



STATE BANK OF INDIA

THIRUVANANTHAPURAM CIRCLE

TENDER NOTICE

NIT No.	THI/AOERN/2023-24/010	
TYPE OF TENDER	<u>ITEM RATE CONTRACT</u>	
BIDDING SYSTEM	TWO BID SYSTEM	
WEBSITE FOR DOWNLOADING TENDER DOCUMENTS	https://sbi.co.in under the link "SBI in the News → Procurement News"	
WEBSITE FOR ONLINE SUBMISSION OF PRICE BID	https://etender.sbi	
METHOD OF SUBMISSION	TECHNICAL BID	OFFLINE/ PHYSICAL FORM
	EMD (DD)	
	PRICE BID	ONLINE

NAME OF WORK:	CIVIL WORKS AT THE NEW PREMISES OF SBI KUMBALAM BRANCH (13224) UNDER RBO 2, Ernakulam
LOCATION:	KUFOS, MADAVANA Jn, ERNAKULAM DIST, KERALA
ESTIMATED VALUE OF WORK	Rs. 1687900 Plus GST as applicable
AVAILABILITY IN WEBSITE	From 26.09.2023 to 12.10.2023
LAST DATE & TIME FOR SUBMISSION OF TECHNICAL BID AND EMD	UPTO 02:00 PM (IST) ON 12.10.2023
OPENING OF TECHNICAL BIDS	02:30 PM (IST) ON 12.10.2023
ONLINE SUBMISSION OF PRICE BIDS	TENTATIVELY ON 16.10.2023 [11:00 AM (IST) to 03:00 PM (IST)]
ONLINE OPENING OF PRICE BIDS	TENTATIVELY ON 16.10.2023 [03:30 PM (IST)]
COMMENCEMENT OF WORK	WITHIN 7 DAYS FROM THE DATE OF ALLOTMENT OR AS SPECIFIED IN TENDER DOCUMENT
COMPLETION OF WORK	60 DAYS FROM THE DATE OF COMMENCEMENT
EARNEST MONEY DEPOSIT	Rs. 16900 (in the form of DD in favour of 'STATE BANK OF INDIA' payable at the location of the respective RBO)
MINIMUM VALUE OF WORK FOR INTERIM PAYMENT	8.00 LAKHS
RBO CONCERNED	RBO 2, Ernakulam
LOCATION OF RBO	ERNAKULAM
For any clarification and drawings please contact	SRI. VINOD S, Manager (Civil Engg.) Ph: 9446518428

**The Regional Manager,
SBI Regional Business Office 2,
Shanmugham Road, Ernakulam – 682 031
e-mail: rm2ern.aoern@sbi.co.in**

A. NOTICE INVITING TENDER

Tenders are invited as stated in the Tender Notice from the Empanelled contractors fulfilling the eligibility criteria for execution of work - "Name and Location" as stated in the Tender notice.

1	Estimated cost of Work	As stated in Tender Notice
2	Completion Time	As stated in Tender Notice
3	Commencement of work	As stated in Tender Notice
4	Eligibility of the Bidder	<ol style="list-style-type: none"> 1. Contractors empanelled with "State Bank of India, Thiruvananthapuram Circle" for CIVIL works costing equal to or more than the estimated value of work. 2. The vendor should have a valid digital signature to participate in the online tendering process. 3. Other Eligibility Criteria, if any, specified. 4. Submission of EMD
5	Earnest Money Deposit (EMD) (to be submitted physically along with the technical bid, before due date)	As stated in Tender Notice in the form of DD in favor of ' State Bank of India ' payable at the concerned RBO. Tenders without EMD shall be rejected.
7	Address for submission of Technical Bid, EMD and other documents	As stated in Tender Notice Bids of those firms/contractors who do not submit EMD shall be rejected.
8	Tender documents available for download from the websites	As stated in Tender Notice
11	Last date and time for submission of Technical Bid & EMD in physical form.	As stated in Tender Notice
12	Date and Time of e-Tenders (price bid)	As stated in Tender Notice.
13	The tender will be summarily rejected if the Bidder	<ol style="list-style-type: none"> 1. Failed to submit Technical Bid & EMD at the respective RBO on or before due date & Time. 2. Failed to upload duly signed and stamped Form of Submission of tender & Process Compliance Statement (Annexure –I & II), as a proof of accepting the terms and conditions. 3. Partly or fully Modifies, alters or corrects the tender document uploaded by SBI.
14	Validity of tender	90 days from the last date for submission of PRICE BID.

15	Rates quoted by bidder	<p>1. The quoted rate should be inclusive of cost of materials, transport, loading, unloading, cost of installation, wastage, machinery, temporary works such as scaffolding, cleaning, overheads, contractor's profit, statutory expenses, incidental charges, all related expenses required for the proper completion of the work and all taxes as applicable excluding GST.</p> <p>2. Additional claims other than the quoted amount will not be entertained.</p> <p>3. The rates quoted shall be firm from the date of opening till the completion of the project despite any variation in rates of materials, labour, taxes etc.</p>
16	Additional information for bidding	<p>1. The make of materials should be chosen strictly from the preferred makes as given in the tender.</p> <p>2. Any clarifications sought after opening of the tenders will not be entertained at any cost. Firm should visit the website regularly till last date for submission of tender regarding changes/ corrigendum, if any</p> <p>3. SBI reserves the right to cancel or postpone the tenders at any stage without assigning any reason.</p> <p>4. Claims for revision of the quoted price by any bidder after submission of tender will not be entertained.</p>
17	Initial Security Deposit (ISD)	2% of the Contract value including EMD to be submitted by the successful bidder after allotment of work as stated in the Tender Document/ as per the prevailing rules.
18	Payment terms	<p>i) No advance payment.</p> <p>ii) No part payment if value of the awarded work is less than Rs 5 lakhs</p> <p>iii) Full payment after completion of the work subject to deduction of taxes, retention money, cost for defect rectification if any as applicable.</p>
19	Value of work to be taken for issue of interim certificate for payment, if any	As stated in Tender Notice
20	Tax Deduction	Income Tax, GST-TDS, Labour Welfare Fund etc as applicable at applicable rates.

21	Total Security Deposit (SD)	5% of the contract value including Initial Security Deposit of 2% (if applicable) and Retention Money of 3% of the contract value. SD will be retained till the completion of the work and released as stated in this tender document/ as per the prevailing rules.
22	Retention Money	Retention Money @ 10% of the Gross Value of each bill shall be deducted till Total Security (including ISD) is equal to 5% of contract value/ as per the prevailing rules.
23	Liquidated Damages for delay in work	Time is the essence of the Contract. If the work is delayed beyond the scheduled completion date, then Liquidated Damages @ 0.50% of the total contract value per week (or part thereof) of delay will be deducted from the Contractor's final bill subject to maximum of 5% of the contract amount.
24	Defects Liability Period	12 Months from the date of completion or commissioning and handover of the work.
25	For any queries or support in connection with the online tendering process, please contact our E-procurement solutions agency	M/s. e-Procurement technologies Limited, B704, Wall Street 2, Ahmedabad, Gujarat - 380006. (Details of Contact persons shown below)
27	For any clarification and drawings please contact	The Engineer in charge

SBI reserves the right to accept or reject any or all bids without assigning any reason whatsoever, even after opening of the bids.

S/d

Regional Manager, SBI RBO 2, Ernakulam

B. GENERAL CONDITIONS OF CONTRACT

1.0 INTERPRETATION

In constructing these conditions, the specifications, the schedule of quantities, tender and agreement, the following words shall have the meaning herein assigned to them except where the subject or context otherwise requires.

In this connection, the following terms shall be interpreted as indicated below:

- i) **“The Employer/ Bank”** ‘means the State Bank of India (including branches and other offices) and any of its employees or representative authorized on their behalf.
- ii) **“Bidder”** means an eligible entity/ firm submitting the Bid.
- iii) **“The Contract”** means the agreement entered into between the Bank and the Contractor, as recorded in the Contract Form signed by both the parties, including all attachments, bid documents and appendices thereto, all documents incorporated by reference therein and other communications between the parties such as Work Order, Acceptance Letter etc.
- iv) **“Vendor/ Contractor”** is the successful Bidder to whom the work has been awarded.
- v) **“The Contract Price/ Project Cost”** means the price payable to the Vendor under the Contract for the full and proper performance of its contractual obligations.
- vi) **“The Material/ Product”** means all the materials along with the accessories which the contractor is required to supply to the Bank under the Contract.
- vii) **“The Works/ Project”** shall mean the works to be executed or done under this contract.
- viii) **“The Site”** means locations where the proposed work is to be carried out and services as desired in this tender document are to be provided.
- ix) **“The Schedule of Quantities/ BOQ”** shall mean the schedule of quantities as specified and forming part of this contract.

Words importing persons include firms and corporations. Words importing the singular only, also include the plural and vice versa where the Context requires.

2.0 SCOPE OF THE WORK

The detailed scope of the work is given in the NIT/ BOQ

3.0 ELIGIBILITY CRETERIA

3.1 Contractors in the respective category who are eligible as per the criteria given in NIT for carrying out works costing equal to or more than the estimated value of the works.

3.2 The vendor should have a valid digital signature to participate in the online tendering process.

3.3 Submission of EMD before the due date and time.

3.4 Bidders should take a printout of the “Form of Submission of tender & Process Compliance Statement” in their letter head for acceptance of the terms and conditions specified in the Tender Documents (NIT, BOQ, etc) and send a scanned copy of these duly signed letters to M/s. e-Procurement technologies Limited prior to e-price bidding.

3.5 **The Technical Bid, EMD, Form of Submission of tender & Process Compliance Statement** in Physical for shall be submitted in a sealed envelope superscribed on top as “TENDER FOR (Name of the work)” and addressed to the Regional Manager as stated above and dropped in the tender box kept at the office of the Regional Manager as stated above or send so as to reach the office of the Regional Manager as stated above, on or before the scheduled date and time:

4.0 METHOD OF TENDERING

4.1 The bidding process shall be conducted online in Two Bid System on ITEM RATE rate basis through our e- Tendering Service Provider viz., M/s. e-procurement technologies ltd.

4.2 **BID DOCUMENTS:-** The work has to be carried out strictly according to the conditions stipulated in Bid consisting the following documents and in the most workman like manner,
- Notice Inviting Tender (NIT)
- General Conditions of Contract
- Price Bid

4.3 The above documents shall be taken as complementary and mutually explanatory of one another but in case of ambiguities or discrepancies, shall take precedence in the order given below :

- Price Bid
- General Conditions of Contract
- Notice Inviting Tender (NIT)

4.4 Complete set of Bid documents are available at the Bank’s website <https://sbi.co.in> under “SBI in the News → procurement news“ during the period mentioned in the NIT.

5.0 TENDER VALIDITY

5.1 The tenders submitted shall remain valid for acceptance for a period of Ninety days from the last date for submission of PRICE BID. Should any tenderer withdraw his tender before the expiry of the said period or makes any modifications to his tender, their EMD will be forfeited.

6.0 CLARIFICATION /AMENDMENTS AND CORRIGENDUM

6.1 Bidder requiring any clarification of the bidding document may notify us in writing at the address/ by e-mail given in the NIT within the date/time mentioned.

6.2. The clarifications to the queries received or amendments in the tender will be posted on the Bank’s website <https://sbi.co.in> as a corrigendum/ Addendum. No individual communication will be conveyed to the Bidders. The interested parties/Bidders are advised to check the above website regularly till the date of submission of Bid document and ensure that clarifications / amendments issued, if any, have been taken into consideration before submitting the Bid. Such amendments/clarifications, if any, issued by the Bank will be binding on the participating Bidders. SBI will not take any responsibility for any such omissions by the Bidder. SBI, at its own discretion, may extend the deadline for submission of Bids in order to allow prospective Bidders a reasonable time to prepare the Bid taking into account the amendments.

6.3 Depending upon the site conditions and the Bank's requirements, a pre-Bid meeting, if required, will be held on the date and time specified in the tender which may be attended by the interested Bidders or their representatives and get their queries clarified.

6.4 SBI reserves the right to amend, rescind or reissue the tender, at any time prior to the deadline for submission of Bids.

6.5 No request for change in commercial/ legal terms and conditions, other than what has been mentioned in the tender or any addenda/ corrigenda or clarifications issued in connection thereto, will be entertained and queries in this regard therefore will not be entertained.

6.6 Any Queries received after the scheduled date and time will not be responded/ acted upon.

7.0 TENDER FEE

Nil.

8.0 EARNEST MONEY DEPOSIT (EMD)

8.1 The Earnest Money Deposit should be submitted physically in the form of a DD/BC as specified above. (Tenders without EMD and cost of the tender will be summarily rejected). Bank is not liable to pay any interest on Earnest Money Deposit. The EMD for unsuccessful tenderer shall be refunded to them without any interest after the decision to award the work is taken. The EMD of the successful tenderer shall be retained as part of Security Deposit and for the due fulfillment of the contract. If the successful tenderer refuses to take up the work/ does not start the work in time the EMD will be forfeited and the work order will be cancelled.

8.2 The EMD shall stand absolutely forfeited :-

- a. if the finally selected bidder revokes his Bid at any time during the period when he is required to keep his Bid open for acceptance by the SBI
(or)
- b. after the bid is accepted by SBI, the vendor refuses to enter into a formal agreement with the Bank
(or)
- c. the bidder fails to pay the initial security deposit as stipulated
(or)
- d. the bidder fail to commence the works within the stipulated time.

8.3 If the tendering process is delayed for any reason, the Bank will insist on the revalidation of the DD and the bidder has to get it revalidated and submit again.

9.0 INITIAL SECURITY DEPOSIT (ISD)

7.1 ISD shall be 2% of the contract value. The successful tenderer has to deposit with the Bank an amount equal to 2% of the tender amount (including EMD) in the form of DD/BC (as in the case of EMD) OR in the form of Bank Guarantee issued by any Scheduled Bank other than SBI or its Associate Banks, within two weeks from the date of award of work and the same shall be kept as part of the Total Security Deposit. No interest shall be paid on the amount retained by the Bank as Security Deposit.

10.0 TOTAL SECURITY DEPOSIT (TSD/ SD):

10.1 Apart from ISD as mentioned above, Retention money shall be deducted from each bill of the contractor @ 10 % of the gross value of the bill till Total Security Deposit equals to 5% of the accepted contract value i.e TSD= ISD + Retention Money. Security deposit shall not bear any interest.

10.2 The contractor shall make good at his own cost and to the satisfaction of the Employer all defects, which may appear within the defects liability period. In case of failure on the part of tenderer to do so, it shall be got done by SBI at the risk and cost of the tenderer and the cost of rectifying the defects through any other agency shall be deducted from the amount of security deposit or any other payment/deposits due to the contractor.

10.3 During the contract period, all compensation or other sums of money payable by the Contractor to Bank under the terms of this contract, will be deducted from the security deposit, or from any sum that may become due to the Contractor on any account whatsoever.

10.4 In the event of the Security Deposit being reduced by reasons of any such deductions, the Contractor shall within 7 days of being asked to make good, by DD, any sum which have been deducted from his security deposit.

11.0 COMPLETION PERIOD

11.1 Time is the essence of the contract. The entire work shall be completed by the Contractor within the stipulated period from the date of commencement of work. The date of commencement of work at site shall be within 7 (Seven) days from the date allotment letter or the date of handing over of the site whichever is later. The contractor should strictly adhere to the completion time schedule.

12.0 EXTENSION OF TIME

12.1 No request for extension will be entertained and the bidder has to plan and mobilize his resources for the satisfactory completion of the project within the time period agreed in the tender.

12.2 If in the opinion of the Employer, the work is delayed due to the following reasons not attributable to the contractor, the employer shall make a fair and reasonable extension of time, for completion of the Contract works

- a) By force majeure (or)
- b) By reason of any exceptionally inclement weather (or)
- c) By reason of proceedings taken or threatened by or dispute with adjoining or neighboring owners of public authorities arising, than through the Contractor's own default (or)
- d) By the works not referred in the Schedule of Quantities or specifications (or)
- e) By reason of civil commotion, workmen strike or lock-out (or)
- f) In consequence of the Contractor not having in due time, necessary instructions from the Employer for which he shall have specifically applied in writing ahead of time, giving reasonable time to prepare such instructions

12.3 In case of such strike or lock-out, the Contractor shall as soon as possible give written notice thereof to the employer, but the Contractor shall nevertheless constantly use his endeavors to prevent delay and shall do all they may reasonably be required, to the satisfaction of the employer to proceed with the work.

12.4 In case the work is held up for any site conditions not attributable to the contractors or for any decisions instructions / want of details from Employer or for any of the conditions, the contractor shall be allowed reasonable extension of time by the employer but any claim for idle labour shall not be entertained by the employer. Contractor's quoted rates should include for all such contingencies.

13.0 LIQUIDATED DAMAGES

10.1 If the work is not completed in the specified time, the contractor will be levied liquidated damages @ ½ % per week of delay subject to a maximum of 5% of the contract amount. The tenderer must obtain for himself in his own responsibility and at his own expenses all the information necessary for the purpose of filling the tender and to enter into a contract with the Bank, he must examine the drawings, specifications, conditions etc., and must inspect the site of work and must acquaint himself with all the local conditions and matters pertaining thereto. The tenderer shall also bear all expenses in connection with the submission of this tender.

14.0 AGREEMENT

14.1 The tenderer whose tender is accepted is bound to execute a formal agreement with the Bank within 15 days from the receipt of intimation of acceptance of his Bid by SBI and this agreement will include the duly completed form of tender, specifications conditions, other papers therein, special conditions, all drawings etc., but his liability will commence from the date of the written acceptance of the tender whether the formal agreement is drawn or not. The contractor shall bear all expenses in connection with the execution of the said agreement including fees for stamps and registration of documents as required.

15.0 RIGHT TO ACCEPT ANY BID AND TO REJECT ANY OR ALL BIDS

15.1 SBI does not bind itself to accept the lowest tender and reserves to itself the right to reject any or all the tenders received without assigning of reasons thereof. Further, the SBI reserves the right to award any portion of the work to different tenderers or to award the entire work to one tenderer. SBI reserve the right to cancel the Bidding process and reject all Bids at any time prior to award of the contract, without incurring any liability to the affected Bidder or Bidders or any obligation to inform the affected Bidder or Bidders of the grounds for the SBI's action.

15.2 The acceptance of a tender rests with the Competent Authority, who does not bind himself to accept the lowest tender and reserves to himself the authority to reject any or all of the tenders received, without assigning any reasons. All tenders in which any of the prescribed conditions are not fulfilled, or are incomplete in any respect are liable to be rejected.

15.3 The notification of award will constitute the formation of the Contract. The selected Bidder should convey acceptance of the award of contract by returning duly signed and stamped duplicate copy of the PO within 15 days from the date of issue of work order and to enter into an agreement with the Bank.

16.0 The compensation or other sums of money payable by the contractor to the Bank under the terms of contract may be deducted from his EMD/ SD if the amount so permits and the contractor shall unless such deposits become otherwise payable within ten days, after such deductions, make good in cash the amount so deducted.

16.1 The work shall be carried out under the directions and supervision of and subject to the approval in all respects by the Bank's Engineer.

16.2 In case of renovation of branches - The work has to be done inside a functioning office. The contractor shall carryout work without causing inconvenience to the officials working in the premises and must remove the day to day debris from the site. Necessary site protection works and safety precautions shall be arranged by the contractor at his own cost before commencement of the work. No separate payment shall be made for dismantling and re-arrangement of existing counters, partitions etc. for temporary functioning of the branch.

17.0 BID PREPARATION:

17.1 The Bidder is advised to inspect the site and satisfy himself on his own responsibility and his own expenses all the following information and data which may be required for the purpose of preparation and submission of their bids:

- i) Security gate pass requirements
- ii) Storage space for the materials
- iii) Permissible working hours at the site
- iv) any other adverse conditions or hindrance for executing the work
- v) traffic regulations, law & order situations in the area
- vi) Whether work has to be executed in coordination with other agencies like Vendors for Electrical, AC, Interior, Strong Room Door/ Ventilators contractor etc as applicable.

17.2 The quantities indicated in the BOQ are only probable quantities and are liable to alteration by omission, reduction or addition. Payment shall be made on the basis of actual quantities of work done at the accepted rates. No alterations which are made by the tenderer in the drawings, specifications or in probable quantities accompanying the tender will be recognized and the tender is likely to be invalidated. Remarks and explanations should be given in a separate cover along with EMD and will become binding only if specially accepted in writing by the Bank at the time of acceptance of tender.

17.3 The Bidder will be fully responsible for considering the financial effect of any or all the above factors while submitting his Bid. SBI shall not be liable in any manner whatsoever for the same or for any other costs or other expenses incurred by a Bidder regardless of the conduct or outcome of the bidding process.

18.0 EXECUTION OF WORKS

18.1 On acceptance of the tender the contractor shall in writing submit to the Bank the names of his accredited representatives who will be responsible to take instructions from the Bank.

18.2 The work or any part of it shall not be transferred assigned or sublet without the consent of the Bank.

18.3 The contractor shall be required to co-operate and work in accordance with and afford reasonable facilities for such other agencies / specialists as may be employed by the Bank on other work/sub works in connection with the work.

18.4 The contractor is required to comply with all acts of Government relating to labour and the rules and regulations made there under from time to time and submit at the proper times all particulars and statements required to be furnished to the labour authorities.

18.5 In carrying out the work, the contractor shall comply with the provisions of the safety code. The rates shall be inclusive of all taxes (except GST), cost of materials, labour, scaffolding, ladders, lifting of the materials etc.

18.6 Bank will not take any responsibility to provide any material including water/ electricity. However, contractor may use the available water/ power supply without causing any inconvenience to the Bank functioning by paying consumption charges as per the prevailing rates.

18.7 If the Contractor has concealed any of the items of work without informing SBI Engineer, the same shall be opened up for measurement and made good to the original finishing at the contractor's expenses. If the contractor refuses to do so, then the same will not be considered for measurement and no payment may be made for such materials.

18.8 The contractor shall not execute any extra work other than the Bank's written instruction. No works, for which rates are not specifically mentioned in the price bid, shall be taken up without written permission of the Bank.

18.9 Should any dispute or differences arise after the execution of any work as to measurements etc., or other matters which cannot be conveniently tested or checked, the decision of SBI shall be accepted as correct and binding on the contractor.

18.10 It is the responsibility of the Contractor to arrange/provide the tools, ladder, stands or any other gadgets or supports required for the execution of the work at site and Bank will not provide or entertain such requests. It is the responsibility of the Contractor to arrange/provide for testing of the concrete (Slump test, Cube Tests etc as per guidelines), reinforcement, other materials as required from Govt approved Testing Labs/ Engineering Colleges and to submit the test results for Bank's Record.

19.0 MATERIALS, WORKMANSHIP, SAMPLES, TESTING OF MATERIALS

19.1 All the works specified and provided for in the specifications or which may be required to be done in order to perform and complete any part thereof shall be executed in the best and most workman like manner with materials of the best and approved quality of the respective kinds in accordance with the particulars contained in and implied by the specifications and as represented by the drawings or according to such other additional particulars, and instructions as may from time to time be given by SBI during the execution of the work and to his entire satisfaction. The Contractor shall use only products bearing ISI marking in the work for those materials for which no makes are mentioned in the tender.

19.2 No refurbished, second hand and spurious materials should be used. If required, the contractor has to submit the details of the source of his purchase of materials to SBI. SBI reserves its right to enquire and collect data from the supplier to confirm the authenticity of the materials. SBI has the right to stringent action against the contractor, as deemed fit, in addition to suspend / cancel the contract.

19.3 Contractor should get approval of the samples of materials in advance with SBI's Engineer before use of the same in the work. Should be contractor desire to substitute any specified materials with "Equal" or "Other approved" etc., he/ they must obtain the specific approval of the Bank/SBI in writing for any such substitution, well in advance.

19.4 Samples of all materials to be used must be submitted when so directed by SBI. If required, the contractor shall have to carry out tests on materials in approved materials testing laboratories or as prescribed by SBI at his own cost to prove that the materials etc., under test

conform to the relevant I.S Standards or as specified in the specifications. The necessary charges, transporting, testing etc., shall have to be borne by the contractor. No extra payment on this account will be entertained.

19.5 If the contractor has used any material which is not complying with the specifications, or the workmanship is bad or the material used is substandard or second hand etc, SBI shall during the progress of the work have power to order the removal and substitution of the material or proper re-execution of the work within a reasonable time. In case the contractor refuses to comply with the order, SBI shall have the power to employ other agencies to rectify or re-execute the work at the cost and risk of the contractor.

19.6 Any damage (during the work) to any part of the work or to the premises for any reasons due to rain, storm or neglect of contractor shall be rectified by the contractor in an approved manner at no extra cost.

19.7 Should the work be suspended by reason of rain, strike, lock-outs or any other cause, the contractor shall take all precautions necessary for the protection of work and at his own expenses shall make good any damage arising from any of these causes.

19.8 When the employer observes that the progress of the work is not satisfactory or very slow or not in a workmanship manner or of poor quality or violation of safety protocols etc, the contractor shall be issued a suitable advise to rectify the same or replace the materials or redo the entire work, within a reasonable time frame. If the contractor could not rectify the things within the time frame given, in the interest of the work, the Employer reserves the right to execute any part of the work included in this contract or the entire work by any other Agency or persons and contractor shall allow all reasonable facilities and extend cooperation for the execution of such work.

19.9 All expenses consequent thereon or incidental thereto as certified by SBI shall be borne by the contractor or may be deducted from any money due to or that may become due to the contractor. No certificate, shall relieve the contractor from his liability in respect of unsound work or bad materials.

20.0 . PAYMENT TERMS

- i) No advance payment.
- ii) No part payment. For certain works, part payment will be considered if stipulated in the NIT.
- iii) Payment shall be made by way of Electronic fund transfer and the bill will be paid by the Branch.
- iv) Contractor should furnish details of the bank A/c no, IFSC code along with their invoices.

20.1 Part/ Interim payment is paid as per the payment terms mentioned in the NIT. All the interim payments shall be regarded as payments by way of advance against the final payment only and not as payments for work actually done and completed, and shall not preclude the requiring of bad, unsound, and imperfect or unskilled work to be removed and taken away and reconstructed, or re-erected or be considered as an admission of the due performance of the contract, or any part thereof in any respect or the accruing of any claim, nor shall, it conclude, determine or affect in any way the power of the Employer under these conditions or any of them as to the final settlement and adjustment of the accounts or otherwise or in any other way vary or affect the contract.

20.2 If the Bank has supplied any materials or goods to the contractor, the cost of any such materials or goods will be progressively deducted from the amount due to the contractor in accordance with the quantities consumed in the work.

20.3 The final bill shall be accompanied by a certificate of completion or Commissioning report signed by an official of the Bank. The acceptance of the payment of the final bill by the contractor would indicate that he has no further claim in respect of the work executed.

20.4 **GST as applicable shall be paid extra** and the same shall be clearly shown in the invoices.

20.5 **Income Tax, Labour Welfare fund, GST-TDS** and any other taxes as applicable from time to time will be deducted at source as per the rates prevalent at the time of payment of bill.

20.6 **GST:**

- a. It is the responsibility of the bidder to ensure that the GST is valid and active. Payments will not be made to inactive or invalid GST invoices.
- b. Reimbursement of GST will be made only on submission of proper GST invoice as per applicable GST provision. Non-GST invoices will not be accepted. The contractor should comply with the following.
- c. Contractor should have GST Registration Number
- d. Invoice should specifically disclose the amount of GST levied at applicable rate as per GST provision
- e. In case of Correction in the bills after scrutiny, contractor should submit fresh bills for payment
- f. Contractor should timely file his GST return in accordance with GST provisions to enable the bank to claim the credit of GST paid to the contractor
- g. The GST Number of State Bank of India for Kerala State **-32AAACS8577K2ZX**

20.7 The works will be paid for as “measured work” on the basis of actual work done and not as “lump sum” contract, unless otherwise specified.

20.8 All items of work described in the schedule of quantities are to be deemed and paid as complete works in all respects and details including preparatory and finishing works involved, directly related to and reasonably detectable from the drawings, specifications and schedule of quantities and no further extra charges will be allowed in this connection. In the case of lump-sum charges in the tender, in respect of any items of work, payment will be made for the actual work done, on the basis of lump sum charges, as will be assessed by SBI.

20.9 The rates quoted shall be firm till completion of work and no escalation shall be considered. The employer is entitled to deduct all taxes and rates as per existing laws and rules, from any moneys due or that may become due to the contractor. The contractor shall indemnify the employer from and against all claims, demands, proceedings, damages cost and expenses which may be brought or made against the employer or to which it may be put by reason of the contractor not conforming to or complying with any of the provisions or requirements of any act or sections, Central or State rules and regulations Bye laws of local authorities Panchayat, Collector of any other companies relating to or in water, light or amenities at the site.

21.0 Governing Language:

21.1 All communication with respect to the Bid, clarifications, replies, contract documents etc shall be in English.

22.0 Safety Guidelines for the Contractor:

The Contractor should follow the following General safety Guidelines while executing the work:

22.1 Smoking is strictly prohibited at workplace.

22.2 No one is allowed to work at or more than three meters height without wearing safety belt and anchoring the lanyard of safety belt to firm support preferably at shoulder level. Chinstrap of safety helmet shall be always on and safety boot is worn.

22.3 Usage of eye protection equipment shall be ensured when workmen are engaged for grinding, chipping, welding and gas-cutting. For other jobs eye protection has to be provided as per the need.

22.4 All safety appliances like Safety shoes, Safety gloves, Safety helmet, Safety belt, Safety goggles etc. shall be arranged before starting the job.

22.5 Excavated pits for earthing, cable laying shall be barricaded till the backfilling is done. Safe approach to be ensured into every excavation.

22.6 Preferably the work shall be carried out during the daytime. However, adequate illumination at workplace shall be ensured in case any work is carried out at night.

22.7 All the dangerous moving parts of the portable / fixed machinery being used shall be adequately guarded.

26.8 Ladders being used at site shall be adequately secured at bottom and top. Ladders shall not be used as work platforms.

22.9 Debris, scrap and other materials to be cleared from time to time from the workplace and at the time of closing of work every day. Dismantled Material shall not be thrown from the height and shall be properly disposed off to prevent any injury to public/staff.

22.10 Other than electricians no one is allowed to carry out electrical connections, repairs on electrical equipment or other jobs related thereto.

22.11 All electrical connections shall be made using 3 or 5 core cables, having an earth wire.

22.12 Inserting of bare wires for tapping the power from electrical sockets is completely prohibited and plug tops of suitable capacity only shall be used.

22.13 All the unsafe conditions, unsafe acts identified by contractors, reported by SBI/ SBI to be corrected on priority basis.

22.14 No children or physically challenged persons shall be allowed to enter the workplace and shall not be utilized for any service during execution of the work.

22.15 All the Gas cutting, sharp tools, flammable materials and tackles shall be stored properly and safely when not in use.

22.16 Clamps shall be used on Return cables to ensure proper earthing for welding works.

22.17 Return cables shall be used for earthing.

22.18 All the pressure gauges used in gas cutting apparatus shall be in good working condition and in case of any leakages, the same shall not be used.

22.19 Proper eye washing facilities shall be made in areas where chemicals are handled.

22.20 Connectors and hose clamps are used for making welding hose connections.

22.21 Tapping of power by cutting electric cables in between must be avoided. Proper junction boxes must be used.

23.0 Responsibility for safety of building: The contractor shall be responsible the safety of the works (including the materials temporary buildings and plants) until they are taken over by the employer and they shall stand at their risk and be in the sole charge of the contractor who shall be responsible for and must with all possible speed make good all damage from whatever cause. **All the debris shall be removed and disposed of away from the site at the contractors own risk and cost.**

24.0 The contractor shall provide at his own cost all materials (except such materials if any, as may in accordance with the contract be supplied by the employer) machinery, plant tools, appliances, implements, ladders, cordage, tackle, scaffolding, in fact everything necessary or proper for the proper execution of work, whether the same may or may not be particularly shown or inferred there from and if the contractor finds any discrepancy in the drawings or between the drawings, schedule of quantities and specifications he shall immediately and in writing refer to the Bank who shall decide which is to be followed.

25.0 Payment will be released only after completion of the work to the satisfaction of the Bank. However, interim bills will be considered subject to ceiling as mentioned above.

26.0 The contractor has to undertake repairs/ rectifying the defects whatsoever during the defects liability period, failing which the security deposit shall be forfeited.

27.0 The costs of the tests and of the materials and labour and equipment, involved in the testing operations shall be borne by the contractor.

28.0 BID SUBMISSION

28.1 Only those bidders satisfying the eligibility criteria given in the NIT need to apply. Tenders (Technical bid, EMD & any other details sought for) should be submitted in physical form to the office of the Regional Manager as stated above. After opening and shortlisting the bidders, the qualified bidders will be intimated to participate in the e-price bidding, The qualified bidder should log into the website <https:etender.sbi> well in advance for bid submission so that he/she upload the bid in time i.e. on or before the bid submission time. The server time (which is displayed on the online portal dashboard) will be considered as the standard time for referencing the deadlines for submission of the bids by the bidders, opening of bids etc. The bidders should follow this time during bid submission. Bidder will be responsible for any delay due to other issues.

28.2 The bidders should submit their price bids online with their valid digital certificate, which confirms that the bidders have read and understood the tender terms and conditions. Claiming ignorance of all the terms and conditions in this tender either before or after the PO is issued or during the progress of the work will not be accepted.

28.3 The bidder shall submit the documents enlisted in the checklist in the NIT in the softcopy format. ie scanned copy of the documents either in PDF or JPEG format as required in case of submission of technical bid online, otherwise this may be ignored. SBI will not be held responsible for any sort of delay or the difficulties faced during the submission of bids online by the bidders. The bidder should see that the documents submitted should be free from virus and if the documents could not be opened, due to virus, during tender opening, the bid is liable to be rejected.

28.4 The documents submitted in the **Tender should NOT contain any price information.** Such Bid, if received, will be rejected.

28.5 The bidder shall submit his quotes **online** through the PRICE BID in the e-procurement portal. The price bid will be opened only if the Bid is **unconditional** and the bidder qualifies as per eligibility criteria and meets technical specifications.

28.6 If required, SBI shall conduct e-reverse auction among the qualified bidders and the same shall be communicated to the bidders.

28.7 No claim for submission of offline bids will be entertained. Such bids will not be considered.

29.0 PRICE BID: RATES QUOTED BY BIDDER

29.1 The contractor shall satisfy himself before Bidding as to the correctness and sufficiency of his Bid for the works and the rates/ amounts stated in the schedule of quantities and / or the schedule of rates and amount as provided covering all his obligations under the contract and all matters necessary for proper completion of the works expected in this document.

29.2 The rate quoted shall be firm and shall include costs of all materials, loading, transport, unloading, Installation charges, wastage of materials during execution, levies, Octroi(if applicable), local body taxes (if applicable), all type of Insurance Charges, temporary works such as scaffolding, cleaning, overheads, profit, statutory expenses, incidental charges and all related expenses to complete the work etc..

29.3 Unless otherwise provided in the Schedule of Quantities/Specifications, the rates tendered by the contractor shall be all inclusive and shall apply to all heights, lifts, leads and depths of the work and No extra charges will be paid over and above the contract amount on account of any other charges (existing or future addition) or on any other account.

29.4 The GST shall be paid extra as applicable.

29.5 Rate Revision in the contract amount is not permitted during the validity period of the contract for any reason including during the extended period, if any.

29.6 Any request for review of the price bid after the bid opening will not be entertained.

29.7 The tender form must be filled in English and all entries must be made by hand and written in ink. The tenders must be submitted in the prescribed format only. The tenderer must quote the rates and amount in the Bill of Quantities. The rates should be written both in words and figures without any erasures and alterations.

- a. However, if errors are made, the wrong figures or words must be neatly scored out under full signature of the tenderer and the correct figures and words neatly rewritten. Over writing is not permitted.
- b. Errors in the Bill of Quantities (BOQ), rates and amount shall be dealt with in the following manner:
 - i) In the event of a discrepancy between the rates quoted in words and the rates in figures, the quotient of the total amount divided by the quantity shall be taken into consideration.

- ii) In the event of an error occurring in the amount columns as a result of wrong multiplication and extension of unit rate and quantities, the unit shall be regarded as firm and the amount shall be amended accordingly.

All errors in totaling the amount column and in carrying forward, the totals shall be corrected.

Note: In case of e-tendering, the contractor shall enter the rates online in the sealed bid format and other details like rate in figures, amount etc will be displayed automatically. In such case, the contractor need not submit the price bid in physical form. Other details of e-price bidding is given below:-

- a. No modifications are permitted after quoting the rates online. However, if errors are made, the bid shall be withdrawn and revised quote shall be submitted within the time allotted for bid submission.
- b. In the event of a discrepancy between the rates quoted in figure and words, the rate quoted in figures shall be taken into consideration as the rate in words is auto populated based on the rate quoted in figures.

30.0 PRELIMINARY EXAMINATION

30.1 SBI will examine the Bids to determine whether they are complete, on required formats & accompanied by supporting Documents and the Bids are conforming to all the terms and conditions of the Bidding Document without any deviations and are generally in order.

30.2 If a Bid is not conforming to the terms and conditions, it will be rejected. However, SBI will have right to demand submission of more information as required, if any of the document is partly submitted. If the bidder does not respond within the stipulated time, SBI will reject or disqualify the bid.

31.0 TECHNICAL EVALUATION

31.1 Only those Bidders and Bids who have been found to be in conformity of the eligibility terms and conditions during the preliminary evaluation would be taken up for further detailed evaluation. Those Bids who do not qualify the eligibility criteria and all terms during preliminary examination will not be taken up for further evaluation.

31.2 During evaluation of bids, the SBI may, at its discretion ask the bidders for clarification of its bid. The request for clarification shall be in writing and no change in prices or substance of the bid shall be sought, offered or permitted. No post bid clarification at the initiative of the bidder shall be entertained.

31.3 The tenders must be unconditional. Conditional tenders leading to unknown / indefinite liability may be summarily rejected.

32.0 EVALUATION OF PRICE BIDS AND FINALIZATION

32.1 Only those Bidders who qualify in Technical evaluation would be shortlisted and the online price bid submitted by the bidder will be opened.

32.2 The L1 Bidder will be selected on the basis of net total of the price evaluation as quoted in the online price bidding or Reverse Auction (if conducted).

32.3 In case, the lowest tendered amount of two or more contractors are the same, such lowest contractors will be again asked to submit sealed/ online “Revised offers”, but the revised quoted amount shall, in no case, be higher than the amount quoted during their initial offer for the project. The lowest tender shall be decided on the basis of revised offers.

32.4 The process of sealed/ online rebidding amongst two or more contractors offering same rates shall continue till L-1 bidder is discovered.

32.5 In case, any such contractor(s) (quoted same tender amount during initial bidding or subsequent rebidding) refuses to submit revised offer, it shall be treated as ‘withdrawal of tender’ by the contractor before acceptance and their Earnest Money shall be forfeited.

32.6 In case, all the lowest contractors those who have quoted same tendered amount, refuse to participate in online revised bidding process for the project, the EMD of such contractors shall be forfeited and the tenders shall be re-invited for the project. Such contractors shall not be allowed to participate in the retendering process of the work.

32.7 Further, contractors submitting erratic and unreasonably low offers ie., below minus 25% of estimated cost, shall submit additional security deposit (equal to difference in estimated cost vis-à-vis final tender amount quoted) as Performance Guarantee in the form of “Unconditional Bank Guarantee” or Demand Draft favouring SBI. This Performance Guarantee shall be released after satisfactory completion of work.

32.8 If the L1 bidder refuses to give the Performance Bank Guarantee, then the EMD will be forfeited and the tender will be re-invited. The L1 bidder will not be allowed to participate in the retendering process.

32.9 The applicant should have a **valid digital certificate for submission of online Bid if desired by the Bank**. On the date specified for tender opening, technical bid will be opened and evaluated. Thereafter, online price bidding shall be done with the qualified tenderers.

33.0 CONTACTING THE BANK:

33.1 No Bidder shall contact the Bank on any matter relating to its Bid, from the time of opening of Price Bid to the time the Contract is awarded.

33.2 Any effort by a Bidder to influence Bank in its decisions on Bid evaluation, or contract award may result in rejection of the Bid.

34.0 AWARD OF WORKS

34.1 SBI will award the Contract to the successful Bidder whose Bid is the lowest evaluated Bid.

34.2 SBI reserves the right at the time of award of contract to increase or decrease the quantity of work and / or services from what was originally specified while floating the tender, without any change in unit price or any other terms and conditions.

35.0 VARIATION IN QUANTITY / SUBSTITUTION OF ITEM

35.1 The Schedule of Quantities unless otherwise stated shall be deemed to have been prepared in accordance with the Standard Procedure shall be considered to be approximate and no liability shall attach to the employer for any error which may be discovered therein.

35.2 The Employer reserves the right to increase or decrease or delete or omit or execute only a part or the whole or any excess thereof, as per the site requirements, without assigning any reason therefor at the time of allotment / execution of work. Contractor will be paid for the actual work done at the site. No variation shall vitiate the contract.

35.3 The tender rates shall be fixed and applicable for any increase or decrease in the tendered quantities. Nothing extra will be paid by the Bank on account of omission / deletion of items or decrease in the quantity of items. The Bank shall not entertain any claim whatsoever from the contractor on this account. Payment will be made on actual measurement of the work done. All measurements shall be as per relevant I.S. standards

35.4 Bank reserves the right to order more quantities than what is mentioned in this tender (at the same rate and terms and conditions) either at the same site or other sites as per the need within the validity of this tender.

35.5 The price of all additional items/non-tendered items will be worked out on the basis of rates quoted for similar items in the contract wherever existing. If similar items are not available, the rates for such items will be derived as per standard method of rate analysis based on prevalent fair price of labour, material and other components as required with 15% towards contractor's profit and overheads.

36.0 CONTRACTOR'S EMPLOYEES

36.1 The Contractor shall employ technically qualified / having appropriate skill and competent persons fully trained and adequately experienced Electricians, who are medically fit. They should be free from any contagious diseases. The Electricians shall be well mannered and properly dressed with shoes etc.

36.2 The contractor shall provide necessary training on safety measures while executing the work wherever necessary so as to avoid accident. The Bank shall not be responsible for any accident occurred or damage incurred or claims arising there from during the execution of work. The contractor shall also provide all risk insurance policy including third party insurance as may be necessary to cover the risk.

36.3 The contractor / firm shall be held responsible for any misdeeds / misbehaviour of their employees within the premises. Bank is not responsible for any damages or claims on account of the misbehavior / misdeeds of his employees. For this purpose, any person supplied by the contractor to be engaged on the work on regular basis or as an alternate arrangement, under the direct order or control of the Employer or his representative shall be deemed to be a person employed by the contractor.

36.4 The contractor shall on the request of the Employer immediately dismiss from works any person employed thereon by him, who in the opinion of the Employer be unsuitable or incompetent or who may misconduct. Such discharges shall not be the basis of any claim for compensation or damages against the Employer or any of their officer or employee.

36.5 No employee of the Bank is allowed to work as a contractor for a period of 2 years of his/her retirement from Bank Services without previous permission of the Bank. This contract is liable to be cancelled, if either the contractor or any of his employees is any time to be such a person who had not obtained the permission of Bank as aforesaid before submission of the tender or engagement in the contractor's service.

36.6 Contractor should not engage child labour in any of the activities in this contract.

36.7 The contractor shall not employ person who is not an Indian National.

36.8 The Electrician shall not over stay in the Bank premises other than the time permitted by the Bank or in the odd hours or holidays unless or otherwise required by the Branch for specific reasons like maintenance, repair works etc.

36.9 In respect of all labour employed directly or indirectly on the work for the performance of the contractor's part of work, the contractor at his own expense, will arrange for the safety provisions as per the statutory provisions, B.I.S recommendations, factory act, workman's compensation act, CPWD code and instructions issued from time to time.

36.10 The Contractor's workmen will not have any right whatsoever to get absorbed in the Bank. The Contractor shall be responsible for all the claims of the employees of the Contractor and shall not make and claim whatsoever against the Bank. The Contractor shall be responsible for all statutory requirements e.g. ESI, PF, labour registrations, Insurance coverage etc. The operator is responsible for compliance of all the rules & safety regulations etc.

36.11 Minimum wages as prescribed by the Labour Act shall be payable to the operator(s) by the contractor as the case may be. The Contractor shall bind himself and keep the Employer saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Employer in connection with any claim that may be made by any workmen.

37.0 WORKING HOURS AT THE SITE

As instructed by Bank, Contractor to ensure that the routine operations at the site are not affected by the contract work. If required, they have to work on the Bank Holidays in coordination with other agencies and Bank.

38.0 SUBCONTRACTING

42.1 The whole of the works included in the contract shall be executed by the contractor and the contractor shall not directly or indirectly transfer, assign or underlet the contract or any part, share or interest therein nor, shall take a new partner, without written consent of the Employer and no subletting shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the work during their progress

39.0 STORAGE OF MATERIALS

39.1 The contractor shall store their materials like fixtures, cables, conduits, wires, tools etc in the site with the permission of the Bank. However, the contractors shall be responsible for the custody and security of all materials and equipment at site. No claim for loss or theft will be entertained by the Bank.

39.2 Shelter or stay and other amenities for the electricians have to be arranged by the contractor at his own expense and responsibility.

39.3 On completion of the works, the contractor shall remove all tools, surplus materials, rubbish and temporary works of every kind and leave the whole of the site and the works clean and in a workmanlike condition to the satisfaction of the Bank

40.0 FORCE MAJEURE

40.1 Notwithstanding the provisions of General terms and conditions of the Contract, the contractor shall not be liable for forfeiture of its performance security, liquidated damages, or termination for default if and to the extent that the delay in performance or other failure to perform its obligations under the Contract is the result of an event of Force Majeure.

40.2 For the purposes of this clause, 'Force Majeure' means and includes wars, insurrections, revolution, civil disturbance, riots, terrorist acts, public strikes, hartal, bandh, fires, floods, epidemic, quarantine restrictions, freight embargoes, declared general strikes in relevant industries, Vis Major Act of Government, impeding reasonable performance of the Contractor and / or Sub-Contractor but does not include any foreseeable events, commercial considerations or those involving fault or negligence on the part of the party claiming Force Majeure.

40.3 If a Force Majeure situation arises, the Vendor shall promptly notify the Bank in writing of such condition and the cause thereof. Unless otherwise directed by the Bank in writing, the Vendor shall continue to perform its obligations under the Contract as far as is reasonably practical, and shall seek all reasonable alternative means for performance not prevented by the Force Majeure event.

41.0 COMPLIANCE OF STATUTORY REGULATIONS

41.1 The contractor shall conform to the provisions of any Acts of the Legislature relating to the work, and to the Regulations and Bye-Laws of any authorities like Electricity, Pollution Control Boards, Municipal Authorities, water and Sewarage boards and shall before making any variations from the drawings or specifications that may be associated to so conform, give the Employer written notices specifying the variations proposed to be made and reasons for making them and apply for instruction thereon. The Employer on receipt of such intimation shall give a decision within a reasonable time.

41.2 The contractor/s shall arrange to give all notices required for by the said Acts, Regulations or Bye-laws to be given to any authority, and to pay to such authority or to any public officer all fees that may be properly chargeable in respect of the work and lodge the receipts with the Employer. The Contractor shall indemnify the Employer against all claims in respect of patent rights, designs, trademarks or name or the protected rights in respect of any equipment, machine, work or material used for or in connection with the works or temporary works and from and against all claims, demands, proceedings, damages, costs, charges, and expenses whatsoever in respect thereof or in relation thereto. The Contractor shall defend all actions arising from such claims, unless he has informed the Employer, before any such infringement and received their permission to proceed and shall himself pay all royalties, license fees, damages, coat and charges of all and every sort that may be legally incurred in respect thereof.

41.3 The contractor should strictly abide by the Central/State labour regulation for the Minimum Wages, Payment of wages, Workmen Compensation, PF, ESI, Contract labour, including the latest amendments, if any and other safety regulations.

41.4 The contractor shall keep the Employer saved harmless and indemnified against claims if any of the workmen and all costs and expenses as may be incurred by the Employer in connection with any claim that may be made by any workmen.

42.0 INSURANCE & DAMAGE TO PERSONS AND PROPERTY ETC

42.1 The insurance shall be for an amount equal to 110 percent of the value of the contract on "All Risks" basis, valid until the Completion of the project or handing over whichever is later.

42.2 Should any loss or damage occur, the Vendor shall initiate and pursue claim till settlement and promptly make arrangements for repair and / or replacement of any damaged item to the satisfaction of the Bank, irrespective of settlement of claim by the underwriters.

42.3 The contractor shall be responsible for all injury to the work or workmen to persons, animals or things and for all damages to the structural and / or decorative part of property which may arise from the operations or neglect of himself or of any sub-contractor or of any of his or a sub-contractor's employees, whether such injury or damage arise from carelessness, accident or any other cause whatsoever in any way connected with the carrying out of this contract.

42.4 The contractor shall reinstate all damages of every sort mentioned in this clause so as to deliver the whole of the contract works complete and perfect in every respect and so as to make good or otherwise satisfy all claims for damages to the property of third parties.

42.5 The contractor shall affect the insurance necessary and indemnify the Employer entirely from all responsibility in this respect.

42.6 The contractor shall be responsible for anything, which may be excluded from damage to any property arising out of incidents, negligence or defective carrying out of this contract.

42.7 The Employer shall be at liberty and is hereby empowered to deduct the amount of any damages, compensations, costs, charges and expenses arising or accruing from or in respect of any such claim or damages from any sums due to or to become due to the contractor.

C. SPECIAL CONDITIONS OF CONTRACT

▪ The contractor shall be deemed to have satisfied himself before tendering as to the correctness and sufficiency of his tender for the works and the rates and amounts stated in the schedule of quantities and / or the schedule of rates and amount which rates and amounts shall expect as otherwise provided cover all his obligations under the contract and all matters and this necessary for the proper completion of the works.

▪ The contractor shall indemnify the employer against all claims in respect of patent rights and shall defend all actions arising from such claims and shall himself pay all royalties, license fee, damage, cost and charges of all and every sort that may legitimately be incurred in respect thereof.

▪ Work not to be sublet: The whole of the works included in the contract shall be executed by the contractor who shall not directly or indirectly transfer, assign or mutilate the contract or any part thereof or interest therein without the written consent of the employer and no undertaking shall relieve the contractor from the full and entire responsibility of the contract or from active superintendence of the works during their progress.

▪ Insurance of the works: The contractor shall within 7 days from the date of commencement of the works at his cost and keep them insured until one month after

the works and taken over by the employer or three months after the date of completion whichever is earlier, against loss or damage by fire and usual risks other than fire against which insures generally provide cover in a CONTRACTOR'S ALL RISK POLICY' with Names of the employer and contractor (the name of the former being placed first in the policy) for the full amount of the contract. Such policy shall cover the property of the employer only and consultant and surveyor's fees for assessing the claim and in connection with his services generally in reinstatement sub-contractor or employee. The contractor shall deposit the policy and receipts for the premium paid with the Bank within a week of the date of commencement of the work unless otherwise instructed by the Bank on his behalf may be due or that may become due to the contractor.

- The contractor shall as soon as the claim under the policy is settled or the work reinstated by the insures should they elect to do so, proceed with all due diligence with the completion of the works in the same manner as though the fire or other such risk had not occurred and in all respects under the same conditions of contract.

- The contractor, in case of rebuilding or reinstatement after fire or other such usual risk shall be entitled to such extension of time for completion as decided by the Bank.

- Accident or Injury to Workman: The Bank shall not be liable for or in respect of any damages or compensation payable at law in respect or in consequence of any accident or injury to any workmen or other person in the employment of the contractor or any sub-contractor, save and except an accident or injury resulting from any act or default of the Bank or their agents, or employees. The contractor shall indemnify and keep indemnified the Bank against all such damages and compensation, save and except as aforesaid, and against all claims, proceedings, costs, charges and expenses whatsoever in respect thereof or in relation thereto.

- Insurance against accidents etc. to workmen: The contractor shall insure against such liability with an insurer approved by the Bank during the whole of the time that any persons are employed by him on the works and shall, when required, produce to the Bank such policy of insurance and receipt for payment for the current premium. Provided always that, in respect of any persons employed by any sub-contractor the contractor's obligations to insure as aforesaid under this sub-clause shall be satisfied if the sub-contractor shall have insured against the liability in respect of such persons in such manner that the Bank is indemnified under the policy but the contractor shall require such sub-contractor to produce to the Bank when such policy of insurance and the receipt for the payment of the current premium

- Local laws, Acts, Regulation: The contractor shall strictly adhere to all prevailing labour laws inclusive of Contract Labour (Regulation and Abolition Act 1970) and other safety regulations. The contractor shall comply with the provisions of all labour legislation including the latest requirements of all the Acts, laws, any other regulations that are applicable to the execution of the project

- i) Minimum Wages Act 1948 (Amended)
- ii) Payment of Wages Act. 1936 (Amended)
- iii) Work men's Compensation Act 1923 (Amended)

- iv) Contract Labour Regulation and Abolition Act 1970 and Central Rules 1971 (Amended)
- v) Apprentice Act 1961 (Amended)
- vi) Industrial Employment (Standing Order) Act 1946 (Amended)
- vii) Personal Injuries (Compensation Insurance) Act 1963 and any other modifications.
- viii) Employees' Provident Fund and Miscellaneous Provisions Act 1952 and amendment thereof
- ix) Shop and Establishment Act.
- x) Any other act or enactment relating thereto and rules framed there under from time to time.

▪ In case, of extra items, where similar or comparable items are quoted in the tender, extra rates shall invariably be based on those tender rates to the extent reasonable. In case of extra items, where similar items are not available in the tender, the rates for such items shall be derived as per C.P.W.D analysis of rates or market rates as applicable.

▪ **SETTLEMENT OF DISPUTES AND ARBITRATION:**

Except where otherwise provided in the contract all questions and disputes relating to the meaning of the specifications, design, drawings and instructions herein before mentioned and as to the quality of workmanship of materials used on the work or as to any other question, claim, right matter or thing whatsoever in any way arising out of our relating to the contract, designs, drawings, specifications, estimates, instructions orders or these conditions or otherwise concerning the work or the execution or failure to execute the same whether arising during the progress of work or after the cancellation, termination, completion or abandonment thereof shall be dealt with as mentioned hereinafter:

- (a) If the contractor considers that he is entitled to any extra payment or compensation in respect of the works over and above the amounts admitted as payable by the Architect or in case the contractor wants to dispute the validity of any deductions or recoveries made or proposed to be made from the contract or raise any dispute, the contractor shall forthwith give notice in writing of his claim, or dispute to The Regional Manager (in the address as stated above) and endorse a copy of the same to the Architect, if any, within 30 days from the date of disallowance thereof or the date of deduction or recovery. The said notice shall give full particulars of the claim, grounds on which it is based and detailed calculations of the amount claimed and the contractor shall not be entitled to raise any claim nor shall the bank be in any way liable in respect of any claim by the contractor unless notice of such claim have been given by the Contractor to the respective Manager (address as stated above) in the manner and within the time as aforesaid. The contractor shall be deemed to have waived and extinguished all his rights in respect of any claim not notified to the respective Regional Manager in writing in the manner and within the time aforesaid.
- (b) Regional Manager shall give his decision in writing on the claims notified by the contractor. The contractor may within 30 days of the receipt of the decision of the

respective Regional Manager submit his claims to the conciliating authority namely the Dy. General Manager (B&O), State Bank of India, Administrative Office, Ernakulam for conciliation along with all details and copies of correspondence exchanged between him and the Branch/ RBO.

- (c) If the conciliation proceedings are terminated without settlement of the disputes, the contractor shall, within a period of 30 days of termination thereof shall give a notice to the concerned Chief General Manager of the Bank for appointment of an arbitrator to adjudicate the notified claims failing which the claims of the contractor shall be deemed to have been considered absolutely barred and waived.
- (d) Except where the decision has become final, binding and conclusive in terms of the contract, all disputes of differences arising out of the notified claims of the contractor as aforesaid and all claims of the Bank shall be referred for adjudication through arbitration by the Sole Arbitrator appointed by the Chief General Manager. It will also be no objection to any such appointment that the Arbitrator so appointed is a Bank Officer and that he had to deal with the matters to which the Contract relates in the course of his duties as Bank Officer. If the arbitrator so appointed is unable or unwilling to act or resigns his appointment or vacates his office due to any reason whatsoever another sole arbitrator shall be appointed in the manner aforesaid by the said Chief General Manager. Such person shall be entitled to proceed with the reference from the stage at which it was left by his predecessor.

It is a term of this contract that the party invoking arbitration shall give a list of disputes with amounts claimed in respect of each dispute along with the notice for appointment of arbitrator.

It is also a term of this contract that no person other than a person appointed by such Chief General Manager as aforesaid should act arbitrator.

The conciliation and arbitration shall be conducted in accordance with the provisions of the Arbitration & Conciliation Act 1996 or any statutory modification or re-enactment thereof and the rules mad thereunder. It is also a term of the contract that if any fees are payable to the arbitrator these shall be paid equally by both the parties. However, no fees will be payable to the arbitrator if he is a Bank Officer.

It is also a term of the contract that the arbitrator shall be deemed to have entered on the reference on the date he issues notice to both the parties calling them to submit their settlement of claims and counter statement of claims. The venue of the arbitration shall be such place as may be fixed by the arbitrator in his sole discretion. The fees, if any, of the arbitrator shall, if required to be paid before the award is made and published, be paid half and half by each of the parities. The cost of the reference and of the award (including the fees, if any of the arbitrator) shall be in the discretion of the arbitrator who may direct to any by whom and in what manner, such costs or any part thereof, shall be paid and fix or settle the amount of costs to be so paid.

D. UNDERTAKING BY THE BIDDER

To

**The Regional Manager,
SBI Regional Office -,
.....,
.....**

Dear Sir,

e-TENDER FOR “.....(name of the work)”

Having duly examined the tender document including the drawings, specifications, designs, Bill of Quantities relating to the works specified in the underwritten memorandum and having visited the site of the said work and having acquired all the requisite information relating thereto pertaining to this tender, I/ We hereby offer to execute the works specified in the underwritten memorandum within the time specified therein at the rates specified in the schedule of quantities and in accordance, in all respects with specifications, designs, drawings and instructions in writing referred to in the conditions of the tender, the Articles of Agreement, special conditions of the contract and with such materials as are specified by and in all other respects in accordance with such conditions in the schedule of quantities and conditions of contract as applicable.

02. Should this tender be accepted, in whole or in part, I/ We hereby agree (i) to abide by and fulfill all the terms and provisions of the said conditions in the contract annexed hereto and the conditions of the tenders applicable or in default thereof to forfeit to SBI, the sum of money mentioned in the said conditions.

03. I/ We agree (i) that should I/ We fail to commence the work specified in the above mentioned memorandum the Bank shall without prejudice to any other right or remedy be at liberty to forfeit the Earnest Money which otherwise shall be retained by Bank towards security deposit mentioned in the above memorandum (ii) to execute all the works referred to therein and to carry out authorized variations as directed by the Bank and as per said conditions of the contract.

Yours Faithfully,

Signature of the bidder with Stamp _____

Name: _____

Address: _____

E. FORM OF AGREEMENT

ARTICLES of AGREEMENT made this ____ day of _____ year 2020 between _____ (Hereinafter referred to as the “Employer/ Bank” which expression shall, unless excluded by or repugnant to the context, includes its successors and assigns) of the ONE PART and _____ of _____ (Hereinafter referred to as “Contractor” unless excluded by or repugnant to the context, includes its successors and assigns) of the OTHER PART.

WHEREAS the Employer intends to carry out _____ and shall herein after referred to as “Project”.

AND WHEREAS for the purpose of the above said project, the Employer invited ONLINE E-tenders from experienced, resourceful and bonafide contractors vide its Notice Inviting Tender (NIT) (No. _____ dated. _____).

WHEREAS the contractor submitted his Online Tender containing Notice Inviting Tender, General Conditions of Contract, Special conditions, Bill of Quantities, Form of Agreement, Preferred makes of materials, Form of Submission of tender/ Process Compliance Statement, Technical Specifications etc. for the above said project, (Hereinafter collectively referred to as the “said conditions”), digitally signed as a token of his acceptance of the same, along with requisite Cost of tender and Earnest Money Deposit.

AND WHEREAS out of the Tenders received, the Tender of the contractor was found to be most suitable for the project.

AND WHEREAS the Employer has accordingly issued the work order (No. _____ dated. _____) to the contractor subject to his furnishing the requisite Initial Security Deposit.

AND WHEREAS the Contractor has accepted the aforesaid Work Order vide his letter of acceptance No. _____ dated _____ and has also deposited with the Employer a sum of Rs. _____ which with the Earnest Money of Rs. _____ forms the requisite Initial Security Deposit @2 % of the accepted Tender Value of Rs. _____.

NOW, therefore, it is hereby agreed to and between the parties as follows:

- 1) Contract documents:-
The following documents shall constitute the Contract Documents.
 - I. This Article of Agreement.
 - II. Tender Document submitted by the Contractor including the “said conditions”, N.I.T and Schedule of quantities.
 - III. All correspondence between the Employer and the Contractor from the date of issue of N.I.T and the date of issue of work order.
 - IV. Work order No. _____ dt. _____

- 2) In consideration of the payments to be made to the Contractor as hereinafter provided the Contractor shall upon and subject to the said conditions, execute and complete the contracted project works and such further detailed drawings as may be furnished to the contractor by the said Employer and described in the said Specifications and the said Schedule of Quantities.

3) Notwithstanding what are stated in the N.I.T conditions of Tendering, Conditions of Contract of herein stated before, the Employer reserves itself the right of altering the nature of the work and addition to or omitting any items of work or of having portions of same carried out through another agency or otherwise and such alterations or variations shall be carried out without prejudice to this contract.

4) As mentioned above, the “said conditions” shall be read and be treated as forming part of this agreement and parties hereto will respectively be bound thereby and to abide by and submit themselves to the conditions and stipulations and perform the same on their parts to be respectively observed and preferred.

5) Any dispute arising under this agreement shall be referred to the Arbitration in a manner specified in the General Conditions of the Contract and all legal disputes shall be limited within the territorial jurisdiction of Thiruvananthapuram thereto. The decision of the arbitration shall be final and binding on both the parties.

6) The Vendor / Contractor shall promptly notify SBI of any changes in the constitution of their firm. It shall be open to SBI to terminate the agreement on the death, retirement, insanity or insolvency of any person/s is being director/s or partner/s in the said company / firm, or on the addition or introduction of a new partner without the previous approval in writing of SBI. But in absence of and until its termination by SBI as aforesaid, this agreement shall continue to be of full force and effect notwithstanding any changes in the constitution of the firm by death, retirement, insanity or insolvency of any of its partners or the addition or introduction of any new partners. In case of retirement / death, the surviving or remaining partners of the firm shall be jointly and severally liable for the due and satisfactory performance of the terms and conditions of the agreement.

7) The Contractor agrees and hereby keeps the Bank indemnified against all claims, actions, loss, damages, reputation loss, costs, expenses, charges, including legal expenses (Attorney, Advocates fees included) which the Bank may suffer or incur on account of any deficiency in Services rendered by The Contractor or breach of any obligations under this contract, including without limitation, breach of confidentiality obligations or any acts of commission / omission on the part of employees, agents, representatives or Sub-Contractors of the Contractor. The Contractor agrees to make good the loss suffered by the Bank.

IN WITNESS WHEREOF THE PARTIES to their present have here under set and subscribed their hands, the day, month and year first above written.

Signed and delivered for and on behalf of

Shri. _____ its duly authorized official, In the presence of –

1. (Name and Address)

2. (Name and Address)

Signed and delivered for and on behalf of the Contractor _____ by

Shri _____ his duly authorized representative, in the presence of

1. (Name and Address)

2. (Name and Address)

F. SAMPLE BUSINESS RULE DOCUMENT

ONLINE E-TENDERING FOR “.....(name of the work)”.

I. Business rules for E-tendering:

1. Only technically qualified contractors will be invited by the SBI. SBI will engage the services of an E-tendering service provider who will provide necessary training and assistance before commencement of online submission of bids on Internet.
2. In case of e-tendering, SBI will inform the vendor in writing/ through e-mail, the details of service provider to enable them to contact and get trained.
3. Business rules like event date, closing and opening time etc. also will be communicated through service provider for compliance.
4. Contractors have to send by email, the compliance form in the prescribed format (provided by service provider), before start of E-tendering. Without this the vendor will not be eligible to participate in the event.
5. The Contractors will be required to accept the terms and conditions online, upload relevant documents if any, submit the various documents in sealed Envelope to the office address mentioned hereinbefore by the stipulated date i.e. (1) Form of Submission of tender & Process Compliance Statement (Annexure I & II) (2) Demand Draft of specified amount towards EMD & Technical Bid. Contractors not submitting any one or more documents shall not be eligible to participate in the on-line price bidding.
6. E-tendering will be conducted on schedule date &time.
7. The e-tendering will be treated as closed only when the bidding process gets closed in all respects for the item listed in the tender.

II. Terms & conditions of E-tendering:

1. SBI shall finalize the Tender through e-tendering mode for which M/s. e-Procurement Technologies (P) Ltd, Ahmedabad has been engaged by SBI as an authorized service provider. Please go through the guidelines given below and submit your acceptance to the same while bidding.
2. E-tendering shall be conducted by SBI through **M/s. e-Procurement Technologies (P) Ltd, Ahmedabad**, on pre-specified date. While the Contractors shall be quoting from their own offices/ place of their choice, Internet connectivity and other paraphernalia requirements shall have to be ensured by Contractors themselves. In the event of failure of their Internet connectivity, (due to any reason whatsoever it may be) it is the bidders 'responsibility. In order to ward-off such contingent situation bidders are requested to make all the necessary arrangements /alternatives such as back-up power supply whatever required so that they are able to circumvent such situation and still be able to participate in the E-tendering successfully. Failure of power at the premises of Contractors during the E-tendering cannot be the cause for not

participating in the E-tendering. On account of this the time for the E-tendering cannot be extended and SBI is not responsible for such eventualities.

3. M/s. e-Procurement Technologies (P) Ltd, Ahmedabad shall arrange to train nominated person(s), of the bidder without any cost. They shall also explain to the bidders all the Rules related to the E-tendering. The bidders are required to give their compliance on it before start of bid process.
4. BIDDING CURRENCY AND UNIT OF MEASUREMENT: Bidding will be conducted in Indian currency & Unit of Measurement will be displayed in Online-tendering.
5. BID PRICE: The Bidder has to quote the rate as per the sealed bid displayed in the e-tendering portal.
6. VALIDITY OF BIDS: The Bid price shall be firm for the period specified in the tender document and shall not be subjected to any change whatsoever.

III. Procedure of E-tendering:

1. The hardcopy of the Technical as well as Price Bid is available on the Bank's website during the period specified in the NIT.
2. Online e-tendering is open to the bidders who are technically qualified for participating in the price bidding as per provisions mentioned hereinabove through SBI approved Service Provider.
3. The Price-Bid shall be made available online by the Service Provider wherein the contractors will be required to fill-in their Item-wise rates for each item.
4. The Contractors are advised not to wait till the last minute to submit their online rates in the price bid to avoid complications related with internet connectivity, network problems, system crash down, power failure, etc.
5. .LOG IN NAME & PASSWORD: Each Bidder is assigned a Unique User Name & Password by **M/s. e-Procurement Technologies (P) Ltd, Ahmedabad**. The Bidders are requested to change the Password after the receipt of initial Password from **M/s. e-Procurement Technologies (P) Ltd, Ahmedabad**. All bids made from the Login ID given to the bidder will be deemed to have been made by the bidder.
6. BIDS PLACED BY BIDDER: Bids will be taken as an offer to execute the work as specified. Bids once made, cannot be cancelled / withdrawn and the Bidder shall be bound to execute the work at the quoted bid price. In case the L-1 Bidder backs out or fail to complete the work as per the rates quoted, SBI shall be at liberty to take action as per the tender terms and conditions including forfeiting their EMD
7. At the end of the E-tendering, SBI will decide upon the winner. SBI's decision on award of Contract shall be final and binding on all the Bidders.

8. SBI shall be at liberty to cancel the E-tendering process /tender at any time, before ordering, without assigning any reason.
9. SBI shall not have any liability to bidders for any interruption or delay in access to the site irrespective of the cause.
10. Other terms and conditions shall be as per techno-commercial offers and other correspondences in this regard.

IV. Other Terms &Conditions:

1. The Bidder shall not involve himself or any of his representatives in Price manipulation of any kind directly or indirectly by communicating with other suppliers/ bidders.
2. The Bidder shall not divulge either his Bids or any other exclusive details of SBI to any other party.
3. SBI decision on award of Contract shall be final and binding on all the Bidders.
4. SBI reserve their rights to extend, reschedule or cancel any E-tendering within its sole discretion. SBI or its authorized service provider M/s. e-Procurement Technologies (P) Ltd, Ahmedabad shall not have any liability to Bidders for any interruption or delay in access to the site irrespective of the cause.
5. SBI or its authorized service provider M/s. e-Procurement Technologies (P) Ltd, Ahmedabad is not responsible for any damages, including damages that result from, but are not limited to negligence.
6. SBI or its authorized service provider M/s. e-Procurement Technologies (P) Ltd, Ahmedabad will not be held responsible for consequential damages, including but not limited to systems problems, inability to use the system, loss of electronic information etc.

N.B.:- All the Bidders are required to submit the Process Compliance Statement (Annexure-I) duly signed to **M/s. e-Procurement Technologies (P) Ltd, Ahmedabad.**

All the bidders are requested to ensure that they have a valid digital signature certificate well in advance to participate in the online event.

G. APPENDIX TO CONDITIONS OF CONTRACT

1.	Name of the work	As stated in Tender Notice/ NIT
2.	Date of commencement	As stated in Tender Notice/ NIT
3.	Period of completion	As stated in Tender Notice/ NIT
4.	Value of work to be taken for issue of interim certificate for payment	As stated in Tender Notice/ NIT
5.	Initial Security Deposit	2% of the contract value.
6.	Total security deposit	5% of the contract value including Initial Security Deposit (OR as per the prevailing rules) of 2% and Retention Money of 3% of the contract value.
7.	Defect liability period	12 months from the date of completion
8.	Liquidated damages for delay in completion of work	½ % per week of delay subject to maximum of 5% of the Contract value.
9.	Period of honoring final certificate for Payment	15 days
10.	Deduction of income tax, GST etc	As per Central/ State Govt. rules
11.	Release of Security deposit after Virtual completion.	50% of the total security deposit shall be released along with final certificate of payment, but only after removing all his materials, equipment, labour, huts/ force, temporary sheds/ stores, all his installations, machinery etc. from the site. Balance 50% shall be released on completion of Defect Liability period, provided that all the defects occurred during the said period shall be rectified by the contractor to the satisfaction of the Bank. The latter 50% shall be released after virtual completion also on submission of Bank Guarantee on any Scheduled Bank, Other than SBI, in the prescribed manner and valid till the completion of defects liability period of 12 months plus 3 months.
	CHECK LIST (TECHNICAL BID) (shall be submitted offline)	
	1. DD towards EMD	Yes / No
	2. Technical bid (signed & stamped), Form of Submission of tender/ Process Compliance Statement for Acceptance of terms and Conditions of the tender duly signed and stamped (Annexure I & II)	Yes / No
	3. Sealed envelope containing all the above documents with address of the bidder & SBI with name of the work superscribed thereon shall be submitted in physical form.	Yes / No
	4. Bidder contact details (Annexure III)	Yes / No
	5. Any other documents, if asked for	Yes / No
	CHECK LIST (PRICE BID) (shall be submitted online on ITEM RATE basis)	Yes / No

H. General Material Specifications/ List of Approved Brand/ Make.

S.no.	Description	Manufacturer's Name
1.	Cement :	Ultratech, ACC, Coramandel, Zuari Cements, Birla, Ambuja or any other approved brand
2.	Water Proofing Compound :	Roffe, Fosroc, Sika, Pidilite, Cemseal-Cementone / Approved
3.	Steel & Structural Steel :	Sail, Tisco, Vizag, Kairali, TATA
4.	Aluminium extruded sections :	Hindalco, Jindal
5.	Door Closer, Floor Spring :	Everlite, Doorking, Dyna
6.	Locks, Latch :	Godrej, Ebco
7.	Vitrified Tiles :	Khajaria, RAK, Johnson, Asian,
12.	Ceramic Flooring Tiles :	Nitco, Khajaria, Johnson, Somany
13.	Ceramic Glazed Tiles :	Nitco, Johnson, Khajaria, Somany
15.	Paints & Distemper :	ICI, Berger, Asian Paints
16.	Interior & Exterior Emulsion :	Premium acrylic emulsion of ICI, Berger, Asian Paints
17.	Primer :	ICI, Berger, Asian Paints
19.	Wall Putty :	Altek, JK, Birla, Berger, Asian
20.	MS pipe & MS Hollow Sections :	Tata, Zenith, Jindal / Approved
21.	Concrete admixtures :	Roffe, Fosroc, Sika, Pidilite, Cemseal Cementone / Webber / Approved
25.	Water Supply Fittings :	Jaquar, Nova Spectrum, Hindware, Cera
26.	Sanitary Fittings :	Hindware, Cera, Parryware
29.	Anti-termite Treatment :	Pest Control India Ltd./ Approved.

All other materials as approved by the Bank.

TECHNICAL SPECIFICATION OF MAJOR ITEMS

1.0 PLAIN AND REINFORCED CEMENT CONCRETE

1.1 SCOPE

This specification establishes the materials, mixing, placing, curing etc. of all types of cast in site and pre-cast concrete used in foundations, underground and over ground structures, floors etc. Any special requirements as shown or noted on the drawing shall govern over the provisions of this specification.

Apart from this specification, construction of plain and reinforced concrete works shall be in accordance with the Indian Standard code of practices for “Plain and Reinforced concrete” IS 456 and other relevant codes mentioned therein. In case of conflicts between the clauses mentioned in this specification and those in Indian Standards, this specification shall govern.

Coarse aggregate should be crusher broken and angular in nature. It should not be flaky or elongated.

1.2 GRADE OF CONCRETE

Unless otherwise specified on drawings or called for in the schedule of rates, the grades of concrete shall generally be as per Table No: 1.

TABLE NO: 1	
Grade Designation	Specified Characteristic compressive strength of 15cm cube at 28 days (N/mm ²)
M20	20
M25	25
M30	30
M35	35
M40	40

1.3 TYPE OF CONCRETE MIX

The concrete will be either nominal mix concrete or design mix concrete as defined in IS: 456. Unless other wise specified or given in schedule of rates, all lean and structural concrete shall be nominal mix and design mix types respectively. When Ready Mixed Concrete is used, it shall also strictly conform to the quality requirements as laid out in IS:456.

a) Nominal Mix Concrete

This concrete shall be made (without preliminary tests) by adopting nominal concrete mix with proportions of materials as specified in Table No 2. All the relevant requirements for this type of concrete as given IS 456 shall apply.

TABLE NO: 2			
PROPORTIONS FOR NOMINAL MIX CONCRETE			
Grade of Concrete	Total qty of dry aggregates by mass per 50g of cement, to be taken as the sum of the individual masses of fine and coarse aggregates (max) Kg	Proportion of fine aggregate to coarse aggregate (by weight)	Qty of water per 50kg of cement (max.)
M5	800	Generally 1:2 but subject to an upper limit of 1:1½ and lower limit of 1:2½	60
M7.5	625		45
M10	480		34
M15	350		32
M20	250		30

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

b) Design Mix Concrete

The mix shall be designed to produce the grade of concrete having required workability and characteristic strength not less than appropriate values given in Table No: 1.

For water retaining RCC structures concrete shall be of at least M20 mix.

1.4 PROPORTIONING

Proportioning as used in this specification shall mean the process of determining the proportions of various ingredients to be used to produce concrete of the required strength, workability, durability and other properties. The engineer in charge shall verify the strength of the concrete mix, before giving his sanction of its use. However this does not absolve the contractor off his responsibility as regards achieving the prescribed strength of the mix. If during the execution of the work, cube tests show lower strengths than required, the engineer in charge shall order fresh trial mixes to be made by the contractor. No claim to alter the rates of concrete work shall be entertained due to such changes in mix variations. Any variation in cement consumption shall be taken into consideration for material reconciliation. Preliminary mix designs shall be established well ahead of start of work.

a) Maximum Density

Suitable proportions of sand and different sizes of coarse aggregates for each grade of concrete shall be selected to give as nearly as practicable the maximum density. This shall be determined by mathematical means, laboratory tests, field trials and suitable changes in aggregate gradation.

b) Water - Cement Ratio

Once a mix, including its water-cement ratio, has been determined and specified for use by the engineer in charge, that water-cement ratio shall be maintained. The contractor shall determine the water content of the aggregates frequently as the work progresses, and the amount of mixing water shall be adjusted so as to maintain the specified water-cement ratio.

c) Workability

The concrete mix proportion so chosen should be such that the concrete is of adequate workability for the placing condition and can be properly compacted with the means available. The suggested ranges of values of workability of concrete measured in accordance with IS: 1199 are indicated in table No 3.

TABLE NO: 3		
Placing condition	Degree of workability	Values of workability
Concreting of shallow sections with vibration	Very low	20-10 seconds, vee-bee time or 0.75-0.8, compacting factor
Concreting of lightly reinforced sections with vibration	Low	10-5 seconds, vee-bee time or 0.8-0.85, compacting factor
Concreting of lightly reinforced sections without vibration, or heavily reinforced sections with vibration	Medium	5-2 seconds, vee-bee time or 0.85-0.92, compacting factor or 25-75mm, slump for 20mm* aggregate 5-2 seconds, vee-bee time
Concreting of heavily reinforced sections without vibration	High	Above 0.92, compacting factor or 75-125mm, slump for 20mm* aggregate.

*For smaller aggregate the values will be lower.

d) Consistency

The concrete shall have a consistency such that it shall be workable in the required position and when properly vibrated it flows around reinforcing steel, all embedded fixtures etc.

1.5 BATCHING

In proportioning concrete, the quantity of both cement and aggregate should be determined by weight. Where the weight of cement is determined on the basis of weight of cement per bag, reasonable number bags should be weighed periodically to check the net weight. Where the cement is weighed on the site and not in bags it should be weighed separately from the aggregates. Water should either measure by volume in calibrated tanks or weighed. Weight of liquid and paste admixtures may measure any solid admixtures that may be added by volume or weight. Batching plant, where used, shall conform to IS: 4925. All measuring equipment shall be maintained in a clean serviceable condition, and their accuracy periodically checked.

Except it can be shown to the satisfaction of the engineer in charge that the supply of properly graded aggregate of uniform quality can be maintained over the period of work, the grading of aggregate should be controlled by obtaining the coarse aggregate in different sizes and blending them in the right proportions when required, different sizes being stacked in separate stock piles. The grading of coarse and fine aggregate shall be checked frequently, the frequency for a given job being determined by the engineer in charge to ensure that the specified grading is maintained.

Under special circumstances, the engineer in charge on specific request from the contractor may permit change from weigh batching to volume batching. The amount of added water shall be adjusted to compensate for any observed variations in the moisture contents in both fine and coarse aggregates.

For the determination of moisture content in the aggregates, IS: 2386 (part III) may be referred to. To allow for the variation in weight of aggregate due to variation in moisture content, suitable adjustments in the weights of aggregates shall also be made. In the absence of exact data, only in the case of nominal mixes, the amount of surface water may be estimated from the values given in Table No: 4 below.

TABLE NO: 4	
SURFACE WATER CARRIED BY AGGREGATE	
Aggregate	Approximate quantity of surface water Percent by weight (litre/m ³)
Very wet sand	120
Moderately wet sand	80
Moist sand	40
Moist gravel or crushed	1.25-2.5
Rock	20-40

No substitutions in materials used on the work or alterations in the established proportions, except as permitted, shall be made without additional tests to show that the quality and strength of concrete are satisfactory.

1.6 ADMIXTURES

Admixtures shall be used in concrete only with the approval of the engineer in charge.

1.7 STEEL REINFORCEMENT

Reinforcement shall be accurately fabricated placed and adequately maintained in position as shown in drawings or as directed by the Engineer in charge. All finished bars shall be free from cracks, surface flaws, laminations, and jagged and imperfect edges. Cement mortar blocks of same cement / fine aggregate ratio as that of the concrete shall be used to give requisite cover as shown in the drawing or as directed and all intersections of bars shall be finally tied with binding

wire of 16 to 18 gauge. Reinforcement shall be bent in accordance with the procedure stipulated in IS 2502-1963 and shall not be straightened in a manner which will injure the materials.

All reinforcement shall immediately before placing of concrete, be thoroughly cleaned of loose mill scale, rust, oil and grease or other deleterious matter that would destroy or reduce bond. Reinforcement shall not be connected by welding or coupling except in accordance with relevant IS and with the previous approval of the Engineer in charge. Overlaps and joints shall be staggered and located at points along the span where neither shear nor bending moment is maximum.

Cover

Reinforcement shall have cover as shown in the drawings and or as specified by the Project Engineer.

1.8 TRANSPORTATION, PLACING AND COMPACTION

a) General

Before any concrete is placed the entire placing program and transporting arrangement showing deployment of equipment, layout, proposed procedures and methods shall be submitted in writing to the engineer in charge 24 hrs prior to the concreting for approval.

No concrete shall be placed until his approval has been received.

b) Chuting

The use of long troughs, chutes and pipes for conveying the concrete from the mixer to the forms shall be permitted only on written authorization from the engineer in charge. In case an inferior quality of concrete is produced by the use of such conveyors, the engineer in charge may order discontinuance of their use and the substitution of a satisfactory method of placing. Open troughs and chutes shall be equipped with baffles and be in short lengths to avoid segregations. Chutes shall be designed so that the concrete is to some extent remixed at the lower end by passing down through a funnel shaped pipe drop chute.

Alternatively they should discharge into a storage hopper from which the concrete should be transported to the point of placing by wheelbarrows or other means. Where drop chutes are used, a sufficient slope/height must be provided so that the concrete discharged from the chute is not required to flow laterally more than 1.0m. Where a drop chute is swung from the vertical, the bottom two sections must be maintained in a vertical position to avoid segregation. The addition of water at any point in the system of transportation, to facilitate the movement of concrete shall not be permitted. All chutes, troughs and pipes, shall be kept clean and free from coatings of hardened concrete by thoroughly flushing them with water after each run; water used for flushing shall be discharged away from the structure. Concrete shall not be permitted to fall freely from a height more than 1.5m or to strike the forms at an angle.

c) Vibrators

Concrete shall be compacted with mechanical vibrating equipment supplemented, if necessary to obtain consolidation by hand spading, rodding and tamping. Vibrators shall be immersion type with required operation frequency. Vibrators shall be used in sufficient number of units and power to properly consolidate all concrete.

d) Placing and Compaction

Before start of placement of concrete all soil surfaces upon which or against which concrete is to be placed shall be well compacted and shall be free from standing water, mud and debris. Soft or yielding soil shall be removed and replaced, with lean concrete or with selected soils and compacted to the density as directed by the engineer in charge. The surface of absorptive soil (against which the concrete is to be placed) shall be moistened thoroughly so that moisture is not drawn from the freshly placed concrete.

Concrete shall not be placed until the form work, the placement of reinforcing steel, embedded parts etc. have been inspected and approved by the engineer in charge. Any accumulated water on the surface of the bedding layer shall be removed by the suitable means before start of placement. No concrete shall be placed on a water-covered surface. Concrete shall be discharged by vertical drop only and the drop height shall not exceed 1.5m throughout all stages of delivery until the concrete comes to rest in forms.

Concrete shall be deposited as near as practicable in its final position to avoid remanding. Concrete shall be placed in successive horizontal layers. The bucket loads or other units of deposit shall be spotted progressively along the face of the layer with such overlap as will facilitate spreading the layer of uniform depth and texture with a minimum of hand shoveling. Any tendency to segregation shall be corrected by shoveling stones into mortar rather than mortar on the stones. Such a tendency for the segregation shall be corrected by redesign of mix, change in process or other means, as directed by the engineer in charge.

All struts, stays and braces (serving temporarily to hold the forms in correct shape and alignment until the placing of concrete at their locations) shall be removed when the concrete placing has reached elevations rendering their service unnecessary. These shall not be buried in the concrete. Concrete shall be thoroughly compacted with vibrators and fully worked around the reinforcement, embedded fixtures and into corners of formwork before setting commences. In no case this shall be subsequently disturbed. Methods of placing shall be such as to preclude segregation. The formation of stone pockets or mortar bondage in corners and against face forms shall not be permitted. Should these occur, they should be dug out, reformed and refilled to sufficient depth and shape for thorough bonding as directed by the engineer in charge. Care shall be taken to avoid displacement of reinforcement or movement of formwork.

Unless otherwise approved, concrete shall be placed in single operation to full thickness or otherwise directed by the Engineer in charge for slabs, beams, and similar members. Concrete shall be placed continuously until completion of the part of the work between construction joints or as directed by the engineer in charge. The method of placing and compaction employed in any particular section of the work shall be to the entire satisfaction of the engineer in charge.

During hot weather (atmospheric temperature above 40 degree Celsius) or cold weather (atmospheric temperature below 5 degree Celsius) the concreting shall be done as per the procedure set out in IS: 7861. Concrete that has been left standing and become stiffened shall not be deposited in the work.

e) Items Embedded in Concrete

Concreting shall not be started unless the electrical conduits, pipes, fixtures etc. wherever required, are laid by the concerned agency. The contractor shall afford all the facilities. Before concreting the contractor shall provide, fabricate and lay in proper position all metal inserts, anchor bolts, pipes etc. which are required to be embedded in concrete members) as per relevant drawings and directions of engineer in charge.

1.9 CONSTRUCTION JOINTS

Construction joints shall be provided in position as appropriate or described on the drawings, if any or as directed by the engineer in charge in case of RCC works. Such joints shall be kept to the minimum. These shall be straight and at right angles to the direction of the main reinforcement.

In a column, the joint shall be formed about 100 to 150mm below the soffit of the beams framing into it. Concrete in a beam and slab shall be placed throughout without a joint but if the provision of a joint is unavoidable, joint shall be vertical and located within 1/3 to 1/4th of the span.

When stopping the Concrete on a vertical plane in slabs and beams, an approved stop board shall be placed with necessary slots for reinforcement bars. The construction joints shall be keyed by providing a triangular or trapezoidal fillet nailed on the stop board. Inclined joints shall not be permitted. Any concrete flowing through the joints of the stop board shall be removed soon after the initial set.

When Concrete is stopped on a horizontal plane, the surface shall be roughened and cleaned after the initial setting.

When the work has to be resumed on a surface, which has hardened, such surface shall be roughened to expose the tips of the coarse aggregate. It shall then be swept clean and thoroughly wetted. For vertical joints neat cement slurry shall be applied on the surface before it is dry. For horizontal joints the surface shall be covered with a layer of mortar about 10 to 15mm thick

composed of cement and sand in the same ratio as the cement and sand in the Concrete mix. This layer of cement slurry or mortar shall be freshly mixed and applied immediately before placing the Concrete.

Where the Concrete is not fully hardened, all laitance shall be removed by scrubbing the wet surface with wire or bristle brushes, care being taken to avoid dislodgement of particles of aggregate. The surface shall be thoroughly wetted and all free water removed. The surface shall then be coated with neat cement slurry. On this surface a layer of Concrete not exceeding 150mm in thickness shall first be placed and shall be well rammed against old work, particular attention being paid to corners and close spots; work thereafter will proceed in normal way.

1.10 SEPARATION JOINT

Separation joint shall be obtained by using an approved alkathene sheet stuck on the surface against which concrete shall be placed. Adequate care should be taken to cause no damage to the sheet.

1.11 EXPANSION JOINT

Expansion joints in structures shall be formed in the positions and in the shapes shown in the relevant drawings if any or for every appropriate distance. Joints shall be filled with joint filling material as drawing/ schedule or as directed.

1.12 WATER STOPS

The water stops shall be of GI/PVC/rubber as specified in the relevant drawings if any. G.I water stops shall be fabricated from '22' gauge sheets of specified width and bent, folded to shape, soldered and fixed. The G.I sheets shall have medium coating of zinc as per IS: 277.

The PVC and rubber water stops shall be of ribbed/-serrated type with a central bulb and of minimum thickness 6mm. Water stops shall be accurately cut, fitted and integrally joined as per manufacturer's specifications to provide a continuous, water tight diaphragm at all points.

The water stops shall be located and embedded at expansion/construction joints as indicated in the drawings. Adequate provision shall be made for the support and protection of water stops during the progress of the work. Damaged water stops shall be replaced/ repaired as directed.

1.13 PROTECTION OF FRESHLY LAID CONCRETE

Newly placed concrete shall be protected by approved means from rain, sun and wind. Concrete placed below the ground level shall be protected from falling earth during and after placing. Surface shall be kept free from contact with such ground or with water draining from such ground during placing of concrete for a period of at least 3 days unless otherwise directed by the engineer in charge. The ground water around newly poured concrete shall be kept to an approved level by pumping or other approved means of drainage and adequate steps shall be taken to

prevent floatation and flooding. Steps shall be taken to protect immature concrete from damage by debris, loading, vibration, and abrasions, mixing with deleterious materials that may in the opinion of the engineer in charge impair the strength and/or durability of the concrete.

1.14 CURING

Curing of concrete shall be in accordance with IS: 456. Keeping it continuously moist/ wet for the specified period of time to ensure complete hydration and hardening shall cure concrete. Curing shall be started after 8 hours of placement of concrete and in hot weather after 4 hours.

Curing shall be assured by use of an ample water supply under pressure in pipes, with all necessary appliances such as hose, sprinklers etc. a layer of sacking, canvas, hessian or other approved material which will hold moisture for long period and prevent loss of moisture from the concrete shall be used as covering.

Exposed surface of concrete shall be maintained continuously in a damp or wet condition for at least the first 7 days after placing except that high early strength concrete shall be so maintained for at least first 3 days. The contractor shall have all equipment and materials required for curing on hand and ready to use before concrete is placed.

For curing the concrete in pavements, floors, flat roofs or other level surfaces, the ponding method of curing is preferred after the expiry of first 24hrs, during which the concrete shall be cured by use of wet sacking, canvas, hessian etc. The minimum water depth of 25mm for ponding shall be maintained.

1.15 DAMP PROOF COURSE

The damp proof course shall consist of plain cement concrete of nominal mix 1:1½:3 by volume with 10mm and down size graded aggregate, unless otherwise specified. The damp proof course shall be laid at plinth level of brick walls, flush with the floor surface and shall not be carried across doorways.

Before laying, the top surface of basement shall be thoroughly cleaned and watered. The DPC shall be laid in layers of 20mm thickness retaining the edges by necessary formwork and shall be well tamped and trowelled to smooth finish. The surface shall be kept moist/ wet for required time period so as to get proper curing.

1.16 STRENGTH TEST FOR CONCRETE.

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. In order to get a relatively quicker idea of the quality of concrete, optional tests on beams for modulus of rupture at 72+2 hrs or at 7 days, or compressive strength test at seven days may be carried out in addition to 28 days compressive strength tests. For this purpose, the values given in table 4 may take for general guidance in the

case of concrete made with ordinary Portland cement. In all cases, the 28 days compressive strength specified in table 1 shall alone be the criterion for acceptance or rejection of the concrete. If, however, from tests carried out in a particular work over a reasonably long period, it has been established to the satisfaction of engineer in charge that a suitable ratio between 28 days compressive strength and the modulus of rupture at 72+2 hrs or compressive strength at 7 days may be accepted.

Compressive strength of Concrete			
Grade of concrete	Compressive strength of 15cm cubes, min. at 7 days (N/mm ²)	Modulus of rupture by beam test min. at	
		72+2 hrs (N/mm ²)	7 days (N/mm ²)
M15	10	1.5	2.1
M20	13.5	1.7	2.4
M25	17	1.9	2.7
M30	20	2.1	3
M35	23.5	2.3	3.2
M40	27	2.5	3.4

Procedure

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

The test strength of sample shall be the average of strength of three specimens. The individual variation should not be more than +15% of the average.

1.17 TYPE OF FORMWORK

Form work may be of timber, plywood, metal, plastic or concrete. For special finishes, the formwork may be lined with plywood, steel sheets, oil tempered hard board etc. Sliding forms and slip forms may be used with the approval of Engineer-in- Charge.

1.17.1 FORMWORK REQUIREMENTS

Forms shall conform to the shapes, lines, grades and dimensions including camber of the concrete as called for in the drawings. Ample studs, waler braces, straps, shores etc. shall be used to hold the forms in proper position without any distortion whatsoever until the concrete has set sufficiently to permit removal of forms. Forms shall be strong enough to permit the use of immersion vibrators. In special cases, form vibrators may also be used. The shuttering shall be close boarded. Timber shall be well seasoned, free from sap, shakes, loose knots, worm holes,

warps or other surface defects in contact with concrete. Faces coming in contact with concrete shall be free from adhering grout, plaster, paint, projecting nails, splits or other defects. Joints shall be sufficiently tight to prevent loss of water and fine material from concrete. Plywood shall be used for exposed concrete surfaces, where called for. Sawn and wrought timber may be used for unexposed surfaces. Inside faces of forms for concrete surfaces which are to be rubbed finished shall be planed to remove irregularities or unevenness in the face. Form work with lining will be permitted.

All new and used form lumber shall be maintained in a good condition with respect to shape, strength, rigidity, water tightness, smoothness and cleanliness of surfaces. Form lumber unsatisfactory in any respect shall not be used and if rejected by Engineer-in-Charge shall be removed from the site.

Shores supporting successive stories shall be placed directly over those below or be so designed and placed that the load will be transmitted directly to them. Trussed supports shall be provided for shores that cannot be secured on adequate foundation.

Formwork, during any stage of construction showing signs of distortion or distorted to such a degree that the intended concrete work will not conform to the exact contours indicated on the drawings, shall be repositioned and strengthened. Poured concrete affected by the faulty formwork, shall be entirely removed and the formwork corrected prior to placing new concrete.

Excessive construction camber to compensate for shrinkage settlement etc. that may impair the structural strength of members will not be permitted.

Forms for substructure concrete may be omitted when, in the opinion of Engineer-in-Charge, the open excavation is firm enough to act as the form. Such excavations shall be slightly larger than that required by the drawings to compensate for irregularities in excavation and to ensure the design requirement.

Forms shall be so designed and constructed that they can be stripped in the order required and their removal do not damage the concrete. Face formwork shall provide true vertical and horizontal joints, conforming to the architectural features of the structure as to location of joints and be as directed by Engineer-in-Charge.

Where exposed smooth or rubbed concrete finishes are required, the forms shall be constructed with special care so that the desired concrete surfaces could be obtained.

1.17.2 BRACINGS, STRUTS AND PROPS

Shuttering shall be braced, strutted, propped and so supported that it shall not deform under weight and pressure of the concrete and also due to the movement of men and other materials. Bamboos shall not be used as props or cross bracings. The shuttering for beams and slabs shall

be so erected that the shuttering on the sides of beams and under the soffit of slab can be removed without disturbing the beam bottoms. Re-propping of beams shall not be done except when props have to be reinstated to take care of construction loads anticipated to be in excess of the design load. Vertical props shall be supported on wedges or other measures shall be taken whereby the props can be gently lowered vertically while striking the shuttering. If the shuttering for a column is erected for the full height of the column, one side shall be left open and built upon sections as placing of concrete proceeds, or windows may be left for pouring concrete from the sides to limit the drop of concrete to 1m. or as directed by Engineer-in-Charge.

1.17.3 INSPECTION OF FORM WORK

Following points shall be kept in mind while checking during erection of form work and form work got approved by the Engineer-in-charge before placing of reinforcement bars :

- a. Any member which is to remain in position after the general dismantling is done, should be clearly marked.
- b. Material used should be checked to ensure that, wrong items / rejects are not used.
- c. If there are any excavations nearby which may influence the safety of form works, corrective and strengthening action must be taken.
 - i. The bearing soil must be sound and well prepared and the sole plates shall bear well on the ground.
 - ii. Sole plates shall be properly seated on their bearing pads or sleepers.
 - iii. The bearing plates of steel props shall not be distorted.
 - iv. The steel parts on the bearing members shall have adequate bearing areas.
- d. Safety measures to prevent impact of traffic, scour due to water etc. should be taken. Adequate precautionary measures shall be taken to prevent accidental impacts etc.
- e. Bracing, struts and ties shall be installed along with the progress of form work to ensure strength and work at intermediate stage. Steel sections (especially deep sections) shall be adequately restrained against tilting, overturning and form work should be restrained against horizontal loads. All the securing devices and bracing shall be tightened.
- g. The stacked materials shall be placed as catered for, in the design.
- h. When adjustable steel props are used, they should:
 - i) be undamaged and not visibly bent.
 - ii) have the steel pins provided by the manufacturers for use.
 - iii) be restrained laterally near each end.
 - iv) have means for centralising beams placed in the forkheads.
- i. Screw adjustment of adjustable props shall not be over extended.
- j. Double wedges shall be provided for adjustment of the form to the required

position wherever any settlement / elastic shortening of props occurs. Wedges should be used only at the bottom end of single prop. Wedges should not be too steep and one of the pair should be tightened / clamped down after adjustment to prevent their shifting.

- k. No member shall be eccentric upon vertical member.
- l. The number of nuts and bolts shall be adequate.
- m. All provisions of the design and / or drawings shall be complied with.
- n. Cantilever supports shall be adequate.
- o. Props shall be directly under one another in multistage constructions as far as possible.
- p. Guy ropes or stays shall be tensioned properly.
- q. There shall be adequate provision for the movement and operation of vibrators and other construction plant and equipment.
- r. Required camber shall be provided over long spans.
- s. Supports shall be adequate, and in plumb within the specified tolerances.

1.17.4 FORM OIL

Use of form oil shall not be permitted on the surface which require painting. If the contractor desire to use form oil on the inside of formwork of the other concrete structures, a non staining mineral oil or other approved oil CEMOL-35 of Ms. Hindustan Petroleum Co. Ltd. may be used, provided it is applied before placing reinforcing steel and embedded parts. All excess oil on the form surfaces and any oil on metal or other parts to be embedded in the concrete shall be carefully removed. Before treatment with oil, forms shall be thoroughly cleared of dried splatter of concrete from placement of previous lift.

1.17.5 CHAMFERS AND FILLERS

All corners and angles exposed in the finished structure shall be formed with mouldings to form chamfers or fillers on the finished concrete. The standard dimensions of chamfers and fillets, unless otherwise specified, shall be 20 x 20 mm. Care shall be exercised to ensure accurate mouldings. The diagonal face of the moulding shall be planed or surfaced to the same texture as the forms to which it is attached.

1.17.6 VERTICAL CONSTRUCTION JOINT CHAMFERS

Vertical construction joints on faces which will be exposed at the completion of the work shall be chamfered as above except where not permitted by Engineer-in-Charge for structural or hydraulic reasons.

1.17.7 WALL TIES

Wire ties passing through the walls, shall not be allowed. Also through bolts shall not be permitted. For fixing of formwork, alternate arrangements such as coil nuts shall be adopted at the contractors cost.

1.17.8 REUSE OF FORMS

Before reuse, all forms shall be thoroughly scraped, cleaned, nails removed, holes that may leak suitably plugged and joints examined and when necessary repaired and the inside retreated to prevent adhesion, to the satisfaction of Engineer-in-charge. Warped lumber shall be resized. Contractor shall equip himself with enough shuttering to complete the job in the stipulated time.

1.17.9 REMOVAL OF FORMS

Contractors shall record on the drawings or a special register, the date upon which the concrete is placed in each part of the work and the date on which the shuttering is removed there from. In no circumstances shall forms be struck until the concrete reaches a strength of the at least twice the stress due to self-weight and any construction erection loading to which the concrete may be subjected at the time of striking formwork. In normal circumstances (generally where temperatures are above 15 °C.) forms may be struck after expiry of the following periods :

Sl no	Type of form work	Minimum Period before striking form work
a	Vertical form work to columns, walls, Beams	16 – 24 h
b	Soffit form work to slabs	3 days
c	Soffit form work to beams	7 days
d	Props to slabs: 1) Spanning up to 4.5 m 2) Spanning over 4.5 m	7 days 14 days
e	Props to beams and arches: 1) spanning up to 6 m 2) spanning over 6 m	14 days 21 days

For other cements and lower temperature, the stripping time recommended above may be suitably modified.

The number of props left under the sizes and the position shall be such as to able to safely carry the full dead load of the slab, beam or arch., as the case may be together with any live load likely to occur during curing or further constructions.

Where the shape of the element is such that the form work has the reentrant angles the form work shall be removed as soon as possible. After the concrete has set, to avoid shrinkage cracking occurring due to the restraint imposed.

Striking shall be done slowly with utmost care to avoid damage to arise and projection and without shock or vibration, by gently easing the wedges. If after removing the formwork, it is found that timber has been embedded in the concrete, it shall be removed and made good as specified earlier.

Reinforced temporary openings shall be provided, as directed by Engineer-in-Charge, to facilitate removal of formwork which otherwise may be in-accessible.

Tie rods, clamps, form bolts etc. which must be entirely removed from walls or similar structures shall be loosened not sooner than 24 hours nor later than 40 hours after concrete has been deposited. Ties, except those required to hold forms in place, may be removed at the same time. Ties withdrawn from walls and grade beams shall be pulled towards the inside face.

Cutting ties back from the faces of walls and grade beams will not be permitted. Work damaged due to premature or careless removal of forms shall be re-constructed at contractors cost.

1.17.10 MODE OF MEASUREMENT

In case the items of concreting are inclusive of cost of form work, no separate measurements shall be taken for form work. However, if the form work is to be paid separately and the item exists in the Schedule of Quantities for various types of form work, the net area of exposed surface of concrete members as shown in drawings coming in contact with form work shall be measured under item of formwork in square meters.

All temporary formwork such as bulk heads, stop boards provided at construction joints which are not shown in the drawings shall not be measured. No deductions shall be made for openings/obstructions upto an area of 0.1 sqm. and nothing extra shall be paid for forming such openings. The rate shall include the cost of erecting, centering, shuttering materials, transport, deshuttering and removal of materials from site and labour required for all such operations etc.

2.0 BLOCK MASONRY

2.1 SCOPE

This specification establishes the materials, laying, jointing, curing, testing etc. for cement concrete block masonry work.

2.2 CEMENT CONCRETE BLOCK MASONRY

Cement concrete blocks include crushed stone, gravel, sand coral, volcanic cinders, slag, foamed slag, furnace clinker etc. The solid concrete blocks are used as load bearing units and shall have a block density not less than 1800 kg/m³. These shall be manufactured for minimum average compressive strength of 4.0 and 5.0 N/mm² respectively. Solid Cement concrete block masonry (As per IS 2185) in one or more block thick, using blocks of size 40x20x20 cm, 40x20x15 cm or as directed in CM 1:6 (1 cement, 6 M Sand).

The aggregates used in the manufacture of blocks at the mixer or the mixing platform shall be clean and free from deleterious matter and shall conform to the requirements of IS 383.

The grading of the combined aggregates shall conform as near as possible to the requirements indicated in IS 383.

All units shall be sound and free of cracks or other defects which interfere with the proper placing of the unit or impair the strength or performance of the construction. Minor chipping resulting from the customary methods of handling during delivery, shall not be deemed grounds for rejection.

Where units are to be used in exposed wall construction, the face or faces that are to be exposed shall be free of chips, cracks, or other imperfections, except that if not more than 5 percent of a consignment contains slight cracks or small chippings not larger than 25 mm, this shall not be deemed grounds for rejection.

2.3 CEMENT MORTAR

Cement mortar shall be prepared by mixing cement, sand and water in specified proportions. The mortar shall be used as soon as possible after mixing and before it has begun to set and in any case within thirty minutes after the water is added to the dry mixtures. Mortar unused for more than thirty minutes shall be rejected and removed from the site of work.

2.4 PROPORTIONING

The unit of measurement for cement shall be a bag of cement weighing 50kgs and this shall be taken as .035 cubic meter (m³). Sand in specified proportion shall be measured in sizes of suitable size. It shall measure on the basis of its dry volume. In case of damp sand its quantity shall be increased suitably to allow for bulkage.

2.5 MIXING

The mixing of mortar shall be done in mechanical mixer operated manually or power. The Engineer in charge may, however, relax this condition at his discretion, taking into account the nature and location of work practicability of the use of these machines etc., particularly keeping in view the utilization of mortar turned out in one operation of the mixer before its set initially or where items involving small quantities are to be done or if, in his opinion, the use of mixer is not feasible. For items, where the mixers are not to be used, the contractor shall take the prior permission of the engineer in charge in writing before the commencement of work.

a) Mixing in Mechanical Mixer

Cement and sand in specified proportions shall be mixed thoroughly in a mixer. Water shall then be added gradually and wet mixing continued for at least one minute. Care shall be taken not to add more water than that which shall bring the mortar to the consistency of a stiff paste. Only the quantity of mortar which can be used within thirty minutes of its mixing shall be prepared at a time. Mixer shall be cleaned with water each time before suspending the work.

b) Hand Mixing

The measured quantity of sand shall be levelled on clean masonry platform and cement bags emptied on top. The cement and sand shall be thoroughly mixed dry by being turned over and over, backward and forward, several times till the mixture is of a uniform colour. The quantity of

dry mix, which can be used within thirty minutes, shall then be mixed with just sufficient quantity of water to bring the mortar to the consistency of stiff paste.

2.6 CONSTRUCTION PROCEDURE

a) Laying

Half or cut blocks shall not be used except when needed to complete the bond. The walls shall be taken up truly plumb, if battered, the batter is to be truly maintained. All courses shall be laid truly horizontal and all vertical joints shall be truly vertical. The level and verticality of the blockwork in walls shall be checked up at every one-metre interval. Blocks shall be laid with frogs upward. While laying, blocks shall be thoroughly bedded and flushed in mortar and tapped into position with a wooden mallet and the superfluous mortar removed. The walls of all structures shall be carried up regularly in all cases leaving no part one metre lower than the another. If this cannot be adhered to, the blockwork shall be raked back according to bond (and not left toothed) at an angle not more than 45 degrees but raking back should not start within 60cms of a corner.

In all cases, returns, buttresses, counter forts etc. shall be built up carefully course-by course and properly bonded with the main walls. At the junction of any two walls, the block shall at each alternate course be carried into each of the respective walls so as to thoroughly unite the work. The blockwork shall not be raised more than 14 courses per day. All iron fixtures, conduits, holdfasts of doors and windows etc., which are required to be built in walls, shall be embedded in cement mortar or in cement concrete as specified, in their correct position as the work proceeds.

b) Jointing

Joints shall be restricted to 6mm to 10mm block works. All bed joints shall be normal to the pressure upon them i.e. horizontal in vertical walls and radial in arches and at right angles to the face in battered retaining walls. The vertical joints in alternate courses shall come directly one over the other and shall be truly vertical. Care shall be taken that all joints are fully mortared (proportion as specified in bill of quantities), well flushed up and in case where no pointing is to be done, neatly struck as the work proceeds. The joints in faces that are to be plastered or pointed shall be squarely raked out to a depth of 12mm while the mortar is still green. The rake joints shall be well brushed to remove loose particles. After the work faces of the brickwork shall be cleaned (that very day, the brick work is laid) with wire brush and all mortar droppings removed.

c) Curing

Green work shall be protected from rain by suitable covering. Masonry work as it progresses shall be kept thoroughly well watered on all faces for at least 10 days after completion. Proper watering cans with nozzles must be used for this purpose. The top of masonry work shall be left

flooded at the close of the day by forming fillet of mortar 40mm high round the edges of the top course and filled with water.

d) Scaffolding

The scaffolding/staging shall be checked at every stage for plumb line. Wherever the scaffolding/staging is found to be out of plumb line it shall be dismantled and re-erected afresh and effort shall not be made to bring it in line with a physical force. All nuts and bolts shall be properly tightened.

The contractor shall ensure proper and effective supervision of the erection work. Erection work of as scaffolding/staging under no circumstances shall be left totally to semi skilled/skilled workmen and shall rather be carried out in the presence of a technically qualified civil engineer of the contractor. Wherever steel tubes are used care shall be taken that all the clamps/couplings are firmly tightened so as to avoid any slippage.

2.7 PAYMENT

Payment for block masonry work (of one or more block thickness) shall be made on cubic meter basis on the volume of actual work done. Payment for half block masonry work shall be made on square meter basis on the area of actual works done and shall include cost of supplying and fixing reinforcement in position.

The rate of block masonry work shall be inclusive of all labour, material, sampling and testing, scaffolding/staging, soaking of bricks, raking of joints, curing, providing recesses and openings, embedding fixtures etc.

The finished work shall be measured correct to a centimetre in respect of length, breadth and height. No deduction nor extra payment shall be made for the following Ends of dissimilar materials (that is joints beams, lintels, posts, girders, rafters, purlins, trusses, corbels, steps etc) up to 0.1 sqm. In calculating the area of opening, any separate lintels or sills shall be included along with the size of the opening but the end portion of the lintels shall be excluded and extra width of rebated reveals, if any shall also be excluded.

3.0 STEEL WORK

3.1 ROLLING SHUTTERS

3.1.1 Material

Steel used in the fabrication of lath, M.S. sections, guide channels, suspension shaft, pulley wheels, locking ships, U clamps gears, counter balancing roller spring, helical spring and flat spring shall conform to various grades as detailed in Indian Standard specifications for metal rolling shutters and rolling grills.

3.1.2 Fabrication

Interlocking lath shall be of minimum 1.25mm thickness. They shall be securely riveted at ends. Lock plat must be of 3.15mm thickness with M.S. angle section of not less than 35X35X5 mm at bottom. Lock plate shall be provided with sliding bolts at both ends and with pull handles both inside and outside of shutter. Guide channels shall be pressed out of a 3.15 mm and become proportionately higher upto at least 7mm for large size shutters. Suspension shaft shall be of sufficient dia and defection shall not be more than 5mm per meter width. Required C.I. pulleys, helical wire springs flat spiral springs and self-lighting double row ball bearings shall be provided. Hood cover stiffened with right angles and flats and of minimum 0.9mm thick M.S. sheet shall be provided. Required gears worms etc. used shall be machine cut and of the specified material. The rolling shutters supplied shall meet the requirements of IS 6248 in every respect and shall be to the approval of the Bank/ Architect.

Intermediate post or mullions may be of the fixed or removable or sliding types and shall be provided if asked for or required for rigidity and safety. Wicket gate also shall be provided if specified. Rolling shutters shall be pull and push types, upto 8 sqm.. they shall be mechanically or electrically operated as specified.

3.1.3 Measurements

Measurements shall be in square meters for actual clear opening.

3.2 M.S. GRILLS, RAILING & GATES

M.S Grills, railings and gates shall be fabricated and fixed in position strictly as per design and drawings. All intersection or meetings of all members shall be welded and the workmanship shall be high grade quality to the entire satisfaction of the Architect/Bank's Engineer. After fixing in position, these shall be cleaned off dust, rust or scales and rubbed with emery and unless otherwise specified a steel priming coat with enamel paint shall be applied. The rate for M.S.Grills to window where required shall also include the cost of screws to be used for fixing, for M.S. railing the cost of 1:2:4 cement concrete for jamming the hold fasts of the railing. The rate is for the completed work in all respects.

3.3 COLLAPSIBLE GATES

Collapsible steel gates shall be provided and fabricated with vertical channels 20x10x2mm and traced with flat iron diagonals 20x5m size with top and bottom rail of T-iron 40x40x6mm with 40mm dia, steel pulleys complete with bolts, nuts, locking arrangement, stoppers, handles including applying a priming coat of approved steel primer inclusive of all materials and labour as per directions and approval of the Architect / Bank's Engineer.

4.0 FLOORING AND FINISH

4.1 VITRIFIED TILE FLOORING

The tiles shall be of approved make and shall generally conform to IS 15622. They shall be flat, and true to shape and free from blisters crazing, chips, welts, crawling or other imperfections detracting from their appearance. The tiles shall be square or rectangular of nominal size. Thickness shall be specified by the manufacturer. It includes the profiles on the visible face and on the rear side. Manufacturer/supplier and party shall choose the work size of tiles in order to allow a nominal joint width upto 2mm for un-rectified floor tiles and upto 1mm for rectified floor tiles. The joint in case of spacer lug tile shall be as per spacer. The tiles shall conform with water absorption 3 to 6%. The top surface of the tiles shall be glazed. Glaze shall be either glossy or matt as specified. The underside of the tiles shall not have glaze on more than 5% of the area in order that the tile may adhere properly to the base. The edges of the tiles shall be preferably free from glaze. However, any glaze if unavoidable, shall be permissible on only upto 50 per cent of the surface area of the edges.

The rate for flooring shall include the cost of all materials and labour involved in all the operations described above. Nothing extra shall be paid for the use of cut (sawn) tiles in the work.

4.2 CERAMIC TILES FOR FLOORING

The tiles shall be of approved make and shall generally conform to IS:15622. They shall be flat and true to shape and free from blisters, crazing, chips, welts, crawling or other imperfections detracting from their appearance. The tiles shall be tested in accordance with IS:13630. The tiles shall be square or rectangular of nominal size such as 150 x 150 mm, 200 x 200 mm, 300 x 300 mm or as directed by the Engineer-In-Charge. The thickness of the tiles shall be 7 mm as specified.

Tolerance in Size

The length of all four sides shall be measured correct to 0.1 mm and average length / breadth shall not vary more than ± 0.8 mm from the specified dimension. The variation of individual dimension from average value of length/breadth shall not exceed ± 0.5 mm. Tolerance in thickness shall be ± 0.4 mm.

Preparation of Surface and Laying

Base concrete or the RCC slab on which the tiles are to be laid shall be cleaned, wetted and mopped. The bedding for the tile shall be with cement mortar 1:4 (1 cement : 4 coarse sand) or as specified. The average thickness of the bedding shall be 10 mm while the thickness under any portion of the tiles shall not be less than 5 mm.

Mortar shall be spread, tamped and corrected to proper levels and allowed to harden sufficiently to offer a fairly rigid cushion for the tiles to be set and to enable the mason to place wooden plank across and squat on it.

Over this mortar bedding neat grey cement slurry of honey like consistency shall be spread at the rate of 3.3 kg of cement per square metre over such an area as would accommodate about twenty tiles. Tiles shall be soaked in water washed clean and shall be fixed in this grout one after another, each tile gently being tapped with a wooden mallet till it is properly bedded and in level with the adjoining tiles. The joints shall be kept as thin as possible and in straight lines or to suit the required pattern.

The surface of the flooring during laying shall be frequently checked with a straight edge about 2 m long, so as to obtain a true surface with the required slope. Where full size tiles cannot be fixed these shall be cut (sawn) to the required size, and their edge rubbed smooth to ensure straight and true joints. Tiles which are fixed in the floor adjoining the wall shall enter not less than 10 mm under the plaster, skirting or dado. After tiles have been laid surplus cement slurry shall be cleaned off.

Pointing and Finishing

The joints shall be cleaned off the grey cement slurry with wire/coir brush or trowel to a depth of 2 mm to 3 mm and all dust and loose mortar removed. Joints shall then be flush pointed with white cement added with pigment if required to match the colour of tiles. The floor shall then be kept wet for 7 days. After curing, the surface shall be washed and finished clean.

4.3 CERAMIC TILES IN SKIRTING AND DADO

The tiles shall be of approved make and shall generally conform to IS:15622. The tiles shall be of earthenware covered by a glaze thoroughly matured and fitted to the body. The tiles shall be sound, true to shape, flat and free from flaws and other manufacturing defects affecting their utility.

Preparation of Surfaces

The joints shall be raked out to a depth of at least 10 mm in masonry walls. In case of concrete walls, the surface shall be hacked and roughened with wire brushes. The surface shall be cleaned thoroughly, washed with water and kept wet before skirting is commenced.

Laying

12 mm thick plaster of cement mortar 1:4 (1 cement : 4 coarse sand) mix or as specified shall be applied and allowed to harden. The plaster shall be roughened with wire brushes or by scratching diagonally at close intervals. The tiles shall be soaked in water for one day, washed clean, and a coat of buttery cement slurry applied liberally at the back of the tiles and set in the bedding mortar. The tiles shall be tamped and corrected to proper plane and lines.

The tiles shall be set in the required pattern and jointed. The joints shall be as fine as possible. Top of skirting or dado shall be truly horizontal and joints truly vertical except where otherwise

indicated. Skirting and dado shall rest on the top of the flooring. Where full size tiles cannot be fixed these shall be cut (sawn) to the required size and their edges rubbed smooth.

Curing and Finishing

The joints shall be cleaned off the grey cement grout with wire/coir brush or trowel to a depth of 2 mm to 3 mm and all dust and loose mortar removed. Joints shall then be flush pointed with white cement added with pigments if required to match the colour of tiles. The work shall then be kept wet for 7 days.

5.0 PLASTERING AND POINTING

5.1 CEMENT PLASTERING

a) Materials

Cement shall be fresh and sand shall be medium quality, cleaned, free from organic matter or salts. All the materials including water shall be of standard specification.

b) Workmanship

Scaffolding: Wooden ballies, bamboo, planks, trestles and other Steel scaffolding shall be sound. These shall be properly examined before erection and use. Stage scaffolding shall be provided for ceiling plaster, which shall be independent of the walls. The sample shall be approved by architect or engineer-incharge before starting the work.

c) Preparation of back ground

The surface shall be cleaned of all dust, loose mortar droppings, traces of algae, efflorescence and other foreign matter by water or by brushing. Smooth surface shall be roughened by wire brushing if it is not hard and by dense hacking if it is concrete. In case of concrete surface, if a chemical retarder or shuttering oil has been applied to the form work, the surface shall be roughened by wire brushing and all the resulting dust and loose particles shall be cleaned off and care shall be taken that none of the retarder is left on the surface. Trimming of projections on brick/concrete surface wherever necessary shall be carried out to get an even surface.

Raking of joints in case of masonry wherever necessary shall be allowed to dry out for sufficient period before carrying out the plasterwork. Scaffolding for carrying out plastering work shall be double scaffolding having two sets of vertical supports so that the scaffolding is independent of the walls.

d) Preparation of Surface

All putlog holes in brickwork and junction between concrete and brickwork shall be properly filled in advance. Joints in brick work shall be raked about 10 mm. and concrete surface shall be hacked to provide grip to the plaster. Projecting burrs of mortars formed due to gaps at joints in shuttering shall be removed. The surface shall be scrubbed clean with wire brush/coir brush to remove dirt, dust etc., and the surface thoroughly washed with clean water to remove efflorescence, grease and oil etc., and shall be kept wet for a minimum of two hours before application of plaster.

For external plaster, the plastering operation shall be started from the top floor and carried downwards. For internal plaster, the plastering operations may be started wherever the building frame and cladding work are ready and the temporary supporting ceiling resting on the wall of the floor have been removed. Ceiling plaster shall be completed before starting plaster to walls.

e) Applications of Plaster

The plaster about 5 cm. x 5 cm., shall be first applied horizontally and vertically at not more than 2 m. intervals over the entire surface to serve as gauge. The surfaces of these gauges shall be truly in plane of the finished plastered surface. The mortar shall then be applied in uniform surface slightly more than the specified thickness, then brought to a true surface by working a wooden straight edge reaching across the gauges with small upwards and sideways movements at a time. Finally, the surface shall be finished off true with a trowel or wooden float according to the texture, smooth or sandy granular, as may be required. Excessive Trowelling or over working the float shall be avoided. All corners, arises, angles and junctions etc. shall be carried out with proper templates to the size required. The surface shall be finished smooth using neat cement at the ratio of 2.2 kg/m².

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

In suspending the work at the end of the day, the plaster shall be left out, clean to line both horizontally and vertically. While recommencing the plaster, the edges of the old work shall be scrapped clean and wetted with cement putty before plaster is applied to the adjacent areas to enable the two to properly join together. Plastering work shall be closed at the end of the day on the body of the wall and shall not be nearer than 15 cm. to any corners or arises. Horizontal joints in plasterwork shall not also occur on parapet tops and copings as these invariably lead to leakage. No portion of the surface shall be left out initially to be patched up later on.

Each coat shall be kept damp continuously till the next coat is applied or for a minimum period of 7 days. Moistening shall commence as soon as plaster is hardened sufficiently. Soaking of walls shall be avoided and only as much water as can be readily absorbed shall be used, excessive evaporation on the sunny or windward side of building in hot air or dry weather shall be prevented by hanging mats or gunny bags on the outside of the plaster and by keeping them wet.

f) Mode of Measurements & Payment

The rates shall include for work at any height, position, and floor and for all necessary scaffolding, etc. as may be required. The rates shall also include for hacking and/or bush hammering to form key for plaster and for spatter dash treatment, as specified, as and where necessary.

The rates shall also include for all work in narrow width, arises, rounded angles, chamfered external angles, drip moulds, grooves and for making good after all trades.

The rate shall also include for groove with cement finish upto 12 mm. x 6 mm. to be formed in plaster at junction of slab and beam and slab and brick without any extra charge. The rate shall also include for similar grooves in plaster at the junction of masonry and wood or steel door/window/ventilator frame or at bottom of beam/lintels as drip moulds without extra charge.

All plastering shall be measured in m^2 , unless otherwise specified. Length, breadth or height shall be measured correct to a centimetre.

Thickness of the plaster shall be exclusive of the thickness of the key i.e. grooved or open joints in brick work, stone work, etc. or space between laths. **Thickness of plaster shall be average thickness with minimum 10 mm., at any point on the surface.**

The measurement of wall plastering shall be taken between the walls or partitions (dimensions before plastering being taken) for length and from the top of floor or skirting to ceiling for height. Depth of cover of cornices if any shall be deducted. Soffits of stairs shall be measured as plastering on ceilings. Flowing/folding soffits shall be measured separately.

For jambs, soffits, sills, etc., openings exceeding 0.5 sqm and not exceeding 3.0 sqm, area deductions and additions shall be made in the following manner: - (a) No deductions shall be made for end joints, beams, posts, etc. for openings not exceeding 0.5 sqm. each and no addition shall be made for reveals, jambs, soffits, sills, etc. of these opening for finish to plaster around ends of joints, beams, posts, etc. (b) Deduction for openings exceeds 0.5 sqm. but not exceeding 3.0 sqm. each shall be made as follows and no addition shall be made for reveals, jambs, soffits, sills, etc. of these openings. (i) When both faces of any wall are plastered with same plaster, deduction shall be made for one face only. (ii) When two faces of any wall are plastered with different types of plasters or if one faces is plastered and the other pointed, deductions shall be made from the plaster or pointing on the side of frame for door, windows, etc. on which width of reveals is less than that on the other side but no deductions shall be made on the other side. Where width of reveals on both faces of all are equal, deductions of 50% of area of opening on each face shall be made from area of plaster and/or pointing as the case may be.

For openings having door frames equal to projection beyond the thickness of wall, full deduction for opening shall be made from each plastered face of the wall. Jambs, soffits and sills shall be measured separately and paid for.

In case of openings having area above $3.0 m^2$ each, full deduction shall be made for the opening but jambs, soffits, and sills shall be measured additionally.

The rate shall be for a unit of one m^2 .

6.1 PLASTIC EMULSION PAINT

Workmanship

Scaffolding and preparation of surface shall be same as clause 5.1 (b).

Preparation of mix

Plastic emulsion paint conforming to IS 5411(Part I) and of approved shade shall be mixed as per manufacturer's instructions.

Application of paint

The paint shall be applied by means of brush or roller. The painting shall be laid evenly and smoothly by means of crossing and laying off. The crossing and laying off shall consist of covering the area with paint, brushing the surface hard at first, then brushing alternatively in opposite direction 2/3 times and then finally brushing lightly in a direction at right angles to the same. The full process of crossing and laying off shall constitute one coat. Before starting painting with plastic emulsion paint the prepared surface shall be treated with two coats of waterproof cement paint.

6.2 FINISHING OF WOOD AND WOOD BASED MATERIALS

a) Painting

Preparation of surface shall conform to IS 2338(Part I) in general. The surface shall be smoothed off with abrasive paper used across the grain prior to painting, with the grain prior to staining. Any knots, resinous, or bluish sat wood, cutting out of which is not justified shall be covered with red lead conforming to IS 103.

Plywood and block board shall be treated in the same manner as for woodwork. Particleboard surface shall be filled with thin brushable filler and finished as for solid wood.

b) Priming

Priming shall be in accordance with IS 2338(Part I & II)

c) Application of under coat.

Under coat shall be applied after the surface has been primed, stopped and filled, and rubbed down to a smooth surface. The type of under coat shall be depending upon the finishing and in accordance with table 1 and table 2 of IS 2338 (Part II).

d) Application of clear finishes

For the application clear finishes, following procedures shall be generally adopted in accordance with IS 2338 (Part I).

e) Filling

Fillers shall be applied to prevent the excessive penetration of the finish to the surface for obtaining a smooth finish. Fillers shall be conforming to IS 345.

f) Staining

Staining shall be done either with spirit stains or oil stains. Stains shall be applied by brushing, and wiping or by spraying. The stain shall be so thinned that it can be applied fairly, liberally without over staining and overlapping.

g) Sealing

A suitable sealer shall be applied on the filled and sanded surface to prevent absorption by wood the succeeding coats of finish and to seal stain and filler and preclude their bleeding into the finishing coat.

h) Finishing

The stained surface shall be varnished, wax polished or French polished as required after it shall be dried.

e) Varnishing

Varnishing of wood and wood based materials shall be conforming to IS 2338(Part I).

f) French Polish

French polish conforming to IS 348 shall be applied after adding suitable pigments to get required colour.

6.3 PAINTING OF STEEL AND OTHER METAL SURFACE

a) General

IS standards IS 2524 and IS 1447 shall be referred.

b) Preparation of Surface

The surface shall be cleaned of all rust, scale, dirt and other foreign matter. The surface shall be then wiped finally with mineral turpentine to remove grease etc. The surface shall then allow to dry.

c) Application

Approved quality primer and paint in specified number of coats shall be as per manufacturers' recommendation either by brushing or spraying.

PROCESS COMPLIANCE STATEMENT

(ANNEXURE I)

(The bidders are required to print this on their company's letter head and sign, stamp before uploading)

To,

M/s. e-Procurement Technologies (P) Ltd,
B-705, Wall Street - II, Opp. Orient Club, Ellis bridge,
Ahmedabad – 380006, State Gujarat, India

AGREEMENT TO THE PROCESS RELATED TERMS AND CONDITIONS FOR THE ONLINE E-TENDERING for “.....(name of the work)”

Dear Sir,

This has reference to the Terms & Conditions for the E-tendering mentioned in the Tender document.

This letter is to confirm that:

- 1) The undersigned is authorized representative of the company.
- 2) We have studied the Commercial Terms and the Business rules governing the E-tendering as mentioned in RFP of SBI as well as this document and confirm our agreement to them.
- 3) We also confirm that we have taken the training on the E-tendering tool and have understood the functionality of the same thoroughly.
- 4) We confirm that SBI and **M/s. e-Procurement Technologies (P) Ltd, Ahmedabad** shall not be liable & responsible in any manner whatsoever for my/our failure to access & bid on the e-E-tendering platform due to loss of internet connectivity, electricity failure, virus attack, problems with the PC, any other unforeseen circumstances etc. before or during the E- tendering event.
- 5) **We confirm that we have a valid digital signature certificate issued by a valid Certifying Authority.**

We, hereby confirm that we will honor the Bids placed by us during the E-tendering process.

With regards,

Date:

Signature with company seal Name:

Company / Organization:

Designation within Company / Organization:

Address of Company / Organization:

(To be printed in the letter head of the Company/ Firm, duly signed and stamped. Scanned copy shall be uploaded in e-tendering website and Original in physical form shall be submitted along with EMD & Tender Fee Receipt)

FORM OF SUBMISSION OF TENDER

(ANNEXURE –II)

**Regional Manager,
SBI Regional Office - ...**

.....
.....

Dear Sir/s,

Ref: e-TENDER FOR “.....(name of the work)”

I/We have examined the above tender and subsequent pre-bid clarifications/ modifications / revisions, if any, furnished by M/s SBI and I/We have inspected the site of works and have made me / us fully acquainted with the local conditions in and around the sites of works and offer to undertake Contract as detailed in this tender by submitting my/our online bids in the Bank’s e-tender portal.

2. While submitting this Bid, I / We certify that:
 - i) The undersigned is authorized to sign on behalf of the Bidder and the necessary support document delegating this authority is uploaded along with the bid.
 - ii) We certify that we have not made any changes in the contents of the tender document read with its amendments/ clarifications provided by M/s SBI, submitted by us in our Bid document.
 - iii) The rate quoted in the *price Bids are as per the tender* and subsequent pre-Bid clarifications/ modifications/ revisions furnished by the Bank, without any exception.
3. We agree to abide by all the Bid terms and conditions, contents of Agreement and the rates quoted in the bid, which shall remain binding upon us.
4. If our Bid is accepted, we undertake to enter into and execute at our cost, when called upon by the Bank to do so, a contract in the prescribed form and we shall be jointly and severally responsible for the due performance of the contract.
5. Until a formal contract is prepared and executed, this Bid, together with your written acceptance thereof and your notification of award, shall constitute a binding Contract between us.
6. It is further certified that the contents of our Bid are factually correct. We also accept that in the event of any information / data / particulars proving to be incorrect, SBI will have the right to disqualify us from the Bid.

7. We understand that you are not bound to accept the lowest or any Bid you may receive and you may reject all or any Bid without assigning any reason or giving any explanation whatsoever.

8. We hereby undertake that our name does not appear in any “**Caution**” list of RBI / IBA or any other regulatory body.

9. We also confirm that we have not been **blacklisted** by any Bank / PSU / State or Central Govt departments for any reasons.

10. We confirm that we do not have any **litigation / cases** pending against us in any Bank / PSU / State or Central Govt departments.

11. We confirm that we are responsible to obtain all necessary licenses, permission, NOC from all the statutory /local authorities for the smooth execution of this contract in SBI premises.

12. We hereby confirm that all the materials/components/spare parts/equipment etc. to be supplied / used as a part of this contract shall be original / new materials / components / parts / equipment only from respective OEMs of the products and that no refurbished / duplicate / second hand materials/ components/ parts/ equipment shall be supplied or shall be used.

13 I/ We do hereby unconditionally accept all the terms and conditions of this tender document and BOQ published in the e-tendering website <https://etender.sbi>. We hereby agree to submit the signed and stamped copy of the technical Bid and Priced Bill of Quantities, which shall form part of the agreement, if I/ we become L-1 bidder in the tendering process.

13. For any type of deviation (to any of above or subsequent instructions), it will be my/ our responsibility to obtain the written instruction of the Engineer-in-charge for the same failing which it shall be deemed that I have carried out any such deviations at my own and I shall be duty bound to replace the all deviated material/ works from the site at my/ our cost as well as I shall be liable to penalized by the SBI as deemed fit and for all such loses made thereof, I/ we shall not have any right to arbitrate in any manner.

Yours Faithfully,

Signature of the bidder with Stamp _____

Name: _____

Address: _____

BRIEF DETAILS OF THE BIDDER

SL NO	PARTICULARS	
1	NAME OF THE BIDDER	
2	MAILING ADDRESS WITH PINCODE	
3	TELEPHONE No.	
4	MOBILE No.	
5	E-MAIL ID	
6	PAN	
7	GST No.	
8	CONTACT PERSON WITH MOBILE/ PH No.	
9	Details of digital certificate holder (individual/ firm) whose digital certificate will be used for participating in the e-tendering OR Details of the person participating in e- tendering. a) Name: b) Contact No: c) Email ID:	