

**MILITARY ENGINEER SERVICES**  
**HQ 135 WORKS ENGINEERS, C/o 56 APO**

**CA NO: CWE/JA-27/2024-25: MAINT OF ROADS IN RAKHMUTHI MIL STN AND ITS**  
**OUTSTATIONS UNDER GE SOUTH AKHNOOR**

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Total Drawings:      Nil      Sheets

(Signature of Contractor)  
Dated: \_\_\_\_\_

DCWE (Contracts)  
for Accepting Officer

Tele/Fax:-01924-252201  
Email id- [w135e-mes@nic.in](mailto:w135e-mes@nic.in)

Headquarters  
135 Works Engineers  
Pin Code 914135  
C/o 56 APO

No. 8224/27/ /E8

Oct 2024

M/S \_\_\_\_\_

**CA NO: CWE/JA-27/2024-25: MAINT OF ROADS IN RAKHMUTHI MIL STN AND ITS  
OUTSTATIONS UNDER GE SOUTH AKHNOOR**

*Dear Sir [s],*

1. Tender documents in respect of above work are uploaded on the site [www.defproc.gov.in](http://www.defproc.gov.in). The tender is on single stage two cover/ two stage two cover/three cover e-tendering system. The contents of Cover I & Cover II are specified in NOTICE OF TENDER.
2. Bids will be received on line by ACCEPTING OFFICER upto 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 bonafide tender/bid.
3. Bid will be opened on due date and time fixed for opening in the presence of tenderers/bidders or their authorised 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/drawings and to clarify doubts, if any, on or **before** Oct 2024 You are requested not to write piece meal points and forward your points duly consolidated before due date viz Oct 2024.
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 and Appendix 'A' to **NIT** along with BID SECURITY DECLARATION and tender fee on e-procurement portal and submit the physical documents in the Office of **HQ 135 WE** 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 BID SECURITY DECLARATION .mentioned in Notice of Tender.  
  
(b) **Performance Security** :- The successful Contractor shall be required to lodge Performance Security Deposit for an amount equal to 5% (Five percent) of the Contract Sum within 28 Days of receipt of Letter of Acceptance in the form FDR or any other Government Instruments stipulated by the Accepting Officer in terms of Condition – 19 of IAFW – 2249, General Conditions of Contracts.

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 e-procurement portal and submit physical documents in the office of HQ 135 WE, C/o 56 APO 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 relate 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 (Part-I and part-II) are not enclosed with these documents. These are available for perusal in the Office of GE concerned and this office.

**Note: Tenderers are deemed to be in possession of the above documents. The documents mentioned above are available in booklet form in any of the MES Offices, which can be seen during working hours on any working day, with prior notice. The tenderers are deemed to have made themselves acquainted with the contents of the above mentioned documents before submission of the tender / bid and no claim whatsoever on this account shall be entertained.**

11. ANY TENDERER, WHICH PROPOSES ALTERATIONS TO ANY OF THE CONDITION, SPECIFICATIONS LAID DOWN IN THE TENDER DOCUMENTS OR ANY NEW CONDITION, WHATSOEVER, IS LIABLE TO BE REJECTED.

12. Court of the place from where 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.

13. In case the BOQ is revised through Corrigendum to tender documents, bidders shall be required to quote their rates in the Revised BOQ only. Tenderer is supposed to check if any revised BOQ has been uploaded by MES, before uploading their BOQ. In case any bidder uploads pre-revised BOQ, it shall be considered as willful negligence by them and their bid shall be considered as non-bonafide.

**Your's faithfully**

**Signature of Contractor**  
**Dated: \_\_\_\_\_**

**DCWE (Contracts)**  
**for Accepting Officer**

**INSTRUCTIONS ON FILLING AND SUBMISSION OF TENDER****1. Earnest Money Deposit (EMD)**

(a) All bidders shall be exempted from submission of EMD in all tenders except those who are ineligible from such exemption vide Para 1 (b) below.

(b) All bidders shall be required to sign the Bid Securing Declaration as below:-

**BID SECURITY DECLARATION**

I/We hereby understand and accept that if I/We withdraw or modify my/our bids during the period of validity, or if I/We are awarded the contracts and on being called upon to submit the Performance Security/ Security Deposit, fails to submit the Performance Security/ Security Deposit before the deadline defined in the request for bid documents/ Notice Inviting Tender, I/We shall be debarred from exemption of submitting Bid Security/Earnest Money Deposit for a period of 6 (Six) months, from the date I/We are declared disqualified from exemption from submission of Earnest Money Deposit/Security Deposit, for all tenders issued by MES during this period.

(c) Wherever, there are compelling circumstances to deposit for Earnest Money Deposit/ Bid Security, the same shall be done after obtaining the approval of the Next Higher Authority to the authority competent to finalize the particular tender or the Secretary, whosoever is lower. However, in such cases, Earnest Money shall be applicable as per the existing rules.

**2. Performance Security** The tenders shall note that the successful tenderer is required to lodge Performance Security for an amount equal to 5% of the Contract Sum within 28 Days of receipt of Letter of Acceptance in the form of FDR or any other Government Instruments stipulated by the Accepting Officer in terms of Condition – 19 of IAFW – 2249, General Conditions of Contracts. The Performance Security shall be valid till expiry of Defects Liability Period as stipulated hereinafter. In case the tenderer fails to deposit the Performance Security within the stipulated period, the award of work shall be cancelled and 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 Government Treasury. The contractor / bidder shall not be entitled for any compensation whatsoever on this account.

**3. Contractors Enlisted in Mes Formation** Contractors whose names are on the approved list of any MES formation and who have deposited Standing Security and have executed Standing Security Bond may tender / bid without depositing Earnest Money with the bid and if the Accepting Officer decides to accept the tender / bid, such tenderers will be required to lodge Performance Security as notified by the Accepting Officer as specified hereinbefore.

**4. General Instructions for Compliance**

**4.1** The bids received only in the electronic form will be considered. All bids shall be submitted on 'eprocuremes.gov.in' portal. Documents should be scanned and forward in 'pdf' form and 'xls' form as indicated.

**INSTRUCTIONS ON FILLING AND SUBMISSION OF TENDER (Contd..)**

**4.2** Bids shall be uploaded on 'eprocuremes.gov.in' portal 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.

**4.3** 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.

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

**4.5** 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 tender. Any tender/bid, which proposes alterations to any of the conditions whatsoever, is liable to be rejected.

**4.6** 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.

**4.7** 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.

**4.8** 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.

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

**4.10** 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).

**INSTRUCTIONS ON FILLING AND SUBMISSION OF TENDER (Contd..)**

**4.11** Tenderers/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 appointed time.

**4.12** 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.

**4.13** 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 eprocuremes.gov.in site only before the bid closing time and date.

**5. 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 Deposit 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.

**6. C P M (CRITICAL PATH METHOD)**

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

**6.2** The tenderer/bidder is expected 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.

**6.3** 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 this 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.** 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/amendment/corrigendum, if any, issued by the department.

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

**Signature of Contractor**  
**Dated:** \_\_\_\_\_

**DCWE (Contracts)**  
**for Accepting Officer**

**MILITARY ENGINEER SERVICES**  
**NOTICE OF e- TENDER**

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, as 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 of 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 what in case of term contract, contractors of categories SS to E may tender /bid. 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 relations 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 rejection.
5. The Office of HQ 135 WE, C/o 56 APO will be the Accepting Officer here in after referred to as such for purpose of the contract.
6. 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 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 encashing the DD and shall not have any claim from Govt whatsoever on this account.
  - 6.1 Tender form and conditions of contract and other necessary documents shall be available on **defproc.gov.in** site for download and shall form part of contract agreement in case the tender / bid is accepted.
  - 6.2 **Performance Security:** The tenderers shall note that the successful tenderer is required to lodge Performance Security for an amount equal to 5% of the Contract Sum within 28 Days of receipt of Letter of Acceptance in the form of FDR or any other Government Instruments stipulated by the Accepting Officer in terms of Condition-19 of IAFW – 2249, General Conditions of Contracts. The Performance Security shall be valid till expiry of Defects Liability Period as stipulated hereinafter.
  - 6.3 Copies of the drawings and other documents pertaining to the works signed for the purpose of identification by the accepting office 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 and concerned GE / AGE (I) during working hours.
  - 6.4 The GE / AGE (I) will either return the earnest money to the successful tender/ bidder by endorsing an authority on the deposit – at – call receipt for its refund on receipt of an appropriate amount of security deposit or will retain the same in part or full on account of security deposit if such a transaction is feasible.

**MILITARY ENGINEER SERVICES**  
**NOTICE OF e-TENDER**

**6.5** Copies of the drawings and other documents pertaining to the works signed for the purpose of identification by the accepting office 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 and concerned GE / AGE (I) during working hours.

**7.** The tenders / bidders are advised to visit the site of work by making prior appointment with GE / AGE (I) who is also the executing agency of the work (see Appendix Á'). The tenders / bidders are deemed to have full knowledge of all relevant document, samples, site etc, whether they have inspected them or not.

**8.** Any tender / bid which proposes any alteration to any of the conditions laid down or which proposes any other conditions of prescription what so ever is liable to be rejected.

**9.** The uploading of bid implies that bidder has read this notice and the conditions of the contract and has made himself aware of the scope and specification of the 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.

**10.** Tenderers / bidders must be in possession of a copy of the MES standard schedule of rates (See Appendix Á') including amendments / errata there to.

**11.** Invitation of e-tender does not constitute any guarantee for validation of T- bid and subsequent opening of financial bid of any applicant / bidder, even of enlisted contractors of appropriate class, merely by virtue of enclosing DD. Accepting officer reserves the right to reject the T-bid and not open the financial 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 'Á' to this NIT. The applicant contractor/ bidder will be informed regarding non validation of his T-bid assigning reasons thereof through the defprocure web site. The applicant contractor/ bidder if he so desires may appeal to the next higher engineering authority viz **Chief Engineer Udhampur Zone on e-mail ID e8u2-mes@nic.in** with copy to the accepting officer on e-mail before the scheduled date of opening of financial bid. The decision of the NHEA shall be final and binding. The contractor / bidder shall not be entitled for any compensation whatsoever for rejection of his bid.

**12.** The Accepting officer reserves the right to accept the tender submitted by a Public Undertaking, giving price preference over other tender(s) / bids which may be lower, as are admissible under the Govt policy. No claim for any compensation or otherwise shall be admissible from such tenderer / bidder whose tender / bid is rejected.

**13.** Accepting officer does not bind himself to accept the lowest or any tender / bid or to give any reason for not doing so.

**14.** The Notice Inviting Tender (NIT) including Appendix 'Á' shall form part of the contract.

**(SIGNATURE OF CONTRACTOR)**  
Dated : 2024

**DCWE (Contracts)**  
**For Accepting Officer**



**DRAFT APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)**

1.	Name of work	MAINT OF ROADS IN RAKHMUTHI MIL STN AND ITS OUTSTATIONS UNDER GE SOUTH AKHNOOR
2.	Estimated Cost	₹ 32.00 lakhs (At Par Market )
3.	Period of completion	180 days
4.	Cost of Tender documents	₹500/- in the shape of DD/Bankers cheque from any schedule bank in favour of GE (SOUTH) AKHNOOR and payable at AKHNOOR
5.	Website / Portal address	<a href="http://www.defproc.gov.in">www.defproc.gov.in</a>
6.	Type of contract	The tender shall be based on (IAFW-1779-A) and GCC (IAFW-2249) with Schedule 'A' (list of items of work). The tenderers are required to quote their rates against items of Schedule 'A'. (IAFW-2159)
7.	Information & Details :	
	(a) Bid submission start date	Refer Website
	(b) Last date of bid submission	
	(c) Date of bid opening	
8.	Eligibility Criteria	
	(a) For MES enlisted contractors	<p>(a) All contractors enlisted with MES in class 'D' and above and Category a (v) shall be considered qualified provided they do not carry adverse remarks in WLR of competent engineer authority.</p> <p>(b) Scanned copy of proof of registration with EPFO.</p> <p>(c) All bidders shall be in possession of GSTIN (Goods and Services Tax Identification Number) and scanned copy of GSTIN (Goods and Services Tax Identification Number) and the declared mobile number and email id registered for obtaining GSTIN.</p> <p>(d) Bid Security Declaration.</p>
	(b) For others contractors	<p>(a) The firms not enlisted with MES shall meet the enlistment criteria of class 'D' MES contractors &amp; category a (v) ie. with regard to having satisfactorily completed requisite value works, Annual turnover, solvency, working capital, immovable property / fixed assets, T&amp;P, Engineering establishment, no recovery outstanding in any Govt Department, police verification / Passport etc. Enlistment criteria may be seen in Para 1.4 of section 1 of Part I of MES Manual on contracts-2020 as available in all MES formations.</p> <p>(b) These firms shall also submit copy of police verification from 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.</p> <p>(c) Scanned copy of proof of registration with EPFO</p> <p>(d) They should not carry adverse remarks in WLR / or any other similar report of any authority.</p>
	(c) For all contractors	Contractor will not be allowed to execute the work by subletting or through power of attorney holder on his behalf to a third party / another firm except sons/ daughters of proprietor / partner / Director and firms own employees, Director, Project manager. This shall be subject to certain conditions which will be prescribed in the NOT forming part of the tender documents.
9.	Tender issuing and Accepting Officer	Commander, HQ 135 Works Engineer, C/o 56 APO, email id- w135e-mes@nic.in , Contact No:- 01924-252201
10.	Executing Agency	GE (SOUTH) AKHNOOR
11.	Earnest Money	₹64000.00 in favour of GE (SOUTH) AKHNOOR

**APPENDIX 'A' TO NOTICE INVITING TENDER****NOTES:**

1. After opening of Cover 1, if 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 less than 7 (Seven). Applications in respect of contractors 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 fulfilment of other eligibility criteria given in the NIT. Therefore MES contractors one class below (two classes below in case of remote and difficult areas) may also bid for the this tender. However contractors of one/two classes below the eligible class shall not be considered in case their present residual work in hand is more than twice their present tendering limit. Such bidders shall upload in their Cover-1 bid details of works in hand showing names of work, name of Accepting officers, contract amounts, dates of commencement and completion (stipulated) and progress as on bid submission date. These details shall be verified by the tender issuing Authority from concerned formation 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 satisfactory 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 contractors 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 national / Indian nationals staying abroad / Indian national taken forcing 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 :-
  - (a) Application for tender on Firm's letterhead.
  - (b) Enlistment letter issued by the Registering Authority duly renewed for the cycle period in vogue.
  - (c) Scanned copy of DD/ Bankers Cheque toward cost of tender and EMD instrument in case SSD bond is not signed at the time of registration.
  - (d) Scanned copy of GST registration.
  - (e) Scanned copy of employee Provident Fund number.
  - (f) Scanned copy of undertaking / bid declaration certificate for exemption from earnest money as per para 1 (b) on page no 4 of Tender.
  - (g) Any other document required as described in this Appendix.
5. Contractors not enlisted with MES will be required to upload following documents in Cover 1 for checking eligibility:-
  - (a) Application for tender on Firm's letter head.
  - (b) Scanned copy of DD/Bankers cheque toward cost of tender and Earnest Money Deposit (EMD) instrument.
  - (c) 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.

**APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)**

- (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) Scanned copy of GST registration.
  - (g) Scanned copy of employee Provident Fund number.
  - (h) Scanned copy of **undertaking / bid declaration certificate for exemption from earnest money as per para 1 (b) on page no 4 of Tender.**
  - (j) Any other documents required as described in this Appendix.
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 **05 days** of bid submission end date failing which following action shall be taken.
- (a) In case of tenders from an enlisted contractors 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 with 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 alongwith 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 unenlisted 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 from 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 tenderer 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 the date of communication failing which their financial bid (Cover 2) shall not be opened and contractor shall not have any claim on the same.

**APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)**

10. Invitation for e-tender docs 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 this Appendix. Tenderer / 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 tenderer, if desires, may appeal to the Next Higher Engineer Authority (NHEA) viz, **HQ Chief Engineer Udhampur Zone Udhampur on e-mail [e8u2-mes@nic.in](mailto:e8u2-mes@nic.in)** with copy to the Accepting Officer on email 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 tenderer/bidder shall not be entitled for any compensation whatsoever for rejection of his bid.

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 the 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, Earnest Money Deposited by him shall be forfeited. In case of MES enlisted tenderer having deposited the Standing Security Bond, an 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 or more Partner/Director 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 Deposit:** Within 28 days of receipt of the letter of Acceptance, the successful contractor shall deliver to the Accepting Officer (**in favour of Accepting Officer**) a Performance Security in the form of FDR for an amount equivalent to 5% of the contract sum. Noncompliance of this provision shall constitute sufficient grounds for cancellation of awarded contract and forfeiture of Earnest Money. If the Performance Security is not deposited by the Registered contractor, the contract shall be cancelled and contractor shall deposit the amount equal to Earnest Money through MRO and issue of tender shall remain suspended to such contractor till the aforesaid amount is deposited in Govt Treasury. Work order No.1 will be placed only after submission of performance security of adequate value by the contractor. In case a fixed deposit receipt of any bank is furnished by the contractor to the govt as part of the performance guarantee and the bank is unable to make payment against the said fixed deposit receipt, the loss caused thereby shall fall on the contractor and the contractor shall forthwith on demand furnish additional security to government to make good the deficit.

**APPENDIX 'A' TO NOTICE INVITING TENDER (NIT)**

**16. Defect Liability Period:** In terms of Condition 46 of IAFW-2249 (As amended vide amendment No 48), the Defect Liability Period in respect of this tender shall be twelve month (12) months.

**17. Refund of Performance Security:** The Performance Security Deposit mentioned above (As amended vide Amendment No 45 to Condition 68 of IAFW-2249) shall be refunded to contractor after expiry of Defect Liability Period mention above. Recovery if outstanding against the contractor shall be effected from the Performance Security as stipulated under Condition 67 of IAFW-2249 (as amended).

**18.** Court of the place from where 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.

**19. Integrity Pact** (to be included as per value of work).

**20. Joint Venture** (to be included as per value/type of work.)

Case File No: 8224/27/ /E8

Headquarters  
135 Works Engineers  
Pin-914135  
C/o 56 APO

Dated: Oct 2024

**DCWE (Contracts)  
For Accepting Officer**

**TO BE USED IN CONJUNCTION WITH GENERAL CONDITIONS  
OF CONTRACTS IAFW-2249 (1889 PRINT)****MILITARY ENGINEER SERVICES**Headquarters  
135 Works Engineers  
PIN Code 914135  
C/o 56 APO

No. 8224/27/ /E8

Oct 2024

**CA NO: CWE/JA-27/2024-25: MAINT OF ROADS IN AKHNOOR MIL STN UNDER  
GE (SOUTH) AKHNOOR**

1. e-tender in the [www.defproc.gov.in](http://www.defproc.gov.in) portal shall be submitted in electronic form duly digitally signed by the authorised signatory of the tenderer and the requisite documents as mentioned in the tender shall be physically delivered at the Office of the **Headquarters 135 Works Engineers, Pin Code -914135, C/o 56 APO.**

- |       |  |   |  |
|-------|--|---|--|
| (i)   | Closing date and time of e-bid submission (Cover Number 1 & 2) | : | <b>Oct 2024 upto 1800 hrs</b>  |
| (ii)  | Date and time of e-bid opening (Cover No 1)                    | : | <b>Oct 2024 at 1000 hrs onwards</b>  |
| (iii) | Date and time of e-bid opening (Cover No 2)                    | : | Will be intimated online after completion of evaluation of fee/ Pre qualification / Technical. |

2. All correspondence concerning to this tender shall be addressed as indicated on the top of this letter quoting the reference to the tender id appearing in defproc.gov.in portal.

**THE PRESIDENT OF INDIA DOES NOT BIND HIMSELF TO ACCEPT THE LOWEST OR ANY TENDER AND RESERVES THE RIGHT TO ACCEPT TENDER AS A WHOLE OR IN PARTS AS HE MAY DECIDE.**

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**Signature of the Contractor**Signature of the Officer issuing  
the tender documents.  
**Appointment : DCWE (Contracts)**

**SCHEDULE 'A' NOTES**

1. The entire work under this contract shall be completed within **180 Days** from the date of handing over of site. Sites for all items of work shall be handed over simultaneously.
2. **For Schedule of items refer BOQ sheet in Excel format.**
3. The quantities shown in schedule (BOQ sheet) in column 3 of Sch 'A' are approximate and are inserted as a guide only. They do not constitute any guarantee of the ultimate quantities which will be ordered on the contractor. They shall not however be varied beyond the limit laid down in condition 7 of IAFW- 2249 (General conditions of contract).
4. The contractor shall enter the unit rates in column 05 of **BOQ**. The unit rates in figure shall be entered only.
5. Unless otherwise specifically stated in the description of the items, the unit rates quoted in Col 5 shall be deemed to include for all labour and materials, supply and fix complete required for executing the respective items of works.
6. (a) The unit rate quoted by the tenderer against respective items of schedule 'A' shall be deemed to include minor details of construction of work, if not specifically mentioned in description of schedule 'A' items and/or in the particular specifications/ drawing and which are fairly and obviously intended/essential to the execution of work in a workmen like manner and sound constructions.  
(b) In case of difference of opinion between the contractor and the GE as to, whether or not certain items of work constitute "Minor constructions details" which is deemed to have been included in the contractor's quoted rates, the decision of the Accepting Officer shall be final, conclusive and binding.
7. The description of Schedule 'A' items in **BOQ sheet (Excel format) shall** be read in conjunction with particular specifications.
8. All the items of works shall be executed as per specifications given in Schedule 'A' read with conjunction with particular specifications or in absence thereof read in conjunction with specification given in MES Standard Schedule of Rates Part I (Specifications) and for any item, in case the specifications are not given in particular specifications & MES Schedule of rates, specification as approved by Accepting Officer shall be followed.
9. All quantities inserted in Schedule 'A' are Provisional and inserted as a guide only. These shall however, not be varied beyond the limit laid down in condition of 7 of IAFW- 2249 (General Conditions of Contract).
10. All items in all Parts of Sch 'A' are for material and labour /supplying and fixing, testing and commissioning as applicable, complete, unless Specifically described otherwise as "Labour only" and/or "Supplying only" and/or "Fixing only" in the description of Particular items under Col 2.
11. Description of items of work in Schedule 'A' are in brief. These shall be read in conjunction with Special Conditions, particular specifications and specification for material and workmanship and conditions in relevant section of of MES Standard Schedule of rates Part I (Specifications) and MES Schedule 2020 Part-II (Rates) all these documents taken as mutually explanatory of one another and contract shall be read as a whole.
12. Tenderer (s) special attention is drawn to the fact that all the provisions involving use of material or labour or both specification in particular specifications but not specially mentioned in the description of relevant items of Schedule 'A' shall be deemed to be included in the rates quoted by tenderer and nothing extra shall be payable on this account.

**SCHEDULE 'A' NOTES**

**13.** Special conditions in MES Schedule 2020 Part-II (Rates) and preambles to items given in MES Schedule Part-II under respective trades shall be applicable. If the provision in the description of item of Schedule 'A' and or in particular specifications at variance with the provisions in special conditions in MES Schedule Part-II and preambles to MES Schedule items, the provision given in description of item of Schedule 'A' and provision in particular specifications shall take precedence there over.

**14.** Production of purchase vouchers and test certificates of main producers mentioned in particular specifications are mandatory for all consignments of reinforcement steel supplied by the contractor before making any payment and incorporation of steel in work. In case of structural steel, production of purchase vouchers and test certificates of main producers or secondary producers as mentioned in particular specifications are mandatory before making any payment and incorporation of steel in work.

**15. (a)** Tenderers are advised to visit site of work to familiarize themselves to access the site condition before quoting the rate. No claim will be entertained at later stage for any discrepancies between the contractor and department and also familiarize with nature of site, access to site, approaches, existence of shrubs/vegetation, etc. security checks exercised by the authorities in whose control the area lies, availability of labour and local materials, space for keeping their men, material in proximity of site, climatic conditions of the area, to enable them their resource planning for completion of work within the period of completion specified in the NIT/tender documents.

**(b)** Tenderers are advised to quote their rate keeping all these factors in view. Buildings will be handed over on as-is-where-is basis. No claim whatsoever shall be entertained at later date after acceptance of tender. If the tenderer envisages any difficulty existing at site and desires to propose any change he should do so in writing at least seven days before due date of receipt of tender so that his proposals could be seen, analyzed and cognizance of any changes can be made in tender documents by issue of suitable amendments as applicable. Tenderers quoted rates are deemed to have taken into consideration all these factors irrespective of whether they have visited the site or not.

**16. MAKES OF ITEMS**

**(a)** In case Sch 'A' items indicates makes then same shall be from any one of the makes specified therein at the option of contractor.

**(b)** If Sch 'A' items do not indicates makes, then makes to be incorporated in the work shall be from those listed as Appendix to Particular Specifications [B/R& E/M ]. Selection shall be at the option of contractor from amongst the list. In case manufacturer of the item makes both ISI and non ISI marked items, then ISI marked item shall only be used. Please note that even if any makes are given in Particular Specifications, they shall stand superseded and only the makes given in Appendix [B/R & E/M] shall be applicable for all purposes. However makes of steel windows/ ventilators shall be governed as per relevant Particular Specifications clause of steel windows/ventilators.

**(c)** Materials/items for which no make have been specified, shall be ISI marked. Contractor will download list of BIS marked manufacturer from BIS sitewww.bis.org.in and submit name of manufacturer meeting the contract specifications criteria and hand over the report with a request letter to Engineer- in-charge with his signature for approval of makes. The material shall only be procured by Contractor after approval of makes by GE concerned. In case ISI marked material/items are not manufactured then same shall confirm to relevant IS amended upto date.

**(d)** For material/item not covered in para (a) to (c) above, the same shall be of best quality available in market and approved by GE.

**(e)** Contractor will intimate in writing to GE the name of make of material, brand, model No/Cat Part No, etc, which he intends to procure. GE will approve the same within 10 days of receipt of such request after due verification of documents supplied by contractor with his request letter.



**SCHEDULE 'A' NOTES**

**17. Goods & Services tax (GST) and other Duties:** The quoted rates shall be deemed to include all taxes/duties (including GST on works contracts as per GST Act, etc.) and other levies payable under the respective Status as on the bid submission end date and nothing extra shall be paid / reimbursed by the department on this account. The bidder is deemed to have full knowledge of GST Act/Rules/Rate structure before quoting their unit rates. Any other condition stipulated by the tenderer regarding taxes on works contracts will not be considered and such tender shall be liable for rejection. TDS at the rate shall be deducted by the department as per the orders/rules and regulations of Govt prevailing at the time of payment.

**18. Labour Welfare Cess:** The quoted rates shall be deemed to include all taxes/duties (including Labour Welfare Cess payable under the respective Statues as on the bid submission end date) and nothing extra shall be paid / reimbursed by the department on this account. The bidder is deemed to have full knowledge of Labour Welfare Cess before quoting their unit rates. Labour Welfare Cess at the rate shall be deducted by the department as per the orders/rules and regulations of Govt prevailing at the time of payment.

**19. Certain taxes such as central excise duty, additional excise duty, service tax, additional customs duty, special additional duty of customs, state value added tax/sales tax, central sales tax, octroi and entry tax, purchase tax are subsumed by GST, thus special condition 33 for Reimbursement / refund on variation in taxes directly related to contract value of tender shall be deemed to be amended incorporating GST in view of taxes mentioned in the condition and elsewhere in the tender documents but subsumed by GST.**

**20.** Hard rock/boulders if obtained from excavation shall become Govt. property and shall be issued to the contractor @ Rs. 440.60 per Cum. Contractor may use hard rock so obtained in the work after breaking them into specified sizes as approved by GE in writing.

**21. All bidders/contractors (MES enlisted and un-enlisted both) shall be in possession of Provident Fund Code Number under J&K Employees Provident Fund and(miscellaneous provisions) Act 1961 and as amended up to date. It is Mandatory for the contractor to upload copy of their Provident Fund Code Number in Cover-1 of e-tendering in addition to their other documents and also submit hardcopy to Garrison Engineer along with the other documents. If contractor not in possession of Provident Fund Code Number and fails to upload the same in cover 1, their technical bid will be disqualified and their financial bid shall not be opened.**

**22. DEFECTS LIABILITY PERIOD:** Refer Condition – 46 of IAFW – 2249, General Conditions of Contracts. The Defects Liability Period for this work shall be Twelve [12] Calendar Months from the certified date of final completion of the work.

**23.** Contractors attention is invited that water will not be supplied by MES.

**24. Scope of Work:** This work has been concluded against MAINT Pgme 2024-25 of Rakhmuthi Mil Stn

**(SIGNATURE OF CONTRACTOR)**

**Dated : 2024**

**DCWE (Contracts)  
For Accepting Officer**

**SCHEDULE 'A' (PART-II)****SCHEDULE OF CREDIT OF RETERIVED MATERIAL**

1. The items covered in this schedule shall become property of the contractor who shall be responsible to remove them outside the site of work at his cost after proper accounting by Engineer-in-Charge and credit for the same shall be recovered from the payment due to him as per rates given here –in- under. 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 **GE (SOUTH) AKHNOOR** at no extra cost to the Government. The unserviceable materials not covered under this Schedule shall be draft removed from site of works as directed by Engineer-in-Charge at no extra cost to the Government.
2. Only unserviceable items shall be allowed to be the property of the contractor and serviceable items shall be reused in the work as specified in tender documents. The decision of Engineer-in-Charge as to serviceability of the item shall be final and binding.
3. Full quantities of unserviceable items as obtained from dismantling /demolition shall be considered under this Schedule.

Srl No	Description of items	A/U	Qty	Rate (₹)	Amount (₹)
1	2	3	4	5	6
(a)	Old unserviceable brick tiles or interlocking tiles	Sqm	170	35	5950.00

Total of Sch 'A' Part-II C/o to Summary ₹ 5950.00

(SIGNATURE OF CONTRACTOR)  
DATED:

DCWE (Contracts)  
For Accepting Officer

**SCHEDULE 'B'**  
**LIST OF MATERIALS TO BE ISSUED TO THE CONTRACTOR**  
**SEE CONDITION 10 OF IAFW -2249**

Srl No	Particulars	Rate at which materials will be issued to the contractor		MES store Yard Places(s) of issue by name	Remarks
1	2	3	4	5	6

-----NIL -----

**SCHEDULE 'C'**

**LIST OF TOOLS AND PLANTS (OTHER THAN TRANSPORT) WHICH WILL BE PROVIDED TO THE CONTRACTOR (REFER CONDITION 15, 34 & 35 OF IAFW –2249)**

Ser No	Quantity	Particulars	Details of MES Crew supplied	Hire charges per unit per working day	Stand by charges per unit per off day	Place of Issue by name	Remarks
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-----NIL -----

**SCHEDULE 'D'**

**TRANSPORT TO BE HIRED TO THE CONTRACTOR**  
**(SEE CONDITION 16 & 35 OF IAFW-2249)**

Ser No	Quantity	Particulars	Rate per unit per working day (Rs.)	Place of issue (by name)	Remarks
--------	----------	-------------	-------------------------------------	--------------------------	---------

-----NIL -----

\_\_\_\_\_  
(SIGNATURE OF CONTRACTOR)  
Dated: 2024

DCWE (Contracts)  
For Accepting Officer

TENDERTHE PRESIDENT OF INDIA

Having examined and perused the following documents:-

1. Particular Specifications signed by the **DCWE/ACWE (Contracts)**.
2. Schedule 'A', 'B', 'C' & 'D' attached hereto.
3. MES standard schedule of Rates **2009 (Part-I) (Specifications)** & 2020 (Part-II) (Rates) together with errata/amendments No 01 to 03 of Part-I and errata/amendment No. 01 to 122 to Part-II respectively (here-in-after and in IAFW-2249 referred to as the MES schedule).
4. General conditions of contract IAFW-2249 (1989 Print) including amendment 1 to 49 and Errata Nos 1 to 20.
5. WATER UNDER CONDITION 31 OF IAFW-2249: GENERAL CONDITIONS OF CONTRACTS: - Water will not be supplied by MES.
6. SHOULD THIS TENDER BE ACCEPTED

\* I/We agree: -

To execute all the works referred to in the said documents upon the terms and conditions contained on referred to there in and as detailed in the General Summary on the subsequent pages and to carryout such deviations as may be ordered, vide condition 7 of IAFW-2249 up to a maximum of **10%(Ten percent)** and further agree to refer all disputes as required by Condition 70 to the sole Arbitration of a serving Officer having degree in Engineering or equivalent or having passed final/direct final examination of sub division II of institution of surveyors (India) reconginized by the Govt of India to be appointed by Chief Engineer Udhampur Zone, Udhampur or in his absence, Officer Officiating as Chief Engineer Udhampur Zone, Udhampur whose decision shall be final conclusive and binding.

\* Delete whichever is not applicable.

GENERAL SUMMARY

01.	Total amount of schedule 'A' Part-I (BOQ) brought forward from page No.21	=	₹ _____
02.	Deduct amount of credit schedule (Sch 'A' Part-II) brought forward from page No.22	=	(-) ₹ 5950.00(Minus)
	Contract sum amount C.O. to next page	=	₹ _____

\_\_\_\_\_  
(SIGNATURE OF CONTRACTOR)  
DATED:

DCWE (Contracts)  
For Accepting Officer

**GENERAL SUMMARY/ ACCEPTANCE**

Signature \_\_\_\_\_ in the capacity of \_\_\_\_\_ duly authorized to sign tender  
for and on behalf of M/S

\_\_\_\_\_  
**(IN BLOCK LETTERS)**

WITNESS

Postal address\_\_\_\_\_

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

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

Telephone No\_\_\_\_\_

**ACCEPTANCE**

\_\_\_\_\_ alternations have been made in tender document and as evidence that these alterations were made before the execution of the Contract Agreement, they have been initialed by the Contractor and DCWE (Contracts). The said Officer (s) is/are hereby authorized to sign and initial on my behalf the documents forming part of the contract.

The above tender is/was accepted by me on behalf of the President of India for the item rates contained therein Schedule “A” for the Contract Sum of ₹.\_\_\_\_\_

(Rupees\_\_\_\_\_

\_\_\_\_\_ only) on the \_\_\_\_\_ day of \_\_\_\_\_ 2024.

Appointment: Colonel / Commander  
Accepting Officer  
HQ 135 Works Engrs  
(For and on behalf of The President of India)

**SPECIAL CONDITIONS****GENERAL**

1. (a) General specification mentioned anywhere in the contract including those in general conditions of contract viz IAFW-2249 shall mean the specification given in the MES standard schedule of rates part-I (2009) particular specifications given there in after are brief and only to particularise, amend and emphasize the specifications given in the MES standard schedule of rates specifications, general rules preambles and special conditions contained in MES standard schedule of rates. Part-I (2009) and Part-II (2020) shall unless specifically described otherwise be applicable to this contract.
- (b) Any work shown on drawing (s) but not described in particular specification shall unless specifically described to be excluded from the contract be deemed to be included in the lump-sum quoted by the contractor for Sch 'A' section-I in case of doubt with regard to the manner of detail for executing the work the decision to the Accepting Officer shall be final binding and exclusive. This shall act be applicable 'A' setting out the requirements have been given should there be items (s) or service as shown on drawing but not included in the relevant sections of schedule 'A' these shall unless otherwise described or stated in the contract constitute an additional work.
- (c) All headings and marginal notes to these special conditions or any other documents comprising this contract are solely for the purpose of giving a concise indication and not a summary of the contents there of and they shall never be deemed to specification of the clauses.
- (d) Where there is discrepancy between the number of reinforcement's bars as marked on the drawings and the number of bars as worked out from the C/C spacing as shown on the drawings the later shall prevail. The number of reinforcement bars in the RCC slabs etc shall be worked out considering the span between the C/C of supports.
- (e) The tenderer is advised to point out in writing discrepancy (s) if any of the tender documents at least 10 days before the due date of receipt back of tender. In case, discrepancy (s) in contract documents is/are noticed by the contractor during executing of the works, it shall be brought out to the notice of the Accepting Officer of contract and other concerned in writing before commencement of the particular work where discrepancy is/are noticed failing which the contractor shall for feet his right of claim on account of such discrepancy (s).
- (f) Also where there are obvious mistakes in any of the contract provisions the Accepting Officer shall be sole deciding authority with regard to the mention of the contract documents and his decision in this respect shall be final binding and conclusive.
- (g) Where the drawings show finishes to wooden members, such finishes shall be applied to wooden members as well as wood based members. However surfaces covered with laminators shall not be given any such as painting polishing etc.
- (h) Where reinforcement/thickness of RCC members such as stabs beams lintels etc is not shown on the drawings the same be supplied by the GE on the basis of provisions in IS-456 and the same shall be provided and in corporate in the works by the contractor and no extra payment will be admissible on this account.

**SPECIAL CONDITIONS**

(j) Wherever nomenclatures of RCC slabs (e.g.S-1,S-2,S-3 etc) is given in the RCC plan. The details of reinforcement for such slabs shall be as given for slabs of the same nomenclatures else where on the same RCC plan.

(k) Suitable RCC lintels as per clear spans shall be provided on the doors windows and other openings if not marked on RCC plan similarly RCC chajjas shall be provided as shown in main plans/cross section, if not marked on RCC plans and no extra payment will be admissible on this account.

2. **Conditions of Contracts and Execution of Work:-** The various sections/sub-divisions the tender documents shall be deemed to be supplementary/complementary to each other.

3. **Inspection of Site by The Tenderer:-**

(i) The tenderers is advised to contact the Garrison Engineer for the purpose of inspection of site (s) and relevant documents other than those sent herewith who will give reasonable facilities for this purpose The tenderers shall also make themselves familiars with the working conditions accessibility of site(s), availability of materials and other cogent conditions which may effect the entire completion of work under this contract.

(ii) Tenderers shall be deemed to have visited the site (s) and made themselves familiars with the working conditions, whether they actually inspect the site (s) or not.

4. **Entry to Work Site:-** All work lies in **RESTRICTED AREA**. The restriction for entry to work site and conditions of working in restricted area shall be as under:-

(a) The contractor / his agents / representatives / workmen etc. and his material carts, trucks or other means of transport etc. will be allowed to enter through and leave from such gate or gates and at such times as the GE or authorities incharge of restricted area may at their sole discretion permit to be used. Contractor's authorized representative is required to be present at the places of entry and exit for the purpose of identify his carts, trucks etc. to the personnel in-charge of the restricted area.

(b) **Identity of Workmen :** Every workmen shall be in possession of an identity card . The identity cards shall be issued after a thorough investigation of the antecedents of the labourers by the contractor and attested by officer in charge of the units concerned in accordance with the standing rules and regulations of the unit. Contractor shall be responsible for conduct of his workmen, agent or representatives.

(c) **Identity Cards or Passes :** The contractor, his agents and representatives are required individually to be in possession of an identity card or pass which will be examined by the security staff at the time of entry into or exit from the restricted area at any time or number of times inside restricted area.

(d) **Search:** Thorough search of all persons and transport shall be carried out at each gate and for as many times gate is used for entry or exit and may also be carried out any number of times at the site within the restricted area.



**SPECIAL CONDITIONS**

**(e) Working Hours :** The units controlling restricted area usually work during six days in a week and remain closed on the seventh day. The working hours available to the contractor's labour staff gets reduced because of the time of entry and exit during working hours. The exact working hours, working days and non- working days observed for these restricted area (s) where works are to be carried out shall be deemed to have been ascertained by contractor before submitting his tender. The tenderer's attention is invited to the fact that number of working hours for a unit are prescribed in regulations and that they can not be increased by the GE or authorities controlling the restricted area. The definition of working days as given under Condition 1 (t) of IAFW –2249 does not apply in case where the works are carried out in restricted area. However following working hours shall be available to the contractor's labour inside the unit area:-

- (i) Working hours 0830 hours to 1630 hours
- (ii) Half day 0830 hours to 1250 hours

**(f) Fire Precautions**

- (i) The contractor, his agents, representatives, workmen etc. shall strictly observe the orders pertaining to fire precaution prevailing within the restricted area.
- (ii) Motor transport vehicles, if allowed by the authorities to enter the restricted area must be fitted with the serviceable fire extinguisher and spark arrestor.

**(g) Female Searcher:** If the contractor desires to employ female labour on works to carry out inside the area of factory, depot, park etc. and a female searcher is not borne on the authorized strength of the factory, depot, park etc. at the time of submission of tender, he shall be deemed to have allowed in his tender for pay and allowances etc .for a female searcher (class IV servant) calculated for the period female labourer(s) employed by him inside the area. If more than one contractor employ female labourer(s) during any month and female searcher(s) has/have to be employed in addition to the authorised strength of the factory, depot, park etc. the salary and allowances paid to the additional female searcher(s) shall be distributed on equitable basis between the contractors employing female labour taking into consideration the values and period of completion of their contracts. The GE's decision in respect of the amount recoverable on this account from any contractor shall be final and binding.

**5. Security of Classified Documents** Contractors special alternation is drawn to condition 2-A and 3 of General conditions of contract IAFW-2249. The contractor shall not communicate any classified information regarding the works either to sub-contractor or others without prior approval of the Engineer-in-Charge. The contractor shall also not make copies of the design/drawings and other documents furnished to him in respect of the work and he shall return all documents on completion of the work or earlier on termination of the contract. The contractor shall alongwith final bill attach a receipt from the Engineer-in-Charge on respect of his having returned the classified documents as per condition 3 of General conditions of contracts IAFW-2249.

**6. Official Secret Act:-** The contractor shall be bound by the Official Secret Act, 1923, particularly section 5 there off.

**SPECIAL CONDITIONS****7. Employment of Personnel**

(a) Contractor shall employ only India Nationals as representative servants and men after verifying their antecedents and loyalty. He shall ensure that no person of doubtful antecedents and nationally is in any way, associated with the work. If for the reasons of technical collaboration or there considerations the employment of foreign national (s) if unavoidable, the contractor shall furnish full particulars to this effect to the Accepting Officer at the time of submission of the tender. And a proof that the contractor has employed only Indian Nationals, he shall render a certificate to GE within one month from the date of acceptance of tender of this effect. In case the GE desires contractor will have to do police verification of personnel employed by him.

(b) Verification of antecedents of contractors representatives/personnel/labour deployed at site in connection with execution of work under the contract, as per security requirement of user unit/installation shall be responsibility of the contractor and all expenses in connection with verification of antecedents by police authority / security agency shall be borne by the contractor.

(c) The GE shall have full powers and without giving any reason to order the contractor immediately to cease employ in connection with this contract, any agent, servant of employed whose continued employment is, in his opinion undesirable, the contractor shall not be allowed any compensation on this account.

(d) The contractor (s) attention is also drawn to condition 25 of IAFW in this connection.

**8. Availability of Land for Storage of Materials, Temporary Work Shop and Offices etc.**

Refer condition 24 of IAFW-2249. The contractor shall be permitted to store his materials including erecting temporary sheds there on all the area marked on site plan and he shall pay a license fee of Rs 1/- per year of part there of in respect of each and every separate area of land allotted to him. Completion certificate will not be issued to the contractor by the GE till the temporary storage shed and office are removed and site cleared interms of condition 49 of IAFW-2249.

**9. Damage to Existing Structure :-** Any damage to the existing structure any existing road etc during the execution of work shall be made good by the contractor at his own expense. Rectification, replacement making good and touching up etc shall be carried out to conform the materials and workmanship originally provided and to the satisfaction of the Engineer-in-Charge, in case of any on this account the decision of the GE shall be final binding and conclusive.

**10. Quarries and Royalties :-** Quarries are not available on land which is in the charge of MES authorities condition 125 of IAFW-2249 shall thus be treated as not applicable.

**11. Approaches :-** The contractor shall made arrangements for and provide at this own cost all temporary approaches if required to the site (s), after obtaining approval in writing from the GE for layout of such approaches.

**12. Location of Buildings and works :-** There may be same charges in location/sitting of buildings shown in site layout plan (S) to suit local conditions and or departmental requirement. The contractor shall have no claim what-so-ever consequent to such change in the location/sitting of work.

**SPECIAL CONDITIONS****13. Action where no specifications exist :-**

(a) In case of any class of work for which there is no such specifications in tender documents including SSR, such work shall be carried out in accordance with Indian Standard Specifications and where, Indian Standard Specifications do not cover the same the work should be carried out as per standard Engineering practice subject to the approval of the GE.

(b) No claim whatsoever will be tenable for any misunderstanding for not giving asserting required information/knowledge to muster the sources required in satisfactory completion of the entire work as per contract agreement.

**14. Method of Measurement :-** Measurement of all measurable work executed under this contract shall be taken in accordance with the rules for measurements as laid down in SSR pertaining to various items of work as applicable unless otherwise indicated in the respected sections of scheduled 'A'. In case the method of measurement for a particular item of work is not given in the SSR the reference will be made to the relevant provision contained in the latest edition of IS-1200.

**15. Standard of Workmanship:-**

(a) The contractor shall progress the works so that the work in building/part of building consisting of maximum number of common items as selected by GE, is at least three stage ahead of the progress on the remaining buildings the contract. Each stage of work on this sample buildings shall be executed under the close supervision by the Engineer-in-Charge workmanship of various trades shall be got passed by GE.

(b) The fact of such inspection and passing each stage of the sample building shall be recorded by the GE and CWE under his dated signatures. The workmanship of the sample block shall serve as a guiding sample for adoption in other block and the contractor shall ensure adherence to sample of workmanship passed by the GE.

(c) For special and particular finishes and any other items not covered in the sample building the sample will be approved in situation where actually required or as decided by the GE and as per his sole discretion.

**16. Critical path Method Net Work Analysis and Time Schedule:-**

(a) The time progress chart to be prepared as per conditions of IAFW-2249 (General conditions of contracts) shall consist of detailed network analysis and a time schedule. The critical path network will be drawn jointly by the GE and the contractor soon after accepting tender.

(b) (i) The time scheduling of the activities will be done by the contractor so as to finish the work within the stipulated time. The contractors are advised to use the facility of computerization available with any organization which affords such facility in doing the same. On completion of the time schedule a firm calendar date schedule will be prepared and submitted by the contractor to GE who will approve it after due scrutiny.

(ii) The schedule will be submitted in four copies within two weeks from the date of handing over the site in case the contractor fails to submit the network diagram on the net work prepared by GE will be binding on him and he will be bound to employ resources of men and materials in the manner directed by the GE.

**SPECIAL CONDITIONS**

(c) During the currency of the work, the contractor is expected to adhere to the time schedule and this adherence will be part of contractor's performance under the contract during the execution of the work the contractor is expected to participate in the review and updating of the net work undertaken by GE. These reviews be undertaken at the discretion of the GE either periodic approval measure or when the quantum of work ordered on the contractor is substantially changed through deviation order (s) or amendments. Any revision of the schedule as a result of the review will be submitted by the contractor to the GE within a week who will approve it thereafter.

(d) In case of contractor not agreeing to the revised schedule the same will be referred to the Accepting Officer whose decision will be final conclusive binding. GE's approval to the revised schedule resulting in completion date and beyond the stipulate date of completion shall not automatically amount to a grant of extension of time. Extension of time shall be considered and decided by the appropriate authority in terms of conditions of IAFW-2249 and separately regulated.

(e) Contractor is expected to mobilize and employ sufficient resources to achieve the detailed schedule within the broad frame work of the accepted method of working and safely

(f) No additional payment will be made to the contractor for any multiple shift work or other incentive method contemplated by him in his work schedule even through the same time schedule is approved by the department.

**17. Co-ordination with other Agencies:** - The contractor shall permit free access and afford formal facilities and usual convenience to other agencies or departmental workman to carryout connected works or services under separate arrangements. The contractor will not be allowed any extra payment on this account.

**18. Security Against loss or Damage**

(a) **Contractor's plants/Equipments** The contractor shall furnish to the Engineer-in-Charge every morning distribution return of his plants/equipment on the site of the work starting the following particulars:-

(i) Particulars of plants/equipments its make manufacture No, model No, if any Registration No, if any, capacity year of manufacture and year of purchase etc.

(ii) Total No (Quantity) on site of work.

(iii) Location, indications/ No (Quantity) at each location of the site of work.

(iv) Purchase value on the date of purchase. For the purpose of the condition, plant/equipment shall include vehicles i.e. trucks and lorries but neither the work man's tools or any manually operated tools equipment. The Engineer-n-Charge shall record the particulars supplied by the contractor in the works diary and send the return to the GE for record in his office.

**SPECIAL CONDITIONS**

**(b) Loss on Account of Enemy Action** :- If as a result of enemy action the contractor suffers any loss or damage, the Govt shall reimbursement the contractor such loss or damage to the extend and in the manner here-in-after provided.

**(i)** The loss suffered by him on account of any damage or destruction of his plant/equipment (as defined in special condition 18 (a) above , materials or any parts or part there of the amount of loss assessed by the Accepting Officer of the contract on his account shall be final binding and conclusive.

**(ii)** The Compensation paid by him under any law for the time being in force to any workmen employed by him for any injury caused to him or to the workmen's legal successor for lose of work man'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 General conditions of contract (IAFW-2249).

**(iv)** No reimbursement shall be made nor shall any compensation shall be payable under the above provision unless the contractor he taken Air Defense precautions ordered by the GE/OC concerned or in the absence of such order reasonable precautions taken by the contractor.

**(v)** No reimbursement shall be payable nor shall any compensation be payable for any plants / equipment or materials not lying on site of work at the time of enemy action.

**19. Advance on Account** Refer to condition 64 of IAFW-2249.

**20. Water**

**(a)** Water will not be supplied by the MES. The contractor shall make his own arrangement for water required for work and his workmen at his own cost.

**(b)** The contractor shall be permitted to collect the water from near by Nala by way of digging / boring tube well or hand pump under his own arrangements at his own cost at the site of work. If this water on testing is found suitable and conforming to the requirement of IS-456, the contractor may use the same in the work.

**(c)** The water arrange by the contractor from his own resources and the resources stated in para (b) above it will be ensured by him that water is free from injurious quantities of acid, alcohol, silt oil, injurious salt, organic matters or other impurities all as specified in IS-456 and is clean , potable and suitable for mixing concrete and mortar for washing aggregate, soaking of bricks / bricks tiles and for curing concrete and plaster.

**(d)** In all above cases water shall be treated under contractor's own arrangements from Govt approved test laboratories and test report shall be kept in GE's office for record.

**SPECIAL CONDITIONS**

(e) Sub soil water obtained by boring tube wells, hand pumps or from nearby Nala etc, if not found suitable and conforming to IS-456 can be used in the formation of road work and water bound macadam for road and the like, if the water is so approved by the Engr-in-Charge.

(f) In the event of contractor using sub soil water as above, no recovery shall be made for the rent of the land royalty for the sub soil water etc.

(g) The contractor shall at his own cost provide and fix pipes and install pumping sets as required for drawing the water from the tube well / hand pumps. On completion of the work, contractor shall remove the pump and fittings installed, filling up the hole and make good the site as directed by the Engr-in-Charge at his own expense and bore will be the property of the Department and no extra payment will be made to the contractor.

**21. Electric Supply**

(a) In case this contractor desires to buy electricity from the MES he shall be charged for the electric energy consumed at the following rates.

- (i) AT Rs 9.00 per unit for the light
- (ii) AT Rs 9.00 per unit for power

(b) Electric supply required for the work shall be made available by the MES at the points marked on the layout plans. The switches and energy meter to register the electric energy supplied shall be provided and inserted by the MES. The contractor shall all provide necessary cables, fittings, etc from the main switches in order to ensure a proper and suitable supply, of electricity for the execution of work. The MES do not guarantee for the continuity of supply and no compensation what-so-ever shall be allowed for supply becoming intermittent or for break down in the system. The actual position of the supply point (s) for electric energy will ascertained by the tenderer from the GE before submitting his tender. Irrespective of the facts whether he actually does or not he will be deemed to have inspected and seen the supply point(s), in consultation with GE before submitting his tender no claim what so ever shall be entertained on the account.

**22. Validity of Tender** Tender shall remain open for acceptance for a period of 60 days from the date of receipt of tender.**23. Samples of Materials/articles :-**

(a) Materials/articles provided by the contractor for incorporation in the work shall unless otherwise specific in the particular specifications comply with the requirement of the relevant Indian Standard (IS) the year of publication (edition) specified in the MES Schedule of rates. Part-I (2009) and shall have ISI certification making in particular of the following items :-

- (i) Articles of Builders hardware e.q. sliding /locking/tower bolts/spring hinges hasp and staples rim/mottles locks handles
- (ii) GI Tubing, GI Pipes.
- (iii) Sanitary fitting e.g. chinaware stop/bibs cock/pillar cocks valves float valves.
- (iv) Plywood, particle/block board (both veneered or un-veneered).
- (v) Chemicals for anti termite treatment for wood and soil treatment.
- (vi) Electrical switches , sockets, MCB,MCCB, conductors and cables.
- (vii) Where make of materials /articles are mentioned in the particular specifications, the contractor shall provide the materials /articles of any one of the make mentioned in the CA irrespective of whether their product is having IS certification or not.

**SPECIAL CONDITIONS**

- (b) In case of materials/articles for which Indian Standards are not finalized issued and therefore not included in the schedule contractor shall produce the samples and get them approved by the GE in writing before incorporation in the work.
- (c) The contractor is advised to inspect the samples of local building materials e.g. bricks stone aggregate shingle, sand etc and other materials maintained by the CWE/GE before submitting his tender. The contractor will be deemed to have inspected these samples and have knowledge whether he inspects them or not. The materials to be provided by the contractor shall conform to or be superior to the samples.
- (d) The selection and use of such sources of materials be subject to the compliance of these specifications read in conjunction with the MES schedule and relevant Indian standard specifications.

**24. Proprietary Materials/Articles.**

- (a) The proprietary articles such as Anti-termite chemical, bitumen. Tar felt water proofing compound, paint etc when brought to site shall be inspected and approved by the Engineer-in-Charge.
- (b) The quantity of proprietary articles brought to site shall be recorded in Measurement book (IAFW-2249) and signed by the contractor and the Engineer-in-Charge as a check to ensure that the required quantity brought to site for incorporation in the works.
- (c) The proprietary materials shall be stored as directed and those already recorded in the Measurement Book shall be marked suitably for identification.
- (d) The contractor shall on demand produce to GE original receipt Voucher/Invoices in respect of the supplies, to ensure that the contractor has actually brought the required quantity and quality from the authorized agents manufactures/ suppliers and also to find out the rates thereof.
- (e) Bitumen shall be purchased directly from manufacturers only. Their voucher invoices shall be defaced by the GE/Engineer-in-Charge indicating reference to the contract number under his dated signatures and shall be kept on record so as to avoid their being used again.
- (f) The chemical required for anti-termite treatment shall be purchased from Manufacturers/authorized dealers only and contractor shall produce the cash Voucher etc to prove the genuineness of the same. GE will also ensure that proper quality/quantity of chemical are brought and incorporated in the work.
- (g) Under no circumstances payment on account ( RAR) shall be made to the contractor as material lying at site for incorporation in the work , unless the contractor produce original purchase vouchers/ invoices for the following items of material as applicable:-
- (i) Cement
  - (ii) MCCB/MCB
  - (iii) Chemical for anti-treatment
  - (iv) Steel including reinforcement

**SPECIAL CONDITIONS****25. Blank**

**26. Watch/ lighting :-** The contractor shall at his own cost take all possible precaution to ensure safety of life and property by providing necessary fencing, barrier light, watchman etc during the progress of work and as directed by the Engineer-in-Charge .

**27. Making good :-** The contractor shall leave or from holes in concrete (Plain or RCC), Brick work masonry in any other situation as required for the work as directed by the Engineer-in-Charge and make good in the same mortar and mix as specified for that portion of work.

**28. Cleaning down :-** Refer condition 49 of IAFW-2249. The contractor shall clean all stores, remove cement, lime or paint drops clean joinery glass panes etc, touch all painters work and carrying all other necessary items of work in connection herewith and leave the whole premises clean and tidy before handing over the items/works. No extra payment shall be admissible to the contractor for the operation.

**29. Pricing of Deviations :-** The principle enunciated in condition 62 of IAFW-2249 shall apply to various sections of schedule 'A' of the contract. The contractors percentage applicable of pricing deviation as per condition 62 of IAFW-2249 shall be the respective contractors percentage for the respective section of Schedule 'A'.

**30. Minimum Wages Payable.**

**(a)** Refer condition 58 of IAFW – 2249. The Contractor shall not pay wages lower than minimum wages for labour as fixed by the Government of India/State Govt/Union territory, whichever is higher.

**(b)** Contractor's attention is also drawn, amongst other things to the explanations to the schedule of minimum wages referred to above.

**(c)** The fair wages referred to in condition 58 of IAFW-2249 will be deemed to be the same as the minimum wages, referred to above as upto date from time to time.

**(d)** Schedule of minimum wages are not enclosed along with tender documents. However contractor shall be deemed to have verified the minimum fair wages payable as on the last due date of receipt of tender.

**(e)** The contractor shall have no claim whatsoever, if on account of local factor and or regulations, he is reqd to pay the wages in excess of minimum wages as described above during the execution of work.

**31. Output of Road Roller:-** Refer condition 15 of IAFW-2249

**(a)** Where road roller(s) is/are hired by the Department to the Contractor Log Book for each road roller be maintained by the department by recording hours of working of the roller. In case however, when the contractor procures road roller(s) from sources other than the department Log Book for each road roller(s) shall be maintained by him for recording hours of working of the road roller Entries in the Log Book shall be signed by the contractor or his authorized representative and by the Engr-In-Charge.



**SPECIAL CONDITIONS**

(b) To ensure proper consolidation, roller must work for at least the number of days assessed on the basis of output given here under :-

**Output of Road Roller per day of 8 Hours**

- (i) Consolidation of formation surfaces/sub grade. : 1850.00Sqm
- (ii) Consolidation of stones soling 150mm spread thickness : 800.00Sqm
- (iii) Consolidation of WBM (stone metal) 75mm compacted thickness : 248.00Sqm
- (iv) Consolidation of WBM (stone metal) 100mm compacted thickness : 220.00Sqm
- (v) Consolidation of 20mm thick bituminous carpet including seal coat : 744.00Sqm
- (vi) Consolidation of 25mm thick bitumen carpet incl seal coat : 600.00Sqm
- (vii) Consolidation of 40mm thick bitumen carpet incl seal coat : 372.00Sqm

(c) If the road roller has not worked for the number of days so assessed recovery shall be effected from the contractor for the number of days falling short of the days assessed on the basis of output stipulated above. The recovery shall be effected as under :-

- (i) Where road roller is hired only by the department to the contractor @ rates given in schedule 'C'
- (ii) Where road roller is hired by the contractor only from sources other than the department @Rs. 2000.00 per working day of 8 hours.
- (iii) Where road roller is hired by the contractor from the department and also from sources other than the department = higher of the two rates, i.e rate given in Schedule 'C' of this contract or the rate mentioned in the preceding para.

(d) The above provision shall not absolve the contractor of his responsibility for properly consolidating surfaces as required under the provision of the contract.

32. **Reimbursement/refund of variation in prices** :- Refer condition 63 of IAFW-2249. This contract does not contain escalation clause hence no escalation shall be paid .However condition 63 of IAFW-2249 shall remain operative and reimbursement / refund on variation in prices shall be paid to contractor as per laid down conditions.

**SPECIAL CONDITIONS****33. Re-imbursement / refund on variation in “taxes directly related to Contract value”.**

**Goods and Service Tax (GST) Act has come into force. Consequently certain taxes such as central excise duty, additional excise duty, service tax, additional customs duty, special additional duty of customs, state value added tax/sales tax, central sales tax, octroi and entry tax, purchase tax are subsumed by GST. The terminology of various taxes and cess mentioned in Condition 33 here afterwards shall be deemed to be amended in accordance with Goods and Service Tax (GST) Act.**

(a) The rates quoted by the contractor shall be deemed to be inclusive of all taxes (including sales tax / VAT on materials, Sales Tax / VAT on works Contracts, Turnover Tax, Service Tax, Labour welfare cess / tax etc), 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, duties Royalties', Octroi& other levies shall be made except as provided in sub para (b) here-in-below.

(b) (i) The taxes 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 Sales Tax / VAT on works Contracts, Turnover Tax, Labour Welfare cess/tax and like 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 top 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 payment due to the Contractor. 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 a position to supply. The contractor shall submit the other documentary proof / information as the GE may require.

(iii) The contractor shall, for then 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.

(c) 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.

**SPECIAL CONDITIONS**

**34. Work on Holidays.** The contractor shall not carry out any work on gazette holidays weekly holidays and other non -working days except when he is specially authorized in writing to do so by the GE. The GE may at his sole discretion declare any day as holidays or non-working day without assigning any reasons for such declaration.

**35. Special Condition for Conciliation**

**35.1. Scope of Conciliation.**

**35.1.1.** The scope of conciliation shall be restricted to the following types of disputes with financial limits as indicated therein :-

(a) Disputes relating to levy of compensation for delay in completion-actual amount of compensation.

(b) Disputes relating to technical examination of works.

(c) Disputes relating to interpretation of the provisions of the contract with reference to the application to parties.

(d) Disputes relating to non-return of Schedule 'B' stores over-issued to contractor.

(e) Any other disputes having fair chances of being resolved by conciliation and considered fit to be referred to conciliation by the parties. For item (b), (c), (d) and (e) each as stated above the financial limit shall be Rupees two lakhs or one percent of the contract amount whichever is less.

**35.2. Commencement of Conciliation Proceedings**

**35.2.1** The party initiating conciliation shall send to the other party a written invitation to conciliate, briefly identifying the subject of the dispute.

**35.2.2** Conciliation proceedings shall commence when the other party accepts in writing the invitation to conciliate.

**35.2.3** If the other party rejects the invitation, there will be no conciliation proceedings. If the party initiating conciliation does not receive a reply within 30 days from the date on which he sends or within such other periods of time as specified in the invitation, he may elect to treat this as a rejection of the invitation to conciliate and if he so elects, he shall inform in writing the other party accordingly.

**35.3 Number of Conciliators:** - There shall be a Sole Conciliator.

**35.4 Appointment of Conciliator** :- All disputes brought out in para 32.1.1 (a) to (e) above shall be referred to the Sole Conciliator viz Serving Officer not below the rank of Superintending Engineer /Superintending Engineer (QS&C) having degree in Engineering or equivalent or having passed final/direct final examination of Sub division II of Institution of Surveyors (India) to be appointed by the Engineer-in- Chief, Army Headquarters, New Delhi or in his absence the Officer officiating as Engineer-in-Chief in writing.

**35.5 Status of effect of Settlement Agreement:** - The settlement agreement signed by the parties as a result of conciliation proceedings shall have the same status and effect as it is an arbitral award on agreed terms.

**SPECIAL CONDITIONS****36. Testing of Materials:-**

(a) 'A' level tests for works costing Rs.100 lakhs and above : The contractor shall set up site laboratory for testing of materials (except Sch 'B' materials) for 'A' level tests as listed in Annexure-I hereto. The contractor shall arrange all equipments/machines for the tests specified in Annexure-I as 'A' level tests at his own cost with prior approval of GE. This cost shall be included in the lump sum costs quoted by the contractor. The contractor shall employ a competent technical representative as approved by the GE for the purpose of testing and all such test shall be carried out in the presence of Engr-in-Charge. The successful test results thereof shall be recorded and signed jointly by the contractor and the Engr-in-Charge. The charges for these tests i.e. 'A' level tests carried out in site laboratory of the contractor shall not be recovered. However, in case a test which was specified to be carried out in site laboratory and which could not be carried out in site laboratory due to some reason, such test will be carried out in zonal lab/any other approved lab and the recovery shall be made at the rates given in Annexure-I for tests carried out in zonal lab or otherwise at the actual rates in case the tests are carried out in other labs. Testing charges will be deducted from the RARs irrespective of the test results for such tests.

(b) 'A' level tests for works costing upto Rs.100 lakhs: The contractor may set up site laboratory at his option for works costing upto Rs.100 lakhs. The other stipulations will be same as specified in preceding para (a). However, in case the contractor has not set up the site laboratory and tests are carried out in zonal or any other laboratory approved/set up by GE, the recovery shall be made at rates given in Annexure-I for tests carried out in zonal lab or otherwise as per actual rates in case the tests are carried out in other labs. Testing charges will be deducted from the RARs irrespective of the test results for such tests.

(c) **'B' & 'C' Level Tests:** For tests of 'B' & 'C' level as indicated in Annexure-I, the contractor shall provide all facilities for testing of materials at zonal laboratory/Govt approved laboratories or test house/Engineering Colleges at his own cost. The item rates quoted by the contractor shall be deemed to be inclusive of these tests. The rates of various tests conducted in laboratories of MES are indicated in Annexure-I. The contractor shall bear the actual charges of C level tests (to be done in labs other than MES labs) irrespective of rates indicated in Annexure-I. Where ever it is convenient to get B level tests done at Govt approved laboratories or test house/Engineering Colleges, the same can be done at the cost of contractor and no separate recoveries shall be made by the depts for the same..

(d) The recoveries on account of testing charges wherever applicable shall be effected from the running account payments due to the contractor payable after completion of the respective test or whenever the test is due whichever is earlier.

(e) This clause supersedes all other stipulations, if any, with regard to testing of materials, specified elsewhere in the tender documents.

**Signature of Contractor****DCWE (Contracts)  
for Accepting Officer**

**SPECIAL CONDITIONS****ANNEXURE – I**

(Refer to Special Condition 36)

Ser No	Material	Tests	Method of testing	Frequency of tests			Level of test	Rate (₹)	Remarks
1	2	3	4	5			6	7	8
1.	Bricks	(i) Compressive Strength	IS 3495 (Part-II)	As per (IS-125125) As given under			'A'	330	Checks for visual and dimensional characteristics shall also be carried out as per IS-125125.
		(ii) Water Absorption	-do-	Lot size	Sample size	Permissible No. of defective bricks	'A'	330	
		(iii) Efflorescence	-do- (Part-I)	1001 to 10000	5	0	'A'	330	
				10001 to 35000	10	0			
				35001 to 50000	15	1			
2.	Coarse Aggregate	(i) Sieve Analysis	IS : 2386 (Part-I)	One test for every 15 Cum of aggregates or part thereof brought to site			'A'	660	Legend: 'A' -Site Lab.
		(ii) Flakiness Index	-do-	-do-			'A'	250	B-Zonal Lab
		(iii) Estimation of deleterious materials	IS : 2386 (Part-I)	One test for every 100 Cum of aggregates or part thereof			'A'	600	'C' Approved test house/ Engg College
		(iv) Organic impurities	-do-	One test per source of supply			'C'	275	
		(v) Moisture content	-do- (Part-II)	Regularly as required			'A'	330	
		(vi) Specific Gravity	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 or part when brought to site.			'A'	660	
		(ii) Test for clay silt and impurities.	-do- (Part-II)	-do-			'A'	500	
		(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.			'C'	275	

**SPECIAL CONDITIONS**

Annexure – I

1	2	3	4	5	6	7	8
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-25 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 as under :-	'A'	330	i) Random sampling shall be carried out to cover all mix units.
		(ii) Compressive strength	IS : 516	Qty of samples in the work Cum  1-5 1. 2 1. 3 1. 4 51 & above 4 +1 for each addl or part there of	'A'	900	ii) Refer IS-456 of 2000 clause 125 for frequency of sampling.
<b>Note :-</b> The contractor shall provide following items at site lab for carrying out field tests. (a) Universal testing machine. (b) Sieve set – 02 Nos. (c) Weighing balance – 02 Nos. (d) Cube mould – 27 Nos. (e) Graduated jars. (f) Oven							
6.	(a) PCC blocks for walling (Hollow block)	(i) Compressive Strength	IS : 2156 of 1984 (Appx 'B')	8 Block out of 125	'A'	600	Samples : 125 blocks from consignment of every 5000 blocks or part there of.
		(ii) Water absorption	-do- (Appx 'E')	3 block out of 125	'B'	330	
		(iii) Density	-do- (Appx 'A')	3 Blocks out of 125	'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 there of. 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	

**SPECIAL CONDITIONS**

Annexure – I

1	2	3	4	5	6	7	8
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 tiles out of 12	'B'	216	Samples 12 tiles from each source of supply selected at random.
	(hand made) As per IS : 2690 (Part-II) length 150mm to 250mm width 100mm to 200mm thickness 35mm to 50mm	(ii) Compressive strength	-do- (Part-I)	-do-	'A'	180	
9.	Mangalore pattern roofing tiles	(i) Water absorption	IS : 6125 (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 and weight	IS : 1708-1960	Minimum 3 samples from a lot of 4 cum or 250 pieces of seasoned timber.	'B'	120	
		(ii) Moisture content	-do-	-do-	'A'	120	
11.	Water for construction on 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	
12.	Welding of steel work	(i) Visual Inspection test	IS : 822-1970 clause 7.1	100% by visual inspection.	Work site	360	Specialised tests, their method and frequency to be decided on consideration of their importance by the accepting officer.

**SPECIAL CONDITIONS**

## Annexure – I

1	2	3	4	5	6	7	8
13.	Timber paneled and glazed Door/Window shutters (incl factory made shutter)	(a) Dimensions sizes. Workmanship and finish	IS : 1003-1977 (Part-I)	Frequency of sampling from each lot shall be as under :- <u>Lot Size</u> 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 : 1303	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 : 303-1989)	(a) Moisture content	IS : 1734-1983 (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 : 7835-1975 tables.
15.	Wood particle board (Medium density IS : 3097-1985)	(a) Density	IS : 2360 (Part-III)	Three test specimens from each sample (Size 150mm x 75mm)	'A'	60	Sampling shall be as per IS : 34125-1983 with moisture metre.
		(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 : 2380-77	'B'	90	
		(g) Screw withdrawal strength	-do- (Part-125)	-do- as per IS : 2385	'C'	120	
16.	Reinforcement steel (IS : 1786)	(a) Physical tests upto 16mm dia(Normal mass, tensile, elongation, bend and rebend.)	As per relevant IS	As per Appx 'D'	'B'	2500 per sample	
		(b) -do- but more than 16mm dia.	As per relevant IS	As per Appx 'D'	'B'	2750 per sample	



**SPECIAL CONDITIONS**

## Annexure – I

1	2	3	4	5	6	7	8
17.	Aggregate of all sizes for WBM, BM, AC, PMC etc. for road and pavement	(a) Impact Test (b) Crushing value (c) Los angles abrasion value (d) Flakiness (e) Water absorption (f) Specific gravity (g) Density (h) Stripping value of aggregate for BM/AC	IS: 2386 (Part-IV) IS: 2386 (Part-IV) IS: 2386 (Part-IV) IS: 2386 (Part-IV) IS: 2386 (Part-II) IS: 2386 (Part-III) IS: 2386 (Part-III) IS: 2386 (Part-III) IS: 2386 (Part-III)	1 test per 100 Cum 1 test per source 1 test per source 1 test per 100 Cum 1 test per 100 Cum 1 test per source 1 test per source 1 test per source	'B' 'B' 'B' 'A' 'A' 'B' 'B' 'B'	225 225 225 225 225 225 225	
18.	Bitumen for road pavement works	(a) Penetration value (b) Softening points (c) Elongation (d) Wax content (e) Flash point/Fire point (f) Ductility	IS: 73 --do-- ---do--- IS: 1209 IS: 1208 ---do--- ---do---	1 test per batch of bitumen supplied in bulk or drums ---do--- ---do--- ---do--- ---do--- ---do---	'B' 'B' 'B' 'B' 'B' 'B'	450 225 225 225 225	

**FOR ROAD WORKS:-**

1. Weighing Balances
  - (a) 7 Kg to 10 Kg capacity, semi-self indicating type (accuracy-10gm)
  - (b) 500gm capacity, semi-self indicating type (accuracy-1gm)
  - (c) Chemical Balance, 100 gm capacity (accuracy-0.1 gm)
  - (d) Pan Balance – 5 Kg capacity (accuracy – 10 gm)
  - (e) Platform Scale - 300 Kg capacity

Signature of Contractor

Dated: \_\_\_\_\_

DCWE (Contracts)  
For Accepting Officer

**PARTICULAR SPECIFICATIONS****1. GENERAL**

**1.1** Work under this contract shall be carried out in accordance with Schedule 'A', Particular Specifications, drawings, General Specifications and other provisions contained in MES Schedule Part-I (2009) and Part-II (2020) read in conjunction with each other.

**1.2** Term "Particular specifications" referred to here-in-before as well as referred in IAFW-2249 (General Conditions of contracts) shall mean the specifications contained in the MES Schedule 2009 (Part-I).

**1.3** 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 provisions 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 specifications. All references to MES Schedule/SSR in these specifications relate to Part-I of MES Schedule 2009 unless otherwise mentioned. Reference to only some paragraphs of MES Schedule have been made in these particular specifications but other paragraphs and provisions, as applicable, are also to be followed for Schedule 'A', if any, though not particularly mentioned hereinafter.

**1.4** Where specifications for any item of work are not given in MES Schedule or in these particular specifications, specifications as given in relevant Indian Standard Code of Practice shall be followed.

**2. MATERIALS**

**2.1** Unless specific makes/manufacturers are specified in the tender documents all the materials to be procured by the contractor for incorporation in the work under this contract (with the exception of local materials like bricks, stone aggregate, stones, sand etc) shall be with ISI certifications mark. For materials of specific make/manufacturer's names refer para 1.5.2 here in below.

**2.2** If any specific makes/manufacturers names are specified elsewhere, materials shall be of these specific makes/manufacturers only, ISI marking will not be mandatory for such items where makes/manufacturers have been specified unless the items of makes/manufacturers specified are available both with IS marking and without ISI marking. If any material is not manufactured with IS certifications mark in the country, it shall be conforming to relevant IS and other specifications specified elsewhere and shall also conform to samples displayed in CE's/CWE's/GE's office as applicable.

**2.3** Indian Standard (IS) of the year of publication/edition listed or specified in the SSR(Part-I) shall be applicable for the work under this contract unless specifically indicated otherwise elsewhere in these tender documents.

**2.4 LOCAL MATERIALS:** Local materials such as stones, aggregate etc shall conform to or superior to the specifications and to the samples kept in the office of CWEs/GEs and the tenderers are advised to inspect these samples. The tenderers shall be deemed to have inspected the samples and have full knowledge thereof whether they inspect them or not before quoting their tender.

**PARTICULAR SPECIFICATIONS****2.5 SAMPLES OF MATERIALS:-**

- (a) Refer condition 10 of IAFW-2249.
- (b) Specific requirements regarding dimensions, strength, weight and finishes, as per IS, MES SSR and the particular specifications given hereinafter vis-à-vis actual properties check, tests carried out, reference to test certificates and markings, etc based on which samples of each materials are approved as conforming to relevant specification shall be recorded in the sample approval register.
- (c) The contractor shall not procure materials unless the samples are first got approved from the Garrison Engineer.

**2.6 RECORD OF MATERIALS:-**

- (a) The quantity of aggregates (course & fine) and the like as directed by the Engineer-in-Charge (the quantity of which can not be checked after incorporation in the works). shall be recorded in measurement books and signed by the contractor and the Engineer-in-Charge as a check to ensure that the required quantity has been procured and incorporated in the work.

**3.0 STANDARD OF WORKMANSHIP:** To determine the acceptable standard of workmanship the GE shall order the contractor to execute certain typical portion of work (different trades) and services sufficiently in advance of other work in one portion of the road. These shall be executed and completed under the close supervision of the Engineer-in-charge and shall be got approved from GE. On approval by the GE of such items, these items shall be signed and/or suitably identified by the GE and labeled as guiding samples. The record of such inspection and passing of each stage of these samples shall be recorded by GE under his dated signatures. Work on such sample/portion of the road shall be progressed well ahead (minimum two stages ahead) of other portions of the road. Approved finishes/workmanship shall be followed in the work as a whole".

**4. SCOPE OF WORK:-** All repair/ Road works shall be carried out all as specified in Sch 'A'. The work shall consists of preparation and transportation of bituminous concrete (Asphaltic concrete) made of compacted crushed stone aggregates, filler in suitable proportion premixed with bitumen binder mixed in a Hot Mix Plant of capacity 40-50MT and capable of yielding a mix of proper and uniform quality with thoroughly coated aggregates.

**5. EXCAVATION AND EARTH WORK****5.1 Excavation**

- (a) Soft/loose soil, hard/dense soil mixed with boulders as defined or soft or disintegrated rock and mud shall be classified as any type of soil.
- (b) However in the event of deviations involving excavation and earth work, the rate shall be the average of soft/loose and hard/dense soil.
- (c) The measurement of excavation shall be as explained in MES Schedule (Part-II) with the exception that separate quantities of soft/loose soil, hard/dense soil and mud shall not be worked out, but these materials shall be grouped together as any type of soil as aforesaid.
- (d) If hard rock is met at site, contractor shall immediately notify the fact to the GE in writing, who will after due verification, regularize the change through a proper deviation order.

**PARTICULAR SPECIFICATIONS**

**5.2 Bailing/Pumping of water :** Contractor's quoted rates/lumpsum amount for excavation shall be deemed to include bailing/pumping of water, if met, with all as per clause 3.17 of SSR Part-I. No claim whatsoever shall be entertained on this account.

**6. Concrete Work**

**6.1 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 work shall be borne by the contractor.

**6.2 Type of Cement.** Type of cement to be used in this contract shall be Ordinary Portland Cement (**OPC**) Grade 43 conforming to IS-8112-1989 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. But however, Portland Pozzolana Cement (**PPC**) (as per IS-1489-1991) can be used in lieu of Ordinary Portland Cement without any price adjustment subject to fulfilling certain criteria enumerated herein under in succeeding paras :-

**7 Procurement:** Cement shall be procured by the contractor (**OPC & PPC**) directly from any of the producers listed below or as approved by E-in-C's Branch even after date of receipt of tender:-

**(A) Approved Manufacturers for MES on PAN India level (Appx 'A' to E-in-C's Br letter No A/90154/12/E2 Des-3 dt 13 Mar 2024)**

Sl No.	Company Name & Brand	Address	Cement Grades
1.	The Associated Cement Companies Ltd <b>Brand: "ACC"</b>	414-421, Splendor Forum (4 <sup>th</sup> Floor), 3, District Centre, Jasola, New Delhi-110044 Ph: 011-46583600	All
2.	M/s Ultra Tech Cement Ltd <b>Brand: "ULTRATECH"</b>	'B' Wing, 2 <sup>nd</sup> floor , Mahakali Caves Road, Andheri (East), Mumbai-400093, Ph 022-66917800	All
3.	The India Cement	Dhun Building, 827, Anna Salai, Channai-600002	All
4.	Dalmia Cement (Bharat) Ltd <b>Brand: "DALMIA INFRA PRO"</b>	Dalmiapuram, Distt- Truchirappalli, Tamil Nadu-621651	All
5.	Century Cements <b>Brand: "CENTURY"</b>	Industry House, 159 Church Gate, Reclamation, Mumbai-400020 Ph: 022-22023936	All
6.	Saurashtra Cement <b>Brand: "SAURASHTRA"</b>	Gala No A-1, Ground Floor, Udhog Sadan No 3 MIDC, Central Road, Andherei (East), Mumbai-400093 Ph: 022-32955557/67, Mob: 9320290081	All
7.	The Ramco Cements Ltd (Formerly Madras Cement) <b>Brand : "RAMCO"</b>	Aurdas Corporate Centre, 98-A, Dr. Radhakrishnan Salai, Mylapore, Chennai -600004 Ph-04428478666	All
8.	Mangalam Cement Ltd <b>Brand: "MANGALAM"</b>	PO Adityanagar, Morak, Distt- Kota, Rajsthan-326520 Ph: 9351468076	All

**PARTICULAR SPECIFICATIONS (Contd)**

9.	Birla Corporation Ltd <b>Brand: "BIRLA"</b>	Birla Building (3 <sup>rd</sup> & 4 <sup>th</sup> Floor) 9/1, RN Mukherjee Road, Kolkata-700001 Ph: 033-30573700	All
10.	Orient Cement <b>Brand: "BIRLA-A1"</b>	5-9-22/57/D, 2 <sup>nd</sup> and 3 <sup>rd</sup> Floor, GP Birla Centre, Adarsh Nagar, Hyderabad-500063 Ph: 04423688600	All
11.	Nuvoco Vistas Corporation Ltd (Formerly Lafarge Cement) <b>Brand : "NUVOCO"</b>	Equinox Business Park, Tower-3, East – Wing, 4 <sup>th</sup> floor LBS Marg, Kurla (West) Kurla Mumbai, MH-400070	All
12.	Shree Cement Ltd <b>Brand: "SHREE"</b>	Bangur Nagar, Beawar, Distt- Ajmer, Rajasthan-305901 Ph: 01462-228101-06	All
13.	J K Cement <b>Brand: "JK"</b>	Kamla Tower Kanpur-208001	All
14.	J K Lakshmi Cement Ltd <b>Brand: "J K LAKSHMI"</b>	Jaykapuram, Distt-Sirohi, rajasthan Ph: 02971-244409/10	All
15.	Jaypee Rewa Cement <b>Brand: "JAYPEE"</b>	Jaypee Nagar P.O – Jaypee Nagar, Rewa-486450, MP	All
16.	Ambuja Cement Ltd <b>Brand: "AMBUJA"</b>	Kodinar, PO-Ambujanagar, Taluka-Kodinagar, Distt-Junagarh, Gujrat-362715 Ph: 02795-237000	All
17.	M/s JSW Cement Ltd, A.P <b>Brand: "JSW PSC" (Portland Slag Cement)</b>	JSW Centre, Opp Mimrda Ground Bandra Kurla Complex, Bandra (East) Mumbai-400051 Tele : +91-22-4286-5147 Fax : +91-22-2650-2001 Website : www.jswcement.in	PSC
18.	M/s Kesoram industries Ltd <b>Brand : "BIRLA SHAKTI"</b>	<b>M/s Kesoram industries Ltd</b> Unit 12 <sup>th</sup> 1201 of T 19 Towers, Indira Nagar Ginwala Compound, M.G Road, Secunderabad, Hyderabad, Telangana-500003 Tele : +91-40-4334-4555 Fax : +91-40-433-4534, Website – www.kesocorp.co	OPC43 OPC53 PPC
19.	M/s Sagar Cements , Limited Hyderabad <b>Brand : 'SAGAR'</b>	<b>M/s Sagar Cements , Limited</b> Plot No 111, Road No 10 Jubilee Hills, Hyderabad – 500033 Tele +91-40-3351571,2335672 FAX : +91 -402335673 Email – <a href="mailto:info@sagarcements.in">info@sagarcements.in</a> Website – <a href="http://www.sagarcements">www.sagarcements</a>	OPC43 OPC53 PPC & PSC

**PARTICULAR SPECIFICATIONS (Contd)****3.1.4 Requirements for using Portland Pozzolana Cement.**

- (a) PPC meets the strength criteria of 43 Grade OPC as laid down in IS-8112-1889.
- (b) The minimum period before striking form work given in clause 11.3.1 of IS-456-2000 is to be suitably modified and approved for the period by the GE. The contractor shall not claim extra on this account.
- (c) Mixing of OPC & PPC, shall not be allowed in a work. However with the strict control of the ground executives, different buildings can have different type of cement.
- (d) The following requirements shall be ensured at the time of procurement and certificate to this effect shall be obtained from manufacturer for each batch.
  - (i) The quantity of Fly Ash is strictly as per IS-1489 (Part-I)-2002.
  - (ii) Fly ash is interground with clinker not mixed with clinker.
  - (iii) Dry fly ash is transported in closed containers and stored in silos only. Only pneumatic pumping should be used.
  - (iv) The fly ash is received from thermal power plants using high temperature combustion above 1000° C should be used.
  - (v) The fly ash contents in PPC shall not exceed 25% to ensure consistency.
- (e) In cold climatic regions where temperature goes below 16° C and important structures like over head reservoirs, underground sumps, prestigious buildings (as decided by CWE) and buildings with spans 10 m or more, only OPC shall be used. However, for other structures during working seasons in cold climatic regions, where OPC is not available use of PPC may be permitted provided it shall be ensured that while using PPC, atmospheric temperature should be more than 16° C.

**3.1.5** Contractor shall produce purchase vouchers, test certificate 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 3.2.2.1 above. The contractor shall also obtain date of manufacturing of cement from manufacturers/ suppliers for every lot of cement separately and will submit complete documents in support of purchase of cement to Engineer-in-charge/ GE for verification.

**3.2 Testing of Cement.**

**3.2.1** 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 specifications in the Cement Acceptance Register in Format given in Appx 'A' attached hereinafter.

**3.2.2** 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. In addition to manufacturers test certificate, GE shall also take random samples of cement drawn from various lots of each consignment as specified in IS Codes and get them tested from any one of the Govt. approved laboratories at his discretion or from National Test house SEMT wing CME, Regional Research Laboratory or Zonal Laboratory, all as per IS-3535-1886 (Method of sampling hydraulic cement). IS-4031 (Method of physical test for hydraulic cement) and IS-4032-1885 (Method of chemical analysis of hydraulic cement). Irrespective of results, cost of materials for such samples, cost of requisite handling & conveyance and cost of testing etc. shall be borne by the contractor. 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.

**PARTICULAR SPECIFICATIONS (Contd)**

**3.2.3** Cost of testing undertaken as per provision in clause 3.2.3.2 above shall also be borne by the contractor. It shall be ensured that tested and untested cement is segregated and stored separately with distinct identification. Cement of different brands shall be stacked separately.

**3.2.4** If the test results on 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. No claim whatsoever shall be entertained on this account.

**3.3 Storage/Consumption of Cement**

**3.3.1** Cement in bags shall be stored in proper leak proof/damp proof storage godown, over at least a 20cm high platform at least 20 cms away from floor and walls in such manner so as to prevent deterioration due to moisture or intrusion of foreign matter, all as specified in clause 4.3.1 of SSR Part-I. It shall be ensured that stacking of cement shall not be more than 10 bags high. It shall be ensured that tested and untested cement is segregated and stored separately with distinct identification.

**3.3.2** The entire quantity of cement brought at site shall also be suitably recorded in the MB indicating quantity and purchase voucher (s) before incorporating in the works. Entries in the MB shall be signed by the Engineer-in-charge and the contractor.

(i) 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 in token of correctness of the entries made. In token to check, it shall be signed by MES representative also as follows:-

(a) Daily by JE(Civil) or JE (E/M) in charge of works.

(b) Twice in a week by the Engineer-in-Charge.

(ii) The register shall remain at site of 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.

(iii) The cement godown 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 godown according to daily requirements and with the knowledge of both the parties.

(iv) Foregoing 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.

**3.3.3** 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.

**PARTICULAR SPECIFICATIONS (Contd)**

**3.4 Documentation :** The contractor shall submit original purchase vouchers from the manufacturer 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 alongwith the relevant documents before acceptance. The original vouchers and the 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) or JE (E/M), 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 in the work, as "Not to be abstracted" indicating the voucher number with dates, quantity, date of manufacture/expiry date etc. It shall form the basis to allow advance on account through RARs. While allowing advance on account quantities of cement so entered in MB shall be reduced by 2.50%.

**3.4.1** The Contractor shall ensure that procurement action is taken immediately after acceptance of the contract so as to adhere to schedule of activities as per CPM Net Work.

**3.4.2 Aggregates** Aggregates for concrete work shall conform to specifications all as specified in clauses 4.4.1 to 4.4.7.3 of MES Schedule Part-I.

**3.4.3 Fine aggregate (sand)** Grading for fine aggregate shall be within the limits of grading zone I to III as given in clause 4.4.7.2 of MES Schedule Part-I. However, for all concrete and masonry work, fine sand within limits of grading I & II shall be provided and for all other balance work including plastering/screeding etc., where it shall be provided within limits of grading –III.

**3.4.4 Coarse aggregate** Unless specified otherwise in these particular specifications, coarse aggregate for all concrete work in all situations shall be graded crushed stone aggregate of approved quality. Contractor may, however, use graded shingle aggregate of approved quality in lean concrete under foundation, sub base of floor without any price adjustment. Two types of aggregate shall not be mixed.

**3.4.5 Grading of coarse aggregate** Graded aggregate of nominal sizes given hereunder, shall be used, unless specified otherwise in the specifications hereinafter :-

**(a) Reinforced Cement Concrete.**

- |      |  |   |         |
|------|--|---|---------|
| (i)  | For elements of depth/thickness more than and incl 100mm | : | 20mm.   |
| (ii) | For elements of depth/thickness less than 100mm          | : | 12.5mm. |

**Note:** However, in no case the nominal size of aggregate shall be greater than one fourth the minimum size of the member and further it should conform to the requirement given in Clause 5.3 of IS-456-2000.

**(b) Plain Cement Concrete**

- |       |  |   |         |
|-------|--|---|---------|
| (i)   | Under 30 mm thickness                          | : | 12.5 mm |
| (ii)  | 30 to 80mm thickness                           | : | 20 mm   |
| (iii) | Exceeding 80mm thickness                       | : | 40 mm   |
| (iv)  | Lean concrete and concrete sub base of floors. | : | 40 mm   |

**3.5 Water** Water shall conform to the requirement stipulated in IS-456-2000.



**PARTICULAR SPECIFICATIONS (Contd)**

**3.6 Mixing of Concrete** The contractor shall use power driven mechanical concrete mixer/ plant of adequate capacity with hopper of approved type for mixing. The type of mixer/ plant to be used shall be got approved from GE. The coarse and fine aggregate for mixing of cement concrete shall be put in the hopper after measuring the same. The drum shall be loaded with about half of the coarse aggregate, then with fine aggregate then with the cement and finally with the remaining coarse aggregate at the top. Water shall be added immediately before the rotation of the drum is started. The mixer plant shall have proper mechanism of adding required quantity of water. The period of mixing shall not be less than 2 minutes after adding all the materials in drum and shall continue till the resulting concrete is uniform in appearance.

**3.7 Placing and Compaction of Concrete**

(i) Concrete shall be transported without delay and incorporated in works at the position of laying within 20 minutes from the time of discharge from the mixer.

(ii) Mixed concrete shall be deposited in final position and solidly packed around reinforcement carefully poured and consolidated by means of portable vibrators or mechanically operated and of the kind as suitable for particular situation as directed by GE. Care shall be exercised that no voids or honeycomb pockets are formed. The concrete shall not be laid in position for more than 1 metre in height in one consecutive operation.

**3.8 Water cement Ratio** The water cement ratio for the concrete shall be as per IS-456. To achieve this water cement ratio, the moisture content in respect of coarse aggregate and fine aggregate shall be tested and kept on record. The frequency of testing of moisture contents in respect of coarse aggregate and fine aggregate shall be decided by Engineer-in-Charge depending upon site conditions. The amount of water required shall be adjusted depending upon the results of tests for the moisture contents carried out. For determination of moisture content in aggregate, IS-2386 (Part-III) may be referred to.

**3.9 Curing**

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

**3.10 Plain Cement Concrete**

(i) Unless otherwise indicated, all plain cement concrete shall be mixed in mechanical mixer with hopper of approved type. The coarse and fine aggregates for mixing of cement concrete shall be put in the hopper through measuring boxes. Under no circumstances, measuring with other than proper measuring boxes shall be allowed. However, in case of small quantity i.e, the quantity of concrete required being less than one batch of mix the contractor may after obtaining written permission of the Engineer-in-Charge be allowed hand mixing. Where hand mixing is permitted, it shall be carried out on watertight platform and care should be taken to ensure that mixing is continued until the concrete is uniform in colour and consistency.

(ii) All plain concrete shall be consolidated / compacted by tamping and rodding.

**3.11 Nominal mix** Nominal mix where indicated shall be provided as per IS-456-2000

**PARTICULAR SPECIFICATIONS (Contd)****3.12 Important Requirements of Design Mix (RCC/PCC).**

**3.12.1** All design Mix concrete shall be provided strictly as given in section 2 of IS-456 – 2000 and shall suit the climatic and exposure conditions of area where work lies.

**3.12.2 (i)** The design mix of concrete shall be got done from Reputed Govt Laboratory/Govt Engrs Colleges/IIT. The design mix given by the Govt Lab. as above shall be approved by the GE before incorporation in the work. However, the approval of GE will not absolve the contractor of his responsibility for obtaining required minimum strength. In case of any dispute or difference of opinion between the GE and the contractor in this regard, the decision of the CWE shall be final, conclusive and binding.

**(ii)** All tests in support of mix design shall be maintained as a record for the contract.

**3.12.3** Ordinary Portland Cement/Portland Pozzolana Cement shall be used for M-25 Design Mix.

**3.12.4** At the time of concreting, the contractor after taking into account the type of aggregate, plant and method of laying, he intends to use, shall allow for the aggregate cement ratio which he considers will achieve the strength requirement specified and will produce workability which will enable concrete to be properly compacted for its full depth as per IS.

**3.12.5** Actual proportion of cement, aggregate and water to obtain the required strength shall be determined by carrying out design mix as specified here-in-before. Irrespective of the cement contents arrived as per actual mix design, no price adjustment will be made for and aggregate contents. Rate quoted by the contractor shall variation in cement deemed to be inclusive of this factor and no claim whatsoever for increase in quantity of cement contents beyond minimum cement contents as per IS-456-2000 shall be entertained.

**3.12.6** The building(s) has/have been designed for moderate exposure condition & 1.5 hours fire rating.

**3.13 Batching & Mixing**

**3.13.1** All concreting shall be done by using computerized automatic concrete batching plant of minimum capacity 2.50 Cum/hour, which shall be installed by the contractor at site, calibrated and tested. The batching plant shall conform to relevant IS. It shall have the facilities of data print-outs, presenting the quantity to be weighed with automatic cut-off when the same is achieved.

**PARTICULAR SPECIFICATIONS (Contd)**

**3.13.2** In case of non-availability of batched concrete, Ready Mix Concrete (RMC) may be used. The concrete to site shall be transported by transit mixtures. All the precautions shall be taken during the transportation and handling of concrete to achieve the desired strength, durability, etc. as envisaged in the mix design. Contractor has to get the approval from Engineer-in-Charge regarding source of ready mix concrete by giving the details of such plants indicating name of owner/company, its location, technical establishment, past experience and text of Memorandum of understanding (proposed to be entered between purchaser and supplier) who, after satisfying himself about quality/capability of the company, shall give approval in writing (subject to drawl of MOU). The MOU shall be drawn with RMC plant owner/company and submitted to Engineer-in-Charge within a week of such approval. The contractor will not be allowed to purchase ready-mixed concrete without completion of above formalities for use in this project. Not with standing the approval granted by Engineer-in-Charge in aforesaid manner, the contractor shall be fully responsible for quality of concrete including input control, production, transportation and placement, etc. The Engineer-in-Charge will reserve the right to deploy his supervisor at plant site to inspect at any such stage and reject the material/concrete etc, if he is not satisfied about quality of material/product.

**3.13.3** The design mix concrete will be designed based on principle given in IS-456, 10262 and SP 23 for each class of concrete indicating that the concrete ingredients and proportions will result in concrete mix meeting requirement specified.

**3.13.4** In case of use of admixture and /or white cement, the mix shall be designed with these ingredients as well.

**3.13.5** Nothing extra shall be paid for use of ready mix concrete instead of batch mixed concrete.

**3.13.6** All measuring equipment shall be maintained in a clean and serviceable condition and their accuracy shall be checked at least once a month.

**3.14** **Acceptance Criteria for Concrete** The criteria for acceptance of the concrete shall be as given in clause 16 ( Section-II) of IS-456/2000(Code of practice for plain and reinforced concrete). The minimum frequency for the work tests shall be as specified therein or samples taken from concrete poured in operations as specified in clause here-in-after which ever is more. Frequency of sampling is laid down in para 15 (Section-II) of IS-456/2000.

**3.15** **Tests** The following tests shall be carried out during the execution of work. These tests shall be in addition to those specified in clause 3.9 hereinbefore. Tests shall be carried out in accordance with IS-516 and IS-1199. The contractor shall provide all facilities and equipment for casting and curing of test cubes and conveyance of test cubes and other material for testing purpose to MES Laboratory, the cost for which shall also be borne by the contractor. However, testing charges to be levied from contractor for tests carried out in MES Laboratory as per special condition No 34 here-in-before. All equipment required for site tests as per BIS norms will be procured by the contractor. The cost of the same is deemed to be included in the lump-sum quoted by the contractor.

(i) **Workability test** Workability test shall be as per clause 7 of IS-456/2000.

(ii) **Sampling and strength of designed concrete mix**

(a) General samples from fresh concrete shall be taken as per IS-1199 and cubes shall be made, cured and tested at 28 days in accordance with IS-516.

(b) In order to get a relatively quicker idea of the quality of concrete, optional tests on beams for modulus of rupture at  $72 \pm 2$ h or at 7 days, or compressive strength tests at 7 days may be carried out in addition to 28 days compressive strength test. For this purpose the values should be arrived at based on actual testing. In all cases, the 28 days compressive strength specified in table 2 shall alone be the criteria for acceptance or rejection of the concrete

**PARTICULAR SPECIFICATIONS (Contd)****(iii) Frequency of Sampling**

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

(b) **Frequency** The minimum frequency of sampling of concrete of each grade shall be in accordance with the following:-

<u>Quantity of concrete in work, in cum</u>	<u>Numbers of samples</u>
1-5	1
6-15	2
16-30	3
31-50	4
51 and above	4 plus one additional sample for each additional 50cum or part thereof.

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

(c) **Test Specimen** Three test specimens shall be made for each sample for testing at 28 days. Additional samples may be required for various purposes such as to determine the strength of concrete at 7 days or at the time of striking the form work, or to determine the duration of curing, or to check the testing errors. Additional samples may also be required for testing samples cured by accelerated methods as described in IS-9103. The specimen shall be tested as described in IS-516.

**(d) Test Results of sample**

(i) The test results of the sample shall be the average of the strength of three specimens. The individual variation should not be more than  $\pm 15$  percent of the average, if more, the test results of the sample are invalid.

(ii) For the purpose of subsequent identification of the work test cubes, the concrete of which these pertains shall be cross referred and records of this shall be maintained and signed by the Engineer-in-charge and contractor or his authorized representative.

**(IV) Slump Test.**

(a) The frequency of the test shall be decided by the GE. The slump for the vibrated concrete may be 1 inch to 3 inches maximum. The GE, however, reserves the right to vary the limit, which will be ascertained at the time of deciding the mix design for each grade. Any batch from which a slump test is being made shall not be transferred to the places of laying until the slump in excess of that required shall not be consumed and removed from the site.

(b) **Compression Test** A group of nine test cubes (15 cm x 15 cm x 15 cm) shall be taken out at the following stages of work in all building catered in Schedule 'A' Part-I. Column footing and raft beams, columns, walls, beams, band, slab etc.

**Note:** The frequency may be increased as considered necessary by the GE.

**PARTICULAR SPECIFICATIONS (Contd)**

- (c) Three cubes shall be tested at 7 days and three at 28 days for compressive strength and the remaining three cubes shall be kept as reserved exclusively for subsequent testing if so desired by GE and preserved for one year from completion of work under the contract. The contractor shall not object testing of other cubes for a purpose as a matter of right.
- (d) For the purpose of subsequent identification, test cubes shall be cross-referred and record of this maintained and signed by the Engineer-in-Charge and contractor or his authorised representative.
- (e) Test report will be signed jointly by the Engineer-in-Charge and the contractor.
- (f) **Acceptance/Rejection of concrete:** Any concrete not acceptable after taking into consideration the criteria stated in table 11 of IS: 456, shall be rejected. The contractor shall replace such concrete at his own expenses.
- (g) When defective or rejected work cannot be replaced due to any reason whatsoever, (decision of Accepting Officer in this respect shall be final and binding), the cost of removal and replacement of the rejected concrete including the joints shall be recovered from the contractor whether it is subsequently replaced by the Govt or not.
- (h) Bulking of sand -Test shall be carried out as per IS: 383.
- (j) Impurities of sand -Test shall be carried out as per IS: 383.
- (k) Sieve analysis of aggregate--Test shall be carried out as per IS: 383.
- (l) RCC Beam shall be casted monolithically with slab.

**3.16 Form Work**

**3.16.1** Formwork shall comply with requirement of para 4.11.6.1 to 4.11.6.5 and 7.16.1 to 7.16.12 of MES Schedule (Part I).

**3.16.2** All formwork for columns, beams, slabs, chajjas etc. shall be provided of steel with steel props and no wooden ballies/planks etc. will be allowed for the same as directed by Engr-in-Charge. In case of any deviation involving formwork, the pricing shall be done at the rates of timber formwork for fair finished surface of concrete as specified in clause 7.16.2 of MES SSR (Part-I).

**4. FLOORING****4.1 GENERAL**

- 4.1.1** Ordinary Portland cement/Portland Pozzolana cement for all flooring shall be used.
- 4.1.2** Provisions contained in clauses 13.18, 13.25, 13.27, 13.32, 13.36 to 13.41 and 13.47 of MES Schedule (Part-I) are to be adopted for laying of floor and pavements.
- 4.1.3** Floors shall be laid to level or to falls as directed by the Engineer-in-Charge.
- 4.1.4** Floor finish shall be extended over dwarf walls, door and other openings.
- 4.1.5** The dividing line, between the floors of different type wherever met between rooms, shall be determined on the basis of the finish visible when the doors are closed and the applicable finish shall accordingly be provided.
- 4.1.6** Sub base shall not be laid in panels.
- 4.1.7** Under layer and topping layers of cast-in-situ cement shall be laid in panels conforming to pattern as directed by Engr-in-Charge. Length of panel not exceeding 1.2 metre, length to width ratio not exc. 1.5 times shall be adopted. Not more than 3 dividing strips shall be meeting at any joint. Dividing strip shall be of plain glass of size as specified in respective item of Sch 'A'. However, where different floor levels indicated to be provided strips shall not be provided and flooring at junction shall be provided in the shape of fillet.

**PARTICULAR SPECIFICATIONS (Contd)****5 Brick Work****5.1 Materials**

**5.1.1 Bricks:** Bricks shall be Sub class 'B' kiln burnt, locally available, best quality conforming to the samples kept in CWE/GE's office. Irrespective of what is specified in Schedule 'A', bricks shall have minimum compressive 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 size of brick shall be 230mm x 116 mm x 75mm. The tolerance in the dimensions shall be  $\pm 8$  percent.

**5.1.2 Cement:** Refer clause 3.1 here in before.

**5.1.3 Sand** : Sand for mortar shall be as specified in clause 5.4 of MES Schedule Part-I.

**5.2 Workmanship**

**5.2.1** Brick work in various situations shall be built in cement mortar as specified in respective item of Sch 'A'.

**5.2.2** Half brick thick wall of height more than 90 cms shall be re-inforced with two Nos 8mm dia mild steel round bars, horizontally at every fourth course, starting from floor/DPC level and anchored in wall/columns at junctions. The anchorage length provided shall be not less than 160 mm. Over laps, if any required in the reinforcement shall not be less than 30 cms.

**5.2.3** In the event of deviations, brick work as specified above shall be priced at the applicable rates in MES Schedule (Part-II) for materials and labour with sub class 'B' bricks subject to contractor's percentage.

**5.3 Laying and Bonding**

**5.3.1** Brick shall be laid and bonded, all as specified in clause 5.23 and 5.24 of MES Schedule Part-I as applicable to old size bricks (FPS conventional bricks). Facing shall be done as per clause 5.31 of MES Sch Part-I.

**5.3.2** Half brick walls upto 2100mm height shall rest directly on the sub base of floor. Half brick walls above 2100mm height and dwarf wall be provided with foundation.

**6 Stone Masonry Stone masonry works where indicated shall be provided as under :-****6.1 Materials**

**6.1.1 Stone:-** Stone shall be harder stone such as granite, trap or basalt of best quality locally available. Stone shall be hard, sound, durable and free from defects like cavities, sand holes or any other defect that may adversely affect its strength and appearance. It shall be of uniform colour and texture. Stone boulders (in their original rounded shape) shall not be used in the stone masonry work.

**6.1.2 Cement:-**Refer Clause 4.1.2 here-in-before.

**6.1.3 Sand:** Refer Clause 5.4 of the MES Schedule Part-I.

**PARTICULAR SPECIFICATIONS (Contd)****6.2 Workmanship**

**6.2.1** The stone masonry work shall conform to the general requirements given in clauses 6.2.1 to 6.2.4, 6.7.1(b), 6.8,6.9 and 6.10.2 of the MES Schedule Part-I.

**6.2.2 Type of stone Masonry.** Random rubble masonry brought upto courses for situations other than retaining walls shall be provided as specified in clause 6.10.2 of the MES Schedule and in accordance with Fig 8 of the MES Schedule. The stone masonry work shall be built in cement mortar 1:6 unless otherwise specified, elsewhere in these specifications or in Schedule 'A'. In case contractor does the superior quality masonry as per local practice, than the masonry specified, nothing extra shall be admissible on this account to the contractor. Dry random rubble masonry uncoursed or RR masonry uncoursed in cement mortar for retaining walls shall be provided as specified in clause 6.10.1 and 6.17 of the MES Schedule Part I.

**6.2.3 Bond stones** Refer clause 6.10.1.5 of MES Schedule Part-I. If the through bond stones of adequate size/length are not available, PCC bond stones in lieu shall be provided cast- in-situ or Pre-cast cement concrete of mix 1:3:6 type C-1 of section 16cmx 16 cm without any price adjustment.

**6.3 Stone or boulder filling behind retaining Walls** Hand packing of stone or boulders shall be provided all as specified in clause 3.29 of the MES Schedule Part-I.

**7 to 14 BLANK****15. ROAD.**

**15.1 Stacking and Measurements of Material.** The contractor shall collect and stack, approved materials like aggregate, sand etc on leveled ground at places indicated by GE in closely packed, stacks. Stacks measurement of these materials shall be taken and recorded in measurement book and signed by the contractor and Engineer-in-Charge as per special condition 20.A.1.2 on serial page No 360 of MES Schedule 2020 part- II rates before commencement of hard standing/road work. It shall be ensured that the required quantity of materials have been incorporated in the work. However these provisions do not absolve the contractor from his responsibility of providing more materials as necessary to complete the work. Any additional materials required for making good hollows and the depressions during rolling shall be supplied and provided by the contractor at his own expense in addition to the stacked materials mentioned hereinbefore.

**Soiling** : Soling shall consist of broken stones laid and leveled in one layer, watered and rolled to required surface and camber all as per clause 20A.2.1 and 20A.20.1 of MES Schedule Part-I Specifications-2009.

**15.2 Water Bound Macadam**

**(a)** Stone aggregate, screening and binding materials for water bound macadam shall be as specified in clause 20.A.3 of MES Schedule Part-I and conform to the samples kept in GE's office and approved by the GE before incorporation in the work. Screening shall be of grading 'a' as specified in clause 20.A.3.2 of MES Schedule Part-I. the coarse aggregates shall be of grading No 2 with size from 63 mm to 40 mm as specified in sub clause 6 of 20.A.3.1 of the MES Schedule Part-I.

**(b)** Water bound macadam shall consists of 75 mm thick (compacted thickness) broken stone aggregate of type as mentioned in relevant item of Sch 'A' consolidated in one layer. Spreading rolling applying screening and watering shall be as specified in clause 20.A.21 to 20.A.13 of MES Schedule Part-I. The rolling shall be done with power Roller after application of screenings and wet rolling as described in MES Schedule Part-I

**PARTICULAR SPECIFICATIONS (Contd)**

16. **Semi Dense asphaltic Concrete** Semi Dense Asphaltic Concrete shall be carried out as specified in Sch 'A' and clause 20.B..2.5.4(d), 20.B.4 of SSR Part I 2009.

**16.1 SCOPE OF WORK**

(a) The work shall consist of preparation and transportation of bituminous concrete (Asphaltic concrete) made of compacted crushed stone aggregates, filler in suitable proportion premixed with bitumen binder mixed in a Hot Mix Plant of capacity 40-50MT and capable of yielding a mix of proper and uniform quality with thoroughly coated aggregates.

(b) **Binder** :- Binder shall be paving bitumen of grade VG 30 and shall not be issued under sch 'B'. Contractor shall procure the bitumen from the manufacturers mentioned in clause 16.3 here in after at their own and rates quoted shall be inclusive of that.

**16.2 Bitumen** :- Bitumen shall not be issued by the deptt under sch 'B'. Bitumen shall be viscosity grade paving bitumen of grade VG-30. It shall conform to IS: 73-2006 (Third edition) with following characteristic/specifications:-

(a)	Absolute viscosity, 600C, poises, min	:	1600
(b)	Kinetic viscosity, 1350C, CST, Min	:	300
(c)	Flash Point, 0C, Min	:	220
(d)	Solubility in trichloroethylene, %, Min	:	99
(e)	Penetration at 250C	:	60-80
(f)	Softening point, 0C, min	:	45
(g)	Test on residue from thin film over test/RTFOT	:	-
(h)	Viscosity ratio at 600C, Max	:	4.0
(j)	Ductility at 250C, CM, Min, after thin film oven test	:	50

**16.3 Procurement of bitumen** : Bitumen shall be procured by the contractor from refinery of any of the following manufacturers in sealed containers and original purchase vouchers, test certificate of the material shall be produced to the GE by the Contractor :-

- (a) Indian oil Corporation Ltd.
- (b) Hindustan Petroleum Corporation Ltd.
- (c) Bharat Petroleum Corporation Ltd.



**PARTICULAR SPECIFICATIONS (Contd)**

- 16.4 Aggregates** The aggregate shall consists of crushed stone, crushed gravel/shingle or other stone. They shall be clean, strong durable, of fairly cubical shape and free from disintegrated pieces, organic or other deleterious matter and other coating. The aggregates shall preferably be hydrophobic and of low porosity.

**PHYSICAL REQUIREMENTS**

Ser No	Test	Test method	Requirement
1	2	3	4
1.	Los Angles Abrasion Value	IS:2386 (Part-IV)	40% Maximum
2.	Aggregates Impact Value	-do-	30% Maximum
3.	Flakiness and Elongation Indices (Total)	IS : 2386 (Part-I)	30% Maximum
4	Coating & Stripping of bitumen aggregate mixture	AASHTO T 182	Minimum retained coating 95%
5	Soundness		
	(a) Loss with Magnesium sulphate 5 cycles	IS : 2386 (Part-V)	12% Maximum
	(b) Loss with Magnesium sulphate 5 cycles	-do-	18 % Maximum
6.	Water Absorption	IS : 2386 (Part-III)	01% Maximum

**16.5 AGGREGATES GRADING:-**

The mineral aggregates, including mineral filler shall be graded or combined so as to confirm to the grading set forth as under :-

Ser No	IS Sieve Designation	Percent passing by weight
1	22.40 mm	100
2	13.20 mm	79-100
3	11.20 mm	68-90
4.	5.60 mm	33-55
5	2.80 mm	22-38
6	710 Micron	6-22
7	355 Micron	4-14
8	180 Micron	2-9
9	90 Micron	0-5

**PARTICULAR SPECIFICATIONS (Contd)**

**16.6 Fine Aggregate:-** Fine aggregate shall be the fraction passing 2.36 mm sieve retained on 75 Micron sieve consisting of crusher run screening gravel, sand or mixture of both. These shall be clean hard, durable, uncoated, dry and free from any injurious soft or flaky pieces and organic or other deleterious substances.

**16.7 Filler:-** The combined grading of aggregates i.e. coarse aggregate, fine aggregate & filler shall conform to the following table. The filler shall be an inert material whole of which passes 710 micron sieve, at least 90 % passing 180 micron sieve & not less than 70 percent 90 micron sieve. Unless otherwise indicated, filler shall be cement (OPC-43 Gde)

**16.8 Preparation and Transportation of Mix**

(a) The work of laying shall not be taken up during foggy weather or when the base course is damp or wet or during dust storm or when the atmospheric temperature in shade is 10 degree 'C' or less.

(b) Bituminous macadam mix shall be prepared in a hot mix plant of capacity 40-50MT and capable of yielding a mix of proper and uniform quality with thoroughly coated aggregates. The hot mix plant shall be a batch mix type. Total system for crushing of stone aggregate and feeding of aggregate fractions in required proportion to achieve the desired mix, deployed by the contractor must be capable of meeting the over all specification requirements under stringent quality control. The plant shall have the following essential features:-

**16.9 General**

(a) The plant shall have coordinated set of essential units capable of producing uniform mix as per the job mix formula.

(b) Cold aggregate feed system with minimum four bins having belt conveyor arrangement for initial proportioning of aggregate from each bin in the required quantities in order to have free flow it.

(b) Belt conveyors below each bin should have variable speed drive motors. There should be electronic load sensor on the main conveyor for measuring the flow of aggregate.

(c) Dryer units with burner capable of heating the aggregate to the required temperature without any visible un burnt fuel or carbon residue on the aggregate and reducing the moisture content of the aggregate to the specified minimum.

(e) The plant shall be fitted with suitable type of thermometer instruments at appropriate places so as to indicate record /register the temperature of heated aggregate, bitumen and mix.

(f) Bitumen supply unit capable of heating, measuring/metering and spraying of bitumen at specified temperature with automatic synchronization of bitumen and aggregate feed in the required proportion.

(g) A filler system suitable to receive bagged or bulk supply of filler material and its incorporation to the mix in the correct quantity wherever required.

(h) A suitable built in dust control system for the dryer to contain/recycle permissible fines into the mix. It should be capable of preventing the exhaust of the dust into atmosphere for environmental control wherever so specified by the Engineer-in-Charge.

(j) The plant should have centralized control panel/cabin capable of presenting controlling synchronizing all operations starting from feeding of cold aggregates to the discharge of the hot mix to ensure proper quality of mix. It should have indicators for any malfunction in the operation.

(k) Every hot mix plant should be equipped with siren or horn so that the operator may use the same before starting the plant every time in the interest of safety of staff.

**PARTICULAR SPECIFICATIONS (Contd)****16.10 FOR BATCH TYPE PLANT:-**

- (i) Gradation control unit having minimum four week vibratory screens for accurate sizing of hot aggregate and storing them in separate bins. The unit should be fully covered to reduce the maintenance cost and for better environmental condition.
- (ii) Proper arrangement for accurate weighting of each size of hot aggregate from the control panel before mixing.
- (iii) Paddle mixer unit shall be capable of producing a homogeneous mix with uniform coating of all particles of the mineral aggregate.

**16.11 FOR CONTINEOUS TYPE PLANT:-**

- (i) Gradation control unit having vibratory screens for accurate sizing of hot aggregate and storing them in separate bins. The unit should be fully covered to reduce the maintenance cost and for better environmental condition.
- (ii) There should be appropriate arrangement for regulating and volumetric control of the flow of hot aggregate from each bin to achieve the required proportioning.
- (iii) Paddle mixer unit shall be capable of producing a homogenous mix with uniform coating of all particles of the mineral aggregate with binder.
- (iv) It is prerequisites that only properly screened and graded materials are fed to the bins. If required, a vibratory screening unit shall be installed at the plant site to ensure the same. A primary four dock vibratory screening unit shall be installed before the multiple bin cold feed system for screening the aggregates and grading the same.
- (v) Belt conveyers below each bin should have variable speed drive motors. There should be electronic load sensor on the main conveyer for measuring the flow of aggregate.
- (vi) There should be arrangement to measure moisture content of the aggregate (Supply and fixing) so that moisture correction may be applied for working out requirement of binders and filler. The temperature of binder at the time of mixing shall be in the range of 150 degree Centigrade.

**16.12** Mixing shall be through to ensure that a homogenous mixer obtained in which all the particles of the aggregate are quoted uniformly and the discharge temperature of the mix shall be between 130 degree Centigrade to 160 degree Centigrade.

**16.13** The mixture shall be transported by the tippers or Dumpers from the mixing plant to the site where it is to be used. The Tippers or Dumpers employed for transport shall be cleaned and covered properly to maintain the required heat. Any Tipper causing excessive delay shall be removed from the work until such conditions are corrected.

**16.14** The temperature of the mix at the time of laying will be in the range of 120 degree Centigrade to 160 degree Centigrade.

**16.15** Mix falling short of above quality shall be rectified and redone by the contractor at his own cost and defective mix shall also be removed off from the site by the contractor at his own cost.

**16.16** Mix Design criteria for Bituminous Macadam /dense Asphaltic Concrete: The design requirements for bituminous macadam/or dense asphaltic concrete have been laid down in clause 20.B.2.11 of MES Schedule (Part-I) which shall be complied.

**PARTICULAR SPECIFICATIONS (Contd)**

**17. QUALITY CONTROL**:-Control on quality of materials and mixes shall be exercised by the Engr-in-Charge in accordance with the specification/conditions given as under:-

Ser No	Test	Frequency (minimum)
<b>I</b>	Quality of binder	Two samples per lot to be subjected to all or some tests as directed by Engr-in-Charge.
<b>II</b>	Aggregate impact value	One test per 50 Cum of aggregate
<b>III</b>	Flakiness index and along with index of aggregate	One test per 50 Cum of aggregate
<b>IV</b>	Stopping value and water absorption of aggregate	Initially one set of three representative specimen for each source of supply. Subsequently when warranted by changes in the quality of changes.
<b>V</b>	Grading of aggregates	Two test per day per plant both on individual constituents and mixed aggregates from the dryer.
<b>VI</b>	Mix Grading	One set of tests on individual constituents and mixed aggregate from the dryer for each 400 tonnes of mix subject to a minimum of two sets being tested per plant per day.
<b>VII</b>	Stability of mix	For each 400 tonnes of mix produced a set of three Marshall specimens to be prepared and tested for stability, flow value, density and void cement subject to a minimum of two sets being tested per plant per day.
<b>VIII</b>	Water sensitivity of mix (Retention of Marshal stability)	As required for bituminous concrete.
<b>IX</b>	Control of temperature of binder in boiler, aggregate in the dryer and the mix at the time of laying and rolling	At regular close interval.
<b>X</b>	Control of binder content and gradation in the mix	One test for each 400 tonnes of mix subject to minimum of two tests per day per plant.
<b>XI</b>	Density of compacted layer	One test per 250 Sqmarea.
<b>XII</b>	Bitumen Extraction Test	Minimum one test per batch per day.

**17.1** In addition to the above test on mixes, the contractor shall satisfy the department regarding the quality of aggregates used in the mix through various tests to the frequency stipulated at his own cost.

**17.2** In the absence of clear indications about method/frequency tests for any item, the instructions of Engr-in-Charge shall be followed. The agency carrying out the tests shall be one of the approved NABL Accredited lab / Test house as approved by the GE before commencement of supply of mix.

**17.3** For testing of samples of aggregates, mixes etc samples in the required quantity and form shall be supplied to the Engr-in-Charge by the contractor at his own cost and under his own arrangements.

**PARTICULAR SPECIFICATIONS (Contd)****REQUIREMENT OF MIX FOR BITUMINOUS MACADAM**

Ser No	Description	Requirement
I	Marshal stability (ASTM Designation D-159) determined on Marshal specimens compacted by 75 compaction blows on each end	545 Kg minimum
II	Marshal flow (mm)	Min 2 to 4
III	Percent air voids in mix	10 to 15
IV	Binder content percentage by weight of total mix	Min 4 percent
V	Type of binder	VG 30

**17.4 Binder Content for Bituminous Macadam :** - The bitumen content for BM shall be minimum 4 percent by weight of the total mix except when otherwise as approved in Job mix formula. The above figure is only for general guidance and the final product from the HMP will have to comply all the standards and specifications given by MORTH for road and bridge work.

**17.5 Job Mix Formula for Bituminous Macadam:-** The contractor shall intimate to the Engr-in-Charge in writing at least 20 days before the start of the work. The job mixed formula proposed to be used by him for the work and shall give the following details :-

- (i) Sources and location of all materials.
- (ii) Proportions of all materials expressed as follows where each is applicable
- (iii) Binder , as percentage by weight of total mix
- (iv) Coarse aggregate/fine aggregate/mineral filler as percentage by weight of total aggregate including mineral filler.
- (v) A single definite percentage passing each sieve for the mix aggregate. The result of tests enumerated in table given in para 2.7.4 above as obtained by the contractor.
- (vi) Test results of physical characteristics of aggregate to be used.
- (vii) Mixing temperature/compacting temperature. While working out job mix formula, the contractor shall ensure that it is based on the correct and truly representative sample of the materials that will actually be used in the work and that the mix and its different ingredients satisfy the physical and strength requirement of these specifications. Approval of the job mix formula shall be accorded by GE based on independent testing by the Engineer-in-Charge for which samples of all ingredients of mix shall be furnished by the contractor as required. The approved job mix formula shall remain effective unless and until modified by the Engr-in-Charge. Should a change in the source of materials be proposed, a new job mix formula shall be established and got approved from the Garrison Engineer before actually using the material.

**Note** – If the bitumen content as per approved Job mix formula is more than the prescribed %age ie 4 % no plus DO will be permissible on such account for additional paving bitumen. If it is less than 4% price adjustment shall be made as per the rate mentioned in the BOQ.”

**PARTICULAR SPECIFICATIONS (Contd)**

- 17.6** For testing of samples of aggregates, mixes etc samples in the required quantity and form shall be supplied to the Engr-in-Charge by the contractor at his own cost and under his own arrangements.

**REQUIREMENT OF MIX FOR SADC**

Ser No	Description	Requirement
I	Marshal stability (ASTM Designation D-159) determined on Marshal specimens compacted by 75 compaction blows on each end	820 Kg minimum
II	Marshal flow (mm)	Min 2 to 4
III	Percent air voids in mix	3 to 5
IV	Percent voids in mineral aggregate (VMA)	Min 1 to 13
V	Percent voids in mineral aggregate filled by bitumen (VFB)	65 to 75
VI	Binder content percentage by weight of total mix	Min 5.5 percent
VII	Swell test (Asphalt Instt MS-2 No-2)	Min 1.5 percent
VIII	Water sensitivity (ASTM D-1075) loss of stability on immersion in water at 60 degree 'C'	Min 75 percent retained strength.

**17.7 Binder Content for SADC:** - The bitumen content for SADC shall be minimum 5.5 percent by weight of the total mix except when otherwise as approved in Job mix formula. The above figure is only for general guidance and the final product from the HMP will have to comply all the standards and specifications given by MORTH for road and bridge work.

**17.8 Job Mix Formula for SADC** The contractor shall intimate to the Engr-in-Charge in writing at least 20 days before the start of the work. The job mixed formula proposed to be used by him for the work and shall give the following details :-

- (i) Sources and location of all materials.
- (ii) Proportions of all materials expressed as follows where each is applicable
- (iii) Binder , as percentage by weight of total mix
- (iv) Coarse aggregate/fine aggregate/mineral filler as percentage by weight of total aggregate including mineral filler.
- (v) A single definite percentage passing each sieve for the mix aggregate. The result of tests enumerated in table given in para 2.7.4 above as obtained by the contractor.
- (vi) Test results of physical characteristics of aggregate to be used.
- (vii) Mixing temperature/compacting temperature. While working out job mix formula, the contractor shall ensure that it is based on the correct and truly representative sample of the materials that will actually be used in the work and that the mix and its different ingredients satisfy the physical and strength requirement of these specifications. Approval of the job mix formula shall be accorded by GE based on independent testing by the Engineer-in-Charge for which samples of all ingredients of mix shall be furnished by the contractor. The approved job mix formula shall remain effective unless and until modified by the Engr-in-Charge. Should a change in the source of materials be proposed, a new job mix formula shall be established and got approved from the Garrison Engineer before actually using the material.

**Note** – If the bitumen content as per approved Job mix formula is more than the prescribed %age ie 5.5 % no plus DO will be permissible on such account for additional paving bitumen. If it is less than 5.5% price adjustment shall be made as per the rate mentioned in the item No 5&6 of the BOQ.”

**PARTICULAR SPECIFICATIONS (Contd)**

**17.9 PERMISSIBLE VARIATIONS FROM THE JOB MIX FORMULA FOR SADC:** The contractor shall be responsible for ensuring proper proportioning of materials in accordance with the approved job mix formula and producing uniform mix. The permissible values of individual percentage of various ingredients in the actual mix from the job mix formula being within the limit as specified in the under mentioned table. These variations are intended to apply to individual specimen taken for quality control tests vide para 2.7.5 mentioned here-in-above.

Ser No	Description of ingredients	Permissible variations by weight of total mix in percent
I	Aggregate passing 13.2 mm sieve and larger sieves	+ 8% -
II	Aggregate passing 11.2 mm/sieve and 5.6 mm sieve	+ 7% -
III	Aggregate passing 2.8 mm/sieve and 1.4 mm sieve	+ 6% -
IV	Aggregate passing 710 micron sieve and 3125 mm sieve	+ 5% -
V	Aggregate passing 180 micron sieve	+ 4% -
VI	Aggregate passing 90 micron sieve	+ 2% -
VII	Binder	+0.3% -
VIII	Mixture temperature	+ 10 degree 'C' -

**18 WORKMANSHIP**

**18.1 Preparation of Surfaces.** Before laying bitumen macadam/or bituminous premix concrete carpet on existing base, the existing surfaces shall be prepared all as specified in clause 20.A 27.1 and 20B.4. to 20 B 4.8 of SSR- 2009 Part-I.

**18.2 TACK COAT.** Tack coat at the rate ordered by GE shall be applied just ahead of spreading of macadam/or premix all as specified in clause 20.B.3.2 of SSR 2009 Part-I.

**18.3 CONSTRUCTION JOINTS.** Construction joints and controls on laid thickness shall be all as specified vide clauses 20.B.4.7 and specified in clause 20.B.4.9 of MES Schedule 2009 Part-I.

**18.4 Spreading of Mix.** Spreading of mix shall be done by means of self-propelling mechanical paver with suitable screeds capable of spreading tamping and finishing the mix true to grade, line and cross section without causing segregation dragging, irregularities or other surfaces defects and at a speed consistent with character of the machine. The temperature at the time of laying shall be the designed temperature. The mix shall be spread so that required thickness is achieved after rolling. Small quantities where laying of premix carpet by paver is not feasible may be spread by hand if specifically sufficient thickness so as to get compacted thickness as specified. The edges (longitudinal and transverse) of previously laid carpet shall be cut back to its full depth and exposed surface painted with hot coat of bitumen and new mix shall be placed in contact with it.

**18.5 Rolling and Compaction.** The mix after spreading shall be thoroughly compacted by rolling with set of rollers, at a speed not more than 5 Km/hr immediately following by paver. The initial rolling shall be with 8 to 12 ton power roller and surface finished by final rolling with 8 to 12 ton tandem roller. The wheel of roller from the edge and progress towards center. The roller shall proceed on the fresh material with a rear or fixed wheel leading so as to minimize the pushing of the mix and each pass of the roller shall overlap the proceeding one by half the width of roller.

**PARTICULAR SPECIFICATIONS (Contd)**

**18.6 OPENING OF TRAFFIC.** Traffic may be allowed immediately after completion of the final rolling when mix has cooled down to the surrounding temperature.

**19 Dismantling/Demolition**

**19.1** Dismantling/demolition wherever required during the execution stage shall be carried out carefully to avoid any damage to nearby /connected structures. In case, any damage occurs during process to newly /connected structure & other items due to negligence of the contractor, the same shall be made good by the contractor to match with existing specifications at his own expense.

**19.2** For dismantling/demolition refer clauses 21.1 to 21.7 of MES Standard Schedule of rates 2009 (Part-I specification).

20. **Misc items**: Any other material as given in Sch A for which specifications have not been given here-in-before shall be provided all as per Sch A and as directed by Engr-in Charge/GE. All materials shall be of approved make and ISI marked.

**Signature of Contractor**  
**Dated:** \_\_\_\_\_

**DCWE (Contracts)**  
**For Accepting Officer**



**GENERAL CONDITIONS OF CONTRACTS (IAFW-2249, 1889 PRINT) FOR LUMP SUM CONTRACTS (IAFW-2159) AND FOR ITEM RATE CONTRACTS (IAFW-1779-A)**

Copy of the General of Contracts (IAFW-2249, 1889 Print) with errata 1 to 20 and amendments No 01 to 49 has been supplied to me / us and is my / our possession, I / we have to read and understood the provisions contained in the aforesaid GENERAL CONDITIONS OF CONTRACTS before submission of this 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.

It, is hereby further agreed and declared by me / us that the GENERAL CONDITIONS OF CONTRACTS (IAFW-2249, 1889 PRINT) including condition 70 thereof pertaining to settlement of disputes by arbitration containing 33 pages (serial Page 68 to 100 ) with errata 1 to 20 and amendment No 1 to 49 form part of these.

DCWE (Contracts)  
For Accepting Officer

\_\_\_\_\_  
(SIGNATURE OF CONTRACTOR)

**SCHEDULE OF MINIMUM FARE WAGES**

It is hereby agreed that the 'Schedule of Minimum Wages' as published vide Govt of India vide Notification dated 20 May 2009 as amended subsequently till the date of issue of this tender shall be the "Fare Wages" under condition 58 of IAFW-2249 and shall form part of these tender documents.

My / Our signature here-under amount to my/our having read and understood the provisions contained therein and I / we shall abide by the same and that aforesaid documents form aforesaid documents form part of this tender.

**DCWE (Contracts)  
For Accepting Officer**

\_\_\_\_\_  
**(SIGNATURE OF CONTRACTOR)**