Pkt 5. GE (KH) Yol 6. GE Dalhousie 7. GE Mamun 8. GE E/M Mamun 9. GE (P) Mamun 10. GE (S) Pkt 11. GE (AF) Pkt 12. GE (W) Pkt 13. AGE (I) Dharamshala.

REGISTERED:

MES Builders Association of India (Regd.), PO Box No. 69, Gandhi Nagar, Jammu (J&K)
MES Builders Association of India (Regd.), Old Subji Mandi, Dhangu Road, Pathankot (PB)
MES Builders Association of India (Regd.), Near Piru Singh Chowk, Yol Cantt

IN LIEU IAFW-1779A (REVISED 1955)

**(To be used and read in conjunction with General Condition of Contracts IAFW-2249 (1989 Print)
MILITARY ENGINEER SERVICES**

Garrison Engineer
Military Engineer Services
Palampur (HP)

8001/GEP-49/2024-25/03/E8

15 Oct 2024

**NAME OF WORK: REPAIR AND MAINT OF E/M INSTALLATION, STAND BY DG SETS, PUMP
MOTOR, FENCING AND OTHER CONNECTED WORKS AT PALAMPUR MIL STN**

1. Shri/M/S_____ of _____ is/are hereby authorized to tender for the above mentioned work.
2. The tender is to be uploaded on MES website <https://defproc.gov.in> in refer critical dates.
3. All correspondence must be returned to this office whether or not the tender has been submitted.
4. All correspondence concerning to this tender shall be addressed as indicated on the top of this letter quoting the reference as given.

THE PRESIDENT OF INDIA DOES NOT BIND HIMSELF TO ACCEPT THE LOWEST TENDER OR ANY TENDER.

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

SCHEDULE 'A'**NOTES:-**

1. The **Schedule 'A'** of this contract has **two parts** as under:-
 - (i) **Schedule 'A' Part-II:** (E/M Works)
 - (ii) **Schedule 'A' Part-II:** (Credit of old materials retrieved from demolition/dismantling).

For Schedule of items of these part, refer BOQ sheet in Excel format which is part of the tender documents. The quantities shown under column 3 of BOQ are provisional and are inserted as a guide only. However these quantities shall not be varied beyond the limits laid down under condition 7 of IAFW-2249. The total amount quoted by the tenderers in BOQ shall be carried over to General Summary manually and the contract sum shall be arrived at after deducting amount of schedule of credit (if applicable) from the total quoted amount in BOQ.

2. The BOQ has not been pre-priced by the MES. The tenderers shall calculate their own unit rate for each item independently and quote their rates in figures only in the BOQ and submit the same online only. The total amount so arrived at shall be manually carried forward to the General Summary at the place provided for it. The total amount so arrived at shall not be firm but will be treated as "Contract sum" as per condition 6 (A) of IAFW-2249.

3. The description of the items of works as given under Col 2 in the BOQ in the excel format is in brief and shall be read in conjunction with particular Specifications, Specifications contained in Standard Schedule of Rates including preamble therein, Special Conditions, General Specifications and drawings including notes therein.

4. The rates for all items shall be for "Material and Labour" or "Supplying and Fixing" including connecting, testing, commissioning unless otherwise specifically described as "Labour only" and/or "Supplying only" and/or "Fixing only" for any particular item in the description of item under Col 2.

5. **Period of Completion** : The entire work under this contract shall be completed in an overall period of **180 days** from the date of commencement of work as ordered in Work Order No.1 to be placed by GE Palampur .

6. The unit rates for each item quoted by tenderer shall be deemed to include all taxes, levies etc imposed by Govt. and controlling authorities of the area time to time. The unit rates quoted by tenderer shall also be deemed to include the cost of all minor details, processes and operations which may not have been mentioned or shown on drgs but which are essential for the satisfactory completion of the work in a sound and workman like manner. In case of any difference of opinion between GE and contractor as to whether or not certain items of works constitute (s) minor details, which are included in the contractor's contract sum, the decision of Accepting Officer shall be final, conclusive and binding.

7. Method of measurement for all items listed in Schedule 'A' shall be as given in MES Standard Schedule of Rates unless specifically stated otherwise hereinafter for any item of work particularly.

8. The material obtained from demolition/dismantling shall be stacked at site for the verification and inspection of the Engineer-in-Charge/GE. The serviceable material shall be reused in the same work to the extent approved by Engineer -in-Charge/GE as per the description of the item of Schedule 'A'. The balance-retrieved material shall be the property of the contractor and shall be credited to the contractor as per Schedule of credit. The material so credited will be removed from the site after written permission of Engineer -in-Charge. The material obtained from demolition but not covered in Schedule of credit shall be the property of Govt. and shall be deposited in MES Store Yard of Engineer -in-Charge without any extra cost to the Govt. The debris obtained from demolition/ dismantling shall be disposed off to a distance exc. 250m but not exc. 500m and shall be deposited in low lying area as directed by the Engineer-in-Charge.

9. The site/buildings for execution of work will be made available to contractor immediately after acceptance of tender. In case all the buildings mentioned in the contract are not readily available in one go, the contractor will organized his resources/working program accordingly. The contractor shall have no claim what so ever later on, on account of non handing over of all the buildings in one go.

SCHEDULE 'A'(Contd....)

10. Please note that the least quoted rate shall be considered for acceptance for all the common nature of item of Sch 'A'.
11. As per Government of India, Ministry of Labour and Employment New Delhi Circular No 35025/02/2014-SS II dated 15 Jul 2015, it is mandatory for the contractor that all the workers deployed by him are enrolled as members of provident fund and should be given Universal Account Number (UAN).
12. It shall be mandatory for the Engineer -in-charge that while clearing the bills/payments (RAR) of contractor, a certificate be obtained from the contractors that all workers employed by him directly or indirectly are registered from EPF and the due contributions have been credited into their accounts. Contractor shall submit details of EPF submitted along with each RAR to Engineer -in-charge.
13. **"Taxes, duties & levies etc (refer Special Condition for Reimbursement/refund on variation in "Taxes directly related to contract value")"**.

The contractor's quoted rates shall be deemed to be inclusive of all taxes/cesses viz GST, duties, royalties, octroi and other levies payable under respective statutes as applicable on the date of receipt of tender. It may be noted that any tender imposing any condition in this regard or on any other account shall be treated as a conditional tender and the same shall be liable to be rejected.

14. It is mandatory for the contractor to credit the wages of his worker /labourers through their Adhaar linked bank accounts and also submit the details /proof of the disbursement of wages to his worker/labourers employed by him to Engineer -in-charge before claiming RAR/Final bill of the work done.

15. **Defect Liability Period**. The defects liability period shall be twelve calendar months after the works have been handed over to Government (hereinafter referred to as the "defects liability period").

16. **Performance Security:** The bidder shall deposit performance security deposit @ 5% of contract sum in the form of FDR or BGB in favour of GE Palampur within 28 days from date of receipt of acceptance letter for a validity period up to 60 days beyond the date of completion of defect liability period. Failure of the successful contractor to comply with the requirements of condition 19.1 of IAFW-2249 shall constitute sufficient grounds for cancellation of the award of work and forfeiture of the Earnest Money. In case of MES enlisted contractor, amount equal to the Earnest Money stipulated in the Notice inviting Tender, shall be notified to the tenderer for depositing the amount through MRO. Issue of tender to such tenderers shall remain suspended till the aforesaid amount equal to the Earnest Money is deposited in Government Treasury.

17. **SCOPE OF WORK** – The tender comprising the maint services. Work shall be carried out at **Alhilal Mil Stn.**

- (a) **Maint Pgme 2024-25:-** REPAIR AND MAINT OF E/M INSTALLATION, STAND BY DG SETS, PUMP MOTOR, FENCING AND OTHER CONNECTED WORKS AT PALAMPUR MIL STN

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

SCHEDULE 'A' PART- II**SCHEDULE OF CREDIT****SCHEDULE OF CREDIT FOR RETRIEVED MATERIALS FROM DEMOLITION/DISMANTLING****NOTES:-**

1 The items covered in this Schedule shall become the property of the contractor who shall be responsible to remove them outside the site of work at his cost after written permission of Engr-in-Charge and when the recovery for the said material have made from running account receipt or final bill whichever is earlier. In no case materials shall be allowed to accumulate on the site of work. The serviceable items dismantled/ demolished but not covered under this Schedule shall be returned to MES store Yard of **AGE B/R & AGE E/M of GE Palampur** at no extra cost to the Government. The unserviceable materials not covered under this Schedule shall be removed from site of works as directed by Engineer-in-Charge at no extra cost to the Government.

2 Measurements for the dismantling shall be taken jointly by MES representative and the contractor and shall be recorded in measurement book.

3 Quantities shown under Col 4 are provisional and inserted as guide only. However, these shall not be varied beyond the limits laid down in condition 7 of IAFW-2249 (General Conditions of Contract).

4 Full quantities as obtained from dismantling /demolition of items irrespective of their serviceability shall be considered under this Schedule.

Srl No	Brief description of items	Unit	Qty	Rate in Rs	Amount in Rs.	Remarks
1	2	3	4	5	6	7
1.	Old unsv filter any type & cap	Each	80.00	10.00	800.00	
2.	Old unsv engine oil	Ltr	400.00	15.00	6000.00	
3.	Old unsv V belts	Each	20.00	10.00	200.00	
4.	Old unsv gauge any type	Each	12.00	10.00	120.00	
5.	Old unsv high temp diesel hose pipe	Each	8.00	10.00	80.00	
6.	Old unsv alternator/dynmo	Each	4.00	300.00	1200.00	
7.	Old unsv part/winding of self starter	Kg	6.00	200.00	1200.00	
8.	Old unsv amp/volt/frequency meter	Each	10.00	10.00	100.00	
9.	Old unsv relay any type & cap	Each	8.00	20.00	160.00	
10.	Old unsv self starter 12V/24V	Each	4.00	1500.00	6000.00	
11.	Old unsv battery 150/180AH	Each	8.00	2500.00	20000.00	
12.	Old unsv door handle/lock	Each Set	10.00	5.00	50.00	
13.	Old unsv bty charger any type and cap	Each	14.00	500.00	7000.00	
14.	Old unsv bty terminal and bty lead	Each	30.00	100.00	3000.00	
15.	Old unsv earthing material	Each	10.00	100.00	1000.00	
16.	Old unsv Asbestos rope	Kg	30.00	2.00	60.00	
17.	Old unsv HDPE pipe	RM	100.00	5.00	500.00	
18.	Old unsv water pump	Each	2.00	200.00	400.00	
19.	Old unsv lub oil pump	Each	1.00	200.00	200.00	
20.	Old unsv AVR any type any size	Each	5.00	20.00	100.00	
21.	Old unsv MCCB any type & capacity	Each	9.00	50.00	450.00	
22.	Old unsv change over switch any cap	Each	10.00	150.00	1500.00	
23.	Old unsv LT cable any size	RM	750.00	20.00	15000.00	
24.	Old unsv CGI sheets	Sqm	150.00	50.00	7500.00	
25.	Old unsv brick work	Cum	6.00	500.00	3000.00	
26.	Old unsv fencing	Sqm	1000.00	50.00	50000.00	
27.	Old unsv bus bar chamber	Each	4.00	100.00	400.00	
28.	Old unsv power contactor any capacity	Each	3.00	100.00	300.00	
29.	Old unsv GI pipe any capacity	RM	40.00	25.00	1000.00	

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

Srl No	Brief description of items	Unit	Qty	Rate in Rs	Amount in Rs.	Remarks
1	2	3	4	5	6	7
30.	Old unsv chequered plate	Kg	500.00	27.00	13500.00	
31.	Old unsv joint kit any size & cap	Each	2.00	20.00	40.00	
32.	Old unsv MCCB closer	Each	2.00	30.00	60.00	
33.	Old unsv lubrication oil pipe	Each	10.00	5.00	50.00	
34.	Old unsv digital meter any type and any cap	Each	10.00	10.00	100.00	
35.	Old unsv DG set control display relay	Each	1.00	150.00	150.00	
36.	Old unsv stop lever of DG Set	Each	4.00	20.00	80.00	
37.	Old unsv iron scrap	Kg	1861.00	25.00	46525.00	
38.	Old unsv paver block	Sqm	180.00	200.00	36000.00	
	TOTAL OF SCHEDULE "A" PART-II C/O TO SUMMARY PAGE No. 31				2,23,825.00	

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

SCHEDULE 'B'
(LIST OF MATERIALS TO BE ISSUED TO THE CONTRACTOR)
(See condition 10 of IAFW-2249)

S. No.	Description of the store	Rate at which material etc. will be issued to contractor		Place of issue (By name)	Remarks
		Unit	Rate		
1	2	3	4	5	6

- NIL -

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

SCHEDULE 'C'
LIST OF TOOLS AND PLANTS (OTHER THAN TRANSPORT)
WHICH WILL BE HIRED TO THE CONTRACTOR
(See condition 15, 34 & 35 of IAFW-2249)

S. No.	Qty	Particulars	Details of crew	Hired Charges per unit	Stand by charges per unit off day	Place of issue	Remarks
1	2	3	4	5	6	7	8

-NIL-

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

SCHEDULE 'D'
TRANSPORT TO BE HIRED TO THE CONTRACTOR
(See condition 16 & 35 of IAFW-2249)

Srl No.	Qty	Particular	Rate per unit per working hour	Place of issue (By name)	Remarks
1	2	3	4	5	6

-NIL-

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

TENDER**THE PRESIDENT OF INDIA**

1. Having examined and prepared the following documents:-
Specifications signed by AGE (Contracts)
Drawings detailed in the specifications.
Schedule 'A', 'B', 'C' & 'D' attached hereto.
2. MES Standard Schedule of Rates 2009 (Part I) and 2020 (Part II) including amendment Nos **1 to 3** for Part-I and amendment Nos **1 to 122** for Part-II respectively, here-in-after and in IAFW-2249 referred to as the MES schedule.
3. General condition of contracts (IAFW-2249) (1989 reprint) together with amendment No. 1 to 49 and errata No. 1 to 20.
- 4.* Water condition 31 of IAFW-2249 (General condition of contracts). Water will be supplied by the MES at point shown on site plan or as decided by GE and shall be paid for by the contractor @ Rs. 3.75 per thousand of work done.
- 5.* (a) That the sum of **Rs. 60,000/- (RUPEES SIXTY THOUSAND ONLY)** forwarded as earnest money shall either be retained as a part of security deposit or be refunded by the Govt. on receipt of the appropriate amount of security deposit all as per condition 22 of IAFW-2249.

(b) To execute all the works referred to in the said documents upto the terms and conditions contained or referred to therein at the item rate contained in the aforesaid schedule or at such other rates as may be fixed under the provisions of Condition 62 and to carry out such deviations as may be ordered vide condition 7 of IAFW-2249 upto a maximum of **10 % (Ten percent)** and further agree to refer all disputes as required under condition 70 of IAFW-2249 to the sole arbitrator or having passed the final/direct final examination of sub/division-II of Institute of Surveyors (India) to be appointed by Chief Engineer, Pathankot Zone, Pathankot or in his absence the officer officiating as Chief Engineer, Pathankot Zone whose decision shall be final, conclusive and binding.

*To be deleted wherever not applicable.

Contd.....

GENERAL SUMMARY

1.	Total of Sch 'A' Part- I B/F from Srl page No. 26	: Rs	
2.	Less Total amount of Sch of Credit amount B/F from srl page No. 28	: (-)Rs	2,23,825.00
	Net amount C/O to next page No 32	: Rs	

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

GENERAL SUMMARY (CONTD.....)

Total brought forwarded from **Serial Page No. 31** for the contract sum of Rs_____

(Rupees_____

_____)

Signature _____ in the capacity of PROPRIETOR/PARTNER duly

authorized to sign the tender for and on behalf of M/S _____

Postal Address _____

Telephone Number _____

Witness _____

Address _____

ACCEPTANCE

_____ Alterations have been made in these documents and as evidence that these alterations were made before the execution of the contract agreement, these have been initialed by the contractor and **Sh. Bipan Kumar, AGE (Contracts)** The said officer is hereby authorised to sign and initial on my behalf the documents forming part of this contract.

The above tender was accepted by me on behalf of the President of India for the contract sum of Rs_____

(Rupees_____

_____)

Dated this _____ day of _____ 2024.

Appointment: Major
Garrison Engineer
Accepting Officer
(For and on behalf of the President of India)

SPECIAL CONDITIONS

1. **GENERAL:** The following special conditions shall be read in conjunction with general condition of contracts (IAFW-2249) (1989 reprint), if there are any provisions in the above mentioned documents, the provisions in these special conditions shall be deemed to take precedence. Work shall be carried out in accordance with the drawings and particulars specifications read in conjunction with specifications, general conditions, special conditions and all preambles contained in MES Standard Schedule of Rates, 2009 (Part I) for Specifications and 2020 (Part II) for rates. The term general conditions used in any of the document forming part of this contract referred to the specifications contained in the above schedule.
2. **VISIT TO SITE OF WORK:** The tenderers are advised to visit the site of work with prior permission of the GE and make himself familiar with the working conditions, accessibility of site, availability of materials and such other relevant conditions which may effect the execution and completion of work.
3. **MINIMUM FAIR WAGES/PAYMENT TO LABOUR:** The contractor shall have no claim on account of any legal regulation or otherwise, he required to pay wages to in excess of minimum fair wages shown in the schedule of minimum fair wages under condition 58 of IAFW-2249.
4. **PAYMENT OF WAGES TO CONTRACT LABOUR AS RESULT OF APPLICATION OF CONTRACT LABOUR REGULATION AND ABOLATION ACT, 1970:** If the Labour Ministry desires to enforce the provisions of the contract labour act for payment of the same to contract labour as that of the labour employed by the principal employer viz. MES, the difference in wages as payable under condition 58 of IAFW-2249 read in conjunction with condition 63 of IAFW-2249 and that payable under the preferred to above would borne entirely by the Govt. less first 10% as per condition 63 of IAFW-2249.
5. **MINOR DETAILS OF CONSTRUCTIONS:** contract lump sum prices and unit rates shall be deemed to include for full and entire completion of all works and as described here-in-after in accordance with good engineering practice and recognized principles. Details of constructions which are obviously and fairly extended and are essential for completion of work but which may not have been shown on drawings or mentioned to be included in prices tendered by the contractor, such details shall be furnished during currency of work. Decision of the accepting officer shall be final and binding.
6. **CONTRACTOR'S REPRESENTATIVE AND WORKMEN:** The contractor shall employ an Indian Nationals and verify their antecedents and loyalty before employing them on the work. He shall ensure that no person of doubtful antecedents and nationality is in any way associated with workers. If for reasons technical collaborations other considerations, the tenderer shall furnish full particulars to the Accepting Officer at the time of submission of tender, the GE shall have full powers and without giving any reasons to enquire the contractor immediately to cease to employ in connection with this contract servant and workmen or employees whose continued employment in his opinion is undesirable. The contractor shall not be allowed any compensation on this account. The contractor shall permit free accommodation and offered normal facilities and usual conservancies to other agencies or departmental workmen to carry out connected works or otherwise services under separate arrangements. The contractor shall not be allowed any extra payment on this account.
7. **RECORD OF CONSUMPTION OF CEMENT:** For the purpose of keeping a record of cement issued and consumed in works, the contractor shall maintain a properly bind register (Separately for each site) in the form approved by Engr-in-Charge showing daily receipt from MES, quantity used in work and balance quantity in hand. The register shall be signed by the contractor's representative in token of correctness of the entries made. It shall be signed in token of check by the MES representative as follows also:-
Daily by JE-in-Charge of supervising works, Engr-in-Charge will carry out check of the balance in hand at least twice in a month.

This register shall be kept at site in the safe custody of contractor during progress of work and shall on demand produce the same for clarification of inspecting officer.

SPECIAL CONDITIONS (Contd.....)

8. **CLEANING DOWN:** The contractor shall clean all floors, remove cement, lime/paint drops, clean joinery, glass panes etc. touchup all painted works and carry out all other necessary items of work to make the premises clean and tidy before handing over the buildings.

LAND FOR STORAGE OF MATERIALS, TEMPORARY WORKSHOP, OFFICES AND ACCOMMODATION FOR LABOUR ETC: No separate land shall be allotted to the contractor for storage of

materials and temporary workshop, offices, accommodation for labour etc. The land/open space adjoining in between the proposed works site may be used as directed by GE for storage of materials, tools and plants, temporary workshop, offices. No labour camp will be allowed in Ministry of Defence land. The rent for land proposed to be allotted as stated above shall be charged @ Re. 1/- (Rupee one only) per year or part thereof, in respect of each and every separate area of land allotted to contractor.

10 **STANDARD OF WORKMANSHIP:** To determine the acceptable standard of workmanship, the contractor shall execute certain portion of work and services in sample bays soon after the receipt of work order to commence the work. These samples on approval by GE shall be guiding samples for the other works. Other works not conforming to the approved samples will be rejected.

11. **TIME AND PROGRESS CHART CRITICAL METHOD:** The time and progress chart be prepared as per condition 11 of IAFW-2249 (General condition of contracts) shall consist of detailed new work analysis and time schedule. The critical path network will be drawn jointly by GE and contractor soon after acceptance of tender. The time schedule of the activities will be done by the contractor so as to furnish the work within the stipulated time. On completion of time schedule and firm calendar date schedule will be prepared and submitted by the contractor to GE who will approve it after scrutiny. The schedule of first 60 days shall be prepared and submitted within 10 days of acceptance of tender and the programme for the remaining work shall be prepared within 60 days from the date of work order. During the currency of work the contractor is expected to adhere to the time schedule and this adherence will be the part of contractor's performance in the reviews and updating of the network undertaken by the GE. These reviews may be undertaken at the description of GE either a periodic approval measure or when the quantum of work ordered on the contractor is subsequently changed through deviation orders or amendments. Any deviation of the schedule as a result of a review will be submitted by the contractor to GE within a week who will adhere to the revised schedule thereafter. In case of contractor disagreeing with the revised schedule, Accepting Officer's decision will be final, conclusive and binding. GE's approval to the revised schedule resulting in completion date beyond the stipulated extension time, extension of time shall be considered as decided by the Accepting Officer mentioned in condition 11 of IAFW-2249 and the contractor shall mobilize and employ sufficient resources to achieve the decided schedule within the based time frame of the accepted method of working and safety. No additional payment will be made to the contractor for any multiple soft work or other incentive methods contemplated by him in his work even though the time schedule is approved by the department.

12. **VALIDITY OF TENDER** : This tender shall remain open for acceptance for a period of 60 days from the date on which the tenders are due to be submitted.

13. **MATERIALS & SAMPLES:** The contractor is advised to inspect the samples of local building and other materials maintained by the GE before submitting his tender. He will be deemed to have full knowledge thereof whether he inspects these or not. The materials to be provided by the contractor shall confirm these samples. All materials including the materials referred to above shall be comply with the requirements of relevant Indian Standard including the latest amendments as on the date of issue of tender, the contractor shall produce samples of these materials and get them approved by the GE before commencement of work. In case goods complying ISI identification marks will be given preference over materials that not bear ISI certification marks.

14. **PROPRIETARY MATERIALS** : The contractor shall purchase the proprietary materials such as paint, bitumen, water proofing compound, tarfelt etc. from the manufacturers sealed container to ensure the quality of material. Bitumen shall be purchased from manufacturer only. Original vouchers for proprietary articles such as paint, water proofing compound, bitumen, sealing compound and chemicals for anti-termite treatment etc. shall be produced by contractor on demand by the Engr-in-Charge and corresponding entries shall be in the measurement books.

SPECIAL CONDITIONS (Contd.....)

15. **LOYALITIES** : Condition 14 of IAFW-2249 stand deleted in toto and substitute as under:-
"No quarries in the defence land will be permitted."

16. **SUPPLY OF WATER : Reference condition 31 of IAFW-2249** : MES shall supply water to the contractor at point(s) shown on site plan and shall be paid by the contractor @ Rs. 3.75 per Rs. 1000/- of work done priced at contract rates, the contractor's special attention is drawn to the fact that the MES water supply is likely to be made during restricted hours only and therefore he shall make necessary arrangements for storage of water at his own expenses. The contractor shall have no claim what so ever on the Govt. on account of water supply being intermitted or insufficient in quantity.

17. **ELECTRIC SUPPLY** : (a) In case the contractor desires to but electricity from MES, shall be charged for electric supply consumed at the following rates:-
(i) At Rs. 8.80(Rupees eight and paise eighty only) per unit for light.
(ii) At Rs. 8.80 (Rupees eight and paise eighty only) per unit for power.
(b) Electric supply required for work shall be made available by MES at the incoming terminal for the main switch marked on the site plan. The main switch and KWH meters to register electric energy supplied shall be provided and installed by MES. The contractor shall provide all necessary cables and fittings etc. for main switch in order to ensure a proper and suitable supply of electricity for the execution of work.
(c) The MES do not guarantee for the continuity of supply and no compensation what so ever shall be allowed for supply being intermitted or break down in the system.

18. **SECURITY OF CLASSIFIED DOCUMENTS**: Contractor's special attention is drawn to condition 2-A and 3 of IAFW-2249 (General conditions of contract). The contractor shall not communicate any classified information regarding the work either to sub contractor or other without prior approval of the Engr-in-Charge. The contractor shall also not make copies of the design drawings and other documents furnished to him in respect of work and he shall return all drawings and documents on completion of work or earlier termination of the contract. The contractor alongwith final bill attach a certificate from Engr-in-Charge in respect of having returned the classified documents as per conditions of IAFW-2249 (General conditions of contract).

19. **OFFICIAL SECRET ACT**: The contractor shall be bound by the official secret act and particularly section 6 thereof.

20. **SECURITY AGAINST LOSS/DAMAGE**:

(a) **Contractor's T&P at site**: The contract shall furnish to the Engr-in-Charge every morning distribution return of his plant/equipments on the site work stating the following particulars:-

- (i) Particular of plant/equipments, its manufacturer No., model No., Registration No., if any, capacity, year of manufacture, year of purchase, etc.
- (ii) Total No. (Quantity) on the site work.
- (iii) Location indicating (Quantity) of each location on the site work.
- (iv) Purchase value on the date of purchase for the purpose of the condition of plant/equipment shall include vehicle i.e. truck and lorries but neither the workmen's tools or any manually operated tools/equipments.

The Engr-in-Charge shall record the particulars supplied by the contractor in the work diary and send the return to GE for record in his office.

(b) **Loss or damage on account of enemy action**: If as a result of enemy action the contractor suffer any loss or damage to the extent on the manner herein after provided:-

- (i) The loss suffered by him on account of any damage or destruction of his plant/equipment (As defined in special condition 20 (a) above) or materials or any part or parts thereof, the amount of loss assessed by the Accepting Officer of the contract on this account shall be final and binding.
- (ii) The compensation paid by him under any law of the being in force to any workmen employed by him for any injury caused to him or to the workmen's legal successors for loss of workmen's life.
- (iii) Payment of compensation for loss or damage to any work or part of work carried out. The amount of compensation shall be determined in accordance with condition 48 of IAFW-2249.

SPECIAL CONDITIONS (Contd.....)

(v) No reimbursement shall be made not shall any compensation is payable under the above provisions unless the contractor had taken air defence precautions recorded in starting by GE/OC concerned or in the absence of such orders, reasonable precautions. No reimbursement shall be payable not shall any compensation payable for any plant/equipment or material not laying on site of work at the time of enemy action.

21. **RESTRICTION FOR ENTRY INTO WORK SITE:** (a) The work site is in UNRESTRICTED AREA. However, the contractor and his agents, servants, work people and vehicles may pass through the unit lines in which case the Engr-in-Charge shall at his discretion have the right to issue passes to control their admission to the site of work, or any part thereof. The contractor shall, on demand by the Engr-in-Charge admit a list of personnel etc. concerned shall satisfy the Engr-in-Charge as to the bonafides of such people. Passes shall be returned at any time on demand by the Engr-in-Charge and in any case or on completion of the work.

(b) The contractor and his work people shall observe all the rules promulgated from time to time by the authority controlling the area on which the work is to be carried out viz. prohibition of smoking and lighting, fire precautions,

search of people on entry and exit and keeping specified route etc., restricted hours of working. Any person found violating the security rules laid down by the authority shall be immediately expelled from the area without assigning any reasons what so ever and the contractor shall have no claim on this account, nothing shall be admissible for any damage or loss on this account.

22. **COVID-19 PRECAUTIONS:**

Due to prevailing situation of country, the Covid-19 precautionary measures as issued by Govt. of India, HP state authority, local Army Authority should be strictly followed by contractor and his employee's in all respect. The periodical medical checkup and testing etc should be carried out as per guidelines issued by local Army Authority/state Govt/Central Govt and necessary record should be maintained. The rate quoted by the contractor should be deemed to be inclusive all of these. Nothing shall be paid on this account.

23. Tendered rates shall inclusive of all taxes and levies payable under the respective statutes. However, pursuant to the Constitution (Forty sixth amendment act, 1982), if any further tax levy is imposed by statutes, after the last date for receipt of tender, and the contractor there upon necessarily and properly pays such tax, the contractor shall be reimbursed the said amount so paid, provided such payment, if any not in the opinion of CWE (Whose decision shall be final and binding), attributable to delay in execution of work within the control of contractor.

The contractor shall, for the purpose of this condition keep such books of accounts and other documents as are necessary shall allow inspection of the same by a duly authorized representative of Govt. and further shall, at the request of the GE, may require any document so kept and such other information as the GE may require.

The contractor shall within the reasonable time his becoming aware of imposition of any further tax or levy pursuant to the Constitution (Forty sixth amendment Act, 1982) give written notice thereof to the GE that the same is given pursuant to this condition, together with all information's relating thereof which he may be in a position to study.

24. **RE-IMBURSEMENT/REFUND ON VARIATION IN "TAXES DIRECTLY RELATED TO CONTRACT VALUE:-**

(a) The rates quoted by the contractor shall be deemed to be inclusive of all taxes/cesses viz. **GST**, duties, royalties, octroi & other levies payable under the respective statutes. No reimbursement/refund for variation in rates of taxes, duties, royalties, octroi & other levies, and/or imposition/abolition of any new/existing taxes/cesses, duties, royalties, octroi & other levies shall be made except as provided in sub Para (b) here-in-below.

SPECIAL CONDITIONS (Contd.....)

- (b) (i) The taxes/cesses which are levied by Govt. at certain percentage rates of contract sum/ amount shall be termed as "taxes directly related to contract value" such as GST, Labour welfare cess/tax and like as applicable but excluding Income Tax. The tendered rates shall be deemed to be inclusive of all "taxes directly related to contract value" with existing percentage rates as prevailing on last due date for receipt of tenders. Any increase in percentage rates of "taxes directly related to contract value" with reference to prevailing rates on last due date for receipt of tenders shall be reimbursed to the contractor and any decrease in percentage rates of "taxes directly related to contract value" with reference to prevailing rates on last due date for receipt of tenders shall be refunded by the contractor to the Govt./deducted by the Govt. from any payments due to the contract. Similarly imposition of any new "taxes directly related to contract value" after the last due date for receipt of tenders shall be reimbursed to the contractor and abolition of any "taxes directly related to contract value" prevailing on last due date for receipt of tenders shall be refunded by the contractor to the Govt./deducted by the Govt. from the payments due to the contractor.
- (ii) The contractor shall, within a reasonable time of his becoming aware of variation in percentage rates and or imposition of any further 'taxes directly related to contract value', give written notice thereof to the GE stating that the same is given pursuant to this special condition, together with all information relating there to which he may be in position to supply. The contractors shall submit the other documentary proof/information as the GE may require.
- (iii) The contractor shall, for the purpose of this condition keep such books of account and other documents as are necessary and shall allow inspection of the same by a duly authorized representative of Govt. and shall further, at the request of the GE furnish, verified in such a manner as the GE may require, any documents so kept and such other information as the GE may require.
- (iv) Reimbursement for increase in percentage rates/imposition of "taxes directly related to contract value" shall be made only if the contractor necessarily & properly pays additional "taxes directly related to contract value" to the Govt. without getting the same adjusted against any other tax liability or without getting the same refunded from the concerned Govt. Authority and submits documentary proof for the same as the GE may require".

Signature of Contractor**AGE (Contracts)
For Garrison Engineer**

PARTICULAR SPECIFICATIONS**1. GENERAL**

1.1 (a) Work under this contract shall be carried out in accordance with Schedule 'A', Particular specifications, drawing, General Specifications and other provisions in MES Standard Schedule of rates 2009 Part-I and SSR-2010 Part-II(here-in-after called MES Schedule) read in conjunction with each other.

(b) Term "General Specifications" referred to here in before as well as referred to in IAFW-2249 (General conditions of contracts) shall mean the specifications contains in the MES Schedule Part-I.

(c) General Rules, specifications, special conditions and all preambles in the MES Schedule shall be deemed to be applicable to the work under this contract, unless specifically stated otherwise in these documents in which case the provisions in these documents shall take precedence over the aforesaid provision in the MES Schedule. The "Term as Specified" wherever appears in the tender documents and drawings, relates to relevant particular specifications and in its absence general specification. All reference to MES Schedule (Standard Schedule of Rates) in these specifications relate to Part-I of MES Schedule unless otherwise mentioned. Reference to only some paragraphs of MES Schedule has been made in these particular specifications but other paragraphs and provisions as applicable are also to be followed for all parts of Sch 'A' even-though not particularly mentioned here-in-after.

(d) Where specifications for any item of work are not given in MES Schedule or in this particular specifications, specifications as given in relevant Indian Standard of code of practice shall be followed.

(e) Rate quoted for particular item by the tenderer shall be deemed to include for any minor details/items of work and/or constructions which are obviously and fairly intended and which may not have been included in these documents but which are essential for the execution and entire completion of the work, Decision of Accepting Officer as to whether any minor details of work and/or construction is obviously and fairly intended be included in the contract or not shall be final conclusive and binding.

1.2 EXCAVATION

1.2.1 (a) The type of soil shall be as specified in SSR Part-I.

(b) The measurement of excavation shall be as explained in MES Sch Part-II

1.2.2 FILLING IN TRENCHES/UNDER FLOORS :

The approved earth obtained from excavation in foundation shall be used for filling in trenches sagggregating grass roots and vegitable moulds or other organic matters. The filling around pipes, after the pipes are laid and tested shall be with earth free from pebbles/stones. Any additional earth required for the purpose of filling shall be arranged by the contractor out side of defence land.

1.2.3 Filling under floors/sides of trenches shall be in layers not exceeding 25cm thick and each layer shall be watered and well rammed.

1.2.4 Surplus spoil shall be removed and spread at the places where directed by by the Engineer-in-charge to a distance as directed and levelled.

2 CONCRETE WORK

PARTICULAR SPECIFICATIONS (Contd.....)

- 2.1 **CEMENT** : Contractor shall make his own arrangements to procure cement as specified here-in-after. The cost of cement, its transportation, storage, testing charges, its accounting and preservation etc. till consumed in works shall be borne by the contractor.
- 2.1.1 **TYPE OF CEMENT** : Type of cement to be used in this contract shall be Ordinary Portland Cement, grade 43, conforming to IS-8112-1989/Portland Pozzolona Cement conforming to IS-1489-1991, unless otherwise specifically specified. Different type of cement, if so required, as per contract provisions, shall also be arranged by contractor at no extra cost to Govt. However, contractor may use OPC in lieu of PPC in all situation in the work without any price adjustment.
- 2.1.2 **PROCUREMENT**
- 2.1.2.1 Cement procured by the contractor shall be from any of the producers listed as per Appx 'C'. He may procure it directly from the producer or through their authorized dealers.
- 2.2 **USE OF PPC** While using PPC, the following requirements shall be met with:
- (a) PPC shall meet the strength criteria of 43 grade OPC as laid down in IS 8112 – 1989.
 - (b) The minimum period before striking formwork given in clause 11.3.1 of IS-456 shall be suitably modified at site by the Engineer-in-Charge.
 - (c) Mixing of OPC & PPC shall not be allowed in a work.
 - (d) PPC Cement shall not be used in important structure like overhead reservoirs, underground sump, prestigious buildings (as decided by the GE/Engineer-in-Charge and building with span 10 meter or more. In these structures only OPC cement shall be used.
 - (e) While procuring PPC, the following requirements are to be ensured and certificate to that effect from the manufacturer shall be submitted by the contractor for each batch:-
 - (i) The quality of fly ash used is strictly as per IS-1489 (Part-I)- 2002.
 - (ii) The fly ash is inter ground with clinker and not mixed with clinker.
 - (iii) Dry fly ash is transported in closed containers and stored in silos and only pneumatic pumping is used.
 - (iv) The fly ash is received from thermal power plants using high temperature combustion above 1000 Degree Centigrade.
- 2.2.1. Cement brought by the contractor at site(s) of work shall be in Jute/polythene/paper bags containing 50 kg cement in each bag originally sealed by manufacturer. Before allowing any on account payment for materials at site, test check shall be carried out to ascertain average weight of cement per bag.

PARTICULAR SPECIFICATIONS (Contd.....)

2.2.2. Contractor shall produce purchase vouchers, test certificates and other valid documentary proof to the entire satisfaction of GE for entire quantity of each consignment to prove that cement has been purchased from the main producer as in para 2.1.2.1 above. The contractor shall also submit particulars of the manufacturers of cement for every lot for verification by the JE & Engineer-in-Charge.

2.2.3. If the estimated requirement of cement in this work will be less than 1200 bags, the contractor can procure cement from the authorized distributors/dealers of the approved firms. However, contractor will have to submit test certificate for the batch issued by the firm. In this case the independent testing will be at the option/discretion of the GE. In case the contractor does not produce the factory test certificate, the testing of the cement by the Engineer-in-Charge as per IS code 4031 will be mandatory from SEMI/CME, Regional Research Laboratories or Zonal Laboratory, all as per IS-3535-1986, IS-4031 and IS-4032 1985. Irrespective of results, cost of materials for such samples, cost of requisite handling & conveyance etc shall be born by the contractor. It will be ensured by the Engineer-in-Charge that cement brought at site by the contractor and accepted by the department is not more than 2 months old.

2.3 TESTING OF CEMENT

2.3.1 The contractor shall submit the manufacturer's test certificate in original alongwith the test sheets giving the result of each physical test as applicable and the chemical composition of the cement or authenticated copy thereof in accordance with BIS provisions duly signed by the manufacturer or his authorized representative with each consignment. The Engineer-in-Charge shall record these particulars in the cement Acceptance Register (Format given in Appx 'A' attached herewith).

2.3.2 Cement brought to site of work shall remain the property of Govt. Contractor shall in no case, remove any bag of cement unless permitted in writing by GE/Engineer-in- Charge. . Cement from each consignment shall be allowed to be incorporated in the work only after the GE is satisfied with the quality of cement brought by contractor.

2.3.3 It has to be ensured that tested and untested cement is segregated and stored separately with distinct identification. Cement of different brands shall be stacked separately.

2.3.4 If the test results of samples of a particular consignment are not within acceptable limits, the matter shall be referred to the Accepting Officer, whose decision regarding acceptability of such cement with price adjustment or removal from the site shall be final and binding. Cement so rejected or any bag of cement in god own showing indication of any setting shall be segregated and removed by contractor from the site within a week's time, with due permission of GE for their removal.

2.4 STORAGE/CONSUMPTION OF CEMENT

2.4.1 Cement in bags shall be stored in proper leak proof/damp storage godown, over at least a 20cm high platform, away from walls in such manner as to prevent deterioration due to clause 4.3.1 of SSR Part-I.

PARTICULAR SPECIFICATIONS (Contd.....)

2.4.2 For the purpose of keeping a record of cement procured and consumed in works, the contractor shall maintain a properly bound register in the form approved by the Engineer-in-Charge showing all procurements, quantity used in the work and balance in hand, at the end of each day and such other information as may be required to control the consumption of cement. Pages of the register shall be numbered and initialed by Engineer-in-Charge. This register shall be signed daily by the contractor or his representative also as follows:-

- (a) Daily by JE(Civil) in-charge of work.
- (b) Twice in a week by the Engineer-in-Charge.

2.4.3 The said register shall remain at site or work, in the safe custody of the contractor and on demand shall be produced for verification of Inspecting Officer. On completion of the work, the register shall be returned to MES. The cement go down shall be provided with two locks on each door. The key of one lock on each door shall remain with the Engineer-in-Charge or his authorized representative and that of the other lock with the contractor's authorized agent at site of work so that cement is removed from the go down accordingly to daily requirements and with the knowledge of both the parties.

2.4.4 Forgoing provisions shall not, however absolve the contractor of his responsibility of incorporating required quantity of cement in various items of works as per contract provisions.

2.4.5 Cement shall be used in order of which it is received. It shall be ensured that only one type/make of cement is used in any structural member.

2.5 DOCUMENTATION

The contractor shall submit original purchase vouchers from the dealer for the total quantity of cement supplied under each consignment to be incorporated in the work. All consignment received at the work site shall be inspected by the GE along with the relevant documents before acceptance. The original vouchers and test certificates shall be defaced by the Engineer-in-Charge and kept on record in the office of the GE duly authenticated and with cross reference to the control number recorded in the cement Acceptance Register. The cement Acceptance Register will be signed by the JE(Civil), Engineer-in-Charge, GE and the contractor. The accepting officer may order a Board of Officers for random check of cement and verification of connected documents. The entire quantity of cement shall be suitably recorded in the Measurement Book also for Record purposes before incorporation the work, as "NOT TO BE ABSTRACTED" indicating the voucher number with dates, quantity, date of manufacture/expires date etc. It shall form the basis to allow advance on account through RARs.

2.6 SCHEDULE OF SUPPLY

2.6.1 The contractor shall ensure that procurement action is taken immediately after acceptance of the contract so as to adhere to stipulated date of completion.

2.6.2 The periodicity of striking off the form work and curing for works with ordinary Portland shall be as stipulated in IS-456. However for the pozzolana cement and Portland slag cement the striking off period of form work shall be D+2 days-where D is the striking of period for OPC. The contractor quoted contract sum shall be deemed to cater for these provisions and nothing extra shall be admissible on this account.

PARTICULAR SPECIFICATIONS (Contd.....)**2.7 FINE AGGREGATE**

Fine Aggregate for concrete work shall conform to materials specifications and gradings within the limits of grading zones II to III all as specified in clause 4.4 of MES Schedule.

2.8 COARSE AGGREGATE

Coarse aggregate for all RCC work shall be graded crushed broken stone aggregate of grading as per description of relevant item of Sch 'A'. Coarse aggregate for all PCC work shall be graded crushed broken stone/Nallah Shingle of grading as per description of relevant item of Sch 'A'. However, crushed stone aggregate can be used for lean concrete at Contractor's discretion without price adjustment. For floor topping only crushed/broken aggregate of approved quality & grading shall be used all as specified in clause 4.4 of MES Schedule. Mixture of two types shall however not to be used.

2.9 WATER

Water shall conform to the requirement stipulated in IS 456 and as clause 4.9 of MES Sch 'A'.

2.9.1 ADMIXTURE

Admixture, if used shall confirm to the requirements stipulated in clause 5.5 of IS-456-2000.

2.10 MIX OF CONCRETE

Unless otherwise specified, mix of cement concrete in various situations shall be as given in relevant item of Schedule 'A'.

2.10.1 CURING

The concrete shall be protected from premature drying for at least 8 days after pouring and shall be cured as directed by the Engr-in-Charge for a period of not less than 14 days.

3. FORM WORK

3.1 Form work shall comply with requirement of clause 4.11.6, 4.11.6.1 to 4.11.6.5 and 17.5.1 to 17.5.4 of MES Schedule Part-I.

3.2 Form work shall be of steel or plywood or timber of adequate strength. In case of any deviation involving from work, the pricing shall be done at the rates of timber form work.

4. BRICK WORK

Bricks shall be kiln burnt, available locally or in the neighboring region, best quality conforming to the samples kept in GE's office. Unless specified otherwise in Schedule 'A' bricks shall be old size bricks having minimum crushing strength of 75 Kg/Sqcm. Water absorption of bricks shall not exceed 20% when tested in accordance with IS-3495. Sampling and testing of bricks shall be carried out as per IS-5454 and IS-3495. The nominal size of brick shall be 230mm x 115mm x 75mm. The tolerance in the dimensions shall +/- 8 percent.

PARTICULAR SPECIFICATIONS (Contd.....)**5. FLOORING****5.2.1 GENERAL**

5.2.2 Ordinary Portland cement for all flooring shall be used. Provisions contained in clauses 13. 25, 13.26 & 13. 27 of MES Schedule (Part-I) are to be adopted for laying floors and pavements.

5.2.3 Floors shall be laid to levels as directed by the Engineer-in-Charge.

5.2.4 Floors finish shall be extended over dwarf walls, doors and other openings.

5.2.5 Floor topping of cast-in-situ cement concrete shall be finished even and smooth without using extra cement as specified in clause 13.32.8 of MES Schedule Part-I.

6. PLASTERING AND POINTING**6.1 GENERAL**

6.1.1 Plaster and skirting/dado shall be returned in jambs, soffits of lintels and windows etc.

6.1.2 Where plaster on concrete surface is shown to match the adjacent wall surface, the mix of plaster shall be same as for the wall surfaces.

6.1.3 All plastered surfaces shall be trowelled to even and smooth surfaces the mix of plaster shall be same as for the wall surfaces.

6.1.4 All external finishes shall be carried out upto 15cm below ground level except where plinth protection etc is provided.

6.1.5 All corners angles, junctions shall be truly vertical or horizontal as the case may be and shall be carefully finished, corners around joints, openings and junction of walls shall be rounded to minimum radius of 5mm.

7. PAINTING

7.1.1 All synthetic enamel paints and emulsion paints shall be of 1st quality manufactured by the standard firm. Approved brands of paints shall be as per Appendix 'B' attached. The paint shall be procured by the Contractor in sealed container not more than 4 Ltrs packing.

7.1.2 The contractor shall inform the GE, with in three weeks of the acceptance of the tender, the brand/names of the manufacturers of paint proposed to be used in the work and submit sampled thereof to GE before their use in work and obtain prior approval of GE.

7.1.3 The contractor shall, when required by the GE, produce certificate from the manufacturer or their authorized agents to establish that the brand of paints purchased by the contractor from them satisfy the requirement of the relevant IS.

7.1.4 Paints for priming coat, under coat and finishing coat shall be of the same brand.

i. Tint of paint will be as approved by the GE.

PARTICULAR SPECIFICATIONS (Contd.....)**7.2 WORKMANSHIP**

7.2.1 All wood work required to be painted shall be smoothened size and knotted one than 8applied with priming coat, stopping and filling (filter coat) shall be done after priming coat and surface rubbed down to a level and smooth surface and thereafter under coat and finishing coat shall be applied all as specified in clause 17.6 of MES Schedule Part-I. Steel and iron work shall be painted in the manner as specified in clause 17 of the MES Schedule Part-I.

7.3. WHITE/COLOUR WASH/DISTEMPERING

7.3.1 White/color wash white(lime) wash or color wash shall be provided as ordered all as specified in clause 15.2 & 15.12 of MES Schedule Part-I. For white washing on ceiling adequate quantity of zinc oxide shall be added to lime wash for achieving of white shade, skirting and dado are not to be white/color washed.

7A. STEEL, IRON AND ALUMINUM WORK**7A.1 STEEL AND IRON**

Note: All items of steel and iron work including steel for reinforcement required for incorporation in this contract shall not be issued under Schedule 'B'. Contractor shall make his own arrangements to produce steel and iron all as specified hereinafter.

7A.1.1 GENERAL

Items of steel and iron brought to site by the contractor for incorporation in the work shall be free from defects all as specified in clause 10.4.3 and 10.17.6 of SSR Part –I and shall be conforming to IS specifications as given below :-

- (i) Structural steel standard quality - Conforming to IS - 2062
- (ii) Structural steel ordinary quality - Conforming to IS : 1977
- (iii) Reinforcement steel - High strength deformed steel bars produced by Thermo Mechanical

Treatment Process (TMT steel bars

of grades Fe 500 and Fe-550)meeting all

requirements of IS : 1786

- (iv) Galvanised Steel Sheets - Conforming to IS - 277
(plain and corrugated)

- (v) Fabric Reinforcements for concrete - Conforming to IS – 1566

7A.2 MATERIALS**7A.2.1 Reinforcement Steel:-**

(i) TMT steel bars of Fe-500/Fe-550 grade of all size shall be procured directly from primary producers Viz SAIL, RINL, TISCO. or any other primary producer as approved by Engineer-in-Chief's Branch. New Delhi.

(ii) Independent testing of steel by the GE shall be optional at the description of the GE in case of procurement from main producers and testing charges shall be borne in accordance with condition 10(A) of IAFW-2249 i.e. testing charge shall be borne by the department if the test results are found in order otherwise these shall be borne by the contractor. The Contractors should place his demand/requisition of steel with adequate lead-time. The steel should be purchased from the storage depots of the main producers only and not from their authorized agents/dealers.

PARTICULAR SPECIFICATIONS (Contd.....)

(iii) The design has been done with steel of grade as mentioned in drg. However, contractor at his option may use steel of Fe 500 in lieu of Fe 415 and Fe 550 in lieu of Fe 500 grade without any price adjustment. Mixing of different grades of steel in same structure is not permitted. However, for different buildings steel of different grade may be used.

(iv) A building/structure wise record shall be maintained if different grade steel is used in the work.

(V) Engineer-in-Charge & GE shall approve this and case shall be referred to Design Section of this HQ in case of any doubt before execution of work. Only after clarification is taken then only work shall commence.

(vi) In case of deviations, pricing shall be done at SSR-2020 rates TMT bars only. 8.1.2.1 Structural Steel

(i) Structural steel sections shall be procured directly from primary producers i.e SAIL, RINL, TISCO or any other primary producer as approved by E-in-Chief's branch. It shall be procured from secondary producers as given here-in-after at the option of contractor with necessary minus price adjustment which shall be 5% (Five percent) of the accepted rates of structural steel. In case the desired section structure steel is not rolled / manufactured by the primary producers, there shall be no price adjustment in use of structural steel procured from approved secondary producers.

(ii) Independent testing of structural steel by the GE shall be optional at the discretion of the GE in case of procurement from main producers and testing charges shall be borne in accordance with condition 10(A) of IAFW-2249 i.e. testing charge shall be borne by the department if the test results are found in order otherwise these shall be borne by the contractor.

(iii) Independent testing of structural steel by the GE shall be mandatory in case of procurement from secondary and testing charges shall be borne by the contractor irrespective of the outcome of test results.

(iv) In both the cases at sub para (ii) and (iii) above, the contractor at his cost shall provide all facilities required for the testing and cost of materials consumed in tests shall also be borne by the contractor.

(v) The documents in support of the purchase of structural steel shall be verified by the site staff and GE. The particulars of the manufacturer of structural steel shall be obtained from the contractor for every lot of structural steel separately.

7A.2.2 Galvanized steel sheets and fabric reinforcement for concrete :- These shall be procured directly from main producers/BIS marked manufactures at the option of contractor without any minus price adjustment. Testing provisions shall be same as given above at sub para 8.1.2.1(ii) to (iv) above.

7A.2.3 Procurement of material (Structural Steel, Galvanised steel sheets and fabric reinforcement)

(i) Structural steel, Galvanised steel sheets and Fabric Reinforcement for concrete may be permitted from authorized dealers of main producers in case of small contracts of value not exceeding Rs. 7.5 Lakhs.

(ii) Steel sections of railings, gates, fencing, guard bars, grills, steel chowkhats, holdfasts etc., which do not constitute structural members, can be procured from main producers/ secondary producers/BIS marked manufacturers or their authorized dealers at the option of contractor without any minus price adjustment. Tests will not be insisted upon for such steel sections.

PARTICULAR SPECIFICATIONS (Contd.....)

(iii) It shall be the responsibility of contractor to produce purchase vouchers, test certificate and other valid documentary evidence for entire satisfaction of GE for entire quantity of each consignment to prove that materials have been purchased from main producer of steel. Details shall be submitted on steel supply acceptance form (Proforma enclosed as per Appx „B“)

(iv) The Galvanised Iron sheets and Fabric Reinforcement for concrete to be supplied by the contractor shall be ISI marked and shall be procured from main manufacturers viz SAIL/RINL/TISCO.

(v) The structural steel supplied by the contractor will be procured from main producers namely SAIL, Rashtriya Ispat Nigam Ltd, TISCO or approved Secondary producers who manufacture structural steel out of ISI marked billets and are having BIS certification of ISI marking on their products. The list of approved secondary producers for structural steel is given in Appx 'C' hereinafter.

(vi) TMT steel to be incorporated in the work will be procured by contractor from SAIL with whom an MOU has been signed by the department to ensure assured availability of quality steel to MES contractors. In case of non-availability of reinforcement steel with SAIL, the reinforcement steel can be procured from Rashtriya Ispat Nigam Ltd/TISCO, after obtaining & producing NOC/Non availability certificate issued by Regional Manager of SAIL before GE and obtaining prior permission.

Note : 1. Procurement of reinforcement steel, structural steel, Galvanised Steel Sheets & Fabric reinforcement for concrete may be done from authorized dealers of main producers, in case, the total requirement of steel is less than 5 tonnes.

2. Steel sections for railing, gates, fencing including angle iron posts, horns, guard bars, grills, steel chowkhat, holdfasts etc. which do not constitute structural members, can be procured from main producers/BIS marked manufacturers/approved secondary producers (for structural steel) or their authorized dealers at the option of contractor without any minus price adjustment. The requirement of production of test certificates and testing will not be insisted upon for such steel sections.

7A.3 PROCUREMENT

7A.3.1 Engineer-in-Charge for every lot for steel shall obtain the particulars of the manufacturer/supplier of steel from the contractor separately. The form given at Appendix 'B' will be used for this purpose.

7A.3.2 The Engineer-in-Charge and GE shall verify the original documents in support of the purchase of steel and will retain certified true copy of the results in GE's office.

7A.3.3 Engineer-in-Charge will ensure that contractors place their demands /requisition of steel with adequate lead-time. The reinforcement steel will be procured from the storage depots of the main producers/approved Secondary producers and not from their authorised agents/dealers. Similarly structural steel will be procured from the storage depots of main producers/approved secondary producers and not from their authorized agents/dealers.

7A.4 DOCUMENTATION The contractor shall submit original purchase vouchers from the manufacturer for the total quantity of steel supplied under each consignment to be incorporated in the work. Engineer-in-Charge shall inspect all consignment received at the work site alongwith the relevant documents, before acceptance of the same. The original vouchers and the Test certificate shall be defaced by the Engineer-in-Charge and kept on record in the office of GE duly authenticated and with cross reference to the control number recorded in the Steel Acceptance Register. The Steel Acceptance Register will be signed by JE, Engineer-in-Charge, GE and contractor. The entire quantity of all steel items shall be suitably recorded in the Measurement Book as 'Not to be abstracted', before incorporation in the work and shall be signed by the Engineer-in-Charge and the contractor

PARTICULAR SPECIFICATIONS (Contd.....)**7A.5 TOLERANCE**

Rolling and cutting tolerance of structural steel products shall be as specified in IS-1852 of 1985. Tolerance on size and weight of reinforcement bars shall be as specified in clause 10.17.4 and 10.17.5 of SSR Part-I. Steel with less weight than permissible shall not be used.

7A.6 SCHEDULE OF SUPPLY

The contractor shall ensure that procurement action is taken immediately after acceptance of contract so as to adhere to schedule of activity/CPM network.

7A.7 STORAGE, ACCOUNTING, PRESERVATION AND MAINTENANCE

7A.7.1 Structural steel/bars of different classification, sections, sizes and lengths shall be stacked separately. Steel shall be marked with distinct painting marks for easy identification. Steel shall be recorded in MB for record purpose only.

7A.7.2 All steel shall be stored on dunnage atleast 15cm above ground level.

Steel reinforcement shall be stored properly to prevent deterioration and corrosion. In case of long time storage, suitable protective measures like cement coating, provision of temporary shelter etc. to save it from rusting/deterioration etc. shall be taken. Any item of steel that has deteriorated or corroded or considered defective by Engineer-in-Charge shall not be used in the work and shall be removed from the site of work.

7A.8 TESTING OF STEEL The manufacturer is to carry out inspection and testing of steel in accordance with the relevant BIS provisions. The contractor shall submit the manufacturer's test Certificate in original alongwith the Test Sheet giving the results of each mechanical test as applicable and the chemical composition of steel or authenticated copy thereof, duly signed by manufacturer with each consignment. The Engineer-in-Charge shall record details in Steel Acceptance Register, as given at

Appendix 'B' after due verification and send a certified true copy of test sheet to GE for his records. The GE may also organize independent testing of random samples of steel drawn from various lots from National Test House, SEMT Wing, CME, Regional Research Labs, Government approved Lab, Zonal Labs etc. In case, steel is procured from main producers, the testing charges shall be borne, in accordance with condition 10 of IAFW-2249 i.e. testing charges shall be borne by the department if the test results are found in order otherwise these shall be borne by the contractor. However, independent testing of steel by Engineer-in-Charge shall be mandatory in case of procurement of steel from secondary producers and testing charges shall be borne by the contractor irrespective of test results. In all cases, the contractor at his own cost shall provide all facilities required for testing and cost of materials consumed in the tests shall be borne by the contractor.

7A.8.1 Quality of steel shall be ascertained by following tests :-

(a) THERMO MECHANICALLY TREATED BARS

Tensile test, bend test and rebend test shall be carried out as per Clause 8 of IS-1786-1985. Test specimen shall be taken as per clause 10 of IS 1786-1985. Minimum tensile strength, yield stress and minimum elongation for different grades shall be as under :-

Srl No.	Grade	Yield Stress	Elongation	Tensile Strength
1.	TMT-415	415 N/Sqmm	As per IS	485 N/Sqm
2.	TMT-500	500 N/Sqmm	-do-	545 N/Sqmm
3.	TMT-550	550 N/Sqmm	-do-	585 N/Sqmm

(b) STRUCTURAL STEEL Tensile test and bend test shall be carried out as per clause 7 & 8 of IS-2062. Minimum yield stress shall be 240 N/Sqmm.

(c) CHEMICAL TEST Chemical test shall be carried out to ascertain chemical composition which shall conform to the norms laid down in relevant IS codes. For TMT bars, Chemical Composition shall be as given in Appendix 'E' attached.

PARTICULAR SPECIFICATIONS (Contd.....)

7A.8.2. If the test fails and steel has been incorporated in the work, further execution of work with that steel will be stopped and matter shall be referred to the Accepting Officer. The decision of the Accepting Officer regarding acceptance of work with the steel which has failed in test with price adjustment as decided by him or redoing the work with steel of proper specifications or any other decision shall be final and binding on the contractor. In case Accepting Officer decides to remove the sub standard steel, the work executed using sub standard steel shall also be demolished and site cleared by the contractor without any extra cost to the Government.

7A.8.3 METHOD OF MEASUREMENT All items of steel brought at site shall be entered in MB for record purpose as "Not to be abstracted" before incorporation in the work and shall be signed by Engineer-in-Charge and the contractor indicating the diameter and length of bars, quantities, voucher number with date. It shall form the basis to allow advance on account through RARs. While allowing advance on such materials, quantities so entered in MB shall be reduced by 2% to account for waste and off cuts and every care shall be taken to ensure that all such quantities will be utilized in the work.

7A.8.4 RECORD OF MEASUREMENTS Before casting of concrete, reinforcement incorporated shall be measured by representative of Engineer-in-Charge and contractor jointly. These measurements shall be entered in a register for the purpose of record and shall be signed by contractor's representative and Engineer-in-Charge.

7A.8.5 WEIGHT CONVERSION Conversion factor for various sections/sizes of steel shall be as per conversion tables given in SSR. Where conversion table is not available in SSR, IS conversion table/ constant shall be followed.

NOTES:-

(a) Mixing of different types and grades of bars shall not be done in the same structural members main reinforcement to satisfy clause 26.1 of IS-456 of 2000.

(b) TMT bars of grade Fe-415 or less only shall be used under the following seismic conditions :-

- (i) When the structure is located in seismic Zone IV and V.
- (ii) When the structure is located in seismic Zone III and has importance factor greater than 1.0.
- (iii) The structure is located in seismic zone III and is an industrial structure.
- (iv) The structure is located in seismic zone III and more than five storeys high.
- (c) TMT bars shall not be treated as corrosion resistant steel bars.

7A.9 STEEL REINFORCEMENT

7A.9.1 TMT bars shall be provided irrespective of whatsoever mentioned in Schedule 'A' drawings.

7A.9.2 Reinforcement shall be fabricated and placed in position all as specified in Schedule 'A'/directed by Engineer-in-Charge and specified in clause 10.17 to 10.22 of MES Schedule (Part-I) without application of heat.

8. MATERIALS :

8.1.1 Mild steel galvanised tubes (Pipes) and fittings shall conform to the clause 18.4.1 to 18.4.5 and shall bear ISI certification mark.

9. REPAIR/MAINTENANCE OF DG SET

PARTICULAR SPECIFICATIONS (Contd.....)

9.1 **GENERAL** : The material to be provided under the contract shall unless otherwise described in Sch 'A' and/or specified in these particular specification complete with the provisions of relevant B.S./IS referred in Sch 'A' applicable Indian Standard (IS) of the year of publication (Edition) as specified in Sch 'A' and/or the MES SSR Part-I. The contractor however at his own discretion provide and incorporate in the work, such materials complying with the requirement of any corresponding subsequently amended for revised edition of the ISS with out any adjustment of contract sum, contractor shall produce the necessary proof to the satisfaction of the GE that the material comply with the requirements of the relevant B.S./IS.

9.2 **Production of vouchers/invoices for materials by the contractor** :- The contractor shall produce the original printed machine numbered purchase voucher/invoices for the materials listed in respective items of Sch 'A' (unless these are not required for incorporated in work) When ever procured and brought to site of work for incorporation in the work.

9.3 A zerox copy of such vouchers/invoices shall be kept on the record duly signed by the contractor and Engineer-in-charge. The original vouchers/invoices shall be stamped (office stamp) and defaced in ink by the Engineer-in-charge stating "verified" for materials purchased and brought to the site of work for incorporation in the work "under the subject CA" and signed with date before allowing payment for the material through RAR. Payment for material listed in respective items of Sch 'A' shall neither be made in the RARs or these will be allowed for incorporation in the work unless purchase vouchers/invoice as stated above and produced by the contractor and verified by the Engineer-in-Charge regarding their correctness and genuines and are defaced by him against the contract.

10. **Scope of work** : The work under this contract shall be carried out in accordance with the description of item of work as given in Sch 'A', these particular specifications and manufacturer's technical literature/Catalogue/manual of repair and General Engineering trade practice. It shall also be inclusive of such works which may be indispensably required for satisfactory completion, testing and commissioning of Get Set whether specifically included in this tender or not i.e. adjustment of moving parts, lubricating and servicing etc and replacement of minor mechanical /electrical part connected with the major part as mentioned in the Sch 'A'.

10.2 The replacement of defective part shall conform with the original provisions/specifications or as recommended by the manufacturer.

10.3 The material shall be purchased from authorized dealer/stockiest only. The contractor shall produce original purchase vouchers to the Engineer-in-Charge for all the material to be incorporated in the work. The purchase vouchers shall be verified and defaced by the Engineer-in-Charge and signed by the contractor in proof and satisfaction of the genuineness of the material. The defaced copy shall be kept on record by the Engineer-in-Charge.

11. STANDARD OF QUALITY OF WORK

11.1 Any damaged caused to the Gen Set while in the custody of the contractor shall be made good by the contractor without any extra cost of the Govt. and to the entire satisfaction of the Engineer-in-Charge.

11.2 All equipments/fittings/material to be incorporated in the work shall be of standard makes and as per CA specifications.

PARTICULAR SPECIFICATIONS (Contd.....)**12. DISCONNECTING AND TAKING OUT THE GEN SET/ VOLTAGE STABILIZERS**

12.1 The contractor shall be take necessary precautions to carryout the work of disconnecting and taking out the existing Gen Sets without disturbance/damaging the adjoining connections etc and in case of any disturbance/damage caused to the parts/connections due to contractors fault/ (if so decided by the GE the same shall be made good by him (at his own cost) to the entire satisfaction of the Engineer-in-Charge.

13. REPLACING THE SPARE PARTS TO GEN SET/ VOLTAGE STABILIZERS .

13.1 Replacing the spare parts to Gen Set shall be done by replacing all necessary genuine parts as listed in Schedule 'A'.

14. INSTALLING BACK IN POSITION THE GEN SET/ VOLTAGE STABILIZERS.

14.1 The Gen Set after needful repairs shall be installed back in its original position.

15. GUARANTEE

15.1 The tender shall given an undertaking in writing a **guarantee period of one year** from the certified date of testing / re commissioning of the Gen Set & Voltage Stabilizer for their workmanship, functioning and any manufacturing defects for the new parts supplied/replaced by him. Any defects observed during the guarantee period shall be rectified by the tenderer at his own expenses arrangements including replacement of parts as required.

16. ENGINEERING PRACTICE / MINOR ITEMS

16.1 The entire work shall be carried out in a workman like manner and in accordance with the Modern Engineering Practice adopted for such work.

16.2 The tenderer rates shall be deemed to include any minor items which are obviously and fairly intended as per current engineering practice and which may not have been referred in these documents, but are essential for the work. In the event of difference of opinion as to whether an item is minor the decision of the Accepting Officer be final, conclusive and binding.

17. **SAND CUSHIONING** : Before laying the cable, the trench shall be provided with a layer of 8 cms depth for the purpose of cushioning, when the cable has been properly laid it shall be covered with sand to a depth of 15 cms. Method of laying for cable and sand cushioning shall be specified as per clause No 19.75 of MES Schedule part-1.

18. EXTERNAL ELECTRIFICATION**18.1 SCOPE OF WORK:**

The extent of work is as per items given in Schedule 'A'. All references to clause in the succeeding paragraphs pertain to MES Schedule part-1.

18.2 GENERAL REQUIREMENT:

18.2.1 Materials, execution, testing and record of installation shall conform to relevant IS certifications and as given in clause 19.2.1 to 19.2.6 and as also in accordance with Indian Electricity Rules 1956.

PARTICULAR SPECIFICATIONS (Contd.....)**18.2.2 MAKING GOOD:**

The contractor is deemed to have included in his lump sum cost of cutting holes / making chases when required through roads/bricks or concrete work for taking in cables, conduits and conductors etc and making good the same to match with the existing work.

18.2.3 EXCAVATION AND EARTH WORK :

The contractor shall excavate to the specified depths in relevant items Sch 'A' and as directed by Engineer-in-Charge. Excavation made to depths more than the required levels shall be made good by the contractor at his own expense with approved earth by ramming, watering in 250 mm thick layers. No extra payment shall be made for extra depth excavation and filled by the contractor. The cost of any shoring/boarding and de-watering shall be deemed to be included in the cost of excavation and no extra payment shall be made.

18.3 MATERIALS:

18.3.1 Insulator and insulator fittings shall be of ISI Approved make & as specified in Clause 19.6.1 to 19.6.4.

18.3.2 Stay wire and stay wire assemblies shall conform to specifications given in clause 19.7, 19.8 and as per description of Schedule 'A'.

18.3.3 Steel cross arms shall conform to specifications given in 19.9. The Contractor shall produce original printed vouchers and test certificates for material incorporated in cross arms duly signed . Sections of steel shall be decided by Engineer-in charge.

18.3.4 Bearer wires shall conform to specifications given in clause 19.11.

18.3.5 The makes of poles, insulators, overhead conductor, GOD etc. shall be as per Appx 'C' attached.

18.4 WORKMANSHIP :

18.4.1 Pole fittings and cross arms shall conform to details given in clause 19.53.

18.4.2 Insulators shall conform to clause 19.54.

18.4.3 Stay and stay arrangements shall conform to clause 19.55.

18.4.4 Earthing shall be done as per clause 19.137.2, 19.138 to 19.141 to 19.146 of SSR 1991 Part-I.

18.4.5 TESTING OF EARTHING

On completion of work, the testing of earthing shall be carried out as per clause 19.146 of SSR 1991 Part-I.

19 UNDERGROUND CABLES

19.1 LT cable shall be PVC insulated heavy duty multi-stranded armoured and PVC sheathed as specified in respective item of Schedule 'A' and conforming to IS.

19.2 LAYING AND JOINTING OF CABLES

19.2.1 The cable shall be laid and jointed as specified in MES Schedule (Part-I), IS-1055 and in accordance with the instruction furnished by the cable manufacturers and as specified here-in-after.

19.2.2 The cable shall be laid as per Para 19-75 and 19-76 of MES Schedule (Part-I).

PARTICULAR SPECIFICATIONS (Contd.....)

- 19.2.3 The sand for the purpose of cushioning and cover shall be fine sand from Fazilka and shall be provided as per Para 19.75 of SSR Part-I and as approved by GE.
- 19.2.4 Cable should be covered with sub class 'B' bricks having compressive strength not less than 75 Kg/Cm² laid flat and length of bricks across the length of cable as directed by the Engineer-in-Charge. Size and dimensions of bricks shall be as specified here-in-before.
- 4.2.6 After the layer of brick cover is laid the remaining trench will be filled with excavated earth all as specified in item of Schedule 'A'.
- 19.2.7 The cables shall be snaked at all joints and junction boxes. Snaking shall be as directed by the Engineer-in-Charge. Extra length on account of snaking will also be measured under respective items of Schedule 'A'. The quantity payable under Schedule 'A' items shall be the length of cable laid including the length in snaking and no price adjustment shall be made for variation in quantities of connected (allied) items like sand cushion, sand cover and brick layer protection cover.
- 19.2.8 Where the cables run vertically, they shall be firmly fixed with flat iron clamps as directed by the Engineer-in-Charge at one metre centre to centre along the supports.
- 19.2.9 Where the cable has to cross a road, it shall cross on a skew to reduce the angle or bend as the cable enters and leaves the road crossing, GI pipe light grade of size as described in Schedule 'A' shall be buried 1 metre below the road surface for drawing of cable. The ends of the pipe shall be plugged with bituminous compound so as to prevent entry of waste material.
- 19.3 **JOINTING OF CABLES:** The jointing of LT cables shall be done all as per Para 19.85, 19.85.1 of MES Schedule (Part-I). Cost of jointing is included in the respective item of Schedule 'A' and no extra cost on account of jointing to LT cable shall be payable separately.
- 19.4 **TESING OF CABLE**
- 19.4.1 Manufacturer test certificate shall be furnished by the contractor to the GE in respect of LT cables.
- 19.4.2 **Testing during laying cables:** All cables shall be megger tested before jointing. After joining is completed, all low voltage cable shall be megger tested and high voltage cables pressure tested before commissioning. The cables shall be tested for:-
- Continuity
 - Insulation and resistance between conductors
 - Insulation resistance to earth.
 - Absence of cross- phasing
- 19.4.3 **Testing after laying cables :** Immediately after the initial laying and jointing work is complete, a high voltage test shall be applied to HT cables to ensure that they have not been damaged during or after the laying operations and that there is no flaw in jointing. The following tests shall be carried out:-
- Insulation resistance tests – Sectional and overall
 - Continuity test – Sectional and overall
 - Full load test
 - Earth test
- 19.5 The contractor shall produce manufacture original test certificates for the routine test and type of laid down in the relevant IS for underground cable.

20. STEEL TUBULAR SWAGED POLES

- 20.1 Poles shall be all as specified in clause 19.3 of SSR Part-I. The poles shall be numbered with black and white paint and painting shall be done as specified in relevant items of Sch 'A' and as directed by the Engineer-in-Charge.
- 20.2 The steel tubular swaged poles can be brought to site in one piece for LT poles and two pieces for HT poles which shall be included at site at the discretion of the contractor.

PARTICULAR SPECIFICATIONS (Contd.....)**21. INSULATORS**

Insulator and insulator fittings shall be as specified in Clause Nos 19.6.1 to 19.6.4 of MES Schedule Part-I.

22. STAY ASSEMBLY

Stay wire and stay wire assemblies shall conform to specifications given in clause No 19.7, 19.8 of MES Schedule Part-I and as per description of Sch 'A'.

23. SECURITY/STREET LIGHT FITTINGS

23.1 Security/street light fittings shall meet the requirements all as specified in Sch'A', in clause 19.42 of MES SSR Part-I-1991 and entire satisfaction of Engr-in-Charge. This shall be of cast housing and shall comply to IS : 2149 of 1970 for street light all as detailed in Schedule 'A' and shown on drawings.

24. TEST CERTIFICATE AND LITERATURE

The contractor shall provide the manufacturer's test certificate and literature/manual of following items:-

- (a) Lightning arrestors.
- (b) Steel tubular swaged poles
- (c) PVC XLPE cable.
- (d) MCCB Gang operated Air Break switch.

25. PAINTING :

25.1 All synthetic enamel paints and emulsion paints shall be of Ist quality manufactured by the standard firm of approved brands of paints as per Appx 'C' attached.

25.2 The contractor shall inform the GE, with in three weeks of the acceptance of the tender, the brand/names of the manufacturers of paint proposed to be used in the work and submit samples thereof to AGE before their use in work and obtain prior approval of GE.

25.3 The contractor shall, when required by the GE, produce certificate from the manufacturer or their authorised agents to establish that the brand of paints purchased by the contractor from them satisfy the requirement of the relevant IS.

25.4 Paints for printing coat, under coat and finishing coat shall be of the same brand.

25.5 Tint of paint will be as approved by the GE.

26. TESTING AND HANDING OVER OF EQUIPMENT :

26.1 After installation of equipments, the same shall be connected with the existing system, commissioned and tested to the entire satisfaction of GE. The equipments/material required for testing of equipments shall be arranged by the contractor without any extra cost to the Govt. The equipment shall be tested until the required results are not obtained.

27. GI PIPES AND FITTINGS

27.1 GI pipes and fittings shall be laid in trenches, fixed to walls/floor/ceiling/poles and jointed all as specified in clause 18.50 and 18.50.3 and 18.51.5 of MES Schedule Part-I.

PARTICULAR SPECIFICATIONS (Contd.....)**28. EARTHING**

28.1 Earthing shall be provided as per IS regulations, electrical Plate No 3 of SSR part-I and as per description of respective items of Sch 'A'. The contractor shall take approval of layout of earthing before commencement of work and earthing shall be executed in the presence of authorized MES representative. The earthing shall generally conform to IS-3043/1987 and clause 19.137 to 19.146.3 of MES Schedule Part-I.

29. DANGER NOTICE BOARD

29.1 Refer clause 19.18 of MES Schedule Part-I. It shall be all as specified in the relevant item of Schedule 'A'. Unless otherwise specified in Schedule 'A', the plate for danger notice board shall be of mild steel 1.6 mm thick.

30. LT PANELS

30.1 LT panels shall be all as specified in Sch 'A'. The contractor shall produce and get the detailed drawing of LT Panel approved from GE before fabrication and placing the order to the manufacture.

30.2 MCCB/MCB : MCCBs/MCB shall be provided of various capacities as described in Sch 'A'. MCB shall be conforming to IS-8828-1996, IEC-60898 and IEC-60947 (Part-II), as applicable. MCCBs shall be manufactured by any one of the manufacturers given in Appendix 'C'. MCCBs shall be IS marked. MCCB shall be procured either direct from the above manufacturers or their authorised distributors/authorised dealers.

30.3 VOLTMETER, AMPERE METER : These shall be provided of the shape and size and described in Sch 'A' and directed by GE. Ampere meters and volt meters shall conform to specifications of IS-722 Volt Meter and Ampere Meters shall be ISI marked.

30.4 SELECTOR SWITCH : Selector switch shall be provided as per Sch 'A'/ Selector switch shall be conforming to specifications of IS-8675 and ISI marked.

30.5 INDICATING LAMPS : Indicating lamps shall be provided of size and shape as described in Sch 'A'. Indicating lamps shall be LED type. The contractor shall procure indicating lamps either directly from the above manufacturer of their authorised distributor/dealer.

30.6 LT PANEL BOARD, SINGLE PANEL SWITCH BOARD :

27.6.1 SCOPE : These specification cover the detailed requirements of medium voltage LT Panel to be fabricated, supply, installations, its testing and commissioning. Any other material required for the successful completion of the work is included in these specifications if other wise not mentioned herein.

30.6.2 **ELECTRICAL PARAMETERS** : Suitable for 415 volts rated voltage 3 phase, 4 wire 50Hz AC supply.

PARTICULAR SPECIFICATIONS (Contd.....)**30.6.3 GENERAL INSTRUCTIONS**

- (i) The LT Panel shall be indoor/out door type having incoming and outgoing as specified in schedule 'A'. the degree of protection shall be IP-55 for outdoor and IP-53 for indoor as per IS-2147-1962.
- (ii) LT Panel shall be of in door/out door type, free standing type totally enclosed and compact.
- (iii) The LT Panel shall be rain, dust and vermin proof and shall be suitable for climatic conditions of the station.
- (iv) The LT Panel shall be fabricated out of MS sheet steel of thickness as specified in Sch 'A' and foundation frame fabricated out of MS angle iron 40x40x6mm.
- (v) The design shall include all provisions for safety of operating and maintenance personal. The general construction shall conform to IS-5039 OF 1983 for factory assembled LT Panel.
- (vi) All incoming and outgoing cable entries shall be from the bottom as directed by Engr-in-charge.
- (vii) General construction shall employ the principle of compartmentalization for safety consideration.
- (viii) The LT Panel shall be painted with 7 tank process for treatment of degreasing, pickling and two coats primer, before being given the stove epoxy finish. Final color shade shall be 631 as per IS-5.
- (ix) The LT Panel shall be suitably double earthed as per standard engineering practice.
- (x) The dimensions of the LT Panel shall be as on required basis for incorporating the electrical accessories / switchgear as specified in schedule and these particular specifications.
- (xi) The front and back side of the LT Panel shall be provided with hinged double doors with locking arrangement. The lock shall be built in flush type of superior quality as directed by Engineer in Charge. The hinged shall be of such construction that the door can swung open by not less than 150 degree. The fixing of the doors shall be such that the doors should automatically come to closed position if not kept open with effort.
- (xii) **CANOPY** : The top of the LT Panel shall be fitted with a sloping canopy, design of which shall be such that rain water shall not accumulate on the top.
- (xiii) **VENTILATION** : Adequate ventilation shall be ensured by providing ventilation for the inlet and exhaust of air.
- (xiv) **BUS BARS** : The Bus Bar of suitable size and as specified shall be provided. The bus bar for neutral shall be half the size of the phase bus bar. The bus bars shall be insulated with PVC sleeve / tape. One No. GI earth bus shall be 25mmx4mm and shall be fixed at the bottom of the LT Panel for earth connections.
- (xv) **BUS BAR SUPPORT** : The bus bar shall be firmly fixed on the supports constructed from suitable grade of insulating material such as laminated sheet or porcelain line insulators of suitable size conforming to relevant ISS. The supports shall be sufficient rebuts in withstanding electro mechanical force produced during the short circuit. The nuts, bolts shall be either of GI or cadmium plated. Bus bar chamber will be manufactured of not less from 3mm thick MS Sheet. Connections between bus bar and MCCBs will be made either with solid copper strip of adequate capacity duly insulated or by adequate capacity copper cable with copper lugs, provided for making the connections. As per site requirement the aluminium links duly insulated with PVC sleeves or paints shall also be provided for connection with bus bar chamber and incoming or outgoing onwards.

PARTICULAR SPECIFICATIONS (Contd.....)

(xvi) **Danger Notice Sticker** : Danger Notice Sticker shall be provided on the front and back doors of the LT Panel. No or other distinguished mark shall also be written on the LT Panel as directed by the Engineer-in-Charge.

(xvii) **Installation**: The LT Panel shall be installed on a suitable plinth and grouted in the foundation with cement concrete and finished neatly with plaster as per manufactures recommendations. An apron will be provided below the door level of the LT Panel on the four sides.

(xviii) **Earthing** : The LT Panel shall be earthed with two distinct earths to electrode (to be measured and paid separately). The earth connections from the electrode shall be done as specified in Sch 'A'. The earth electrodes shall be erected at least one meter away from LT Panel, but on the opposite side. The earthing terminals shall be identified by means of the sign marked in legible and indelible manner on or adjacent the terminals.

(xix) **Testing**: All necessary tests such as insulation / earth test etc shall be carried out before connecting the LT Panel with the supply system and will be recorded duly signed by contractor and Engineer-in-Charge.

(xx) Three copies of line plan of complete work indicating the line of underground HT/LT cables & equipments etc, shall be submitted by the contractor to the Engineer-in-Charge on completion of work without any extra cost to the Govt.

31. **MCCB**

MCCBs shall be provided of various capacities as described in Sec 'A'. MCCB shall be conforming to IS-8828-1996. IEC-60898, as applicable. MCCBs shall be manufactured by any one of the manufacturers given Appendix 'C'. MCCBs shall be IS marked. MCCB shall be procured either direct from the above manufacturers or their authorised distributors/authorised dealers.

32. **LIGHTNING ARRESTOR**

Lightning arrestor shall be provided as specified in para 19.12, 19.13 and 19.67 of SSR-1991 Part-I (Specifications) and as per IE, Rules-1992. The earth lead for any lightning arrestor shall not pass through any iron steel pipe but shall be taken as directly as possible from lightening arrestor to a separate earth electrode. Lightning arrestor shall be manufactured by any one of the manufacturers given in Appx 'C'. Lightning arrestor shall be procured by the contractor either directly from the manufacturers or from authorised distributor/authorised dealer, as directed by GE.

33. **Lightning Protection Work**. Refer Para 19.147.1 of MES Sch Part-I.

34. **CHAIN LINK FENCING**

34.1 Chain link fence shall be made of galvanized wire and shall conform to IS:2712-2003, Specification for galvanized steel wire chain link fence fabric. The mesh wire and line wire of the fabric shall be manufactured from galvanized steel wire conforming to IS 280:2006 having zinc coating of type heavy as laid down in IS 4826, Hot dipped galvanized coatings on round steel wires or IS 12753, Electro galvanized coating on round steel wires. Tensile strength of wires shall be within 400 to 500 MPa. Dia of wire and the length of side of the mesh of chain link fence and the dia of line wire shall be as indicated. The wires shall be free from scale, irregularities, imperfections, flaws, sand splits and other defects. Zinc coating shall be smooth, even and bright. Chain link in fencing shall be fixed to the fencing posts as indicated or directed.

35. **SITE CLEARANCE :**

Entire site will be cleared by the contractor to the satisfaction of Engineer -in Charge and GE. No extra payment on this account will be made to the contractor.

PARTICULAR SPECIFICATIONS (Contd.....)**36. DISMANTLING/DEMOLITION OF WORK**

The work of dismantling/demolition shall be carried out with utmost care without any harm/damage to existing structure/part of the structure. Any damage to the existing part shall be repaired/made good by the contractor without any extra cost of the Govt. The serviceable material obtained from demolition/dismantling shall be re-used in the same work to the extent approved by the Engineer-in-Charge as per the relevant item of Schedule 'A'. The unused material shall be the property of the contractor and shall be handed over to the contractor and credit shall be taken as per Schedule of Credit. The material not covered in Schedule of credit shall be the property of Govt. and shall be deposited in MES store yard by the contractor without any extra cost to the Govt.

Contractor**AGE (Contracts)
For Accepting Officer**

APPENDIX 'B'

STEEL SUPPLY /ACCEPTANCE FORM

Contract No :
Name of Work :
Control No :
DETAILS OF PURCHASE :
(a) Particulars of Manufacturer :
(b) Details of the Supply, if any :
DETAILS OF TEST CERTIFICATE :
(a) No. and Date :
(b) Particulars of the issuing authority. ;
(c) Date of manufacturing :

Date :

Ser	Nomen- clature and size of Steel	IS Refer ence	Quant ity		Physical Properties							Rebend Test	Rks
			Actual	Conversion	0.2% Proof stress/yield stress (minimum)	ELONGATION(%)							
						IS *	Test Sheet	Random Test*	IS	Test Sheet	Rando m Test		
1	2	3	4	5	6	7	8	9	10	11	12	13	14

*As ordered
Remarks with Signature

JE(Civil)

Engineer-in-Charge

Contractor

Accepted/Rejected

Garrison Engineer
-----Remarks
of BOO/Inspecting Officer

LIST OF APPROVED MAKES FOR ITEMS TO BE INCORPORATED IN WORK**1. PRODUCERS OF CEMENT**

- | | |
|---------------------------------------|---|
| (a) Sanghi Industries Ltd (SANGHI) | (b) Cement Manufacturing Co Ltd (STAR) |
| (c) Ultra Tech Cement Ltd (ULTRATECH) | (d) OCL India Ltd (KONARK) |
| (e) Dalmia Cement (Bharat) Ltd | (f) Chettinad Cement Corp Ltd (CHETTINAD) |
| (g) Heidelberg Cement Ltd (MYCEM) | (h) My Home Industries Ltd |
| (j) Parasakti Cement Ltd (PRASAKTI) | (k) Zuari Cement Ltd (ZUARI) |
| (l) Toshali Cement Pvt Ltd (GAJAPATI) | (m) Saifco Cement Pvt Ltd (SAIFCO) |
| (n) Prism Cement Ltd (PRISM) | (o) Shree Guru Kripa Cements Ltd (SARTAJ) |
| (p) Barak Valley Cement Ltd (BVCL) | (q) Dhruv Industriail Co Ltd (DHRUV) |
| (r) Madras Cement Ltd (MADRAS) | (s) Saurashtra Cement (Saurashtra) |
| (t) Lafarge Cement (Lafarge) | (u) The Associates Cement Co. Ltd. |
| (v) Grasim Cement. | (w) The India Cements Ltd |
| (x) Andhra Cements Ltd. | (y) Century Cement Ltd |
| (z) Binani Cement | (aa) Mangalam Cement. |
| (ab) Birla Corp. Ltd | (ac) Orient Cement |
| (ad) Shree Cement | (ae) J K Cement (J K) |
| (af) JK Lakshmi Cement Ltd | (ag) Jaypee Rewa Cement |
| (ah) Ambuja Cement Ltd | (aj) Ultra Tech Cement |

2. APPROVED FACTORIES FOR FACTORY MADE PANNELLED/GLAZED/GAUZED SHUTTERS

- (a) M/S Drone Timber Technolohists (P) Ltd New Delhi.
 (b) M/S Shri Krishna Industries, Plot No. 299, Phase-II, Panchkula-134109.
 (c) M/S Poiner Timber Products, Chandigarh.
 (d) M/S Tara Products, New Delhi.
 (e) M/S Jain Timber Industries, 50 KM Stone, GT Road, Murthal, Sonipat.
 (f) M/S Goyal Industrial Co. New Delhi.
 (g) M/S M/S Sarab Enterprises, Dhamtal (HP)
 (h) M/S Everest Trading Corpn, Damtal (H.P.)
 (J) M/S Chandigarh Timber Product, Chandigarh.
 (f) M/s Jain Doors Pvt Ltd , Sonipat

3. PARTICLE BOARD/PLY WOOD/PRE LAMINATED PARTICLE BOARD

- (a) Kitply. (b) Novapan. (c) National Ply wood Industries. (d) Anchor. (e) NUWUD.
 (f) DURATUF.

4. Approved TMT Steel Manufacturer

- (a) Rashtriya Ispat Nigam Ltd (RINL)
 (b) TATA Iron & Steel Co. (TISCO or Tata Steel) (TATA)
 (c) Steel Authority of India Ltd (SAIL).
 (d) Jai Balaji Industries Ltd (JAI BALAJI)
 (e) Shaym Steel Industries Ltd. (SHYAM TMT).
 (f) SPS Steel Rolling Mills Ltd (ELEGANT TMT).
 (g) Steel Exchange Indai Ltd (SIMHADRI TMT).
 (h) Jindal Steels and Power Ltd (JINDAL).
 (j) SRMB Srijian Pvt Ltd (SRMB).
 (k) Concast Steel & Power Ltd (CONCAST MAXX).
 (l) Adhunik Metaliks Ltd (ADHUNIK MET+)
 (m) Shri Bajrang Power & Ispat Ltd (GOEL TMT).
 (n) JSW Steel Ltd (JSW TMT Plus).
 (o) Electrosteel Steels Ltd (Electrosteel).

- (p) Shyam Metalics & Energy Ltd (SEL).
- (q) Kamachi Industries Ltd (KAMACHI).
- (r) BDG Metal & Power Ltd (BDG 6).
- (s) Gallantt Metal Ltd (GALLANT TMX).

5. **Approved Structural Steel Manufacturer**

- (a) Rashtriya Ispat Nigam Ltd (RINL)
- (b) TATA Iron & Steel Co. (TISCO or Tata Steel) (TATA)
- (c) Steel Authority of India Ltd (SAIL).
- (d) Jindal Steels and Power Ltd (JINDAL).

6. **SECONDARY PRODUCERS OF STRUCTURAL STEEL**

1. M/S K L Steel Pvt Ltd Post Box No 61, Lal Kuan, Bulandshahar Road, Ghaziabad (U.P.) Tele 0120-2867911, 2867915 Fax 0120-2867917
2. M/S Shri Badrinarain Alloys & Steels Ltd 95, Stephen House, 4 B B D Bag Kolkata 700001 Tele 033 2220 5381/2248 1601 Fax 033 2248 8664
3. M/S Pushpak Steel Industries Pvt Ltd, Gate No 119, Alandi Market Road Dhanore, Tah Khed Pune Tele Fax 020-26444700/070
4. M/S Amba Shakti Ispat Ltd, Plot No 0, Ph-II Industrial Area Kala Amb, Distt : Sirmour-173030(H.P.) Tele 01734-309983,309986 Fax 01702-238927
5. M/S Pushpak Steel Industries Pvt Ltd, Gate No 119, Alandi Market Road Dhanore, Tah Khed Pune Tele Fax 020-26444700/070
6. M/S Amba Shakti Ispat Ltd, Plot No 0, Ph-II Industrial Area Kala Amb, Distt : Sirmour-173030(H.P.) Tele 01734-309983,309986 Fax 01702-238927
7. SRMB Udyog Ltd, 46, BB Ganguli Street, Kolkatas-700012 Tele 22369999
8. M/S Shree Parasnath Re-Folling Mills Ltd 4 C Maharshi Devendre Road 3rd Floor Kolkatta 700007 Phone 033-2274 0045/4475 Fax 033-2274 0039
9. M/S Tata Steel structure Tata Steel- Tube Division Jeevan Tara Building, 1st floor 5, Sansad Marg, New Delhi-110001 Tele : 99111 2334, 264601734-309983, 309986
10. M/S K L Concast Pvt Ltd Z-18 Naraina New Delhi
11. M/S Karam Steel Corp, Nasrali Road PO Box No 56 Mandi Govind Garh-147301

7. **SYNTHETIC ENAMEL PAINT & EMULSION**

- | | | | |
|--------------|------------|--------------|----------------------|
| (a) LUXOL | [BERGER] | (b) BOROLAC | [JENSON & NECHOLSON] |
| (c) NEROLAC | [NEROLAC] | (d) APCOLITE | [ASIAN] |
| (e) SUPERLAC | [SHALIMAR] | (f) RAJDOOT | [BERGER] |

8. **GI PIPES**

- | | | | | | | | | |
|------------|----------|-------------------|-------------|-------------|----------------|---------------------|------------------|-----------|
| (a) JINDAL | (b) TATA | (c) PRAKASH Tubes | (d) KALINGA | (e) SWASTIK | (f) NIDI PIPES | (g) Indus Tubes Ltd | (h) Surya Roshni | (j) OSWAL |
|------------|----------|-------------------|-------------|-------------|----------------|---------------------|------------------|-----------|

9. **FLUORESCENT TUBE LIGHT/CFL FITTINGS/STREET & SECURITY LIGHT FITTINGS**

- | | | |
|----------------------|-----------------|-------------|
| (a) Philips | (b) GE Lighting | (c) Bajaj |
| (d) Crompton Greaves | (e) Havells | (f) Halonix |
| | (g) POLYCAB | (h) EON |

10. **LT CABLES (XLPE CABLE) & PVC CABLES**

- | | | |
|----------------------|-----------------|--------------------|
| (a) HAVELLS | (b) PLAZA CABLE | (c) KALINGA |
| (d) NICCO | (e) PARAGON | (f) GLOSTER |
| (g) ICL | (h) POLYCAB | (j) CCI |
| (i) EON Electric Ltd | (m) GEMSCAB | (k) Grandlay |
| | | (n) CIRTINA CABLES |

11. **CABLE JOINT (HEAT SHRINKABLE)**

- (a) DENSON CABLE SEALS (b) MS SEALS (c) RAYCHEM

12. **GOD SWITCHES**

- (a) WS INDUSTRIES (b) BHEL (c) SOUTHERN INSULATORS

13. **LIGHTNING ARRESTORS**

- (a) ALSTOM (b) BHEL (c) OBLUM
(d) ASCENTECH LIGHTENING SOLUTION

14. **AIR BREAK GANG OPERATED SWITCH**

- (a) PACTIL (b) VERSA TECH (c) HEL (d) JAIPURIA ENGINEERS

15. **HT CABLE BOX (OUTDOOR) HEAT SHRINKABLE TYPE**

- (a) DENSON (b) RAYCHEM (c) BIRLA

16. **OVERHEAD CONDUCTORS**

- (a) ALIND (b) INDUSTRIAL CABLE (INDIA) LTD
(c) NICCO (d) BHARAT CONDUCTOR

17. **INSULATORS**

- (a) WS INDUSTRIES (b) BHEL (c) SOUTHERN INSULATORS

18. **TRANSFORMER OIL**

- (a) BHARAT OIL (b) POWER LINK OIL
(c) SAVITA CHEMICALS (d) KESARI SYNTHETIC OIL

19. **STEEL TUBULAR SWAGED POLES**

- (a) M/s Bharat Steel Tubes Haryana
(b) M/s Mahindra Steel Tubular Poles,Ludhiana (PB)
(c) M/s Reliance Structures
(d) Classic tubes Sahibabad
(e) M/s Surjit Electric Wood Works, Chandigarh
(f) M/s Vikram Industries, C-145,Phase-VIII,SAS Nagar,Mohali (PB)
(g) M/s Electro Steel (india),Near Truck Union,GT Road Damtal (HP)

20. **PVC CONDUIT PIPE INCLUDING ACCESSORIES:-**

- (i) Kinjal (ii) Plaza (iii) Asian (iv) Kalinga (v) "AKG" Brand.

21. **UPVC PIPES AND FITTINGS, UPSV SWR PIPES & FITTINGS, PPR PIPES & FITTING:-**

- (i) "AKG" Brand (ii) KISAN (iii) SFMC (iv) Supreme

22. **CPVC PIPES**

- (i) Lubrizal

23. **OVERHEAD CONDUCTORS (ACSR CONDUCTOR)**

- (a) Alind (b) Bharat Conductor (c) NICCO

24. **LT PANEL /FEEDER PILLAR BOX/APFC PANEL**

These panels of following manufacturers should have CPRI Type tested:

- (a) Control & Switchgear (b) Adhunik Switchgear
-
- (c) Power System & Controls
-
- (d) D V Eletrometer Pvt Ltd (e) Supertech Power Control
-
- (f) Shalabh (India) Ltd (g) M/s Gupta & Friends Gangyal Jammu
-
- (h) C & G (j) SIEMENS (k) L&T (l) LEGRAND (m) Universal Switchgear Control
-
- (n) SMS Panels & Switch Gear (o) Power ware (p) National Engg Works
-
- (q) HPC

25. **AUTO VOLTAGE REGULATORS/VOLTAGE STABILISER**

- (a) AE (b) Votamp (c) Brentford (d) Andrew - Yule

26. **CABLE JOINT (HEAT SHRINKABLE)**

- (a) DENSON CABLE SEALS (b) MS SEALS (c) RAYCHEM

27. **MCCBs**

- (a) HAVELLS (b) CROMPTON GREAVES (c) INDO ASIAN
-
- (d) LEGRAND (e) STANDARD (f) SHALABH

24. **RELAY (ELECTRO MECHANICAL)**

- (i) Alstom (ii) ABB (iii) English Electric (iv) Siemens
-
- (v) RAAS Controls

29. **RELAY NUMERICAL**

- (i) Siemens (ii) ABB (iii) Alstom (iv) L & T

30. **DG Set Integrator**

- (i) AKSON (ii) SUDHIR (iii) MAHINDRA (iv) KIRLOSKER GREENS

31. **Submersible Pumps**

- (i) CALAMA (ii) KRILOSKAR (iii) BEACON (iv) KSB (v) MATHER &
-
- PLATT (vi) GRANDFOS (vii) WASP (viii) ITT

32. **Centrifugal Pumps**

- (i) WILLO (ii) KRILOSKAR (iii) BEACON (iv) KSB (v) MATHER &
-
- PLATT (vi) GRANDFOS (vii) WASP (viii) ITT

33. **Change over switches**

- (i) SIEMENS (ii) ABB (iii) L&T (iv) SCHNEIDER (v) HAVELLS (vi)
-
- HAGER (vii) INDO ASIAN (viii) STANDARD (ix) GE

34. VOLTMETER/AMMETER/FREQUENCY METER/PF METER (ANALOG TYPE)

(i) L&T (ii) AE (iii) SECURE (iv) SCHNEIDER (v) LEGRAND
(vi) HAGER (viii) HAVELLS (ix) INDOASIAN (x) C&S ELECTRIC

35. All other materials :-

Make and sample shall be as approved by Garrison Engineer.

Notes:

1. Makes specified in Sch 'A' only shall be provided when makes are mentioned in Sch 'A'.
2. Makes specified in Particulars Specifications shall be provided when only no makes are specified in Sch 'A'.
3. Makes specified in this Appendix shall be provided only when no makes are mentioned in Sch 'A' and Particulars Specifications.
4. Irrespective of makes specified in drawings, the makes as shown here-in-before shall be provided.
5. Contractor will supply the material only after obtaining the written approval from GE regarding use of specific make of items and will supply the material at appropriate time as and when required by the GE.
6. To ensure genuineness of material, the contractor will place order only on manufacture or authorized dealer only and the Engineer-in-Charge will receive the material after verifying the delivery challan of the supplier and after satisfying the genuineness of material.

Contractor

**AGE (Contracts)
For Accepting Officer**

APPENDIX 'D' TO PARTICULAR SPECIFICATIONS
MATERIALS AND THEIR TESTS

NOTES

1. The materials listed in Appendix "D" shall be tested as per the frequency indicated therein.
2. It is mandatory for the Contractor to set up his own Site Lab.
3. Out of the tests carried out in Contractor's own Site Lab, a percentage/selected checks as decided by the Accepting Officer, shall be got done independently in the Zonal /Govt. approved lab, the expenditure for which shall be borne by the department.
4. Level of testing shown under Col 6 as 'A', 'B', 'C' are defined as under :-

Level 'A' : (a) "Site Lab" means own site lab established by Contractor at the work site for such tests. This lab shall house all the facilities including T&P, machinery, equipment, manpower etc. required for conducting tests. This lab shall be operative for the entire duration of the contract till its completion. Tests shall be carried out in the presence of Engineer-in-Charge.

(b) Records shall be maintained at work site. These test results shall be signed by Contractor or his authorized representative and Engineer-in-Charge.

(c) Within 15 days of placement of work order No. 1, Site Lab shall be established and this fact alongwith the particulars of the technical representative of the Contractor responsible for the Site Lab, shall be reported by the Contractor to GE in writing who will verify the facts and satisfy himself of the facilities provided and the particulars of the technical representative of the Contractor. Thereafter, GE shall issue a certificate to this effect in writing listing out equipment, particulars etc, of each material test. Only after issue of this certificate by GE, the test shall be carried out and materials so approved shall be incorporated in the work.

(d) Manpower, material and infrastructure like electricity, water etc, required for conduction these test shall be provided by the Contractor.

(e) Tenderer is deemed to cater for the above provisions in his quoted lump sum.

(f) Remedial measures, if any, required to achieve/obtain desired results for each test shall be taken promptly by the Contractor.

(g) In case during any point of time, Contractor fails to adhere to the laid down frequency of the tests due to non availability of the required facilities in his site lab, the tests shall be carried out in Departmental Laboratories, in which case the testing charges as in Appendix "D" shall be levied. However, in case the testing facilities are not available in departmental laboratories, the tests shall be required to be conducted in National Test House/SEMT, CME Pune/Engineering College Labs or any other Government approved lab and the actual charges as levied by these test houses/labs shall have to be paid by the contractor without any extra cost to the department. Whether the testing facilities exist in Contractor's Site Lab, Departmental Laboratories or not shall be decided by the GE, whose decision shall be final and binding. All facilities for test including conveyance/ labour etc, shall also be borne by the contractor without any extra cost to the department. Contractor's quoted lump sum is deemed to include for this eventuality and nothing extra shall be payable to the Contractor. **No extension of time shall be admissible on this account.**

(h) However, in case GE in his opinion, considers that Contractor is purposely not adhering to the laid down frequencies of the test, he shall reserve the right to deduct penal recovery which shall be double the rates of tests indicated in Appendix 'D'. However, besides effecting penal recovery for non-compliance of contractual testing frequency, for adhering to quality control norms of testing, simultaneously GE will get tests done from Zonal Lab as per laid down frequency and necessary testing charges shall be recovered from running bills, In case facilities are not available to conduct test in Zonal Lab, then GE will get them tested from any other source and necessary testing charges paid by GE shall be debited to the running payments of the Contractor. GE's decision shall be final and binding on recoveries.

(j) No charges shall be recovered from the Contractor for tests carried out in his Site Lab.

Level 'B' & 'C' : The test charges mentioned under column 7 of Appendix D' are the charges to be paid by the contractors in case the tests are conducted in the departmental laboratories and the tendered lump sum shall be deemed inclusive of the same. However, in case the testing facilities are not available in departmental laboratories, the tests shall be required to be conducted in National Test House/SEMT, CME Pune/Engineering College Labs or any other Government approved lab and the actual charges as levied by these test houses /labs shall have to be paid by the contractor without any extra cost to the department. Whether the testing facilities exist in departmental laboratories or not shall be decided by the GE, whose decision shall be final and binding. All facilities for tests including conveyance/labour etc. shall also be borne by the contractor without any extra cost to the department.

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

ANNEXURE-I TO APPENDIX 'D'MATERIALS AND TESTS

Se r No	Material	Tests	Method of testing	Frequency of tests			Level of test	Rate (Rs)	Remarks
1	2	3	4	5			6	7	8
1.	Bricks	i) Compressive Strength	IS 3495 (Part-II)	As per IS:5454 as given under:			'A'	330/-	Checks for visual and dimensional characteristics shall also be carried out as per IS-5454.
				Lot size (Nos)	Sample size (Nos)	Permissible No of defective bricks			
				1,001 to 10,000	5	0			
				10,001 to 35,000	10	0			
				35,001 to 50,000	15	1			
		ii) Water Absorption	-do-	-do-			'A'	330/-	
		iii) Efflorescence	-do- (Part-I)	-do-			'A'	330/-	
2.	Coarse Aggregate (For concrete)	i) Sieve Analysis	IS : 2386 (Part-I)	One test for every 15 Cum of aggregates or part thereof brought to site			'A'	660/-	
		ii) Flakiness Index	-do-	-do-			'A'	250/-	
		iii) Estimation of deleterious materials	IS : 2386 (Part-I)	One test for every 100 Cum of aggregates or part thereof			'A'	600/-	
		iv) Organic impurities	-do-	One test per source of supply			'B'	275/-	
		v) Moisture content	-do- (Part-II)	Regularly as required			'A'	330/-	
		vi) Specific Gravity and water absorption	IS : 2386 (Part-II)	One test for each source of supply			'B'	330/-	
3.	Fine Aggregate	i) Sieve analysis	IS : 2386 (Part-I)	One test for every 15 Cum of FA of part when brought to site.			'A'	660/-	
		ii) Test for clay, silt and impurities.	-do- (Part-II)	-do-			'A'	500/-	

ANNEXURE-I TO APPENDIX 'D'**MATERIALS AND TESTS(CONTD.....)**

Se r No	Material	Tests	Method of testing	Frequency of tests	Level of test	Rate (Rs)	Remarks	
1	2	3	4	5	6	7	8	
3.(Co ntd ...)		iii) Specific gravity	-do- (Part-II)	One for each source of supply	‘B’	330/-		
		iv) Moisture content	-do- Part-II	Regularly as required subject to 2 tests/day when being used	‘A’	330/-		
		v) Test for organic impurities	-do- (Part-II)	One test for each source of supply.	‘B’	275/-		
4	Cement	i) Setting time	IS : 4031-63 affirmed 1980	Once for each consignment or as and when required.	‘B’	500/-		
		ii) Soundness	-do-	-do-	‘B’	550/-		
		iii) Compressive strength	-do-	-do-	‘B’	550/-		
		iv) Fineness	-do-	-do-	‘B’	275/-		
5	Structural concrete (M-15 grade and above)	i) Slump test (OR) compacting factor test (OR) Vee-Bee time.	IS : 1199	The minimum frequency of sampling of concrete of each grade shall be under :-		‘A’	300/-	i) Random sampling shall be carried out to cover all mix units. ii) Refer IS-456 2000 clause 14 for frequency of sampling.
				Qty of concrete of in the work (Cum)	No of samples			
				1-5	1			
				6-15	2			
				16-30	3			
				31-50	4			
				51 & above	4+1 for each addl 50 Cum or part thereof			
		ii) Compressive strength	IS : 516	-do-	‘A’	900/-		

ANNEXURE-I TO APPENDIX 'D'**MATERIALS AND TESTS(CONTD.....)**

Se r No	Material	Tests	Method of testing	Frequency of tests	Level of test	Rate (Rs)	Remarks
1	2	3	4	5	6	7	8
6.	a) PCC blocks for walling (Hollow block)	Compressive strength	IS : 2156-1984 (Appx 'B')	8 block out of 14	'A'	900/-	Samples: 14 blocks from consignment of every 5000 blocks or part thereof.
		ii) Water absorption	-do- (Appx 'E')	3 block out of 14	'B'	330/-	
		iii) Density	-do- (Appx 'A')	3 blocks out of 14	'B'	330/-	
	b) PCC solid blocks for walling	i) Compressive strength	IS : 2185	12 blocks out of 18	'A'	900/-	Samples: 18 blocks from consignment of every 1000 blocks or part thereof. These blocks to be checked for dimensions and weight.
		ii) Water absorption	-do-	3 blocks out of 18	'B'	330/-	
		iii) Density	-do-	3 blocks out of 18	'B'	330/-	
7.	Cement flooring tiles /Terrazzo tiles	i) Water absorption	IS-1237 (Appx 'D')	6 tiles out of 18	'B'	330/-	Samples: 18 tiles from each source of supply selected at random.
		ii) Wet transverse strength	-do- (Appx 'E')	-do-	'B'	660/-	
		iii) Resistance to wear	-do- (Appx 'F')	-do-	'C'	1000 /-	
8	Burnt clay roofing tiles	i) Water absorption	IS : 3495 (Part-II)	6 files out of 12	'B'	216/-	Samples 12 tiles from each source of supply selected at random.
	Length 150mm to 250mm Width 100mm to 200mm Thickness 35mm to 50mm	i) Compressive strength	-do- (Part-I)	-do-	'A'	180/-	
9.	Mangalore pattern roofing tiles	i) Water absorption	IS : 654 (Appx 'A')	6 tiles out of 32	'B'	180/-	Samples: 32 tiles from each consignment of 3000 tiles or part thereof. These tiles shall be checked for dimension.
		ii) Breaking load	-do- (Appx 'C')	-do-	'B'	120/-	
10.	Timber	i) Specific gravity weight	IS : 1708-	Minimum 3 samples from a lot of 4 cum or 250 pieces of seasoned timber.	'B'	120/-	
		ii) Moisture content	-do-	-do-	'A'	120/-	

MATERIALS AND TESTS(CONTD.....)

Se r No	Material	Tests	Method of testing	Frequency of tests	Level of test	Rate (Rs)	Remarks
1	2	3	4	5	6	7	8
11.	Water for construction purposes	i) Test for acidity	IS : 456 & 3015	Once at the stage of approval of source of water	'B'	500/-	Also refer clause 4.3 of IS : 456 and its subsequent sub clauses regarding suitability of water.
		ii) Test for alkalinity	-do-	-do-	'B'	500	
		iii) Test for Total Dissolved Solids (TDS) content	-do-	-do-	'B'	500	
12.	Welding of steel work	i) Visual Inspection test	IS : 822- clause 7.1	100% by visual inspection.	Work site	360/-	Specialized tests, their method and frequency to be decided on consideration of their importance by the accepting officer.
13.	Timber panelled and glazed Door/Wind -ow shutters (including factory made shutters)	a) Dimensions, sizes, Workmanship and finish	IS : 1003- (Part-I)	Frequency of sampling from each lot shall be as under :- Lot Size Sample Size 26 to 50 5 51 to 100 8 101 to 150 13 151 to 300 20 301 to 500 32 501 to 1000 50 1001 and Above 80	'A'	180/-	
		b) Strength test	IS : 3034-1990	From each lot 5% of the factory made shutters shall be manufacturer tested for strength tests			
		i) Slamming	-do-				
		ii) Impact Indentation	-do-				
		iii) Shock Resistance	-do-				
		iv) Edge Loading	-do-				
14	Ply wood (IS : 303)	Moisture content	IS : 1734 (Part-I)	Six test pieces cut from each of the boards selected as per table shall be subjected to tests.	'C'	240/-	Sampling shall be as per IS : 7835- tables.

MATERIALS AND TESTS(CONTD.....)

Se r No	Material	Tests	Method of testing	Frequency of tests	Level of test	Rate (Rs)	Remarks
1	2	3	4	5	6	7	8
15.	Wood particle board (Medium density IS : 3097)	a) Density	IS : 2360 (Part-III)	Three test specimens from each sample (Size 150mm x 75mm)	'A'	60/-	Sampling shall be as per IS : 3487 with moisture meter.
		b) Moisture content	-do-	-do-	'A' & 'B'	60/-	
		c) Water absorption	-do- (Part- 16)	-do- (Size 300mmx300mm)	'A'	60/-	
		d) Swelling due to surface absorption	-do- (Part- 17)	-do- (Size 125mmx100mm)	'A'	60/-	
		e) Swelling in water	-do-	-do- (Size 200mmx100mm)	'A'	60/-	
		f) Modulus of rupture	-do- (Part- 4)	Three test specimens as per IS: 2380	'B'	90/-	
		g) Screw withdrawal strength	-do- (Part- 4)	-do- as per IS: 2385	'C'	120/-	
16.	Reinforce ment steel	(i) Physical test upto 16mm dia (Normal mass, tensile elongation, bend and rebend)			'B'	2500/ -	
		(ii) More than 16mm dia			'B'	2750/ -	

Signature of Contractor

AGE (Contracts)
For Garrison Engineer

GENERAL CONDITIONS OF CONTRACTS (IAFW-2249-1989 PRINTS)
FOR
(MEASUREMENT CONTRACTS (IAFW-1779 AND 1779-A))

1. A copy of General conditions of contracts (IAFW-2249-1989 Print) with errata 1 to 20 and amendments 1 to 48 has been supplied to me/us is in my/our possession. I/we have read and understood the provisions contained in the aforesaid **GENERAL CONDITIONS OF CONTRACTS** before submission of the tender and I/we agree that I/we shall abide by the terms and conditions thereof as modified, if any, elsewhere in these tender documents.
2. It is hereby further agreed and declared by me/us, that **GENERAL CONDITIONS OF CONTRACTS (IAFW-2249-1989 Print)** including condition 70 thereof pertaining to settlement of disputes by arbitration, containing 33 pages (Serial Page Nos. 72 to 104) with errata 1 to 20 and amendments No. 1 to 49 containing 27 Pages (Serial Page No 105 to 131) form part of these tender documents.
3. My/our signature hereunder is in token of my/our having acceptance the aforesaid General Conditions of Contracts together with errata and amendments IAFW-2249 (1989 Print)
4. It is agreed that in the event of discrepancy in English and Hindi version of IAFW-2249, the contents in English will prevail.

AGE (Contracts)
For Garrison Engineer

Signature of Contractor

SCHEDULE OF MINIMUM FAIR WAGES

A copy of the latest Schedule of minimum fair wages has been supplied to me/us and is in my possession. I/We have read and understood the provisions contained in the aforesaid Schedule of minimum fair wages before submission of these tender documents.

It is further agreed and declared by me/us that Schedule of minimum fair wages form part of these tender documents. The latest revised wages of labour as fixed by State/Govt. of India/Union Territory as applicable to the work whichever is higher will only be applicable in this Contract.

**AGE (Contracts)
For Garrison Engineer**

Signature of Contractor